Safety Department
by
V.O. Murray, Safety Engineer

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SAFETY – MISC.

Safety Department
by
V.O. Murray. Safety Engineer

① Orig ✓ /
Orig to I N B
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For the second consecutive year there was little or no progress made in safety during 1935. There was a definite unrest among the employees, due no doubt to policies the Government was advocating, and to agitation promulgated by local labor leaders who were seeking labor offices. Again the Company had only a one-year contract with the labor unions and with another contract hanging fire the better part of six months made a situation most difficult for better discipline among the employees.

There was a ten per-cent increase of manhours per injury over the previous years safety record but this was badly marred by the fact that there were eight fatalities in the mines during the calendar year of 1935. With respect to fatal accidents, 1935 shows a most unfortunate situation, Reliance being the only district of the five to come through the year without a fatality. This brings the severity rate, the highest it has been since 1930. There were 55 other compensable injuries and eight fatalities bringing the total to 63 all told.

For the fifth consecutive year the general outline of the Safety program as instituted

The latter half of 1931 was carried out with a few minor changes in the amounts of the safety awards and substituting two round free trips to Seward Alaska and return to Rock Springs instead of the automobile awarded in 1934

Due to an increase of the working forces there were many more miners created on the mines with a result that more mine foremen had to be trained for their respective jobs. Nearly all of the mines had three shifts working and consequently more men participated in the awarding of safety prizes than ever before. There were 1574 underground men, 51 mine foremen, 232 surface employes and 3 surface foremen who participated in the event held at Rock Springs on Feb 11th 1936 at the Old Miners Building

Again The Union Pacific Coal Company is outstanding among bituminous producers in supporting the safety movement by offering so many and substantial prizes to its employes to act as an incentive for a better safety record thereby alleviating so much unhappiness pain and suffering

The Safety awards for 1935 were the following.

(Insert awards for 1935) + the winners)

Safety Engineer, K.E. Murray and Ventilation Engineer, R.R. Knell, spent the majority of their time underground, visiting all working faces traveling slopes manways, air courses haulage ways and the few old workings of the various Mine (9) operating mines. Inspections were made of recently installed high voltage equipment accompanied by Mr. D.C. McKellar, Electrical Engineer.

Rock Dust samples were gathered and analyzed from each of the operating mines and all skins and fatal accidents were thoroughly investigated and repots made of them.

The Safety Engineer & Ventilation Engineer accompanied members of the U.S. Geological Survey inspection department who make periodic inspections of mines operating on Government leases. For 1935 these mines were Rock Springs #488 Winton #183 and Superior "B" "C" & "E"

On June 21st, the Annual First Aid Contest was held at Rock Springs in the old Jones Building Twenty three first aid teams participated in the event from the five districts of Rock Springs Reliance

Wynton, Superior, and Hanna. They were segregated in the following order: —

Rock Springs — 1 Mens Team
1 Boy Scout Team
1 Senior Girl Scout Team
1 Junior " " "

Reliance — 1 Mens Team
1 Boy Scout Team
1 Senior Girl Scout Team
1 Junior " " "

Wynton — 2 Mens Team
1 Boy Scout Team
1 Senior Girl Scouts Team
1 Junior " " "

Superior — 1 Mens Team
1 Boy Scout Team
1 Senior Girl Scouts Team
1 Junior " " "

Hanna — 2 Mens Teams —
2 Boy Scouts Team
1 Senior Girl Scouts Team
1 Junior " " "

Again the most substantial cash prizes were awarded to each team member of the three winning mens teams ever witnessed at any first aid contest. These prizes were as follows — First prize $30.00 Second Prize $20.00 and Third Prize 10.00. A new feature was added to the mens contest this year, namely two special events, a one man artificial

resuscitation problem, and a one man carry problem. First and second Prizes for each of these events consisted of fishing rod & fly book first prize, fishing creel & reel second prize. Very suitable prizes were also given to the three winning teams of the 3 divisions of the Boy & Girl Scouts teams. They were useful prizes and eagerly received by all the winning team members.

A banquet was given to all first and Boy & Girl Scout teams at Rock Springs No 4 Community Council together with their troop officers leaders and captains. This is a gathering eagerly looked forward to by all scout troops and no doubt is of general good value to a community.

On July 1st and continuing throughout the month, Mr Wm Monhead former Safety Engineer for coal property in New Mexico and former operator of coal mines in Utah made the annual safety inspection of all the Union Pacific Coal Company mines located in Sweetwater and Carbon Counties. He was accompanied at all times by the Safety Engineer.

All mines were entered on the National

Safety Competition, sponsored by the Hercules Powder Company and conducted by the United States Bureau of Mines. In 1933 this much coveted prize was awarded to "B" Mine Superior and in 1934 "C" Mine Superior won the honors. Accordingly on August 23, 1935, Mr Theodore Marvin, Editor of Explosives Engineer, presented this Trophy to Mr Geo B. Pryde, on behalf of the men of "C" Mine, who with other Company Officials and mining men of the community together with the entire personnel of "C" Mine were served an excellent dinner by the Baptist Woman's Society.

During the year approximately 500 new employes were trained in first aid by Company instructors at Rock Springs, Reliance, Winton, Superior and Hanna. Ten men at Rock Springs, 6 at Superior and 10 at Hanna were trained with oxygen breathing apparatus and All-Service Gas Masks.

Monthly safety meetings were maintained at each of the five districts during the year, the largest gatherings of employes at these meetings being at Superior, Hanna and Reliance.

During the last half of the year Mr Knill spent all of his time at his regular

duties, on the night shift, visiting all working faces, traveling air courses, and gathering air samples.

Important Changes in Holmes Safety Organization.

The annual meeting of the Joseph A. Holmes Safety Association was held on March 5 at the U. S. Bureau of Mines. Two important changes were made in the organization of the Association. The first was the incorporation of the Association under its present title. The new charter provides for fourteen directors. The constitution provides that three of the directors shall be the Director of the Bureau of Mines (Mr. Turner) who shall also serve as President of the Association; the Secretary of the American Mining Congress (Mr. Callbreath); and a representative of the American Federation of Labor (Mr. Wallace) who shall be first and second Vice-Presidents respectively.

Four additional directors elected at the meeting were General W. H. Bixby, American Society of Mechanical Engineers; J. J. Rutledge, Geological Society of America; George S. Rice, American Institute of Mining and Metallurgical Engineers, and Allan H. Willett, National Coal Association.

The second important inovation was the severance from the parent association of all legal control of and responsibility for the local safety chapters. These are brought together into a new unincorporated society to be known as the Holmes Safety Association. It was reported that there are now in existence 144 local chapters. Three medals and diplomas of the Association were awarded for unusually heroic behavior in connection with mining accidents. The first and second awards were bronze medals given to Leo Fetty, a machine boss, and John McNeil, a compressor man, both of Farmington, W. Va., for unusually heroic and efficient action at the time of the explosion in the Jamison Number 8 Mine of the Jamison Coal & Coke Company on the night of January 14, 1926. The third award was a silver medal given to R. D. Taylor of Attala, Ala., for a courageous, though unsuccessful, attempt to rescue a fellow workman at the Attala Mine of the Sloss-Sheffield Steel and Iron Company on December 19, 1925.

Appropriations for Bureau of Mines.

An item was added this week to the House appropriations bill for Department of Commerce, providing $1500 to pay the expenses of the attendance of Bureau of Mines employes at technical meetings. Effort will be made in the Senate to increase this figure to $3000. The total figure which the House measure provides for the Bureau for 1926-27 is $1,774,340. The following table shows a number of decreases, as compared to the appropriations for the current year:

Salaries and general expenses, decrease	$1,320.
Investigating mine accidents, decrease	430.
Operating mine rescue cars, decrease	1,910.
Mineral mining investigations, decrease	680.
Expenses of mining, experiment stations, decrease . .	25,300.
Oil shale investigations, decrease	150.

A Safety Council for every Coal--Mining State is Ambitious Program of Bureau of Mines.

A safety council in every coal mining state. This is the hope of the safety service division of the Bureau of Mines, which is temporarily headed by Dr. R. R. Sayers. The outline for these councils follows closely the organization chart of the Alabama council directed by Alabama operators. This functions through Joseph A. Holmes, Safety Chapters. Steps to organize a similar council to promote safety in the bituminous fields of Pennsylvania and Illinois are under way, and the work will be extended to other mining states as rapidly as possible, according to statement made this week by Dr. Sayers to a representative of the National Coal Association.

The work is under the direction of Director J. J. Forbes of the Safety Extension Service, whose modus operandi is to go into a mining district and conduct advance courses for mine superintendents and officials in first aid and recovery work. His next move is to engage their interest in the Holmes Safety program, which comprehends study of accident prevention measures. This is the way he operated in the Uniontown district, where he initiated the work last October and where four Holmes chapters have since been organized. It is expected by the Bureau that similar chapters will be formed in every mining district in Pennsylvania, whereupon representatives of these chapters will be organized into a state council, whose duty will be to energize the entire movement. A similar procedure will be followed at Gillespie, Illinois, where the work has been recently launched. To the House Committee on Mines and Mining this week Mr. Forbes expressed the wish that the personnel for his work could be enlarged through the addition of 20 safety engineers that would make possible the rapid extension of this safety propaganda through the coal mining areas. The hearings before the House committee continue of a very general character, and the immediate occasion for the hearings, namely, the application for mine rescue stations

at Madisonville and Pineville, Kentucky, appears to have been lost sight of for the moment in consideration of the general Safety Service extension program.

Omaha - June 23, 1931.

Mr. V. O. Murray:

Herewith five copies of "Holmes Safety News", which was sent me by Mr. James L. Davidson, Birmingham, Ala.

Ellyson McDuffie

HOLMES SAFETY NEWS

Vol. 1 Birmingham, Alabama, May, 1931 No. 5

THE MINING INSTITUTE

Benoit.
Johns.
Benoit.(Col)
Johns. (Col)
Flat Creek.(Col)
Praco. (Col)

Add to this list by organizing a new chapter.

HOLMES SAFETY NEWS

1304 Webb Crawford Bldg., B'ham.

WHAT IS A SAFE WORKMAN?

From less than 200 answers to this question in our last issue, we print below the best ten, according to our opinion. Our friend the Mine Foreman on the cover page selects No. 8 as the best of the lot.

If you do not agree with him or us just write and tell the editor so and we will be glad to publish your opinion in our next issue.

1-An efficient workman.
2-One who produces results without accidents.
3-One who realizes accidents cause delay, cost money and cause suffering.
4-One who knows work can be done without injury, and does it.
5-One who plans his work so as not to injure himself or his fellow-workmen which makes him efficient and careful.
6-One who recognizes hazards and prevents their consequences.
7-One who gives council, heeds advice and avoids snap judgment.
8-A safe workman is one who produces results without injury to himself or fellow-workman.
9-A safe workman is one who does his work efficiently with the material at hand and without accidents.
10-A person is a safe workman only so long as he, without injury to himself or associates, achieves intended results.

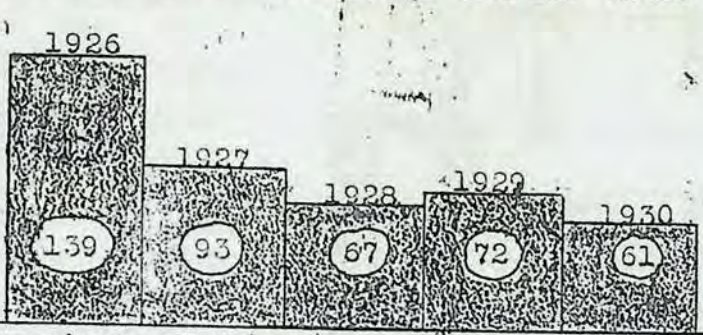
The Old Philosopher says marriage is just like a railroad sign: when you see a pretty girl you stop, then you look, and after your'e married you listen.

SAFETY CALENDAR - JUNE

June	2nd.	Woodward Red Ore	
"	4th.	Woodward Shops	
"	4th.	Majestic	
"	4th.	Empire	(Col)
"	4th.	Corona	(Col)
"	5th.	Dolomite	
"	5th.	Coal Valley	(Col)
"	8th.	Mulga	
"	8th.	Johns	
"	8th.	Overton	(Col)
"	9th.	Sayreton	
"	9th.	Johns	(Col)
"	10th.	Flat Creek	(Col)
"	11th.	Acmar	
"	11th.	Benoit	
"	12th.	Sipsey	(Col)
"	15th.	Townley	(Col)
"	17th.	Yolande	
"	18th.	Boothton	
"	18th.	Majestic	(Col)
"	19th.	Sipsey	
"	19th.	Margaret	
"	19th.	Sayre	(Col)
"	22nd.	Johns	
"	22nd	Overton	
"	22nd.	Bradford	(Col)
"	23rd.	Sayreton	
"	23rd.	Johns	(Col)
"	24th.	Bradford	
"	24th.	Praco	(Col)
"	25th.	Woodward By-Product	
"	25th.	Acmar	(Col)
"	26th.	Empire	
"	26th.	Margaret	
"	26th.	Woodward Transportation	
"	26th	Sayre	
"	29th.	Bradford	(Col)

STATE DEPARTMENT of MINES

CHART SHOWING FATAL ACCIDENT REDUCTION FOR THE YEARS 1926 to 1930 INCLUSIVE.



Below is a comparison of the causes of fatal accidents, tons mined and tons per fatality, for the past 5 years.

	Roof falls	Haulage	Elec.	Gas	Misc.	Total	Tons Mined	Tons per fatality
1926	42	31	18	42	6	139	21,508,812	154,739
1927	61	13	9	3	7	93	20,190,196	217,106
1928	28	17	13	0	9	67	18,056,116	269,494
1929	28	19	11	12	2	72	18,415,914	255,777
1930	34	5	11	8	3	61	16,007,405	262,416

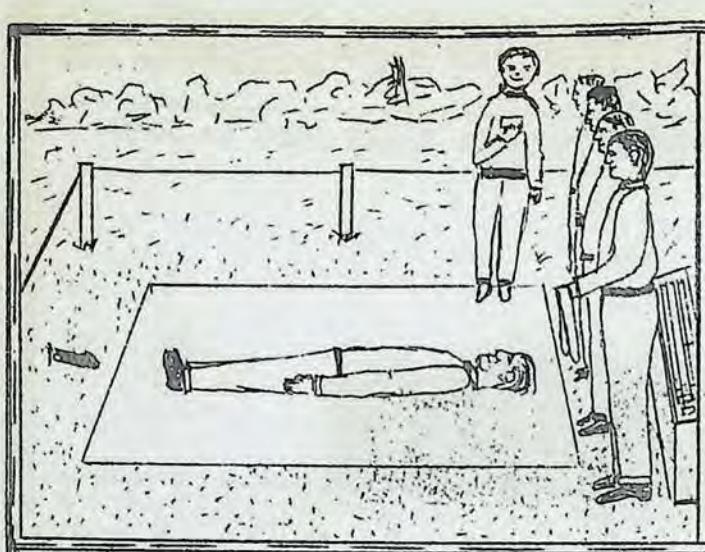
The following table is a comparison of causes of fatal accidents occurring during the months of January, February, March, April and May for the years 1930 and 1931.

	1930	1931
Roof falls	16	3
Haulage	0	4
Electricity	6	0
Gas	7	0
Misc. & machinery	2	2
Totals	31	9

The active agencies in Alabama which have materially aided this department in accident reduction as shown in the above tables are the local station United States Bureau of Mines, The Alabama Mining Institute, The Holmes Safety Association and the co-operation of all mine officials. Without this aid and co-operation, the above results could not have been obtained.

Our inspection work has for its purpose the protection of life, limb and property. Inspections are made in a spirit of helpfulness and co-operation, and not to antagonize or unduly criticise. We are just a cog in a wheel of industry, bearing our responsibilities, and if we perform our duties faithfully we receive your respect and confidence.

WORK SAFELY AND HELP US MAKE 1931 THE BANNER YEAR IN ACCIDENT REDUCTION.



UNITED STATES
BUREAU OF MINES
100% FIRST AID TRAINING
and
FIRST AID CONTESTS
HELP TO KEEP MEN
SAFETY MINDED

SAFETY - - EFFICIENCY

TRAINING IN ALABAMA FOR MAY 1931
by
BUREAU MEN AND COMPANY INSTRUCTORS

FIRST AID AND MINE RESCUE TRAINING

DeBardeleben Coal Corp.		
Sipsey, Ala.	236 FA	
Gulf States Steel Co.		
Alabama City, Ala.	157 FA	
Gulf States Steel Co.		
Sayre, Ala.	40 FA	
Alabama Fuel & Iron Co.		
Margaret, Ala.	9 FA	6 MR
Total	442 FA	6 MR

INSTRUCTORS TRAINING

There were 6 instructors from the Sipsey Mine of the DeBardeleben Coal Corporation recommended for Certificates.

ACCIDENT PREVENTION TRAINING

The Accident Prevention Class which was held at Piper, Alabama, for employees of the Little Cahaba Coal Co., Blocton Cahaba Coal Co., and the Roden Coal Co., was com - pleted with 52 recommended for certificates.

There were 22 who completed the Accident Prevention for the Woodward Iron Company at Mulga, Ala.

There are 80 employees of the DeBardeleben Coal Corporation enrolled in an Accident Prevention Class being conducted at Coal Valley Ala.

ACCIDENT PREVENTION TRAINING

An Accident Prevention Course is being conducted for employees of the Railway Fuel Company at Parrish, Ala, with 82 enrolled.

ALABAMA RECEIVES NATIONAL RECOGNITION

May 18 - Dan Harrington, Chief Engineer, Safety Division, of Washington, D.C. presented the Holmes Award of Certificate of Honor to W.B. Hillhouse, Chief State Mine Inspector and to the Alabama Mining Institute.

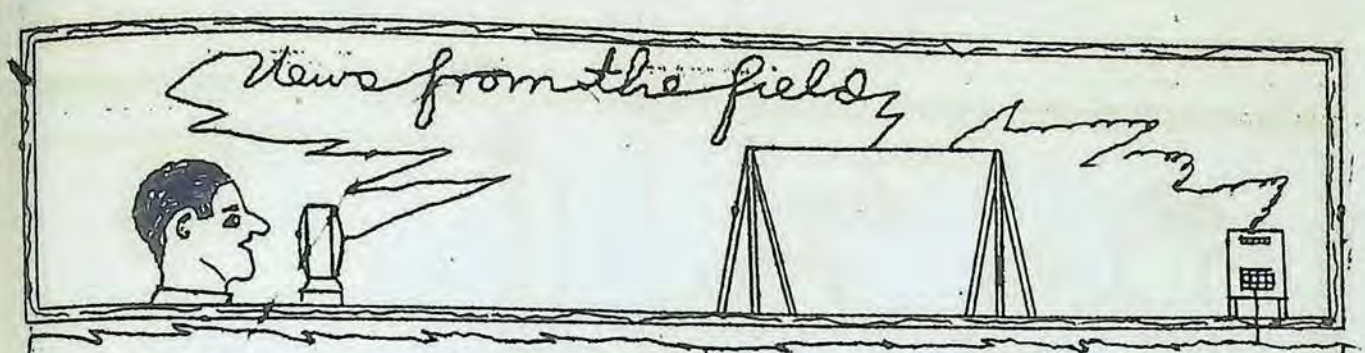
May 19 - Dan Harrington, presented the Holmes Award of Certificate of Honor to the Hull Mine of the DeBardeleben Coal Corporation for their 1930 accident record.

Also presented a medal awarded by the National Safety Council to J. V. Brown an employee of the Gulf States Steel Co, at Alabama City, Ala.

FIRST AID CONTESTS

Instructors are beginning to meet with teams of some companies preparatory to Inter-Company First Aid Contests.

ARE YOU GOING TO HAVE AN INTER-COMPANY CONTEST ?



The Sloss Company reports two morning meetings during the month of May.

On May 14th at 10 A.M., at Bessie, a large crowd heard "Uncle Jim" Downey, Safety Engr., and Mr. Crews, Asst. Gen. Manager, and several others speak.

On April 30th, at 9 A.M., "Uncle Jim" Downey addressed a large meeting at Flat Top. Supt. W. E. Hobson presided.

The Margaret Chapter meeting on May 15th was consolidated with the closing exercises of the school, and a beautiful play was enacted by the children. Music by the Margaret Orchestra, directed by Mrs. Thomas, was enjoyed by all. Talks on Safety were made by Gen. Supt. Fred Bell, Supt. R. A. Sansing, C. E. Saxon and Rev. Fullmer.

E. A. Cardwell has been appointed Secretary in place of Miss Cunningham who has moved to Acmar. Every employe and many school children have received first aid training.

The Oswayo Chapter at Johns met on May 25th with a good attendance. Rev. J. M. Wright opened with prayer which was followed with a song by the audience. Val Harmon suggested Danger Notices be placed on the Top-House and a gate placed to prevent crossing the haulage line. H.L. Parsons suggested eye protection on the shop emery wheel. Two motions were approved relative to including sledge hammers in tool kits and periodical examination of all employes on Rule Books. These motions were made by John Morgan and Sam Smith, respectively. A. H. Crane, Pettus Herring and Robert Bailey were appointed as a Program Committee.

Safety talks were made by F. E. Cash, H. E. Mills and C. J. White, all of Birmingham.

Miss Margaret Daly, age 7, with her songs, was the "Hit of the evening" at Empire meeting on April 29th. Other entertaining features were furnished by Misses. Bray, Ruth Culverhouse, Pauline McDanal and Mrs. Daly, and also Master John A. Delk, age 5, whose reading was well received. Dr. York and Superintendent Culverhouse were the principal speakers.

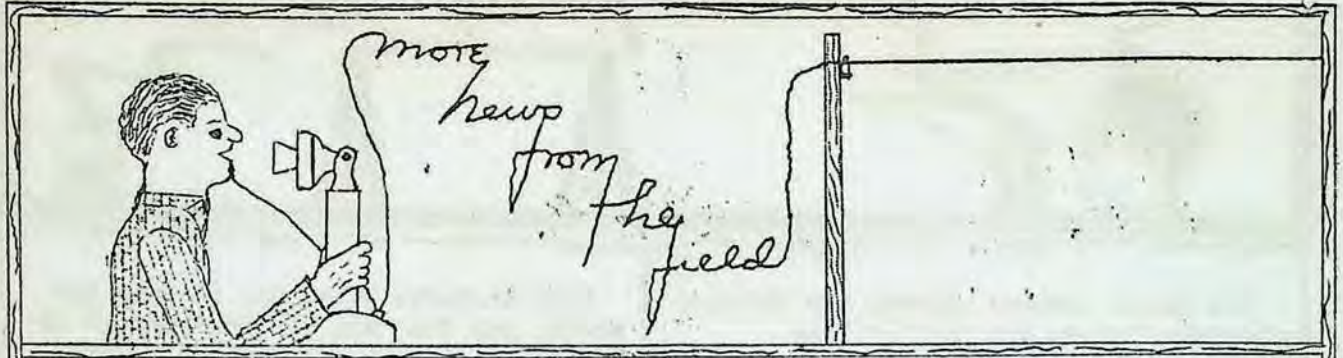
Refreshments were served by the Girl Scouts to the 300 members of the audience.

The May meeting of the Empire Chapter was held on May 29th with Mr. Sparks, Supt. of Wegra Mine, as the principal speaker. Gen. Supt. Lacey and Rev. Bobo also spoke. Music by James Knott, Estelle Knott, Betty Ware and Leslie Parker, and readings by Virginia Griffin and Mrs. E. R. Ware were enjoyed by those present.

A comedy picture and refreshments closed the meeting.

The program of the W. T. Brown Chapter at Corona on May 7th was received with enthusiasm by the large crowd present. V. P. Whitson opened the meeting with prayer and led a discussion on accident prevention, although no accidents had occurred since the last meeting. A wonderful speech by Lizzie Lewis of Parrish and a voice program by Mrs. Patton and the Glee Club was enjoyed by all.

S. S. Pruitt, Pres., opened the meeting of the Coal Valley Chapter on May 1st at 8 P.M. Nancy Steward conducted devotional service. A discussion on "Timber setting under bad top" was led by Tom Newton and Linsey Kirk. Safe handling of cars and air circulation were also discussed. A program by Nancy Steward and a drawing contsst closed the meeting.



Prof. A. H. Taylor presided at the meeting of the Empire (Col) Chapter on May 7th, with 102 present. The school children presented a good program of readings and a playlet. The Secretary of the Alabama Council, Mr. H. E. Mills, made the principal address, and Mr. Harry Kirchheiner, Supt. Culverhouse and Safety Engineer O. V. Simpson also spoke on accident prevention.

The John B. Monfroy Chapter (Col) at Townley was called to order at 8 P.M., May 27th, by the President, H. R. Cosby. After a report of the Safety Committee and Ice Committee, the principal speaker, Mr. Jeff Echols of Bessie, made an interesting talk on the cooperation of our people in safety work. The next thing on the program was an interesting debate, by Mattie Borden and Jeff Huckleberry on the subject "Safe Council with your husband before he goes to work." The speaking was followed by a musical program presented by the "Melody Four" a female quartet, and the "Unknown Four" and a solo by Mrs. Chatman.

The money usually spent on refreshments was used to buy groceries for twenty families in the neighborhood.

On May 26th, the Johns (Col) Chapter met with 40 members. Sam Thorn, Pres., presided and the meeting opened with prayer and song. The State of Alabama presented First Aid Certificates to a number present, and brief talks were made by S. S. Scott, Steve Jones and Henry Woods. On motion and vote, the members were assessed 25 cents each per month for purposes to be decided later. Mr. C. E. Saxon of the Bureau of Mines was the principal speaker, introduced by Mr. C. J. White. Meeting closed with prayer by Eph. Wallace.

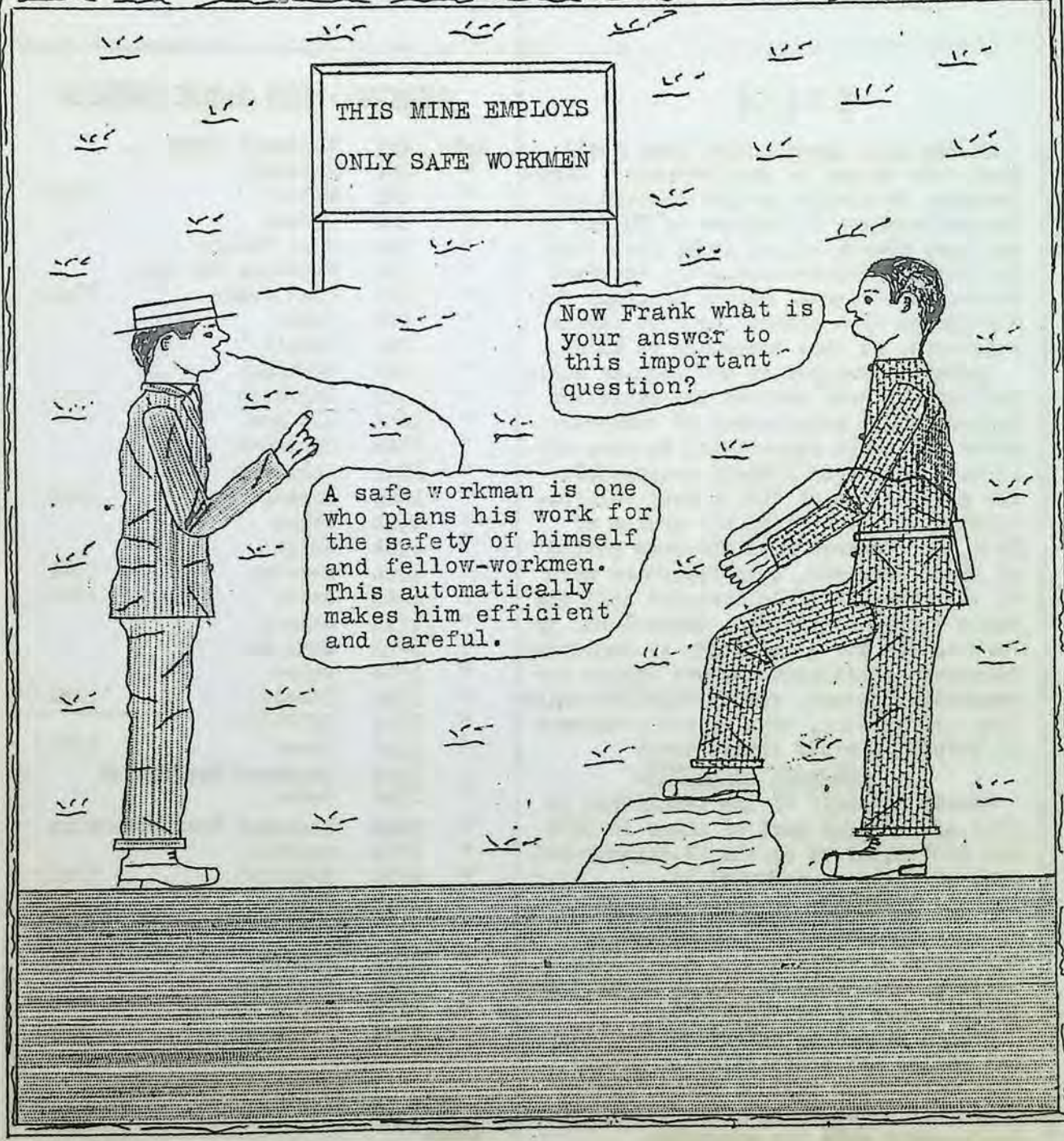
On May 28th, the Sayre (Col) Chapter held its monthly regular meeting with a program by the school children and the "Jolly Four" Glee Club. Mr. C. E. Saxon of the Bureau of Mines was the principal speaker, and among other things he said: "The wonderful success of the Safety Movement is due to the mutual understanding and cooperation of the Government, the operators and the employes." Supt. Geo. Burgess and A. W. Williams, M. F., also spoke on accident prevention. Lewis Ford, President of the chapter, replied to talks and said: "It is our motto to do the best we know and to accept and execute all good advice."

Over 200 were present at the Majestic (Col) Chapter meeting on May 14th, with W. M. Calloway presiding. Gen. Supt. Chase; Supt. Poe, Safety Engr. Wm. Goodwin, Mr. Ferguson, Mr. Pence and Mr. Lee Merritt all spoke on present conditions and the importance of preventing accidents. The meeting closed with an excellent musical program and refreshments. Other chapter officers present were Oliva Brownlee, Secy., Irma G. Tolbert, Reporter, and Fred Williams, Chaplain.

The Praco (Col) Chapter meeting on May 27th was called to order by Will Graham, Pres., with a good attendance of employes and white officials. The principal speaker was Mr. J. E. Weed, Supt., who stressed cooperation between employer and employe. Mr. Jno. W. Hager, Asst. Div. Supt., gave a talk on cooperation, sanitation, cleanliness and welfare. Percy Stennies made a report on the accidents of the previous month and a general discussion was held on this report.

HOLMES SAFETY NEWS

Vol. 1 Birmingham, Alabama, June, 1931 No. 6



HOLMES CHAPTER MEETING.
Program.

1- Music.
2- Entertainment.
3- Safety Talks, local.
4- Discussion of accidents.
5- Safety Talks, visitors.
6- Music.

HOLMES SAFETY NEWS

1304 Webb Crawford Bldg., Birmingham

Editorial Staff

Frank E Cash — William Goodwin

Sam L Morrow — Harry Johnstone

Hubert E Mills

T H I N K

No one will dispute that most accidents are caused by carelessness. Carelessness is simply thoughtlessness and thoughtlessness is failure to THINK. It has been proven beyond doubt that First Aid and Mine Rescue training, Accident Prevention Classes, Safety Meetings and discussion of accidents tend to reduce accidents, as they cause men to THINK.

Improved ventilation and regular analysis of air have reduced the explosion hazard; rigid enforcement of timbering rules and close supervision by mine officials have been largely responsible for a reduction of 76% in Roof Fall fatalities for the first six months of 1931, as compared with the same period of 1930. However, this important work of the mine officials does not tell the whole story, as the men, themselves, by looking for and eliminating or reporting dangerous conditions, by not taking unnecessary chances, and by THINKING while they are working, have reaped a harvest of Safety in every class except HAULAGE ACCIDENTS.

Nearly one-half of the fatalities in 1931 and a large part of those in 1930 and 1929 occurred on the Haulageway and most of these were caused by SPEEDING, or JUMPING ON OR OFF CARS WHILE IN MOTION, both being a violation of the safety rules & the "Rule of Common Sense," and another case of not THINKING.

Wrecks caused by defective couplings and rails, and obstruction on tracks also take their toll of human life. Watch for these things, and make your Haulageways safe for everyone.

- - - - -ooOoo- - - - -

CALENDAR - JULY SAFETY MEETINGS.

July	2nd	Woodward Shops	
"	2nd	Majestic	
"	2nd	Empire	(Col)
"	2nd	Corona	"
"	3rd	Coal Valley	"
"	7th	Woodward Red Ore	
"	8th	Flat Creek	(Col)
"	9th	Acmar	
"	9th	Benoit	
"	9th	Boothton	
"	9th	Majestic	(Col)
"	10th	Altoona	
"	10th	Dolomite	
"	10th	Margaret	
"	10th	Sipsey	(Col)
"	13th	Johns	
"	13th	Mulga	
"	13th	Overton	(Col)
"	14th	Johns	(Col)
"	17th	Sipsey	
"	17th	Sayreton	
"	17th	Sayre	
"	20th	Townley	(Col)
"	22nd	Bradford	
"	22nd	Praco	(Col)
"	23rd	Woodward By-Product	
"	23rd	Acmar	
"	24th	Woodward Transportation	
"	27th	Overton	
"	27th	Bradford	(Col)
"	27th	Johns	
"	28th	Johns	(Col)
"	30th	Empire	(Col)
"	31st	Boothton	
"	31st	Sayre	
"	31st	Margaret	(Col)

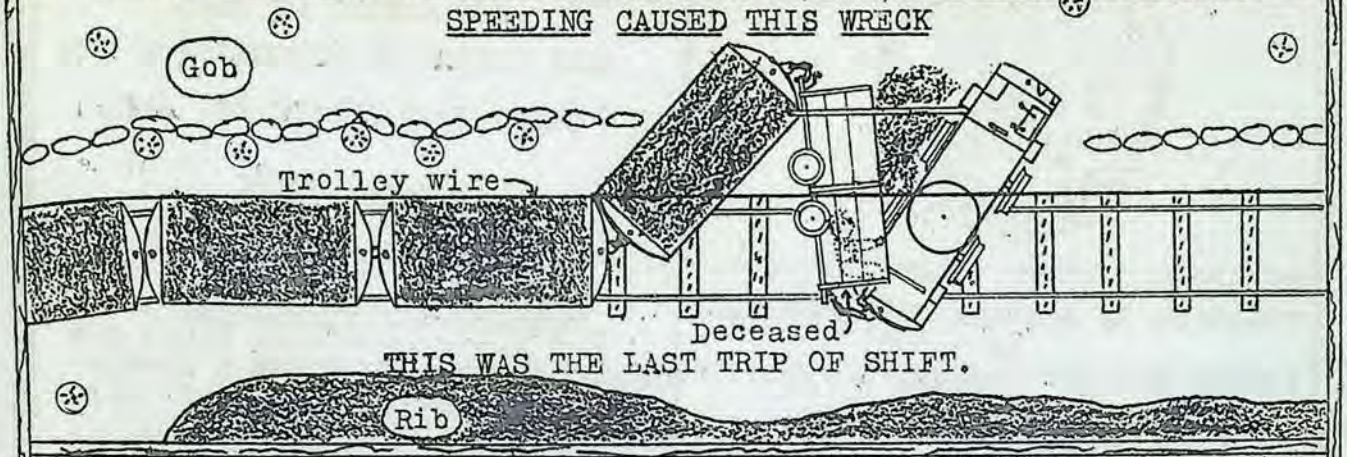
Woolworth The Money

"You can have anything in here for a dime."

Mr. Goodwin: "I'll take that little blond behind the candy counter."

STATE DEPARTMENT OF MINES

SPEEDING CAUSED THIS WRECK



The following table is a comparison of causes of fatal accidents occurring during the months of January, February, March, April, May and June for the years 1930 and 1931.

	1930	1931
Roof falls	17	4
Haulage	0	5
Electricity	9	0
Gas	7	0
Misc. & Machinery	2	2
Totals	35	11

Falls of Roof

Only 4 men have lost their lives by falls of roof this year. This is the result of systematic timbering and diligent supervision, namely by mine-foreman, section-foreman and those directly in charge of working places.

Haulage

Haulage is claiming its usual number - 5 fatalities to date; 3 by wrecked trips caused by speeding, 1 between car and rib and 1 between top of car and over-head cross-bar. Haulage accidents are frequent and hardly any two identical. Our plea is for the individual to be careful in the performance of duties, and for strict enforcement of mine rules and violators disciplined. DISCHARGE THE CARELESS WORKER; IT IS BETTER TO RUN HIM AWAY THAN TO TOTE HIM AWAY.

Electrocution

Not an electrocution in Alabama mines this year. Much progress has been made in the shielding of trolley wires especially at side-tracks, cross-overs and where men mount and dismount trips; also in the proper suspension of trolley wire.

Gas

Not a gas fatality in Alabama mines this year to date, and this record has extended over a period of 16 months.

KNOW THAT YOUR VENTILATION IS EFFICIENT AND PROPERLY CONDUCTED AT ALL TIMES. HELP MAKE 1931 A NO GAS FATALITY YEAR.

UNITED STATES BUREAU OF MINES

NOTABLE ACHIEVEMENTS IN SAFETY AND SAVING OF LIFE ARE WORTHY OF RECOGNITION AND SERVE AS EXAMPLES TO ALL.

REPORT THEM.

TRAINING IN ALABAMA FOR JUNE 1931
by
Bureau men and Company Instructors

FIRST AID

Gulf States Steel Co. Alabama City, Ala.	440
Alabama By-Products Corp. Flat Creek, Ala.	96
DeBardeleben Coal Corp. Sipsey, Ala.	5
Total	541

INSTRUCTORS TRAINING

The following instructors have been recommended for instructors certificates: 1 for Alabama By-Products Corp. at Flat Creek, Ala. 2 for Gulf States Steel Company at Alabama City, Ala.

ACCIDENT PREVENTION TRAINING

The Accident Prevention class started May 21 at Coal Valley, Ala, for employees of DeBardeleben Coal Corp, at Coal Valley, Corona and Townley, was completed June 23 as follows:

Coal Valley	38
Corona	13
Townley	18
Total	69

The Accident Prevention Class started May 19 for employees of the Railway Fuel Company at Parrish, Ala, was completed June 22 and a total of 81 were recommended for cards.

100% CERTIFICATE

A recommendation was forwarded for a 100% First-Aid Certificate to be issued to Sipsey Mine of the DeBardeleben Coal Corp, Sipsey, Ala A total of 241 employees were covered by this recommendation.

SOME MORE RECOGNITIONS

The Sloss-Sheffield Steel and Iron Company presented a Bronze Tablet to their By-Product Coke Plant at North Birmingham, Ala., for having worked 365 days -from June 23,1930 to June 23, 1931 - without a lost-time accident.

Re-Dedication ceremony of the trophy won the second time by the Birmingham Mill of the Lehigh Portland Cement Company was held June 2, 1931, for their good accident record.

FIRST-AID CONTESTS

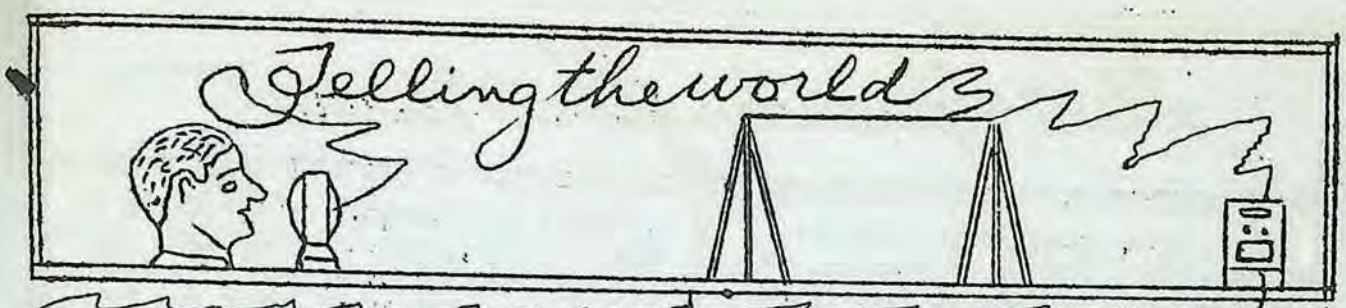
July 4 Flat Creek Division of the Alabama By-Products Corp., Contest to be with 4 white and 4 colored teams at Flat Creek, Ala.

July 11 Inter-Company Meet of the Alabama By-Products Corp., Contest to be with 2 white and 2 colored teams, at Flat Creek, Ala.

July 18 Inter-Company contest Sloss-Sheffield Steel & Iron Co., Furnace, By-Product Plant, Coal and Ore Mines.
Contest to be with 6 white and 6 colored teams at the - Municipal Auditorium -Birmingham, Alabama, 10 A.M.

Don't make WRECKreation out of your vacation. The idea should be REcreation. *

*THE STANOCOLAN
Baton Rouge, La.,



The election of officers was the main business at the June 9th meeting of Corona Chapter, with T. F. Shepherd elected as Safety Director, Mrs. Ed. Poe, as Secretary, and Program Committee consisting of Mrs. T. H. McKinney, Mrs. Tom Gunn W. D. Milstead and T. H. McKinney. Rev. A. S. Roberts gave an interesting talk on Safety, and the Corona Colored Quartet entertained with a number of songs.

An out-door meeting, with 325 present, was held on night of June 24th at Benoit, with J. A. Dickinson, Supt. and Pres. of Chapter, presiding. An unusually good musical program was presented by the Benoit String Band, The Grandmothers' Trio, duet by two young ladies, and a Colored Quartet. This was followed by a recitation by Miss Ford and speeches by C. J. White, H. E. Mills and H. B. Humphrey of Birmingham. Meeting closed with refreshments consisting of ice cream and lemonade.

Sipsey Chapter met on June 19th with 75 members present. John E. Thomas, Supt., presided, and safety talks were made by H. E. Mills and H. B. Humphrey of Birmingham. It was decided to conduct a court at future meetings to determine the responsibility and impose penalties for violation of safety rules. The program was interspersed with excellent musical numbers furnished by the Hull String Quartet. Meeting closed with distribution of First Aid Certificates.

Oswayo Chapter meeting at Johns, June 8th, was enlivened by excellent music furnished by Messrs. Franklin and Skinner. Two new First Aid Teams were formed and safety talks were made by Messers. Will Smith, S. S. Scott, Sam Smith, J. H. Crane of Johns, and Mr. Roy M. Mulkey from Birmingham office. Mr. C. J. White conducted a review and discussion of the last accident and means of prevention for the future. Pres. Will Smith presided and meeting was closed with prayer by Rev. Wright.

The Oswayo Chapter met again on June 22nd, with Mr. H. B. Humphrey of the Bureau of Mines as the principal speaker. A short talk by C. J. White, report of the first Aid Captains, and singing completed the program.

Splendid Advice

It was getting very close to the time for the celebrated guest to make his speech.

The chairman, looking about the table, came over to the speaker, Mr. Humphrey, and whispered. "Shall we let them enjoy themselves a little longer, or do you think you'd better begin your speech now?"

The Johns (Col) Chapter met on June 23rd, with Sam Thorn, Pres., presiding. Meeting opened with songs by audience, led by Eph Wallace. The visitors included a number of local white officials and Messrs. C. J. White, H. E. Mills, and H. B. Humphrey, of Birmingham, who led the safety discussion.

The Majestic Colored Chapter met on June 18th, Wm. Calloway, President, presiding. An interesting discussion was conducted by the white visitors, including Gen. Supt. Chase, Safety Engineer Goodwin, Safety Instructor Simpson, Supt. Merritt, Mr. Britton and Mr. Conwell. The local school children provided an interesting program, and the meeting closed with refreshments.

"Haste," as a cause of accidents, was the principal subject discussed at the Coal Valley (Col) Chapter meeting on night of June 5th, with S. S. Pruitt, President, presiding. The following led the discussion on this subject: Rev. Geo. Cowsen, Asberry White, Tom Newton, Ed. Watson, Jim Ward, Bob Franks and Ola Beazell. The Young Men's Glee Club furnished enjoyable music, and the meeting closed with a drawing contest.

Still Spreading the News

H. R. Cosby, President, John B. Monfroy (Col) Chapter at Townley, presided at their meeting on June 22nd. Meeting opened with prayer by Robert Philpot, and singing by the audience, after which the committee reports were read and adopted. A general discussion on safety as it relates to Humanity, led by the President, was followed by a spicy program, after which groceries were awarded to those holding lucky numbers.

The Flat Creek meeting on June 10th, with 125 present, was made very interesting by the music furnished by the Flat Creek Choir, the Woman's Quartet, and two Boys' quartets. "The Safety Problem" was discussed by Mr. C. A. McGaha and Mr. M. F. Sparks of Flat Creek and Mr. William Goodwin and Mr. H. B. Humphrey of Birmingham.

The Empire Colored Chapter met on June 4th, with 100 present. The meeting was opened with singing by audience and, safety talks were made by Mr. Wm. Lacey and Mr. Britt Culverhouse, and Mr. H. B. Humphrey of U. S. Bureau of Mines, Birmingham. Other short talks were made by members of the audience.

W. T. Brown Chapter (Col) at Corona met on June 4th, with Simon Douglas, Pres., presiding. Meeting opened with prayer by L. Whitson, V. P., followed by Boys and Girls Glee Club. After several interesting safety talks, prizes consisting of flour, meat, lard and coffee were distributed.

The Benoit Chapter No. 219 (Col), met on June 15th with 28 present. Rev. W. H. Myland was the principal speaker. Robt. Graham, President, presided.

Keeping Cows Contented

Teacher: Johnnie, state one use of cowhide.

Johnnie: Well, it keeps cows from falling apart.

The moral of this story is: "Save your skin by playing and working safely."

"Uncle Jim" Downey, Safety Engr. of Sloss Company, was the principal visiting speaker at Praco meeting on June 24th. Dr. Elgin, Supt. Weed and Mr. Wm. Goodwin also spoke. An unusually good musical program, consisting of string band, quartet and singing class, made up the balance of the program which was closed with refreshments.

The Bradford (Col) Chapter, which met on June 29th, was entertained by several solos by Madam Green of Birmingham. Gen. Supt. Chase, Supt. Poe, Safety Engr. Goodwin, Rev. Carter, Rev. Green, and others addressed the audience on "Prevention of Accidents." President Geo. Brown presided.

Recently, cash prizes were offered to the Majestic Mine employes for the best suggestions for reducing haulage accidents. Space does not permit publication of all suggestions received, but the following were selected from letters submitted by:

H. E. Evans	First Prize
Grady Robbins	Second Prize
Andrew Pringle (Col)	Third Prize
Robert Kennedy	Fourth Prize

1. A motorman should inspect his motor before every shift and see that it is in good condition.
2. A motorman should have a proper understanding with his coupler as to signals.
3. If not sure about the signal received, wait until you are sure.
4. Never run ahead of running motor to open trap door or to throw a switch.
5. Motor should be kept under control at all times.
6. Never back up on the trolley pole except where absolutely necessary, and then it should be very slow.

Mr. C. J. White of Black Diamond Coal Mining Co. does not agree with our opinion of what constitutes "A Safe Workman."

Mr. White's definition is: "A Safe Workman is a man that knows his job, does efficient work SAFELY for himself, and others."

HOLMES SAFETY NEWS

Vol. 1 Birmingham, Alabama, April, 1931 No. 4

THE FOREMAN WILL ANSWER THIS IMPORTANT QUESTION IN THE MAY ISSUE

THE MINING INSTITUTE

Questions of this kind are discussed in the Holmes Safety meetings.

1- Why is it necessary to timber?

2- When is the proper time to timber?

3- What tools should a miner have to set props?

HOLMES SAFETY NEWS

1304 Webb Crawford Bldg., Birmingham.

WHAT IS A SAFE MINER?

Our cover design indicates the Mine Foreman is "stumped" and for his sake, as well as our own, we are asking our friends "In the Field" to answer this very important question. No prizes are offered but the best answers will be printed, with the writer's name (unless otherwise requested), in our next issue.

Is any man, working hundreds of feet underground, entirely safe; or for that matter, is any man, working anywhere, or loafing anywhere, or traveling, or resting at home, entirely safe?

No. Not entirely safe, but some are safer than others because they THINK as they work, protect themselves from injury, and obey the Safety Rules which are made for their benefit.

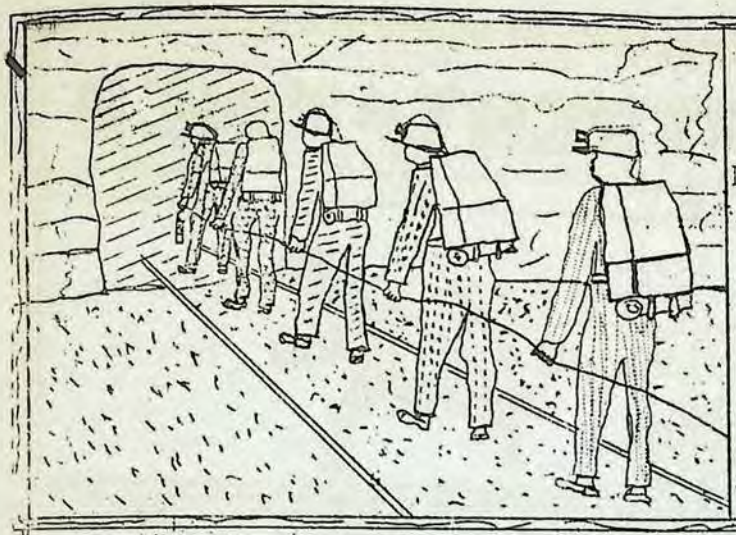
Accidents in coal mines have decreased because more men are thinking about Safety than ever before, and this decrease will continue if every official and worker will do their part in the future as they have in the past.

The Superintendent, Mine Foreman, and Safety Inspector have the responsibility of enforcing the Safety Rules and doing everything in their power to make the mine safe, but they cannot be everywhere at one time. So the man at the face must watch the conditions in his working place or places and the same precaution applies to Chainer, Motorman, Timberman, and every individual working in or around mines.

MAY SAFETY CALENDAR.

Safety meetings will be held as follows:

May	1st.	Coal Valley	(Col)
"	4th.	Woodward Red Ore	
"	7th.	Woodward Shops	
"	7th.	Empire	(Col)
"	7th.	Corona	(Col)
"	8th.	Dolomite	
"	8th.	Margaret	
"	11th.	Johns	
"	11th.	Mulga	
"	11th.	Overton	(Col)
"	12th.	Sayreton	
"	12th.	Johns	(Col)
"	13th.	Flat Creek	(Col)
"	14th.	Acmar	
"	14th.	Benoit	
"	14th.	Majestic	(Col)
"	15th.	Sayre	(Col)
"	18th.	Townley	(Col)
"	20th.	Yolande	
"	20th.	Woodward By-Products	
"	22nd.	Woodward Transportation	
"	25th.	Johns	
"	25th.	Overton	
"	25th.	Bradford	(Col)
"	26th.	Sayreton	
"	26th.	Johns	(Col)
"	27th.	Bradford	
"	27th.	Praco	(Col)
"	28th.	Acmar	(Col)
"	29th.	Empire	
"	29th.	Boothton	
"	29th.	Magaret	(Col)
"	29th.	Sayre	(Col)



BUREAU OF MINES.

MINE EXPLOSIONS ARE PREVENTABLE

SHOULD THEY OCCUR

WE ARE "LOOKED UP" TO GO

TRAINING IN ALABAMA FOR APRIL 1931
BY BUREAU MEN AND COMPANY INSTRUCTORS

Alabama Fuel & Iron Co.	Margaret, Ala.	17	first aid,	13	mine rescue
"	Overton, Ala.	17	"	9	"
DeBardeleben Coal Corp.	Coal Valley,	215	"		
"	Townley, Ala.	283	"		
"	Dora, Ala.	252	"		
"	Corona, Ala.	164	"		
Railway Fuel Co.	Parrish, Ala.	476	"	11	"
New Castle Coal Co.	New Castle,	276	"		
Gulf States Steel Co.	Alabama City,	240	"		
	Total	1920	"	33	"

100% FIRST AID TRAINING

The Parrish Mine of the Railway Fuel Company, Parrish, Alabama, was recommended for a 100% First Aid Certificate.

ACCIDENT PREVENTION CLASSES

Accident Prevention Classes have been held at Piper, and Mulga, Alabama, These classes will be completed during the first week of May.

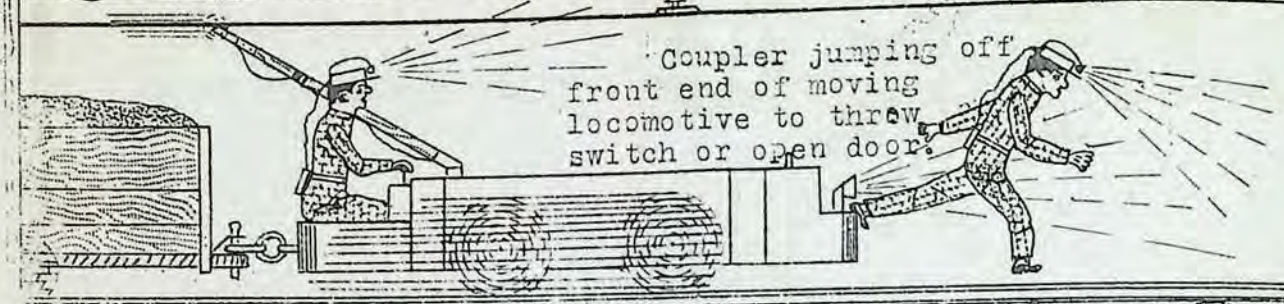
CERTIFICATES OF HONOR

A letter has been received from Mr. Dan Harrington of the Bureau of Mines, Washington, advising that he will be in Birmingham on the morning of May 18 for presentation of the Holmes Awards to -

W.B. Hillhouse, Chief Mine Inspector, Birmingham,
Alabama Mining Institute, Birmingham,
Hull Mine, DeBardeleben Coal Corporation, Dora, Ala.

On May 19, Mr. Harrington will present a National Safety Council Medal to Mr. J.V. Brown of the Gulf States Steel Company at Alabama City, Ala., for his successful rendition of artificial respiration to a man who had been shocked by electricity.

STATE DEPARTMENT OF MINES



THIS PRACTICE HAS CAUSED SEVERAL FATAL ACCIDENTS IN THIS STATE.

HAULAGE

Because of the almost universal use of electric mine locomotives, more hazard to life and limb is encountered than in the days of the horse and mule. With the larger trips, handled at much greater speeds, it is our opinion that in order to reduce transportation accidents to a minimum, comprehensive rules and regulations covering these operations are necessary, and strict adherence to them should be required. Following are some of the outstanding haulage rules:-

1- Other than those authorized by law, no person should ride on any slope trip except in case of emergency and then only in empty cars after a slow signal has been given the engineer.

2- All underground electric locomotives should be equipped with gongs and headlights. Such equipment is absolutely necessary and should not be neglected.

3- Motormen should at all times keep their cap lamp burning. In the event of the trolley wheel leaving the wire and his lamp not burning, a hazard is met in the attempt to replace the trolley wheel on the wire while in darkness.

4- Motormen must not practice back-poling, flying switches nor travel at unnecessary speed.

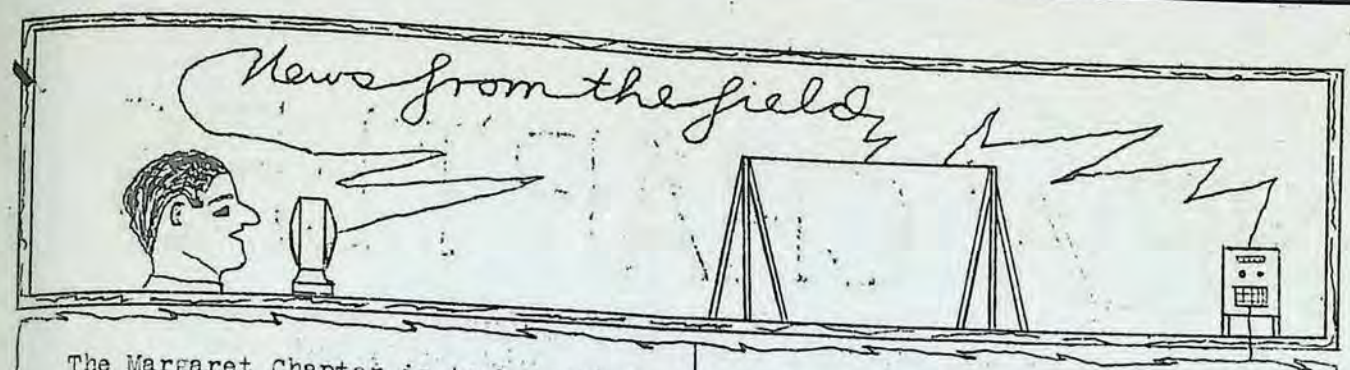
5- Under no circumstances should a motorman or trip-rider alight from a moving trip of cars and run ahead for the purpose of throwing a switch or to open a door. The trip should come to a stop and remain so until the door has been opened or the switch thrown.

6- Getting on, getting off, or coupling cars while in motion is dangerous.

7- When it is necessary for a trip of cars to be pushed by the locomotive, it should move only at a moderate rate of speed. When the trip is made up of empty cars it is necessary that the trip-rider be on the front, he should take the second car. In that position he cannot be thrown on to the track in front of the trip, and in the event of derailment, he has less chance to receive injury.

The following is a comparison of fatal accidents occurring during January, February, March and April for the years 1930 and 1931.

	1930	1931
January	14	2
February	5	1
March	6	3
April	3	1
TOTALS	28	7



The Margaret Chapter is to be congratulated on their fine community spirit which has resulted in beautiful flower and vegetable gardens, and now they are sponsoring a Community Park, as suggested by Mrs. J. L. Williamson. At their meeting on April 17th an interesting play was presented by the school children under the direction of Misses Elma Lee Sansing and Frances Holly. Talks by Messrs. C. F. DeBardeleben, F. R. Bell, R. A. Sansing, Dr. J. L. Williamson and Dr. H. L. Cunningham were enjoyed by all. Music was furnished by the Margaret Orchestra, and refreshments were served.

An unusually good musical program was the feature of the Empire meeting on April 3rd - thanks to Miss Estella Knott and Messrs. Jesse Knott, James Knott, George Ross and Alvin Rouse. Miss Virginia Griffen gave an interesting reading. Rev. Bobo and Supt. Culverhouse spoke on accident prevention, and 150 First Aid Certificates were awarded. The Empire Girl Scouts served refreshments to the 200 present. O. V. Simpson was in charge of the program. (Congratulations, Oscar.)

The New Connellsville Chapter meeting on April 22nd was called to order by Mr. T. L. Caples, Pres., who read minutes of previous meeting. Report shows a large improvement in lost-time accidents. A general discussion on accident prevention was led by Supt. Frank and W. B. Patterson, Asst. M.F. Refreshments were served.

The John B. Monfroy Chapter at Townley on the night of April 17th, was entertained by the "Unknown Four Male Quartet". President H. R. Cosby conducted devotional services. Report of the Safety Committee was followed by several talks on accident prevention.

It was decided to dispense with the usual refreshments and use the money for distribution of groceries among the needy of the community.

The Coal Valley (Col) Chapter met at 7:30 P.M., April 10th, with 95 present, S. S. Pruitt, Pres., presiding. Devotional was conducted by Ester Watson and Nancy Steward. Readings by Ruth Kirk, Elizabeth Kirk, Elizabeth Pruitt and Ola Beazell.

Method of testing the top was discussed and safety talks were made by Linsey Kirk, John Phillips and Bob Franks. Solos by Elizabeth Pruitt and Bethel Hopkins were followed by a drawing contest.

The school children at Sayre entertained the members of the Holmes (Col) Chapter at their meeting on April 16th with a good program. Safety talks and a general discussion completed the program. On the night of the 24th the Eastern Stars gave a fine musical.

The Majestic (Col) Chapter held its meeting on April 9th with a good attendance. A debate, "Resolved that Boys should be given more education than Girls" was won by the affirmative side. Supt. Lee Merritt and other officials discussed accident prevention.

Two meetings held on April 22nd were among the Flat Creek Colored Employes of the Alabama By-Products Corporation, with accident prevention discussed by Superintendent John Hager, Mr. Weed and Mr. McGaha. The Flat Creek Chapter elected officers (see other page for list) and the Praco Chapter had an interesting program. First Aid Practice is increasing since warm weather set in.

NEW CHAPTERS

Your Editor was strongly tempted to issue an extra edition to cover the important news contained on this page, because five new chapters organized within thirty days is rather unusual, even for progressive Alabama. The Black Diamond Coal Mining Company, through their Safety Engineer, Mr. C. J. White, have two new chapters at Benoit and two at Johns, Alabama. We give below the officers of each of the new chapters:

Benoit Mine at Benoit, Alabama.

	White Chapter	Colored Chapter
President	J. A. Dickinson	Robert Graham
Vice President	John Walker	Am. Windham
Treasurer	John Cain	John Gibson
Secretary	Joe Fuller	Clarence Powers
Safety Director	C. J. White	C. J. White
Educa. Director	Roland Massey	Dolphus Hollis
Social Director	Albert Lawrence	Jerry Moore
Health Director	Dr. E. H. Tubbs	Dr. E. H. Tubbs
Reporter	George Shubert	

Oswayo Mine at Johns, Alabama.

	White Chapter	Colored Chapter
President	William Smith	Sam Thorn
Vice President	Robert Bailey	J. H. Vaughn
Secretary	Porter Cowen	Henry Woods
Treasurer	Sam Smith	Wilber Harville
Safety Director	S. S. Scott	C. J. White
Social Director	A. W. Morgan	L. L. French
Health Director	Dr. R. E. Lilly	Dr. R. E. Lilly

In our January issue we announced the formation of a chapter at Flat Creek, and we now have the pleasure of announcing another chapter, organized by Mr. C. A. McGaha, among the employes at Praco Mine of the Alabama By-Products Corporation.

Praco Chapter (Colored).

President	Will Graham
Vice President	Teney Bell
Secretary-Treasurer	Jettie Long
Safety Director	Percy Stennies
Social Director	Ida Whitehead
Educational Director	Alberta Smith
Reporter	Felix Paul

HOLMES SAFETY NEWS

Vol. 1 Birmingham, Alabama. March, 1931 No. 3

BUBBLES ARE AIR SURROUNDED BY A THIN LAYER OF SOAP

and

CARELESSNESS IS JUST A LOT OF BAD HABITS SURROUNDED BY THOUGHTLESSNESS

BOTH CAN BE PUNCTURED - HELP US DO IT.

PLEASE PLACE ON BULLETIN BOARD

HOLMES SAFETY NEWS

Published in the office of the
ALABAMA MINING INSTITUTE
Birmingham, Alabama

Editorial Staff

Frank E Cash — Hubert E Mills — Sam L.Morrow
Harry Johnstone — William Goodwin

UNITED WE STAND

On March 5, 1931, the National Council of the Holmes Safety Association, at its meeting in Washington, D.C., awarded ten medals, to bituminous coal mine employes, for heroic conduct in the attempt, whether successful or not, to save the lives of others. Ten Certificates of Honor were also awarded for outstanding safety records or valuable contributions to the cause of accident prevention.

Alabama is honored by receiving three of these awards, and this recognition is very gratifying to all of us who are interested in reducing the human suffering and economic loss resulting from injuries caused by the failure of someone to do his entire duty.

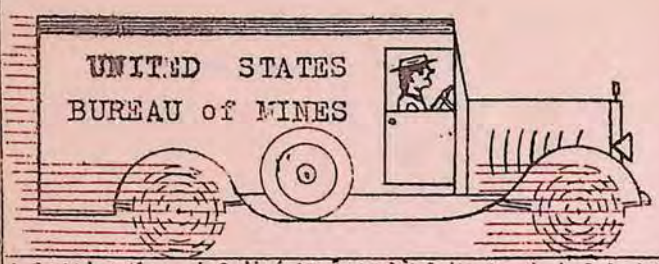
The Hull Mine of the DeBardeleben Coal Corporation, winner of the "Sentinel of Safety" trophy in the 1929 National Safety Competition and holder of a Holmes Safety Association Certificate for the same year, again wins National recognition by operating eleven months and 20 days without a lost-time accicent and is awarded another Certificate of Honor.

Wm. B. Hillhouse, Chief State Mine Inspector, has the distinction of receiving the first, and only, Certificate of Honor ever awarded to a State Mine Official. This award was made because of the continuous and untiring efforts of the State Mining Department, combined with its close cooperation with other agencies, resulting in a marked reduction in fatal and non-fatal accidents in the coal mines of Alabama.

The Alabama Mining Institute, for actively sponsoring the use of rock-dust and permissible electric cap lamps, for their educational work among the employes of the mines, and their cooperation with the U.S. Bureau of Mines and State Mining Department in promoting first-aid training and mine safety shcools, have also been awarded a Certificate of Honor, and, as in the case of Mr. Hillhouse, this is the first and only similar organization to be so honored.

The deep appreciation and natural pride of these recipients for this National recognition is second only to their satisfaction in the realization that their efforts were instrumental in reducing the number of accidents with a subsequent reduction in suffering and loss of life.

They also feel that the mining fraternity of Alabama, as a whole, is entitled to participate in this honor, as it is only thru the combined efforts of all interested individuals and organizations that such results can be obtained.



TRAINING-

PREVENTION OF ACCIDENTS.

ASSISTANCE-

IN CASE OF ACCIDENTS.

FIRST AID and MINE RESCUE TRAINING

March 1931

Bessemer Coal, Iron & Land Co.,	Belle Ellen,	92 in first aid
Gulf States Steel Co.	Sayre,	329 in first aid
Gulf States Steel Co.	Altoona,	17 in first aid
Franklin Coal Mining Co.	Powhatan,	171 in first aid
Franklin Coal Mining Co.	Powhatan,	7 in first aid
DeBardeleben Coal Corp.	Hull mines trained 100%	
DeBardeleben Coal Corp.	Corona mines trained 100%	
DeBardeleben Coal Corp.	Empire, Townley and Coal Valley (retrained 100%)	

Total number of men trained in March 1931 - 616

Accident Prevention Training Classes

The following were completed during March

Woodward Iron Company	Dolomite	35
Black Diamond Coal Mining Co.	Employees met at Dolomite	5
Sloss-Sheffield Steel & Iron Co.	Alden	28
Montevallo Coal Mining Co.	Aldrich	18
Southern Coal & Coke Co.	Boothton	55

March 30, a new Accident Prevention Class was started at Piper for employees of the:

Little Cahaba Coal Co., Piper, Ala.
Roden Coal Company, Marvel, Ala.
Blocton Cahaba Coal Co., Coleanor, Ala.
(With 57 officials attending)

CERTIFICATES OF HONOR

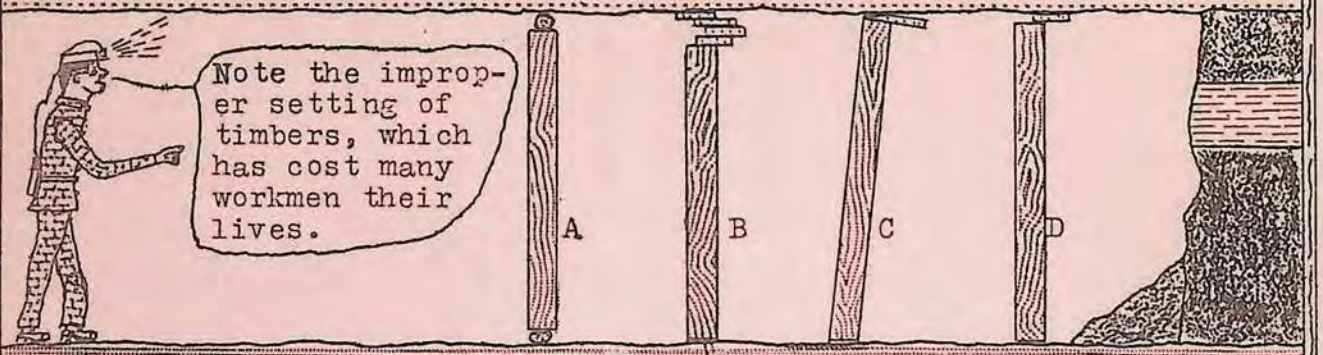
Notice has been received from the Holmes Safety Association, Washington, that Certificates of Honor for 1930 will be presented to the following for Exceptional Safety Accomplishments: Date of presentation to be announced later.

W. B. Hillhouse, Chief Mine Inspector, Birmingham
Alabama Mining Institute, Birmingham,
Hull Mine, DeBardeleben Coal Corporation, Dora

MISCELLANEOUS

The United States Bureau of Mines Car 4 will leave the district April 18, after 18 months in Alabama, with P. O. Yingst in charge and F. C. Ridley will remain as First Aid Instructor in this district.

STATE DEPARTMENT OF MINES



THERE IS A PROPER METHOD

A- Shows a prop set with improper cap and footing.

B- Shows a prop set with too many cap pieces.

C- Shows a prop out of vertical.

d- Shows a prop with a cap piece improperly placed.

For safety, properly timbering the working faces is the most important work in any coal mine. Statistics substantiate the fact that 85% of all accidents occurring are caused by falls of roof and coal at or near the faces. To support the new roof area which is daily exposed, proper timbering is most essential.

The more frequent practices in violation of good timbering are as follows:

1st- Failure to space props according to the company rules.

2nd- Failure to use emergency or safety props in addition to the company rules, when necessary.

3rd- Failure to set props with proper footing.

4th- Failure to set props with proper cap-piece.

5th- Using too many cap pieces (not more than one cap and a wedge, when necessary should be used).

6th- On level seams, setting props that are not vertical.

7th- On pitching seams, setting props in such manner as will permit their dislodgement with any roof movement. The proper manner to set such timber is to make a recess for the bottom of the prop with the top slightly up, depending on the degree of pitch.

The foregoing practices can be eliminated by the earnest effort of the foreman to compel the workmen to strictly comply with the mine timbering rule, and the proper setting of such timber. The improper setting of timbers has cost several lives within the past 12 months.

The following is a comparison of fatal accidents occurring during January, February and March for the years 1930 and 1931;

	1930	1931
January	14	2
February	5	1
#March	6	3
Total	25	6

#One injured in February died in March. (Three weeks later).

The Overton Chapter meeting on March 25th opened with singing of America. Gen. Supt. Fred Bell, Supt. R. A. Sansing (of Margaret), Supt. Hewitt Smith and Mr. W. S. Foreman addressed the large audience on greater efficiency, elimination of waste, accident prevention, and the importance of gardens.

Mr. Leon Friedman of the Birmingham News also made an interesting talk.

An excellent program of music, dancing and specialities was presented by the school children under the direction of Mrs. Amberson and Mrs. Concrief, while Mrs. Frank Lee played the piano.

The Margaret Chapter met on the 13th of March with Welfare Hall entirely full. Following a discussion on accident prevention, Mr. C.F. DeBardeleben spoke on the importance of everyone in the village making a vegetable garden. Good music was furnished by local talent.

"Be Careful" is the slogan adopted by the New Connellsville Chapter which held its regular meeting on March 25th, with a record attendance. Supt. Frank Long spoke on roof fall prevention and Dr. Edwards stated that a big improvement had been made since new life was injected into their chapter last December. Mr. Jim Corbin gave an illustrated talk on proper timbering, W. B. Patterson, M.F., I. M. Traywick, J. F. Tate (secy), Tully Rogers and Mr. Rollo also spoke.

From the Colored section Ben Lowery, Lacey Craig, Earl Nolen, Lige Hardeman, Bud Perkins and Joe Dunston endorsed the safety movement.

The Altoona Banquet, in honor of Mel Trammel and his class of seven successful candidates for Mine Foreman State examination, was a huge success. Supt. Brown presided and Prof. Dickinson made the Welcome Address. Harry Johnstone, W. P. Smith and H. E. Mills of Birmingham made short talks, and Mr. & Mrs. H. I. Watts of Alabama City furnished delightful music.

125 men were present at the safety meeting at Johns on March 9th. Supt. J. M. Cardwell and A. H. Crane, M. F., led the general discussion on accident prevention.

Safety Hall at Flat Top was crowded (standing room only) March 30th. The meeting opened with prayer, followed by singing and several numbers by the Secret Five Glee Club. Supt. W. E. Hobson, W. T. Burgess, and "Uncle Jim" Downey spoke on accident prevention, and H. E. Mills gave an illustrated talk on roof control.

Gen. Supt. Martin Heard officiated at a well attended safety meeting at Dolomite on March 13th. Mr. Heard spoke particularly on the danger of "False Safety" or of safety measures incomplete leading to accidents that would otherwise be avoided. He also stressed the importance of everyone on the job doing his part 100 percent.

Mr. Frank Hillman and Mr. L. M. Northcutt also emphasized the necessity of full cooperation.

The Majestic (Col) Chapter met on March 19th with 150 present.

Gen. Supt. W.C.Chase, Supt. E. A. Poe, Wm. Goodwin and H. E. Mills spoke on safety measures and complimented the Colored employes on the fact that there had been no lost-time accidents among them so far this year. Music and a general discussion on Community Improvements, followed by refreshments, completed the program.

An appreciated musical program was the feature of Bradford (Col) Chapter meeting on March 24th, rendered by the local choir, the "Progressive Four" Glee Club and school children. Rosa Lee Carter, Macedonia Lee, Charles Gordon, Rev. F.H. Williams, Alberta Henderson, Edward Ford, Walter Player, W.F.Calloway and Geo.Woolridge took part in the program and discussion. Safety talks were made by Supt. Poe, Wm. Goodwin, Mr. Ferguson, Mr. Hassell, Mr. Wilson and Mr. Taskwyer. Geo. Brown presided.

Field News past and future

Messrs. Wm. Goodwin, C. A. McGaha, H. E. Mills and Harry Kirchheiner attended the second meeting of the new Flat Creek (Col) Chapter on March 12th.

As a lodge meeting was being held on the same night the program was short but well attended as all the lodge members came to the safety meeting in a body before beginning their own program. The West Jefferson and Flat Creek Quartettes entertained the audience after the speaking was over.

Maggie Franklin was elected Reporter in addition to officers elected in February.

At the Empire (Col) Chapter meeting on March 19th, Mr. Oscar Simpson congratulated the Colored employes on their safety record in 1930 and the fact that so far in 1931 there had been no lost-time accidents among them.

This chapter has missed only one monthly meeting in the past 4 years.

Rev. J. W. Millsap and Prof. A. H. Taylor spoke and Frank Dabbs, Pres. presided. A program of music and dancing was enjoyed by all.

All present pledged a new recruit for the next meeting.

Mr. Leon Friedman of the Birmingham News was the principal speaker at the Sayre (Col) meeting on March 20th, with over 350 present.

Messrs. W. P. Smith, H. E. Mills and Supt. Geo, Burgess discussed accident prevention.

The school children and their teacher presented several musical and safety numbers which were enjoyed by all.

The Coal Valley (Col) Chapter was called to order by S. S. Pruitt, Pres., at their meeting on March 6th.

Gen. Supt. J. B. Thomas read a pamphlet from the State Department. The subject "Carelessness" was discussed by Pres. Pruitt, Bill Williams and Will Harper. Interesting papers by Mrs. Ola Bizzell, Mrs. Vestearl Taylor, Mrs. Minnie McCray, Ruth Kirk, Elizabeth Kirk, and Willie Bob Franks.

Refreshments were served.

APRIL SAFETY CALENDAR

Safety Meetings will be held at the following places and time.

April 2nd. Empire (Col)
2nd. Corona (Col)
2nd. Woodward Shops
3rd. Coal Valley (Col)
6th. Woodward Red ore
8th. Flat Creek (Col)
9th. Acmar
9th. Benoit
9th. Majestic (Col)
10th. Margaret
10th. Dolomite
13th. Johns
13th. Vulga
13th. Overton (Col)
14th. Sayreton
17th. Sayre (Col)
20th. Townley (Col)
22nd. Bradford
22nd. Woodward By-Product
23rd. Woodward Transportation
23rd. Acmar (Col)
24th. Boothton
24th. Empire
24th. Margaret (Col)
24th. Sayreton (Col)
27th. Overton
27th. Bradford (Col)
28th. Sayreton

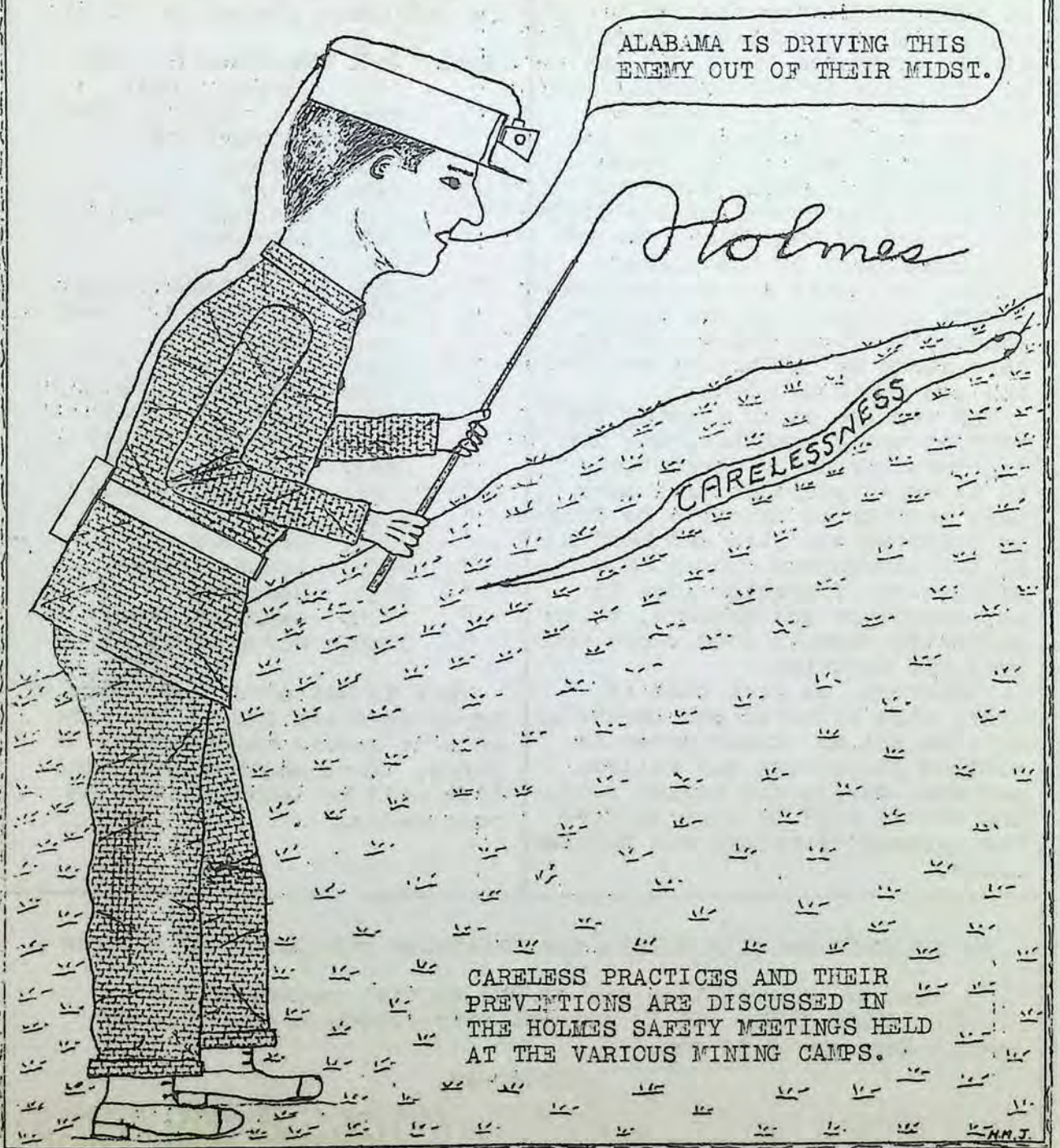
If we have omitted your meeting it is not intentional. Send us your dates for May.

COOPERATION

An elderly lady while leaning over the rail of an ocean liner fell over and immediately a sailor dived in to her rescue. The sailor made a grab at the lady's head and off came her wig, at the second grab all he got was a handful of false teeth, and as she went under again he made a third grab and caught her ankle, and off came her false leg. As she came up for the last time he gasped "Lady if I am going to save you, we have got to stick together."

HOLMES SAFETY NEWS

Vol. 1 Birmingham, Alabama, February 1931. No. 2



CARELESS PRACTICES AND THEIR PREVENTIONS ARE DISCUSSED IN THE HOLMES SAFETY MEETINGS HELD AT THE VARIOUS MINING CAMPS.

THE MINING INSTITUTE

HOLMES SAFETY NEWS

1304 Webb Crawford Bldg. Birmingham

The reduction of accidents during the year 1930, and the still greater reduction so far in 1931, indicates that we are reaping the accumulated benefits of the extensive First Aid training and Mine Safety School, conducted by the U. S. Bureau of Mines; the close inspection and supervision work of the State Department of Mines, the Vocational Mining School of the State Department of Education, the educational work of the Alabama Mining Institute and the Holmes Safety Association, and the intensive accident prevention work carried on by the mining companies and their employes.

The results amply justify the work of these agencies, and during this period of depression, it is more important than ever that everything possible be done to preserve the life and health of our people and reduce to a minimum the financial loss to both employer and employe, which naturally results from these preventable injuries.

Therefore, we feel that if every mine official and worker will do all in their power to protect themselves and fellow-workers, during the coming year, the result will be less suffering, greater earnings and happier homes.

MARCH SAFETY CALENDAR

Safety Meetings will be held at the following places and time:

March	2nd.	Woodward Red Ore
"	5th.	Corona (col)
"	6th.	Coal Valley (col)
"	7th.	Raimund Ore
"	7th.	Corona
"	9th.	Mulga
"	9th.	Overton (col)
"	10th.	Sayreton
"	12th.	Acmar
"	12th.	Flat Creek (col)
"	12th.	Majestic (col)
"	13th.	Margaret
"	13th.	Dolomite
"	13th.	Sayreton (col)
"	15th.	Sayre (col)
"	16th.	Townley (col)
"	23rd.	Overton
"	23rd.	Bradford (col)
"	24th.	Sayreton
"	25th.	Bradford
"	26th.	Acmar (col)
"	27th.	Boothton
"	27th.	Sayreton (col)
"	27th.	Margaret (col)

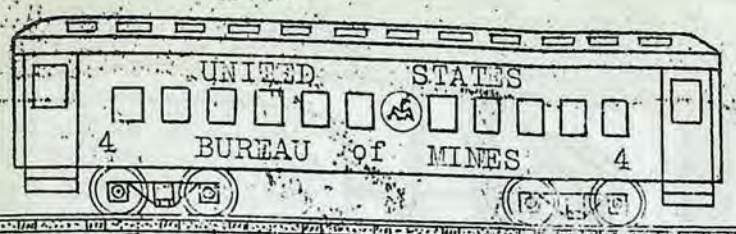
This is not a complete list of March meetings but all we were able to secure before going to print. Next month we hope the list will be longer. Send in your dates.

We acknowledge with thanks the following complimentary letter:

"I want to congratulate you on the initial number of the HOLMES SAFETY NEWS. It is attractively gotten up and full of meat. More power to you."

Sincerely,

Perkins J. Prewitt, Director,
Birmingham Safety Council.



WE ARE HERE TO RENDER SERVICE.

ARE YOU ASKING FOR THIS SERVICE?

H.M.J.

First Aid & Mine Rescue Training for February 1931.

Ala. F. & I. Co.,	Adair	50 men
Ala. F. & I. Co.,	Margaret	51 men
Little C. C. Co.,	Piper	217 men
B. D. C. M. Co.,	Johns	152 men
Roden Coal Co.,	Marvel	71 men
Little G. C. Co.,	Underwood	28 men

Future Training Itinerary for U. S. Bureau of Mines Car 4.

Bessemer Coal, Iron & Land Co.,
Belle Ellen --- March 2 - 7
Gulf States Steel Co.,
Sayre --------- March 9 - 21
Franklin Coal Mining Co.,
Powhatan ------ Mch. 22 - Apr. 4
New Castle Coal Co.,
New Castle -----April 5 - 11
Railway Fuel Company
Parrish -------- April 12-- 18
Stith Coal Company
America ------- April 19 - May 2
Gulf States Steel Co.,
Alabama City -- May 3 - 9

Accident Prevention Training Course

Classes conducted at the following places:-

Dolomite - Tues. & Thurs. nights
Average attendance ---------- 46
Ellen - Mon. & Tues. nights
Average attendance ---------- 33
Aldrich - Wed. & Fri. nights
Average attendance ---------- 20
Boothton - Wed. & Thurs. nights
Average attendance ---------- 225

PRACTICE SAFETY YOURSELF-
OTHERS WILL FOLLOW YOU

Total Number of Men in Alabama given First Aid and Mine Rescue Training by Bureau men and Company Instructors in 1929 ------- 1,919

Total Number of Men in Alabama given First Aid and Mine Rescue Training by Bureau men and Company Instructors in 1930 ------ 10,701

Total Number of Men in Alabama given First Aid and Mine Rescue Training by Bureau men and Company Instructors in Jan. 1931 --- 328

Total Number of Men in Alabama given First Aid and Mine Rescue Training by Bureau men and Company Instructors in Feb. 1931 --- 569

Total Number of Men in Alabama completing the Accident Prevention Training Course in Jan. 1931-110

Total Number of Men in Alabama completing the Accident Prevention Training Course in Feb. 1931- 21

GETTING NOWHERE

A gentleman, pretty well perfumed, picked up the telephone:

"Hello! Hic! Hello!"

"Hello," returned the operator.

"Hello!"

"Hello."

"My gosh!" said the gentleman, "How this thing echoes!"

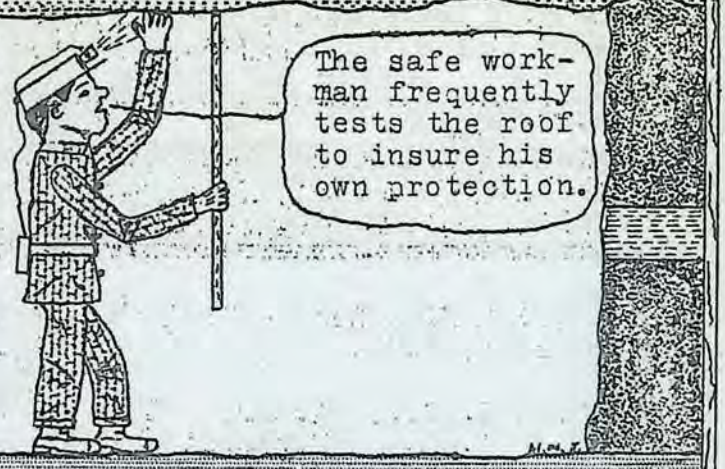
TUT, TUT, DOCTOR!

Mr. Mills: "So I've got to have an anaesthetic. How long will it be before I know anything?"

Doctor: Now don't expect too much of the anaesthetic."

STATE DEPARTMENT of MINES

THE PROPER METHOD OF TESTING, IS TO PLACE THE BARE FINGERS OF ONE HAND LIGHTLY AGAINST THE ROOF AND WITH THE OTHER HAND STRIKE THE ROOF LIGHTLY WITH AN IRON OR STEEL BAR.



FALLS OF ROOF: The visits of Mine Inspectors to individual working places are too infrequent to render much direct aid in their prevention.

Falls of roof are responsible for 45% of our mine fatalities, and 85% of them occur at or near the working face. It is obvious then, that if the miner be protected while actually performing the duties assigned to him a decrease from rock falls will result. This protection (in part) may be given him through the adoption of the following:

1- Systematic rule governing the timbering of all places.
2- Regardless of rule, set emergency or additional timbers where necessary.
3- Cap pieces of proper size and thickness.
4- Timbers of proper size.
5- The proper setting of timbers. (In pitching seams, several men have lost their lives lately by improper setting of timbers.)
6- Pull down all loose roof material, or make safe by timbering.
7- Each working place should be visited at least daily, oftener if possible by a foreman or his assistants.
8- Strict observance and enforcement of the mining law, and the rules and regulations governing the operation of each mine.

We have found that by the adoption of these practices our casualties from roof falls have materially decreased for the past 3 years over the preceding years.

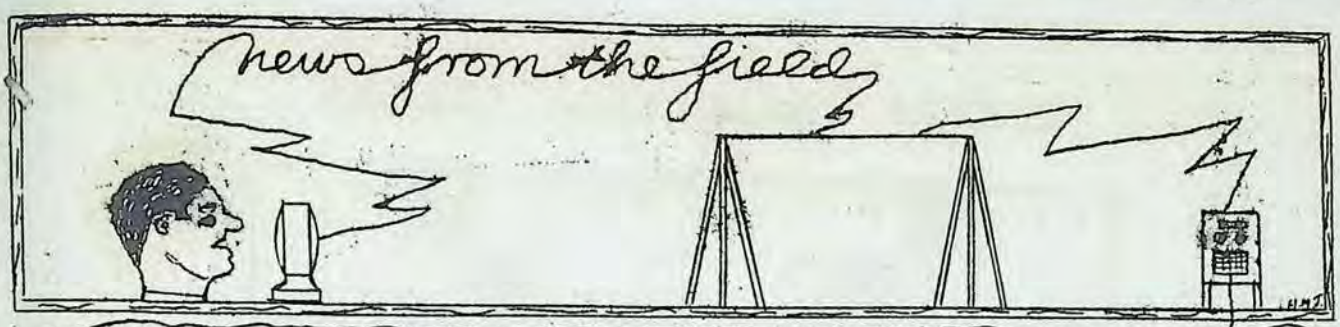
ONE fatality occurred in Alabama Coal Mines during the month of February, as compared to 5 during the same month last year.

The following is a comparison of fatal accidents occurring during the months of January and February for the years 1930 and 1931:

	1930	1931
January	14	2
February	5	1
Total	19	3

With the interest manifested by all in Accident Prevention, we predict for 1931, the largest tonnage per fatality in the history of the State.

This department sends to all mines sketches picturing how fatal accidents occur in Alabama Mines. Study them carefully, you might be working under similar circumstances.



The Sayre (Gulf States Steel) Chapter met at the Community Hall on the 15th, with George Burgess, Supt., presiding. An interesting program of music and readings was rendered by the school children, after which safety talks were made by Supt. Burgess, Dr. W. A. Sparks and A. W. Williams, Mine Foreman. Refreshments were served to the 150 people present.

Mr. Harry Brown, Supt. at Altoona, is giving a banquet in honor of successful applicants for Mine Foreman certificates, from his organization.

The affair is to be held at the Fraternal Hall at 7 P.M., March 10th, and a number of outside visitors have been invited.

An interesting meeting was held at Johns (Black Diamond Coal M. Co.) on Feb. 23rd, with J. H. Crane, M. F., presiding. C. J. White conducted a series of questions and answers on safety problems and H. E. Mills led a discussion on Timbering with illustrations.

A. H. Witte and Harry Kirchheiner of Birmingham and J. M. Cardwell, Wm. Smith and Frank Dagman also spoke.

The Boothton (Sou. Coal & Coke Co.) Chapter met on February 27th, with J. S. Kellum, Supt., presiding. The children of the Camp presented an enjoyable playlet and Mr. George Peter, President, made a very interesting talk. Mr. J. A. Ivie, State Department of Mines, was among the visitors. Refreshments and music closed the meeting.

The meeting of the Bradford Chapter (Ala. By-Products Corp.) which met on February 26th at 7:30 P.M. was enlivened by the excellent music provided by Mike Ford and his "Harmony Four."

W. C. Chase, E. P. Poe, Wm. Goodwin and L. Hassell made interesting safety talks and refreshments were served.

The Bradford colored Chapter met at 7:30 Tuesday, Feb. 24th, with a fine program of local talent and speaking. Refreshments were served.

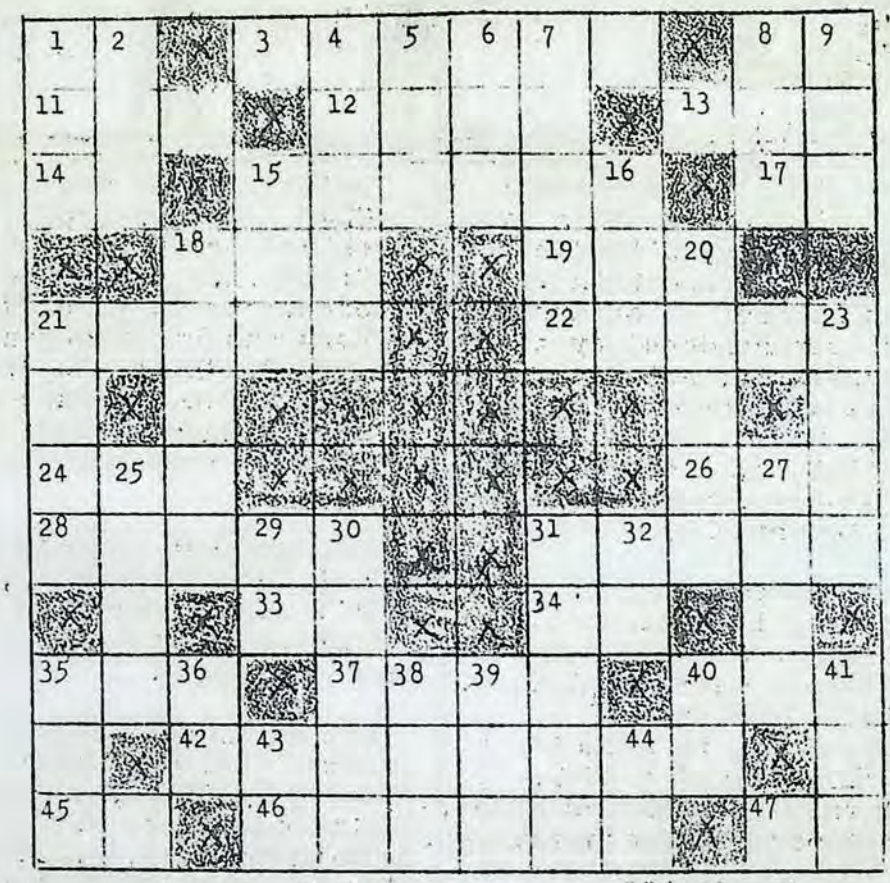
The Flat Creek (Gamma & Wegra) Chapter (Col) mentioned in our January issue, elected the following officers: F. Woodrick, Pres., Nath Hawkins, V.P., Leon Beavers, Secy-Tr., Andy Pritchett, Ed.Dir., Robt. Foster, Chaplain, and W.D. Pratt, Sargt. at Arms.

The Safety Meeting at Sayreton on February 27th was attended by over 200 of the Republic Company's colored employes. Mr. Ed. Clark, Safety Engineer, was the principal speaker.

Mr. Norman Thomas, Supt. at the Raimund Ore Mine No. 1, presided over a meeting of more than 300 on the night of February 27th.

The Coal Valley (DeBardeleben Coal Corp.) Chapter met on February 20th, with talks by the following men: John Phillips, Lindsay Kirk, Bill Williams, Prof. Dan Harris and J. D. Harris.

SAFETY CROSS WORD PUZZLE



ACROSS

1. Provided that.
3. Safety organization.
8. Toward.
11. Possession.
12. Alabama's own fuel.
13. Underground coal carrier.
14. Direction.
15. A missive.
17. Direction.
18. Grassy field.
19. A wound.
21. Rule.
22. Salty liquid.
24. To seize suddenly.
26. Cooking vessel.
28. Depression.
31. A point of an eccentric orbit.
33. Exclamation.
34. Behold.
35. Brick holder.
37. Musical term.
40. Yes.
42. Make certain.
45. Prefix to name.
46. Preach and Practice it.
47 Worthless.

DOWN

1. Distress signal.
2. Debt.
4. Body of water.
5. Quantity.
6. Floor covering.
7. To choose.
8. Effect of sun.
9. Contains mineral.
15. Limb.
16. Regret.
18. Near Heaven.
20. Packs down.
21. Round cross strip.
23. Heavenly bodies.
25. In addition.
27. Breezy.
29. Exclamation.
30. Food from Heaven.
31. Vigilant.
32. Federal building.
35. Cured meat.
36. Nation's Capital.
38. Away.
39. Wearing apparel.
40. Like
41. Popular breakfast food
43. Chain of hills
44. Possession.

HOLMES SAFETY NEWS

VOL. 1 JANUARY 1931 No. 1

CARELESS PRACTICES AND PREVENTIONS ARE DISCUSSED IN THE HOLMES SAFETY MEETINGS HELD AT THE VARIOUS MINING CAMPS.

THE MINING INSTITUTE

HOLMES SAFETY NEWS

1304 Webb Crawford Bldg. Birmingham

Editorial Staff.

Frank E Cash
Sam L Morrow — William Goodwin
Hubert E Mills — Harry Johnstone

This is the first of what we hope will become a growing monthly medium of safety news launched for the purpose of creating and maintaining interest in accident prevention.

The main objectives of this publication are:

First--The collection and distribution of safety and personal news concerning the employees of the coal and iron mines of Alabama.

Second--The encouragement of regular meetings of employees and officials, monthly or oftener, in every mining community in the State with a free and open discussion of past accidents and means of prevention, which we know, from previous experience, will tend to prevent similar accidents in the future.

Our pages are open for reports of such meetings as well as other items of interest, safety or personal, and we herewith cordially invite and earnestly urge our readers to send us reports of meeting or other "Local Doings" for our next issue. Send your contribution (of news and not cash) to The Editor, Holmes Safety News, at above address.

Hubert E. Mills,
Ala. Council. Secretary.

DO YOUR PART

Cooperative action on the part of all parties in operating a mine is necessary in getting full benefit of safety measures; coordinated plans are a prime essential and when one gets these two agencies at work, there isn't any question about what the results will be.

The educational work done in the Alabama fields in recent years and particularly the past twelve months has been a step forward in the promotion of safety for the Company and Employees. It is as impossible to separate the interests of the Company and the Employees as it is to mix oil and water if success is to be obtained in preventing accidents.

D A Thomas
President, Ala. Council,
Holmes Safety Assn.

The State Dept. and Institute will continue to send reports of fatalities but we will be glad to print accounts of unusual non-fatal accidents or unsafe conditions so that others may benefit by the experience.

Be sure to listen in on WAPI next Friday, Feb. 27, at 7:45 when Mr. W. H. Sadler will tell you about the Institute safety program.

State Department of Mines

The violation of any law, rule or regulation usually ends in disaster.

During the year 1930, 61 fatalities occurred in Alabama coal mines, as compared to 72 the preceeding year, The causes being as follows:-

	1929	1930
Falls of roof & coal	28	34
Haulage	19	5
Ignition of gas	12	8
Electrocution	11	11
Explosives	0	1
Miscellaneous	2	2
	72	61

For the year 1930 there were 61 fatalities, which is the best record in the conservation of life for the past 27 years.

Progress is being made for safer mining in Alabama. The substantial increase in tons mined per fatal accident supports this statement.

Much credit is due to local mine officials and workmen for their co-operation with this department in bringing about these results; and our anticipation is for a further reduction during the year 1931.

For the month of January 1931, two fatalities occurred as compared to 14 for the same month 1930.

The regular semi-annual meeting of the Board of Examiners was held in the office of the Chief Mine Inspector during the week of January 19th, for the purpose examining applicants for mine-foreman and fire-boss certificates, the following is the result.

Class	Stood	Passed	Failed
Mine-foreman	58	38	20
Fire-boss	19	15	4
	77	53	24

In next month's issue, this department will discuss rock falls and their prevention.

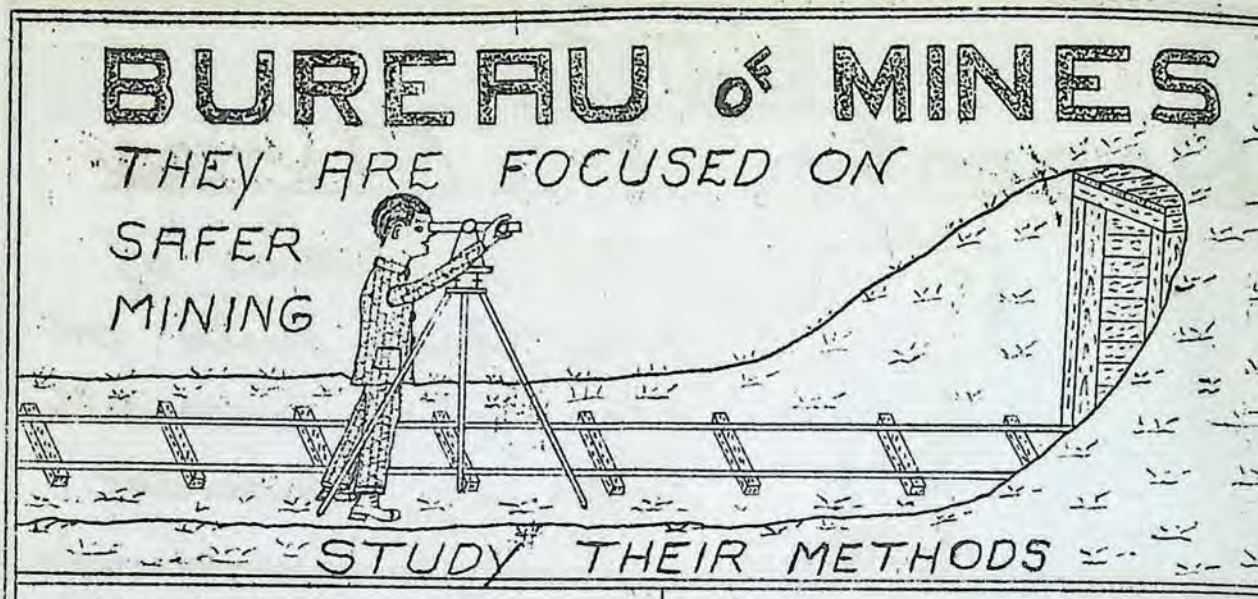
Mr. Johnstone: "Why, I don't want these photographs; they don't do me justice."
Photographer: "Justice? You don't want justice. You want mercy."
(Maybe that is why he hid his face in the picture at top of this page)

THE DOCTOR'S ORDERS

Mike was badly injured in an accident and was rushed to a hospital where his wife soon followed. A surgeon who had worked on the case overhead her inquiry for her husband and went to the ward with her. At the door he saw a sheet was over the patient's body and said to her, "Madam, your husband is dead."

A voice under the sheet said, Naw, I'm not.

The wife replied, "Hush, Mike, the doctor knows best."



High Spots of Activities of Personnel of the BUREAU OF MINES

JANUARY 1931

ACCIDENT PREVENTION CLASSES

Three Accident Prevention Classes were completed during the month of January 1931 with the following numbers.

B'ham - First Class completed January 22nd with 88
B'ham - Second Class completed January 24th with 22
Jasper - Third Class completed January 31st with 21

Mr. J. J. Forbes, Supervising Engineer, Bureau of Mines, Pittsburgh, Pa., is largely responsible for the compilation of this course and was present and gave talks to two graduating classes on January 22 and 24.

The Course consists of the following divisions:

1. Prevention of accidents from Falls of Roof and Coal.
2. Prevention of accidents from Haulage.
3. Prevention of Explosions and Mine Fires.
4. Prevention of Electrical accidents.
5. Prevention of Explosive accidents.
6. Prevention of Miscellaneou mine accidents.
7. Mine Safety Organization and maintaining interest in Safety and Welfare.
8. Health and Sanitation.
9. State and Company Enforcement measures.
10. Mine Accident Statistics.

Several Operating Officials ga 5-minute talks to the classes.

100% FIRST AID TRAINING.

The following plants or opera tions received 100% first aid training of their employees dur ing January.

Cane Creek Coal Mining Compan Bankhead, Ala.
DeBardeleben Coal Corporation Empire, Ala.
Black Diamond Coal Mining Co. Benoit, Ala.

FIRST AID CONTEST

The Bureau personnel assisted with a First Aid Contest which was a part of the program of th Regional Cement Association Mee ing held in Birmingham at the Tutwiler Hotel, January 27th. There were four participating teams from Cement Plants.

DOES THAT LET HIM OUT?

Mr. Cash: (To pretty blond waitress) "You know, gentlemen prefer blondes."
Pretty Waitress: "Oh, Yeah? Well; blondes prefer gentlemen."

VOCATIONAL MINING SCHOOLS

If a miner's rate of pay is $4.50 per day, how many days will he have to work to earn $90?

4.50 / 90.00 (20 days = Ans.
900
0

PRACTICAL MINING

3 R
EADING
ITING
ITHMETIC

Vocational Mining Schools have made remarkable progress during the past year, and credit must be given Messers Comstock and Harris of the State Department of Education, through the Division of Vocational Education, for their untiring efforts in organizing these classes at the various mining camps.

We feel that a great benefit will be derived through these classes in accident prevention for they teach the individual the fundamentals of mining, which are necessary to make safer workmen.

There are 21 vocational Mining Schools in Alabama in session at this time, summarized as follows:

Number of communities ..	21
Number of instructors ..	52
Number of classes	54
Total enrollment	1158

Son: "Daddy, my teacher does not know anything."
Daddy: "How do you know that, Son?"
Son: "Because she is always asking me questions trying to find out something."

100% Class from Altoona

Seven applicants from Altoona took the examination for First Grade mine-foreman certificates, and all passed, averaging from 80% to 87%

HATS OFF! To Harry Brown, superintendent and Nell Trammell, teacher.

This man did not have an opportunity of attending a vocational mining school.

Dear Mum- Pleze ixcuse Johnny today. He will not be at school. He's acting as time-keeper for his father. Last night you gave him this iximple: If a field is 4 miles square, how long will it take a man, walking 3 miles an hour to walk 212 times around it? Johnny ain't no man, so we had to send his daddy.
They left early this morning, and my husband said they ought to be back late tonight, though it would be hard going. Dear Mum, Pleze make the nixt problem about ladies, as my husband can't afford to lose the day's work. The Lord knows I don't have no time to loaf, but I can spare a day off occasionally better than my husband can.
Respectfully yours, Mrs. Jones.

NEW CHAPTER FORMED AT FLAT CREEK

Mr. C. A. McGaha, First Aid Instructor for the Alabama By-Products Corporation, has the honor of organizing the first chapter of the Holmes Safety Association in 1931, at Flat Creek (Gamma and Wegra) on February 12th.

Their regular meeting night will be on the Second Thursday of each month at 7:30 P.M., and the names of the officers will be announced in our next issue.

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
428 POST OFFICE BUILDING
DENVER, COLO.

Please advise me if there are any such employees

November 27, 1928.

Gentlemen:

The Joseph A. Holmes Safety Association, in cooperation with the U. S. Bureau of Mines, awards medals annually for heoric work done by persons engaged in the mining, metallurgical, petroleum, and quarrying industries. For a person to receive a medal the saving of life must have been accomplished at considerable risk. Should you know of any cases of heroism occurring during the present year which you deem worthy of recognition, it would be appreciated if you will advise me giving considerable detail so that I may put the matter up to the committee on heroic awards of the Joseph A. Holmes Safety Association for consideration.

Very truly yours,

E. H. DENNY
District Engineer

October 28th, 1925.

Mr. J. J. Forbes,
Safety Service Extension Div.,
U. S. Bureau of Mines,
Pittsburgh, Pa.

Dear Sir:

We are interested in getting Joseph A. Holmes safety chapters instituted in the various mining districts of this Company. Will you kindly send to the addresses below, also to this office, descriptive literature and details concerning the activities of this organization and the manner and requirements for installation of chapters.

To: Wm. McIntosh, Mine Superintendent, Superior, Wyoming.

Thos. Foster, Mine Superintendent, Winton, Wyoming.

Geo. A. Brown, Mine Superintendent, Cumberland, Wyoming.

F. L. McCarty, Mine Superintendent, Rock Springs, Wyoming.

T. H. Butler, Mine Superintendent, Hanna, Wyoming.

J. O. Holen, Mine Superintendent, Reliance, Wyoming.

A. C. Carter, Mine Clerk, U. P. Coal Co., Rock Springs, Wyoming.

Respectfully,

ab

Rock Springs - September 4, 1925.

Mr. J. A. Smith:

I think it would be well now to give consideration to the forming of safety chapters at our camps regarding which Mr. McAuliffe made suggestions some time ago.

Geo. D. Ryde

cb

Omaha - July 20, 1925.

Mr. J. A. Smith:

Yours of July 8th on the J. A. Holmes Safety Association chapters:

I quite agree that the matter should be handled to the end that success will be assured, and you should weigh carefully the relative advantage of having the men in the J. A. Holmes Safety Association compared with the Rocky Mountain Coal Mining Institute.

In any case the matter is one to be determined wholly by yourself and Mr. Pryde.

July 8th, 1925.

Subject: Joseph A. Holmes Safety Chapters.

Mr. Eugene McAuliffe:

I have taken up this matter with some of our superintendents and with some of the men who are most active in the First Aid activities in the various districts; I have also talked it over with the Bureau of Mines men and secured descriptive data concerning the activities and installation of chapters.

I believe, and it seems to be the concensus of opinion of those with whom I have talked, that it would be inadvisable to attempt to organize one of these chapters until early in the fall. During the summer time with the long fine evenings, and proximity of trout streams during the week ends and idle periods, it is practically impossible to create an interest, and induce the men to devote their spare time to First Aid work.

With the approach of cold weather, I believe it will be possible to organize, starting first at Cumberland and later at Hanna, these being the places where the greater interest has been taken in the past. If these prove successful, we can then try entering the other districts.

If any attempt were made to organize these in the mining districts where but little interest has been shown and in which there are no active first aid organizations, it might prove a failure from the start and later hinder organization.

Personally, I believe the formation of the Holmes Safety Chapters to be very desirable. Affiliation with an organization of national scope, I think tend to stimulate interest.

ab

Omaha - June 25, 1925.

Mr. J. A. Smith:

What was developed in connection with the possibility of organizing local Joseph A. Holmes Safety Chapters in lieu of the Rocky Mountain Coal Mining Institute?

This may not be a good thing to do, but I am wondering what conclusions you and Mr. Pryde came to.

W. W. McAuliffe

MINUTES OF THE ANNUAL MEETING OF THE JOSEPH A. HOLMES SAFETY ASSOCIATION, HELD IN THE CONFERENCE ROOM OF THE U. S. BUREAU OF MINES, WASHINGTON, D. C.

March 5, 1925.

The meeting was called to order at 11:00 a.m. by the Acting President of the Association, Dr. D. A. Lyon, Acting Director of the U. S. Bureau of Mines.

Present

Dr. D. A. Lyon, Acting Director, U. S. Bureau of Mines, Acting President, ex-officio.
J. F. Callbreath, Secretary American Mining Congress, First Vice President, ex-officio.
Edgar Wallace, for William Green, Second Vice President, ex-officio, representing the American Federation of Labor.
T. T. Read, Acting Secretary, also representing the Personnel Research Federation.
Dr. George K. Burgess, representing the American Society of Testing Materials.
C. F. Hood, representing the American Society for the Promotion of Engineering Education.
J. W. Paul, representing the Mine Inspectors Institute of America.
Dr. David White, representing the National Academy of Sciences and the U. S. Geological Survey.
W. M. Corse, representing the American Electro-Chemical Society.
Dr. Wm. R. Nelson, representing the American Red Cross Society.
H. A. Smith, representing Coal Mining Institute of America.
J. V. N. Dorr, representing the American Institute of Chemical Engineers.
Carl W. Mitman, representing the Smithsonian Institution.
Dr. John J. Rutledge, representing the Geological Society of America.
J. J. Forbes, alternate for J. W. Reed, representing the National Safety Council.

Absent

Benjamin F. Tillson, representing the Mining and Metallurgical Society of America.
Walter J. James, for John L. Lewis, representing the United Mine Workers.
Gen. W. H. Bixby, representing the American Society of Mechanical Engineers.
Eugene McAuliffe, representing the International Railway Fuel Association.
C. H. Butler, representing the American Forestry Association.
F. L. Hutchison, representing the American Institute of Electrical Engineers.
E. G. Purdy, representing the American Ceramic Society.
C. S. Rice, representing the American Institute of Mining and Metallurgical Engineers.

The Secretary briefly summarized the principal items in the minutes of the annual meeting of March 8, 1924, which had been mimeographed and circulated to members of the Council. The minutes were then approved as mimeographed.

The Acting President, D. A. Lyon, made a brief statement in regard to the unavoidable absence of the President, H. Foster Bain, who is now in Argentina.

T. T. Read, who had been elected Secretary at the preceding meeting of the Executive Committee, made a verbal report in regard to the activities of the Secretary's Office during the preceding year. He announced that F. J. Bailey had tended his resignation as Secretary on January 5, 1925, feeling that his many duties in connection with the Bureau of the Budget and the Personnel Classification Board made it impossible for him to devote time to the work of the Joseph A. Holmes Safety Association. The Acting President, in accepting Mr. Bailey's resignation, designated Mr. T. T. Read to serve as Acting Secretary until the next meeting of the Executive Committee. The Secretary also reported that C. L. Colburn had resigned as Director of Safety Chapters, effective October 31, 1924. Since that date the routine work in regard to the chapters had been carried on by Mr. Colburn's assistant, Mr. Geo. C. Lindsay under the direction of Mr. D. J. Parker. In this way most of the chapter work had been kept current, about the only work that lapsed being Mr. Colburn's visits to existing chapters and his personal efforts in regard to the organization of new ones. This field work had, however, been carried on by the field men of the Mine Safety Service with good results, eleven new chapters having been organized since the date of Mr. Colburn's resignation. Mr. Colburn's final report and a supplementary report covering the period between October 31, 1924 and March 1, 1925 is attached to and forms a part of these minutes.

The Secretary further reported that in his judgment the most important problem confronting the local chapters is the maintaining of interest and the keeping of the chapters alive rather than the organization of new chapters, approximately one-third of the existing chapters being inactive. The Bureau of Mines proposes about June 1, 1925 to organize a new subdivision of the Safety Service to be called the Safety Extension Service, which will be charged with the duty of maintaining interest in accident prevention in the mining industry, the making of exhibits and demonstrations, and in general to work towards securing the more general adoption, by the mining industry, of the recommendations regarding safe methods and practices recommended by the Bureau of Mines. This work will be under the direction of Mr. J. J. Forbes as Engineer in Charge. Mr. Forbes has had remarkable success in maintaining interest in the Joseph A. Holmes Safety Association Chapters in Alabama, and it is planned that Mr. Forbes will carry on the work with the local chapters that Mr. Colburn formerly did.

At this point Mr. Forbes was called on to explain the methods used in Alabama and the success which has attended the work there.

The Secretary further reported that Mr. Bailey had been Chairman of a committee to present at this meeting a revised Constitution of the Association. Because of Mr. Bailey's resignation and the fact that Mr. Galbreath, one of the other members of the committee, had been absent from the United States for sometime, it had not been practicable for this committee to make a committee report. The Secretary had, however, drawn up a tentative draft of the revised Constitution which he suggested might be appropriately considered under miscellaneous business.

The Treasurer's report was presented by the Secretary, who is also Assistant Treasurer. This has been audited by the Finance and Auditing Committee and is attached to and forms a part of the minutes. Attention was called to the fact that by keeping expenditures less than income the financial position of both the Chapter Organization and the Association had improved during the year.

The reports of standing committees were then called for and Mr. J. V. Paul, for the Subcommittee on Mining and Quarrying of the Committee on Holmes Hero Medals, recommended William Daly for an award. The report of this Subcommittee, which had previously been submitted to the Executive Committee and approved, was approved by the Council. This report is attached to and forms a part of these minutes.

The Secretary announced that no report had been received from the Committee of Metallurgy and other Mineral Industries and there were therefore no awards to be made under that heading. Attention was called to the fact that the Association only made one grade of award, that many of the alleged instances of heroism brought to its notice were judged, after careful consideration, not to merit a medal of honor, and that possibly it would be better if several grades of award were established so that differing degrees of heroic conduct could be rewarded by appropriately graded awards. After general discussion by members of the Council present, it was moved by Mr. Paul, and seconded by Mr. Smith, for the Chair to appoint a committee to work out a plan under which Holmes Hero Medals are to be awarded. This plan will guide the committee on revision of the Constitution in its work. The motion was carried.

Attention was called by the Secretary to the fact that although the Constitution provides for a Holmes Safety Award Committee there is no record of the existence of any such committee or of any report from it in recent years. Mr. Paul and Dr. Sayers stated that there at one time had been such a committee, but it was considered that the financial position of the Association was such that it would not be warranted at this time to incurring the expense of making such awards. After general discussion the

Secretary was directed to record that it was the sense of the Council meeting that at its next annual meeting either a report should be presented by the President explaining why the appointment of such committee was not considered desirable or else the President should appoint a committee to bring in a report in regard to the advisability of the making of Holmes Safety Awards.

The Secretary announced that the records indicate that there was a standing committee on local chapters, but that this committee had not furnished him with any report.

The next order of business was the election of the two members-at-large of the Executive Committee. General W. H. Bixby, Mr. Walter J. Jones and Dr. J. J. Rutledge were nominated. Dr. Rutledge withdrew his nomination and Messrs. Bixby and Jones were elected members of the Executive Committee for the ensuing year.

The Acting President inquired whether the Council desired to hold an afternoon session for the discussion in detail of the tentative draft of the revised Constitution presented by the Secretary. Inquiry was made as to whether it was worth while for the Council to discuss this before the committee made its report. The Secretary pointed out that the draft submitted differed in such important ways from the existing Constitution that it was felt that the general opinion of the Council should be obtained before the committee made the final draft. On inquiry as to what these differences were the Secretary explained that the first important difference was the proposal to incorporate the Joseph A. Holmes Safety Association, since it owned securities for which the officers, as officers of an unincorporated association, are personally liable. It was also felt that a distinction should be made between the original Association and the Chapter Organization and this could be clearly maintained through having the Joseph A. Holmes Safety Association incorporated. This proposal was approved by the Council, and the Committee on Revision of the Constitution was directed to take steps to arrange for the incorporation of the Joseph A. Holmes Safety Association. The Secretary explained that the second important difference was that the existing chapters should be organized into a subsidiary ordinary membership association that would be self-governing and control the expenditure of the funds now collected from the chapters in the form of charter fees and dues. The present relationship is extremely confusing because the charter fees and dues are collected and turned in to the Joseph A. Holmes Safety Association and are paid out again in the form of expenses in connection with the chapter work. This not only makes the auditing of the accounts difficult, but the members of the local chapters seem to find it difficult to understand that their dues are not being used for the support of the Joseph A. Holmes Safety Association, more especially since the receipts from the chapters during the past fiscal year have been less than the expenditures. The Secretary also pointed out that the one hundred and thirty-one chapters have no representation in their own

government and the existing arrangement, as well as being inconvenient, is also not in accordance with the principles of democratic government. After general discussion the sense of the meeting seemed to be that provision for self-government for the chapters was desirable. The third point mentioned was that, since an incorporated body is required to have directors, trustees, or managers, in revising the Constitution it would be necessary to provide for such a Board in place of the existing Executive Committee. The Secretary suggested that the subsidiary association of the Chapters should be permitted to send delegates to the Council meeting and also should have four members on the Board of Management. Opinion seemed divided upon this point. Mr. Galbreath pointed out that it was undesirable to get too complicated an organization. The Committee on Revision of the Constitution was instructed to give further study to the matter and report next meeting.

There being no further business the Council meeting then adjourned.

REPORT OF THE AUDITING COMMITTEE

Balance in bank brought forward from 3-1-24..... $1,192.48

Receipts:

Miscellaneous Deposits, not itemized, 3-3-24.....	4.70	
" " " " 3-12-24.....	29.70	
Interest on Liberty Bonds.....	459.50	
" " Bank deposits.....	20.44	
Charter Fees, (40 Chapters, @ $10).....	400.00	
Charter Fees, pending organization from Harry Dickerson, Bucknell, Indiana.....	25.00	
Chapter Dues.....	413.25	
Button Sales.....	2.00	$2,356.02

Disbursements:

1924 - April 1,	Advanced to Safety Chapters for current expenses.....	200.00	
1924 - April 23,	Printing, Stationery & Postage.....	82.45	
1924 - May 23,	Printing, Stationery & Postage.....	100.91	
1924 - May 23,	Ledger Journal & Postage.....	6.04	
1925 - Jan. 29,	Printing of application blanks, booklets, making of cats, etc. ordered by L. C. Colburn prior to his resignation.....	313.85	802.75

BALANCE IN BANK AS OF MARCH 5, 1925..... $1,785.87

NOTE: In the statement of the Joseph A. Holmes Safety Association Auditing Committee, under date of March 5, 1924, reference was made to $48.40 in the hands of the Treasurer. Of this sum, $4.70 was deposited in March 3, 1924, and $23.70 on March 12, 1924. The difference of $70.00 remains unexplained, and it is recommended this sum be dropped from the books of the Association.

FINANCE AND AUDITING COMMITTEE:

Signed W. E. Sixby

Signed J. W. Paul

Signed Edgar Wallace

REPORT OF THE SUBCOMMITTEE ON MINING AND QUARRYING
OF THE COMMITTEE ON HOLMES HERO MEDALS

Five persons have been carefully considered for the award of the Joseph A. Holmes Medal and Diploma. Four of these were not considered eligible. The fifth, William Culp, who lost his life on June 15, 1924, at the bottom of a salt shaft, 600 feet below the surface, in the Detroit Shaft of the Detroit Rock Salt Company, Michigan, while trying to rescue William A. Stoneberger, is recommended for the award.

Signed J. W. PAUL

Signed R. R. SAYERS

EXHIBIT "A"

STATUS OF CHAPTERS

JOSEPH A. HOLMES SAFETY ASSOCIATION

Butte Safety Chapter #1, Butte, Montana, has not been holding their meetings lately on account of the depression in the copper mining in the Butte district. It is nevertheless an active chapter with its dues paid up until March 1, 1925.

Newcastle Safety Chapter #2, New Castle, Alabama.- This is a well organized chapter. It is holding meetings regularly; has its own club house, and is doing splendid safety work. Dues paid to June 1, 1924.

Dante #1 Safety Chapter #3, and Dante #2 Safety Chapter #4, Dante, Virginia, are organized at the Dante mines of the Clinchfield Coal Corporation. These chapters have both been lately reorganized, and are holding meetings regularly. Dues paid to March 1, 1923.

Wilder #1 Safety Chapter #5, Wilder, Virginia, - was organized at the Wilder No. 1 mine of the Clinchfield Coal Corporation. This chapter has been reorganized as safety chapter No. 101.

Empire Mines Safety Chapter #6, , Grass Valley, Calif.- This chapter is in splendid condition - holds meetings regularly. Dues paid to March 1, 1925.

Leona Mines Safety Chapter #7, Leona Mines, Virginia. - Last letter from chapter dated July 20, 1923. Dues paid to March 1, 1923.

Cokedale Safety Chapter #8, Cokedale, Colorado.- This chapter is well organized, but officials decided to abandon holding meetings for a while. This chapter will probably resume holding meetings regularly in the near future. This chapter could be made very active with a little help from the Bureau. Dues paid to June 1, 1923.

South Fork Safety Chapter #9, South Fork, Pennsylvania.- On account of the depression in coal industry this chapter has become inactive. Messrs. Davis and Graham, president and secretary-treasurer, respectively, are both interested in safety, and will follow a lead made by the Bureau in reorganizing the chapter. Dues paid to March 1, 1923.

Desloge Safety Chapter #10, Desloge, Missouri.- This chapter has not been active for sometime, but can be revived. It is in the lead belt in southeastern Missouri. On account of recent developments, this section offers an opportunity for organizing a group of chapters. If the Bureau of Mines car ban be sent to this field there is a likelihood that the entire district can be organized for safety along the Joseph A. Holmes Safety Chapter plan. Dues paid to March 1, 1923.

- Lilly-Cassandra Safety Chapter #11, Lilly, Pennsylvania.-

This chapter has been inactive for sometime, but can be revived when the Bureau is able to give it attention. Messrs. Clinemeyer and Lees, president and secretary-treasurer of this chapter are both good safety men, but can not accomplish much unless they secure frequent visits from outside men. Ralph Moore, secretary of the C.A. Hughes Coal Mining Company is a splendid safety man, and will no doubt assist in reorganizing this chapter. Dues paid to March 1, 1923.

Frugality Safety Chapter #12, Frugality, Pennsylvania. -

This chapter is inactive. The mines have closed down in this district, and all of the officials of the chapter have moved away. except Mr. Summers, secretary-treasurer. H.L. Bennix is superintendent of the Eastern Bituminous Coal Mining Company, which is the largest operation in the district. This chapter can be revived when the mines again resume operation. Dues paid to March 1, 1923.

Fallen Timber Safety Chapter #13, Fallen Timber, Penna.-

This chapter is inactive. During the coal depression nearly all the members offthe chapter left town. Mr. Lamb, secretary-treasurer is still in the district, and is willing to do his part to help revive the chapter, and H.G.Gill will probably be willing to serve as educational director, and W.S. Kuhn as safety director. J.L. Bathgate, superintendent of the Fallen Timber mine, will be glad to assist in reorganizing this chapter. Coalport is near enough so that the men from both Fallen Timber and Frugality

could attend important meetings of the chapter at Coalport. Dues paid to March 1, 1923.

Blandburg Safety Chapter #14, Blandburg, Pennsylvania.- This chapter has gone on the rocks. Jerry Hanagan, secretary-treasurer, is working in the brick yard, and the interest in the chapter has died out. Bob Smith is certainly a live wire in the district. The Blandburg Community Association, with H.F. Catherman, general secretary, is doing fairly good work, and a strong Holmes Safety Chapter would be of value to the community. This chapter can be reorganized when the Bureau of Mines can send into the district to revive interest and give training. Dues paid to March 1,1923.

Coalport Safety Chapter #15, Coalport, Pennsylvania.- This chapter is well organized, with good men as officials. The real live wire is Jack Ord. During the winter of 1923-24 this chapter maintained a class in vocational education. W. Cecil Davis, superintendent of schools, is educational director, and a live wire. This chapter is active. Dues paid to March 1, 1923.

Pierce Safety Chapter #16, Pierce, Florida.- This chapter is in splendid condition, holds meetings regularly, and maintains a club house. This chapter has lately made a request to the Executive Council to allow them to change the constitution to provide for both a secretary and a treasurer. Dues paid to June 1, 1923.

Madera Safety Chapter #17, Madera, Pennsylvania.- This chapter is holding meetings regularly. They have installed a radio outfit, and have several teams trained in first aid. Dues paid to September 1, 1924.

Smoke Run Safety Chapter #18, Smoke Run, Pennsylvania.- This chapter is inactive on account of some of the officials leaving town. John Kost, secretary-treasurer, is interested in chapter work. Walter Williams and P.J. Petrovich, are also interested, and if the chapter can be given some assistance from headquarters it can be revived.

Mark Simmons Safety Chapter #19, Munson, Pennsylvania.- This Chapter is inactive. Dues paid to March 1, 1923.

Lawrenceville Safety Chapter #20, Lawrenceville, Illinois.- This chapter is organized at the Indian Refinery, and F.R. Severns is the leader. A year ago this chapter was very active, but lately has not been holding meetings regularly. It is expected that the chapter will be active during the present winter. Dues paid to March 1, 1924.

Bicknell Safety Chapter #21, Bicknell, Indiana.- Jack Ogilvie is the live wire and is in charge of the mine rescue station of the Knox County Coal Operators Association. This chapter is reported to be active, but reports are not received regularly. Dues paid to March 1, 1923.

Brewster Safety Chapter #22, Brewster, Polk Co.,Florida.- This chapter has been very active, but have not lately been reporting their meetings. Dues paid to March 1, 1923.

Elk Safety Chapter #23, Palmer, Washington.- This chapter is active and holds meetings occasionally. They are nevertheless dilatory in sending in reports and answering correspondence. Dues paid to March 1, 1924.

Sullivan Safety Chapter #24, Sullivan, Indiana. This chapter has been very active in the past, and was represented at the Princeton first-aid meet held this year. The chapter has been a little dilatory in sending in reports of their meetings, and answering correspondence. Dues paid to September 1, 1924.

Clinton Safety Chapter #25, Clinton, Indiana.- This chapter is well organized and holds meetings occasionally. They are dilatory in answering correspondence. Chapter was represented at the Princeton, Indiana first-aid meet. Dues paid to June 1,1923.

Chief & Squaw Safety Chapter #26, St.Charles, Michigan.- This chapter has become inactive, largely on account of internal difficulties, The chapter can be revived when the Bureau of Mines car can visit the district.

Bay City Safety Chapter #27, Bay City, Michigan.- This chapter is in splendid condition and holds meetings occasionally, although they have been dilatory lately in answering correspondence and sending in reports. Dues paid to March 1, 1923.

Scranton Safety Chapter #28, Scranton, North Dakota.- This chapter has been active in the past, although it has received very little attention from the Bureau of Mines. Benjamin H. Corneleis, secretary-treasurer, is answering correspondence and reporting meetings. There has been no letters received from this chapter since July,1924. Dues paid to September 1, 1923.

Saginaw Safety Chapter #29, Saginaw, Michigan.- This has been an active chapter holding meetings regularly. Dues paid to March 1, 1924.

Wm. A. Hazard Safety Chapter #30, Cuylerville,N.Y.- This chapter is active, holding meetings regularly. Dues paid to March 1, 1924.

Jasonville Safety Chapter #31, Jasonville, Indiana.- This chapter has been quite active and was represented at the Princeton first-aid meet. The chapter is dilatory lately in answering correspondence and sending reports of meetings. Dues paid to June 1,1923.

Dugger Safety Chapter #32, Dugger, Indiana.- No reports or correspondence has been received from this chapter since 1923. Dues paid to March 1, 1923.

H.S. Matthews Safety Chapter #33, Dayton, Tennessee.- This chapter was organized at the property of the Cumberland Coal & Coke Company. The mines have not been working regularly and all officials of the chapter have left town. This chapter can be again reorganized when the company starts operations. Dues paid to March 1, 1923.

Noonan Safety Chapter #34, Noonan, North Dakota, No reports or correspondence has been received from this chapter since it was organized. Therefore, the chapter is probably dead. Dues paid to June 1, 1923.

Garrison Safety Chapter #35, Garrison, North Dakota. No correspondence has been received from this chapter since it was organized, and it is therefore probably dead. Dues paid to June 1, 1923.

Gillespie Safety Chapter #36, Gillespie, Illinois.- This is an active chapter doing splendid work. They hold meetings regularly. On Labor Day, 1924, this chapter put on a first-aid meet which was well attended. Dues paid to September 1, 1924.

Anaconda Safety Chapter #37, Anaconda, Montana.- On account of the slump in the copper market this chapter has not been holding meetings, although their chapter is active. Dues paid to December 1, 1923.

Hymera Safety Chapter #38, Hymera, Indiana.- This chapter is active and holding meetings regularly. Its meetings were suspended during the summer, 1924, but they expect to start again this fall. Dues paid to September 1, 1924.

Bismarck Safety Chapter #39, Bismarck, North Dakota. No correspondence from this chapter since it was organized, and it is probably dead. Dues paid to March 1, 1923.

Vermillion Safety Chapter #40, Danville, Illinois. No correspondence from this chapter for sometime, but it is believed that the chapter will be revived this fall. Dues paid to June 1, 1923.

Hurst-Bush Safety Chapter #41, Hurst, Illinois.- This chapter has not been active for about a year, but interest is shown by the officials, and the chapter will probably become active again this fall. Dues paid to June 1, 1923.

Lumberport Safety Chapter #42, Lumberport, West Virginia.- This chapter has not been holding meetings lately on account of the mines being closed down, but it can be revived by visit from Bureau of Mines men. Dues paid to March 1, 1923.

Zap Safety Chapter #43, Zap, North Dakota.- No reports of correspondence from this chapter since organized. Chapter is dead. Dues paid to March 1, 1923.

Parrish Safety Chapter #44, Parrish, Alabama.- This chapter holds meetings regularly and is doing splendid safety work. Dues paid to June 1, 1924.

Blue Gem Safety Chapter #45, Newcomb, Tennessee.- This chapter was organized at the operations of the Italian Blue Gem Coal Company, which is now practically closed down. The chapter, therefore, is inactive, but can be revived when the company again resumes operations. Dues paid to March 1, 1923.

Donk Bros. Safety Chapter #46, Maryville, Illinois.- This chapter was active for a short time after it was organized, but has not been holding meetings. A letter from Paul Donovan, secretary-treasurer, dated February 11, 1924, blames the inactivity of the chapter on the coal company. He says that the chapter started with a membership of 46, and the company agreed to

provide a place for the chapter to meet. They held meetings in the city hall with the understanding that the rent should be free, provided the fuel and janitor service was paid. The company promised to look after the payments of this expense, but never did so. The men became dissatisfied and drifted away from the chapter. The chapter is now inactive. Considerable interest was shown by the men of this chapter and it may be that the chapter cam be revived. Dues paid to December 1,1923.

Black Diamond Safety Chapter #47, Coal Creek, Tennessee.- This chapter was organized at the Black Diamond Coal Co. The mines are closed down and the officials of the chapter have scattered. W.R. Peck is the only one left. He is mamager of the mine, so that when the mine again resumes operation there is a good chance to revive this chapter. Dues paid to June 1,1923.

Red Granite & Lohrville Safety Chapter #48,Lohrville,Wisc.- This chapter is active although very little attention has been received from the Bureau men. This chapter natained its organization and held meetings until this fall. They bought a radio set to listen to Bureau of Mines radiocast programs from station KDKA. Dues paid to December 1, 1924.

Collinsville Safety Chapter #48,Collinsville,Illinois.- This chapter is active and holds meetings regularly.The last report was dated May 1,1924. On account of slack work during the summer the meetings were discontinued, but this chapter has good officials and there is reason to expect that it will be active this winter. Dues paid to December 1, 1924.

David Ingle Safety Chapter #50, Winslow, Indiana. - This chapter is active. The last report was received on August 11, 1924. They have a radio set and listen to Bureau of Mines radio talks.from station KDKA. Dues paid to September 1, 1924.

Elizabeth Safety Chapter #51, Elizabeth, Pennsylvania. - This chapter is active and holds meetings occasionally. They have a radio set and listen to talks by the Bureau of Mines from station KDKA. Dues paid to September 1, 1923.

Boothton Safety Chapter #52, Boothton, Alabama. - This chapter has lately been revived and is now holding meetings regularly. Dues paid to June 1, 1923.

Bellingham Safety Chapter #53, Bellingham, Washington. - This chapter is very active, and reports are received regularly. Dues paid to December 1, 1924.

Hocking Valley Safety Chapter #54, Nelsonville, Ohio. - No correspondence has been received from this chapter lately. Chapter probably inactive. Dues paid to June 1, 1923.

Burnett Safety Chapter #55, Burnett, Washington. - This chapter holds meetings regularly, and is doing splendid safety work. Dues paid to June 1, 1923.

Carbonado Safety Chapter #56, Carbonado, Washington. - This chapter holds meetings regularly and is doing splendid safety work. Dues paid to December 1, 1924.

Pocahontas Safety Chapter #57, Pocahontas, Illinois.. - No reports have been received from this chapter lately. On aaccount of the coal depression during the summer the chapter was inactive. It is expected that this chapter will be active this fall. Dues paid to June 1, 1923.

Caseyville Safety Chapter #58, Caseyville, Illinois. -This has been a very active chapter in the past, but meetings were suspended during the summer. It is expected that the chapter will resume meetings this fall. Dues paid to June 1, 1923.

Belleville Safety Chapter #59, Belleville, Illinois. - This has been a very active chapter in the past, but meetings were suspended during the summer. It is expected the chapter will be active this fall. Dues paid to June 1, 1924.

Davidson Safety Chapter #60, Davidson, Tennessee. - This chapter was organized at the mines of the Hiland Coal & Lumber Company. The mines are closed down indefinitely, and the chapter is dead. George Dooley is superintendent of the mine, and when operations are resumed the chapter can be reorganized. Dues paid to September 1, 1923.

Adena Safety Chapter #61, Adena, Ohio.-- The last report was received on July 28, 1923. No reports or replies to correspondence since. Dues paid to September 1, 1923.

West Terre Haute Safety Chapter #62, W.Terre Haute, Ind.- This chapter held meetings with much enthusiasm during the fall of 1923, but no reports have been received during 1924. Dues paid to September 1, 1923.

Barton Safety Chapter #63, Barton, Ohio.-Last report dated August 4, 1923. No reports or correspondence since then. Chapter classified as inactive, but can probably be revived. Dues paid to September 1, 1923.

Bayland Safety Chapter #64, Bayland, Ohio.- Last correspondence dated March 10, 1924. Chapter held meetings regularly but suspended meetings during the summer months. It is expected that this chapter will resume meetings this fall. Dues paid to September 1, 1923.

StauntonSafety Chapter #65, Staunton, Illinois.- This is an active chapter holding meetings regularly. Dues paid to December 1, 1924.

New Philadelphia Safety Chapter #66, New Philadelphia, O.- Last correspondence received November 6, 1923. No reports or correspondence received since. Dues paid to September 1, 1923.

New Athens & Lenzburg Safety Chapter #67, New Athens, Ill.- Last report received December 26,1923. The chapter was very active during the winter of 1923-24. No reports or correspondence received lately. Believe chapter can be revived. Dues paid to November 1, 1923.

Canton Safety Chapter #68,Canton, Ohio.- On account of the mines closing down, all of the officials of this chapter have left the city, and chapter is dead. Dues paid to September 1, 1923.

Freeburg Safety Chapter #69,Freeburg, Illinois.- Chapter holds meetings regularly. Last report dated July 24, 1924. Meetings were suspended during the summer months with the

intention of resuming meetings this fall. Dues paid to September, 1, 1924.

New Castle Safety Chapter #70, New Castle,Washington.- This chapter has been holding meetings regularly, and has been doing splendid safety work. Dues paid to December 1, 1924.

Lisbon Safety Chapter #71, Lisbon, Ohio.- This chapter has been holding meetings regularly. Last report received September 24, 1924. Dues paid to September 1, 1924.

D.C. Botting Safety Chapter #72, Black Diamond,Washington.- This chapter holds meetings regularly, and is doing splendid safety work. Last report dated October 11, 1924. Dues paid to December 1, 1923.

Linton Safety Chapter #73, Linton, Indiana.- This chapter is holding meetings occasionally and is active. Dues paid to December 1, 1924.

Fork Ridge Safety Chapter #74, Fork Ridge,Tennessee.- This chapter is organized at the mines of the Fork Ridge Coal Company. The mines have closed down indefinitely, and all officials of the chapter have gone. The chapter therefore is dead. John Lewis is superintendent of the mine, and it will probably be easy to revive the chapter when the company again resumes operation. Dues paid to December 1, 1923.

Amsterdam Safety Chapter #75, Amsterdam, Ohio.- This chapter held meetings regularly until the spring of 1924. No reports or correspondence has been received lately. Dues paid to March 1,1924.

Tilden Safety Chapter #76, Tilden, Illinois.- This chapter was active until the spring of 1924, but no correspondence or reports have been received lately. Dues paid to September 1,1924.

Cotula Safety Chapter #77, Cotula, Tennessee.-This chapter was organized at the mines of the Wynn Coal Company. Operation of these mines have been reduced, and nearly all the chapter officials have moved away. This chapter is now dead, but can be revived when the mines again become active. Dues paid to June 1,1924.

Carlinville Safety Chapter #78, Carlinville, Illinois.-This chapter was very active until the spring of 1924, but no reports or correspondence has been received lately. The chapter will probably resume meeting this fall. Dues paid to December 1, 1923.

Coulterville Safety Chapter #79, Coulterville, Illinois.- This chapter was active until the spring of 1924, but no correspondence has been received lately. The chapter will probably resume meeting this fall. Dues paid to June 1, 1924.

Capitol City Safety Chapter #80, Springfield, Illinois.- James Clusker, secretary-treasurer, is the live wire in this chapter. It is doing splendid work and holding meetings regularly. Dues paid to September 1, 1924.

Stanacola Safety Chapter #81, N.Baton Rouge, Louisiana.- This chapter is at the Standard Oil Companys Refinery, and is a splendid chapter. Dr. Adams, medical director at the refinery, Roy Cooke, safety engineer, and Mr. Clark, mechanical superintendent, are behind the chapter. Dues paid to June 1, 1924.

Mt. Olive Safety Chapter #82, Mt. Olive, Illinois. - Chapter holds meetings occasionally and is doing splendid safety work, Emil Blumenroth, president, is the live wire in this chapter. Dues paid to September 1, 1924.

Madrid Safety Chapter #83, Madrid, New Mexico.- The chapter held meetings regularly during the early months of 1924, but neither reports or correspondence has been received from them lately. Dues paid to June 1, 1924.

Maher #6 Safety Chapter #84, Neffs, Ohio.- This chapter held meetings regularly until April 1924. Meetings were suspended during the summer months, but will be resumed this fall. Dues paid to June 1, 1924.

Buckeye Safety Chapter #85, Bellaire, Ohio.- This chapter meets regularly and is doing splendid safety work. They have fitted up the basement of the miners temple for a club room. Chester A. Lowe, safety director, is the live wire in the chapter. This chapter sponsored the Ohio State first-aid meet. Dues paid to September 1, 1924.

WordenSafety Chapter #86, Worden, Illinois.- This chapter is holding meetings regularly and is doing splendid work. Due paid to June 1, 1924.

Graysville Safety Chapter #87, Graysville, Tennessee.- This chapter was organized at the mines of the Durham Coal & Iron Co. The mines are closed down and the chapter is dead. J.E. Fields is superintendent of the mines. Dues paid to March 1, 1924.

Edwardsville Safety Chapter #88, Edwardsville, Illinois.- This chapter held meetings regularly until this spring. Meetings for the summer months were suspended, but believe the chapter will hold meetings regularly this winter. Dues paid to June 1,1924.

Wheeling & Lake Erie Safety Chapter #89, Neffs, Ohio.- This chapter held meetings regularly until this summer when meetings were suspended. If this chapter received some attention from the Bureau it will line up splendidly on meetings this winter. Dues paid to June 1, 1924.

Daenzar Safety Chapter #90, Glen Carbon, Illinois.- This chapter held meetings regularly for several months, but no reports or correspondence has been received from them lately. Dues paid to March 1, 1924.

Duquoin Safety Chapter #91, Duquoin, Illinois.- This chapter held meetings regularly until this summer. No reports or correspondence received lately. Chapter needs attention. Dues paid to June 1, 1924.

Kathleen Safety Chapter #92, Dowell, Illinois.- This chapter held meetings regularly at first, but there has been no correspondence or reports received lately. This chapter needs attention. Dues paid to June 1, 1924.

Glencoe Safety Chapter #93, Glencoe, Ohio.- This chapter held meetings regularly at the first, but no reports or correspondence has been received lately. This chapter needs attention. Dues paid to June 1, 1924.

Carterville Safety Chapter #94, Carterville, Illinois. - No reports or correspondence has been received from this chapter since organization. It needs attention. No dues paid since organized May 8, 1924.

Senecaville Safety Chapter #95, Senecaville, Ohio.- No reports or correspondence since chapter was organized. Chapter needs attention. Dues paid to September 1, 1924.

Cambridge Safety Chapter #96, Cambridge, Ohio. -This chapter has been holding meetings regularly and is doing good work. Dues paid to March 1, 1925.

West Frankfort Safety Chapter #97, W. Frankfort, Illinois.- This chapter has been holding meetings regularly, and is doing good work. Dues paid to September 1, 1924.

Star Safety Chapter #98, Clincho, Virginia.- This is one of the new chapters organized at the Clinchfield Coal Corporation. It is holding meetings regularly and is doing splendid work. Dues paid to September 1, 1924.

Moss Safety Chapter #99, Clincho, Virginia.- This is one of the chapters organized at the Clinchfield Coal Corporation. It is holding meetings regularly and is doing splendid work. Dues paid to December 1, 1924.

Wilder #2 Safety Chapter #100, Wilder, Virginia.- This is one of the chapters organized at the Clinchfield Coal Corporation. It is holding meetings regularly and doing splendid work. Dues paid to September 1, 1924.

Wilder #1 Safety Chapter #101, Wilder, Virginia.- This is reorganized chapter #5 at the Wilder mine of the Clinchfield Coal Corporation. This chapter is now holding meetings regularly. Dues paid to September 1, 1924.

Beltona Safety Chapter #102, Beltona, Alabama.- Holding meetings regularly. Dues paid to September 1, 1924.

Altoona Safety Chapter #103, Altoona,Alabama.- Holding meetings regularly. Dues paid to September 1, 1924.

Acmar Safety Chapter #104, Acmar,Alabama.- Holding meetings regularly. Dues paid to December 1, 1924.

Empire Safety Chapter #105, Empire, Alabama.- Chapter organized at the DeBardelebenCoal Company. Holding meetings regularly. Dues paid to September 1, 1924.

Irondale Safety Chapter #106, Irondale, Alabama.- Holding meetings regularly. Dues paid to December 1, 1924.

Zeigler Safety Chapter #107, Zeigler, Illinois.- Holding meetings regularly. Dues paid to September 1, 1924.

ActonSafety Chapter #108, Acton,Alabama.- Holding meetings regularly. Dues paid to September 1, 1924.

Overton Mines Safety Chapter #109, Irondale, Alabama.- Holding meetings regularly. Dues paid to December 1, 1924.

Bucknell Safety Chapter #110, Bucknell, Iowa.-Chapter organized August 8,1924. Holding meetings regularly. Dues paid to September 1, 1925.

Majestic Safety Chapter #111, Majestic Mines, Haig, Alabama. This chapter holding meetings regularly.Dues paid to December 1, 1924.

Acmar Safety Chapter #112, Acmar, Alabama.- Holding meetings regularly. Dues paid to December 1, 1924.

Margaret Safety Chapter #113, Margaret, Alabama.- This chapter is holding meetings regularly. Dues paid to December 1, 1924.

Margaret Safety Chapter #114, Margaret, Alabama.- This chapter is holding meetings regularly. Dues paid to December 1, 1924.

Shannon Safety Chapter #115, Shannon, Alabama. - This chapter is holding meetings regularly. Dues paid to September 1, 1924.

Winona Safety Chapter #116, Gorgas, Alabama.- This chapter is holding meetings regularly. Dues paid to September 1, 1924.

Townley Safety Chapter #117, Townley, Alabama.- This chapter is holding meetings regularly. Dues paid to September 1, 1924.

Carbon Hill Safety Chapter #118, Carbon Hill, Alabama.- The chapter meets regularly. Dues paid to September 1, 1924.

ActonSafety Chapter #119, Acton, Alabama.- This chapter is holding meetings regularly. Dues paid to September 1,1924.

Happy Safety Chapter #120, Happy, Kentucky.- This chapter is holding meetings regularly. Dues paid to September 1,1924.

Final Report of
C.Lorimer Colburn
Director,Joseph A.Holmes Safety Chapters.

To the

Council of the Joseph A. Holmes Safety Association:

C.L.Colburn, who was made Director of the Joseph A.Holmes Safety Chapters at the annual meeting of the Council on March 5, 1924, and whose resignation from the staff of the U.S.Bureau of Mines took effect on October 31,1924, was by virtue of this resignation relieved of all of the duties of the Joseph A. Holmes Safety Chapters on the same date. This is his final report covering the period from March 1,to October 31, 1924.

On October 31, 1924, there were 120 chapters enrolled in the Joseph A. Holmes Safety Association. Exhibit "A" attached hereto which gives the status of every chapter on October 31. Seventy seven of these chapters are well organized. They hold meetings regularly, and do splendid safety work in their community. Thirty chapters need attention; they are losing interest but can be made active if attention can be given them by representatives of the Bureau of Mines. One chapter which became inactive was reorganized, the men preferred to cancel their old charter and take out a new one. Twelve chapters are practically dead. The cause for the demise of these chapters is due to the

mines closing down rather than to a lack of interest on the part of the men. The experience of the Joseph A. Holmes Safety Chapter movement to date shows that the men in the industry will line up on safety work and give splendid support to a safety chapter, provided there is the right kind of leadership.

On March 1, 1924, there were 88 chapters - 44 active, 32 losing interest, and twelve inactive. The number of active chapters have been almost doubled, while those needing attention and those inactive have remained about the same.

FINANCIAL STATEMENT

Receipts

March 1,1924 Balance	$474.25
March 5,1924 Donation from Council	400.00
Dues received between Mar.10, and Oct.31	375.70
Charter fees from 32 chapters	320.00
Sale of lapel buttons	2.00
Total	$1571.95

Disbursements

Postage	$ 31.25
Account books	7.45
Data sheets	53.41
Mailing list	7.50
Printed matter	297.10
Balance on hand	1175.24
Total	$1571.95

Amount on deposit in Oakland Savings and Trust Bank - Petty Cash Account	$ 161.65
Credit to chapters on deposit with Treasurer-Washington Loan & Tr. Co.	1013.59
	$1175.24

ACTIVITY OF THE DIRECTOR OF CHAPTERS
DURING PERIOD FROM MARCH 1, 1924 to
OCTOBER 31,1924.

On account of the lack of funds with which to travel, it was necessary for the Director to spend nearly all of his time from March until May at headquarters. During this period he carried on an intensive campaign of correspondence with different chapter officials, and wrote pamphlets for the use of chapter officials. These pamphlets were printed Lefax size and distributed to the chapter officials and field employees of the Bureau of Mines. Exhibit "B" gives a list of these folders, which are listed as follows:

1. Suggestions for field men of the Safety Service Division, U.S. Bureau of Mines, for organizing Joseph A. Holmes Safety Chapters - Parker and Colburn.
2. Suggested activities for Joseph A.Holmes Safety Chapters.
3. The Joseph A.Holmes Safety Association - What is it?
4. Dr. Joseph Austin Holmes - A Biographical note.
5. Memorial Tablet to Dr. Joseph Austin Holmes.
6. Joseph A.Holmes Safety Chapter plan.
7. Directory of the Joseph A.Holmes Safety Chapters.

Revised forms were prepared for use of the chapters, Exhibit "C" gives a list of these forms, which are listed as follows:

1. Application blanks.
2. Report of the election of officers.
3. Bill heads - or statements.
4. Addressed envelopes to -"Secretary,Joseph A.Holmes Safety Chapters.

In May the Director started on a trip that took him during June and July to the chapters in the South and Southwest. This trip resulted in reorganization of the chapters in Virginia;

six of them at the present time are active and are doing splendid safety work; and the organization of a local council for chapters in Alabama. Fifteen new chapters were organized in Alabama, making a total of 18 chapters which are now active, holding meetings every month and carrying on a splendid safety campaign. He visited the Mid-Continental petroleum field, and presented to the safety men in charge of the petroleum safety work a plan for organizing Holmes Safety Chapters. Although the plan has not yet been fully consumated, there is every reason to believe that a petroleum safety council for the Mid-Continental field will shortly be organized, and will take the responsibility for organizing and developing chapters throughout this field. He visited many of the chapters in Illinois and organized a council headed by Martin Bolt, Chief of the Illinois Department of Mines, to get behind the Illinois chapters and keep them active and aggressive. He also visited some of the chapters in Indiana and Ohio.

The Director of Safety Chapters complied with instructions of the Council at the meeting on March 5, 1924, at which approval was given to the several recommendations made by the Assistant Secretary. The first recommendation was that the Holmes Safety Chppter Notes be published in printed form. The Council authorized the committee on safety chapters to proceed with the printing of the notes as soon as the finances of the chapters were in such

shape that it would be practical to comply with this recommendation. Definite recommendations have been made to the committee on safety chapters for printing the Holmes Safety Chapter Notes.

The recommendation that membership cards be adopted and issued to the members of the local chapters was also referred to the committee on safety chapters by the Council. Definite recommendation has been made to the committee regarding the printing of membership cards.

The recommendation that an annual convemtion of Holmes Safety Chapters be held in conjunction with the International First Aid and Mine Rescue meet has not been carried out, because there has been no such meet since the adoption of that recommendation. The chapters have nevertheless been quite active in first-aid contests. The Indiana chapters were sponsors for the state wide meet held in Princeton, Indiana, June 28, 1924. The Washington chapters were sponsors for the state meet held at Carbonado, Washington, on August 9, 1924. The Buckeye Safety Chapter No. 85, Bellaire, Ohio, with the assistance of other Ohio chapters sponsored the Ohio first-aid meet at Bellaire. The Gillespie Safety Chapter No. 36, Gillespie, Illinois, with the assistance of nearby chapters sponsored a first-aid meet for Illinois. The Alabama chapters co-operating with the Alabama Mining Institute held a first-aid meet for the State of Alabama in Birmingham, on October 9, 1924.

In conformity with action of the Council in authorizing the Director to open a petty cash account at a bank to be selected by himself in Pittsburgh, an account was opened in the Oakland Savings & Trust Bank. Acting under instructions from Thomas T. Read, Director Safety Service, U.S. Bureau of Mines, this account has been turned over to D.J. Parker, Chief Engineer, Mine Safety Service. The men assigned to the Holmes Safety Chapter work by the Bureau of Mines are in Mr. Parkers division. This petty cash account in Pittsburgh has been of great convenience in that the bills contracted for chapter account are promptly paid. Dues received from the chapters are deposited in Pittsburgh, this relieving the Secretary of a large amount of bookkeeping. Appropriate statements are sent to him nevertheless monthly.

RECOMMENDATIONS

In leaving the service of the Bureau of Mines, as well as the Directorship of the Holmes Safety Chapters, I wish to make the following recommendations:

1. That the Government through the Bureau of Mines give more support to the chapter work. At the present time the work is carried on by men employed in the safety service division of the Bureau who have numerous other duties to preform in addition to the chapter work. I believe that steps should be taken to have appropriations made directly by Congress for work of this kind.

I think that the members of the Council should support the Director of the Bureau of Mines in trying to get appropriations to expand and improve the Joseph A. Holmes Safety Chapter movement. Through the Bureau of Mines the Government has been carrying on extended safety work in the mining industry. This work has been fruitful, and has been the kind of work that the Government should carry on. The safety chapter movement is the logical outgrowth of the work of the Bureau, and it needs to be more generously supported by the Government. Through the chapters there is an opportunity to accomplish a great deal more for safety in mining than can be accomplished without the chapters. Instead of having 120 chapters we should have 2200 or more.

2. That the Director of the Bureau of Mines appoint an experienced safety engineer as Director of the Safety Chapters, and I hope he chooses a man who has initiative as well as vision and ability. The Director of the chapters should be a man who can spend a major portion of his time in the field, meeting with the chapters and making friendships with the leaders.

3. That the clerk in the Pittsburgh office be appointed "Secretary Joseph A. Holmes Safety Chapters". He has faithfully handled the clerical matters regarding the chapters and is

preforming all the duties of the above office. All correspondence from the chapters is now being addressed to the "Secretary, Joseph A. Holmes Safety Chapters, c/o U. S. Bureau of Mines, Pittsburgh, Pennsylvania."

Respectfully submitted,

C. L. Colburn.

Oct.20,1924.

The Officers and Members of the
Joseph A. Holmes Safety Chapters.

Gentlemen:

It is with deep regret that we lose the services of Mr. C.L. Colburn who has resigned to enter private practice as a consulting mining engineer. We wish him well in his new venture and feel that in him we have a staunch ally in the profession.

During the past three years the Joseph A. Holmes Safety Association has grown to be a powerful organization in the field of mine safety. We must keep up the good work. All the field men in the Safety Service Division of the Bureau will assist chapters whenever practical for them to do so.

I wish for the officers and members of the chapters to feel assured that the Bureau of Mines is with them in this safety work and will continue to copperate with them as in the past.

Please address all your communications to the secretary, Joseph A. Holmes Safety Chapters, c/o U.S. Bureau of Mines, Pittsburgh, Pennsylvania.

With kind regards, I am,

Yours for safety,

D.J. Parker,
Chief Engr.,Mine Safety Service,
U.S. Bureau of Mines.

JOSEPH A. HOLMES SAFETY CHAPTERS
c/o U. S. Bureau of Mines
4800 Forbes St.,Pittsburgh,Pa.
C.L. Colburn,Director.
October 20, 1924.

To the Officials and Members,

Joseph A. Holmes Safety Chapters.

Gentlemen:

I am leaving the staff of the U. S. Bureau of Mines to engage in the consulting mining engineering business with headquarters at Denver, Colorado. This resignation from the staff of the Bureau of Mines necessitates my resigning also from the Directorship of the Joseph A. Holmes Safety Chapters. It is with reluctance that I give up this safety service work, for in my opinion it is one of the greatest services that can be rendered to mankind. This resignation does not lessen my interest in the Joseph A. Holmes Safety Association. I expect in the future to give much time to the safety movement.

During the past five years while a member of the staff of the Bureau of Mines, I became acquainted with many broad-minded industrious miners who are safety men. I prize this acquaintance highly and hope that my association with the safety men throughout the country will become stronger in the future. I hope that in my new position I will become better able to serve the industry and the safety movement that is of so much importance to the men in the industry.

Very truly yours,

C.L. Colburn.

Secretary, Joseph A. Holmes Safety Chapters

c/o U. S. BUREAU OF MINES

4800 Forbes Street,

Pittsburgh, Pa.

SUGGESTIONS FOR FIELD MEN SAFETY SERVICE DIVISION, U. S. BUREAU OF MINES, FOR ORGANIZING JOSEPH A. HOLMES SAFETY CHAPTERS.

By D. J. Parker and C. L. Colburn.

The field men of the Safety Service Division are expected to give their fullest support to the chapter movement of the Joseph A. Holmes Safety Association. It is as important to keep men trained in first aid as it is to train them. Through the chapter work the first-aid training can be truly made the first step in safety, the chapters giving the individual miner an opportunity to develop further in all lines of safety. All of the engineers, assistant engineers, foreman miners, and first-aid miners should be thinking and working towards the eventual establishment of successful chapters, and they should lose no opportunity to visit a chapter and give it support and encouragement.

Chapters of the Joseph A. Holmes Safety Association should be organized in every mining community, or at every mine that can profit by such an organization. Before a chapter is organized the field man should satisfy himself that there is enthusiasm on the part of the workmen and strong backing on the part of the company. A chapter should not be organized until the company officials have approved it.

In mining communities that are isolated, a Joseph A. Holmes safety chapter can become the main social, educational, and recreational club of the community, and through it safety can be kept before the men when at work, at play, and at home. The chapter can be a community benefactor as well as the chief advocate of safety in mines. In the larger communities the Joseph A. Holmes safety chapter will have to confine itself to being a safety club for those men at the mines, and its activities will be limited largely to the holding of safety rallies, educational classes, a few socials, and the promotion of first aid and mine rescue.

Chapters should be organized following a course in first aid. First-aid training should always constitute one of the main activities of a chapter, but do not let the chapters work first aid to death. In organizing a chapter, be sure to see that it is formed so as to take advantage of local conditions; let the chapter adapt itself thoroughly to the surroundings. Use tact in making suggestions to the chapter, and in helping it select officials. Great care should be exercised in the choice of the first officials, in order to get men of ability to undertake the work. Talk over the matter of officials beforehand with the men and with the operator, so that the best men will be nominated.

After the officials are chosen, have a conference with each of them, taking up the bigness of the work, and encourage him to put forth his best effort. After you leave the community, write letters occasionally to the officials or direct to the chapter, encouraging it in the great cause of safety. The chapter secretary could read your letter at one of the chapter meetings. Always keep up a personal touch with the chapter, and never lose an opportunity to pay it a visit when you are close enough to do so.

Do not promise too much assistance from headquarters. It is far better to let the chapter officials understand that it is up to them to keep the chapter going and to keep it prosperous. The assistance from headquarters is just that much extra. You can count on the **Holmes Safety Chapter Notes** being distributed promptly at the first of each month; that all letters written to headquarters will be answered promptly; and that the chapters will be kept supplied with all printed matter published by headquarters, and will be notified of the publications of the Bureau of Mines that may be interesting to them. Headquarters will also arrange for Bureau motion pictures to be sent to chapters. Occasionally we will manage to send a representative from headquarters to visit the chapter, and the chapter will be encouraged to take its place among all the rest of the chapters at annual conventions and similar gatherings.

The life of the chapter depends upon local initiative, and if that local initiative is properly lined up, the chapter should live. The company should be willing to subscribe liberally to the chapter because it develops the safety spirit of the men; it increases their morale; it promotes efficiency in operation; and creates a spirit of good-feeling and mutual understanding which is desirable from every point of view.

The mining industry needs more Joseph A. Holmes safety chapters. They are a benefit to the operator, to the miner, and to the community. There is no organization at the present time engaged in this work except the Joseph A. Holmes Safety Association. The safety chapter plan is a splendid idea, and if it can receive the proper support and assistance, the safety chapters will maintain safety interest, and that interest will become greater from year to year as the number of chapters increases and as the membership increases.

The opportunity for accomplishment is great; the field for the extension of the Joseph A. Holmes safety chapters is ripe. To us who are in this organization there is a great responsibility. It is our work, and we are expected to carry it on and through it accomplish great good. To do so we must make our plans deliberately, and attack the problem with determination and aggression until we enlist the support of everyone connected with the mining industry.

SUGGESTED ACTIVITIES FOR JOSEPH A. HOLMES SAFETY CHAPTERS.

By C. Lorimer Colburn,
Director, Joseph A. Holmes Safety Chapters.

The Joseph A. Holmes safety chapters are organized to promote safety in the mining, metallurgical and petroleum industries. In order to do this the men themselves are being organized into chapters, and are given every opportunity to use their own initiative in developing safety thought and safety habits. The chapter officials should strive to get for members all of those men who are willing to work for safety. The chapter should not only conduct campaigns for membership, but also campaigns to improve safety conditions.

Chapters may be good, bad or indifferent, depending upon the interest, enthusiasm, and determination of its officials. If the officials are not easily discouraged, the chances are that the chapter will be a good one; but if the officials are lukewarm in their interest, and are not willing to put forth the effort necessary to overcome difficulties, the chances are that the chapter will be ineffective. The good chapter is good because it works. The members are enthusiastic because they are active. It is the duty of the officials to keep the membership of the chapter busy by finding work for them to do; there are plenty of things to do if they look around for them. There is no compliment that will please a man more than to be given a job that he can do well, and bring him recognition. Make your chapter a good chapter by keeping it busy.

First-aid training.

Chapters are organized following a course of first-aid instructions given by a Bureau of Mines safety

man. First-aid should always occupy a prominent place in the activities of the chapter; but do not work first aid to death. If the men begin to get stale on first aid, then leave out the training for awhile, but always come back to it, because first aid is the backbone of the chapter organization. Those men who have graduated in first aid should become instructors for new men. Teams should be organized and contests arranged between teams. Public first-aid demonstrations should be given. In putting on these demonstrations, try and have several men or several teams take part; do not make it a one-man affair. After a team has won a place at a first-aid meet, have a dinner or other celebration for the team. Encourage the men in first aid whenever there is an opportunity to do so.

Safety rallies.

Safety rallies should be held by the chapter whenever the conditions are right for them. As a rule, safety rallies are a series of public safety meetings at which several men make addresses on safety. The safety rally should be well advertised with placards and by personal notices. Sometimes it is possible to have a short safety meeting at the working place or at the change-house before the men go to work. The best safety rallies are those held in a hall where the meeting is addressed by a man who has a real safety message and knows how to put it over.

No-accident week.

The local chapter should be the moving spirit in the "no-accident week" campaign. A special committee should be appointed which should see that this week is properly advertised with safety posters, safety slogans, and such like. Mass meetings should be held at which prominent men, including the men themselves, can make speeches. The National Safety Council publishes a lot of good bulletins which can be used for the no-accident week campaign. If your mining company is a member of the Council, enough bulletins can be secured for your needs. In putting over a no-accident week campaign, special appeals should be made to every department for them to make a strenuous effort to go through the week without an accident. The Joseph A. Holmes safety chapter should work closely with the safety organization of the company in order to get the best results during this week.

Motion-picture safety films.

One of the best ways to interest the public is through motion picture films. The film tells its story, and gives its lesson without calling upon a person to put forth much effort in thought or study. Motion pictures are a great source of amusement. The chapters can profit by using motion-picture films at their public meetings. The Bureau of Mines has a number of educational films which can be secured for the asking, the only expense being the cost of shipping the film to and from the place of distribution. Under a cooperative arrangement with some of the leading American universities, the Bureau has arranged for them to distribute the films in their territory. This makes it possible for the local chapter to secure a film by paying only the expenses of a short haul, which makes the cost negligible.

Holmes Safety Chapter Notes.

There is published each month at Pittsburgh, Pennsylvania, the *Holmes Safety Chapter Notes*, which is a little journal giving news regarding the activities of the different chapters and suggestions for increasing chapter activities. Local officials are urged to send in promptly reports of their meetings and items of news for this paper. The *Holmes Safety Chapter Notes* keeps chapters acquainted with the work of the whole association. Each chapter should do its part in furnishing the material for this paper. A supply of *Holmes Safety Chapter Notes* is sent each month to the secretary of each chapter, who distributes them to the members of the chapter.

Study courses.

Through cooperation with the Federal Board of Vocational Education at Washington, D. C., the chapters can arrange to put on a practical course of study. Such a course will prove to be profitable for the men when it is properly organized.

Sports.

The chapters can profit by organizing athletic teams, such as bowling, basketball, etc., for winter sports; and track teams, baseball, etc., for summer. Of course it is necessary that there should be local facilities for such games.

Community safety.

The local chapter should always enter into any local activity bearing on safety that is of benefit to the community. If the Chamber of Commerce, the Civic Association, or any other local organization is putting on a safety campaign, by all means the local chapter of the Joseph A. Holmes Safety Association should co-operate. If there is a drive to obtain funds for building a playground, or for any other worthy cause that benefits safety, it is the duty of the local chapter to help.

Field meets, picnics, etc.

The chapter may find it advisable to arrange for a field day or a picnic each year. Sometimes the picnic and field meet can be staged as one affair. Field days, picnics, etc., are a benefit in giving an outing to those who attend, and besides help to interest the workmen and their families in safety.

General.

In addition to putting on public meetings for the benefit of everybody, the local chapter should arrange for one or two affairs that are primarily for its own members. These affairs should be planned so that practically all of the membership can attend. Only those members who are in good standing should be admitted. When a prominent man visits the community the chapter should have a dinner in his honor. The attendance should be limited to members, and the local officials of the company should be invited as guests. After the dinner there could be speechmaking and a general good time. Two or three of these affairs will create a desire on the part of the rest of the men to join the chapter. Make the chapter membership worth something.

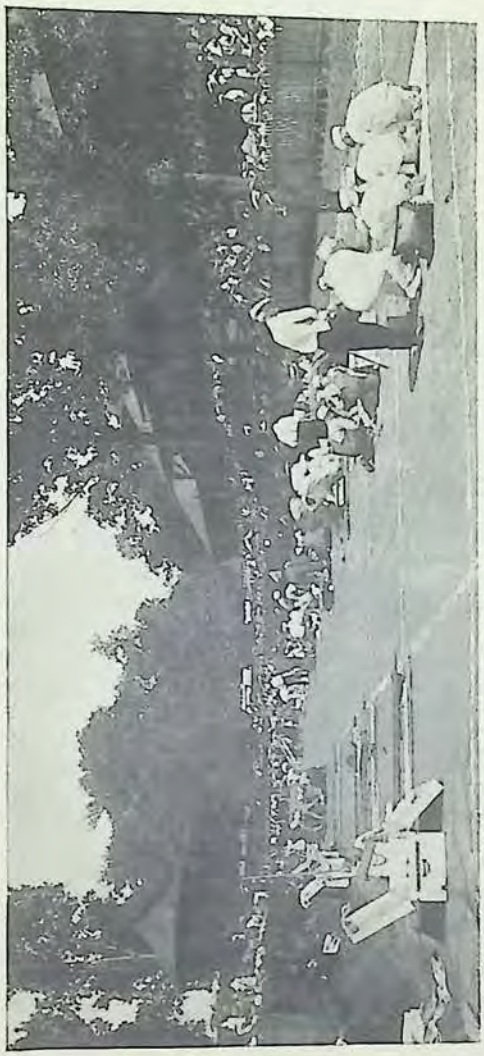
The above suggestions serve to give the chapter officers something to think about. The officers should expand these suggestions and develop more ideas that are adapted to their local needs.

The JOSEPH A. HOLMES SAFETY ASSOCIATION

What is it?

The Joseph A. Holmes Safety Association is a cooperative Association of national societies and organizations interested in safety in some branch of the mining industry. It is a memorial society for the perpetuation of the life-work and endeavors of Dr. Joseph Austin Holmes, who devoted his life to increase the safety and welfare of mining men.

The great service of Dr. Holmes to humanity is universally recognized. His death on July 12, 1915, left his work well begun, but only begun. Appreciating the great importance of his work, to better mining conditions and promote more friendly relations between operator and miner, in order to keep up this good work and perpetuate his efforts and memory, the American Institute of Mining and Metallurgical Engineers and the American Mining Congress, immediately after his death, appointed committees to give proper consideration to the subject. This movement resulted in invitations to all national organizations interested in safety in mining, metallurgy, petroleum, and other associated industries to appoint similar committees. As a result, the 24 national organizations jointly formed the Joseph A. Holmes Safety Association on March 4, 1916. The ruling body of the Association is a council consisting of representatives from member organizations.



Twenty thousand people were present at the Indiana First Aid Meet held at Princeton, Ind., Sat., June 28, 1924. This meet was sponsored by the Indiana Chapter of the Joseph A. Holmes Safety Association.

Joseph A. Holmes Safety Chapters.

As a part of the program to build safety into every part of the mining industry, the council on March 6, 1922, authorized the establishment of safety chapters to be formed among the men in the industry. The safety engineers and instructors on the staff of the U. S. Bureau of Mines were authorized and instructed to organize chapters wherever the conditions were found favorable for the support and continuance of the chapter. The council also provided that all money received from chapter fees and dues should be used for the benefit of the chapters, and they subscribed liberally from the general funds of the Association for the benefit of the chapters. The money received from the chapters and the amount subscribed by the council is kept in a separate fund, and used only for chapter account.

It is the desire that each chapter shall fully govern its own affairs and be free from outside dictation. Each chapter is placed on its own responsibility and must develop its own resources. The only requirement is that the chapter live and work in harmony with the purposes of the Association.

Need For Joseph A. Holmes Safety Chapters.

All well-informed safety engineers today realize that to gain the greatest results in safety it is necessary to secure the enthusiastic support of the worker. It is extremely difficult to force safety onto employees, yet a mining company is very often put in that position. The Joseph A. Holmes Safety Chapters by popularizing safety with the men, increases their morale and gains their

A class in vocational education discussing flame safety lamps. This class was organized by Coalport Safety Chapter No. 15, Coalport, Pa.

willing support for the safety policies of the company. It tunes the men up to the advancing safety thought of the times. This is accomplished by making safety a part of the men's recreation as well as a part of their work. Starting with the first-aid instruction of the Bureau of Mines it reaches every activity in which the men are interested.

The Bureau of Mines is carrying out the obligation placed upon it by Congress by fully cooperating with the safety chapter movement. The Joseph A. Holmes Safety Chapters are the natural outgrowth of the Bureau of Mines safety training, and admirably fit in as a part of the activity of the safety division. The chapters are organized by Bureau of Mines safety instructors, and contact is maintained by safety engineers, foremen miners, and first-aid miners. By maintaining close contact with the chapters it is possible for the Bureau of Mines and the mining industry to work in closer cooperation in advancing safety.

DR. JOSEPH AUSTIN HOLMES.

A BIOGRAPHICAL NOTE.

A man's greatness depends upon how his work benefits humanity. The best test of the value of a work is how it stands up under the stress of time. The late Dr. Joseph Austin Holmes initiated an activity in prevention of waste of life and resources that had enormous potential value. The mining industry now is beginning to appreciate his service. The Joseph A. Holmes Safety Association, which was organized to perpetuate the life work and the memory of this great humanitarian, is particularly interested in a biography of his life and achievements.

Dr. Holmes was a tall, alert, and active man. He was a student, and had the power to concentrate on his job. Born in the mineralized State of North Carolina, he early became interested in mineralogy, metallurgy, geology, and chemistry. He graduated at Cornell University in 1880, and while there gave special attention to studies in chemistry, especially the chemistry of explosives.

During his career he studied in foreign countries, as well as in many parts of the United States. While studying mining methods during those early student days, he developed a hobby which was the lessening of the sacrifice of life and lessening of the waste of resources.

From 1881 to 1891 he was professor of geology in University of North Carolina, and during that period examined many mines in a professional way. During the ten successive years he was State Geologist of North Carolina, and as such gave attention to an investigation of quarrying, metal mining, and metallurgical operations.

The late DR. JOSEPH A. HOLMES,
First Director of the Bureau of Mines.

In 1903 and 1904 he organized and had charge of the department of mines and metallurgy at the St. Louis World's Fair, and immediately thereafter entered the Federal Government service. His creed is summed up in the four words: "The Prevention of Waste."

It was in 1905 that Dr. Holmes was appointed chief of the Technological Branch of the U. S. Geological Survey. The year previous he had been a member of a committee appointed under authority of Congress to make an investigation of the economic use of fuel. He, in fact, had planned the work and labored for the law. The investigation continued under him, and produced facts, corroborated by another study made in 1923, to show the great and unnecessary waste in the methods of coal mining.

Dr. Holmes observed the increased death rate in coal mines, and in 1908 he secured support and started the investigation into the cause of mine accidents. The mining industry clamored for an enlargement of this work, which resulted in creating the U. S. Bureau of Mines in 1910. This Bureau took over the entire work of the Technological Branch of the U. S. Geological Survey, and Dr. Holmes was appointed director, which position he held until his death on July 12, 1915.

Dr. Holmes believed that coal dust was responsible for the big majority of mine explosions. In a steel tube erected at the Pittsburgh Experiment Station of the Bureau of Mines he demonstrated the explosibility of coal dust without the presence of gas. This demonstration did not convince the mining men of the real danger of coal dust. What happened in an experimental tube does not happen in a mine, some of the men said. Then Dr. Holmes secured a real coal mine near Pittsburgh, and proved beyond doubt that coal dust was the great destructive agent in all coal-mine explosions.

European operators and Government officials, as well as mining men from every part of this country, visited the Experimental Mine to inspect the work and to learn something new from this demonstration.

Dr Holmes organized the Explosives Section of the Bureau of Mines, and set it to work to devise for coal-mine operators, explosives that could be used with a reasonable degree of safety. This work culminated in the establishment by the Bureau of a permissible list of explosives for use in coal mines.

Dr. Holmes organized the Electrical Section of the Bureau of Mines for the investigation of suitable electrical machinery for the use in mining. This has resulted in the establishment of a list of permissible electric equipment, permissible safety lamps, etc.

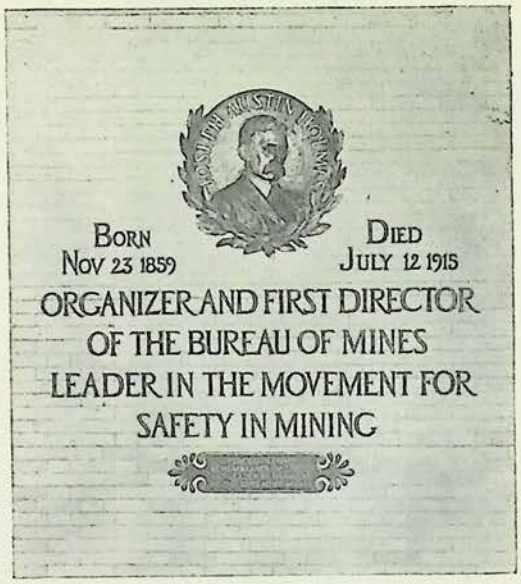
Prior to establishment of the Bureau of Mines, there was no definite system of rescue work in the coal mines in this country. There were three sets of oxygen breathing apparatus in the United States when the Bureau ordered one for its use. First aid to the injured did not amount to much, although it was partly developed at that time in the anthracite region of Pennsylvania. On assuming directorship of the Bureau, Dr. Holmes organized a small but highly experienced corps of rescue workers. The public is familiar with what this work has grown to be, also with the Bureau's improvements in breathing apparatus.

The training of volunteer mine rescue corps and the training of miners in first aid at all of the mining operations of the country has been the great outstanding work of the Bureau. The men in the industry all wanted to know the best method of saving life. This work has grown to such proportions that the men themselves have organized the Joseph A. Holmes Safety Chapters to expand and carry on this great work started by Dr. Holmes.

Dr. Holmes was an active worker during the early periods of the safety movement and his influence and enthusiasm helped other industries besides mining to start working for safety.

It was the many years of exacting labor and untiring dominating will that gave Dr. Holmes the influence and prestige that won from Congress the organization of the Bureau of Mines. It is fair, therefore, to credit Dr. Holmes with the creation of the Bureau of Mines, which will live as long as this Government shall exist.

The mining industry has directly benefited by the life of this great man and the whole world has been made better and happier because of the work he has done for safety.



THE
JOSEPH AUSTIN HOLMES
MEMORIAL TABLET
IN THE
ENTRANCE ROTUNDA,
BUREAU OF MINES EXPERIMENT STATION,
PITTSBURGH, PA.

Bureau of Mines Experiment Station, Pittsburgh, Pa.

Through the efforts of Dr. Holmes this building was provided by Congress and is in a sense a memorial to him. The Experimental Mine, also the idea of Dr. Holmes, is 14 miles distant.

The singleness of purpose and nobleness of character of Dr. Holmes were well stated by Mr. Wm. Howard Taft, former President of the United States, when he said:

"In the death of Dr. Joseph A. Holmes the country has lost a public servant of unusual character and of singular devotion to duty. We are often called upon to note the career of some public benefactor, but we do not often enough note the services of the devoted men who, with little compensation and little public fame, seek to advance the interest of their fellow-countrymen through services of the departments of the Federal Government at Washington. Dr. Holmes was one of the most distinguished and most serviceable of these. He devoted his whole time and thought to turning science to human and generous use."

Dr. Holmes had a vision of research laboratories and safety organizations worthy of the great industries they serve.

David W. Brunton paid the following tribute to Dr. Holmes:

"It would seem that by temperament, education, experience, and broad sympathies with the underground toilers of this country, Dr. Holmes was uniquely equipped for the Herculean task of simultaneously increasing both the efficiency and safety of such a diversified and widely scattered industry as mining. Unfortunately his physique was unequal to the tremendous strain his incessant labors imposed on it, and he fell a victim to his enthusiasm and devotion to the cause of humanity. Years hence, when the history of mining is written, its records will contain nothing of greater importance than the improvements in methods and equipment initiated by Doctor Holmes, whose brilliant administration as Director of the Bureau of Mines will always prove an inspiration to his successors."


JOSEPH AUSTIN HOLMES

THE JOSEPH A. HOLMES SAFETY ASSOCIATION PLAN.*

By C. Lorimer Colburn (formerly Director Joseph A. Holmes Safety Chapters)

This plan does not interfere with the present safety organization at any company. It is a joint movement whereby the various mining, metallurgical, and petroleum companies are cooperating in developing and maintaining safety interests. In order to understand the plan fully it is necessary to start at the beginning and explain the development of the Joseph A. Holmes Safety Association, what it is and how it functions.

JOSEPH A. HOLMES SAFETY ASSOCIATION.

The Joseph A. Holmes Safety Association was organized in 1916 by twenty-four of the leading technical societies and mining organizations of the country to perpetuate the life work and endeavor of Dr. Joseph A. Holmes. He gave his life in dveloping safety in the mining industry, and this association is devoted to perpetuating this work and bringing together and co-ordinating the work of all safety associations that are in any way concerned in the mining, metallurgical, petroleum, or quarrying industries. This organization was effected at meetings held at Washington, D. C., on January 15th and March 4th, 1916. The organizers of this association tied up the association very closely with the United States Bureau of Mines for two reasons:

First, because Dr. Holmes was the first director of the Bureau of Mines, and his life work centered largely in the development of mine safety research and mine safety service work of the Bureau.

Second, because it was the intention of the organizers to link closely the activity of the Joseph A. Holmes Safety Association with that of the Bureau of Mines. The Director of the Bureau of Mines, by the Constitution, was made the president of the Joseph A. Holmes Safety Association.

A council consisting of a delegate from each member organization is the ruling body of the association,

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*Paper read at conference of the Petroleum Section National Safety Council, Louisville, Kentucky, Oct. 1st, 1924.

with full power to act in all matters concerning the association.

ACTIVITIES OF THE JOSEPH A. HOLMES SAFETY ASSOCIATION.

The activities of the Joseph A. Holmes Safety Association can be divided into three sections, as follows:

First, the awarding of honorariums to operating companies who have developed and installed the most efficient safety devices, appliances, or methods.

Second, the awarding of hero medals and diplomas to those individuals in the mining industry who have risked their lives in an effort to save the life of a fellow worker.

Third, the organization of Holmes Safety Chapters at vantage places throughout the country for the advancement and maintenance of safety.

The council of the Joseph A. Holmes Safety Association has not worked out a plan for awarding honorariums to mining companies according to the first plan of organization, but it is expected that progress will be made along this line in the near future.

At the time of the organization of the Joseph A. Holmes Safety Organization a committee, headed by Dr. David T. Day, raised the sum of $10,000 which is now the invested capital of this association. The interest on this money is used to purchase hero medals in accordance with the second object of the association. Up to the present time the association has awarded about fifty hero medals for conspicuous and heroic service as outlined above.

In 1922 the council decided that it was the opportune time for organizing Holmes Safety Chapters, and to start the development of a plan that would take safety into every mining, metallurgical, or petroleum plant in the country and into homes of the workers in these industries. Therefore, in that year the council authorized the Bureau of Mines to issue charters to chapters where the officials of the Bureau felt that the conditions were favorable for the proper maintenance of the chapter. With no particular effort to form chapters, members of the Bureau of Mines staff have organized chapters in almost every section of the country, the present total being over one hundred. The majority of these chapters have been instrumental in developing and maintaining safety in their community to a high degree, and it is now considered that this safety chapter work is one of the most important developments in safety at the present time. On account of the different methods of mining it has been found advisable to organize chapters in groups, and to center the activity of each group in a local council which will be particularly fitted to administer to local needs. Therefore, as the opportunity presents itself, local councils are being organized to become responsible for the success of a local group of chapters.

THE HOLMES SAFETY CHAPTER PLAN.

The Holmes Safety Chapter Plan, therefore, is as follows:

In each section of the country where there is a natural division of mining, metallurgical, or petroleum operations, such as iron mining in the Lake Superior district, coal and iron mining in Alabama, petroleum operations in the mid-Continental fields, etc., a group of chapters is being organized responsible to a local council. Therefore it is advisable to have representatives from all of those companies that maintain and support a first-class safety organization, representative of the Bureau of Mines, and representatives from societies that are particularly concerned in safety in the industry to be served. The local council should select an executive committee, and should plan a safety campaign for a year in advance. The local council should see that safety chapters are organized in those communities that can profit by such an organization, and should see that the local chapter is supplied with speakers and safety demonstrators in order to make the chapter the maximum success. The council is in a position to draw upon the resources of the government departments and the local agencies in developing their safety program.

SERVICE GIVEN TO THE CHAPTERS BY THE BUREAU OF MINES.

1. All field representatives of the Safety Service Division of the Bureau are instructed to visit chapters and participate in their meetings wherever practical.

2. Safety Directors of the chapters are given special instructions so as to become competent first-aid teachers.

3. The Bureau provides office space and clerical assistance for the chapters at the Pittsburgh Experiment Station and elsewhere.

4. The Bureau is fostering chapters and building

up the association's influence and prestige wherever possible.

5. The Bureau sends representatives to assist in holding first-aid contests and safety demonstrations wherever the chapters sponsor such a contest or demonstration.

6. The Bureau furnishes an engineer of its staff to act as director of the chapters and to keep in touch with the chapters and their development.

WHAT IS THE HEADQUARTERS ORGANIZATION DOING TO ASSIST THE CHAPTERS?

The Headquarters Organization consists of the secretary, the director of safety chapters, and other officials serving directly under the council. These officials do the majority of the planning for the chapter extension work according to the action of the council. All money received in dues and fees from safety chapters is set aside to be used for the benefit of the chapters. To further the chapter plan the officials, therefore, perform the following functions:

1. They send out printed matter to the various chapters on information concerning safety.

2. They publish each month the Holmes Safety Chapter Notes, a publication dealing primarily with the activity of the different chapters.

3. They arrange for the distribution of motion-picture films to the various chapters.

4. They make arrangements for the men of national repute to visit chapters and participate in their meetings.

5. They cooperate with local councils in the development of local interest and local enthusiasm in safety.

VALUE OF THIS PLAN.

The value of this plan is that a variety of forces are brought together to maintain safety interest and so encourage the men to put forth more effort in safety. Through the Holmes Safety Chapter Plan a greater efficiency is developed for the promotion of safety, and better cooperation is obtained from such agencies as the U. S. Bureau of Mines, State Inspection Departments, and interested societies. This plan also promotes greater and more efficient safety work at the individual plant. Development of safety for accident prevention is one thing, but encouragement and maintenance therein is most important for the future of the movement.

DIRECTORY

Joseph A. Holmes Safety Chapters

October, 1924

Butte Safety Chapter No. 1.
P. O. Box 104, Butte, Mont. Org. Apr. 15, 1922
Henry E. Callison, President.
David Snell, Vice-President.
Clyde DeWitt, Sec.-Treas.
J. L. Boardman, Safety Dir.
O. A. Dingman, Educational Dir.

Newcastle Safety Chapter No. 2.
New Castle, Ala. Org. Apr. 15, 1922
Frank Parker, President.
M. G. Launius, Vice-President.
J. E. Hickey, Sec.-Treas.
Dr. E. C. Payne, Safety Dir.
C. R. West, Educational Dir.

Dante No. 1 Safety Chapter No. 3.
Dante, Va. Org. Apr. 26, 1922
Robert Hale, President.
E. W. Woodford, Vice-President.
R. L. Ray, Sec.-Treas.
James Green, Safety Dir.
E. A. Brown, Educational Dir.

Dante No. 2 Safety Chapter No. 4.
Dante, Va. Org. Apr. 28, 1922
H. B. Gibson, President
Earl Wright, Vice-President.
T. W. Walthall, Sec.-Treas.
J. M. Bailey, Safety Dir.
Dr. T. T. McNeer, Educational Dir.

Wilder No. 1 Safety Chapter No. 5.
Wilder, Va. Org. Apr. 28, 1922
Reorganized July 9, 1924, as
Safety Chapter No. 101.

Empire Mines Safety Chapter No. 6.
Grass Valley, Cal. Org. May 8, 1922
R. W. Rodda, President.
Thos. Eveley, Vice-President.
H. Crouch, Secretary.
Robert Jeffery, Treasurer.
Thos. Eveley, Safety Dir.
Dr. C. P. Jones, Educational Dir.

Leona Mines Safety Chapter No. 7.
Leona Mines, Lee Co. Va. Org. May 19, 1922
J. F. Shell, President.
W. C. Woodward, Vice-President.
W. H. Shell, Sec.-Treas.
J. A. Ray, Safety Dir.
J. G. Collins, Educational Dir.

Cokedale Safety Chapter No. 8.
Cokedale, Colorado. Org. May 25, 1922
S. C. Babson, President.
Joe Costa, Vice-President.
Rudolph Harenberg, Sec.-Treas.
J. W. Morris, Safety Dir.
H. H. Bubb, Educational Dir.

South Fork Safety Chapter No. 9.
South Fork, Pa. Org. June 1, 1922
Jas. Davis, President.
Patrick Flynn, Vice-President.
Jas. Graham, Sec.-Treas.
Jos. Stapleton, Safety Dir.
J. J. Thompson, Educational Dir.

Desloge Safety Chapter No. 10.
Desloge Consolidated Lead Co., Desloge, Mo.
Org. June 13, 1922
Frank Foshee, Sr., President.
A. N. Hahn, Vice-President.
H. J. Schiermeyer, Sec.-Treas.
George Qualls, Safety Dir.
_____, Educational Dir.

Lilly-Cassandra Safety Chapters No. 11.
Box 132, Lilly, Pa. Org. May 19, 1922
Wm. Clinemeyer, President.
Herman Hodgson, Vice-President.
Chas. Lees, Sec.-Treas.
J. Sanders, Safety Dir.
J. Sanders, Educational Dir.

Frugality Safety Chapter No. 12.
Frugality, Pa. Org. June 16, 1922
S. G. Enders, President.
_____, Vice-President.
Chas. L. Summers, Sec.-Treas.
Gilbert Ball, Safety Dir.
Mrs. Robert McPhee, Educational Dir.

Fallen Timber Safety Chapter No. 13.
Fallen Timber, Pa. Org. June 16, 1922
_____, President.
_____, Vice-President.
Wm. J. Lamb, Sec.-Treas.
James C. Stine, Educational Dir.

Blandburg Safety Chapter No. 14.
Blandburg, Pa. Org. June 23, 1922
T. V. McCartney, President
Chas. Bradley, Vice-President.
Jerry Hanagan, Secretary.
Henry Hollen, Treasurer.
Laurence Troxell, Safety Dir.
Sheridan Davis, Educational Dir.

Coalport Safety Chapter No. 15.
Coalport, Pa. Org. July 21, 1922
James L Bell, President.
Edward Taylor, Vice-President.
J. Frank Taylor, Sec.-Treas.
Jack Ord, Safety Dir.
W. Cecil Davis, Educational Dir.

Pierce Safety Chapter No. 16.
Pierce, Florida. Org. Aug. 7, 1922
R. K. Clark, President.
B. B. Bradley, Vice-President.
H. E. Collins, Sec.-Treas.
J. B. Godwin, Safety Dir.
J. B. Godwin, Educational Dir.

Madera Safety Chapter No. 17.
Madera, Pa. Org. Aug. 11, 1922
Fred Seckinger, President.
Paul Seckinger, Vice-President.
Steve Kitko, Sec.-Treas.
Mike Stroker, Safety Dir.
R. S. Moore, Educational Dir.

Smoke Run Safety Chapter No. 18.
Smoke Run, Pa. Org. Aug. 18, 1922
Walter S. Williams, President.
John Linn, Vice-President.
John Kost, Sec.-Treas.
P. J. Petrovich, Safety Dir.
John Lloyd, Educational Dir.

Mark Simmons Safety Chapter No. 19.
Munson, Pa. Org. Sept. 7, 1922
P. J. Cullen, President.
Ida Malkin, Vice-President.
W. E. Washburn, Sec.-Treas.
John McGrath, Safety Dir.
Joseph Jones, Educational Dir.

Lawrenceville Safety Chapter No. 20.
Lawrenceville, Illinois. Org. Sept. 22, 1922
Fred Gillum, President.
T. Young, Vice-President.
F. R. Severns, Sec.-Treas.
Smith Engle, Safety Dir.
Dr. R. R. Trueblood, Educational Dir.

Bicknell Safety Chapter No. 21.
c/o Knox Co. Coal Operators Ass'n.
Bicknell, Ind. Org. Sept. 30, 1922
A. J. Marks, President.
Thomas Halley, Vice-President.
Jack Ogilvie, Sec.-Treas.
H. G. Conrad, Safety Dir.
Wesley Harris, Educational Dir.

Brewster Safety Chapter No. 22.
Brewster, Polk Co., Florida. Org. Oct. 6, 1922
J. F. Savage, President.
W. D. Surrency, Vice-President.
S. Harrison, Sec.-Treas.
Dr. Wm. Buck, Safety Dir.
W. R. Rittenhouse, Educational Dir.

Elk Safety Chapter No. 23.
Palmer, Wash. Org. Oct. 5, 1922
Thomas Bell, President.
G. P. Lockey, Vice-President.
A. D. Baxley, Sec.-Treas.
R. Christenson, Safety Dir.
M. C. Butler, Educational Dir.

Sullivan Safety Chapter No. 24.
Sullivan, Ind. Org. Oct. 13, 1922
Audie Raines, President.
Harry Kennan, Vice-President.
C. A. Dillahunt, Sec.-Treas.
John Johnson, Safety Dir.
John Thain, Educational Dir.

Clinton Safety Chapter No. 25.
Clinton, Ind. Org. Oct. 19, 1922
Harry Lowe, President.
David Salmond, Vice-President.
David Lawson, Sec.-Treas.
Matthew Kerr, Safety Dir.
James Lord, Educational Dir.

Chief & Squaw Safety Capter No. 26.
St. Charles, Mich. Org. Oct. 20, 1922
Hugh G. McKenna, President.
Ed. McCullough, Vice-President.
Geo. Chivers, Sec.-Treas.
_____, Safety Dir.
F. A. Mason, Educational Dir.

Bay City Safety Chapter No. 27.
Bay City, Mich. Org. Oct. 23, 1922
Frank Heath, President.
Wm. Roberts, Vice-President.
Peter Roberts, Sec.-Treas.
Robert McCleam, Safety Dir.
A. McIllaney, Educational Dir.

Scranton Safety Chapter No. 28.
Scranton, N. Dak. Org. Nov. 1, 1922
John Edwards, President.
Chas. Snider, Vice-President.
Benj. H. Corneleis, Sec.-Treas.
Frank Money, Safety Dir.
Dr. K. M. Murry, Educational Dir.

Saginaw Safety Chapter, No. 29.
Saginaw, Mich. Org. Nov. 6, 1922
Wm. Markey, President.
Alfred Westwood, Vice-President.
Patrick O'Rourke, Sec. Treas.
Alfred Pumford, Safety Dir.
John Young, Educational Dir.

Wm. A. Hazard Safety Chapter No. 30.
Cuylerville, N. Y. Org. Nov. 3, 1922
J. F. Featherston, President.
M. H. Curley, Vice-President.
Jos. C. McMahon, Sec-Treas.
N. M. Laidlaw, Safety Dir.
C. E. Holder, Educational Dir

Jasonville Safety Chapter No. 31.
Jasonville, Ind. Org. Nov. 18, 1922
Philip Roberts, President.
Sam Bates, Vice-President.
H. L. McDonald, Sec.-Treas.
James Divens, Safety Dir.
Weldon Oeffler, Educational Dir.

Dugger Safety Chapter No. 32.
Dugger, Ind. Org. Nov. 18, 1922
Leonard Carr, President.
John McLin, Vice President.
Sam Masters, Sec.-Treas.
Thos. Gambill, Safety Dir.
Harry Kene, Educational Dir.

H. S. Matthews Safety Chapter No. 33.
Dayton, Tenn. Org. Dec. 2, 1922
M. E. Slausson, President.
W. M. Poole, Vice-President.
G. W. Rappleyea, Sec.-Treas.
J. M. Fuller, Safety Dir.
N. W. Thurman, Educational Dir.

Noonan Safety Chapter No. 34.
Box 125, Noonan, No. Dakota. Org. Dec. 9, 1922
Albert F. Kunkle, President.
Thos. McReary, Vice-President.
Roy Tyson, Sec.-Treas.
Roy Oelson, Safety Dir.
Dr. Lyman, Educational Dir.

Garrison Safety Chapter No. 35.
Garison, No. Dakota. Org. Dec. 15, 1922
Richard M. Daniels, President.
Eugene Miners, Vice-President.
Edward P. Boyle, Sec.-Treas.
John Dixon, Safety Dir.
E. C. Stuke and Prof. Clemens, Educational Dir.

Gillespie Safety Chapter No. 36.
Gillespie, Ill. Org. Jan. 5, 1923
Chas. Miller, President.
Thos. Irvine, Vice-President.
Donald Shaw, Secretary.
James Boston, Safety Dir.
James Boston, Educational Dir.

Anaconda Safety Chapter No. 37.
Anaconda, Mont. Org. Dec. 28, 1922
L. V. Bender, President.
S. T. Blair, 1st Vice-President.
F. M. Beckman, 2nd Vice-President
E. C. Burris, Jr., Sec.-Treas.
R. B. Kelly, Safety Dir.
J. MacPherson, Educational Dir.

Hymera Safety Chapter No. 38.
Hymera, Ind. Org. Jan. 19, 1923
John Thralls, President.
C. Edw. Eppert, Vice-President.
Robt. Gordon, Sec.-Treas.
James Irwin, Safety Dir.
Neal Chatt, Educational Dir.

Bismark Safety Chapter No. 39.
Bismark, No. Dakota. Org. Jan. 9, 1923
John Hanwell, President.
Curtis Dirlam, Vice-President.
Lorenzo H. Belk, Sec.-Treas.
Mark P. Wynkoop, Safety Dir.
Dr. J. O. Arneson, Educational Dir.

Vermilion County Safety Chapter No. 40.
Danville, Ill. Org. Feb. 3, 1923
O. A. Gause, President.
Robert Pettigrew, Vice-President.
C. N. Henson, Sec.-Treas.
Alex. Anderson, Safety Dir.
Robert Pettigrew, Educational Dir.

Hurst-Bush Safety Chapter No. 41.
Hurst, Ill. Org. Feb. 8, 1923
Charles Manzy, President.
Charles Hibbs, Vice-President.
J. E. Gebert, Sec.-Treas.
Robert Keenan, Safety Dir.
Sam Smith, Educational Dir.

Lumberport Safety Chapter No. 42.
Lumberport, W. Va. Org. Feb. 13, 1923
Charles F. Bashore, President.
James Bowers, Jr., Vice-President.
A. F. Satterfield, Sec.-Treas.
C. D. Garret, Safety Dir.
James Bowers, Sr., Educational Dir.

Zap Safety Chapter No. 43.
Zap, No. Dakota. Org. Jan. 12, 1923
Ray Millerson, President.
Ralph Norton, Vice-President.
James Murphy, Sec.-Treasurer.
E. S. Prickett, Safety Dir.
Robert Stroup, Educational Dir.

Parrish Safety Chapter No. 44.
Parrish, Ala. Org. Feb. 22, 1923
Daniel McDonald, President.
Forrest Key, Vice-President.
O. L. Lockwood, Sec.-Treas.
H. A. Weaver, Safety Dir.
Dr. D. H. Chilton, Educational Dir.

Blue Gem Safety Chapter No. 45.
Newcomb, Tenn. Org. Feb. 24, 1923
W. H. Queener, President.
J. L. Hammond, Vice-President.
E. L. Terry, Sec.-Treas.
_____, Safety Dir.
_____, Educational Dir.

Donk Bros. Safety Chapter No. 46.
Maryville, Ill. Org. Feb. 23, 1923
Ed. Daech, President.
Walter Heane, Vice-President.
Paul Donovan, Sec.-Treas.
Albert Stewart, Safety Dir.
H. A. Kenge, Educational Dir.

Black Diamond Safety Chapter No. 47.
Coal Creek, Tenn. Org. Mar. 14, 1923
Wm. Sharp, President.
_____, Vice-President.
J. K. Alderson, Sec.-Treas.
E. J. McKainey, Safety Dir.
W. R. Peck, Educational Dir.

Redgranite & Lohrville Safety Chapter No. 48.
Lohrville, Wis. Org. Mar. 27, 1923
Secretary, R. F. D. No. 6, Wautoma, Wis.
Chas. Legrand, President.
Emil Larsen, Vice-President.
William Schultz, Sec.-Treas.
David Headley, Safety Dir.
Alvin Vick, Educational Dir.

Collinsville Safety Chapter No. 49.
Collinsville, Ill. Org. Apr. 3, 1923
Secretary, 440 So. Morrison St.
R. E. M. Coulson, President.
Guido Paoli, Vice-President.
Frank Leisen, Sec.-Treas.
J. Hicks, Safety Dir.
E. Capstick, Educational Dir.

David Ingle Safety Chapter No. 50.
Winslow, Ind. Org. Apr. 5, 1923
Walter Shad, President.
John Barlo, Vice-President.
Ira Smith, Sec.-Treas.
_____, Safety Dir.
Dr. Smith, Educational Dir.

Elizabeth Safety Chapter No. 51.
Elizabeth, Pa. Org. Apr. 3, 1923
c/o Diamond Coal & Coke Co.
James C. Cameron, President.
E. J. Carney, Vice-President.
John Withers, Sec.-Treas.
David Withers, Safety Dir.
David Withers, Educational Dir.

Boothton Safety Chapter No. 52.
Boothton, Ala. Org. Apr. 12, 1923
H. M. Winslett, President.
R. D. Drawhorn, Vice-President.
J. O. Morrison, Sec.-Treas.
W. C. Durham, Safety Dir
H. D. Lynes, Educational Dir.

Bellingham Safety Chapter No. 53.
Bellingham Coal Mines,
Box 624, Bellingham, Wash. Org. Apr. 7, 1923
S. H. Borill, President.
W. T. Hagan, Vice-President.
Henry Hoard, Sec-Treas.
George Cormie, Safety Dir.
James H. Pascoe and Dr. Stimpson, Edu. Dir.

Hocking Valley Safety Chapter No. 54.
87 Fayette St., Nelsonville, O. Org. Apr. 18, 1923
B. F. Oakley, President.
Pearl Glenn Vice-President.
J. W. Wade, Sec.-Treas.
Dr. Isaac Vaughn, Safety Dir.
Wm. Burnell, Educational Dir.

Burnett Safety Chapter No. 55.
Burnett, Wash. Org. May 1, 1923
Robert Simpson, President.
Richard Goodhead, Vice-President.
E. Baumann, Sec.-Treas.
A. L. McBlaine, Safety Dir.
Dr. W. W. Wick, Educational Dir.

Carbonado Safety Chapter No. 56.
Carbonado, Wash. Org. May 1, 1923
Harrison Harvey, President.
Jim McKim, Vice-President.
P. H. Brendel, Sec.-Treas.
E. Husband, Safety Dir.
Dr. R. H. Somers, Educational Dir.

Pocahontas Safety Chapter No. 57.
Pocahontas, Ill. Org. Apr. 21, 1923
Pat. Ratchford, President.
J. W. Cullen, Vice-President.
Alvin Scully, Sec.-Treas.
Geo. Adamson, Safety Dir.
Geo. Adamson, Educational Dir.

Caseyville Safety Chapter, No. 58.
Caseyville, Ill. Org. May 21, 1923
Philip Kunkel, President.
Sam Brown, Vice-President.
Estella Maisch, Sec.-Treas.
Mrs. Henry Juenger, Safety Dir.
James Schmidt, Educational Dir.

Belleville Safety Chapter No. 59.
Sec.: 17 S. 20th St., Belleville, Ill. Org. Apr. 26, 1923
David Stuart, President.
Eugene Le Pere, Vice-President.
A. L. Klee, Sec.-Treas.
Geo. Dahm, Safety Dir.
Jas. Mason, Educational Dir.

Davidson Safety Chapter No. 60.
Sec.; Box 14, Hiland Coal & Lumber Co.
Davidson, Tenn. Org. June 26, 1923
Alvin Owens, President.
_____, Vice-President.
W. G. Reeves, Sec.-Treas.
_____, Safety Dir.
_____, Educational Dir.

Adena Safety Chapter No. 61.
Adena, Ohio. Org. July 28, 1923
M. B. Holdstein, President.
W. E. Haynes, Vice-President.
F. B. Rochester, Sec.-Treas.
A. Mullen, Safety Dir.
A. Wannacott, Educational Dir.

West Terre Haute Safety Chapter No. 62.
West Terre Haute, Ind. Org. July 31, 1923
Elvia Williams, President.
Griff Morris, Vice-President.
Thos. Derby, Secretary.
Thos. Robinson, Treasurer.
Geo. Allerdice, Safety Director
Richard Howells, Educational Dir.

Barton Safety Chapter No. 63.
Barton, Ohio. Org. July 31, 1923
Chas. Fisher, President.
Frank Anderle, Vice-President.
W. T. Biddison, Sec.-Treas.
J. E. Martin, Safety Dir.
R. Padgelek, Educational Dir.

Bayland Safety Chapter No. 64.
Bayland, Ohio. Org. Aug. 4, 1923
Robt. Armitage, President.
Steve Barto, Vice-President.
John Burdess, Sec.-Treas.
John Segedy, Safety Dir.
Theo. Jennings, Educational Dir.

Staunton Safety Chapter No. 65.
Staunton, Ill. Org. Aug. 3, 1923
Thos. Frew, President.
Byron O'Neal, Vice-President.
Hugh E. Menk, Sec.-Treas.
B. F. Meyer, Safety Dir.
H. C. Knemoeller, Educational Dir.

New Philadelphia Safety Chapter No. 66.
New Philadelphia, Ohio. Org. Aug. 23, 1923
Wm. McIntosh, President.
Steve Williams, Vice-President.
W. R. Williams, Sec.-Treas.
E. A. Evans, Safety Dir.
E. F. Grosjeau, Educational Dir.

New Athens & Lenzburg Safety Chapters No. 67.
New Athens, Ill. Org. Aug. 17, 1923
Sec.: Lenzburg, Ill.
Edgar Prediger, President.
Frank Burk, Vice-President.
Wm. D. Muser, Sec.-Treas.
Wm. Roedershrimer, Safety Dir.
Dr. R. J. Joseph, Educational Dir.

Canton Safety Chapter No. 68.
Canton, Ohio. Org. Sept. 7, 1923
R. L. Steely, President.
C. B. Biven, Vice-President.
H. E. Morgan, Sec.-Treas.
Ed. Bourner, Safety Dir.
John Miller, Educational Dir.

Freeburg Safety Chapter No. 69.
Freeburg, Ill. Org. Sept. 10, 1923
Stephen H. Janssen, President.
Geo. Weise, Vice-President.
Jacob Martin, Sec.-Treas.
Rudolph Koesterer, Safety Dir.
Dr. Fred B. Fox, Educational Dir.

New Castle Safety Chapter No. 70.
New Castle, Wash. Org. Sept. 21, 1923
M. A. Morgan, President.
Robert Miles, Vice-President.
Wm. W. Crandell, Sec.-Treas.
Willard Daum, Safety Dir.
W. E. Jones, Educational Dir.

Lisbon Safety Chapter No. 71.
Sec.: Box 870, Lisbon, Ohio. Org. Oct. 1, 1923
James Ballantine, President.
Emel Thomas, Vice-President.
D. W. Hute, Sec.-Treas.
John Chestnut, Safety Dir.
John Aston, Educational Dir.

D. C. Botting Safety Chapter No. 72.
Black Diamond, Wash Org. Sept. 29, 1923
Paul Gallagher, President.
Wm. Nicholson, Vice President.
A. G. Wallace, Sec.-Treas.
J. Nichols, Safety Dir.
Richard Battey, Educational Dir.

Linton Safety Chapter No. 73.
Sec.: 290 3rd St., Linton, Ind. Org. Oct. 3, 1923
Geo. Wall, President.
D. S. Lund, Vice-President.
Wm. Sloan, Sec.-Treas.
John Yonner, Safety Dir.
Geo. Helbier, Educational Dir.

Fork Ridge Safety Chapter No. 74.
Fork Ridge, Tenn. Org. Oct. 11, 1923
Tobe Hall, President.
_____, Vice-President.
Lee Hash, Sec.-Treas.
W. H. Redmond, Safety Dir.
Dr. E. M. Harrison, Educational Dir.

Amsterdam Valley Safety Chapter No. 75.
Amsterdam, Ohio. Sec. Box 222. Org. Oct. 19, 1923
John W. Lees, President.
W. E. Williams, Vice-President.
Wm. M. Boyce, Sec.-Treas.
John A. Ryan, Safety Dir.
Albert Woodcock, Educational Dir.

Tilden Safety Chapter No. 76.
Tilden, Ill. Org. Oct. 19, 1923
Alvin Albaugh, President.
V. T. Thompson, Vice-President.
Geo. L. Oliver, Sec.-Treas.
William Lacy, Safety Dir.
Jewel Landuty, Educational Dir.

Cotula Safety Chapter No. 77.
Cotula, Tenn. Org. Nov. 4, 1923
John Smith, President.
_____, Vice-President.
John Agee, Sec.-Treas.
_____, Safety Dir.
Dr. L. V. Howard, Educational Dir.

Carlinville Safety Chapter No. 78.
Carlinville, Ill. Org. Nov. 1, 1923
Theo. Daoust, President.
P. J. Murphy, Vice-President.
Oscar Beitel, Sec.-Treas.
John Martens, Safety Dir.
John Martens, Educational Dir.

Coulterville Safety Chapter No. 79.
Coulterville, Ill. Org. Nov. 2, 1923
R. D. Hood, President.
Gilbert Williams, Vice-President.
H. D. Patton, Sec.-Treas.
W. H. Jones, Safety Dir.
Chas. Kralman, Educational Dir.

Capitol City Safety Chapter No. 80.
Springfield, Ill. Org. Nov. 26, 1923
Earl F. McKennedy, President.
John Clusker, Vice-President.
Christian C. Wieland, Sec.-Treas.
James Clusker, Safety Dir.
James Clusker, Educational Dir.

Stanacola Safety Chapter No. 81.
No. Baton Rouge, La. Org. Dec. 8, 1923
Henry M. Nelson, President.
R. C. Thorgesson, Vice-President.
G. A. Waterman, Sec.-Treas.
Dr. Jas. M. Adams, Safety Dir.
Robt. B. Morrison, Educational Dir.

Mt. Olive Safety Chapter No. 82.
Mt. Olive, Ill. Org. Jan. 7, 1924
Emil Blumenroth, President.
John Luscher, Vice-President.
Henry Soulsky, Sec.-Treas.
Cornelius Norder, Safety Dir.
Fred Utoff, Educational Dir.
John Buskohl, Rec. Sec.

Madrid Safety Chapter No. 83.
Madrid, New Mex. Org. Jan. 10, 1924
T. D. Mangan, President.
Paul Jadro, Vice-President.
H. O. Norville, Sec.-Treas.
Mike Lick, Safety Dir.
H. O. Norville, Educational Dir.

Maher No. 6 Safety Chapter, No. 84.
Maher Collieries Co., Neffs, Ohio.
Organized Jan. 11, 1924
Lawrence R. Gardner, Jr., President.
Rob't Emery, Vice-President.
Ernest Gilham, Sec.-Treas.
Chas. C. Neff, Safety Dir.
Dr. F. S. Wright, Educational Dir.

Buckeye Safety Chapter No. 85.
Bellaire, Ohio. Sec., 3243 Washington St.
Organized Jan. 4, 1924
Geo. Dunlap, President.
Wilson Dorff, Vice-President.
Frank Benline, Sec.-Treas.
Chester A. Lowe, Safety Dir.
Chester A. Lowe, Educational Dir.

Worden Safety Chapter No. 86.
Worden, Ill. Org. Jan. 26, 1924
Wm. Schleipsic, President.
Carl Berenthal, Vice-President.
Marion L. Handshy, Sec.-Treas.
Dave Wall, Safety Dir.
Percy Wolff, Educational Dir.

Graysville Safety Chapter No. 87.
Graysville, Tenn. Org. Feb. 1, 1924
F. A. Frields, President.
Fred Black, Vice-President.
McKinley Romines, Sec.-Treas.
Marlin Patton, Safety Dir.
Lee Smith, Educational Dir.

Edwardsville Safety Chapter No. 88.
Sec., 822 Troy Road, Edwardsville, Ill.
Org. Feb. 1, 1924
Wm. Malfatti, President.
J. M. Reid, Vice-President.
John Reid, Jr., Sec.-Treas.
A. K. Stewart, Safety Dir.
A. K. Stewart, Educational Dir.

Wheeling & Lake Erie Safety Chapter No. 89.
Neffs, Ohio. Org. Feb. 25, 1924
Paul Kasper, President.
J. O. Myers, Vice-President.
Ernest P. Jasper, Sec.-Treas.
Richard McGee, Safety Dir.
Fletcher Benson, Educational Dir.

Daenzar Safety Chapter No. 90.
Glen Carbon, Ill. Org. Mar. 1, 1924
Wm. B. Miller, President.
Ivan Kramer, Vice-President.
Elisha Mayer, Jr., Sec.-Treas.
Eli Lever, Safety Dir.
R. R. Schiber, Educational Dir.

Duquoin Safety Chapter No. 91.
Duquoin, Ill. Org. Mar. 17, 1924
W. T. Morris, President.
I. N. Bayless, Vice-President.
Edw. Flynn, Sec.-Treas.
James Robinson, Safety Dir.
Barney McSherry, Educational Dir.

Kathleen Safety Chapter No. 92.
Dowell, Ill. Org. Apr. 4, 1924
R. H. Chitty, President.
Jack Williamson, Vice-President.
Felix A. Pichon, Elkville, Ill., Sec.-Treas.
William Bowers, Safety Dir.
Ed. Leming, Educational Dir.

Glencoe Safety Chapter No. 93.
Glencoe, Ohio. Org. May 16, 1924
James A. Brooks, President.
D. L. Gibson, Vice-President.
Wayne Street, Sec.-Treas.
Jomeah Howell, Safety Dir.
John Mazelli, Educational Dir.

Carterville Safety Chapter No. 94.
Carterville, Ill. Org. May 8, 1924
Chas. Presley, President.
Elmer Myer, Vice-President.
James Penrod, Sec.-Treas.
Hugh Keel, Safety Dir.
James Lucas, Educational Dir.

Senecaville Safety Chapter No. 95.
Senecaville, Ohio. Org. May 27, 1924
J. S. Channell, President.
C. O. Harding, Vice-President.
M. C. Miley, Sec.-Treas.
H. Meugataoyd, Safety Dir.
W. Christian, Educational Dir.

Cambridge Safety Chapter No. 96.
Cambridge, Ohio. Org. May 29, 1924
John Rigby, President.
Chas. Richardson, Vice-President.
H. C. Knapper, Sec.-Treas.
J. W. Rarick, Safety Dir.
A. G. Faught, Educational Dir.

West Frankfort Safety Chapter No. 97.
West Frankfort, Ill. Org. June 27, 1924
Harvey A. Tredwell, President.
Chas. Burbridge, Vice-President.
Harry Higgins, Sec.
Albert Wines, Treas.
C. A. Spawlding, Safety Dir.
Francis Devlin, Educational Dir.

Star Safety Chapter No. 98.
Clincho, Va. Org. July 10, 1924
Jno. A. Longmire, President.
W. M. Erwin, Vice-President.
Frank M. Silvers, Sec.-Treas.
Russel Ray, Safety Dir.
Jake Hill, Educational Dir.

Moss Safety Chapter No. 99.
Clincho, Va. Org. July 8, 1924
C. H. Miser, President.
Pete Cruise, Vice-President.
W. R. Sparks, Sec.-Treas.
J. A. Dameron, Safety Dir.
Carl Patton, Asst. Safety Dir.
Dr. A. W. Martin, Educational Dir.

Wilder No. 2 Safety Chapter No. 100.
Wilder, Va. Org. July 11, 1924
Leslie Mitchell, President.
Harry Harden, Vice-President.
M. K. Dykes, Sec.-Treas.
Wm. Carter, Safety Dir.
W. B. Nesby, Educational Dir.

Wilder No. 1 Safety Chapter No. 101.
Wilder, Va. Org. July 9, 1924
Ezra J. Cassell, President.
George Allen, Vice-President.
T. E. Jenkins, Sec.-Treas.
W. L. Rumgay, Safety Dir.
R. L. Hillman, Educational Dir.

Beltona Safety Chapter No. 102.
Beltona, Ala. Org. June 30, 1924
Robert McClelland, President.
Wm. Mitchell, Vice-President.
S. A. Ogletree, Sec.-Treas.
W. C. Paxton, Safety Dir.
Dr. L. B. Cornelius, Educational Dir.

Altoona Safety Chapter No. 103.
Altoona, Ala. Org. Aug. 1, 1924
Robert E. Self, President.
S. A. Kelley, Vice-President.
H. C. Griffin, Sec.-Treas.
B. K. Walker, Safety Dir.
Dr. A. Carraway, Educational Dir.

Acmar Safety Chapter No. 104.
Acmar, Ala. Org. July 15, 1924
O. W. Wiley, President.
T. L. Bryant, Vice-President.
Mary Haney, Sec.-Treas.
Ellis Jones, Safety Dir.
W. H. Garrett, Educational Dir.

Empire Chapter No. 105, De Bardeleben Coal Co.
Empire, Ala. Org. July 23, 1924
L. L. Shivers, President.
Mrs. J. D. Sumner, Vice-President.
J. R. McGowen, Sec.-Treas.
G. L. Ramsden, Safety Dir.
Dr. Robert Nelson, Educational Dir.

Irondale Safety Chapter No. 106, Alabama Fuel & Iron Co. Irondale, Ala. Org. July 29, 1924
Adam Pow, President.
Jno. F. Hogg, Vice-President.
W. D. Amberson, Sec.-Treas.
O. I. Smith, Safety Dir.
Dr. A. A. Meeks, Educational Dir.

Zeigler Safety Chapter No. 107.
Zeigler, Ill. Org. Aug. 1, 1924
Jos. Houston, President.
James Dougherty, Vice-President.
Thomas Jenkins, Sec.-Treas.
Chas. Bell, Safety Dir.
W. C. Budds. Educational Dir.

Acton Safety Chapter No. 108, Alabama Fuel & Iron Co. Acton, Ala. Org. Aug. 7, 1924
A. J. Garrison, President.
W. W. Robertson, Vice-President.
Earl Kelley, Sec.-Treas.
R. T. Crews, Safety Dir.
Dr. J. S. Williamson, Educational Dir.

Overton Mines Safety Chapter No. 109, Alabama Fuel & Iron Co., Irondale, Ala. Org. Aug. 9, 1924
Walter Mayweather, President.
G. Rogers, Vice-President.
Wm. Strong, Sec.-Treas.
W. M. Cooper, Safety Dir.
D. W. Parker, Educational Dir.

Bucknell Safety Chapter No. 110.
Bucknell, Iowa. Org. Aug. 8, 1924
Gus. Erickson, President.
Geo. Johnson, Vice-President.
Harry Swinscoe, Sec.-Treas.
Sam McKelvie, Safety Dir.
Dan Smith, Educational Dir.

Majestic Safety Chapter No. 111, Majestic Mines.
Haig, Ala. Org. July 31 1924
J. W. Ellis, President.
Mrs. S. A. Merriam, Vice-President.
Mrs. J. W. Gray, Sec.-Treas.
G. V. Hutchings, Safety Dir.
Dr. S. A. Merriam, Educational Dir.

Acmar Safety Chapter No. 112.
Acmar, Ala. Org. Aug. 14, 1924
Mrs. E. C. Clayton, President.
C. A. Jones, Vice-President.
R. F. Ray, Sec.-Treas.
A. J. Bradshaw, Safety Dir.
W. H. Cooper, Educational Dir.

Margaret Safety Chapter No. 113.
Margaret, Ala. Org. Aug. 16, 1924
George Raiford, President.
Mrs. Ezona Homsley, Vice-President
T. J. Martin, Sec.-Treas.
Wm. Cochran, Safety Dir.
S. J. Dillard, Educational Dir.

Margaret Safety Chapter No. 114.
Margaret, Ala. Org. Aug. 16, 1924
T. R. Akridge, President.
Mrs. Lee Merritt, Vice-President.
Susie Cunningham, Sec.-Treas.
E. P. Poe, Safety Dir.
W. T. Glover, Educational Dir.

Shannon Safety Chapter No. 115, Gulf States Steel Co. Shannon, Ala. Org. Aug. 4, 1924
John Hawkins, President.
W. G. McClanahan, Vice-President.
Claude M. Burgess, Sec.-Treas.
C. D. Norris, Safety Dir.
Dr. C. W. Brasfield, Eudcational Dir.

Winona Safety Chapter No. 116, Winona Coal Co. Gorgas, Ala. Org. Sept. 1, 1924
James Logan, President.
John Bennison, Vice-President.
Joe Hosmer, Sec.-Treas.
L. C. Garrison, Safety Dir.
Dr. T. S. McDiarmid, Educational Dir.

Towney Safety Chapter No. 117, Galloway Coal Co. Townley. Ala. Org. Aug. 20, 1924
Y. U. West, President.
W. L. Andrews, Vice-President.
John T. Studdard, Sec.-Treas.
E. E. Russell, Safety Dir.
Dr. W. A. Sparks, Educational Dir.

Carbon Hill Safety Chapter No. 118, Galloway Coal Co. Carbon Hill, Ala. Org. Sept. 1, 1924
Frank Sparks, President.
Thomas Childers. Vice-President.
S. G. Sandlin, Sec.-Treas.
A. P. McIntosh, Safety Dir.
Virgel West, Educational Dir.

Acton Safety Chapter No. 119, Alabama Fuel & Iron Co. Acton, Ala. Org. Aug. 8, 1924
John Jones, President.
Marshall Rucker, Vice-President.
Mary S. Jones, Sec.-Treas.
Louis Grigsby. Safety Dir.
Homer Hill, Educational Dir.

Happy Safety Chapter No. 120, Defiance Coal Co. Happy, Kentucky. Org. Sept. 13, 1924
M. M. Lilly, President.
J. A. Robinson, Vice-President.
H. C. Banks, Sec.-Treas.
C. H. Campbell, Safety Dir.
S. L. Elwood, Educational Dir.

Secretary, Joseph A. Holmes Safety Chapters,
c/o U. S. Bureau of Mines,
4800 Forbes St.,
Pittsburgh, Pa.

Dear Sir:

At a meeting of the _____ Safety Chapter No. ____ the following officers were elected:

	Name (Please print)	Address
President		
Vice-President		
Secretary-Treasurer		
Safety Director		
Educational Director		

Yours very truly,

_____
Sec.-Treas.

PITTSBURGH, PA., ...

.....

.....

..... Chapter No. .....

A statement of your account with the Joseph A. Holmes Safety Association is as follows:

Chapter dues from ..... to ..... $ .....

....

....

Total $ .....

Checks or money orders should be made payable to TREASURER, JOSEPH A. HOLMES SAFETY ASSOCIATION.

Note—Sec. 2, Article IX—The quarterly dues of the Chapter to the parent organization, the Joseph A. Holmes Safety Association, shall be as follows:
When the Chapter has a membership of 25 or less, $2.50 quarterly.
Chapters having more than 25 members shall pay an additional $1.25 quarterly for each additional 25 members or major fraction thereof up to a maximum of $25.00 quarterly for 475 or more members.

Received payment for the above account $ ..... on this .....

day of ....., 192.....

JOSEPH A. HOLMES SAFETY ASSOCIATION,

Per .....

Send to Secretary, Joseph A. Holmes Safety Chapters, c/o U. S. Bureau of Mines, 4800 Forbes Street, Pittsburgh, Penna.

REPORT OF MEETING_____

Safety Chapter No._____ Joseph A. Holmes Safety Association held at

_____ (Place) on _____ (Date)

Members present_____ Visitors present_____ Total_____

FIRST AID TRAINING recently accomplished by chapter

_____

_____

_____

_____

_____

SPECIAL FEATURES OF MEETING—(addresses or talks, motion pictures, entertainment, first aid practice or demonstrations, special business, changes in officers, plans for future work, new members, etc.)

_____

_____

_____

_____

_____

_____

_____

_____

_____

ITEMS OF INTEREST REGARDING SAFETY AND HEALTH WORK IN COMMUNITY—(lives saved or injuries treated through first aid, work of mining companies and miners toward safety, work conducted in town to better safety or health conditions, etc.)

_____

_____

_____

_____

_____

_____ Secretary.

(NOTE—Use back of this sheet or additional sheets if necessary)

_____

_____

Secretary, Joseph A. Holmes Safety Chapters,
c/o U. S. Bureau of Mines,
4800 Forbes St.,
Pittsburgh, Pa.

Dear Sir:

Application is hereby made for the admission to the Joseph A. Holmes Safety Association, of the_____

Safety Chapter, organized at_____
(Place) (Date)

Charter fee of ten dollars, made payable to the Treasurer of the Joseph A. Holmes Safety Association, is enclosed herewith.

Chapter membership consists of_____members and_____junior members. Chapter meetings will be held at intervals of_____. The officers of the chapter are:

	Name (Please print)	Address
President	_____	_____
Vice-President	_____	_____
Secretary-Treasurer	_____	_____
Safety Director	_____	_____
Educational Director	_____	_____
	_____	_____
	_____	_____

Very truly yours,

_____

_____
(Title)

Bureau of Mines' employee, if any, assisting in chapter formation.

_____

Since the resignation of C.L. Colburn, the activities of the Joseph A. Holmes Safety Chapters have been under the immediate direction of D.J. Parker, Chief Engineer, Mine Safety Service. This work consisted of carrying on correspondence with the chapters, and supervising the preparation and mailing of the chapter "notes" each month.

Since October 31,1924, 11 new chapters have been organized, making a total of 131. There are 85 of these chapters active; 33 are inactive; and 13 are dead.

A statement of the financial condition of the chapters is given below:

March 1,1924 - Balance	474.25
March 5,1924 - Donation from Council	400.00
Dues received between Mar.10,1924 and Mar.1,1925	442.00
Charter fees from 43 chapters	430.00
Sale of Lapel buttons	2.00
	$1748.25

Postage	31.25
Account books	7.45
Data sheets	53.41
Mailing list	7.50
Printed matter	297.10
BALANCE ON HAND	1351.54
	$1748.25

Account on deposit with Oakland Savings & Trust Bank - petty cash account	218.75
Credit to chapters on deposit with Treasurer - Washington Loan & Trust Company	1132.79
TOTAL	$ 1351.54

T.T. Read,
Secretary.

Mr. E. McAuliffe

Accident Prevention Bulletin

July 10, 1940

Issued monthly by the Safety Department for employes of the Union Pacific Railroad. Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

THE SACRIFICE MUST NOT CONTINUE

COMPETITIVE RANKING—SIXTH MONTH

Including casualties and careful estimates of man-hours for the month of June, in calculating the cumulative rates for the period January 1st to June 30th, the relative ranking of districts and departments appears to be as tabulated below:

CASUALTIES

Rank	District	Month F	Month RI	Month LT	Period F	Period RI	Period LT	Wtd. Rate	ICC Rate
1	South-Central	—	3	1	—	15	4	6.91	1.31
2	Eastern	1	9	2	2	46	23	12.81	2.17
3	Northwestern	—	1	1	—	16	6	16.58	3.08
	Total—1940	1	13	4	2	77	33	11.57	2.04
	Total—1939	1	12	7	5	106	37	16.48	2.85
	Divisions—(Inc. Trans.—M. of W.—Mech. Depts.)								
1	Los Angeles	—	—	1	—	3	2	4.61	
2	Idaho	—	1	—	—	8	2	7.74	
3	Colorado	—	4	1	—	5	4	12.87	
4	Wyoming	1	—	—	1	6	6	13.58	
5	Kansas	—	2	—	—	9	3	15.64	
6	Oregon	—	1	1	—	11	4	17.56	
7	Washington	—	—	—	—	5	—	19.51	
8	Nebraska	—	2	—	1	18	5	19.69	
	Transportation Dept.								Divn.
1	H. H. Larson	—	—	—	—	1	1	3.70	LA
2	R. E. Titus	—	—	—	—	4	2	8.31	Ida.
3	G. H. Warfel	—	—	—	—	4	2	15.29	Kans.
4	A. L. Coey	—	1	—	—	2	3	16.21	Colo.
5	B. O. Wedge	—	—	—	—	4	5	16.66	Wyo.
6	M. C. Williams	—	—	1	—	6	3	20.68	Ore.
7	F. P. Flesher	—	—	—	1	11	2	27.95	Nebr.
8	P. T. McCarthy	—	—	—	—	4	—	37.45	Wash.
	Maintenance of Way Dept.								
1	J. P. Mack	—	—	—	—	—	—	——	LA
2	W. H. Lowther	—	—	—	—	—	—	——	Wash.
3	C. W. Pitts	—	—	1	—	—	1	1.49	Colo.
4	L. V. Chausse	—	1	—	—	1	—	3.37	Ida.
5	L. I. Hammond	1	—	—	1	—	—	15.38	Wyo.
6	N. C. Pearson	—	2	—	—	3	—	17.75	Kans.
7	R. M. Jolley	—	2	—	—	6	2	21.09	Nebr.
8	L. W. Althof	—	1	—	—	4	—	24.12	Ore.
	Mechanical Dept.								
1	A. V. James	—	—	—	—	1	1	4.02	Nebr.
2	H. T. Snyder	—	—	—	—	2	1	8.60	Wyo.
3	L. W. Shirley	—	—	—	—	2	1	9.86	NW
4	L. L. Hoeffel	—	—	1	—	2	1	10.13	LA
5	R. F. Weiss	—	—	—	—	3	—	11.54	Ida.
6	D. S. Neuhart	—	—	—	—	2	1	14.01	Kans.
7	P. J. Norton	—	3	—	—	3	—	19.13	Colo.
	Shops								
1	A. E. Nelson	—	—	—	—	—	—	——	Poca.
2	G. L. Wales	—	—	—	—	—	1	.89	Omaha
3	C. F. Spicka	—	1	—	—	1	—	7.70	Chey.
	Miscellaneous								
1	Tie Plant	—	—	—	—	—	—	——	
2	Headquarters	—	—	—	—	2	1	2.41	
3	Store	—	—	—	—	2	1	7.78	
4	Baggage	—	—	1	—	—	1	9.09	
5	D. C. & H.	—	2	—	—	7	3	18.21	

PRINCIPAL SWITCHING YARDS

(Group A)

Rank		F	RI	LT	Rank		F	RI	LT
1	Los Angeles	—	—	—	9	Salt Lake	—	—	1
2	Pocatello	—	—	—	10	Denver	—	1	1
3	North Platte	—	—	—	11	Omaha	—	2	—
4	Laramie	—	—	—	12	Kansas City	—	2	1
5	Nampa	—	—	—	13	Cheyenne	—	1	2
6	Green River	—	—	—	14	Albina	—	2	—
7	Grand Island	—	—	—	15	Co. Bluffs	—	2	—
8	Argo	—	—	—					

(Group B)

Rank		F	RI	LT	Rank		F	RI	LT
1	Salina	—	—	—	12	Rock Springs	—	—	—
2	Idaho Falls	—	—	—	13	Boise	—	—	—
3	Las Vegas	—	—	—	14	Sterling	—	—	—
4	The Dalles	—	—	—	15	Kemmerer	—	—	—
5	Topeka	—	—	—	16	Columbus	—	—	—
6	Huntington	—	—	—	17	Kearney	—	—	—
7	Sidney	—	—	—	18	Twin Falls	—	—	—
8	Marysville	—	—	—	19	Montpelier	—	—	—
9	LaGrande	—	—	—	20	Rieth	—	1	—
10	Hastings	—	—	—	21	Spokane	—	1	—
11	Glenns Ferry	—	—	—	22	Rawlins	—	1	—

WHAT IS YOUR ATTITUDE?

As will be noticed, there was one more reportable injury and 3 less lost time injuries in June this year than during the same month last year, and the Eastern District contributed the largest number of them.

No comments, other than those in the narratives, are necessary. Obviously, most of the injuries should have been prevented.

There always has been and possibly always will be, a certain amount of ridicule on the part of a few towards the efforts of those who attempt accident prevention, and, as has been mentioned before, such an attitude may be the direct cause of some one meeting with an injury, because whether we think so or not, every one has a certain influence over some one else. For example, stand on a street corner and watch some one start across the street against a red light and you will see others follow.

You hear some one speak lightly of what a supervisor or safety agent said about how to prevent injuries, (and you hear men speak lightly about men who are religious also) but when injuries overtake any one, then it is not a scoffing matter, and, it often occurs in the manner the supervisor or safety agent mentioned.

Experience is a stern teacher. There is just one antidote for accident prevention, and that is safety; belief in it, enthusiasm about it.

Indifference must be discarded—that feeling that nothing can happen to me as I've been doing this work for 40 years—but if a man disregards safety even after 40 years' experience, accidents will overtake him just as they do less experienced men unless he protects against them.

All of these men who were injured in June were not youngsters; some of them had over 20 years' experience in their line of work. That is why we say: Don't become indifferent to the hazards that surround the job, regardless of the fact it has been done safely over a long period of time. No job is any safer than we make it **daily.**

As you read the following pages, do it with an open mind. See if a suggestion can be offered to prevent similar occurrences. What can we all do to prevent such things? Let's keep correcting the practices or habits that lead to injuries. Let's concern ourselves about, not only our own safety, but the other fellow's too. Let's try to be a real friend and brother among men and not reflect an attitude of skepticism or indifference, ridicule or unbelief, but rather one of cooperation, for our common good.

Every day, hundreds of times, engineers blow warning whistles approaching crossings at grade, other warning signs are placed there and in the approach thereto, but some people are oblivious to all such warnings.

The conditions which result in crossing accidents are similar to those responsible for other accidents,—a disregard of, or indifference to—safe practices. Individuals need to be brought out of this lethargy by other methods, and no one is better able to do that than a friend. Obviously there was need for friendship and brotherly counsel in June.

Statistics show July and August to be the most hazardous months. Let's be extra careful the next two months. Our record in safety will be as **good as demanded** and as **poor as permitted.** To have a good record there must be wholehearted cooperation in the correcting of conditions and practices that lead to injuries. Every one can be interested in this effort.

To glance at the record it appears the transportation department employes are subject to more injuries than others, and, while this may be true, such employes, day after day, throughout the year, by perfect handling and control of their trains and train movements, build up a feeling of confidence and trustworthiness; other departments do likewise.

We are prone to criticise each failure and point the finger of scorn at those responsible. That is human nature. I believe it is possible to have a perfect record and that there will be one when every one feels the same as I do about the matter, but, mental habits that cause accidents must be corrected.

Simply knowing rules is not sufficient. They must be complied with. Discipline in itself is not enough. A foreman or supervisor can enforce the rules and at the same time teach the proper way to comply with them, by being a good leader.

Accident prevention is a challenge to leadership. Think and be discontented—**wisely** discontented, with yourself and you will go as far as it is within you to go.

—Editor.

NEBRASKA DIVISION

A **section laborer** sustained broken bone in right foot while assisting in unloading new 131 lb. rail which was balled in on flat car. Rails were being handled by ditcher and three men were on the car, one on each end to bar out and steady rail and one in center to attach tongs. A number of rails had been unloaded from center part leaving several on both sides of top tier and space of 2 feet between them. A rail was in process of being laid on ground. The two bar men were having difficulty in prying a rail loose which was ball down on top tier and they turned to opposite side to turn rail which was also ball down, when it suddenly turned on its side and caught this bar man's foot because he stepped too close to rail. Disability 6 weeks. N-52

A **carpenter helper,** working with pile driver crew driving piling, sustained skull fracture, frontal region, extending back to ear, when toggle bar fell from leads, 19 feet, and struck him on head as he stood in position to guide piling into position to drive. Disability 90 days.

Piling landed out of line as it was lowered the first time necessitating raising it to set properly. As it was being raised, it dislodged the toggle bar, account not having been secured. C-9

WYOMING DIVISION

An **extra gang laborer,** working with two others, behind other members of a 30 man gang, did not hear locomotive whistle or other members of gang call to him to get out of way of approaching freight train, and was struck and fatally injured.

He was working 20 feet from other two men, dressing center of track as they dressed the outside, following gang renewing ties, and had only been at work about 15 minutes. He was working facing the approaching train on straight track, except for a little curve about ½ mile distant, but view of train clear for considerable distance beyond, account open country.

This was in double track territory, but wide spread of about 500 feet between the two tracks at that point. Weather clear and calm. A freight train was passing at the time on opposite track.

His partners attempted to attract his attention from where they were standing, 20 to 40 feet in advance of him, but were unable to do so.

Let this be a warning to all MofW men to be ever watchful for the approach of trains.

This tragedy occurred to the son of a conductor who has been in the service for more than long enough to become an old timer. The young man was strong, sturdy and dependable, anxious to work and to make good. Y-43

KANSAS DIVISION

Two section men received bruises and lacerations, disabling them 2 to 4 weeks respectively, when their motor car was derailed at night while inspecting track during a heavy rain. A brake beam safety bar was sticking up inside rail where it had been torn off car and driven into tie by passing train, and was struck by motor car. Four of the occupants were thrown from the motor car, two of whom were only slightly injured. Motor car equipped with Prest-o-lite headlight but men did not see this bar sticking up in track. K-8

COLORADO DIVISION

A **machinist helper,** working on brake rigging on power unit as man in cab applied brakes in making train control test, and his left hand was caught in brake rigging, resulting in cutting tendons on three fingers, disability 45 days.

Instructions require that brakes be cut out on each truck while men are working on it, but he failed to see that this was done. C-1

A **carman** was renewing running boards on box car. Had removed a board and stepped to side of car to see if any one below before dropping it, and, as he dropped the board, a screw in board, which had not been removed, caught in his glove and pulled him off balance and he fell to the ground on the track used for handling materials, sustaining injury to his spine, ribs, arms and legs. Disability indefinite. C-6

A **section laborer**, while chipping off ends of tie, preparatory to removing from track, struck a knot and piece of chip flew and struck him in the right eye, resulting in bruise and disability of two days. C-7

An **engine foreman** stepped on car to ride it into clear, and to stop it, when three other cars which had been left on adjoining track rolled out and cornered this car. The jar knocked him from ladder of car to ground, resulting in fracture to left pelvis. Disability 60 days.

He was looking back to observe movement of his engine and failure to look ahead, first, resulted in the accident. This occurred in daylight and nothing to obscure view of cars rolling out.

It was the opinion of the yardmen the three cars would stand still where they were left, but they rolled out. Such cars will be secured hereafter. C-13

A **tender truckman** removed draw bar pin weighing 109 lbs. from 2400 class engine and threw it out of pit onto floor of roundhouse. When he got out of pit he picked up the pin and was attempting to lay it on truck when it slipped from his hand due to being covered with grease, and fell on his foot, resulting in small chipped fracture to great toe, left foot, disability 5 days. There is no specific way of handling this article but obviously it is necessary to protect against grease with which it is always covered. C-14

CHEYENNE SHOPS

A **machinist helper** was assisting in wheeling a 5000 class engine. Engine truck with radius bar and assembly carrier iron and boss was placed under engine. The carrier iron and boss were secured to radius bar by two bolts placed through carrier iron and boss and through strap iron placed over top of boss extending over edge of radius bar.

Two mechanics were instructed to go down in pit and apply radius bar, carrier iron and boss to frame crosstie. After engine was set down on binders and while other men were applying nuts to binder bolts, this engine truck radius bar was to be jacked into place.

One of the mechanics working on back end of radius bar removed bolts holding strap over radius bar and the carrier iron and boss fell and struck helper who was watching No. 1 binder bolts enter binder and had his back to machinists. He was in kneeling position and was struck on the right leg and ankle, resulting in fractures which will disable him two months. CS-4

This carrier iron and boss weigh 130 lbs. Failure to obey instructions of foreman that radius rod was not to be jacked into place until engine was set on binders and to place jack under carrier iron, is responsible for this serious injury to a fellow employe. This is the first injury in this major shop this year.

IDAHO DIVISION

An **extra gang laborer** was assisting foreman and 8 other men in moving a 10-90 frog, about 50 feet, and while pulling on frog, sliding it into place, his right foot slipped off tie and it was caught between tie and plate on base of frog, resulting in fracture of ankle bone and 45 days' disability. D-12

This was a new gang and unfamiliar with such work. More care would have prevented this injury.

LOS ANGELES DIVISION

A **mechanical foreman** was in the act of breaking air and signal hose on a passenger train, preparatory to setting out a car. Passenger brakeman, assisting, brushed against steam valve and opened it. Steam hose had been disconnected and when valve opened, steam from open connection struck foreman around neck and chest, causing second degree burns, resulting in disability of 3 days. S-30

We have had two other similar cases in the past year, and this should be a reminder to everyone while working between cars to guard against brushing against steam valve.

OREGON DIVISION

A **fireman** had been instructed by engineer on a passenger train to close drain valve on injector when train came to a stop at a station, but before train came to stop he got down on gangway ladder on engine, overlooked mail crane on which mail had been hung for this train, and was knocked off engine to ground, resulting in bruised head, left shoulder and side, with two days' disability. O-23

The fatal injury on the Eastern District in April occurred in much the same manner and that accident was widely advertised with the hope that it would prevent a similar occurrence, but another good man **forgot**. Fortunately, there were no serious results.

A **section man** while tamping ties was struck in right eye by small rock which lacerated cornea, resulting in 5 days' lost time. O-25

BAGGAGE DEPARTMENT

A **train baggageman** stepped down out of baggage car to ground, to assist conductor unload mail at night. He stepped on a pebble and fell on rail, cracking rib, left side, disability two days. K-19

DINING CAR & HOTEL DEPARTMENT

A **dining car chef** was boning a piece of meat and when knife struck gristle, it deflected, cutting palm of left hand. Infection developed which incapacitated him 7 days. D-1

A **dining car waiter** cut right index finger on cap which covers syphon charge, while filling metal syphon bottle, and infection developed, resulting in 10 days' disability. S-54

THE FOLLOWING WENT CLEAR DURING JUNE:

OMAHA SHOPS	TIE PLANT
POCATELLO SHOPS	HEADQUARTERS
WASHINGTON DIVISION	STORES DEPARTMENT

MOTOR CAR ACCIDENTS

A motor car and push car were setting on end of center siding while men got supply of drinking water. A train headed in on westward siding and had to double over to center siding to clear main line. The head brakeman saw this motor and push car on center siding but did not wait until foreman could get his men back and get cars moving before he backed head portion in on siding, striking and demolishing motor and push car and derailing one refrigerator car. Damage $354.00 Y-205

At close of work, preparatory to returning to headquarters, a foreman walked to point where he could observe both east and westbound signals and saw they were clear. They then placed motor and push car on track, moved 1220 feet where tools were loaded and had started to move again when noticed signal was at stop. They moved 560 feet farther where motor car was taken off but only got push car crosswise when it was struck by light engine.

Failure to properly flag resulted in this accident. Damage $5.00. O-204

MISCELLANEOUS

A **carman helper** working on a 1900 class engine in roundhouse, started to go around engine and stepped into pit at rear of engine, resulting in cut on upper lip, loss of one tooth and bruise to left hand, but did not lose any time.

Frequent mention has been made about injuries to men working around these pits, and this accident shows necessity for watching one's step at all times. N-11

An **extra gang laborer** was digging out old ties and struck rail with pick when a piece of steel chip flew and pierced his arm.

Mention has also been made several times about this hazard. Be careful not to strike rail with pick while doing work. Men have been fatally injured by these flying chips of steel. N-27

On another part of the railroad an accident occurred in exactly the same way but the chip of steel hit the **section man** in the forehead, resulting in slight puncture. D-38

A **fireman** was using squirt hose to wash down deck. He was facing boiler and backing up while washing out gangway. A loop formed in hose on deck and he stepped on loop. In doing so, it diverted hot water to inside of his left leg, causing burn on knee. No time lost but injury caused considerable inconvenience. N-38

A **caller** started to go around an auto, which had stopped on viaduct, when auto started up, striking caller on right side, knocking him down and ran over his right foot. Driver of auto said he did not see caller. Injury slight but the setup was there for a fatal injury. Y-15

A **telegrapher** noticed a barricade had not been removed from street, where it had been used to protect a public performance, and automobiles were driving around it, so he decided to move the boards away from curb. While he had hold of one board an automobile struck the end of it, knocking it against his left foot, causing bruise and 2 days' disability. K-4

A **trespasser** was in doorway of box car when train came to stop and door rolled shut, catching his head between door and end post, crushing his head and he died 4 hours later. D-57

A **section man** using spike maul to drive spikes, when maul came off handle and in stooping to avoid falling maul, placed left hand on rail and maul struck little finger a glancing blow, resulting in bruise. This near accident shows why it is necessary to see that handles of tools are properly secured. O-16

As a passenger train pulled into station, an express messenger was looking out car door and when train came to stop, the door rolled shut, catching his head between door and door jamb, resulting in cut on left ear. O-32

A **section man** assisting in moving a rail from side track to rail rest, when he stepped on a broken bottle which was partially buried in sand. The sharp glass penetrated through his shoe into instep, resulting in slight cut on left instep. W-4

A **carpenter** repairing water tank was holding punch to aid helper to drive bolt out, and helper struck glancing blow, catching and bruising little finger, left hand, between tank post and maul. No disability. W-8

A similar injury, OS-12, a **boilermaker** and his helper were belling arch tube, boilermaker holding belling tool while helper struck with sledge. The sledge glanced and struck knuckle of boilermaker's right index finger, resulting in cut and bruise to knuckle.

There are many important dates, but one important date is **TODAY.**

Look well to this day.

A principal of safety is, accidents do not "happen", but each one is a "result" from a definite, ascertainable cause.

Many people think an accident is just "hard luck", but by digging deeper the real cause can be developed.

Cuts neglected—become infected.

WHY NOT THINK?

It's a little thing to do,
Just think.
Anyone, no matter who,
Ought to think.
Take a little time each day
From the minutes thrown away;
Spare it from your work or play—
Stop and think!

You will find that men who fail
Do not think.
Men who find themselves in jail
Do not think.
Half the trouble that we see,
Trouble brewed for you and me,
Probably would never be
If we'd think.

Shall we, then, consider this?
Shall we think?
Shall we journey, hit or miss,
Or shall we think?
Let's not go along by guess,
But rather to ourselves confess,
It would help us more or less
If we'd think!

—Anonymous.

Why does one division or department make a better record in safety than other divisions or departments performing the same kind of work?

I don't know—is not the correct answer.

We don't need to call a conference to end our casualties. All we need is the exercise of good judgment while at work.

The first stop! Look! Listen! sign was drawn in 1884.

The "T" rail and the hook headed spike used by railroads today throughout the world, to fasten steel rails to cross ties, were designed about 1830 by an American.

A college education is not necessary—nothing is necessary except ability to read intelligently, with a desire to know.

If you do not have a good education you can get it at no cost. It is all in books, with inspiration and happiness as well.

Again we remind you the air hose still carries that wallop if not properly handled.

Don't take any changes with it, and remember, it plays no favorites.

It is all very well to keep on your toes, but it's better to keep your toes on.

Wear safety shoes.

—The Anchor.

Mr. E. McAuliffe

Accident Prevention Bulletin

June 10, 1940

Issued monthly by the Safety Department for employes of the Union Pacific Railroad. Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

ONE ACCIDENT IS ONE TOO MANY!

COMPETITIVE RANKING—FIFTH MONTH

Including casualties and careful estimates of man-hours for the month of May, in calculating the cumulative rates for the period January 1st to May 31st, the relative ranking of districts and departments appears to be as tabulated below:

CASUALTIES

Rank	District	Month F	Month RI	Month LT	Period F	Period RI	Period LT	Wtd. Rate	ICC Rate
1	South-Central	—	1	—	—	12	3	6.76	1.29
2	Eastern	—	7	4	1	37	20	12.20	2.11
3	Northwestern	—	5	—	—	15	5	18.89	3.54
	Total—1940	—	13	4	1	64	28	11.49	2.06
	Total—1939	1	19	2	4	94	30	17.75	3.11
	Divisions—(Inc. Transp.—M. of W.—Mech. Depts.								
1	Colorado	—	—	—	—	1	3	4.47	
2	Los Angeles	—	—	—	—	3	1	5.20	
3	Idaho	—	1	—	—	7	2	8.48	
4	Wyoming	—	1	1	—	6	6	11.83	
5	Kansas	—	2	—	—	7	3	15.06	
6	Oregon	—	4	—	—	10	3	19.27	
7	Nebraska	—	3	2	1	16	4	21.60	
8	Washington	—	1	—	—	5	—	24.29	
	Transportation Dept.								**Divn.**
1	H. H. Larson	—	—	—	—	1	1	4.38	LA
2	R. E. Titus	—	—	—	—	4	2	10.14	Ida.
3	A. L. Coey	—	—	—	—	1	3	11.96	Colo.
4	G. H. Warfel	—	1	—	—	4	2	18.30	Kans.
5	B. O. Wedge	—	—	—	—	4	5	19.77	Wyo.
6	M. C. Williams	—	2	—	—	6	2	24.17	Ore.
7	F. P. Flesher	—	3	1	1	11	2	33.07	Nebr.
8	J. C. Albright	—	—	—	—	4	—	45.77	Wash.
	Maintenance of Way Dept.								
1	L. V. Chausse	—	—	—	—	—	—	——	Ida.
2	J. P. Mack	—	—	—	—	—	—	——	LA
3	W. F. Hart	—	—	—	—	—	—	——	Wyo.
4	C. W. Pitts	—	—	—	—	—	—	——	Colo.
5	W. H. Lowther	—	—	—	—	—	—	——	Wash.
6	N. C. Pearson	—	1	—	—	1	—	7.14	Kans.
7	R. M. Jolley	—	—	—	—	4	1	17.90	Nebr.
8	L. W. Althof	—	1	—	—	3	—	22.39	Ore.
	Mechanical Dept.								
1	P. J. Norton	—	—	—	—	—	—	——	Colo.
2	A. V. James	—	—	1	—	1	1	4.86	Nebr.
3	H. T. Snyder	—	1	1	—	2	1	10.38	Wyo.
4	L. L. Hoeffel	—	—	—	—	2	—	11.36	LA
5	L. W. Shirley	—	2	—	—	2	1	12.18	NW
6	R. F. Weiss	—	1	—	—	3	—	14.24	Ida.
7	D. S. Neuhart	—	—	—	—	2	1	17.74	Kans.
	Shops								
1	C. F. Spicka	—	—	—	—	—	—	——	Chey.
2	A. R. Nelson	—	—	—	—	—	—	——	Poca.
3	G. L. Wales	—	—	—	—	—	1	1.11	Omaha
	Miscellaneous								
1	Baggage	—	—	—	—	—	—	——	
2	Tie Plant	—	—	—	—	—	—	——	
3	Headquarters	—	—	—	—	2	1	2.90	
4	Store	—	1	—	—	2	1	9.24	
5	D. C. & H.	—	—	1	—	5	3	16.82	

PRINCIPAL SWITCHING YARDS

(Group A)

Rank		F	RI	LT	Rank		F	RI	LT
1	Los Angeles	—	—	—	9	Salt Lake	—	—	1
2	Pocatello	—	—	—	10	Denver	—	—	1
3	North Platte	—	—	—	11	Omaha	—	2	—
4	Laramie	—	—	—	12	Kansas City	—	2	1
5	Nampa	—	—	—	13	Cheyenne	—	1	2
6	Green River	—	—	—	14	Albina	—	2	—
7	Grand Island	—	—	—	15	Co. Bluffs	—	2	—
8	Argo	—	—	—					

(Group B)

Rank		F	RI	LT	Rank		F	RI	LT
1	Idaho Falls	—	—	—	12	Rock Springs	—	—	—
2	Las Vegas	—	—	—	13	Boise	—	—	—
3	Salina	—	—	—	14	Sterling	—	—	—
4	Huntington	—	—	—	15	Kemmerer	—	—	—
5	The Dalles	—	—	—	16	Columbus	—	—	—
6	Topeka	—	—	—	17	Kearney	—	—	—
7	Marysville	—	—	—	18	Twin Falls	—	—	—
8	LaGrande	—	—	—	19	Montpelier	—	—	—
9	Hastings	—	—	—	20	Rieth	—	1	—
10	Glenns Ferry	—	—	—	21	Spokane	—	1	—
11	Sidney	—	—	—	22	Rawlins	—	1	—

GOOD OR BAD?

The record for May shows a reduction of 1 fatal and 6 reportable injuries, an increase of 2 lost time, which amounts to a decrease of 22.7% compared with last year.

The narratives give the details in connection with five serious injuries—an engineer burned by gasoline igniting while he was searching for source of leak in pipe of motor car; a switchman having foot crushed when he fell while attempting to board front steps of caboose; a switchman fell from side of car when another car coupled into it; a leading workman fell from doorway of car while unloading material; a carman helper, in shop, fell into pit from deck of engine tank,—and several other less serious injuries.

Therefore, I hesitate to call the record good, even though we can all feel happy about the reduction of 1 fatal and 6 serious injuries.

It is bad, because no record is good that has bad in it. Good or bad, it might have been worse, and last year's record was worse.

While most men were careful, it would appear several of the total of 17 injuries could easily have been avoided. It is not in our heart to criticise or condemn a man for sustaining an injury. However, now that they did happen, let us learn from the experiences of others and attempt to prevent similar recurrences, so that some day we may achieve that perfect record on the entire railroad.

You will note a number of departments and divisions did go clear. If they could do this, why not all departments and divisions? I am looking forward to stating in the columns where narratives are generally shown; "Nothing to report." This will be good—no bad in it.

Safety has both humanitarian and economic aspects; saving of human lives and the prevention of disabling injuries. It not only lessens human suffering, but also results in more efficient and economical industrial operations, as well as savings to millions of individuals each year.

In a year of normal business activity, more than 10 million trains, running an aggregate distance of one billion train miles, are required to perform the transportation services demanded of the railroads. Speed, efficiency, economy and safety with such service are essential. Safety has a direct bearing on the dependability of railroad service, its efficiency, its cost of operation. As such, it is of the first importance in railroad operation.

Trains move 62% faster today with greater train loads, with 66% less accidents than 15 years ago. Railroad employes today work under safer conditions than at any time in the history of railroads and this has been accomplished during the greatest relative increases in average speed.

Since 1913, when the railroads intensified in accident prevention work, there has been a saving of 3,202 lives and 154,848 injuries in a year's time, comparing 1938 with 1913.

What is nobler than saving a life?

We have been working together for a long time, you and me. We have formed friendships with our associates down through the years. A friend is one who entertains for another such sentiments of esteem, respect and affection, that he seeks his society and welfare; a well wisher, an intimate associate. So let's all be friends in this business of ours.

Recently, 5,000 such railroad friends met together to honor our mutual friend and well wisher. It was a great inspiration to all of us, drawing us closer together, creating a kindlier, brotherly feeling by reason of this closer association. We all disliked to say goodby in parting. We all look forward to another similar meeting.

There is great need for calm, straight thinking these days. Ye older heads will soon give up the reins to younger men, as it should be. See that your valuable counsel is given freely for our common good. No opportunity should be passed to give that kindly word of advice to your friend which may save him from serious injury.

There is something human, intelligent; something mysteriously convincing in opportunity. It comes toward one so slowly that you can not miss observing it, if you care to. It creeps to one like a snail. It passes, seemingly deciding that you are not the one to grasp opportunity, and it flits away. Too many miss it because they do not think about it seriously. Others let it go by, startled that they did not observe it; like the hunter stalking his first large game in the forest, forgetting about his rifle. However, and providentially, a long procession of slowly moving opportunities meet all of us, and, fortunately also, are before us most of the time in some form or another.

Too many men attempt to dictate or prescribe the sort of opportunity they desire. The commonest form—one most neglected and the safest opportunity for all of us to seize is, sound thinking and hard work. Economy and hard work will make men comfortable and prosperous.

It was not intended that man should gain his livelihood without hard labor, nor is it healthy.

Information gives the power that results in opportunity. All of us can read and learn if we will. Young men throw away precious hours every day whereas if they would make use of two hours a day for 5 years, they would be educated men. Who can say he does not have 2 hours to spare for such improvement? A man can accomplish what he thinks he can, that's how a call boy became a president in a short span of his life, useful and beneficial all along the pathway.

Well, we all have an opportunity as well as the responsibility of keeping thoughtfully and planfully busy in the safe operation of our railroad, thus preventing accidents that result in injuries to workmen and loss of property.

Let's all be builders who work with care, measuring life's work with rule and square, shaping our deeds to a well laid plan, planfully doing the best we can. Just like those men who are so skilled, that you would hire them when you decided to build, realizing that some can wreck in a day or two what conscientious builders have taken years to do.

—Editor.

NEBRASKA DIVISION

An **engineer** was straightening tank brake hanger pin and hit end of his ring finger with hammer, resulting in minor bruise but infection developed which incapacitated him 6 days. N-11

A **carman**, while working near car shop, wind blew foreign particle into his eye, resulting in irritation and disability of one day. N-16

A **switchman** was descending ladder on a car and had gotten about half way down when another car, which had been kicked down the same track, coupled into it, causing him to lose his handhold and fall to the ground, resulting in sprained right knee and fracture of right heel bone. Disability 60 days.

The car on which he was located was moving about 4 miles per hour and the other car could be seen following closely. N-17

A **freight stower**, while assisting 4 other men in unloading a large piece of sheet steel, placed his fingers under edge of steel as it was being pinched forward with bars, and second finger of left hand was caught and bruised before he could jerk it away when the sheet fell off truck, resulting in 1 day's disability. N-28

He said he should not have taken hold of the sheet with his hands, and if the injury had to happen, it is not an entire loss from the standpoint of education, when it is realized an error has been made and will be protected against in the future.

If his hand had been caught, a much more serious injury would have resulted.

A **baggage delivery clerk**, handling a 10-gallon can of cream, which was covered with a jacket with slits on sides to take hold of handle, had taken hold of handle with finger tips through slits of cover, and was lowering from truck to floor when it slipped from his fingers and fell on his left great toe, resulting in fracture and severe bruises. Disability 3 months. N-48

Safety shoes would have prevented the injury. A firm handhold would also have been a preventive. Any job is as safe as we make it.

WYOMING DIVISION

A **machinist helper**, while working under an engine, fell in a convulsion, resulting in lacerations and contusions which may have disabled him 2 or 3 days. It has been learned he was subject to convulsions but had not so informed his foreman. Such a condition not only endangered himself but also others working with him. Y-34

A carman helper taking off nuts on cab curtain rods while on deck of engine tank, slipped and jumped from tender into pit, landing on his feet, fracturing bone in left heel, which will disable him two months. Y-37

KANSAS DIVISION

A motorman noticed a strong order of gasoline and located leak in a pipe on engine. He brought train to stop at a station and started to trace leak by feeling along pipes. He thought he had located it and started back to shut off fuel and stop motor when gasoline on his hands ignited, evidently due to dripping gasoline contacting hot exhaust pipes, severely burning both arms. Disability 60 days. K-2

The priming line pipe had small crack, possibly from vibration, which caused leak, and failure to shut off fuel pump and motor increased the flow of gas from the crack.

An extra gang laborer, recently employed, was working with bull dozer pulling rail, that had been washed into creek bed, back on to right of way. He hooked chain to a section of rail about 80 feet long and then moved to one side, 30 feet, considering he was into clear, but a joint bar on the rail caught on another section of rail causing it to swing around and strike him, resulting in hemorrhage under soft tissue, lower left leg and foot, which disabled him for one week. K-16

IDAHO DIVISION

A carman had removed brake rod from baggage car to adjust it. Short end of rod was extremely tight in turnbuckle. He placed it in vise and inserted a small bar in eye to break it loose, when it gave way suddenly, catching him off balance, causing him to twist sideways and fall, which resulted in fracture to small bone in ankle and 21 days' disability.

What did happen could easily have been expected and protected against. D-42

OREGON DIVISION

A switchman while setting brakes on a flat car on which brake chain only wraps once and a half around staff, had tightened brake partly and when he attempted to set it up tight to stop car, wheel gave way for about half a turn, causing him to lose his hold and fall in front of car which was still moving slowly. Fortunately he was able to throw himself into clear. He sustained bruises to muscles of left hip, with disability of one week. O-2

Chains occasionally start to overlap and result in loosening tension sufficiently to throw one off balance unless prepared for such an emergency and it is a good thing to be prepared for, as this injury shows. Lest we regret!

A switchman, on transfer train, attempted to get on lead steps of caboose instead of rear, as train was moving about 10 MPH, and a piece of the step broke off with his weight, causing him to fall with right leg across rail, resulting in amputation above ankle. Disability indefinite. O-4

A B&B laborer, while rolling rock out of wood flume at a bridge where gang was working, stepped on a nail in board someone had neglected to turn down, and was disabled 7 days. No one would allow a rattle snake to get away if possible to prevent it and nails in boards are equally as dangerous. O-7

If the wound had been immediately looked after by a doctor there probably would have been no loss of time, but neglect to do so resulted in infection.

A car inspector while reaming truck side for truck side tie bar, lost control of reamer, which caused him to wrench his knee. Disability 10 days. O-29

WASHINGTON DIVISION

A machinist, while calipering link block hole in transmission bar, dislodged an eccentric blade which had been left near edge of pit handy for men in pit to reach, and it fell on great toe of his left foot, disability 6 weeks. W-7

Safety shoes would have prevented this injury and the setup left by others in pit should have been observed. Obviously this blade should not have been left where it could be brushed off by workmen.

DINING CAR & HOTEL DEPARTMENT

A waiter was helping stock a diner at the commissary. He carried a bundle of bedding into the diner where the traps to the locker beneath floor had been raised. He laid the bedding on table on opposite side to rearrange it, then stepped back, forgetting about the trap being raised, and stepped into the locker, resulting in bruise to right knee and two days' disability. N-34

STORES DEPARTMENT

A leading workman was assisting in unloading brake beams from a car. He was in car moving beams to doorway and pushing one end of beam over doorway handy for other men on ground to take from there to pile. He pushed one beam out too far, it overbalanced and caught his glove as it fell, causing him to fall out of car on top of it, resulting in a fractured collar bone and severe bruise to right shoulder, which incapacitated him for 30 days, whereas a little more care would have avoided the injury. N-6

Familiarity breeds contempt and after unloading a hundred or more beams apparently he began to push them out with less care, which goes to show that no matter how many times a job is performed safely the same hazard has to be protected against each time.

The following injury, which occurred on the Colorado Division in February, will have to be accepted by our company as a reportable one as it was decided by the I. C. C. inasmuch as our equipment was involved, we should be charged with it, and it has been tabulated against the Eastern District:

A baggage expressman, employed by another railroad, loading baggage and express on to our train, fell from truck, account frost on same, resulting in fracture to left arm at wrist with disability of 6 weeks. C-2-Feb.

THE FOLLOWING WENT CLEAR DURING MAY:

COLORADO DIVISION
CHEYENNE SHOPS
LOS ANGELES DIVISION
POCATELLO SHOPS
BAGGAGE DEPARTMENT
TIE PLANT
HEADQUARTERS

MOTOR CAR ACCIDENTS

A B&B foreman and 6 men were engaged in hauling concrete from portal of tunnel to culvert, using Sheffield 40 motor car and 2 push cars equipped with dump boxes. Had received line-up but were proceeding on main line around curve although train on line-up was 25 minutes past due. Foreman noticed train approaching but was only able to remove the motor and 1 push car, the other was struck and damaged. Y-205

A section gang on motor car, patrolling track at night account heavy rain, struck a horse on curve, derailing motor car and slightly injuring foreman and two men. They were using prestolite headlights but were unable to see horse in time to avoid striking it. C-9

MISCELLANEOUS NEAR SERIOUS INJURIES

An extra gang laborer while pulling old spikes, bar slipped and his right middle finger was caught between bar and rail, resulting in contusion. S-22

A machinist helper was polishing link with polishing motor. Link started to slip off of bench and he laid motor on bench to catch link. Hose on motor was kinked and as he straightened it out he pulled motor off bench onto his right foot, bruising his toes. CS-1

A sectionman was drilling stock rail, while another man was turning drill with crank. The former was tightening drill from rear end to take up slack, when thumb screw came loose and crank slipped out of socket, swung over and struck him above left eye, resulting in cut over eye. N-3

A switchman stepping down from caboose step to line a switch, turned his ankle. K-4

A sectionman while using adz to shape a plank, struck knot and adz glanced and cut calf of leg—not serious, but a reminder to be careful in handling an adz. W-7

An extra gang laborer set gauge in making new rail relay, and, as he got up to go to other rail, tripped over guage and bruised his knee. S-33

Safety depends upon how well you do your work today.

BE SAFE!

Don't let oil and grease come in contact with Oxygen Equipment.

Railway taxes in 1938 amounted to $1,453.32 for every mile of railroad operated in the United States.

Railroad tax payments in 1938 were equal to the total revenue from the transportation of 3,638,000 carloads of freight.

USE MORE SALT!

Summertime is here. This means hot weather and considerable sweating if we have much work to do. Now when we sweat, we lose the salt out of our blood. When we lose this salt too rapidly, we lose our pep and get weak —or we get heat cramps— or what is worse, we may just crumple up and become unconscious—this is known as heat prostration or heat exhaustion.

This trouble can be avoided if we use enough salt to keep the proper amount in our blood. Therefore, in the summer we should purposely use more salt—put an extra amount in our food—at least a teaspoonful extra per day. If salt tablets are handy, take four or five a day—one with each drink of water. This salt won't make us more comfortable, but it will help to keep up our pep—and it will prevent heat cramps and heat exhaustion.

THINK! THINK! THINK!

Think—a single word, but often it determines whether we have happiness or sorrow; whether we enjoy life, or endure it as a cripple; and it may even mean the difference between life and death.

When working, if we would **think**, we would wear proper eye protection and safety shoes, thus avoiding many accidents that cause loss of time and money; if we would **think**, we would exercise more care in the use of air hose—not only for our own sake, but also for the sake of workers around us; if we would **think**, we would grind or replace defective chisels, center punches, and other tools before we use them.

When shouting unnecessarily, we should **think** what might happen if we some day really need help and no one takes our calls seriously Many serious accidents have resulted from horseplay and useless shouting. When tempted to play doctor, we should **think** of the serious consequences of infection. Glass eyes are no good for seeing, and arms and legs don't grow a second time.

When the whistle blows, if we would **think**, we would not make a mad dash that might result in injury to ourselves or to our fellow workers. We may, because of unnecessarily hurrying, suffer an accident that will prevent our getting home for a long, long time.

When driving, if we would **think**, we could prevent many wrecks and many injuries to pedestrians, saving ourselves and others grief and misery.

When at home, if we would **think**, we would not place brooms, buckets or other articles in halls and stairways, or leave soap lying around where it may be stepped on; we would not throw electric switches with wet hands, or leave gas flames high or valves to unlighted burners partly open.

Think—a single word, but it has been proved time and again that it is the principal foundation of safety, and if we **think**, ours will be a longer, healthier and happier life.

—L. A. Kreisel, Motor Division Safety
Westinghouse Elec. Mfg. Co.

EXPLOSIVES AND DANGEROUS ARTICLES

Switching

Explosives cars must not be coupled directly to the engine. There must be at least one car between.

Explosives must not be cut off while in motion. They must be shoved to a rest.

Other cars must not be cut off and allowed to strike Explosives.

Placarded loaded tank cars may be cut off but the ladder tracks, incline or hump must be clear before car is cut off and it, in turn, must clear the ladder before any car is allowed to follow.

All placarded cars must be coupled carefully and unnecessary shocks avoided.

FATHER'S DAY—JUNE 16TH

A day is set aside as Mother's Day, pictures are painted portraying mother-love, and that is as it should be, but little credit has been given to the one who goes forth daily to meet the cares of the work-a-day world in order that his little family may have the advantages of an education, a pleasant home in which to live, and the proper food to sustain that life.

It is fitting, therefore, that June 16th be set aside as a day for all children to pause and give honor to that parent who expects no reward but that of respect and love from those he cherishes.

JULY 4th

To Americans this day has a more precious significance than ever before. And, while it is appropriate to celebrate with all the enthusiasm of a free people, yet there still remains the necessity of doing so with care—both from the standpoint of handling fireworks and the use of the automobile. Holidays are meant for pleasure and relaxation, but unfortunately the care which usually surrounds our every day actions is sometimes abandoned in the spirit of fun and frolic.

Temper your pleasure with caution so that you may be able to enjoy many more holidays, sound in body and limb.

RR Krull — E. McAuliffe

Accident Prevention Bulletin

July 10, 1939

Issued monthly by the Safety Department for employees of the Union Pacific Railroad.

Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

LET THERE BE SAFETY!

COMPETITIVE RANKING—SIXTH MONTH

Including casualties and careful estimates of man-hours for the month of June in calculating the cumulative rates for the period January 1st to June 30th, the relative ranking of districts and departments appears to be as tabulated below:

Rank	District	CASUALTIES Month F	Month RI	Month LT	Period F	Period RI	Period LT	Wtd. Rate	ICC Rate
1	South-Central	1	2	—	1	26	6	13.30	2.38
2	Eastern	—	6	5	1	53	20	13.52	2.43
3	Northwestern	—	1	2	3	24	11	33.25	5.10
	Total—1939	1	9	7	5	103	37	16.15	2.78
	Total—1938	1	14	3	4	81	33	14.70	2.51
	Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)								
1	Colorado	—	1	—	—	4	—	8.85	
2	Los Angeles	—	2	—	—	6	2	8.88	
3	Idaho	1	—	—	1	14	3	16.48	
4	Nebraska	—	2	1	—	17	4	16.90	
5	Kansas	—	1	—	—	10	2	17.39	
6	Wyoming	—	1	3	1	10	10	18.77	
7	Oregon	—	1	2	2	13	10	30.70	
8	Washington	—	—	—	1	9	1	46.67	
	Transportation Dept.								
1	H. H. Larson	—	—	—	—	2	1	7.33	
2	A. L. Coey	—	—	—	—	2	—	12.77	
3	G. H. Warfel	—	1	—	—	5	1	18.50	
4	B. O. Wedge	—	—	1	—	5	5	19.59	
5	T. E. Williams	—	2	1	—	11	2	22.38	
6	R. E. Titus	1	—	—	1	9	2	24.18	
7	M. C. Williams	—	—	—	2	7	6	42.18	
8	J. C. Albright	—	—	—	1	6	—	79.79	
	Maintenance of Way Dept.								
1	R. M. Jolley	—	—	—	—	1	1	4.41	
2	J. P. Mack	—	1	—	—	1	1	5.80	
3	W. F. Hart	—	—	—	—	1	—	7.34	
4	L. V. Chausse	—	—	—	—	2	1	7.83	
5	L. W. Lowther	—	—	—	—	1	1	10.88	
6	N. C. Pearson	—	—	—	—	2	—	12.61	
7	L. I. Hammond	—	—	2	1	3	3	26.29	
8	L. W. Althof	—	1	1	—	4	2	26.51	
	Mechanical Dept.								
1	P. J. Norton	—	1	—	—	1	—	6.31	
2	H. T. Snyder	—	1	—	—	2	2	9.92	
3	R. F. Weiss	—	—	—	—	3	—	10.94	
4	L. L. Hoeffel	—	1	—	—	3	—	13.95	
5	A. V. James	—	—	—	—	5	1	19.15	
6	L. W. Shirley	—	—	1	—	4	2	20.00	
7	J. R. Frohoff	—	—	—	—	3	1	20.20	
	Shops								
1	G. L. Wales	—	—	1	—	4	2	15.78	
2	C. F. Spicka	—	1	—	—	6	—	44.57	
3	G. M. Walsh	—	—	—	—	3	1	45.71	

CASUALTIES BY DEPARTMENTS.

	Month F	Month RI	Month LT	Period F	Period RI	Period LT
Transportation	1	3	2	4	47	17
Maintenance of Way	—	2	3	1	16	9
Mechanical	—	4	2	—	35	9
Miscellaneous	—	—	—	—	5	2
Total	1	9	7	5	103	37

PRINCIPAL SWITCHING YARDS

(Group A)

Rank		F	RI	LT	Rank		F	RI	LT
1	Salt Lake	—	—	—	9	Kansas City	—	1	—
2	Omaha	—	—	—	10	Albina	—	1	—
3	Los Angeles	—	—	—	11	Co. Bluffs	—	1	—
4	Laramie	—	—	—	12	Denver	—	2	—
5	Green River	—	—	—	13	North Platte	—	1	—
6	Argo	—	—	—	14	Nampa	—	1	—
7	Grand Island	—	—	—	15	Cheyenne	—	2	3
8	Pocatello	—	1	—					

(Group B)

Rank		F	RI	LT	Rank		F	RI	LT
1	Idaho Falls	—	—	—	13	Sterling	—	—	—
2	Las Vegas	—	—	—	14	Columbus	—	—	—
3	Rawlins	—	—	—	15	Kearney	—	—	—
4	Huntington	—	—	—	16	Kemmerer	—	—	—
5	Topeka	—	—	—	17	Twin Falls	—	—	—
6	The Dalles	—	—	—	18	Montpelier	—	—	—
7	LaGrande	—	—	—	19	Evanston	—	—	—
8	Marysville	—	—	—	20	Rieth	—	—	1
9	Hastings	—	—	—	21	Salina	—	1	—
10	Glenns Ferry	—	—	—	22	Sidney	—	1	—
11	Rock Springs	—	—	—	23	Spokane	1	—	—
12	Boise	—	—	—					

SORTA MAN TO MAN

When the order was given "**Let there be safety,**" it meant more than just the order. It meant an improvement was necessary, that we were drifting rather than progressing and not practicing what we were preaching. Some men still wonder why it is necessary to keep talking about unsafe practices and conditions, but obviously it is necessary to prevent accidents, as most narratives disclose that **they** are responsible for most personal injuries.

June was the first month this year during which we showed an improvement and some of the accidents which occurred in June should have been prevented; therefore, it is necessary to keep talking about them. Are we going to admit we cannot go clear for one month when all that is necessary is to prevent injury to ourselves? If every man will prevent injury to himself, there will be no injuries. Many men go through an entire year free from injury, and a large number of our employes have never been injured during their entire service, notwithstanding they performed the same kind of work as others who were not so fortunate. The same condition holds true in other industries, on the streets and highways, and in the homes.

The pedestrian proves to be America's traffic problem. During 1938 there were 12,500 pedestrians killed in traffic. Two thirds of them were violating a traffic safety ordinance or committing an unsafe act. During 1938 accidents killed 94,000 men, women and children. The railroad contributed only a fraction of one percent of this number.

Apparently talking about conditions and practices that result in injuries has made men and women on the railroad more safety conscious. **No one** will admit we can-

not go clear in **July.** Watch the new men, the men returning from furlough, the absent-minded, worried or sick; keep them mindful of their own safety as well as the safety of those they are associated with. Thus you have an opportunity to do a good deed for a fellow man who needs a friendly word of advice now and then. We need a little more ENTHUSIASM for our safety, besides the other three "E's"—Engineering, Education, Enforcement.

We are in the age of scientific development now. It is impossible to predict or even to imagine what the near future may produce. If a few years ago any one had predicted the aeroplane, telegraphing without wires, or the radio, such a man would have been questioned for his sanity. Many of us have seen the days as portrayed in the Premiere of the Union Pacific, the hardships of railroad operation in those days and many years following. They have observed the improvements of railroad service during recent years as compared to fifty years ago. The streamliner as compared with the passenger train of that day as shown in the picture portrays the result of progressive thought which was beyond the imagination of the pioneers. Old timers have reason to be **proud** of the fact they contributed **so much** to the advancement of this great industry, pioneers who endured tremendous hardships that the nation's business might be transported safely. They were experts and fearless in the line of duty. Today, as then, men must be expert in their line of duty —safety depends so much upon how each man performs his work, in the shop, on the road, on the train or engine, or in the office. There can be no day-dreaming, thoughtlessness or carelessness enter into a man's mind while at work if there is to be safety.

The man who digs a ditch or lays a brick honestly, making life comfortable and secure for others is useful and praiseworthy. The crew and the engineer who take their rushing train and hundreds of passengers safely through the night, helping on commerce and the exchange of commodities, making life safe through their punctuality and watchfulness, are pushers in the nation's progress.

The very successful, the ablest, and many of the richest men are also among the pushers, and among the most useful of them.

The United States is a nation of great progress and its growth has merely begun. Railroad men are and can be important contributors to its progress. Keep your head clear with regular sleep, hard thinking, wise living, constant observation. It is not special brilliancy that makes success, but **persistency** and more **persistency. Let there be safety.** —Editor.

NEBRASKA DIVISION

A **brakeman** sustained fractured bones in the left ankle, when he fell from car in making a switch movement at a station. He was the swing man and handling the list on a local train.

A car was kicked in on a team track and this brakeman climbed up ladder on brake end of car, but when he reached top of car he missed the hand hold and fell to the ground, alighting on his feet. Fortunately he was on the rear end of the car in the direction the car was moving or this accident might have been much more serious.

It developed that he had handled switch lists but a few times although he was an experienced brakeman. He was very nervous by reason of that and this is probably accountable for his missing the top grab iron.

Good advice is—when not thoroughly familiar with the work to be performed, take time to figure it out beforehand, which, in the long run will be the safest and the quickest way.

The field man should have ridden this car and the man handling the lists should have been considering other moves to be made. Disability 60 days. N-11

This was the first injury to any member of crew since this conductor was promoted in 1920.

A **conductor** fell when he attempted to board caboose of train pulling out of side track, at a speed of 10 miles per hour, sustaining cut just below left knee, strain of left ankle, disability 3 weeks.

After giving proceed signal to engineer, he watched the train for sticking brakes and dragging equipment, and as caboose was passing he swung on with his right hand on circle grab iron on rear of caboose and left hand on guard rail, but just as he was about to place his foot on step, the train started to increase speed and his right hand hold was jerked loose and he swung around rear of caboose, breaking left hand hold, then fell to the ground, sustaining injury. He has been in local service 15 years, but states he misjudged or overlooked sudden lurch ahead as train increased speed, which jerked his hands loose.

This accident proves what we have often said—that we must be thinking what we are doing all the time.

Although experience is the best teacher, sometimes the ablest men forget, and that is when disaster occurs.

Accidents are no respectors of persons—when the set-up is right, that's when it happens to whoever is in the way. N-70

A **yard clerk,** while walking between main line and passing track, at a station, stepped too close to passing track and was struck by side of car which was being set out by a train. It bruised his side and incapacitated him one day. N-71

Do not step foul of a track without looking both ways. This is good advice.

WYOMING DIVISION

A **machinist** fell from running board of an 800 class engine to roundhouse floor, breaking a bone in his left ankle, which will probably incapacitate him for 3 months.

He had been instructed to remove the shut off feature of left boiler check. He knew the engine had been blown down, in order to do some work on the boiler, and he did not think that there had been sufficient time to fill it up again, but the boiler had been refilled. He did not look at the water glass or try the guage cock although he went through the cab to get out on the running board, and when he removed the shut off feature, he was standing directly in front of the pipe, and hot water spurted out on him. Steam enveloped him so that he could not see his footing and in his haste to get away from the hot water he fell off the running board. He had been up all night on account of the serious illness of his wife and should not have attempted to work, having had no rest. Undoubtedly, this was a contributing factor, at least, in his overlooking or forgetting to try the guage cock to see whether there was water in the boiler, and in being in improper position in front of the pipe. Y-31.

A **roadway machine operator,** Maintenance of Way Dept., while operating an adzer on an extra gang, had completed work of relaying rail. He and two other employes took carriage wheels from rack and attempted to mount adzer so could be moved to new work. When they were moving carriage frame up and down to get it to

fit in slot, this man's finger was caught between end of axle and rail, which resulted in amputation of second finger at distal joint, right hand, disability 2 days. Y-36

An **extra gang laborer** was cranking air compressor, preparing to start operation of drill, when motor backfired, resulting in crank striking him across the nose, inflicting serious bruises and cut to nose, disability 2 days. Y-55

Obviously employes should be cautioned to expect kick-back of crank during any cranking operation, and should place themselves in such a position as to avoid all hazards of personal injury.

A **fireman** sustained burn on left eye while assisting engineer in packing hot driving box on a 5000 class engine.

He was pulling down tell-tale spring with piece of wire when wire slipped off spring, splashing hot grease into his eye, disability 1 day. C-17

KANSAS DIVISION

A **fireman** jumped from gangway of engine, sustaining broken bone in right ankle, when engine was derailed at switch point while a switch crew was endeavoring to make a drop. The engine was moving about 12 miles per hour and climbed switch point which was blunt due to wear and pieces chipped out. The fireman thought the cars which were following the engine might tip engine over when they struck the tank, and he jumped out from gangway onto hard ground, a distance of about 10 feet.

This movement is made daily and sometimes can not be avoided. It has been done successfully for at least 20 years. K-6

COLORADO DIVISION

A **machinist** sustained serious injuries to his back, which may incapacitate him permanently, while handling front pair of engine truck wheels to apply to a 7000 class engine. He had wheels resting on pit planking over hydraulic jack, then went down in the pit and turned on the globe valve to raise the jack, which would contact the wheels, and he intended to lower them into pit in order to move them to the engine. Both engine truck boxes had turned over and the helper had straightened up one of them but could not straighten up the right hand one. The machinist, after having turned on the valve, stepped onto the ladder and was assisting the helper to straighten up the right hand box when the jack came up, the head contacted the edge of the axle instead of groove picking up the axle properly to raise it, which started the wheels to roll.

The machinist tried to get out of the way but the pair of wheels rolled off of the planking and fell into the pit. One wheel grazed his back resulting in fracture of first lumbar vertebrae and fracture of transverse process of second lumbar. The jack was found to be working properly but both mechanic and helper overlooked the jack coming up as they were working on the right side trying to straighten the box, until it had contacted the axle, and they did not have the jack gauged properly so the groove would pick up the axle. C-12

This was the first injury in this shop during 350 days, which again proves conclusively that "Eternal vigilance is the price of safety."

IDAHO DIVISION

An **engineer** (motorman) was fatally injured, when a motor train struck a trailer gasoline tank, on a highway crossing. The driver of this tank truck with trailer disregarded railroad and slow signs, failed to stop for the crossing and drove onto the crossing immediately ahead of the motor train, notwithstanding crossing whistle was being sounded properly and other highway vehicles had stopped to allow motor train to cross.

When the motor train struck the gasoline tank trailer an explosion immediately occurred. One side of the engine room was torn open and burning gasoline enveloped the engineer and the interior of the engine room, and over the outside of the motor train. Death to the engineer was apparently instantaneous.

While the proper sounding of the whistle, in this case, did not attract the attention of the driver of the gasoline truck, enginemen should be particularly careful at all times to properly sound the whistle to warn highway traffic and to protect, so far as possible, against accidents of this kind. D-43

A **switchman** while preparing to release brakes, slipped off brake platform and fell to the ground. He sustained cracked 10th rib account striking left side on draw bar, but did not lose any time. D-15

OREGON DIVISION

A **passenger carman**, who was running jointer in coach shop, jointing a stick, sustained cut on first and second fingers, left hand, when the knife caught in the stick and the stick kicked backward catching his fingers. This was a piece of mahogany 3 inches wide, 11½ inches long, ½ inch thick, square at one end, the other end cut at a 45 degree angle. Instead of using a notched block and running angle end through first, he ran the square end through holding piece down with his hands. Disability 2 days. O-22.

A **fireman** got foreign particle in his left eye while looking out engine cab window. By the time he got to the doctor a small ulcer had developed which resulted in 3 days' disability. O-1

An **engineer** felt foreign object enter his eye while watching track and after arriving at terminal and securing rest he went to doctor who had difficulty removing it due to foreign particle having lodged in cornea. Disability 4 days. O-25.

LOS ANGELES DIVISION

A **hostler**, while attempting to close pump drain on back pump of a 2700 class engine, placed his right foot on rim of No. 4 driving wheel, left foot on floor, and reached with left hand to close drain, taking hold of drain pipe. The valve broke off at pump cylinder and he fell back on floor, breaking his right leg between the hip and knee. Disability 6 months. S-63.

A **B&B employe** sustained broken left arm and bruises on ribs, left side, when two track motor cars collided on curve, one of which had stopped before accident occurred, the other being operated by B&B employe who failed to reduce speed for curve until too late to stop within distance seen to be clear, resulting in this serious injury. The rule governing the handling of motor cars, around curves, is a good one, as this unfortunate accident illustrates, and it should not be necessary to have an accident of this kind to prove its worth. S-62

A **section laborer**, while picking out around tie, in preparation to removing this tie, struck the rail with pick. A small piece of metal from the rail broke off and struck him in the right eye resulting in the loss of the eye and disability of 30 days. S-29

Ever once in awhile we have a similar accident which fortunately does not result in serious injury. Every one of these accidents are warnings to be careful, and protect against striking rail or metal.

Accident Prevention Bulletin

March 10, 1939

Issued monthly by the Safety Department for employes of the Union Pacific Railroad. Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"SAFETY THOUGHTS MAKE WORK SAFE AND STOP ACCIDENTS."

COMPETITIVE RANKING—SECOND MONTH

Including casualties and careful estimates of man-hours for the month of February in calculating the cumulative rates for the period January 1st to February 28th, the relative ranking of districts and departments appears to be as tabulated below:

Rank	District	CASUALTIES Month F	RI	LT	Period F	RI	LT	Wtd. Rate	ICC Rate
1	Eastern	—	6	2	—	14	6	11.61	2.14
2	South-Central	—	8	3	—	13	3	19.31	3.69
3	Northwestern	1	8	1	1	12	2	48.06	8.11
	Total—1939	1	22	6	1	39	11	18.94	3.43
	Total—1938	—	9	3	—	22	10	11.53	2.12

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)

1	Nebraska	5	Idaho
2	Wyoming	6	Kansas
3	Colorado	7	Oregon
4	Los Angeles	8	Washington

Transportation Dept.

1	T. E. Williams—Nebr.	5	C. P. Cahill
2	B. O. Wedge—Wyo.	6	F. C. Paulsen
3	A. L. Cocy—Colo.	7	M. C. Williams
4	H. H. Larson—Los Ang.	8	P. T. McCarthy

Maintenance of Way Dept.

1	J. P. Mack—Los Ang.	5	L. I. Hammond—Wyo.
2	E. F. Kidder—Wash.	6	L. W. Althof—Ore.
3	R. M. Jolley—Nebr.	7	N. C. Pearson—Kans.
4	L. V. Chausse—Idaho	8	C. W. Pitts—Colo.

Mechanical Dept.

1	H. H. Jones—Wyo.	5	L. L. Hoeffel—Los Ang.
2	W. J. Nolan—Colo.	6	J. R. Frohoff—Kans.
3	S. C. Smith—Idaho	7	L. W. Shirley—NW
4	A. V. James—Nebr.		

Shops

1	G. L. Wales—Omaha	3	G. M. Walsh—Poca.
2	H. T. Snyder—Chey.		

CASUALTIES BY DEPARTMENTS.

	February F	RI	LT	Jan. 1 to Feb. 28 F	RI	LT
Transportation	1	13	4	1	20	7
Maintenance of Way	—	4	—	—	6	1
Mechanical	—	4	1	—	12	2
Miscellaneous	—	1	1	—	1	1
Total	1	22	6	1	39	11

PRINCIPAL SWITCHING YARDS

Group (A)

Rank		F	RI	LT	Rank		F	RI	LT
1	Salt Lake	—	—	—	9	Green River	—	—	—
2	Los Angeles	—	—	—	10	Argo	—	—	—
3	Pocatello	—	—	—	11	Cheyenne	—	—	1
4	Omaha	—	—	—	12	Kansas City	—	1	—
5	North Platte	—	—	—	13	Denver	—	1	—
6	Nampa	—	—	—	14	Albina	—	1	—
7	Laramie	—	—	—	15	Co. Bluffs	—	1	—
8	Grand Island	—	—	—					

Group (B)

Rank		F	RI	LT	Rank		F	RI	LT
1	Rieth	—	—	—	7	The Dalles	—	—	—
2	Idaho Falls	—	—	—	8	LaGrande	—	—	—
3	Salina	—	—	—	9	Glenns Ferry	—	—	—
4	Huntington	—	—	—	10	Marysville	—	—	—
5	Rawlins	—	—	—	11	Hastings	—	—	—
6	Topeka	—	—	—	12	Sidney	—	—	—

Group (B)

Rank		F	RI	LT	Rank		F	RI	LT
13	Rock Springs	—	—	—	18	Twin Falls	—	—	—
14	Kemmerer	—	—	—	19	Montpelier	—	—	—
15	Boise	—	—	—	20	Evanston	—	—	—
16	Columbus	—	—	—	21	Hanna	—	—	—
17	Kearney	—	—	—	22	Spokane	1	—	—

HELP WANTED

If your roof leaked, would you repair it? If the sole of your shoe was badly worn, would it pay to have another sole applied? If there was a fire in your house, would you put it out? If your family was ill and needed medical treatment, would you call a doctor? If you noticed a friend was in danger, would you warn him of it?

Have we any moral obligation in this life other than the faithful performance of our work? Are we fair or loyal to our family if we take a chance and thereby jeopardize their happiness?

Where have the old time records in accident prevention, we were so proud of, gone to?

What caused the epidemic of personal injuries that occurred in January and February?

Will you help us **stop accidents?**

Let's check up carefully and see if there are any corrections we need to make—

Misunderstandings caused the first fatal accident this year.

Failure to see where he (a hostler helper) stepped, caused a very serious injury.

Slips and falls caused others.

Safety depends so much upon how every member of a crew performs his work.

Safety thoughts make work safe and **stop accidents.** Most men have them and use them. About 36,000 men worked safely by reason of their use during January and February, but we are concerned about the 51 fellow employes who were unfortunate and particularly because of a fatal accident.

A faithful employe, competent workman, respected citizen and good father has passed on. There can be heard nothing but words of praise of him, of his character and ability. It was a pleasure to have met him and known him. No greater tribute can be paid him than that he was a man among men.

The Union Pacific can well be proud of their personnel. Fair dealing has created a fellowship and sympathetic understanding very neccessary in accident prevention. All employes have always been generous with their support of any worthy undertaking in which their assistance was solicited and we are now confronted with a problem which requires whole-hearted cooperation of everyone to devise ways and means of preventing accidents like those narrated in the following pages.

Thus we will correct the difficulties and eliminate the "ifs". We know we can count on you.

—Editor

Transportation Department

A **brakeman** sustained broken bones to two toes left foot while assisting in unloading a tractor wheel from a box car. It had rubber tires. Three men of the crew were letting it down to the platform and allowed it to drop. When it hit the platform it bounced and struck the brakeman on his foot. Disability 45 days. K-14

There are station trucks furnished to unload heavy pieces of freight on.

Safety thoughts would have prevented this accident.

An **engineer** in attempting to open a side window of a 9500 class engine, shoved his hand through the glass cutting his right arm above wrist. Disability 7 days. The window did not move freely account frost and tight weather stripping. D-16

No work is necessarily hazardous but it is only as safe as we make it.

A **fireman** on an oil burning engine attempted to knock carbon off burner with slash bar. He sustained severe burns about his face by a sudden explosion of gas. He shut off the flow of oil at firing valve, closed atomizer valve, opened blower and then dislodged the carbon. While withdrawing slash bar from fire box the explosion took place.

It develops the pin on the firing valve quadrant was missing and the fireman bumped his hip against the valve handle while working. Oil ran into the fire box and the gasses soon exploded. Engine inspector evidently overlooked the fact that the pin was missing and the work reports did not mention it.

So much depends upon how each man performs his work. An oversight in this case, resulted in a personal injury and disability of 12 days. O-18.

A **switchman,** walking across tracks to be ready for next move, stepped on board walk and slipped. He fell to the ground and sprained his left wrist resulting in 14 days' disability. O-15

This occurred in day light in one of the large yards.

Slips and falls resulted in six other personal injuries during February, although the weather was more favorable than usual this year. All we can say is: "**Watch your step.**" There does not seem to be any good reason for so many of such accidents.

A **fireman** received severe cuts and bruises and severe burns to both wrists with 30 days' disability, and an engineer sustained three fractured ribs, cuts and bruises, with 30 days' disability, when their engine crushed through a bridge on a branch line which had been damaged by high water. W-9

Sectionmen had inspected the track and bridge several hours before the arrival of the train but high water came down later, gathering a large amount of debris after last inspection made which took two bents out.

Sectionmen should take a lesson from this and see that inspections are made as close ahead of trains as possible.

An **engine foreman** was knocked down and run over by two cars which were kicked toward a yard track. Wheels ran over his right leg at hip and left leg below knee, from which he died three hours later. W-10

The crew was working on the opposite side from the switch. The swingman understood foreman would remain at switch until kick made and gave kick sign soon as saw switch points change. From observation of an engineer on another engine in yard, the foreman started to cross over in front of cars just as they started to move and apparently glanced in the opposite direction as he stepped in front of them.

Frequent mention is made at safety meetings and by placards of the hazard of fouling a track without looking both ways, and to never cross a track close ahead of cars; obviously a correct understanding of moves being made is necessary.

Several very good men have met with serious and fatal injuries during the past 6 months and there has been no apparent good reason for them. These are serious matters worthy of a lot of thought and every employe should realize he can help, by the manner in which he performs his work, in preventing such accidents.

It might be easier for us to ask that you keep your mind on your work all the time than it is to grant it, but if thoughts of safety are always given first consideration they will save lots of distress. Therefore, we can not urge too strongly for you to think of **safety** and **think,** and **THINK.**

A **switchman** in another large yard started to climb up a side ladder on a standing PFE car and had gotten up to the third rung from the bottom when his right hand slipped from the ladder rung and he fell to the ground fracturing his right leg.

Before starting up ladder he had picked up a newspaper to aid in giving signals and was holding it in his hand, on which he was wearing a new mitten, which, no doubt, prevented firm hand hold. Disability indefinite. K-20

An **engine foreman** had received instructions from yard master and started to step down step outside of office door. His right ankle turned and he fell breaking small bone just above ankle. No ice or snow or rain on step. Disability 42 days. N-34

A **fireman** taking water on a 2500 class engine was standing on running board of tender, lost his balance and fell to the ground, fracturing his right wrist. Disability 30 days. D-42

A **brakeman** attempted to board a box car moving at 6 miles per hour, dislocated his left hip.

He had just placed his right foot in stirrup when he felt pain in left hip so severe he could not hold onto the grab iron and threw himself back, falling about middle of a crossing. His hip slipped back into place. Disability 10 days. D-44

A **brakeman** sustained fracture to two ribs and possible kidney injury. Disability 3 weeks. He was watching train pull by and noticed brakes sticking on a car and ran along side bleeding air. After completed bleeding air, but while still running, he ran into corner of a car on opposite track which knocked him down and he fell on his lantern. No one can prevent such accidents except the man himself. O-40

A **fireman** sustained burns on face and hands from escaping steam, also fractured bone in foot, which probably occurred while going back over tank of engine to avoid steam when copper steam pipe to water column broke where it fits into boiler. Disability 30 days. S-35

A **brakeman** sprained and bruised his left ankle while checking cars account stepping on a small rock. Disability 2½ days. S-42

A **switchman** on his way to work, riding gas electric motor car, fell when getting off, injuring left arm and elbow. D-2

A **trucker** stepped on nail in slat used for bracing which had been nailed to floor leaving several small nails protruding, or in other words, setting a trap for some one who might not be looking, and this young man stepped on one of them and punctured bottom of his foot, which incapacitated him two days. D-53.

There has been enough said about such things and this accident had to occur to prove it was not just theory. Do not leave nails protruding in boards.

A **brakeman** fell from cupola to floor of caboose when derailment occurred at a railroad crossing, which caused rough stop on rear end. He sustained severe injuries to his back and head from which he will be incapacitated 3 months. W-18

Two foreign line enginemen were fatally injured in this accident, their engine having struck the side of UP train.

If caution signals had been properly obeyed it would have permitted them to stop at the home signal. Thus it is seen how necessary it is to properly observe all caution signals—two fatal and a serious personal injury should not be necessary to prove this.

A **switchman** while attempting to get on a tank car, the poorest type of car to try to get on, which was moving about 4 MPH, in order to avoid walking about 4 car lengths, in some manner strained his back. Disability 2 days. Y-46

Safety First pays.

We do not believe men are injured purposely, but we know many of these accidents do not reflect credit to themselves or any one else. These were all experienced men, believe it or not, and it is easy enough to figure out why we are slipping. **A few safety thoughts will prevent most accidents.**

Theodore Roosevelt said in his address at Harvard Union, February 23, 1907:

"IN POPULAR GOVERNMENT RESULTS WORTH WHILE CAN ONLY BE ACHIEVED BY MEN WHO COMBINE WORTHY IDEALS WITH PRACTICAL GOOD SENSE."

The **Man** who is **Sold** on **Safety** is a pretty **Good Fellow** to **work with.**

Contributions by an Old Time Engineer, Train and Yardman.

Never allow yourself to get excited. Never permit anything to take your mind off your work. Don't allow yourself to get into a tight place unexpectedly. Always be prepared to meet any emergency should it arise. School yourself along these lines and observe the rules literally and you will be a successful employe.

Your safety demands that you warn and instruct your fellow employe as to his dangerous practice or habits. Watch your step and be safe at all times. It is better to be slow and safe than to be fast and get crippled.

Attention is called to the danger that is ever present on freight trains, particularly when slowing down entering yards, meeting points or stopping, account of slack action. Trainmen riding in caboose or on back of platforms of same, must be extremely careful and vigilant to protect themselves from any unusual slack action to prevent injury.

Always keep a firm hand hold when setting hand brakes, and be sure you know how to use the brake club properly. If you do not, ask some "Old Head", as it is a dangerous tool when improperly used.

Maintenance of Way Department

A **crossing watchman,** while going out on crossing to protect an engine movement, stepped on a pebble and sprained his right ankle. Disability 10 days. D-35

A **sectionman,** while tightening bolts on rail joints, bolt broke through shoulder of head end causing him to lose balance and fall on rail, resulting in fracture to both bones of right leg between knee and ankle. Disability 60 days. K-1

A **sectionman** was seriously injured when struck by an auto on highway crossing where he was working. The auto driver disregarded flagman's signals, struck this man, fracturing first lumbar vertebra, disability 6 months. The driver was later arrested. C-18

A **watchman** sprained his right knee and tore ligaments and ruptured cartilage, disability 15 days, when trying to get up from sitting position on ground. He sat down to load powder into a hole and when getting up injury occurred. O-39

A **sectionman** had left thumb fractured while handling ties. Two men were handling each tie and when climbing up bank with end of tie injured man slipped on snow and ice falling to ground and tie dropped on his thumb. Disability 21 days. Y-51

Safety First pays dividends.

A **signal helper** sprained his right ankle. Disability 5 days. While off duty he was getting down from outfit car and stepped on a small rock. O-38

There is help needed to stop avoidable accidents. Safety thoughts will do it. Safe men will keep it that way. It is time to repair our house and put new "souls" on our feet and to send for the doctor and get a good prescription filled. Every one who will stop to think will feel humiliated by a lot of accidents we have had the past 5 months. We have always had great pride because of our efficiency. No job is necessarily hazardous but it does require some forethought and application of practical good sense.

SAFE RULES FOR LIFTING

1. Get directly over your load.
2. Spread your feet apart and get a good footing.
3. Squat over the load, keeping your back as straight as possible.
4. Do not attempt to lift if body is twisted.
5. Lift load principally by use of leg muscles.
6. If there is a feeling of strain, stop lifting and start again in a better position, or get help.
7. Never attempt to lift by giving load a sudden jerk.

Mechanical Department

A **stationary fireman,** who assists in servicing engines, climbed ladder of tender of a 700 class engine to take water then walked forward far enough to see if tank properly spotted for taking oil also. There is a platform built over forward part of tender and he stepped up on this platform. When hostler pulled oil spout around it was found engine was properly spotted and when he stepped down off platform he stepped into the manhole and fell straddle of it. This manhole extends up over top of tender about 16 inches and when he fell with all his weight on this extension it bruised and lacerated him severely. Disability 6 weeks. W-11

A **sheet metal worker** assisting in removing 1½ inch pipe nipple from steam cylinder of feed water pump on a

5400 class engine, was pulling on wrench when it slipped off nipple and he fell 18 inches to the floor, striking his nose on the edge of machinist's tool box. Disability 1 day. PS-2

A **boilermaker helper** while removing washout plug from a 5500 class engine, working wrench back and forth to loosen the plug, caught his right hand between handle of wrench and clamp of injector pipe, fracturing bone in his hand. Disability 3 weeks. S-19

No safety thoughts displayed in this case.

A **machinist helper** sustained crushed finger necessitating amputation, while assisting other mechanical employes to lift a steel bar 5 inches in diameter, 46 inches long, into smoke box to be used as cross bar, in order to raise front end of 3500 class engine. Disability 20 days.

The foreman had instructed that this bar be let down through stack with crane but leading workman elected to lift it in at front end, and, as the men were letting one end of bar down on door ring, this man had his left hand around end of bar and it slipped back catching his index finger.

There were 5 men trying to handle this bar and the work could have been done safely and as quickly by using the crane. Disobeying instructions resulted in a fellow workman receiving a serious personal injury. No safety thoughts evidenced in this case. O-1

A **machinist** while burning off bolt on broken cylinder of a car got several particles of hot sparks in his ear. O-23.

A **car inspector,** was connecting steam to empty tank car. Ladder was placed from ground to dome of car. He became overbalanced when about 6 feet from the ground and jumped to the ground fracturing his ankle. Disability 6 weeks. S-43

Contribution by a Car Inspector

Another year has passed. We have completed an enviable record in Safety but we still have accidents resulting in lost time, lost limbs, lost lives.

Some things happen in this World that are beyond our control. These are emergencies, but many more things happen that we could have prevented. These are tragedies. Somehow we fail to distinguish the difference between these two—emergency and tragedy. In doing so we try to deny responsibility, or at least to excuse our lack of foresight.

Let's don't start drifting. There are few limitations to what the average man can do.

Work safely—work is the one great cure for most of the mental ailments that afflict mankind. Poverty, unhappiness, disappointments, hopelessness, all yield to the magic of work. It is one sure cure, so, no matter what ails us, **Let's Work Safely.**

—Herbert L. Price, Car Inspector.

Remember, it only takes one accident to injure you, no matter how it occurs, and it hurts to get hurt. It hurts your family when you get hurt—it hurts your friends—your associates—your employer and the safety record, when you get hurt.

Proper safeguarding of machinery and tools has reduced accidents one-third, but we, the human element, who can not have mechanical safeguards placed on us, cause most industrial accidents.

Miscellaneous Departments

A night **cook,** DC&H Dept., while cutting beef for sandwiches, knife slipped and cut his little finger, left hand. Disability 1 day. N-40

A **train baggageman,** assisting load casket box weighing about 600 lbs., from baggage truck into baggage car, was standing inside door of baggage car. He had hold of front handle of box with right hand lifting it into car when front end of box struck the metal door sill, catching his fingers between box handle and door sill, causing fracture of right middle finger and contusion of ring finger. Disability 3 weeks. S-2

Thus endeth the worst February we have had in years.

During the year 1937, 5,500 children under 5 years of age were fatally injured due to burns, falls and suffocation. There were also 2,150 fatal injuries, due principally to the same cause, among children between 5 and 14 years of age, all occurring at home.

Fatalities to employes on the railroads have taken a spectacular drop, from 3,755 in 1918 to 806 in 1937. **SAFETY PAYS.**

The following contributions by scholars in Salt Lake High School.

> "You better live your best, and act your best and think your best today, for today is the sure preparation for tomorrow and all the other tomorrows that follow."
>
> —Harriet Martineau.

> "How much easier our work would be if we put forth as much effort trying to improve the quality of it as most of us do trying to find excuses for not properly attending to it."
>
> —Geo. W. Ballinger.

IMPROPER USE OF FIRE EXTINGUISHERS

Report has come to us of an oil fire which unfortunately caused the death of a man due to improper use of fire extinguisher. An open bucket was used to catch gasoline dripping from a leaking carburetor. The gasoline ignited from an engine backfire or from a lighted cigarette or some other cause. Employe took a foam type extinguisher and working at close range directed the stream squarely into the oil causing it to splash over him, causing burns from which he later died.

Great care should be used in applying foam to prevent splashing of burning oil. A forceful stream should be broken into a spray or should be directed against some solid object to one side of the surface from which it can flow gently over the oil.

—National Safety Council News Letter
Engineering Section.

Accidental deaths occur ten times as often as homicides—six times as frequently as suicides. Thousands are killed accidentally while newspapers are carrying developments on a single murder case.

April 26-29 has been set aside for the premiere of the Paramount Film "Union Pacific". This celebration is being entered into by all employes with a spirit which has surpassed any other event and shows that a wholehearted effort can be put forth to make this premiere a tremendous success. Why can not that same spirit be captured throughout the System and make a "Premiere" of our safety record.

It can be done if you will but try and we have faith in your desire to try—knowing you will not fail us.

Accident Prevention Bulletin

January 11, 1937

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Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—YEAR 1936

Including casualties and careful estimates of man-hours for the month of December in calculating the cumulative rates for the period January 1st to December 31st, the relative ranking of districts and departments appear to be as tabulated below:

CASUALTIES

Rank	Districts	Month K	Month RI	Month LT	Period K	Period RI	Period LT	Wtd. Rate	ICC Rate
1	Central	—	6	2	2	35	25	16.14	2.60
2	Eastern	—	15	4	7	126	50	16.49	2.79
3	Southwestern	1	4	1	1	31	11	23.01	4.07
4	Northwestern	—	5	2	2	50	23	27.64	4.74
	Total—1936	1	30	9	12	242	109	18.58	3.15
	Total—1935	—	15	6	9	167	54	14.21	2.44

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.

1	Nebraska	5	Wyoming
2	Central	6	Washington
3	Kansas	7	Southwestern
4	Colorado	8	Oregon

Transportation Dept.

1	C. P. Cahill—Kans.	5	A. L. Coey—SW
2	B. O. Wedge—Wyo.	6	H. A. Connett—Ore.
3	J. E. Mulick—Nebr.	7	M. C. Williams—Wash.
4	F. C. Paulsen—Cent.	8	J. M. Guild—Colo.

Maintenance of Way Dept.

1	C. W. Pitts—Colo.	5	L. I. Hammond—Wyo.
2	L. V. Chausse—Cent.	6	N. C. Pearson—Kans.
3	R. M. Jolley—Nebr.	7	R. L. Adamson—SW
4	M. C. Williams—Wash.	8	L. W. Althof—Ore.

Mechanical Dept.

1	A. V. James—Nebr.	5	G. R. Wilcox—Kans.
2	S. C. Smith—Cent.	6	H. T. Snyder—Wyo.
3	L. W. Shirley—NW	7	G. H. Berry—SW
4	W. J. Nolan—Colo.		

Shops

1	C. F. Spicka—Chey.	3	E. J. Cole—Omaha
2	G. M. Walsh—Poca.		

DECEMBER CASUALTIES

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	—	15	4	Transp.	1	17	4
Central	—	6	2	M. of W.	—	4	1
Northwestern	—	5	2	Mech.	—	7	3
Southwestern	1	4	1	Miscel.	—	2	1
Total	1	30	9		1	30	9

CASUALTIES JANUARY 1 TO DECEMBER 31

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	7	126	50	Transp.	8	96	49
Central	2	35	25	M. of W.	4	58	36
Northwestern	2	50	23	Mech.	—	66	14
Southwestern	1	31	11	Miscel.	—	22	10
Total	12	242	109		12	242	109

PRINCIPAL SWITCHING YARDS

Rank		F	RI	LT	Rank		F	RI	LT
1	Cheyenne	—	—	—	9	Los Angeles	—	2	2
2	Green River	—	—	—	10	Spokane	—	—	2
3	Salina	—	—	—	11	North Platte	—	1	—
4	Marysville	—	—	—	12	Salt Lake	1	—	3
5	Co. Bluffs	—	—	1	13	Omaha	—	5	1
6	Pocatello	—	1	—	14	Kansas City	1	1	—
7	Laramie	—	—	2	15	Denver	1	2	—
8	Albina	—	1	—	16	Seattle	—	2	1

	Thousands	1920 ratio Fatal	1920 ratio Reportable	Actual Fatal	Actual Reportable
1921	127,566	69	3,055	30	1,620
1922	132,210	71	3,166	35	1,359
1923	144,183	78	3,453	55	1,080
1924	132,633	72	3,177	21	764
1925	125,984	68	3,017	27	615
1926	129,900	70	3,111	27	587
1927	128,640	69	3,081	13	443
1928	130,126	70	3,117	16	369
1929	129,165	70	3,094	26	293
1930	112,264	61	2,689	14	212
1931	90,774	49	2,174	9	160
1932	64,793	35	1,552	13	153
1933	59,510	32	1,425	3	135
1934	65,211	35	1,562	11	173
1935	72,057	39	1,726	9	167
1936	80,670	44	1,932	12	242
At same ratio as 1920—		932	41,331	321	8,372
Actual		321	8,372		
Reduction due to safety work activity		611	32,959		

The foregoing tabulation shows that had there been no improvement in safety activities during the period 1920 to 1936 and had the 1920 ratio of fatalities and reportable injuries remained constant through these years the Union Pacific Employes would have suffered 611 more deaths and 32,959 more reportable injuries among their number than did actually occur.

For the information of employes not familiar with what is rated as a fatality and as an injury for reporting purposes to the Interstate Commerce Commission, a fatality is an injury causing death within 24 hours of the time of its happening. A reportable injury includes fatalities wherein the death occurs subsequent to the 24 hour period and all injuries causing a loss of work to the employe of more than 3 days from the time of the injury in the 10 days following its occurrence. A lost time injury is one which disables the employe from returning to work on his next regular working period, within 24 hours of the beginning of the work period on which he was injured, or to lose the work of one and not more than 3 shifts or tours of duty within the 10 days following the occurrence.

Active safety work was started on the Union Pacific in 1911 and has been carried on continuously since that year. In its first conception it was followed principally as corrective of conditions which were alleged causes of accidents and personal injuries. A great deal of work involving large expenditures on the part of your company was done and much was accomplished in the way of accident prevention during the period from 1911 to 1920.

About, or shortly prior to, 1920 it was determined that a goodly percentage of fatalities and personal injuries were not due to conditions of equipment, tools, track or structures, but were due to faulty methods of doing work on the part of employes and their supervisors. The safety department on the Union Pacific was then set up to give a defined safety organization, with duties of checking working methods, developing rules

for safe handling of work and interesting supervision in their responsibilities in connection with proper planning and carrying out of work being done under their direction. That this campaign in the interest of accident and personal injury prevention has been beneficial to the employes is definitely shown in the table of results obtained since 1920.

We are concerned about the upward trend of fatalities and injuries occuring during 1936 and while we know it is partly due to the return of former employes, the hiring of men with experience on other railroads and the employment of men inexperienced in railroad work in larger quantities than has prevailed for many years, we also believe from analysis that many of the injuries were due to indifference or inattention on the part of foremen and supervision to instruction of their men in safe methods of doing work and following up to see that the instructions were fulfilled.

Supervision by reason of being in close contact with the employes working under their direction is the only logical medium for prevention of personal injuries. Let me say to you foremen and supervisors, that the time is at hand when your ability for handling your positions is being judged by the way you handle **your men** and **your work** and that an injury to an employe working under your direction is a notice to your department head that something is wrong with your men, or your methods. Also you men who expect or desire advancement must know and appreciate the fact that accidents and personal injuries representing about 85% of those occurring, are directly due to indifference or thoughtlessness on the part of the injured employe, and that records are being made of injuries and they will have a bearing in considering promotion.

Employes who demonstrate they are indifferent to instructions or rules relating to their work, to their personal safety, or to the safety of their fellow workers should be dismissed from the service.

To improve the 1936 personal injury record which stands as the poorest one made in any year since 1927, it is necessary for supervision, foremen and employes in all classes of work to get squarely behind the prevention of accidents and employe injuries during the year of 1937. This is a humane movement in the interest of each of you. Your Management's interest is in keeping trained, capable employes at work that they may have the advantage of their efficiency in the reduction of causes which lead to train delays, with their attendant complaints and dissatisfaction on the part of the shippers and passengers.

By each of you making up **your** mind that **you** are going to be careful in **your** work that **you** may not suffer the pain and loss of work due to a personal injury **you** will be making **your** best New Year resolution for 1937.

Transportation Department

Switchman: At 9:44 PM alighting from the sill step of a slowly moving car, stepped on a rock about the size of a teacup, and sprained his ankle severely. He states his lantern light was toward the ground and that he did not see the rock until after the accident. He will lose about three weeks time. D-3

Comments: This injury shows the value to be obtained in prevention of injuries by keeping pathways free of stumbling and falling hazards, also the necessity of seeing obstacles liable to cause a fall.

Brakeman: At 11:15 AM on a clear day an extra train stopped to head into a yard. The brakeman went ahead, lined the switch and while doing this noticed a car on track adjoining the track he had lined which appeared to be at close clearance. As his engine passed he swung onto gangway ladder, and just before stepping onto engine deck he leaned outward looking back at train, this action caused him to strike the car, be knocked to ground, and suffer injuries preventing him from performing work for 11 days. Y-1

Comments: The whole story of cause of injury and the possibility of its being a fatality is given. Leaning outward from engines or car ladders while looking backward is sure sign of lack of caution.

Conductor: Alighting from moving caboose strained his knee. Doctors examination shows arthritis brought on by strain of knee cartilage. Disability several days. D-9

Comments: Employes afflicted with rheumatism, arthritis, weak cartilages, etc., in justice to themselves and to the railroad should not take the chance of getting on or off moving equipment, except in emergency. Careful planning of work will almost always permit a trainman to get on or off of equipment while it is standing.

Locomotive Engineer: At 11:15 AM Union Pacific train moving at a speed estimated to be ten miles an hour on jointly operated track struck a locomotive engineer of the other railroad causing cuts about head and a broken leg. This engineman had been in stooping position between tracks looking under his engine. He probably failed to hear engine bell of UP engine as he stepped backward and was struck by engine pilot beam. S-6

Comments: A potential fatal accident was set up in this case by an old employe, probably so interested in what he was doing that he paid no attention to his surroundings. A man's first duty is to himself in the pursuit of his daily work and in the pursuit of his daily pleasures. Look about before fouling any track and you will avoid injuries from such causes.

Locomitive Engineer: Called for duty at 7:00 AM. Climbed up into engine and was talking to the head brakeman. Suddenly he appeared to faint and he fell backward out of engine gangway striking his head on a cinder pit retaining wall so injuring himself as to be unable to work for five days. C-3

Comments: The brakeman endeavored to catch the engineman and did succeed in grabbing his feet and breaking the force of the fall. No previous fainting spells could be developed. If not feeling 100 percent well any time, injuries are in the making and should be guarded against.

Fireman: At an eastern terminal there are two sets of yards having switching leads on long curves to the right for movement into the yard tracks. In some moves with long cuts of cars being handled into the west yard it is necessary to cross over the track leading into the east yard. At 6:48 PM of a clear calm evening a switch engine shoving 53 empty cars into the west yard stopped for signals, fouling the east yard lead. An extra west consisting of a 5000 class engine, 2 cars and caboose was standing on east yard lead, with knowledge of move being made by switch engine. Engineman states he received proceed signal, and was moving about 8 miles an hour when his engine struck cars fouling his track, side swiping and turning over two cars.

The extra west in pulling out was moving around a left hand curve, the engineman had no view in front of his engine, and at no time did he ask the fireman what conditions were on his side of engine. Fireman was sitting on seat box apparently looking ahead, he is an experienced man and headlight of engine gave view to front. Fireman just before collision yelled to engineman to stop, and then ran across deck and jumped from engine gangway to ground breaking his ankle. N-9

Comments: Fireman seemingly looking in direction his engine was moving, either had his attention on some other part of yard or was looking but not seeing due to his mind being elsewhere. Had engineman asked how things were on left hand side of engine it would have brought the fireman's attention back to his duties, and probably have saved the accident and resulting injury. Have cited this case in full detail to impress upon enginemen the necesstiy for making frequent inquiries about conditions, from fireman, when view ahead on engineman's side is obscured.

Freight Trucker: Had his foot punctured and a bone broken when another trucker attempted to assist him in opening a car door, by jabbing a pointed steel bar into the car floor to use as a pry. Disability indefinite. O-3

Comments: Accidents of this kind indicate no co-ordination between employes, and are inexcusable. Either the employe injured moved his foot or the one using the bar was incompetent. An understanding between them should have warned the injured man to get clear of possibility of such happening.

Switchman: At 4:00 AM a Mallet engine tender was being shifted with a switchman riding the lower step of gangway ladder. In getting off tender while it was moving his left foot struck the ground and the overall on his right leg caught on the hook of the water measuring hose which was hanging down on or alongside of the ladder, causing him to fall. In falling his left leg caught under tender journal box and was broken. Developments indicate measuring hose had been hooked up in proper place prior to tank being switched. O-9

Comments: Men riding equipment of this character have a personal responsibility in knowing there are no conditions which can contribute towards accident or, when necessary, guarding against such contributing causes. Mechanical men have the responsibility of inspection and knowing all appliances are in their proper place before ordering such equipment moved by switching or train crews.

Brakeman: Was having difficulty in operating a Hayes derail, and the locomotive engineer went to his assistance. While the engineer was operating the switch stand lever and the brakeman lifting on the derail block, it came loose suddenly catching the brakeman's right index finger under the derail causing disability of 10 days. S-17

Comments: There are no rules against handling a derail in this manner except the rules of good judgment. Any appliance operated by leverage sets up a chance for injury which must be guarded against.

Conductor: While doing station switching at 12:45 AM, engine with one stock car was required to move by the stock yards. Brakeman stopped movement and examined chute gate then rode side ladder of the car by the loading platform about 15 car lengths to get 3 additional cars. On returning with brakeman on side ladder of second car behind engine the conductor got on side ladder of third car. In passing the stock chute at speed of 10 to 12 miles an hour, one of the gates lightly contacted the brakeman and knocked the conductor to the ground fracturing several ribs. The conductor states it was very dark and that he was standing close to the car ladder shielding his eyes from engine cinders and did not see the gate. It is evident the chute gate was not latched and with the car and engine vibration of ground, it worked out until it extended beyond the platform. D-48

Comments: Special Rule 7(B) reads "At points where there are close clearances, trainmen will work on the opposite side of train from them, and, if necessary, the fireman will receive the signals and communicate them to the engineman." This recital illustrates how violations of rules can and do result in accidents. The company requires full compliance with its rules.

Brakeman: Riding front short ladder sill step of a car being shoved over a city street was struck by a loaded oil truck and knocked from the car sustaining injuries from which he died some 20 hours later. Accident happened at 10:55 on a clear night, with crossing wig-wag signal working. Truck loaded with kerosene and trailer with gasoline approached from the north at high speed, turned to the east side of street around several standing autos. Driver seeing he was going to collide with car, turned his truck to the east, striking car, and stopping about even with east end of car, one car length east of east side of street. Engineman seeing the truck strike car stopped the movement in about 10 feet. S-34

Comments: All we can advise for protection from drivers of autos and trucks when making switching moves of this kind is to ride on long side ladder and ride high when moving over highway crossings or city streets.

Fireman: Reported for work at 9:30 AM, found coal low in tank and necessary to open third slide of conveyor. In pulling out conveyor slide he slipped and fell to deck of tank, wrenching his back, causing disability of several days. Accident reported as resulting from man standing in the wrong position for the work he was doing. O-25

Comments: Placing oneself in wrong position or having insecure footing for work being done is the cause of a large percentage of injuries. Watch this feature of your work and avoid painful injuries with attendant loss of work.

Brakeman: Climbed onto brake platform of a standing car to set an Ajax hand brake. Platform was covered by snow and ice and as it was 12:55 PM of a clear day this condition could be seen by him. At first attempt to set brake he fell to the ground and fractured his right leg. C-20

Comments: Probably in a hurry and was not paying attention to his personal safety. Remember "Safety is of the first importance in the discharge of duty."

Brakeman: Train pulling into station and brakeman got on ground to pass signals. Head end train of 56 cars went out of sight around curve and with train moving slow brakeman climbed on top of 20th car to better pass signals. Top of cars were covered with ice and as he stepped on car running board the train stopped, causing his foot to slip and the brakeman to slide off car to the ground, fracturing several ribs. S-46

Comments: Icy conditions are frequent this time of the year and every care within the power of employes must be exercised to prevent injuries due to slipping and falling. Avoid positions where you have no hand hold when trains are stopping or starting. When coupling is being made hang on or get entirely off car before it is made.

Switchman: Using brake club setting brake on a standing car wrenched his back. Disability one shift. O-24

Comments: Watch your position when making a pull on brake. Never jerk a brake club or wheel, pull steady.

Brakeman: Returning to train from flagging, struck his ankle against track rail causing slight abrasion. Made no report of injury. Continued working until the ankle became painful and on seeing the doctor found infection was developing. Lost 3 days. S-43

Comments: Avoid loss of time by reporting and having small injuries properly treated.

Switchman: Getting on gangway ladder of a moving engine did it in such way that he turned his ankle. Disability 2 days. Y-38

Comments: In getting on moving equipment use your arms for partial support of your weight. It looks more acrobatic to bravely thrust your foot onto a ladder step of a moving car or engine and then gracefully grab the ladder rail or iron, but it is a dangerous method and the cause of many injuries.

Brakeman: Was wearing shoes with rubber heels having a heavy roll of rubber at rear end. This rubber roll is thought to have caused him to trip while getting off a standing caboose. He fell to the ground injuring his right hip. Disability indefinite. W-12

Comments: Shoes of peculiar construction or of character to which you are not accustomed are a tripping hazard. Avoid them.

Truck Operator: Moving electric drive tractor with front end drive mechanism into position along side of standing passenger equipment. His hand on the control lever struck the side of a car and caused compound fracture of right hand at base of little finger and a severed finger tendon. Disability about 60 days. D-52

Comments: Injury the result of attempting to turn truck on platform contrary to instructions, not looking in direction moving and getting too close to car. Following instructions and looking in direction your equipment is moving is the best known preventative of accidents.

Mechanical Department

Machinist Helper: Assisting in removing piston from a Mallet engine using a portable crane. The piston was being shaken to loosen it when it suddenly released and in moving out of cylinder it swung and struck the helper, bruising his knee and leg. Time lost to end of month, 9 days. CS-14

Comments: Handling heavy parts of any kind involves the possibility of injury. The crane attachments will prevent the piston from falling but will not stop swinging action. Keep in clear of such action or block the part being handled so it cannot swing and injure employes.

Machinist: In work of tightening a middle main rod strap on a U. P. type engine. Machinist was holding a box wrench and helper was hitting wrench handle with a striking hammer. Hammer contacted the engine frame, glanced and struck machinist's finger causing disability estimated from 3 to 6 weeks. D-1

Comments: These men were working in close quarters and it appears the responsibility for the injury is with the helper in not watching to know his hammer was being kept clear of engine parts. Care must be exercised always but especially when working in close quarters.

Car Inspector: Handling car wheels on storage track, constructed with four rails to permit staggering of mounted wheels, saw the wheels ahead were not at right angles with tracks and when about 10 inches away he shoved hand on axle of wheels he was handling to cause contact which would square up wheels ahead. He caught his fingers between axle and wheel flange. Disability 10 days. C-1

Comments: This is an inexcusable injury caused by the man injured and for no attributable reason except personal negligence. Care and watching what one is doing avoids this type of injury.

Sheet Metal Worker: Carrying a lighted kerosene torch in left hand, with oily waste in greasy overall pocket, while walking between two roundhouses. Flame of torch ignited the oily waste and before the fire in his clothes could be extinguished he suffered burns which disabled him for 3 weeks. Y-16

Comments: We ask all you men who use kerosene torches to not carry them around while they are lighted except as really necessary and to then use caution to see they do not contact your or any other employe's clothes.

Boiler Maker Apprentice: Assisting Store Department employe in handling a piece of sheet iron by use of overhead carrier. The carrier came off its track and fell striking the apprentice on the foot causing bruises and 1½ days lost time. Inspection developed the safety dog designed to prevent carrier from running off end of an open switch had become slightly bent and at times would not fall into proper position, which is what happened in this case. O-8

Comments: Tests of carrier track and its appliances should be frequently made to know all conditions are correct for safe operation.

Millman: Was using a power saw for cutting a ship lap on a board with the board guide not fastened properly. The guide slipped to one side permitting the saw to come out of edge of the board and contact the millman's fingers cutting off ends of little and ring fingers. OS-16

Comments: The cause of accident was millman being in a hurry and failing to lock guide in position. Haste is the cause of many accidents. Take the time necessary to do your work properly and safely and you will never be criticized.

Engine Cleaner: Working on a streamline train standing outside, broke up a box to get material for building a fire in small carbide can to permit cleaners to warm themselves. He stepped on a nail he had left in a piece of the kindling, puncturing his foot and causing loss of work for 2 days. C-17

Comments: This injury happened to the man who created the hazard and probably has taught him the results of carelessness. It should serve as an object lesson to all employes.

Machinist Helper: Foreman reports that in helping to put up a front binder on engine this man accidently placed his hand on a binder suspended from chains and a driving box shoe held in position with a wedge, fell and caught his thumb between the shoe and the binder causing a compound fracture of his left thumb and disability estimated to be 4 weeks. S-36

Comments: Accidently! we think the proper word to be thoughtlessly and do not believe it should be applied to the helper but to the man who attempted to secure the binder with a wedge. Placing a wedge to hold a heavy driving box shoe in position is wrong procedure. They should always be secured by chain or rope so they cannot fall.

Maintenance of Way Department

Bridgeman: Bridgemen were renewing standard trestle bridge cap using small hoist mounted on a push car with ⅝ inch chain hooked onto hoist cable for attaching to cap. As cap was about in position under the bridge stringers, the chain broke and the cap fell striking a bridgeman a glancing blow but causing injuries incapacitating him from work for about two weeks. D-30

Comments. There is a definite responsibility on part of bridge foremen and also a responsibility on part of members of gang to know that chains, cables, ropes, etc., are in good condition and of sufficient strength to safely handle the work they are doing. Evidently this duty was not being carefully fulfilled or accident would not have happened.

Accident Prevention Bulletin

October 10, 1936

Issued monthly by the Safety Department for employes of the Union Pacific Railroad.

Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—NINTH MONTH

Including casualties and careful estimates of man-hours for the month of September in calculating the cumulative rates for the period January 1st to September 30th, the relative ranking of districts and departments appear to be as tabulated below:

		CASUALTIES							
		Month			Period			Wtd.	ICC
Rank	Districts	K	RI	LT	K	RI	LT	Rate	Rate
1	Central	—	4	3	1	20	14	12.15	1.97
2	Eastern	1	14	—	3	89	41	15.01	2.60
3	Southwestern	—	—	—	—	22	7	19.94	3.74
4	Northwestern	—	5	1	2	37	15	27.97	4.74
	Total—1936	1	23	4	6	168	77	16.76	2.90
	Total—1935	—	13	6	6	122	32	13.79	2.41

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)

1	Central	5	Wyoming
2	Nebraska	6	Southwestern
3	Colorado	7	Washington
4	Kansas	8	Oregon

Transportation Dept.

1	F. C. Paulsen—Cent.	5	B. O. Wedge—Wyo.
2	C. P. Cahill—Kans.	6	J. M. Guild—Colo.
3	A. L. Coey—SW	7	M. C. Williams—Wash.
4	J. E. Mulick—Nebr.	8	H. A. Connett—Ore.

Maintenance of Way Dept.

1	C. W. Pitts—Colo.	5	M. C. Williams—Wash.
2	W. H. Lowther—Wyo.	6	W. C. Perkins—Kans.
3	R. M. Jolley—Nebr.	7	R. L. Adamson—SW
4	L. V. Chausse—Cent.	8	L. W. Althof—Ore.

Mechanical Dept.

1	S. C. Smith—Cent.	5	G. R. Wilcox—Kans.
2	A. V. James—Nebr.	6	H. T. Snyder—Wyo.
3	L. W. Shirley—NW	7	G. H. Berry—SW
4	W. J. Nolan—Colo.		

Shops

1	C. F. Spicka—Chey.	3	G. M. Walsh—Poca.
2	E. J. Cole—Omaha		

SEPTEMBER CASUALTIES

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	1	14	—	Transp.	—	8	3
Central	—	4	3	M. of W.	1	4	1
Northwestern	—	5	1	Mech.	—	6	—
Southwestern	—	—	—	Miscel.	—	5	—
Total	1	23	4		1	23	4

CASUALTIES JANUARY 1 TO OCTOBER 1

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	3	89	41	Transp.	3	55	29
Central	1	20	14	M. of W.	3	46	31
Northwestern	2	37	15	Mech.	—	50	9
Southwestern	—	22	7	Miscel.	—	17	8
Total	6	168	77		6	168	77

CASUALTY RATE INCREASING

There was 1 fatal, 23 reportable (1 of which was a subsequent fatality) and 4 lost time injuries to employes on duty in September and the ICC ratio of casualties increased to 2.90 per million man hours, or the highest ratio for this period of the year since 1927. While August gave a greater total of injuries, those occurring in September were more serious. Transportation with 8 reportable and 3 lost time had an increase of 2 injuries, M of W. with 1 fatality, 4 reportable and 1 lost time decreased 10 injuries, Mechanical with 1 subsequent fatality and 5 reportable decreased 4 and Miscellaneous Departments with 5 reportable decreased 1 injury over August.

Call it what you may,—carelessness, thoughtlessness, clumsiness, indifference, or lack of safe-mindedness, there seems to be something in railroading as done this year which has increased the casualty rate out of proportion to the increase in man hours. We are inclined to believe it is a let down on part of foremen having direct charge of workmen in properly instructing new employes in the safety features connected with their work and following up such instructions to see they are fulfilled. In other words—too much "Be Careful" instructions and not enough explanation of what to be careful of. A few definite instructions in how to do their work and what not to do in connection with the work will do more to reduce personal injuries than all the "Be Carefuls" that can be said in a lifetime.

Transportation Department

Brakeman: Suffered a broken rib, bruises about head and a leg injury by striking a building at close clearance while stepping from the side ladder of a car during a switching movement. This happened at 12:25 AM on a rainy night,—signs warning trainmen of close clearance are in place on this track and this brakeman was familiar with conditions. Just prior to accident he had told a student brakeman to stay on top of the cars during this switching move because of buildings being at close clearance. W-1

Comments: Commendable action in instructing student brakeman probably caused oversight of location of car with relation to buildings and brought about this accident. Do not let your attention be diverted from your own personal safety.

Switchman: Engaged in releasing brake on a standing car at 10:40 AM of a clear day, permitted the brake club he was using to slip out of his hands, strike his face and cause him to fall to the ground. He sustained bruises on face and disability of 2 days. D-3

Comments: This man states he received a lesson which will cause him to be more careful in future. The purpose of detailing these accidents is that all men engaged in like service may receive information of how they occur and guard themselves against similar occurrences.

Brakeman: Climbing down side ladder from top of a box car and when he stepped on the third ladder iron from the bottom of car it broke due to an invisible defect. This caused brakeman to fall to the ground and sustain a knee injury with estimated disability of 3 weeks. O-3

Comments: Inspection and determining condition of car ladder irons on part of car inspectors is of vital importance in prevention of injuries. Proper hand hold on ladder irons would have prevented this fall.

Brakeman: Engaged in switching at 4:00 AM of a clear night standing on step of a slow moving caboose stepped to ground in a manner which caused sprain of his left knee and disability of 2 days. Inspection of ground showed it to be level and free from depressions or loose material. D-32

Comments: Such injuries are caused by alighting with weight of body on leg while it is not straight laterally or the knee is in stiff position. Relax the tension on your legs, men, in getting on or off cars or cabooses and accidents of this kind will be avoided.

Brakeman: Walking on running board of cars in a standing train at 10:30 PM of a clear night stepped across the opening between two cars onto edge of the running board in a manner which caused his ankle to turn and fracture the lower end of fibula of left foot. Disability estimated 60 days. K-13

Comments: We again say that care **must be** exercised in walking on top of cars and at night **lantern light must** be thrown ahead to show foot way if accidents of this kind are to be avoided. This man is old in service and there were no defects in cars or running boards which could have contributed to injury.

Brakeman: Assisting in turning an engine on a turntable attempted to place table locking key in position before the table came to a full stop. The key was struck by the track rail on the moving table which caused it to be thrown out, strike the brakeman and fracture a bone in his foot. Estimated disability 30 days. W-4

Comments: The impact blow of a slowly moving turntable does not appear to be great but when the weight of a moving load is considered it is severe. Do not try to stop table movement with a locking key of any kind, wait until table has completely stopped before inserting the locking device, which device is designed only for holding track rail in alignment for movement of engine on or off the table.

Brakeman: On a train doing local work was working in the car doorway assisting in unloading a stove. During the work the stove tilted backward and caught his hand, fracturing the index finger and bruising the hand. Estimated disability 6 to 8 weeks. D-39.

Comments: Care must be exercised in placement of hands and feet during the handling of heavy freight or injuries of this kind will continue to occur. This man is an experienced employe.

Brakeman: Train backing down a branch line main track with 28 cars to make set out of 25 cars, with brakeman riding on top of rear car, coupled onto 8 cars preparatory to shoving further down main track. The coupling did not make and the brakeman left his position in center of top of car to go down the side ladder for purpose of going to and setting additional brakes on the 8 cars. The train was standing at the time he moved but as he stooped over to take hold of the ladder grab iron the slack in the couplings of the 28 cars ran out and in his off balanced position he did not get hold on the ladder iron but fell over end of the car alighting on his feet outside of the track rails. The fall caused the fracture of a foot bone with estimated disability of 30 days. W-7

Comments: The way to prevent accidents of this kind is to anticipate slack action with cars standing on grade descending away from engine and remain in secure position until the action has occurred. There was no engine movement in this case.

Brakeman: Lining switches ahead of a train pulling out of a terminal yard at 4:30 AM on a clear windy night, while walking rapidly a sudden gust of wind blew dirt in his eyes temporarily blinding and causing him to stumble and fall over a switch tie. The fall resulted in injury to radius bone of arm, bruises about face and estimated disability of 3 weeks. Y-56

Comments: Haste seemingly was primary cause of this accident. Remember the first instruction under General Notice in Rules and Instructions of the Transportation Department reads "Safety is of the first importance in the discharge of duty".

Switchman: In getting off the front footboard of an engine before it came to a full stop stepped onto the wood guard rail of a bridge instead of onto the walkway. His left heel was struck by engine footboard causing an ankle sprain and disability of about 10 days. O-50

Comments: If men feel they must get off a front footboard while engine is still moving, they should take the precaution of swinging clear of all engine parts.

Mechanical Department

Pipe Fitter: Standing on bench 3 feet wide, 4 feet long and 3 feet high putting a nipple in the exhaust connection of an air pump on a locomotive, when the wrench he was using slipped off the nipple and he fell to the floor striking on a 10-inch wrench he was carrying in his hip pocket and which caused a vertical fracture of his thigh bone. N-2

Comments: See that your wrenches are adjusted to fit your work and that your feet are in position to brace you against any sudden action in the direction from which such action may be expected (in this case backward) and injuries of this kind will not occur.

Car Inspector: At 4:30 AM on a rainy night had finished inspection of cars on track No. 7 of a large terminal and had some work to do on track 9. He was going through an opening of about 4 feet between cars in a string of cars on track 8 when the cars coupled together and he was caught between the draw bars suffering injuries from which he died 33 hours later. This car inspector in telling fellow workmen of how accident occurred, stated that he wanted everyone to know that this was the first chance of this kind he had taken, that he had been told and knew better than to walk between cars this close together and that no one was responsible for this accident but himself. While this car inspector was working on track 7 under blue flag protection, cars were being dropped to track 8 and other tracks; and the cause of cars closing together at opening through which he was moving was two cars of lumber dropped in on track 8 striking 5 cars standing east of the opening. K-6

Comments: Had this inspector walked 5 cars east to go around string of cars he could have determined the

movement of cars on track 8, but he took a chance, violated instructions and lost his life.

Engine Cleaner: After taking water on U. P. type engine and returning spout to position, stepped down to tank side foot board, when going from foot board around end of tank to tank ladder lost his balance and jumped to ground, fell and broke his wrist. Y-31

Comments: No conditions around engine entered into this injury and it must be attributed to carelessness on part of employe injured.

Machinist: With his helper had balanced wrist pin in spoke of wheel on right side of engine with rods spotted on top quarter. Machinist was in sitting position behind engine crosshead in which position he could have inserted wrist pin over his left shoulder without hazard of accident. However, on account of a wet spot on the floor of engine house he attempted to crawl under the wrist pin to use his right shoulder in the work of placement. In doing this the pin became over-balanced, fell eastward and struck the machinist behind his left ear, cutting a gash and disabling him for several days. Y-50

Comments: This is an accepted practice for applying wrist pins at this point and has not heretofore resulted in injury. The practice if used at other points should be checked up and if found hazardous to employes so engaged, be changed to a safer method of doing the work.

Carman Apprentice: Operating a Greenlee rip saw properly guarded and in good condition, cutting a ⅜-inch piece from the edge of a car siding board reached under the guard to remove a piece of the strip which had broken loose. His thumb and forefinger contacted the saw teeth and were severed. There were several push sticks in handy reach, employe was experienced and knew he should use a push stick in clearing pieces from saw. OS-30

Comments: An impulsive move and a serious result. Impulse is the cause of many injuries. It is a natural tendency other than rational or instinctive and can be controlled only by rational thought. Guard against impulsive movements. It is especially prevalent in younger people.

Machinist Helper: Machinist and helper assigned to assembling and applying rocker shaft for Young Valve Gear on an engine undergoing repairs had assembled the shaft on the floor and had worked the inner shaft into position in bearings of outer shaft. In this assembling the rocker arm was removed from outside end of the inner shaft and a nut and collar applied so the assembly would pass under boiler of engine more readily. A rope sling was attached to the outer shaft and the assembly was being moved to the engine with overhead crane. The machinist helper holding to the collar of the inner shaft while walking with the assembly to keep it in balance, had his attention distracted, assembly became unbalanced and inner shaft slipped through catching the helpers fingers between the collar and the inner sleeve of the outer shaft badly lacerating the fingers of both hands. K-31

Comments: A failure on part of all parties involved in this work to sense the probability of the inner shaft slipping, with slight unbalance of load, and taking precautions against this possibility by clamping or bolting rocker shaft arms.

Maintenance of Way Department

Coal Chute Operator: At a coaling station having old type wood constructed pocket chutes, operator signaled the engineman of a 2-10-2 engine headed west to stop at pocket No. 1. After stopping the operator climbed on the engine at gangway and from there to top of tank on front tank ladder. Engineman heard him pull down the coal apron then not hearing coal moving onto engine looked for the operator and found him on the floor of the empty coal space in front end of tender. He died about 10 minutes later.

It is not known just what movements operator made after climbing on top of engine tender but when he was found by the engineman the coal apron was in down position and one of the weight equalizer arms was broken off and standing inside the coal chute frame near its normal location with coal apron in closed position.

To operate the chute pocket it is necessary to unlatch the coal apron by means of a rope and latch located at top center of apron and then open the coal gate with a pull rope located on the east side of pocket. This pull rope could not be handled by the operator standing on engine tender to the west of the apron.

Deductions from investigation are that operator pulled the coal pocket apron part way down and then attempted to walk on edge of tank to east side of apron; that he became unbalanced and fell into the nearly empty coal space striking his head on the tender coal gate. With release of pocket apron it returned rapidly to vertical position, did not latch, and this action caused one weight equalizer arm to break off and the apron to go to the down position. K-1

Comment: The proper place to operate coal aprons or spouts is from the rear of tank coal space and in this case it was the only place from which apron could be operated by one man. Coal chute men must realize their safety depends upon having a secure place on which to stand. It is not necessary to do acrobatic stunts in way of balancing feats and walking edges of tanks to properly place coal on engine tenders and Supervisors must instruct their coal chute operators and frequently check them in the performance of their duties to see that safe methods are being followed.

Section Laborer: Unloading ties from flat car stepped upon a tie lying parallel with side of the car causing it to roll off the car and laborer to fall to the ground and sprain his arm. Disability 17 days. D-76

Comments: Foremen are responsible for accidents of this kind in that they should see that things which lead to them are not permitted or are protected so that men are given safe working conditions.

B&B Helper: Assisting in unloading bridge stringers from car strained his back entailing 21 days disability. Report states sufficient force being used and that man worked balance of day, 2½ hours, but was unable to work the following day. D-14

Section Laborer: Assisting fellow workmen unloading gravel dump box from push car strained his back muscles. Disability 10 days. N-24

Comments: Two cases of back strain in ordinary work which employes are frequently required to perform. Foremen should watch their men when they are engaged in lifting and instruct men who show indications of not knowing the proper methods, that injuries of this kind may be minimized.

Signal Maintainer: Operating track motor car through a passing track with train standing on main track. Seeing train had a road crossing blocked attempted to go over crossing at a speed of 18 to 20 miles

per hour. Dirt in rail flangeway derailed motor car and signal maintainer suffered a broken wrist. K-17

Comments: Track cars must be run with caution at all times. Passing track rail flangeways are frequently obstructed, and must be approached and passed over at speeds which will permit of stopping car before derailment occurs.

Section Laborer: Assisting a track frog welder, received a small laceration in palm of hand. Did not report this to his foreman until evening of the second day. Result infection and 2 days loss of time. D-72

Comments: Rules require reporting of injuries no matter how small they may be. Had this man followed this rule it is probable no time would have been lost.

Store Department

Laborer: Engine driver boxes, weighing about 500 lbs. each, were being handled on a two wheel baggage truck from a car to a car level platform and unloaded from truck about 12 inches from edge of platform. To free the truck lip it was necessary to tilt a driver box forward. Laborer doing this work stood with his right foot about 8 inches below platform level, on a pile of engine grates. He pulled too hard and the box fell forward striking his leg and so injuring it as to entail an estimated disability of 60 days. N-3

Comments: This man was a new employe in service about 30 days and permitting work to be done in this manner is a direct reflection upon the efficiency of supervisory forces. This work could have been done safely and with less effort by working from the side of driver box.

Laborer: An engine frame mounted on the drivers was cut in short pieces with oxy-acetylene torch. To free the driver boxes and a piece of the frame it was necessary to roll a pair of drivers forward. With the cutter on one side and 2 store laborers on other side of drivers they were rolled, the rear laborer, a new man, failed to move with the drivers and as the piece of frame came free it fell outward striking laborer on foot fracturing three toes. D-58

Comments: Two Store Department laborers and a Mechanical Department Cutter,—no supervision present at time of accident, and two experienced men failing to instruct or warn inexperienced man to move with the drivers which afforded protection to his feet and legs.

D. C. & H. Department

Waiter: With train rounding a curve lost his balance striking his left hand, in which he was holding a dish, against a dresser breaking the dish which caused lacerations on back of hand. Disability 11 days.

Waiter: Opening a bottle of ginger ale for a patron. The bottle broke near top and cut his right thumb. Off duty 4 days.

Waiter: Washing a glass jar in the pantry sink struck the jar against the side of sink breaking it and cutting tendon between thumb and index finger of right hand. Off duty 14 days.

Comments: All of these injuries were of occupational character but entailed disabilities as shown on account of length of time bandages were considered necessary.

SCHOOL CHILDREN TRESPASSING

While we sincerely hope that after reading the bulletin each month it is not discarded by the readers but rather taken home and made a topic of study by the members of the family other than the head of the house, yet to the younger generation it is dry reading unless there is something of interest to themselves.

With the resumption of school life there is a subject which should be impressed upon all members of the family, and that is the matter of trespassing on railroad property.

A railroad engine and train of cars have a peculiar fascination for a child. Among the treasured possessions of a small boy a toy engine is invariably found. When a child plays with a train of cars or is taken on his first railway journey, his keenest interest is aroused and his questions are innumerable.

By giving careful answers to these questions the father or mother has a natural opportunity to lay the foundation, then and there, of an intelligent attitude and right habits in regard to railroad travel. Gradually his safety instruction should be broadened to include the following causes of accidents on railroad right of way:

1. Crossing tracks without first stopping to look both ways and to listen.
2. Walking on railroad tracks, bridges, embankments.
3. Taking short cuts across railroad tracks.
4. Crawling under, over, or between standing cars.
5. Crawling under railroad gates that are down.
6. Playing around railway yards or cars.
7. Stealing a ride on trains.
8. Picking up wood or coal on tracks or in yards where cars are being moved.
9. Stepping off one track and on to another to let a train pass, instead of stepping clear of all tracks.
10. When planning a picnic, hike, or, as in the case with high-school students, especially in the spring when they are gathering specimens for the study of botany, do not turn pleasure into tragedy by taking the route of the railroad track just for the fun of "walking the ties".

In other words—the safest way to use railway tracks is to ride in a train.

Each winter, monoxide gas (automobile exhaust) takes its toll of lives due to carelessness. If the garage doors are closed when you start your automobile or track motor car, you are in grave DANGER! Monoxide gas gives no warning.

Monoxide gas cannot be seen. There is no odor . . . but it means certain death if enough of the gas is inhaled into the human system.

Play safe! Always open the garage doors . . . and be certain that they will STAY OPEN BEFORE starting your car motor.

Accident Prevention Bulletin

September 10, 1936

Issued monthly by the Safety Department for employes of the Union Pacific Railroad.

Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—EIGHTH MONTH

Including casualties and careful estimates of man-hours for the month of August in calculating the cumulative rates for the period January 1st to August 31st, the relative ranking of districts and departments appear to be as tabulated below:

CASUALTIES

Rank	Districts	Month K	Month RI	Month LT	Period K	Period RI	Period LT	Wtd. Rate	ICC Rate
1	Central	—	2	2	1	16	10	11.38	1.84
2	Eastern	—	15	3	2	74	41	14.19	2.44
3	Southwestern	—	4	2	—	22	7	22.26	4.18
4	Northwestern	—	10	1	2	32	14	28.21	4.70
	Total—1936	—	31	8	5	144	72	16.42	2.82
	Total—1935	—	18	3	6	109	26	14.14	2.46

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)

1	Central	5	Washington
2	Nebraska	6	Wyoming
3	Kansas	7	Southwestern
4	Colorado	8	Oregon

Transportation Dept.

1	C. P. Cahill—Kans.	5	A. L. Coey—SW
2	F. C. Paulsen—Cent.	6	T. E. Williams—Wyo.
3	M. C. Williams—Wash.	7	J. M. Guild—Colo.
4	J. E. Mulick—Nebr.	8	H. A. Connett—Ore.

Maintenance of Way Dept.

1	C. W. Pitts—Colo.	5	W. H. Lowther—Wyo.
2	L. V. Chausse—Cent.	6	M. C. Williams—Wash.
3	R. M. Jolley—Nebr.	7	R. L. Adamson—SW
4	W. C. Perkins—Kans.	8	L. W. Althof—Ore.

Mechanical Dept.

1	S. C. Smith—Cent.	5	G. R. Wilcox—Kans.
2	A. V. James—Nebr.	6	H. T. Snyder—Wyo.
3	L. W. Shirley—NW	7	J. F. Long—SW
4	W. J. Nolan—Colo.		

Shops

1	C. F. Spicka—Chey.	3	G. M. Walsh—Poca.
2	J. Gogerty—Omaha		

AUGUST CASUALTIES

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	—	15	3	Transp.	—	7	1
Central	—	2	2	M. of W.	—	12	4
Northwestern	—	10	1	Mech.	—	7	3
Southwestern	—	4	2	Miscel.	—	5	—
Total	—	31	8		—	31	8

CASUALTIES JANUARY 1 TO SEPTEMBER 1

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	2	74	41	Transp.	4	46	26
Central	1	16	10	M. of W.	1	42	30
Northwestern	2	32	14	Mech.	—	44	9
Southwestern	—	22	7	Miscel.	—	12	7
Total	5	144	72		5	144	72

The month of August registered more reportable injuries than any single month during the past 5 years. We know that it was a hot month and that in some sections of the country the vitality of the men may have been low for that reason. We know business was heavy, both freight and passenger, and that these conditions contributed somewhat towards a speeding up of work on the part of employes engaged in transportation and repairs to transportation equipment. We know also that the first rule under the heading of **"General Notice"** in Rules and Instructions of the Transportation, Maintenance of Way, Air Brake, Store Department and Safety Rules of the Mechanical Department, reads: **"Safety is of the first importance in the discharge of duty"**. This means just what it says and is not subject to interpretations, interpolations or modifications. It means that Safety comes ahead of speeding of train movements and of production.

Many new men have entered the service during the past several months and possibly the injuries occurring to them are out of proportion to their number, but we are having many injuries to men old in the service which indicates there is a let down in their morale as relating to **their personal safety**, or they are not being supervised with the efficiency and force which has been prevalent for the past several years. In other words, it appears from the number and character of employe injuries that the foremen of gangs of the respective departments are permitting work to be done in a manner which is not in accord with recognized safe practice or is in violation of established rules. Again, local supervision may be condoning injuries of various character particularly non-lost time injuries and condonment leads to repeaters. A man who commits an act which shows carelessness or inattention to the work he is doing and which results in an injury, or to a potential injury to himself or to his fellow worker or workers, and is not disciplined for such act, in the way of a reprimand, demerits or other form of discipline as appears suitable to his supervisor, is in the way of becoming an habitually careless worker and sooner or later he will be responsible for an injury to an employe or to himself. On the other hand, corrective measures taken immediately and made of record may change him to an attentive and careful workman. Do not forget that Rule 700 of the Transportation, Maintenance of Way, Signal and Air Brake Departments, reads:

"Employes who are careless of the safety of themselves and others will not be continued in the service."

Transportation Department

Brakeman: With two years' service and 12 trips as rear brakeman, attempted to get on caboose of a train as it was leaving town about 4:25 PM. He states the train was moving at a speed of from 8 to 10 miles per hour, that he was standing on toe path at ballast line and that the caboose steps were too high. He was thrown to rear of caboose and sustained a Colles fracture of left wrist with attendant disability of about 40 days. (N-41)

Comments: Instructions in effect are that if a train is moving at a speed not suitable for safe mounting of caboose steps or car side ladders, trainmen shall not attempt such act, but evidently in their desire to carry on without delaying trains or to avoid the criticism of fellow workers some men attempt feats they are unfitted to carry through. It is better to make an explanation than to get injured.

Brakeman: In getting on caboose of a train as it was leaving a station at 1:25 PM, secured hold on grab iron and had his left foot on the caboose step when he felt such a severe pain in his left knee that he let go his handhold and fell to the ground. He states his right foot slipped on wet ground causing his entire weight to be placed on the left leg and that the speed of train at time of occurrence was about 10 miles per hour. He suffered fracture of left tibia bone and disability of about 60 days. (Y-5)

Comments: This injury occurred in station grounds where the ground between tracks is about level with top of track ties. There had been a rain a short time before and wet silt mud had formed a thin film on ground surface. Probably secure cinder or gravel surface could have been found a short distance in either direction. Watch your footing, men, when necessary to get on or off a moving train.

Brakeman: On a standing train had released the hand brakes from a number of cars and while in this act he fell from a brake platform to the ground, fracturing his right arm. This happened on a clear, dark night, there were no defects in brake equipment; the brakeman is an experienced man and the accident occurred within the first hour after his call for work. (Y-64)

Comments: Releasing brakes on standing equipment is not particularly conducive to injury and the only thing to which this injury can be attributed is—Not keeping his attention fixed upon the work he was doing.

Switchman: Fractured heel bone of right foot. Engine coupled onto 12 cars on a siding with hand brakes set on two head cars, brake ends together. Switchman, not using brake club, let brake off of head car, turned around and stepped from one brake platform to the other, leaving lantern on running board of head car. As he stepped onto platform of rear car the brake released just as he got hold of it, throwing him to the ground. States he does not know whether or not he tripped brake dog loose in stepping on to brake platform but that he could plainly see brake and platform. Inspection of brakes shows no defects. (N-3)

Comments: Probably haste entered into this injury. Haste makes waste. Injuries are waste.

Switchman: In service about 3 weeks acting as helper was riding a flat car, loaded with steel, down a lead into track No. 7. Two cars were standing on No. 7 just in clear and this helper permitted car he was riding to hit these cars with sufficient force to shift the lading and catch his foot between lading and bulkhead, causing foot injury which will disable him for about 6 weeks. Investigation shows several men were acting as car riders, each one having a list showing track numbers for all switches to be made. Car this man was riding traveling 3 to 4 miles per hour entered track 7 and he decided to let it hit the two cars on that track that all three might move into clear of track 9 for a following car. (S-65)

Comments: All very good, but this new man evidently failed to note position of his foot with relation to load and probably had not been instructed as to possibility of loads shifting.

Mechanical Department

Carpenter: Using power driven jointer to dress a piece of 1″x3½″x8″ ash for floor board of an engine. Was using his hand to push this short length of ash over the jointer knives. Jointer threw out the board and carpenter's fingers contacted jointer knives causing the loss of first joint of three fingers of his right hand. (OS-19)

Comments: The jointer knives are set in a rectangular opening in jointer table. The short length of ash being pushed over this opening contacted forward edge of opening which caused the action described. Poor workmanship on the part of this carpenter, who is an old employe, and taking a chance in shortcutting his work, caused this injury.

Machinist Helper: Assisting machinist remove the nut and collar from left main pin of an engine with machinist holding wrench and helper striking wrench handle with sledge. Wrench came off the nut, struck and fractured helper's toe. (K-29)

Comments: Machinist holding wrench should have been able to so handle his end as to avoid accident of this kind had he been attentive to his work.

Machinist Helper: Was sent to car containing short lengths of 12″x12″ blocking to procure a block 8″ long. In removing the block he selected as suitable for the work he pulled two other longer lengths of 12″x12″ blocking off car which struck and fractured his right leg between the knee and hip. (PS-19)

Comments: Another case of shortcutting his work. Instead of moving the upper blocks he pulled out the supporting block. Accidents generally happen when this is done.

Electrician: Inspecting a small high speed electrically driven water pump in a power house without shutting off the power and waiting for the motor to stop, as required by the rules, reached under the shaft between a "U" shaped guard, protecting a flexible coupling, and the coupling to determine if a foundation bolt on the opposite side of the equipment was loose. His arm contacted a set screw in the coupling and was severely cut at the elbow, entailing a disability estimated to be about 60 days. (O-52)

Comments: A violation of rules and a violation of common sense. The guard around the flexible coupling was installed for the sole purpose of keeping employes from contacting the fast revolving coupling and its set screw. This injury was incurred because the employe was not thoughtful enough of his own welfare to go to the other side of the equipment to inspect a bolt which was clear of moving parts from that side.

Boilermaker Helper: Removing washout plugs from an engine using a socket wrench with a buggy bar to turn wrench. Holding onto hand rail with his right hand. The wrench slipped off the plug head and he lost his balance, fell from engine running board to the ground and fractured his right wrist. (S-66)

Comments: Safety belts are furnished by the Company for this class of work. Evidently supervision was not checking employes as to use of these belts and this avoidable injury occurred in a violation of safety requirements.

Maintenance of Way Department

Three Injured: Section foreman and six men on motor car pulling a trailer car loaded with 14 track ties, while moving west at speed of about 12 miles per hour had motor car derailed and foreman and 2 laborers injured. Accident was definitely determined to have been caused by a small boy putting a piece of strap iron ½" thick 3½" wide and 6½" long in an expanded track joint in right hand rail so that its width extended about 2 inches above top of rail, which derailed the lead wheels of the motor car and injuries were mainly caused by the track ties. Demonstration showed obstruction could be seen from motor car for a distance of 200 feet but was not readily seen until close, due to local conditions at that point. Men on motor car did not see the obstruction before the accident. (O-11)

Comments: Small objects on track are frequently determined to be birds or rodents and this tends toward a laxity on part of employes in observing and calling foreman's attention to small appearing obstructions. Foremen should instruct men to call their attention to any obstructions observed and to keep close lookout of track rail at all times when on a moving car.

Laborer: Burning right of way was using a piece of ¾" pipe 3 feet long with wick made of cotton waste in one end. Gasoline had been poured in open end of pipe to supply fuel to wick as flame consumed the gasoline. Fire reached the gasoline fumes inside of the pipe causing a flare at open end which ignited the clothes of the laborer resulting in severe burns and disability of 7 days. (N-50)

Comments: We had heard of many trick devices but this set up with the use of gasoline is about the most stupid one ever coming to our attention, with kerosene it is dangerous, with gasoline criminal. For starting fires in burning right of way the safest equipment is a standard kerosene torch, such as used by enginemen, fitted with a wooden handle of convenient length. These may be obtained from the Store Department.

B. & B. Helper: After alighting from a flat car from which a B. & B. gang had unloaded bridge material this helper stepped onto a piece of metal decking material lying on the slope of roadbed fill outside of toe path, lost his balance and went down bank about 10 feet to a wing fence without losing his footing. Fractured bone of his left ankle with estimated disability of 60 days. (O-12)

Comments: The division report assigns cause to pure carelessness on part of injured man. It is this class of injury that makes bad safety records.

B. & B. Helper: Tightening bolts on eastward track deck of a long, high steel bridge, was in semi-kneeling position on his left knee and right foot when a block of oak wood of 4"x4"x10" dimension fell from some part of the engine of a westward train and struck his right leg above the ankle fracturing the bone. The block of wood remained between the man's knee and the fractured leg. It was covered with black grease and evidently had been left on some part of the engine frame from where it fell to the track, was struck by the moving engine and thrown with sufficient force to cause the injury. (N-6)

Comments: The men working on bridge had been instructed to kneel down when trains were passing on opposite track to avoid possibility of stepping backward and falling off bridge. Since accident they are required to clear deck of bridge for passing trains and this practice should always be followed on a double track structure.

The **inspection of engines** before leaving engine house should and is required to cover the removal of any loose objects from engine frames, running boards or other places from which they may fall. This injury is an example of what did occur when this requirement was not fully carried out.

Laborer: On a tie renewal gang was using a pick to loosen gravel from between ties when the pick struck the top of the track rail, glanced and struck laborer, going through his foot between first and second toes, disability 6 days. (D-9)

Comments: Evidence indicates this man was working in accordance with established practice and instructions. A temporary lack of attention to the possibility of pick striking rail probably caused his injury.

Laborer: Gang was transferring gravel using push car and gravel dump box. In moving the car this laborer was on north gravel shoulder pulling on front edge of dump box. The push car derailed and dump box struck his foot causing a lost time injury. (D-17)

Comments: Pulling track cars by men walking in front is prohibited.

Laborer: Seventeen men were lining curves when a laborer with his bar under the north track rail and in position for pull was struck below his eye by the end of bar of another laborer as it was on the back stroke for purpose of forcing it under south rail. Injury caused 11 days disability. (Y-27)

Comments: There is no occasion in work of this kind for men being close enough together to sustain injury. Foremen are responsible for instructing their men against such practice and checking them to see instructions are followed.

Helper: A water service gang was removing the old wooden railing from around the edge of a small building for purpose of replacing it with rail to be made of pipe. The roof is constructed with a two-foot flat space around the entire edge from which it raises to center on a pitch of 1 in 3 and is covered with smooth roofing material. The helper while engaged in maneuvering a piece of 1"x12" old board about 12 feet long to pass it to a man below stepped on the sloping roof, slipped and fell to floor on which building is constructed, fracturing his ankle bone. (O-32)

Comments: We can only say, reasonable care on part of injured party would have prevented this injury. The set up was not conducive to accident.

Store Department

Tractor Operator: After delivering ice to a coach, placed 12 inch ice tongs between steering post and gas tank of a rear end drive tractor. When crossing a track the ice tongs fell with one point catching the inside of operator's ankle and the other point imbedding in tractor rubber tire. His right ankle was fractured and he will be disabled about 60 days. (K-38)

Comments: This operator was relieving regular man for one day. It is customary to carry tongs in tractor trailer but apparently operator did not know regular practice and placed tongs in first convenient place. Supervision was at fault for not instructing this operator.

Machine Shop Helper: With machinist had placed a clam shell boom shaft—2⅝" diameter and 36" long in ver-

tical position in 50-ton case press to move a worm gear to new position on the shaft. Helper was steadying the shaft and as two thrust collars above the worm gear covered the gear location marks on the shaft, the machinist told helper to hold the collars up so he could see the marks. When pressure was applied to the shaft it moved a short distance in the gear and then dropped through the gear, catching the helper's hand between the loose collars and the worm gear, fracturing bones in first joint of index finger and thumb. (Y-62)

Comments: Supervision was lax in permitting such practices and both the machinist and the helper injured were directly responsible for indulging in an unsafe practice. There were no defects in tools but the shaft was slightly smaller above the original location of the gear which condition should have been anticipated by both men.

D. C. & H. Department

Cook: Peeling peaches on dining car states his hand slipped and knife cut his thumb—disability 3½ days. (O-53)

Cook: Lurched against side of car breaking his eye glasses and glass cut eye ball—disability one week. (S-18)

Waitress: Walking from wet kitchen floor to lunch counter slipped and fell to floor causing contusion of left hip, elbow and thumb—disability 10 days. (Y-67)

Comments: These are occupational injuries liable to happen to any employe unless especially guarded against. They are cited as instructive and indicative of cautionary measures necessary for their prevention.

SAFETY SHOES

Here is a report made by a master mechanic about a potential foot injury which was prevented by employe wearing safety shoes.

"Investigation of injury shows lack of team work between machinist and craneman. Machinist was preparing to lift a wheel center that was lying on top of another wheel center. He had made a hook with one chain through the spokes of one side of wheel center and was preparing to make a hitch on opposite side with the other grab chain; craneman in the crane, watching him work, was of the opinion that he could assist him in making the hitch by raising one side of the wheel center to allow the chain to pass under the spokes at the point where he was making the hitch. When he made the lift the wheel center slid off onto the floor pinning machinist's foot to the floor. The only reason that we did not have a very serious injury was due to the fact that the machinist had recently purchased a pair of safety shoes. These shoes carried the weight of the wheel and protected his foot from serious injury.

"The prevention of this serious injury is due to the campaign we have been waging in shops for the wearing of safety shoes by all employes.

"As the craneman's mistake was not the result of carelessness or lack of attention to his duties, we have not assessed discipline in his case other than a reprimand and he has promised that in future he will not make a lift without proper signal."

Safety shoes are available for purchase at all of our larger terminals. They are of many styles; well constructed; of neat appearance; heavy or light weight as may be desired and as economical in cost as shoes of the same type not fitted with safety steel toe caps.

Men engaged in any work entailing the possibility of falling tools, weights or equipment and men liable to get their feet caught under moving wheels are urged to look up the shoe man who carries steel toe cap safety shoes and examine them. You will find you can get almost any type of shoe you desire, that they will cost you no more than other shoes and they may compensate you for the trouble entailed in getting them, by eliminating the pain, inconvenience, and possible loss of time of one toe injury.

SPECIAL SAFETY SUGGESTIONS

Engine Men

1. Avoid overflowing engine tanks.
2. Trim coal on tender so that it will not fall off.
3. Keep squirt hose in safe condition and place.
4. Stand to rear of coal chute apron when taking coal on tenders.
5. Leave crane spouts, water and oil spouts and coal aprons in normal and secured position.
6. Track ahead should be watched so that prompt audible warning may be given to anyone coming into line of danger.
7. Blow-off cocks are not to be opened when this may cause injury or fright to employes or others.
8. Be especially alert to hazards in connection with inspecting and/or oiling locomotives. Beware of passing movements or of movement of locomotive you are oiling. Beware of falls.

Trainmen and Yardmen

1. Stay out from under or between moving cars.
2. Do not hold brake tension by hand. Use the dog and ratchet.
3. Board and alight from rear of caboose when practicable.
4. Avoid crossing track in front of movement after signal is given to move. Watch clearance when riding cars.
5. Have a clear and complete understanding of work to be done, how and by whom.
6. Give clear hand and lamp signals.
7. Slack cuts apart a safe distance before going between couplers.
8. Alight outside rails when getting off engine or cars.
9. Be prepared constantly for shock of brake or slack action or sudden start.
10. Firm grip and safe foot-hold is vital to safety when on ladder or platform, near end of car or in transferring or changing position.
11. Keep away from side or end of car except for time required to operate brake or perform other necessary duty.
12. Before going between standing cars, first see or know they will not be struck or moved.
13. When switching cars keep off footboard between engine and cars when cars are being pushed or pulled. When necessary to ride engine to cut off the last car get on footboard when engine is standing. Get off leading footboard before engine couples into cars. It is unsafe to ride on deadwood, drawbars, brake beams, journal boxes, brake wheels or on end of cars containing loads which may shift.
14. The one man allowed to ride switch engine front footboard should remain in sight of enginemen so far as practicable and watch out for obstructions which may strike footboard.
15. When riding engine footboards keep continuous secure hold of hand rails.

Accident Prevention Bulletin

June 10, 1936

Issued monthly by the Safety Department for employes of the Union Pacific Railroad.

Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—FIFTH MONTH

Including casualties and careful estimates of manhours for the month of May in calculating the cumulative rates for the period January 1st to May 1st, the relative ranking of districts and departments appear to be as tabulated below:

CASUALTIES

Rank	Districts	Month K	Month RI	Month LT	Period K	Period RI	Period LT	Wtd. Rate	ICC Rate
1	Central	....	1	2	1	10	6	12.72	1.97
2	Eastern	....	7	10	1	40	26	13.01	2.21
3	Northwestern	....	1	3	....	17	8	20.76	3.79
4	Southwestern	....	3	1	....	14	2	22.72	4.42
	Total—1936	....	12	16	2	81	42	15.02	2.61
	Total—1935	....	10	3	2	58	13	12.09	2.18

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)

1	Kansas	5	Washington
2	Central	6	Colorado
3	Nebraska	7	Oregon
4	Wyoming	8	Southwestern

Transportation Dept.

1	T. E. Williams—Wyo.	5	A. L. Coey—SW
2	W. H. Guild—Kans.	6	M. C. Williams—Wash.
3	F. C. Paulsen—Cent.	7	H. A. Connett—Ore.
4	J. E. Mulick—Nebr.	8	C. P. Cahill—Colo.

Maintenance of Way Dept.

1	C. W. Pitts—Colo.	5	L. V. Chausse—Cent.
2	R. M. Jolley—Nebr.	6	M. C. Williams—Wash.
3	W. C. Perkins—Kans.	7	W. H. Lowther—Wyo.
4	L. W. Althof—Ore.	8	R. L. Adamson—SW

Mechanical Dept.

1	L. W. Shirley—NW	5	G. R. Wilcox—Kans.
2	W. J. Nolan—Colo.	6	J. F. Long—SW
3	S. C. Smith—Cent.	7	G. A. Jordan—Wyo.
4	A. V. James—Nebr.		

Shops

1	J. Gogerty—Omaha	3	G. M. Walsh—Poca.
2	C. F. Spicka—Chey.		

MAY CASUALTIES

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	....	7	10	Transp.	....	2	4
Central	....	1	2	M. of W.	....	4	9
Northwestern	....	1	3	Mech.	....	6	2
Southwestern	....	3	1	Miscel.	....	....	1
Total	....	12	16		....	12	16

CASUALTIES JANUARY 1 TO JUNE 1

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	1	40	26	Transp.	2	32	17
Central	1	10	6	M. of W.	....	17	14
Northwestern	....	17	8	Mech.	....	29	5
Southwestern	....	14	2	Miscel.	....	3	6
Total	2	81	42		2	81	42

With 12 reportable and 16 lost time injuries during May we had the best month of the year insofar as the I.C.C. rating is affected. 16 lost time injuries represents the greatest number reported in any one month during the past several years. While part of this increase is brought about by change in what constitutes a lost time classification, the greater part is due to increase in roadway maintenance forces with the increased minor type of injuries attendant upon that work. We are concerned about the number of minor injuries for the reason that many small injuries indicate possibilities of major casualties. Prevention of small injuries can be obtained only by gang supervision giving close attention to details of work and the manner in which employes are carrying out rules and instructions. This can be helped by foremen watching new men closely and taking those out of service who show inclination to violate the provisions of Rule 700.

Article written and read by Road Foreman of Engines W. T. Doran, Northwestern District, at Regional Safety Meeting, Seattle, Wash., March 30, 1936.

Enginemen: It may be regarded as especially significant that the first stipulation the eye meets on opening the rule book pertains to safety: "Safety is of first importance," it says, "in the discharge of duty." Emphasis on the strict adherence and obedience to these rules is considered the essence of safety. As you know, the careful handling of a locomotive is a prime factor, an element of safety. There are few tasks more dependent on safety, few more important. Since the job of the engineer can't be underestimated, he must bring to it all his attention, energies, and interests; he should condition himself, while off duty, mentally and physically for his task; his mind should be immersed in his responsibilities; he shouid realize that he is a locomotive engineer on whose shoulders the burden of safe and capable train handling rests. He may happen to possess a large orange grove in California or an apple orchard in the Yakima Valley, but when he is in the cab he must be able to leave the oranges in California or the apples in Washington.

The alert engineer will anticipate danger; he must have the split-second knowledge to know how to handle his power in such a fashion as to forfend impending danger. For example, the engineer observes a person in a position that may be described as dangerous, in a position that might imperil his life, he is immediately galvanized into action, responding instinctively and doing the right thing. He does the right thing because he has made a habit of doing the right thing. It is accepted by many as true that practice makes perfect; this is erroneous. Practice only increases the disposition to error unless it is organized and pointed in the right direction. The engineer who began to interpret the rules correctly and continued to do so in successive years is practicing and pointing in the right direction. He is not practicing his errors. But if he has been lax in his observance, he has been practicing the wrong thing all these years.

The records reveal the favorable upturn of business in the railroad industry in the last few months; this in-

crease together with the retirement act, should it be found constitutional, will necessitate an influx of new blood. New men must be hired. In selecting these future engineers particular attention must be directed to the mental stature of the applicant. A railroad's demands on its employes are not excessive but a certain amount of intelligence is required. Now is the time to build for the future. I'd like to add that these days the fireman's task is not so manually severe as heretofore, as, for example, in the days when he had to keep the rear end of a mike satisfied by means of a loaded Number 5 scoop. We can now expect the fireman's job to have a fresh appeal—not that hard, laborious work ever hurt anyone, but it is an economic principle that men seldom work any harder than they have to.

So it becomes the duty of our hiring officers to select forthright, honest, ambitious young men who are open to suggestion and who will be obedient to the instructions of their officers. These constitute the qualities of our future safe engineers. The recent campaign to End Sudden Death brings home the seriousness of driving motor cars and applies to the engineer as well; his response to the campaign to end violent death is to sound the proper warning when approaching crossings and points of poor visibility. Super-attention is what is wanted; and super-attention will be attained if the engineer keeps in mind the fact that many of the rules in this little black rule book were written there in blood.

Transportation Department

Student Switchman: Riding lead footboard of switch engine which was moving backward slowly, started to get off engine before joint was made, when he noticed open knuckle of engine drawbar was not lined for closed car knuckle and kicked engine drawbar with his foot. The foot slipped off engine drawbar, was caught between it and the car drawbar and crushed. Developments show that this student had been instructed to not ride footboard to a coupling, to not kick drawbars and to not get on footboards coming toward him. Engineman states he saw student make a move which he took to be preparatory to getting off footboard and he released his engine air to allow engine to make coupling.

Remarks: A combination of errors. Student violating instructions and engineman misinterpreting a move and not stopping engine until he saw footboard man get off engine.

Switchman: At 6:05 A. M. on a clear day, after setting a platform hand brake, was descending the side ladder of a refrigerator car when he fell to the ground, breaking his left arm. Mechanical inspection of car revealed no defects of any description. The grab irons were clean and free from paint, oil, grease or other foreign substance. Switchman was wearing canvas-back gloves, with leather palms, and practically new shoes in good condition.

Remarks: To avoid injuries of this character, care must be used to secure good foot and hand hold.

Freight Brakeman: A road engine, headed east, was backing up with two cars to set out at a way station. A brakeman riding the side ladder of car leaned back too far, struck a water column and was knocked from the car, sustaining head and body bruises, incapacitating him from performing his regular duties for one day and four hours. This happened at 2:30 P. M. on a clear, calm day, and there were no defects in equipment.

Remarks: We are concerned about the potential fatality existing in this case, and asking all men in switching, train and engine service to stand in upright position and face the direction they are moving when riding side ladders of cars or steps of cabooses.

Fireman: On switch engine, shutting off left injector, had boiler check valve stuck in open position. Squirt hose which he had been using had the valve open and with the boiler check valve open, steam and hot water escaping through the squirt hose caused it to fly around and burn his right side and elbow resulting in a lost time injury. The fireman accepts responsibility for causes leading up to his injury.

Locomotive Engineer: Washing coal dust from top of right side of engine tender with squirt hose when hose slipped from his hand and fell to deck of cab. Steam and hot water escaping from the hose caused first degree burn on left foot and nine and one-half hours lost time.

Remarks: Squirt hose injuries are rather uncommon, but these two cases show the way they can occur when some detail of their use is overlooked or they are carelessly handled.

Maintenance of Way Department

Water Service Men: A general water service foreman and a sheet metal worker were engaged in dismantling old pumping equipment which had been taken out of service in 1932 and was located in a circular well pit 12 feet in diameter and 32 feet deep. Well pit was equipped with a ladder and 2 landing platforms, one 9 and the other 20 feet below ground surface, both consisting of 2 pieces 8"x8" timbers 5 feet apart, extending across the well, the upper platform having 2 pieces of 3"x12"x8' plank for platform. The foreman and man were standing on the 8"x8" sills of upper platform doing work preparatory to burning off a 3" discharge pipe when the sill on which the man was standing broke and he with the 2 planks fell to the platform below and from there to the dry earth bottom of pit, injuring the employe's spine and fracturing bone in right heel, disability estimated 4 months. The foreman, a heavy man, had tested the structure by holding on to the ladder and also onto the 3" discharge pipe and jumping up and down on platform. He states it appeared solid. After accident it was found the timber which failed was dry rotted through its entire cross section.

Remarks: While the test made is common practice and has generally been considered sufficient, all men having to do with old structures of any kind should take warning from this accident and make such tests with bars or other means as will assure them of strength of structure before subjecting it to weight.

Infection: Section laborer loading ties on push car when small sliver entered palm of hand. Made no report to foreman until 3 days later when infection had developed—lost 2 days time.

B. & B. helper when carrying a timber lacerated first finger of right hand. Treated it himself and made no report to his foreman until 6 days later when infection had set in. Lost 1½ days.

Remarks: For the purpose of avoiding infection it is required by the rules to report all injuries no matter how small, that proper treatment may be given.

Flying Steel: Section foreman watching two of his laborers cut a rail when a small flying piece of the rail struck him on the chin causing injury of such seriousness as to require hospital treatment. Tools in good condition and men doing work wearing goggles.

B. & B. helper engaged in pulling boat spike from guard rail of bridge, struck heel of claw bar with a spike

maul. A piece of the maul chipped off and struck helper in muscle of upper left arm—causing disability of 14 hours.

Extra gang laborer spiking new ties behind tie gang, felt blood running down his arm. Doctor removed small piece of steel from muscle of left arm. Disability 2 days. Spike maul was in good condition but showed a few small chipped or sheared places.

Remarks: These cases are cited that employes may be familiar with cause of this class of injury and do all in their power to guard against similar occurrences.

Section Foreman: Engaged, with his men, in straightening out a track sun-kink, had pulled all but a few inside track spikes and was working his men on outside of rail which side was full spiked. Just before pulling the remaining inside spikes he noticed a clawbar in between track rails and stepped over rail to pick it up at which instant the rail kicked in and broke two bones in his foot.

Remarks: Extreme care must be exercised in handling tight rail as this work probably presents more chances of injury than any other work required of section forces.

Section Laborer: Three section gangs combined had removed a crossover switch and were engaged in closing the gap in a side track caused by taking out a switch. They were driving the track rail with a 27-foot rail used as a ram, held by rail tongs in the hands of 12 laborers. The left foot of one of the tong men slipped off a tie into space, between ties, about 8 inches deep which had originally been dug out to permit switch drainage and the momentum of the ram caused him to loose his balance and fall. His leg being in the depression was caught between the two ties and fractured between the knee and ankle.

Remarks: As the space between ties would necessarily be filled before completion of the work it will be smart practice for foremen to have holes of this kind filled with gravel instead of allowing men to work over such places.

Extra Gang Laborer: Operating electric tie tamper, in moving tool from one tie to another struck ankle with blade of tamper, causing slight bruise. Ankle became sore and man was sent to the company doctor. Disability 2 days.

Extra Gang Laborer: Using tie tongs pulling old tie from track. Tongs slipped, employe fell and bruised side, continued work for 4 days and went to company doctor and was off duty 3 days.

Section Laborer: Gang at work scaling rock from sides of a canyon. A rock weighing about 200 pounds rolled down hillside and struck track rail some 20 feet from laborer, when a piece broke off it flew and struck another rock which deflected the piece and it struck laborer on left leg inflicting a puncture wound and bruise. Lost 2 days. Laborer was clearing rock out of track and was working too close to point where rolling rock contacted roadbed.

Gravel Pit Laborer: With other laborers handling extension track ahead of shovel. Track section is 6 feet long consisting of track rails fastened to gauge with tie bars, connected to section on which shovel is working with fish plates, and not spiked to ties. A gravel slide came down fouling the bank side rail. Men moved to track side away from slide and this laborer stood with one foot about 6 inches from track rail on a tie, supporting the track section. In clearing away gravel the shovel dipper struck the section rail, causing it to spring upward and sideways catching laborer's foot and disability of 2½ days.

Mechanical Department

Roundhouse Foreman: About 2:00 A. M. a night roundhouse foreman on way to store department for an electric light bulb, caught his foot under the ball of a track rail, causing him to fall and break small bone in his left forearm.

Remarks: A man may know his job and know the rules, but unless he knows how to watch his step he is due for some bad luck. A man can train himself to be as skillful in walking as he is in his regular work.

Machinist: With a box wrench was tightening the strap bolts on back end of middle main rod of a U.P. type engine. He was holding the wrench in position and his helper was striking the 14" wrench handle with a short handled sledge hammer. He states he was holding box of wrench in place with his left hand and had his right hand on handle close to box when hammer struck and mashed first joint of his little finger. Helper states the light was good; that he was standing upright; the engine was spotted in the best position obtainable; the wrench handle was level and that his hammer must have struck some part of the engine causing the hammer to deflect sufficiently to strike machinist's finger. Amputation of first joint of little finger followed with disability estimated at 2 weeks.

Remarks: The reports indicate this work was being handled in a perfect manner. From what could be determined there was no part of engine which interfered with movement of hammer and several blows had been struck from same position before injury occurred. One of these two men made some false move.

Machinist: A 5000 class engine had been unwheeled and set on blocking by stripping gang and this gang was charged with the duty of removing hanging or loose parts which might fall after removal of wheels. Lateral device hanging on cross member of frame back of an equalizer spring saddle was overlooked. Machinist assigned to remove main equalizer started work in pit under engine without looking the job over and on moving upright hanger and spring saddle the lateral device was released and it fell into the pit striking the machinist on the foot, breaking 4 metatarsal bones and causing disability estimated at 2 weeks. Responsibility for leaving lateral device was with foreman of stripping gang.

Remarks: "Employes must not rely upon the carefulness of others, but must protect themselves when their own safety is involved," so reads No. 1 of Mechanical Department Safety Rules.

Boilermaker: Suffered burns on right side of face and on both arms with estimated disability of 10 days. He had opened fire box door of engine and was examining inside of fire box when a machinist making repairs to blow ahead valve of engine opened valve and oil ejected from the valve was ignited by hot coals in fire box.

Remarks: A case of neither man knowing what the other was doing. Team work is essential to safety.

Machinists: Two machinists were assigned to work on an engine. Machinist No. 1 to the job of grinding in left boiler check, No. 2 proceeded to do other reported work and started to test injectors, gauge cocks, etc. He knew No. 1 had check valve out and was in machine shop facing the valve in lathe. He opened throttle to feed water pump and then after trying to open it with his hands got a wrench and opened fountain valve. As fountain valve opened it started feed water pump and forced hot water and steam out of open boiler check casing, burning Machinist No. 1 who had returned from machine shop and was climbing ladder to boiler check. In getting

away from hot water machinist jumped from ladder and fractured heel bone. Disability several weeks.

Remarks: Mechanical Department Safety Rule No. 34 reads: "Employes must determine that no one is in a position to be injured, before turning on electricity, gas, steam, air or water, or putting any machinery in motion." Had this been done or had Machinist No. 1 told No. 2 when he returned from machine shop, this injury would not have occurred.

Machinist: Attempted to remove rods on left side of high pressure engine of Mallet locomotive with a long buggy bar placed over top of bottom guide bar. As rod slipped off pin the buggy bar flew up and machinist's hand was caught between the bar and top guide causing bruise and fracture of small bone of hand. This man is responsible for his injury for not properly chaining rods or using portable crane in this operation. Foreman did not know machinist was handling work without rods being secured and he was severely criticized for his failure to see this man was properly instructed and know the operation was being handled in a manner to prevent injury.

Remarks: This is a case of permitting unsafe methods to be used in the handling of heavy side rods. Such work should be done with portable crane or if crane not available, with rope block and fall or rods chained to prevent falling.

Boilermaker Helper Apprentice: Taking down flue cutter from engine had machine shop portable crane hooked to cutter and was taking out bolts to release the tool. It was necessary to slack off crane line to release cutter from bolts. As it released it swung and caught helper's finger between the frame of the cutter and the engine smoke box door, cutting and bruising end of finger. Disability reported as 3 hours, but as it was 3 hours at beginning of day following the injury it becomes a lost time casualty.

A little care as to where he had hold of this tool might have prevented this injury.

Electrician: Had finished work on the front end of an engine and in swinging off engine pilot step he pivoted his body in such a way as to cause a severe sprain of leg ligaments and a disability of 14 days.

Remarks: A thoughtless move, with severe results and two weeks loss of pay. It is just as essential to move about your work in a safe manner as it is to do the actual work.

Correction: In the May 11th Bulletin we reported injury to Mechanical Department **Carman.** This was in error and should have read **Machinist.** We are pleased to know that the foreman of the car department was sufficiently interested in his accident record to call our attention to this unintentional error.

MISCELLANEOUS

Dining Car Cook: Supplies for a dining car had been moved in a freight box car from the commissary to the dining car. Dining car crew after transferring supplies were changing their clothes in the box car. The cook sat down on car floor to change his shoes and on getting up his left hand contacted a broken milk bottle causing a puncture wound in palm of hand and one day loss of time.

Remarks: Someone was careless in not sweeping or requiring this box car to be swept before loading the diner supplies and it is lack of thoughtfulness of little features of every day work which causes many of our casualties.

RAILROAD SECTION—NATIONAL SAFETY CONTEST

The National Safety Council's presentation of Annual Awards in the Railroad Employes' National Safety Contest was made at the Union League Club in Chicago, May 18th, to the railroads having the best safety record for the year of 1935.

The awards were received by Mr. Carl R. Gray for the Union Pacific Co. and Mr. W. M. Jeffers for the O. W. R. & N. Co.

In this contest the Class 1 railroads of the United States are divided into groups according to the total manhours worked and the Union Pacific System being divided into 4 units was not eligible for Group "A" contest as none of the units rated more than 50 million manhours. The U. P. R. R. Co. with 41,480,000 hours is classed in Group "B", the O. S. L. with 13,188,000 and the O. W. R. & N. with 10,276,000 hours in Group "C" and the L. A. & S. L. with 7,114,000 hours in Group "D'.' Also no railroad or unit of a railroad may receive this award two consecutive years.

In making the awards, the presenting speaker expressed himself in part as follows:

"Group 'B'—The Union Pacific R. R. Co. is again winner of the Group 'B' award, having recorded the lowest total employe casualty rate of any of the 20 contestants in this group of railroads, each operating between 20,000,000 and 50,000,000 manhours during the year 1935."

"Group 'C'—The Oregon-Washington Railroad and Navigation Co. after leading Group 'C' for four consecutive years (1929-1932) relinquished first honors to the Oregon Short Line in 1933 and 1934. The O-W. staged a real come-back in 1935, winning with the lowest casualty rate ever turned in by a Group 'C' contestant."

The O. S. L. was "runner-up" having placed second in Group "C".

Group "D"—The L. A. & S. L. placed second in this group with a casualty rate of 1.69 or the best rating of any unit of the Union Pacific System.

Figuring the Union Pacific as a system with 72,058,000 manhours with their casualty rate of 2.44 per million manhours, we find their record better than any railroad in Group "A"—as the best rate made by a railroad of that group was 2.83.

Special commendation was given General Managers F. N. Finch of the O-W. R. & N. and F. H. Knickerbocker of the L. A. & S. L. for having operated a total of 17,424,000 manhours without an employe fatality.

FILES Never use a file without a handle. Many men who have violated this precaution have had the sharp pointed tang driven far into their hands.

If you use files regularly, keep enough good file handles on hand so there will be no reason to do without one.

Never hit a file with a hammer. Pieces of the hard steel are almost sure to fly.

Never make a center punch or chisel out of an old file. The tempering of the metal makes it too brittle for this purpose.

A file should never be used as a pry. Also it is well to remember, that files should never be carried in the pocket unless they have handles on them.

The cleaner and sharper the file, the less chance there is for slipping and skinning a knuckle.

Accident Prevention Bulletin

May 11, 1936

Issued monthly by the Safety Department for employes of the Union Pacific Railroad.

Included herein are accounts of casualties causing disability to employes on duty, and items selected from other sources. The details of accidents are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—FOURTH MONTH

Including casualties and careful estimates of manhours for the month of April in calculating the cumulative rates for the period January 1st to April 30th, the relative ranking of districts and departments appear to be as tabulated below:

CASUALTIES

Rank	Districts	Month K	Month RI	Month LT	Period K	Period RI	Period LT	Wtd. Rate	ICC Rate
1	Eastern	—	9	6	1	33	16	13.37	2.32
2	Central	—	2	1	1	9	3	14.24	2.26
3	Southwestern	—	2	1	—	11	1	22.21	4.36
4	Northwestern	—	3	2	—	16	5	24.15	4.55
	Total—1936	—	16	10	2	69	25	15.92	2.83
	Total—1935	—	16	—	2	48	10	13.15	2.35

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)

1	Wyoming	5	Washington
2	Kansas	6	Colorado
3	Nebraska	7	Southwestern
4	Central	8	Oregon

Transportation Dept.

1	T. E. Williams—Wyo.	5	A. L. Coey—SW
2	W. H. Guild—Kans.	6	M. C. Williams—Wash.
3	F. C. Paulsen—Cent.	7	H. A. Connett—Ore.
4	J. E. Mulick—Nebr.	8	C. P. Cahill—Colo.

Maintenance of Way Dept.

1	W. H. Lowther—Wyo.	5	R. M. Jolley—Nebr.
2	C. W. Pitts—Colo.	6	L. V. Chausse—Cent.
3	M. C. Williams—Wash.	7	L. W. Althof—Ore.
4	W. C. Perkins—Kans.	8	R. L. Adamson—SW

Mechanical Dept.

1	A. V. James—Nebr.	5	S. C. Smith—Cent.
2	J. F. Long—SW	6	G. R. Wilcox—Kans.
3	L. W. Shirley—NW	7	G. A. Jordan—Wyo.
4	W. J. Nolan—Colo.		

Shops

1	C. F. Spicka—Chey.	3	G. M. Walsh—Poca.
2	J. Gogerty—Omaha		

APRIL CASUALTIES

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	—	9	6	Transp.	—	4	4
Central	—	2	1	M. of W.	—	3	4
Northwestern	—	3	2	Mech.	—	9	2
Southwestern	—	2	1	Miscel.	—	—	—
Total	—	16	10		—	16	10

CASUALTIES JANUARY 1 TO MAY 1

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	1	33	16	Transp..	2	30	12
Central	1	9	3	M. of W.	—	13	5
Northwestern	—	16	5	Mech.	—	23	3
Southwestern	—	11	1	Miscel.	—	3	5
Total	2	69	25		2	69	25

The weighted rate casualty ratio to manhours worked for the same period in 1935, by districts, was: Eastern 14.41, Central 15.11, Southwestern 13.40 and Northwestern 5.53, figured on a basis of employes only, not charging casualties to passengers or persons carried under contract to the district or division contest.

The "Conditions of Award of the E. H. Harriman Memorial Medals, under the auspices of the American Museum of Safety", includes all employes and passengers, except suicides or attempted suicides; or accidents resulting from jumping from equipment to escape custody, or while mentally deranged. Also, it carries a classification of "All other persons", (which includes employes not on duty, and persons carried under contract, but excluding persons injured at crossings protected at the time of accident by, (a) crossing gates, (b) watchman, (c) visible and/or audible signals that indicate the approach of a train, and persons injured as a result of the vehicle, or pedestrian running into side of the train). All trespassers are excluded.

HUMAN ELEMENT

A famous industrialist once said, "If you take all my machines and leave my men I will rebuild my plant, but if you take my men, I cannot go on."

These few words sum up clearly, we believe, the value of the human element to industry. It is estimated that 75% of all accidents are due to the failure of the human element; 15% due to mechanical imperfections or failures; and 10% due to causes over which the employer or employe has no control. However, in the latter classification, the human element may somewhere have again been responsible for a great majority of these accidents.

In the 75% classification, the injured person may be responsible from the slightest degree of inattention to a gross violation of a rule or of a practice. He may be handicapped by an unknown or a chronic physical ailment or mental deficiency or his supervisor may have failed to see that he was properly instructed or safeguarded. It is true that accident frequency has been reduced considerably over a period of years, but the ratio of human element failures remains constant. It still bobs up to plague the conscientious.

Is it not reasonable to suppose that if so rapid an advance can be made in accident reduction by the design or re-design of machines and equipment that a similar reduction may be accomplished by a mental improvement or appreciation on the part of the human element? It is not a long road back to the days when men were held so cheaply that no effort was made to save them from their follies.

That something can be done is conceded among employes, officials, and safety engineers. Success is generally achieved in most callings by starting from the bottom, success in accident prevention must start from the top.

To impress others with his belief in safety, a supervisor must show by example that he is a safe worker, that he

refuses to tolerate unsafe workers and that **safety is his uppermost thought.** Having instilled these ideas in the minds of his fellow workers, a degree of loyalty develops, increasing as the days lengthen into years. Never allow interest or alertness to slack off. When you discover a violation of a rule, correct it immediately; be very explicit in your instructions to the new workers or to old ones doing new tasks; give credit to men for new thoughts; discuss accident possibilities before they occur and plan a job from the standpoint of accident elimination. To that degree of enthusiasm with which safety is practiced, to that extent will it benefit himself. More than this cannot be expected—less than this is inexcusable.

A lady stopped beside a little girl, who evidently was waiting to cross the street.

Lady: "Be careful, little girl. Look out for automobiles and don't get hurt crossing the street."

Little girl: "Don't be afraid of me, lady. I always wait for the empty places to come by."

From the mouths of children often come words of wisdom. Many accidents to pedestrians on streets and highways would not happen if they followed the plan expressed by this child.

Transportation Department

Switchman: Shortly after going on 8:00 A. M. shift, stepped on the side ladder of a box car, in a slow moving cut of cars, to go up and release a brake. His foot slipped off the first or second tread from bottom of the ladder and in his attempt to catch hold of a ladder iron his left hand went between the ladder iron and the car side, breaking bones in his forearm. Inspection developed no defects in equipment and no snow or ice on ladder treads.

Remarks: Slipping and falling enter into the daily life of yard and trainmen. Securing good footing and hand hold on car ladders is the only known means of avoiding this type of injury.

Brakeman: In letting the air out of a train line, held the air hose in his left hand while opening the angle cock with his right hand. Angle cock opened easily and as air pressure passed into the hose it was jerked out of his hand, flew around and struck his face causing compound fracture of the jaw bone.

Remarks: Evidently he failed to have a secure hand hold on hose when the angle cock was opened. Due to the angle couplings to the train line pipe and the side opening of hose couplings, the forces generated in air hose when train line pressure is turned on may cause the hose to whip in any direction, generally the first action is away from the hose coupling opening, but this is not always true. The prevention measure against injury is to have a secure hold on the hose for action in any direction, or if it can be accomplished, keeping entirely clear of any direction the hose may take when opening train line valve.

Brakeman: Riding side ladder of a box car pulling out of a track, having clearance with a coal shed rather close but sufficient to be safe for a man attentive to these conditions, had his attention distracted by someone calling to him, and was brushed off the side ladder, causing dislocation of left elbow and torn arm ligaments, with an estimated disability of about 30 days.

Remarks: Attentiveness to surrounding conditions and guarding against possibility of injury is the only thing we can suggest for prevention of accidents of this kind.

Maintenance of Way Department

Section Foreman: With his gang was standing some 20 feet from track to clear an approaching train. As the engine passed a side rod collar came off and struck the foreman a glancing blow in the face, causing cuts on chin and forehead.

Remarks: Accidents of this kind emphasize the reason for Rule 712.

Signalman: An assistant signal supervisor, on a track motor car moving west on a curve in single track territory, looking at his timetable and also looking across the curve at a block signal, did not see an approaching signal maintainer until he struck the maintainer's car which was almost stopped. The supervisor received severe injuries and the maintainer cuts on head which did not incapacitate him. The responsibility for this accident is with the assistant supervisor as resulting from a period of inattention to the track ahead.

Remarks: Being attentive, at all times, to all conditions entering into track car operation, is the only way to avoid accidents and personal injuries.

B. & B. Foreman: A staging consisting of 2 widths of 3"x12"x16' spruce plank with 4"x4"x8' timbers bolted on ends to extend under stringers, was being used to span between two caps on a pile bridge for use in work of renewing bridge ties. The bridge deck had at some time been raised 4 inches with shims on top of caps extending out from stringers 10½ inches. To level the bearing for the staging a piece of 4"x8"—19 inches long had been toe-nailed to the cap extending from end of the shim to about 6½ inches over the end of the cap. To remove staging it was turned upward on edge and pulled onto the deck. The foreman standing on the cap helping raise the up-edged staging onto bridge deck fell to the ground 18 feet below, sustaining injuries which may incapacitate him for several months. The cause of his fall was due to his stepping on the unsupported end of the leveling block.

Remarks: Now figure this one out you bridgemen and profit by this report.

Laborer: On double track, to expedite rail relaying, single track train operation was in use between two stations and a switch near east end of the east station was lined for train movement from westward to eastward track. Outfit cars for relaying gang were on a track having a switch taking off from westward main track, east of the switch lined for train movement. Gang was working west of station and when moving to outfit cars, during the noon hour, their track cars were derailed at switch lined against them, causing serious injury to one and slight injuries to 7 laborers.

Gang consisted of 135 men. Track car equipment was two motor cars headed in opposite directions with six 22-man transport cars between them. All cars had man assigned to operating brakes and all brakes were in good condition. Foreman was riding lead car and 2 assistant foremen the rear car, all 3 standing. Foreman, when about 800 feet away, saw a switch target red and gave slow signal; when this was not promptly acted upon, gave stop signal. Still not getting action required he gave fast stop signals which were seen by men and they began unloading from cars which were all derailed at slow speed and remained upright.

Remarks: Evidence shows some men seeing the fast signals of foremen, yelled: "Train", and the instinct of self-preservation followed. This instinct rightly directed is the most valuable one known in the preservation of life and limb. When resulting from confusion it is one of the

most terrible, as evidenced in recent history of theatre fires, etc. Avoid cause for confusion.

Mechanical Department

Millman: Engaged in cutting channel 3 inches wide by 1½ inches deep in the concave side of an auto wheel block, using a circular saw with teeth projecting ½ inch above the convex form fitted to the saw table, suffered the loss of portions of two fingers. Accident was caused by a weather checked piece of material held together by a small knot which was severed with first saw cut causing block to collapse and fingers to strike saw teeth.

Remarks: Watch your material, men, and if it looks at all bad, lay it aside or use extra precautions in handling.

Carman: Wanted a piece of 3"x12" oak blocking cut-in-two and took it to a circular saw where it was cut by a saw operator who then turned around to close the power switch. Carman attempted to take the blocking from the saw table before saw stopped moving. Gauntlet of glove he was wearing went under end of the saw guard, caught in saw teeth and he lost two finger joints.

Remarks: Haste or thoughtlessness was the cause. This saw by test stopped still in nine seconds after shutting off the operating power.

Machinist: A UP type engine standing in the house was being prepared for the road by the roundhouse foreman, hostler, machinist and machinist helper. It was found a branch pipe clamp located on back of trunnion frame directly over the main frame required bolts and foreman sent the machinist for the bolts and told him to do the work. While he was away the engine was moved a short distance, stopped and the hostler went forward to lower the smoke deflector which would not clear the house roof jack. While he was doing this with the foreman and helper on the floor in front of engine, the machinist returned. Seeing the hostler on running board and not noticing that engine had been moved, he stepped up on main rod and was bending over applying bolts in the brace when the hostler, on receipt of a hand signal, started the engine which slipped its drivers and threw the machinist up against the trunnion frame, fracturing two ribs and bruising shoulder. The machinist being under the engine running board and behind the cylinders was out of view of the hostler, foreman and helper.

Remarks: Accident was caused by a combination of conditions and parties involved not complying with instructions requiring patrol of engine before moving it off engine pit.

ROPE

A prominent official of a Cordage Company tells some facts about rope which should be remembered. He stated that in 20 years, under ideal conditions, rope loses only about 10% of its original strength. Improperly stored, it goes to pieces in two years. When heat evaporates the rope fibre lubricant, the rope burns out like a hot bearing in an engine. Too much moisture starts rot. Free running pulleys of the right size and absence of chafing prolongs rope life. Acid and lime destroys the fibre. A special treatment for rope that must be stored while damp reduces the possibility of rot.

Manila rope which comes in contact with acid or strong alkali may break without warning. It is almost certain to be weakened.

To inspect or test it immediately after the acid or alkali has reached it may not reveal its true condition, because the destruction of some of these chemicals is slow.

With a little practice one can learn to detect chemically burned rope by inspection. Good rope is hard but pliant. It is yellowish or greenish-gray in color, with a silvery or pearly lustre. Brown spots or dark color may indicate an inferior grade. Acid spots are black to rusty brown color.

By pulling a twist out of the rope, the condition of the yarn can be observed. It can be tested by breaking it in the hand. If it breaks easily or the fibres have lost their brightness and lustre, the rope is of doubtful strength and should be discarded. At the first opportunity learn how to judge the difference. Just break the fibre of acid burned rope; then try a fibre of good rope. In this way you can readily learn how to make the right kind of hand inspection.

MACHINE GUN FIRE PREVENTS EXPLOSION

Flames Surrounded Gas Tank Car, Punctured to Save Village.

This head line, and similar head lines published in many papers throughout the United States, relates to article following them which gave the impression that certain village officials did the right thing, whereas the action authorized was decidedly wrong, for they thereby increased rather than decreased the hazard. Hence the following information should be helpful to all railroad men who may be called upon to handle similar situations or to oppose any unwise action on the part of local authorities who may feel that they are entitled to handle the situation.

Tank cars authorized for the transportation of inflammable liquids are equipped with safety valves, having a discharge capacity sufficient to prevent the building up in the tank of a pressure sufficient to burst the tank, even when surrounded by a severe fire. A tank of 6,650 gallons capacity or less has one of these valves, and tank cars of larger capacity have two of them. Therefore, there is no need for providing additional release. Furthermore, as the release area of one gasoline tank car valve is about 17 square inches and the area of a hole made by a machine gun bullet is only about .07 of a square inch, it would require about 245 such holes to furnish a discharge area equivalent to one tank car safety valve. However, one of these holes below the level of liquid in the tank would discharge about 20 gallons of liquid a minute, which would add just that much more fuel to the fire surrounding the tank, thus increasing its intensity and extent and making it more difficult to extinguish. Every additional bullet hole in the tank only serves to make matters worse.

An inflammable liquid will not explode. The vapor given off by the liquid will burn. When the vapor is mixed with air in certain limited and definite proportions an explosion may occur. As such a mixture does not exist in a tank car filled with inflammable liquid it should be easy to appreciate the fact that when a tank car which is not leaking is involved in a fire and cannot be moved away from the fire, the safest procedure is to allow the vapor which will escape through the safety valve to burn in a torch-like manner at the valve until all fire in the vicinity of the tank has been extinguished. Then by cooling off the tank, pressure will drop, permitting the valve to close and thus stopping the fire at the valve. It should be understood that an empty tank car is very likely to contain an explosive mixture of air and inflammable vapor. Hence, if an open flame, hot rivets, or friction spark is brought into contact with this mixture, an explosion will result, developing a pressure of possibly 80 lbs. per square inch. While this pressure is not sufficient

to burst a tank car which has a designed bursting strength of 300 lbs. per square inch, flames projected at a high velocity will be discharged through the manhole of the tank if the cover is off, causing serious damage or death to person in line with the flames—for example, a person using a lighted lantern to look into the manhole of an empty tank or going into an unsteamed tank with hobnailed shoes or any tool likely to produce a friction spark. Hence, the necessity for the rule that requires all openings in tank cars to be securely closed and the warning to keep lights and fires away and not to enter tank cars which have not been cleaned by steaming.

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FIRST SAFETY MEETING A train conductor on the Kansas Division in response to a safety questionaire recently sent out gives us the following:

"Thirty years ago, shortly after I was married, I decided to take up railroad work, and secured a job as brakeman. My wife was anything but pleased, because at that time a job with any railroad was considered very dangerous, which was not far from the truth. So, on January 1st, 1906, the first Safety Committee I ever heard of was organized. This committee consisted of my wife and myself. It was agreed that I would not take chances; that I would be careful at all times; that I would note and benefit by the mistakes of others, and last, but not least, I promised I would always come home in as good shape as when I left. During these thirty years I have seen a lot of accidents and I can truthfully say they were mostly unnecessary and could not happen today. Since the Safety movement was started on the Union Pacific a lot of changes have been made in order that accidents might be eliminated. These changes have been costly but no doubt the railroad is satisfied the results justify the cost. It is my thought, however, the real beneficiary is the man who has been prevented from getting hurt or killed.

"This thirty-year old committee is still in operation and will continue indefinitely. It is my practice to avoid anything unsafe, and caution anyone doing otherwise."

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PROTECT THOSE EYES In one of our shops, during the first month of the year, a carman helper engaged in bucking up rivets with a flat buckingbar and wearing goggles as required by the safety rules, received the full impact of a rivet snap flying from an air hammer barrel on frame of goggles covering his left eye. This impact was so violent that it shattered the goggle lens and the face edges of the goggle cut a circular mark around entire eye-ball. There was no damage to the eye by glass from the lens, but the cut and bruise injured the nerves of the eye sufficiently to incapacitate this man. It is highly probable that if the goggle protection had not been afforded this injury might have resulted in death.

Psychologists tell us that our eyes are the most valuable of the five senses; that taste records 1% of our impressions, touch 1½%, smell 3½%, hearing 7%, and eyes 87%. When a fellow loses his eye sight he's in bad shape, from which there is no hope. His other senses have to take on extra duties, but even at best they can't begin to make up for the lost eye sight.

Most of us realize that it is false economy to work without goggles where there is danger of eye injury. Likewise, it is false economy to put off having the eyes tested and corrected at the first sign of trouble.

SERVICE AWARD CARDS The 1935 Meritorious Service Award Cards are now being distributed to the foremen who went through last year without injury to themselves or members of their forces in the way of a reportable casualty. The practice of issuing these cards was established in 1924 and has been carried through continuously since that year. At the time this reward of merit plan was established, it was decided cards would be issued to foremen continuously for each year he and his forces passed through without personal injury occurring on duty. A five-year card indicates plainly on its face that recipient had no injuries to himself or forces for a period of five years, and the same is true of a twelve-year card. If a foreman has an injury in any year following that for which he is carrying a card, the continuity of his record is broken and he will not receive a card until he has gone one full year without such injuries, when he will be awarded a one-year card. Am giving this detailed information so that employes not familiar with the issuance of Meritorious Service Award Cards may understand the general principle entering into this award.

Cards for one-year's clear service carry the signature of the officer heading the department of the division on which the man is employed. Two-year cards the personal signature of the division superintendent or the officer heading the department for a district. Three-year cards are signed by the general managers of districts or the head of the department for the entire railroad. Four-year cards are signed by the Executive Vice President, and five-year cards by the President. All cards from one to five years are also signed by the head of the safety department. Cards from six to nine years are unsigned, with the ten-year cards signed by the Chairman of the Board of Directors. Eleven and twelve-year cards are unsigned. All signatures on these cards are personal and were written by the officer himself.

The following tabulation shows the number of cards, by departments, being issued for the year 1935 on each general manager's district, followed by the number of yearly service cards issued. The fact that the total number of cards increases slightly with each year is gratifying in that it reflects the result being obtained by foremen in direct charge of forces engaged in work entailing a large percentage of the casualties incident to railroad operation.

Department	Eastern	Central	North-western	South-western	Total
Maintenance of Way	425	190	159	97	871
Transportation	242	5	56	—	303
Mechanical	105	25	17	15	162
Stores	42	10	3	1	56
D. C. & H.	24	5	12	11	52
Custodian Headquarters	7	—	—	—	7
Total	845	235	247	124	1451

YEARS

1	188	5	67	9	106
2	131	6	64	10	74
3	102	7	73	11	70
4	69	8	95	12	412
		Total	1451		

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GONE FOREVER An ancient Moslem maxim says: "Four things come not back: the spoken word, the sent arrow, the past life and the neglected opportunity." Now in this modern age of speed and machinery production, several things might be added to those four that "come not back". For instance: lost eye sight; lost limbs; lost time; lost happiness; lost loved one.

Accident Prevention Bulletin

April 10, 1936

Issued monthly by the Safety Department for employes of the Union Pacific Railroad.

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"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—THIRD MONTH

Including casualties and careful estimates of manhours for the month of March in calculating the cumulative rates for the period January 1st to March 31st, the relative ranking of districts and departments appear to be as tabulated below:

CASUALTIES

Rank	Districts	Month K	Month RI	Month LT	Period K	Period RI	Period LT	Wtd. Rate	ICC Rate
1	Eastern	—	5	1	1	24	9	13.56	2.36
2	Central	—	2	—	1	7	2	15.02	2.31
3	Southwestern	—	3	—	—	9	—	23.92	4.78
4	Northwestern	—	4	—	—	13	3	25.85	4.94
	Total - 1936	—	14	1	2	53	14	15.87	2.96
	Total - 1935	1	9	2	2	35	10	13.88	2.19

Divisions—(Inc. Transp.—M. of W.—Mech. Depts.)

1	Wyoming	5	Washington
2	Kansas	6	Colorado
3	Nebraska	7	Southwestern
4	Central	8	Oregon

Transportation Dept.

1	T. E. Williams—Wyo.	5	J. E. Mulick—Neb.
2	W. H. Guild—Kans.	6	M. C. Williams—Wash.
3	F. C. Paulsen—Cent.	7	H. A. Connett—Ore.
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1	W. H. Lowther—Wyo.	5	R. M. Jolley—Neb.
2	W. C. Perkins—Kans.	6	L. W. Althof—Ore.
3	C. W. Pitts—Colo.	7	L. V. Chausse—Cent.
4	M. C. Williams—Wash.	8	R. L. Adamson—SW

Mechanical Dept.

1	S. C. Smith—Cent.	5	L. W. Shirley—NW
2	A. V. James—Neb.	6	G. R. Wilcox—Kans.
3	J. F. Long—SW	7	G. A. Jordan—Wyo.
4	W. J. Nolan—Colo.		

Shops

1	J. Gogerty—Omaha	3	G. M. Walsh—Poca.
2	C. F. Spicka—Chey.		

MARCH CASUALTIES

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	—	5	1	Transp.	—	8	—
Central	—	2	—	M. of W.	—	2	—
Northwestern	—	4	—	Mech.	—	2	—
Southwestern	—	3	—	Miscl.	—	2	1
Total	—	14	1	Total	—	14	1

CASUALTIES JANUARY 1 to APRIL 1

By Dists.	F	RI	LT	By Depts.	F	RI	LT
Eastern	1	24	9	Transp.	2	26	8
Central	1	7	2	M. of W.	—	10	1
Northwestern	—	13	3	Mech.	—	14	1
Southwestern	—	9	—	Miscel.	—	3	4
Total	2	53	14	Total	2	53	14

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Casualties for 1936 are: January 1 fatality, 15 reportable and 2 lost time. February 1 fatality, 24 reportable, 11 lost time. March 14 reportable and 1 lost time. By departments they were—**Transportation** 2 fatalities, 26 reportable, 8 lost time. **Maintenance of Way** 10 reportable, 1 lost time. **Mechanical** 13 reportable, 1 lost time. **Pocatello Shop** 1 reportable. **Store Department** 2 reportable, 2 lost time. **D. C. & H. Department** 1 reportable. **Headquarters** 2 lost time. Headquarters includes all general office force and other casualties not directly chargeable to classified departments or districts. The Maintenance of Way departments of the **Wyoming, Kansas, Colorado** and **Washington** divisions with an aggregate of 1,397,000 manhours, are entirely free of recorded casualties for the period.

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WE SHOULD PROFIT BY THE OTHER FELLOW'S EXPERIENCE

Most things must be seen to be appreciated and likewise, to many persons, injuries must be suffered before they can be properly evaluated. It is unfortunate that with many persons the experience of others fails to impress them to a point where they may profit, but such is the case and it is these men who often act to obstruct the flow of safety consciousness to their associates. We find this type of men in almost every kind of employment. To them an attempt toward the elimination of injury through safety meetings, safety bulletins, etc., is just so much bally-hoo and not intended for their benefit. It is just too bad that they miss the essential points of accident prevention work.

One never heard them suggest that the steps which have been taken by the medical profession toward the elimination of contagious diseases was time wasted; to a man they will agree that such work has been a humane step of incalculable value to mankind, which is true.

Likewise the safety movement in this country for the past twenty-five years is a humane step seeking as its objective the conservation of human life and the alleviation of suffering by out-lawing injury in every activity of life.

Is a death from typhoid fever any different in its final result than a death caused by injury? In either case a human life has been sacrificed and an economic loss sustained not only to the immediate family of the deceased, but to the community of which he was a part.

Is a permanent disability brought about by a devastating disease more acute than one brought about by an injury? In either case the victim is doomed to a life of suffering and is not only an economic loss to himself, but a burden on those who are charged with his support and the support of his dependents.

There is no single task or field of usefulness in which you can accomplish more for humanity at large than in practicing and teaching the idea of Universal Safety.

—Lykes Safety Bulletin—9-6-35.

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Personal injuries as occurring during March which embody features of instructive value, are given in brief—showing cause and effect, that employes may "Profit by the other fellow's experience."

The month developed 7 injuries among transportation, 2 among mechanical and 1 in store department forces, involving hospitalization, all of which should permit of full recovery. Other injuries shown in tabulated figures were minor in character and not of sufficient instructive value to be of general interest to our readers.

Transportation Department

Brakeman: Shortly before noon, on a rainy day, an engine coupled onto 6 loads, brakeman went up to brake platform on car next to the engine with cars standing, released brake, then stepped around with his left foot to the car side ladder. As he was in act of getting hold of a ladder with his left hand, his foot slipped off ladder iron and he fell to the ground, striking with his weight on his left wrist, causing Colles fracture. Exercising care in securing good footing and hand hold, while working on cars and car ladders, pays good dividends.

Switchman: On a cloudy night a switch engine headed in with 3 cars onto 4 cars standing on an ascending grade of a spur track, 1 car was cut off and engine with 2 cars moved back about two car lengths and stopped. The 4 cars had one brake set and a piece of 2"x6" was put in front of lead wheel of car cut off. The coupling took the slack in the 4 cars and after cut was made the 5 cars started to move. Switchman climbed the ladder on "A" end of lead moving car. Just as he reached roof and let go of grab iron, coupling was made with the standing cars and he lost his balance and fell to the ground, suffering fracture of a heel and a wrist bone. Quick moves without considering conditions often lead to accidents. Use time necessary to work safely.

Switchman: On a clear, calm night, a switchman on top of standing cars started to walk back from car next to the engine and fell between first and second car, striking drawbar and track rail and landing clear of cars. Examination of cars, which were left in same position as at time of the fall, developed no defects contributing toward the accident. This switchman suffered a partial fracture of a shoulder blade. When on top of cars particular attention to footing is one of the surest ways to keep from being injured.

Mechanical Department

Car Inspector: Was inspecting a passenger train one afternoon and in this work was walking along one of our raised brick station platforms. He crouched down to inspect some underpart of the equipment and while in this position his left foot slipped off platform to track level and his right knee struck brick platform with sufficient force to cause fracture of knee cap. Inspection of platform developed no defects or contributing cause to accident. An insecure posture, a slip, an injury.

Machinist: Was adjusting a bell ringer at a point on the top of the boiler of a standing locomotive. After making an adjustment he returned to the cab and turned on the operating power. The bell then did not start and he went out on running board of engine, made further adjustments and the bell started ringing. In hurriedly returning to cab to shut off the power, and as he was stepping from the engine running board to the foot board alongside of cab, he missed either his footing or hand hold and fell to floor, breaking a heel bone. Haste is the cause of many injuries.

Maintenance of Way Department

Section Laborer: Assisting in putting push car on track, slipped and fell striking his side on edge of push car, causing contusion of chest, no fracture, disability estimated 10 days.

Extra Gang Laborer: Tie gang unloading ties along track. Laborer had moved over to a full car when he slipped on a tie and fell on knee, causing a severe bruise and disability of 11 days. Some of the ties in car were coated with thin ice. Be sure of your footing.

Miscellaneous Department

Store Department: Leading laborer was supervising unloading of lumber from car to pile. In this work a gasoline engine powered crane fitted with two cable winding drums, one for fall line and one for the boom line, was being used. The control of drums for lowering boom or load is with band brakes operated by foot levers, the engine power being used for raising and swinging purposes only. Crane operator had swung and lowered a load to the pile and on signal from the leading laborer he lowered the boom which involved use of band brake until boom reached proper height, then the insertion of a holding dog in a toothed gear for keeping the boom in fixed position.

Before the holding dog was in place the leading laborer moved toward the resting load and at that time the bolt holding the fixed end of boom brake worked out and the boom dropped, striking this man on the shoulder and leg, resulting in severe injuries.

Inspection of equipment must be thorough to be of value.

These reports are given in considerable detail that employes may know how the casualties occurred to enable them to guard against similar occurrences in their every day work.

The causes of casualties during the first three months of 1936 show in the following tabulation.

Contributary causes take in all cases of casualties resulting from causes over which employe involved had no control.

Miscellaneous: All casualties not otherwise classified. All casualties except those listed after contributory causes, developed employe responsibility.

PRINCIPAL CAUSES OF CASUALTIES

	Trans.				Mech.			MofW		Miscl.			Tot.
	E	T	Y	S	L	C	R	B	S	U	S	D	A	
Contributory causes	1	7	3		3		1				1			16
Violation safety rules			1				1							2
Slipping and falling	1	4	1			2	4			1	2	1	1	17
Fall from cars and eng.		1	2		1	1								5
Getting on or off moving equipment	1	4	2	1										8
Coupling or uncup. cars		1												1
Struck by trains		1												1
Material striking feet					1		3							4
Eye injuries	1													1
Miscellaneous	3		1		4	3	2				1			14
Total	7	18	10	1	9	6	11			1	4	1	1	69

Transp. E-enginemen T-trainmen Y-yardmen S-station force.
Mech. L-locomotive shop C-carmen.
M of W. R-roadway B-bridge S-signal.
Miscel. U-unit S-store D-DC&H A-Special agent.

HOW TO PREVENT SERIOUS ACCIDENTS When a bad accident occurs in any industrial plant, the executives of that plant are always keen to do something drastic about accident prevention.

The plant that practices good continous safety work the year round, directed at minor accidents that occur with more or less frequency in any plant, automatically prevents most bad accidents—sometimes fatal ones.

The seriousness of the results of any accident has nothing whatever to do with its cause—and therefore with its prevention.

Most accidents in the well-guarded plants of today are caused by, or are due to, the failure of some individual to act correctly, and to lack of supervision. The cause of a bad accident that results in the loss of both legs, is likely the same as that which results in a slightly bruised toe.

Why blow hot when a bad one happens and then blow cold the rest of the year toward little accidents?

Every year sees a gain in the number of plants who take up systematic safety work, who apply some one of the numerous forms of individual-worker stimuli, who aim to eliminate the little accidents by striving for a low frequency rate, and who ultimately find they can go months and then years without a single disabling accident.

Take care of the Little Accidents and the Big Ones will take care of themselves.

The deplorable thing about most serious accidents is that they could have been prevented so easily, and by the same methods and effort that are used to prevent minor injuries.

—The Michigan Mutual Shopman.

—o—

SCHEDULE PROGRAM It is sometimes said that Safety Meetings are dull, uninteresting and uninformative. Can this be true? Is it possible that with a subject of such vast importance as accident prevention that a group of men can find nothing of interest to say to each other, during the course of a meeting?

YOU'VE had no accidents since the last meeting, you say? Good! Nothing startling has happened in a fortnight? Very good! That's an indication that the boys at least are on their toes. Perhaps they are right! Maybe the meetings are dull, uninteresting and uninformative.

Perhaps the Chairman aside from conducting the meetings does all the talking. The others will listen, certainly, as long as you entertain them. You've lulled them to sleep, perhaps, or as expressed in the vernacular of the college campus, into an inocuous desuetude. Shake out of it! Assign subjects for discussion among the men. Set up a program of topics. Be a good listener—the others may have ideas, too. No single person has a copyright on perspective.

Get the other fellow's viewpoint even if it is out of kilter with your own. You didn't get where you are overnight, if you did, you don't belong there.

You know, Thomas A. Edison said genius was 10 per cent inspiration and 90 per cent perspiration. You'd better start sweating. If your meeting agenda required no thought to compile it, it would hardly be interesting, because what readily came to you without effort may be known to scores of others.

It requires thought and application and when you do talk be sure you are familiar with your subject. Pick out your committee-men, give them something to do. They'll do it and like it. Bye and bye the meetings will become interesting.

It won't be a case of killing an hour when they come into a meeting but they'll be so all-fired full of ideas the hour will prove all too short.*

—o—

"SAFETY"

Yesterday — Today — Tomorrow

Yesterday:

In looking over our yesterdays and yesteryears, it brings to our minds many sad and regretable accidents, the majority of which could have been prevented. This fact brought about the beginning of Safety.

Safety in its infancy, what a problem. We can hardly realize the vast amount of work and the cost of bringing Safety before the people of this great nation, and to the people of the world, but not before accidents had extracted their great toll.

Safety in its infancy was brought before the people in several ways. On our railroad through safety meetings, interesting the employes in all departments in the movement, being on the alert for and reporting all things considered unsafe and having them corrected at once, discussing previous accidents, determining their causes, which brings us to the progress of Safety Today.

Today:

Safety is no dream. The movement has spread until all fraternal organizations, local municipal bodies, state and national governments have organized safety councils and safety is taught and practiced throughout the world, chiefly through our press and radio.

Every accident is thoroughly investigated to determine the cause and prevent a recurrence of any such accident, all bulletin boards are placarded with accident prevention bulletins, picturing and bringing to your attention some accident that has occurred and how to prevent any recurrence of such accidents, showing and teaching the safe and unsafe way of doing your daily work. Headed by slogans such as "Stop-Look-Listen", "Are you Careless?", etc. We are still confronted with some accidents which can be prevented, which now brings about the question, what are we going to do about Safety—Tomorrow?

Tomorrow:

Do you value your life and limbs? If so, make Safety ALWAYS your first consideration. Nothing else is or can be so important. The Safe Man is and always will be the Best Man. Always give consideration to your fellowmen and keep these three things in mind: Yesterday—Learning Safety. Today—Teaching Safety. Tomorrow—Living Safety.

Contributed by Herbert L. Price,
Car Inspector, Salina, Kansas.

—o—

SECTION MAN LOSES LIFE A section crew was engaged in changing out a frog. When the work was commenced it was found that one of the bolts on the side of the frog could not be loosened with a wrench and that it would be necessary to cut the nut off the bolt to permit the removal of the old frog. A track chisel and a spike maul were obtained. The section foreman handled the spike maul and the sectionman held the track chisel while resting on one knee. Three or four blows had been struck with spike maul when a small piece of steel flew from the edge of the face of the spike maul and struck the sectionman. He straightened up for a moment and then collapsed, dying shortly afterward, the piece of steel having penetrated his overalls and shirt, and had gone in between the second and

third ribs, right side, severing the pulmonary arteries and embedding itself at the base of the lung. Death was caused by suffocation as a result of the lungs filling with blood.*

—o—

DRY ICE The use of dry ice is growing so rapidly that a word of cautious information is timely. Dry ice, or solid carbon dioxide commonly used in packing ice cream has a temperature of approximately 100 degrees below zero. If a particle should stick to your skin you would receive a "burn" much the same as would be received from hot tar, molasses, etc., so it is quite easy to imagine the results if a considerable piece should be swallowed, probably unobserved, adhering to the ice cream. If it did not prove fatal, the victim would in all probability suffer a long spell in a hospital with a burned lining of a stomach. As a plaything, it has two serious hazards:

First: If a piece should be confined in a small space, say in a fruit jar, the slow vaporizing of the ice would explode with great force.

Second: It would be extremely unpleasant and injurious if some one should thoughtlessly put a piece of it down the back of the neck of another as is so frequently and harmlessly done with ordinary ice.*

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*—Quoted from National Safety Council News Letters.

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TAKEN FROM I.C.C. REPORTS

On a western railroad a helper engine running light as an extra train, ran into a track washout at 7:00 A. M., resulting in derailment and the death of 1 employe and the injury of 1 employe.

The railway follows the course of a river for several miles. In the vicinity of the point of accident this river is to the left of the track while on the right are high wooded bluffs from which emerges a small gulch through which runs a creek which drains an area of about 30 acres. At the mouth of the gulch the track is on a fill 150 feet long and 8 to 12 feet high, the creek passing through the middle of this fill at an angle of 40 degrees by means of a wooden box tvpe culvert 58 feet in length having an opening 28 by 36 inches, the bottom of which is 10 feet 10 inches below the top of the rails.

For a period of 2 weeks prior to the day of the accident rain had been falling intermittently, 4.8 inches being reported for the 3 preceding days.

Section foreman had cleaned away a small amount of trash at this culvert while going to work and had examined the culvert shortly before 5:00 P. M. when returning from work the day before the accident, at which time the water was running free. He had been foreman on this section 25 years, had experienced no previous trouble and did not leave a watchman in this instance. Rule on this railroad reads as follows:

"During heavy storms, whether night or day, whereby the track or any portion of the company's property becomes liable to sudden danger, foreman and trackmen must be on duty; and at such times they are required to go over their sections to make sure the track is safe, taking danger signals with them. The points most liable to be damaged must be first visited."

The river alongside track had reached a flood height of 13½ feet during the night and water backing through the culvert had caused a washout 40 feet in length into which the engine dropped.

NOTE:—As the time of rains and of quick violent storms in much of our territory is approaching, trackmen should review all rules and all instructions relating to protection of track and track structures, noting particularly Rules 10(G)—101(D), 732, 733, 753(A), 1656, 1657, 1658 and 1661. Train and enginemen should know they understand Rules 10(G), 101(D), 732, 733 and 753(A).

—o—

When using a knife always cut away from yourself, never toward your body.

Walking around with a pencil, scratch awl or paint brush in your mouth is a careless practice; you may collide with somebody.

Never carry saws, knives, chisels, bits or similar tools in such manner as to endanger yourself or others. A tool box is safest.

The place for broken glass and sharp pieces of metal is in the scrap or litter boxes.

Trying to open a large window or upper sash without a long pole especially devised for this purpose will incur danger from broken glass.

When handling flat band or wire strapping for boxes or crates cuts may be avoided by using gloves.

Never stand in line with a tie wire when opening burlap or straw bales, and watch that no other person is passing to be struck by the flying end. Eyes have been lost and bad cuts sustained by such carelessness.

—Shop Safety—National Safety Council.

—o—

EDITOR:—It will be noted that instead of detailing all accidents occurring on the railroad during the month covered, we are reciting only those which we believe have value of informative nature, and covering some casualties in each contest department. The balance of the "Bulletin" will be composed of selected items, of instructive character, taken from other publications and WE HOPE, of articles contributed by employes of the various departments of our own railroad.

All employes are invited to submit articles dealing with matters pertaining to safety work of any character as relating to their work or railroad work in general, and such articles as we decide to publish will be accredited to the author and those not published will be returned with a letter giving the reasons therefore. If not returned promptly it will be known they are being held for later publication. Papers written for and read at safety meetings may have informative or instructive value to other departments, divisions or districts and such papers will be welcomed for publication in the "Bulletin". The secretaries of safety meetings are requested to obtain permission from writers of such articles and forward them, giving name, occupation and address of writer, together with designating the safety meeting at which the article was read. Any articles so submitted may be edited but all essential facts and wording will be retained, and credit given the writer. You will probably gather that we are trying to make this "Bulletin" an employes' effort to promote safety to fellow workers and employes. In other words, an employes' safety bulletin, contributed to and edited by employes of the Union Pacific Railroad Company.

We should have many people on this property capable of, and willing to devote some of their own time to, writing articles of instructive and interest value. Try your hand, men and women of the railroad world, and maybe you will develop a literary style of value to you through life.

Address any communications to S. H. Osborne, Room 1206 U. P. Headquarters Bldg., Omaha, Nebr.

Accident Prevention Bulletin

November 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—TENTH MONTH

Including casualties and careful estimates of manhours for the month of October in calculating the cumulative rates for the period January 1st to October 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

Rank	Name	General Manager Unit	Estimated Rates I. C. C.	Weighted
1	F. H. Knickerbocker	LA&SL	1.86	11.16
2	F. N. Finch	OWR&N	2.00	12.21
3	N. A. Williams	UPRR	2.41	14.46
4	H. J. Plumhof	OSL	2.77	17.80
	System total for 1935		2.36	14.42
	System total for 1934		2.60	16.14

Division Superintendents

1	M. C. Williams—Wash.	5	W. H. Guild—Kans.
2	J. E. Mulick—Nebr.	6	C. P. Cahill—Colo.
3	H. A. Connett—Ore.	7	E. C. Manson—OSL
4	A. L. Coey—LA&SL	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	R. M. Jolley—Nebr.
2	L. W. Althof—Ore.	6	W. C. Perkins—Kans.
3	R. L. Adamson—LA&SL	7	L. V. Chausse—OSL
4	C. W. Pitts—Colo.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	J. F. Long—LA&SL	6	G. R. Wilcox—Kans.
2	J. Gogerty—Omaha Shops	7	A. V. James—Nebr.
3	W. J. Nolan—Colo.	8	G. A. Jordan—Wyo.
4	C. F. Spicka—Chey. Shops	9	L. W. Shirley—OWR&N
5	G. M. Walsh—Poca. Shops	10	P. J. Norton—OSL

OCTOBER CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	6	5	Transp.	—	7	2
OSL	1	3	2	Mech.	1	4	2
OWR&N	—	3	2	M. of W.	—	1	1
LA&SL	—	—	—	Miscel.	—	—	4
Employes	1	12	9	Employes	1	12	9
Psgrs.	—	1	—				
Pers. Car.	—	—	—				
Total	1	13	9				

CASUALTIES JANUARY 1 TO NOVEMBER 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	5	78	23	Transp.	2	54	19
OSL	2	28	8	Mech.	2	30	5
OWR&N	—	17	9	M. of W.	3	36	11
LA&SL	—	11	1	Miscel.	—	14	6
Employes	7	134	41	Employes	7	134	41
Psgrs.	—	6	—				
Pers. Car.	—	3	—				
Total	7	143	41				

NOT A CHEERFUL OUTLOOK

In looking back over the records since 1931, when the most satisfactory Union Pacific System safety record of 1.87 reportable injuries per one million manhours was made, it is found that for the first 10 months of each year since 1931 there has been an average of 2.45 reportable injuries for each million manhours worked. It would appear from this that the employes have reached a minimum in the number of injuries per million manhours below which they cannot go, but with the personnel of this railroad system and the known activity in safety matters on the part of supervising men, we are not prepared to believe there is any minimum. We are, however, in a tough spot as relating to bettering our record, and only watchfulness on the part of every employe in all matters relating to their own personal safety in the pursuance of their daily routine, either on or off duty, is going to keep a greater percentage of our men away from avoidable injuries and on the active list.

Transportation Department

WHAT CAUSED THIS FALL

The brakeman who sustained the injury is unable to tell, but the cars on top of which he was walking were standing alongside of a well lighted icing platform, and inspection showed the running board to be in good condition and no snow, ice or weather conditions entered into the accident. The brakeman was walking along the tops of cars, releasing hand brakes, and in some manner fell to the ground between two cars having their "A" ends together. One of the cars, and it being the one towards which he was walking, had a running board five inches higher than the one on which he was walking, and it can only be presumed this may have caused a stumbling fall. This man sustained injuries about the head and arm, with no broken bones, and he was able to return to duty inside of the 3-day limit. No one saw this brakeman fall and it can only be presumed that due to some inattention on his part he stepped into the opening between these two cars. Trainmen's work involves hazard of personal injury and it pays to be alert to surrounding conditions at all times, and particularly during the working period. (W-1)

CONDUCTOR FAILS TO INSTRUCT

A west extra train with train crew consisting of an experienced conductor and two brakemen off the extra list stopped on the main track with the head end some five cars clear of the west passing track switch where the head brakeman uncoupled the engine and it was moved back through the passing track to a sugar factory lead, the conductor and rear brakeman getting on the engine as it passed the caboose. After switching out a box car, the engine moved back through the passing track with a car ahead, and with the head brakeman riding west end of this car on engineer's side. The conductor told the rear brakeman they would make a drop of the car and claims he told the head brakeman to ride the car. The head brakeman says the conductor gave him no instructions except that they would drop the car by. Rear brakeman got off the engine on the fireman's side and on the ladder of the car to get the pin, expecting the head brakeman to get on top. In first attempt he did not get the pin and went back and made a second trial, when he then saw the

head brakeman was on opposite side of car riding the short ladder sill step next to the engine instead of being on top handling the brake. The rear brakeman climbed the side ladder after getting the pin and went to the west end of the car to handle the brake. As the car passed the switch, he left the brake set and climbed around to the side ladder having hold of the second grab iron below the roof when the car hit the standing train, knocking him off ladder to the ground. The fall caused injuries consisting of contusion of the back and a sprained left ankle, with estimated disability of from a week to 10 days. The conductor permitted a violation of Rule 104(C) in not having a brakeman on the car at the brake before the car was uncoupled. (N-4)

ASSISTANT YARDMASTER INJURED

A string of loaded coal cars was being weighed over a track scale and as each car was weighed it was cut loose on a descending grade and allowed to move into a designated track. The assistant yardmaster was lining up an engine foreman at a point close to the scale and was also assisting in some of the yard work. He intended to go to the east end of Track 13 and set the brakes on a couple of cars previously switched to that point, and he got on the front sill step of a car moving into Track 13, in which move it passed the car riders' shanty. As the front end of car was passing the shanty, the assistant yardmaster stepped off, picked up a brake club out of the rack, turned around and swung onto the sill step at the rear end of the car, with the car moving at an estimated speed of from four to five miles an hour. As he placed his foot in the stirrup of the car he felt his leg give away but he kept hold of the grab iron while the car moved a distance of about 60 feet and then swung off onto a board platform level with the top of the rails, where he collapsed when his right foot struck the ground. On removal to the hospital it was found he had sustained a fracture of upper right leg bone without displacement, and it is believed that when he placed his right foot in the car stirrup he in some way threw a strain of a twisting nature on his right leg causing the bone to break. This injury appears to have been unavoidable as it consisted of a bone and not a man failure. (C-6)

BACK FIRE BURNS FIREMAN

An engine had been brought into the terminal, where the fire was cleaned and engine was turned to be used as a helper on a westbound train. While standing on the outgoing track, with the fireman in the act of putting more coal in the fire box, and while he was looking into the fire box door, the engineer started to move engine from the spot track. As the engine made the first exhaust, the gasses generated from the fresh coal in the fire box ignited, causing a back fire, some of which came through the open fire box door and burned the fireman about the face and head, disabling him from performing his regular duties for a probable period of 12 days. It is felt the fireman is responsible for his own injury for the reason that he was an experienced man and should have known there would be some back fire when the engine moved under such conditions and have waited until the engine had started and coal became properly ignited before attempting to put in more coal. This recital of cause of the injury should be valuable to all firemen in the prevention of similar accidents. (Y-27)

SWITCHMAN SLIPPED ON CAR ROOF

A switchman working with a yard engine in regular yard work had released a hand brake on a car which was standing still and had gone over top of the car to the opposite end when in stepping from the running board to the tin roof to go down the side ladder, his foot slipped, causing him to fall to the roof where he saved himself from falling to the ground by grabbing the longitudinal running board. This man did not think he was hurt at that time, and completed his working shift. He also reported the accident to the engine foreman, stating that he thought he had not been injured. When he went home he bathed his foot in hot water and went to bed; during the day he woke up with his ankle badly swollen and paining. He then went to the local doctor, who gave him temporary treatment and sent him to the general hospital in another city, where x-ray developed a fracture of the fibula or small bone leading to the ankle joint. This accident happened about 5:20 AM on a type of car which has no board walk leading from the running board to the side ladder and at a time of day when the frost would be at its heaviest. Watch out for similar conditions you switchmen and trainmen! (D-52)

FREIGHT STOWER SPRAINS ANKLE

A freight stower, with three other employes, was loading a hollow metal flag pole about 30 feet in length through the end door of a box car. The stower injured was on top of car, with rope attached to end of pole. He in some manner turned his right ankle, probably when he stepped off running board to roof of car. He completed his shift, working 7 hours 30 minutes after the accident occurred, but was unable to resume work for the two days following. No rule was violated and all we can say about this accident is "Watch Your Step!" (O-3)

FIREMAN ASSISTS UNLOADING WAY FREIGHT

A local freight train had stopped at a small station and seeing the head brakeman was having difficulty in opening a car door, the engineer instructed the fireman to assist in this work. After the door was opened about 12 pieces of freight were unloaded, when agent informed the brakeman that he had a pulley and a short shaft to load. The brakeman and fireman together loaded the pulley and started to load the shaft, when end of the shaft slipped from the brakeman's hand. The fireman then loaded the shaft alone and as he swung it into the car he caught the fingers of his left hand between the shaft and door latch, causing a compound fracture of small finger and disability estimated at about three weeks. This fireman was a husky young fellow, able to do heavy work, but unfamiliarity with this class of work may have caused the accident. Work of this character should be done by trainmen and station employes who are familiar with the hazards involved. (D-59)

PASSENGER TRAIN STRIKES ROCK

About 10:30 PM on a rather cold evening a passenger train was moving west at a speed of about 60 miles per hour through a series of lava rock cuts when the engineer, while about 800 feet away, saw that some rock had fallen down and partially obstructed the north rail of the track. He immediately applied his brakes and had reduced speed to some 45 to 50 miles per hour when the engine pilot which was fitted with a small type of skimmer snow plow struck the rock, causing it to fly directly back, or towards the rock wall from which it ricocheted, and strike the engineer about the head and neck, causing compound fracture of the jaw bone and injuries which combined with shock and exposure caused his death some 36 hours later. The cut in which this accident occurred has an average width of about 20 feet and average height of about 18 feet with the rock walls standing nearly vertical.

A rock weighing some 2500 pounds had slipped down from a top height of 18 feet and landed beside the track in the clear of the rails. It brought some debris with it and small rocks were partly on and sloped up from the north rail so that the end of the skimmer plow contacted them, and with the force exerted at speed being made, evidently threw them outward against the rock wall from where they ricocheted toward the engine cab. No windows were broken in this cab except the windshield attached to the front of the open side window from which the engineer was looking ahead. Had the engineer realized the danger of flying rocks under such circumstances and moved his head inside the cab, he probably would not have suffered injury. (W-10)

CONDUCTOR FRACTURES TWO RIBS

A mixed train handling way freight was stopped at a station and a baggage truck had been pulled alongside the door of a car into which three empty barrels on truck were to be loaded. The train conductor was on truck about two feet from the rear end of truck bed loading these barrels into the car, and had loaded two of the barrels. While in the act of putting the third one into car the truck moved ahead suddenly and he fell off rear of truck, striking platform on abdomen and chest. When he got to his home terminal the company surgeon found he had sustained a fracture of two ribs on his right side and estimated he would be disabled for some 10 days or 2 weeks. No cause was determined for this truck moving except that it had been recently greased and moved freely. (C-10)

Mechanical Department

WALKING FOUL OF TRACK

A Mechanical Department engine supplyman at one of our larger terminals was getting an engine ready for service and in this work was walking west between Tracks 2 and 3. A switch engine was approaching from the east on Track 3, with a hostler helper riding the footboard, headlight burning and the bell ringing. As the engine approached the supplyman, the helper riding the footboard hollered several times without attracting the attention of the supplyman. Just as the engine reached him he started to step across Track No. 3 and was struck by the left end of the pilot beam of the switch engine and thrown to the ground, sustaining a cut on the back of his head and four fractured ribs, with an estimated loss of time of about 30 days.

Here seems to be case of familiarity with surrounding conditions breeding carelessness of engine movements on adjoining track, possibly augmented by the man's thoughts being on some work he was planning to do, totally obliterating consciousness of his immediate surroundings. (N-14)

CHAIN GRAB HOOK BREAKS TOE

In one of our large shops a small tram car is used to handle engine flues to and from the boiler shop, and in this operation this tram car is placed on the deck of a tank frame and the flues, as taken from the boiler are loaded directly on the car. The tram car is lifted from the deck of the tank frame to the track by a traveling crane, which lowers chains equipped with grab hooks to be placed in hooks on corners of the tram car. Two men, one comparatively new in the service and new at this work, had the duties of hooking the chain in the proper places, and the older man so handled the work on his side of the car, but the newer man allowed the chain to pile up on top of the flues, and in doing this a grab hook on his side became disengaged from the chain and fell to the floor, striking this employe on the foot, fracturing a toe and spraining the foot badly, entailing a loss of time estimated to be six weeks. (PS-5)

LACERATION RIGHT INDEX FINGER

A machinist helper working in an enginehouse tightening bolts on left back valve head of an engine was using a 7/8" open wrench, 24 inches long. In bearing down to tighten the nut, the wrench slipped off, catching the machinist helper's finger between the wrench handle and casing stud on engine, resulting in 2½ days' loss of time. Investigation developed there were no defects in the wrench or the nut, but that the machinist helper's gloves were greasy, which contributed to the accident. We cannot figure how greasy gloves would have anything to do with a wrench slipping off a nut, but as this man accepted responsibility for his injury it is probable some act on his part was the cause. (Y-26)

CAR INSPECTOR KILLED

A car inspector recently transferred from one of the larger terminals to a smaller engine terminal and assigned to a night shift was found dead about 2:30 AM between the eastward and westward main tracks. Investigation developed that this inspector, with two other inspectors, had completed work on an eastbound local train and an eastbound extra train about the time an eastbound passenger train was due at this terminal. One of the older inspectors, with the new inspector following behind, started towards the depot to inspect the passenger train when it arrived, and while enroute the new inspector was apparently struck by the end of the pilot beam of passenger train engine with such force as to break his neck. Apparently this man walked between the two main tracks and allowed the engine of the passenger train to get too close before clearing these tracks and then became confused as to which track the train was on and stepped towards No. 2 instead of No. 1 track. In this case had this man instead of walking between tracks 1 and 2 crossed to the north side of No. 1 track he would have had as good a walkway and could not have become confused as to which way to move to clear this train. The smart thing, at all times when it can be done, is to do your walking back and forth in train yards clear of all tracks. (D-43)

CARMAN FALLS—INJURIES SEVERE

At one of our main terminals an extensive freight car rebuilding program is being carried on and in the shop building, where the roof work on cars is completed, fixed staging has been erected along both sides and parallel with the track on which the cars are standing. This staging has a height of 8'6" above the floor, a width of 3', and is equipped with a pipe hand rail on the side away from the cars located 40" above plank of staging. At intervals this staging is equipped with fixed ladders for use of workmen, each ladder having seven treads, evenly spaced, with the top tread level with the top of the staging plank, and the sides of the ladder extending 15" above the staging to give handhold in getting up and down the ladder. A carman and his helper, with the duties of applying roof running boards, had completed the work of standing boards required for the roof of a car on end against the car and the helper went up on the staging on the south side of car, when he did not see the carman he crossed over to the north side, from where he saw the carman lying face down on the floor near the staging ladder. Examination made immediately developed there were no

tools or tripping hazards of any kind on the staging floor, the ladder treads were in good condition and the carman had no tools in his hands while climbing the ladder. It is believed this man fell from the staging floor and thought he may have had a dizzy spell from indigestion or some other cause which caused him to fall to the staging floor and roll out under the hand rail. His injuries consisted of both wrists and several ribs broken, together with head injuries and possible skull fracture. This man on regaining consciousness had no recollection of his fall or what happened immediately preceding it. Here's a case where everything in the power of human ingenuity had been done to give the safest possible working conditions and through no contributing cause within the power of the company's supervision to control a serious injury occurred. (O-24)

COACH CLEANER FALLS

A coach cleaner working in a baggage car door putting ice into the car was lifting a cake of ice weighing about 50 pounds with the use of ice tongs, when the ice broke, causing this man to lose his balance, fall from the car and strike his back on the hub of the wheel of the ice cart, injuring his spine sufficiently to cause a disability estimated at 10 days. No one observed this accident, but evidently there was something wrong in the way this man was handling his work which caused him to become overbalanced and fall. (W-8)

OIL BARREL SLIPS OFF RACK

A Mechanical Department supplyman had the duty of placing an oil barrel on a rack constructed of wood, approximately 15" high in front and sloping up slightly towards the rear in order that all oil in the barrels might be drained to the tap at front end. A full barrel of oil was rolled in, stood on end next to the rack, and then tipped over sideways onto the rack, which left the barrel on balance; the supplyman then lifted one end to shove barrel back on rack in the customary way. When the end was raised the center rib in this steel barrel slipped off center on the rack, and end of the barrel struck him on the toe, resulting in a chip fracture and a loss in time of 2 days and 3 hours. This manner of handling should have been all right and his injury evidently was incurred by reason of lack of attention to small details as to the construction of barrel and location of center rib in relation to the rack. (Y-63)

Maintenance of Way Department

BRUISE AND INFECTION

A coal chute foreman at one of the chutes operated by the Maintenance of Way Department noticed water running from spout at the coal chute and went up into the chute to close the valve. On finding the valve was hard to close, he took hold of it with both hands and with his stomach against an angle iron in the chute pulled hard on the valve wheel. He states that he noticed a sharp pain which lasted for a few seconds, but as this did not again occur he finished the remainder of his shift. On the following day being in some pain he went to the doctor, who diagnosed the case as a bruise in the region of the left groin, followed by infection, and held the man out of service 2½ days for treatment, at which time he returned to duty. This appears to be a case of a man exposing himself to injury by the position taken in the handling of a piece of work requiring unusual exertion. (D-42)

FRACTURES BONE IN FOOT

A B&B laborer engaged in cleaning up a pile of scrap lumber removed from a building observed but neglected to remove a seven foot length of 60-lb. track rail located near the top of the pile. In pulling out other material from pile, this piece of rail rolled down from a height estimated to be about 3½ feet, and fractured two small bones in his right foot. Had this man or the other men working with him been observant of possibilities of injury by reason of this piece of rail being in the top of the pile and removed it before pulling support from under it, this accident probably would not have occurred. (K-18)

Miscellaneous Departments

WAITRESS SLIPS AND FALLS

A waitress in one of our principal restaurants while getting a serving of food from the kitchen slipped and fell to the floor, straining her right side. Examination of the floor disclosed a small piece of chicken bone which may have been the cause of her slipping. This resulted in a lost time accident. (Y-19)

TRAILER LOAD SHIFTED

A Store Department tractor operator was standing on the operator's platform at rear end of a small tractor which was pulling a 3-ton flat deck trailer on which was loaded 20 sheets of 36"x120"-16 gauge iron and 12 bundles of 24 gauge iron of smaller size. As the tractor and load came down off the Store platform incline, the load shifted forward, catching the operator's left leg between the load and the tractor, causing the loss of 18 hours' time. This experience should warn tractor operators to know that their load is so placed that it will not shift, and if this cannot be done to get themselves in position where a forward shifting load cannot reach them. (Y-67)

A Special Agent's Department night watchman was making his rounds about 6:45 PM, and on crossing over track at a planked crossing he stubbed his toe on a spike which was protruding from one of the planks, lost his balance and in endeavoring to catch himself, twisted and wrenched a muscle in the calf of his right leg, resulting in a lost time injury of 2 days and 6 hours. Again the caution, "Watch Your Step!" (D-31)

PARTITION WALL FALLS

A carpenter engaged in tearing out a room partition wall, constructed of light weight, specially prepared sections 12"x24" in size, laid up on edge, had broken a hole through the lower part of the partition, and when he struck the partition above the hole with a sledge hammer to knock it loose a large section fell out and knocked him to the floor. In falling he struck his left elbow and head on the floor, resulting in a lost time injury of 1 day and 3 hours. This practice has been used many times before, but as in many other cases with repetition it was discovered the method used was wrong and eventually resulted in personal injury. (UP-2)

A PASSENGER INJURY

An elderly lady riding from Los Angeles to Chicago in going to a toilet room, claims she lost her balance while walking down the aisle and fell to the floor between two seats. She complained of her side hurting her the next morning. The doctor reported possible fracture of two or three ribs. (Y-45)

Accident Prevention Bulletin

September 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—EIGHTH MONTH

Including casualties and careful estimates of man-hours for the month of August in calculating the cumulative rates for the period January 1st to August 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

Rank	Name	General Manager Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	1.81	11.59
2	F. H. Knickerbocker	LA&SL	2.11	12.67
3	N. A. Williams	UPRR	2.55	15.14
4	H. J. Plumhof	OSL	2.76	17.31
	System total for 1935		2.44	14.77
	Last year same period		2.45	15.34

Division Superintendents

1	M. C. Williams—Wash.	5	A. L. Coey—LA&SL
2	J. E. Mulick—Nebr.	6	W. H. Guild—Kans.
3	H. A. Connett—Ore.	7	E. C. Mason—OSL
4	C. P. Cahill—Colo.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	W. C. Perkins—Kans.
2	R. L. Adamson—LA&SL	6	L. V. Chausse—OSL
3	L. W. Althof—Ore.	7	R. M. Jolley—Nebr.
4	C. W. Pitts—Colo.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	J. F. Long—LA&SL	6	L. W. Shirley—OWR&N
2	J. Gogerty—Omaha Shops	7	C. F. Spicka—Chey. Shops
3	W. J. Nolan—Colo.	8	G. R. Wilcox—Kans.
4	G. M. Walsh—Poca. Shops	9	G. A. Jordan—Wyo.
5	A. V. James—Nebr.	10	P. J. Norton—OSL

AUGUST CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	11	3	Transp.	—	6	2
OSL	—	2	—	Mech.	—	3	—
OWR&N	—	4	—	M. of W.	—	4	1
LA&SL	—	—	—	Miscel.	—	4	—
Employes	—	17	3	Employes	—	17	3
Psgrs.	—	—	—				
Pers. Car.	—	—	—				
Total	—	17	3				

CASUALTIES JANUARY 1 TO SEPTEMBER 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	5	64	15	Transp.	2	42	14
OSL	1	22	4	Mech.	1	22	3
OWR&N	—	12	7	M. of W.	3	31	8
LA&SL	—	10	—	Miscel.	—	13	1
Employes	6	108	26	Employes	6	108	26
Psgrs.	—	4	—				
Pers. Car.	—	3	—				
Total	6	115	26				

The month of August was closed out with 17 reportable and 3 lost time injuries to employes. The LA&SL, Colorado and Washington divisions and the Omaha, Cheyenne and Pocatello shops were entirely free from injuries affecting their records in the safety contest. 17 reportable and 3 lost time injuries during one month on a property operating some 10,000 miles of railroad may not be unusually large, but considering this property as being the Union Pacific System it is not a record of which we may be proud. In the final result of these injuries, however, we feel somewhat pleased in that but one of the casualties, the loss of an eye, entailed a permanent disability, all of the others being of temporary nature, easily corrected with medical and surgical treatment.

We are again impressed with the needlessness of many of the injuries reported by reason of parties involved not "watching their step," inattention to conditions leading up to injury, and not promptly caring for small wounds. 3 injuries are attributable to carelessness on the part of others.

Transportation Department

AUTO TRUCK INVOLVED

In switching cars to a sand and gravel pit served by a spur track, it was necessary to do the work at night so that the cars might be on spot ready for loading with the beginning of the next day's work. The spur track crossed a rather heavily traveled paved highway, on which was located standard crossing signs and an electric light of the arc type, installed for the purpose of giving light to switching movements so that cars on crossing might be observed by travelers on the highway.

A string of 16 empty cars of the open-top type, being shoved by a switch engine, with the field man riding the point and the engine foreman riding the seventh car from the point in order to be in position to pass signals around the curve, had stopped short of the crossing, and when the automobiles in close proximity had passed over the track, he flagged the crossing giving a proceed signal, on receipt of which the engineman started train and sounded crossing whistle. When the sixth and seventh cars from the point were on the crossing they were struck by a large auto tank truck with trailer, both empty, and the truck was so wedged under the ends of these two cars as to result in derailment of both cars. The force of the collision threw the engine foreman to the pavement, and he suffered head and leg injuries, estimated to incapacitate him for some 45 days. The auto truck driver was also severely injured. This seems to be a case of an auto vehicle being driven along the highway at a high rate of speed and the driver, for some reason unknown, not seeing crossing was obstructed; and it may have been brought about by his having crossed these railroad tracks many nights when switching was not in progress and not realizing that the highway might be obstructed until too late to stop his truck. (D-8)

TWO FOOT INJURIES

A brakeman had reported for duty, and in going to the roundhouse for his engine it was necessary to use a footway viaduct. As he descended the stairway from this viaduct and stepped from the last step to the ground he turned his ankle, resulting in a lost time injury of 2 days. (Y-12)

A brakeman had been inspecting his train on one side and crossed over track and was walking toward caboose. As caboose approached, he took three or four steps in the direction the train was running in order to get on the caboose. In making this move he stepped in soft spot in gravel, due to recent tie renewals, wrenching ligaments in his toe and causing severe pain. Examination by physician indicated that at some time previous to this accident he had suffered a foot injury, causing the displacement of a bone, and that nature had taken care of this displacement so that it caused no inconvenience until he stepped in soft gravel as described. The result of the old and new injuries will cause this man to be off duty some three or four weeks. (N-18)

Both the above described injuries occurred in broad daylight, and had the men been watching where they were stepping it is probable neither injury would have occurred.

DOOR MOVED EASILY

A relief warehouse foreman had occasion to close a freight car door, and without making any test as to whether the door would close easily or require considerable effort, he placed himself at the rear of the door, which was of the sliding type, and gave it a violent shove. As the door was fitted with rollers and moved easily, this man lost his balance and fell, sustaining dislocated left shoulder and a fractured left hip. Had he tried the door with a light shove he would have found it could be closed without effort and he would have been performing his regular duties now instead of being in the hospital. (O-14)

SWITCHMAN OVERLOOKED ENGINE MOVING ON ADJOINING TRACK

In one of our larger terminal yards, where passenger traffic is diverted at the west end of the yard to a union station, the parallel tracks serving the yard and freight station are operated as double track for freight movements, and being within yard limits, switch engines are permitted to move in either direction on either track as a convenience in handling yard work. A switch engine was backing west on No. 1 track with a switchman riding the west foot board, and at the same time another switch engine was backing west on No. 2 track to get a cut of cars from a manifest train which was standing on No. 2 track. The engine on No. 1 track received signal from the engine foreman, who was walking east from the yard office, to head into a wye track which required them to stop and throw a switch leading off to the left from the east end of their engine, and when opposite this switch, the switchman on the west footboard swung off between the two main lines without looking around to see if anything was moving on No. 2 track and was struck by the cross beam on rear of engine moving on that track. He was knocked down, and upon examination it was determined he had three fractured ribs. This engine movement was a normal one for that yard, the switch and engine crews all stating they have positive instructions to look both ways before fouling a track when getting on or off cars or engine, and the only cause which can be assigned to this injury is that the switchman incurring same did not look around before alighting from footboard. Take warning all you train, switch and engine men and look both directions before placing yourself in a position to foul any track! (K-30)

BRAKEMAN HAS EYE INJURY

A freight brakeman, while train was passing through a station, was on back step of caboose, giving proceed signal, when he felt something strike his left eye and which he believed to have been a small piece of gravel. He felt no immediate ill effect and said nothing to his conductor, but after arriving at home terminal, the eye became painful, and he visited the Company doctor, when it was found he had a small puncture of cornea of left eye. This man was performing his regular duties and this accident may be classed as unavoidable, except that had he been wearing eye protective glasses or goggles it would not have occurred. (Y-77)

SWITCHMAN SPRAINS ANKLE

At 4:00 A. M. one morning a switchman getting off a cut of cars moving at a speed of 4 or 5 mph, felt a slight pain in left ankle which he thinks was caused by stepping on a small rock. He continued with his shift and also worked shifts the following two days. His ankle then became so swollen that it was necessary for him to lay off three days during the ten days following the accident. (Y-82)

OIL CAN CAUSES TOE INJURY

A locomotive engineer, in looking around his engine which had stopped to take water, observed two guides needing oil. He went to the gangway on left side of engine and asked fireman to hand him the oil can, and the fireman in handing oiler out of the gangway permitted it to slip from his hand in such manner that the engineer was unable to catch it, resulting in its falling and striking engineer on the right foot, breaking bone in great toe, causing disability estimated to be about two weeks. This appears to be an inattentive act on the part of the fireman in passing down the oil can and should be classed as an avoidable accident. (O-43)

Mechanical Department

COMPRESSION SPRING CAUSES EYE INJURY

A machinist helper was removing piston rod packing from an engine located in the roundhouse, and was in the act of prying packing gland away from cylinder head when a compression spring forced the piston packing retainer ring and packing out towards the gland, and the piston packing being broken, it allowed the retainer spring which holds the packing in place to fly out. The helper was not removing packing but just prying gland away from the cylinder, and machinist in charge of work had stepped over to a tool box to get his gloves, preparatory to making examination of packing when accident happened. The work was being performed in the usual manner, and proper tools being used, and in this work it is not considered necessary to use goggles. However, the machinist helper, instead of standing more or less erect while doing this work, in which position the spring could not have struck him in the eye, was bent over looking at the gland at the time the spring flew out. A regrettable accident, which resulted in about ten days' lost time for the machinist helper. It is well to remember that the man who keeps away from eye injuries is the one who uses eye-protective goggles whenever there is a chance for an eye injury, regardless of whether or not goggles are specified for the work being done. (D-14)

ENGINEHOUSE FOREMAN BREAKS BONE IN FOOT

While a machinist was removing the eccentric arm from an engine located in a roundhouse, with the arm on the upper quarter, he was using a small wedge to spread

the pin fit opening while using a bar to work the eccentric arm off the pin, at which time the roundhouse foreman came along, saw the man was having difficulty getting the eccentric arm off and stopped to assist in this work. While stooping over and assisting in removal, with his hands on the lower end of the eccentric arm, the arm came off pin suddenly, dropped to the floor, striking the foreman on the left foot, breaking two bones, requiring the foot to be put in a cast and disability of about three weeks. This appears to be a case of unexpected action in the way of quick release of eccentric arm catching a man in a position where he could not get away in time to prevent injury. (O-19)

JUMPS FROM CAR ROOF TO GROUND

Two carmen were removing the running board from a car on the stripping track in order to salvage the tin roof. The running board had been broken into sections and the pieces being handled consisted of three 12-ft. planks, with the center plank projecting about three feet beyond the other two at one end. Both carmen on top of car were about 30 inches from the edge and each about midway between center and end of roof, one at each end of running board to throw it off the car roof. The carman located at the end where the center plank projected and to which the roof saddle was still attached let go of his end on the agreed count of three, when a nail or a screw projecting from the running board caught in a heavy canvas rain jacket he was wearing and pulled him off balance. To avoid falling headlong he jumped from car roof to the ground, fracturing his right heel, with an estimated disability of about four months. These men had taken the precaution to count three before letting loose of the running board in the act of throwing it to the ground and had this man made sure the running board was free of his clothing before letting go, the performance would have been perfect. (O-44)

Maintenance of Way Department

INFECTION OF SMALL WOUND

A section laborer was working on track with other members of his gang when a passenger train passed, and a small piece of gravel from under the train struck him on his left index finger, being so imbedded in the finger that to remove it he used a pocket knife. This laborer made no report of the occurrence at the time, but three days later infection developed and it was necessary for him to have medical attention for a period of 2½ days, when he was released for return to duty. Error was in removing the gravel with a pocket knife, and this probably caused the infection. (Y-61)

ROADMASTER INJURED

A roadmaster having received one of the new type light 2-man motor cars fitted with lifting handles which pull out when required for use, was making his first trip on this car, he having previously used a car equipped with fixed lifting handles. This roadmaster's territory is all double track, and he had been stopping at all the gangs, lining them up on work being done or to be done, and after 5 o'clock was running to a station where he would tie up for the night. He had a lineup and knew there was a train following him, but expected to make the tie-up station before being overtaken by this train. However, train was moving faster than he expected, and it became necessary for him to set the car off between track car setoffs, he having plenty of time to do this but not enough time to run to the setoff ahead. He lifted the rear end of the car over the rail, and in this move overlooked necessity for pulling the lifting handles back to the stopping point, having them only part way out, and as he pulled on the lifting handles they slipped backwards and at the same time the front wheels of the car moved over against the rail, causing the foreman to fall backward, and as he was unprepared for this action, all his weight was thrown on his right foot, resulting in dislocating his ankle and breaking two bones in his foot. After this occurrence he tried to get the car off the track, but was unable to accomplish it, and the car was struck by the train and damaged. This accident was due to unfamiliarity with lifting handles that are slipped backward for use, and the attention of all employes assigned cars having similar type of lifting handles is called to the accident related above that they may guard against a like occurrence or against possibility of a personal injury due to not having lifting handles in full back position when pulling on the handles to remove car from track. (Y-10)

ROCK DRILL STRIKES DYNAMITE EXPLODER

While working in a part of an old rock quarry from which rock had not before been quarried, the rock drill after it had reached a depth of about 12 inches struck an old dynamite exploder cap which blew out of the hole being drilled, striking the drill operator in the face, hands and body, causing a number of small wounds and the loss of one eye and injury to the other eye. Investigation developed an old drill hole horizontal with the top of the rock, in which the vertical hole was being drilled, with a charge of dynamite at the end of this hole which had not been exploded and apparently in such condition, due to age, that when the dynamite cap was struck by the drill it alone exploded. It is believed that in making a cut through the quarry in which to lay the track serving the quarry, about year 1914, it was necessary to use powder in the excavation work and that one of the charges failed to explode, which action was not noted by the workers, at that time. Care had been taken to clean off the top of the rock ledge being drilled and the ledge had been examined for any indications of former drill holes, but as an accumulation of debris, in the way of dirt and rock spauls, had covered the vertical face of the rock ledge, thereby covering the old drill hole, and as this part of the quarry had never been used to quarry rock for use as riprap, no examination was made of the vertical face. The charge of dynamite was so deteriorated as to not explode with the detonation of the exploder or a far more serious accident would have occurred. (K-9)

B&B LABORER INJURED

Two carpenters, assisted by two laborers, were replacing planking on a freight house platform when one of the laborers fell between two of the platform joists and fractured a pelvic bone. In explanation of this injury this man's own statement is quoted below:

"I was employed as a B&B laborer and was working assisting three others in replacing planking on platform of the outbound freight house. We had just carried a 3″x12″ plank and placed it on top of platform floor joists which were 6″x10″ material, 24″ center to center. We laid plank down, and I stepped out on two joists to pull plank endwise so that the ends would line up with end of platform. As I stepped onto the joists I fell through, either missed my footing on joist or my foot slipped. I had on good leather shoes, composition soles, and wore these shoes particularly because they would not slip. I have worked for the Store Department of the Union Pacific for about nine years and have never had an accident before. I am in good health and in good physical condi-

tion and know of nothing that could have contributed to this injury. When I fell through the platform I caught one leg over a sill, and my body fell against the adjacent sill. When I got up I didn't think anything was the matter with me, except that I had a bad bump on the right side. I am sorry this happened and hate to have anything like this against my record which has been clear up to date. Before going to work the foreman talked to me about safety and I surely would not be careless about the job. I cannot, however, in any way, account for this accident."

This is the way a great many of our accidents occur; a careless move, a slip, a fall and an injury. (K-28)

FELL AGAINST STOVE

A train was handling 51 outfits occupied by a large steel gang force and attendant forces for movement to another point of work. One of the laborers, riding in an outfit car, same being the second car from the rear end, was sitting on a spike keg and when the stop was made on arrival at the point of work the brakes set on the front end of the train, the slack ran in, causing a severe jar, resulting in the keg on which the laborer was sitting overturning, throwing him against the stove, causing bruises which entailed six days' disability. An empty spike keg is not a secure seat and should never be used for such purpose during a freight train movement. (Y-62)

Miscellaneous

THREE INJURIES TO D. C. & H. DEPT. EMPLOYES

A baker in a restaurant sustained a slight cut on right elbow when he slipped and fell while working in the bake shop, injury being caused by elbow striking against an iron bar on the steam box. The baker was given first aid and sent to the doctor, where the X-Ray picture showed a small bone broken in arm, causing disability estimated to be about one week. The cause of slipping was flour dough spilled on floor. (N-23)

A diner cook suffered a burn on left forearm, caused by his accidentally bumping into the second cook, who was taking a pan of hot grease off the stove. The grease from this pan struck the cook's left forearm, and while the doctor released this man as soon as he had dressed the burn, swelling with attendant pain continued and it was necessary for this man to be off duty for about one week. (Y-39)

A dining car waiter, while train was standing at a station, stepped down from car onto platform and in some manner, which he is unable to explain, turned his right ankle, causing sprain of muscles and disability which ran into a 10-day period. Evidently this man did not heed the warning placard on all car steps of "Watch Your Step." (N-31)

STORE DEPARTMENT EMPLOYE BREAKS ARM

A Store Department laborer, standing on a pile of lumber at a height of about 20 inches above the car floor and with smooth level footing, was engaged in nailing a strip of lumber across the car door at about the height of his chest. One end of this strip of lumber had been nailed, and in leaning out to nail the other end he lost his balance and fell to the ground, alighting on his left arm and fracturing a bone in his forearm, which will disable him for work for about 30 days. An awkward position, a slip, a fall, and a serious injury. If necessary to get in a strange and awkward position in doing your work, and the work is off the ground, get a ladder. (N-46)

INFORMATIVE

In the Condition of Awards of the E. H. Harriman Memorial Medals under the auspices of the American Museum of Safety, Article VII reads:

"A medal will not be awarded to any railroad for two consecutive years."

The Union Pacific railroad company received the Gold Medal Award for 1933 and was not eligible for receiving it in 1934, although its record was such that had it been eligible it would have received this award.

PAPER PREPARED AND READ BY MECH. FOREMAN C. B. ROWLEY AT IDAHO FALLS SAFETY MEETING AUGUST 7, 1935.

"**Safety First,** we all know, is the largest subject we have to deal with. It's a subject on which a great deal of money has been spent and on which a great deal has been said, and the real answer to Safety First is a safe-minded employe.

An accident never just happens—there is a reason somewhere. And if each one of us would just think as we read the safety rules that 99 per cent of them are the result of thorough study of the mistakes other fellows have made, and that the rule is made to prevent a similar accident to us, we would then immediately become safeminded.

What I mean by safe-minded is this: There is no printed warning on every job we start to do, but for every job there is a safe way to do it, and generally an unsafe way. If we are not safe-minded we may take the unsafe way and consequently suffer the result. After all that has been said about Safety First, and the money that has been spent to make us safe-minded, if an employe is found who is not safe-minded there is only one answer: he simply doesn't belong with us and should not stay.

In most cases after an injury has occurred it is found there was a reason and while the employe may have thought he was careful it is easily pointed out to him it was humanly possible to avoid the accident and the cause is, he simply wasn't careful enough. As I see the picture, there is only one answer: **Be your own safety agent,** study and become familiar with all the safety rules. Don't just read them over hurriedly because you think it required, but study them and get the result. There is an old saying "a stitch in time saves nine", but after an accident has happened, usually it is found that the proverbial stitch was not taken, or the accident would not have happened.

To get the best results it is not only necessary for each employe to know the safety rules, but he should fully appreciate that **back of each rule is good, sound reason for its careful observance.** We all know safety rules were not made simply for the purpose of making a good safety record, but their real purpose is for the protection of limb and life. We know there are men who are above reproach in obeying them, but the laws of nature sometimes make the innocent suffer with the guilty, so if you are one of the innocent keep your eye peeled for the guilty and don't let him get away with a rule violation. The Safety Rules are not only to protect you but they protect the breadwinner for your family, and there is no earthly reason why it shouldn't be just as much your duty as it is your supervisor's to see that your fellow workman lives up to them, for when he violates a rule he jeopardizes not only himself but, in many cases, those whom he is working with.

Years ago it was realized there were grave hazards of injury attending some railroad men's jobs, but after years of hard study and some suffering, rules have been made to overcome these hazards. It is your plain duty, therefore, to get **safe-minded** and benefit by the efforts this Company has gone to, to make safe your job and mine."

Accident Prevention Bulletin

August 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—SEVENTH MONTH

Including casualties and careful estimates on man-hours for the month of July in calculating the cumulative rates for the period January 1st to July 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

General Manager

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	1.39	9.93
2	F. H. Knickerbocker	LA&SL	2.46	14.75
3	N. A. Williams	UPRR	2.52	15.26
4	H. J. Plumhof	OSL	2.94	18.78
	System total for 1935		2.42	15.07
	Last year for same period		2.36	14.82

Division Superintendents

1	M. C. Williams—Wash.	5	A. L. Coey—LA&SL
2	H. A. Connett—Ore.	6	C. P. Cahill—Colo.
3	J. E. Mulick—Nebr.	7	E. C. Manson—OSL
4	W. H. Guild—Kans.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	C. W. Pitts—Colo.
2	R. L. Adamson—LA&SL	6	L. V. Chausse—OSL
3	W. C. Perkins—Kans.	7	R. M. Jolley—Nebr.
4	L. W. Althof—Ore.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	J. F. Long—LA&SL	6	A. V. James—Nebr.
2	L. W. Shirley—OWR&N	7	C. F. Spicka—Chey. Shops
3	J. Gogerty—Omaha Shops	8	G. R. Wilcox—Kans.
4	W. J. Nolan—Colo.	8	P. J. Norton—OSL
5	G. M. Walsh—Poca. Shops	10	G. A. Jordan—Wyo.

JULY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	9	3	Transp.	—	6	2
OSL	1	3	1	Mech.	—	3	2
OWR&N	—	3	1	M. of W.	2	4	1
LA&SL	—	1	—	Miscel.	—	3	—
Employes	2	16	5	Employes	2	16	5
Psgrs.	—	—	—				
Pers. Car.	—	—	—				
Total	2	16	5				

CASUALTIES JANUARY 1 TO AUGUST 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	5	53	12	Transp.	2	36	12
OSL	1	20	4	Mech.	1	19	3
OWR&N	—	8	7	M. of W.	3	27	7
LA&SL	—	10	—	Miscel.	—	9	1
Employes	6	91	23	Employes	6	91	23
Psgrs.	—	4	—				
Pers. Car.	—	3	—				
Total	6	98	23				

July is another month which will show up badly on our accident record, by recording 2 fatalities, 16 reportable and 5 lost time injuries, of which 15 injuries may be classed as avoidable with reasonable care on the part of the party injured, and 8 as unavoidable in so far as the party injured was concerned. Carelessness is a word frequently used and thought by many as inapplicable in expressing the cause of a personal injury. Careless is defined as heedless, inattentive, thoughtless or unobservant—and the avoidable injuries occurring during this month can be classed under one or the other of these definitions of the word careless in justice to the party injured. The Safety Department implores you to be attentive to the work you are doing; careful of the manner in which you are doing it; thoughtful of the consequences of using wrong methods or violating rules by yourself and fellow employes and observant of conditions surrounding a piece of work, that you or your fellow workers may not sustain a personal injury.

TRANSPORTATION DEPARTMENT

PROBABLY NOT USING LIGHT

A switchman had ridden a cut of cars in to a track, and after applying the hand brake, came down side ladder and dropped off while cars were moving at a speed estimated to be about two miles per hour. He states that he stepped on some small object on the ground which rolled, resulting in the sprain of his right ankle. The ground conditions at this point were good, except that immediately after accident a small piece of rock and a small piece of coal, each about the size of an egg, were found, and it is possible that he stepped on one of these small objects. The accident happened at 12:45 AM, on a clear, dark night, and emphasizes the necessity for men getting off of cars during the hours of darkness using their lanterns to see that the ground where they are stepping is clear of obstructions, either large or small. (O-3)

GETTING OFF HEAD END FOOTBOARD

At about 5:35 AM, on a clear, bright morning, a switchman sprained his left ankle while getting off the front footboard of an engine, just before the engine came to a full stop, at a road crossing. He claimed he caught his foot between crossing plank and footboard of engine, which action caused the heel of his shoe to be loosened and his ankle, or instep injured. (K-4)

WEEDS CAUSE INJURY

A westbound train was picking up a car of wheat located at the east end of an elevator track, and in making this move it was necessary to couple into and shove 3 cars spotted at a middle elevator to a connection with the car to be put into train. The caboose had stopped on main track, about opposite the middle elevator and the rear brakeman walked across to a point near the end of the 3 cars to be moved. The elevator track at this point was in a slight cut, with ground sloping easily to the top of track tie, and at point where the brakeman was standing, the ground was about 6 inches higher than top of tie, and covered with heavy growth of weeds, ranging in height from 2½ to 3½ feet. Indications on ground show that while brakeman was standing preparatory to mounting side ladder of car and ride in to connection with car at elevator, he trampled the weeds backward at right angles to track and was standing on weed stems. As the car he intended to ride approached he raised his right foot and extended his arms to reach grabiron when his left foot slipped out from under him and he sat down with his heel against the track rail. Before he could pull his foot away from the rail it was caught under moving wheel and so injured as to require removal of all toes of his left foot. Had this brakeman not disturbed the weeds by bending them backward from the track, or had he bent them parallel with the track, it is probable he would not have been injured as there was no other contributory cause to this injury and the cars were moving slowly. (K-8)

AN UNUSUAL ACCIDENT

A freight extra west was moving at a speed of about 40 miles per hour between switches at a station, when brakes went into emergency, breaking the knuckle on back of tank of engine, and in west end of second car from engine where the air hose parted. The conductor of this train was required to register at the last stop made, and after registering he proceeded to front end of the train and instead of riding on the engine he opened the doors on both sides of the first car back of the engine, hooking them back in open position, and got inside of the car to ride to the next stop, a distance of about 33 miles. The cause of the first car breaking away from the engine, and the second car away from the first car, was the safety bar coming down on 63rd car in train and breaking branch air pipe on car immediately following, causing brakes to be set in emergency. The conductor states he was riding in the center of the car when he felt a jar, and went to the side door looking ahead, he observed engine some eight or ten car lengths ahead of the train at which time the car in which he was riding was moving slowly. He looked back and at that time the rear of his train struck his car with force sufficient to throw him headlong out of side door of car, into the gravel between main line and passing track, entailing three fractured vertebrae and deep cut on right forehead. Instructions were in effect on this territory and known to this conductor, that trainmen must not ride inside of closed cars on freight trains, and this conductor violated such instructions. (D-11)

FIREMAN NOT CAREFUL

The crew was called for a first section of a regular freight train and engine crew reported on duty at 3:30 PM. After the fireman had looked at his fire and tried the stoker, he procured the two green flags required to display signals for a following section of this train, and to put them in place he got out of the side cab window, with the two green flags on their staffs in his right hand. He had taken one or two steps on foot rail alongside of cab holding on to handrail over eaves of cab, when he reached the point of turn at front of cab where he attempted to take a new hold with his left hand and evidently let go of his right hand hold on railing, as he fell to the ground before having reached the front of cab where he would have stepped over to running board alongside the boiler. The fireman's only explanation is that he was attempting this move with two flags in one hand and failed to get complete grip on handhold. The foot rail alongside of the cab of engine is narrow and presents insecure footing under the best conditions and should never be used under any circumstances except in extreme emergency. We repeat cautionary advice to firemen: **When necessary to put up signals on front of engine, get out of cab on side ladder and climb up front of engine.** Had this been done, in this case, an accident resulting in two fractured wrists would have been prevented. (O-35)

LOOKING OUT CUPOLA WINDOW

A rear brakeman, riding in the cupola of his caboose, opened the window to observe train while rounding a curve, when a piece of hot sand from engine lodged in his right eye. He reported to the company doctor on arrival at terminal and was told he could work back to the home terminal. As his eye pained him on arriving at home terminal he went to the doctor who removed a particle of sand and put a patch over his eye, holding him off duty for a period of 2½ days. We sometimes wonder why employes who have duties requiring them to look out of cupola windows or from rear platform of caboose, do not provide themselves with clear glass goggles to avoid painful injuries of this character. (O-20)

CLOSE CLEARANCE

A switchman working in a terminal yard had assisted in putting cars in on track No. 2 and knew the cars had close clearance for cars moving on track No. 3. To make a cut in cars he was working, he got on side ladder of a car and was operating cut lever to open knuckle with his foot, requiring several attempts before knuckle opened. While doing this he was watching the knuckle and failed to look ahead, he was close to the standing car when he jumped off the side ladder, and in swinging around struck the end of the standing car and suffered injuries consisting of dislocation of outer end of right collar bone, bruises on left side and partial fracture or crack at lower edge of pelvis bone. It was known by all members of crew that this car on east end of No. 2 track was at close clearance and it was their intention to move it into clear with the completion of switching cut of cars they were handling. A case of not foreseeing the possibilities of personal injury in the setup of cars they had recently made. (N-47)

SQUIRT HOSE CAUSES BURN

While picking up cars in a yard, the fireman put on injector and at same time slightly opened squirt hose valve. He then got down on deck to use squirt hose and when he pulled hose up from container, live steam and water splashed on both ankles, resulting in burns which incapacitated him for 2 days and 4 hours. This injury might be classed as thoughtlessness on the part of the fireman, but as thoughtlessness is a synonym for carelessness, we are classifying it as carelessness. (N-53)

MECHANICAL DEPARTMENT

NOT USING SAFETY APPLIANCE

A machinist apprentice was putting an air drum on the left side of an engine, using the standard air drum lifting clamp, shown on sketch No. 143 Standard Shop Practices. Drum had been lifted from the floor by overhead crane and moved about 20 feet, and was in position in brackets just ahead of air pump and machinist apprentice took hold of lifting clamp to make a slight adjustment in the drum, when it slipped out of the clamp and in falling struck the shoulder of another machinist apprentice who had just gotten out of engine pit, resulting in injuries which may cause several months loss of time. Investigation developed air drum slipped because safety chains which are provided to avoid such accidents were not being used in this case. It further developed that machinist apprentice handling the air drum had not been properly instructed by his supervisor as to how to handle a job of this kind. Apparently a case of a foreman being inattentive to his duties as a supervisor of other employes. (PS-9)

FOOT INJURY WHILE HANDLING ICE

A car inspector was assisting in replenishing ice in cooler of an ice-activated cooling system on a passenger car, and was carrying the ice in his hand from a small truck located about 10 feet from the car, when a piece of ice, about 10 lbs. in weight, fell from the 75 lb. piece he was carrying, striking the instep bone of his left foot and breaking same. This happened about 10:30 P. M. on a station platform and truck was standing in shadow of car. The 10 lb. piece might have been loose at the time car inspector picked up the ice but on account of the light not being good, such condition was not observed. Had this ice been handled with regular ice tongs this injury probably would not have occurred. (K-17)

CONTRIBUTORY NEGLIGENCE

In carrying out a program of rebuilding steel underframe wooden top box cars into all-steel cars, at one of

our larger shops, a gang of carmen was engaged in dismantling the wooden body of a car. The car being worked on had wooden sides and roof with steel ends and a carman was inside of the car burning off rivetheads with a torch, preparatory to removing metal parts from the car. He had burned off the rivetheads on inside of the metal car end on the top ladder tread, and the second tread from the roof, but the rivets had not been punched out and ladder treads removed. A carman helper assigned to removing the running boards from the roof of the car, to get to his work, went up the end ladder and when he reached the second grabiron from the roof, it pulled loose and the carman helper fell to the ground injuring his right ankle. Movable ladders were available but definite instructions as to their use while stripping cars had not been put into effect and men were using side or end ladders on cars for getting on roof when portable ladders were not in place. Also carmen had instructions that when burning off rivetheads of ladder treads they must immediately remove the treads. The lack of definite instructions as to use of portable ladders and violation of instructions about removing ladder treads when cut loose, made a combination which caused this injury. (OS-12)

USING UNSAFE METHODS UNTIL INJURED

A machinist working in a roundhouse, removing the link from the right side of an engine, with radius bar, hanger pin bolts, link block and link block pin removed and the link resting on small wooden block on top of the radius bar, desired to raise the link slightly to release pressure on the wooden block and allow link to drop to the floor. To line up wooden block so it would be released the helper placed bar under lower end of link which was close to the floor in order to raise the link slightly, and at this time machinist placed right hand between cheek plate and link to align block so link would drop out, when link tipped forward slightly and slipped off bar, dropping to the floor, catching machinist's finger in a bolt hole in top of link, cutting off end of third finger of right hand. This machinist is an old employe and has been engaged in this class of work for the past 12 years; was familiar with the operation he was doing and had performed the same operation in this manner numerous times before. This appears to be a case of previously used method establishing a practice which proved to be unsafe when some little thing went wrong. Watch out for unsafe practices. (K-34)

MAINTENANCE OF WAY DEPARTMENT

LACK OF DEFINITE UNDERSTANDING

A train of 59 combination side and bottom dump steel cars, loaded with gravel, was being unloaded eastwardly in double track territory, under the supervision of a roadmaster and with the foremen and laborers of two section gangs, they had unloaded 31 cars out of the first 34 of the string; 3 loaded cars being scattered through the eastwardly 17 cars, for the reason the bottom hoppers could not be opened on these 3 cars and gang did not have equipment with them for opening side dumps when unloading. To clear eastward track for a passenger train, work train was headed to the west end of a center passing track, which track was equipped with crossovers to main track located in the center of passing track. Roadmaster told conductor to set out the 34 cars of this string, east of the crossover and bring his engine back on the remaining 25 cars which they would unload on No. 2 track west of the station in the afternoon. He then had his men partially unwind the bottom dumps on the 25 cars to save time in handling while dumping and as it was noontime they went to lunch. During the noon period someone made the remark that the first car ahead of the caboose could not be center dumped and evidently the conductor overheard this remark. After lunch string of 25 cars was moved out and unloaded on eastward track, unloading being completed about 3:30 PM and all cars unloaded either through bottom or side dumps. Prior to arrival at station, roadmaster told work train conductor that he wanted to unload the 3 loaded cars in the east end of the string of 34, setting to the east of the crossover, on No. 1 track about one-quarter mile west of the west switch of station. The string of 25 empty cars was pulled in at the west end of center passing track and stopped short of the crossover; the engine was put through the crossover and down the main track to the head end of the string of 34 cars, and during this move, conductor went to the station to get a line-up for work on westbound track. When he came out of depot he walked down the south side of the string of empty cars and called to the roadmaster who was supervising the men closing the bottom dumps and side dumps on the 25 cars, asking "shall I take the whole string"—to which the roadmaster answered in effect—"it makes no difference to me if you want to handle that way", evidently having in mind the string of 34 cars. Roadmaster also told the conductor at this time that men were working closing dumps on the 34 cars and to warn them before engine coupled onto these cars which the conductor did. The head brakeman looked west from the engine cab, saw the signals were up which to him indicated the west switch was open and he proceeded east on the westbound track to flag. The engineer saw these signals but to him they indicated the crossover was open. To the conductor his query about taking the whole string evidently meant all the cars between engine and caboose and in explanation of why he wanted to take out the 25 empty cars in this move, he stated he thought the car next to the caboose had not been unloaded although he had been present and was checking the unloading of these 25 cars. The conductor gave the fireman a back-up signal and the engineer believing he was to move through crossover, started back as though both switches were lined for the move. The conductor got on west car of the string and when some two or three cars from the 25, jumped off and gave a stop signal but the 34 coupled into the 25 with sufficient force to move the 25 about a car length with the air set. Section men were closing dumps on the cars at the time conductor gave his signal and they could be plainly seen by him. A man was working in the fourth car ahead of the caboose, punching out rocks—the foreman reached under this car to clear a rock at the time coupling was made resulting in his being knocked down and a wheel passing over his right arm near the shoulder, and due to loss of blood and shock he died in the hospital about 15 hours later. A regrettable accident brought about by difference of understanding as to what constituted the whole string. Had the roadmaster asked the conductor "What do you mean by the whole string?" and received explanation the situation would have been corrected and a man's life saved. Or had the conductor, on observing men were closing dumps on the string of 25 cars, determined all men were in the clear before making coupling, as required by the rules, this life would have been saved. Clear and definite understanding as to how work is to be done, and what moves are to be made, between roadmaster, supervisors or foremen directing the work, and the trainmen must be had and these with no chance of misunderstanding if we are going to keep away from accidents and fatalities of this kind. (N-8)

NOT WRITING-DOWN LINE-UP

On a branch line in mountain territory, on account of short visibility, due to curvatures, section foremen have been equipped with portable telephones and are permitted to operate over their section on line-ups received from the dispatchers, this method of handling being necessary and train movements few in number. For morning information the dispatcher puts out the line-up to the operator of a station located about midway on this branch, who goes on duty at 7:00 AM, and the foreman calls this operator on telephone and gets the line-up from him. A foreman desiring to move west called up the operator for line-up and received it exactly as given by the dispatcher, and in this line-up he was advised that an extra-east had left the station at which the operator was located and some 30 miles west of the point where foreman received line-up at 7:10 AM. Operator also states that after giving foreman the line-up he called him by name and said—"This extra-east that left at 7:10 is a caboose-hop." The foreman went to his gang and when asked if he had a line-up said "yes, everything is clear." One of his men said "did you get anything on the extra train that went up about midnight last night?" The foreman said "nothing on it", although this was the caboose-hop to which his particular attention had been called. Gang left the tool house about 8:05 AM and had moved about 8 miles when engine of extra-east was observed about 300 feet away, in a cut on a curve. The four section men got off without falling or without injury but the section foreman evidently tried to get his car in back motion and had got the driving mechanism of a No. 40 Fairbanks-Morse car in reverse at the time he was hit. Car was derailed and it moved some 30 or 40 feet before foreman was thrown off. Foreman received injuries from which he died two hours later.

Instructions require foremen to write down line-ups as received from the operator and had the roadmaster checked his foremen to know this was being done the foreman fatally injured could not have overlooked the fact that he was going against an eastward light extra and protected accordingly. (D-17)

TRACK MOTOR CAR FAILURE

A section foreman with three men was operating his motor car on his section when it was derailed and one of the laborers was sufficiently injured to be off duty for two days. Derailment was caused by flange breaking off the left front wheel of motor car and with a rolled steel wheel the worn condition sufficient to cause the flange to break off should be readily visible to anyone inspecting the wheel of a car. (D-20)

STRAINED BACK LIFTING MOTOR CAR

A track motor car, weighing about 1100 lbs. and loaded with tools and supplies to the amount of about 435 lbs. was being moved off passing track to main line. In lifting front end of car onto main track, foreman and two men were on the front end and two men standing on the lifting bar at the rear end. One of the laborers spoke of hurting his back and on being examined by the doctor it was determined he had strained a joint and he was incapacitated for several days. If foremen will instruct their men as to how to lift any object—that is by keeping their backs reasonably straight and bending their knees, using their legs in the lift, instead of bending over and using the back in the lift, they will prevent accidents of this kind. (O-14)

CREOSOTE CAUSES BURN

On a rail relaying job, following the adzing machine, creosote oil is applied to the adzed part of the tie, this being followed by application of tie plates on which the rail is laid. An extra gang laborer, adjusting a tie plate on a tie which had been freshly creosoted to make the plate fit rail, struck the plate with the spike maul and creosote splashed into his eyes resulting in a slight burn and the loss of two days time. (Y-37)

STRINGER ON FOOT

On a branch line, stringers which had been taken out of a bridge, were being trucked into a side track and loaded on a flat car. Some 30 stringers had been loaded and two carpenters were engaged in moving a piece of 8 inch by 17 inch by 15 ft. stringer endwise while standing on edge to place it in position for shipment on the car. Both men were using cant hooks in this operation and for some cause unknown, stringer turned over on its side and caught the foot of one of the carpenters breaking instep bone, resulting in reportable injury. No conditions entered into this injury except as made by the injured man. (N-38)

RECEIVED BURNS REMOVING RADIATOR CAP

The operator of an air compressor used in connection with rail relaying work, undertook to remove radiator cap on radiator serving gas engine which operates the compressor, while the radiator was boiling. This radiator cap was fitted with a trigger arrangement and prior to moving the trigger, compressor operator warned other men to look out but as the cap released he was unable to get away from the steam and hot water and suffered burned back from neck to hip which incapacitated him for a week. Removing radiator caps from hot radiators is always dangerous and should never be done until radiator has cooled down sufficiently to permit it being done in safety. (Y-71)

MISCELLANEOUS

A tie bucker, while engaged in unloading and piling ties at a timber treating plant, fell from the top of pile and in falling pulled a tie off the edge of the pile and the tie fell on and caused fracture of his right leg. This man was working alone and had built the ties up to the 19th tier; he had piled 10 ties on the top of this tier, after which he climbed to top of the pile to straighten these ties with a pickaroon, and while engaged in straightening a tie the pickaroon struck a knot, causing it to release from the tie just as he pulled which caused him to lose balance and fall. (D-3)

A store department foreman and crane operator with four laborers was engaged in unloading 45 ft. piling from car to skids—two laborers being in the car straightening the end loops and two on the ground with short pike poles guiding the piling to position. Piling was three tiers high, one of the laborers working on the ground failed to reach the end of the pile with his four foot pike pole and stepped on one of the pilings in the bottom tier of the skid. His foot slipped off injuring his right knee. He states that about 10:00 PM it began to hurt him. He went to the doctor who put him in the hospital for recovery from a sprained knee. If this injury occurred as claimed there was no contributing cause and it resulted from carelessness on the part of the man himself. (Y-32)

A kitchen helper, in cleaning steam table in kitchen of a restaurant, in some manner accidentally upset one of the steam table jars and fearing that it would fall to the floor he made a quick grab for it and his hand came in contact with a French knife, which was lying on the steam table, cutting center knuckle of right hand. Helper states he did not see this knife at the time and did not know that it was lying on the steam table. It resulted in an injury which incapacitated this helper for several days. (S-5)

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June 10, 1935

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COMPETITIVE RANKING—FIFTH MONTH

Including casualties and careful estimates of manhours for the month of May in calculating the cumulative rates for the period January 1st to May 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

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2	J. E. Mulick—Nebr.	6	A. L. Coey—LA&SL
3	M. C. Williams—Wash.	7	E. C. Manson—OSL
4	W. H. Guild—Kans.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	R. M. Jolley—Nebr.
2	C. W. Pitts—Colo.	6	L. V. Chausse—OSL
3	R. L. Adamson—LA&SL	7	W. C. Perkins—Kans.
4	L. W. Althof—Ore.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	J. Gogerty—Omaha Shops	6	G. R. Wilcox—Kans.
2	J. F. Long—LA&SL	7	A. V. James—Nebr.
3	G. M. Walsh—Poca. Shops	8	W. J. Nolan—Colo.
4	G. A. Jordan—Wyo.	9	P. J. Norton—OSL
5	L. W. Shirley—OWR&N	10	C. F. Spicka—Chey. Shops

MAY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	4	3	Transp.	—	6	1
OSL	—	5	—	Mech.	—	2	—
OWR&N	—	1	—	M. of W.	—	1	2
LA&SL	—	—	—	Miscel.	—	1	—
Employes	—	10	3	Employes	—	10	3
Psgrs.	—	1	—				
Pers Car.	—	—	—				
Total	—	11	3				

CASUALTIES JANUARY 1 TO JUNE 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	2	32	8	Trans.	2	24	7
OSL	—	16	3	Mech.	—	12	1
OWR&N	—	4	2	M. of W.	—	16	4
LA&SL	—	6	—	Miscel.	—	6	1
Employes	2	58	13	Employes	2	58	13
Psgrs.	—	4	—				
Pers. Car.	—	—	—				
Total	2	62	13				

BETTER, BUT NOT GOOD

Accidents occurring during the month of May on the System totaled 11 reportable, including 1 passenger, and 3 lost time, as against 15 reportable and 1 lost time during April. The Washington Division again went free of accidents resulting in personal injuries.

Considering the additional forces working in May over forces in April, due to seasonal increase particularly in the Maintenance of Way Department, the reduction per million manhours is slightly better than indicated by the foregoing comparison. Also, we were fortunate in not having any accidents during May which resulted in permanent disability to an employe or passenger.

Transportation Department

SWITCH STAND INVOLVED

A switchman, with 18 years' service, was lining a switch for movement of a car into a track seldom used. He found the switch stand hard to throw, by reason of accumulation of cinders and dirt in the switch points, and after partially cleaning out the points, he pulled the lever of the Low Star switch stand around nearly to place, and to get lever into socket took hold of top of stand with his hand and pushed lever into place with his foot, resulting in strained ligaments in the calf of his right leg and an estimated disability of some three weeks. A little more care in cleaning out the switch points, so the lever could have been placed in socket by hand power, might have prevented this injury. Warning: Old practices often indulged in many times give unexpected results. (K-1)

TRAINS PARTING

A train moving upgrade on one of our mountain divisions parted by reason of drawbar pulling out of first car behind engine, air going into emergency, causing a brakeman riding in the caboose to be thrown to the floor, spraining his back and neck, which disabled him for a period of about ten days. (Y-9)

Another train on another mountain division, moving at a speed estimated to be about 15 miles per hour, parted by reason of yoke rivets shearing and allowing drawbar to pull out of 10th car from head end of train. With the air going into emergency, a brakeman in the caboose was thrown against a table set up over the seat box and sustained a fractured rib, with estimated disability of some two to three weeks. (C-2)

FELL INTO COAL PIT

At a meat packing plant at one of our main terminals there is a coal pit in connection with the plant, with a depth of about 8 feet and widths varying from 16 to 24 feet. This pit is equipped with a track about 100 feet long for bottom unloading of coal cars, and ends close to a brick building, being served on the right hand side with a planked walk. The pit had not been used for storage of coal for a period of about two years, but track is used for unloading of cars into buildings located on both sides of pit.

At about 8:30 P. M. on a dark night, with a light rain falling, a switch crew headed into the spur track serving the coal pit to pick up two cars. By reason of curvature

in track it was necessary for switchman to work on the fireman's side in order to pass signals, and on this side there was no plank walk over pit. Coupling was made to the first car and switchman walked ahead to make the joint on the first of two cars standing over the coal pit. When the coupling was made, he started forward to disconnect coupling between these two cars and stepped into coal pit, falling about eight feet, resulting in severe bruises and fracture of left hip and a bone in the left hand, with probable disability of six weeks.

Brakeman involved states that he was under the impression the walk over the pit was on the fireman's side, and that while he had his light burning and was looking where he was stepping, the shadows cast by the buildings did not allow his light to penetrate the darkness sufficiently to show him that he was stepping into the coal pit opening. (N-9)

FELL FROM TOP OF CAR

A switchman, with nine years' service in one of our main terminals, had as part of his work the duty of seeing that sufficient brakes were set on certain cuts of cars to hold them on the spot. While performing this duty he noticed the brakes on two end cars of a string of 18 were not set sufficiently tight and he went on top at the north end of the north car and walked to the south end where the brake ends of both cars were located. He set the brake on the north car and leaving his light on the south end of the north car, stepped over to the other brake platform and set that brake. He states that after setting brake he started to get onto top of car, when the brake let loose and he became overbalanced and fell backwards to the ground, resulting in bruises and a fracture of his right ankle. This switchman states he had not taken hold of the grab iron on top of car, and it is probable that had he done so he would not have become overbalanced. (D-15)

PLATFORM FOULED TRACK

At one of our terminals, top icing of PFE cars is done at a privately owned icing plant, equipped with an icing dock having extension hinged apron platforms to reach from the dock to top of car, the extension platforms being equipped for hooking back in an upright position when not in use. A car had been spotted at the far end of this icing platform for icing during the day, and the night switching crew went in after it with the engine foreman riding on lead footboard. After making coupling, the engine foreman walked to forward end of car on engineman's side and between car and icing platform. He got on ladder end of car, gave proceed signal, and started to climb ladder to top of car as car was being shoved northward. Just as he reached top of car with his head and shoulders, he came in contact with the hinged apron platform which was down and he was knocked off car to ground, causing serious injury to back and probability of being incapacitated for about 60 days.

This appears to be a case of carelessness on the part of some employe, not directly connected with the railroad company, in leaving an apron platform in an improper position. (D-60)

PASSENGER STUMBLED

A passenger on one of our through trains got off train at a wayside station after the other passengers had alighted and Pullman Porter in charge of car had gone into the car to perform some duty he had overlooked. The wayside station was well equipped with brick platform and the train stopped there for some five minutes for inspection. This passenger in detraining, claimed he was injured by stubbing his toe on the step box and falling on the platform, causing fracture of his right ankle and injury to his right knee. (S-1)

FREIGHT HOUSE TRUCKER INJURED

At a terminal freight house a shipment of gas pipe was received, the pipe varying in length from 5 to 12 feet, and in size from 1 to 4 inches. The pipe was being moved with two-wheeled trucks into a car, and the particular load causing the injury consisted of six pieces, two being 4-inch, and the balance smaller. In moving truck onto bridge between platform and car, the pipe shifted and operator lowered truck to floor, stepped around to left side of track to straighten load, when one piece of 4 inch pipe rolled off onto the floor, rebounding and striking him on the right foot, resulting in bruise to great toe and a lost time injury of 2½ days. This injury apparently resulted from overloading or using the wrong type of truck in transporting this pipe. (K-5)

Mechanical Department

INJURED CHANGING TRUCKS

A carman and helper had taken a truck out from under a freight car and moved the replacement truck in position. Car had been lowered with air jacks but center plates did not mesh and top plate was resting on rim of lower plate. The carman attempted to place two pieces of oak blocking under sidebearing of car and had one finger on top of the oak blocks. As he was making this move the center plates dropped into position, causing the oak blocks to flip upward, with result that his finger was caught between oak block and side sill of car, causing an injury which may result in loss of portion of finger. The load had been taken off the jacks and was on center plates at the time of injury and carman's helper had warned him the jack had been released. Carman also states that he was aware he was taking a chance. A plain case of violating safety rules which provide that men must not get under cars for work of this character unless the carbodies are supported on jacks or trestles. (O-21)

WEDGE FALLS ON FOOT

A pipe fitter helper was assisting pipe fitter in putting a piece of new jacket on barrel of underside of boiler. The piece of jacket as shaped did not fit, and the assistant pipe fitter took this piece of jacket to a work bench to make necessary correction. The work bench was 35 inches high, and on it was an old piece of brass wedge of considerable size. The pipe fitter helper used this wedge in reshaping the piece of metal jacket. In doing this, he pulled the wedge over close to the edge of the work bench so that it might be in a better position for his work, and when through shaping the piece of boiler jacket steel he picked it up, at which time the brass wedge fell on his left foot, fracturing small bones and causing an injury which resulted in several days loss of time. A little care in working around and with heavy materials pays good dividends. (D-46)

Maintenance of Way Department

CONTRIBUTORY NEGLIGENCE

On work connected with the renewal of a new truss bridge, a temporary trestle bridge had been erected over a foundation excavation. This bridge was being removed and the track rail on same being taken up with a dragline machine. The dragline helper had the duty of placing the rail tongs on the rail and giving operator signals for lifting and swinging rail into clear. At the the same time several laborers were engaged nearby in bunching the track ties from which the rail had been removed for purpose of attaching chain sling to be used by the dragline machine in clearing ties from the deck of the bridge. A laborer was working on his knees, with his back to the machine, bunching ties, apparently not paying attention to the position he was getting into with relation to the rail being handled. Dragline operator states positively that he looked to see if everyone was in the clear before giving signal to lift rail, but evidently laborer moved backward after the dragline helper's observation, and as rail lifted it swung slowly and struck laborer's left foot, resulting in a bruise which incapacitated him for work for a period of two days. This injury can be classed as resulting from contributory negligence by the laborer and dragline helper, both being about equally involved. (Y-6)

STEPPED ON TRACK RAIL

An extra gang laborer moving from point of work to motor car preparatory to going to home point stepped on top of a track rail, slipped and fell, cutting a small gash in right knee. His wound was dressed by a company doctor and he was then taken home. The kneecap became inflamed and after working one-half day subsequent to the accident it was necessary for this laborer to lay off, and it is now estimated his disability will be about ten days. During the month of May on the territory on which this accident occurred, the slogan was: "Do not step on track rails." (D-20)

TRACK CAR INJURY

An extra gang laborer, with eight other employes, was engaged in handling a motor car from section tool house to the track. The runway to the tool house had been equipped with rails, but one rail had been removed and one wheel of the car was down between two ties, making it necessary to raise the front end of the car to clear the ties. The laborer injured was at the front end of the car lifting, and as the other men shoved the car it moved forward quickly, catching this man's foot, resulting in a bruise and the loss of the nail from the great toe. The foreman of this gang was close by engaged in unlocking the trailer for the motor car, and evidently failed to note that the laborer had stepped around in front of the car to make the lift to clear the wheel. This may be a case of foreman not looking, or looking and not seeing, but anyway it resulted in a lost time accident of three days. (Y-26)

Miscellaneous Departments

AUTOMOBILE INVOLVED

A crossing watchman was engaged in protecting traffic while a freight train was moving over crossing, when an automobile, being driven by a man 82 years of age, struck the watchman fracturing his right leg below the hip joint. The automobile then ran into the side of train, striking the fourth car back of engine, turned around, ran over four tracks where there were no crossing planks and did not stop until had run about one-half block south of crossing in the direction from which it had previously approached. In Police Court the automobile driver pleaded guilty to reckless driving and was fined. But this in no way makes up for the suffering and inconvenience the crossing watchman will have to endure. Moral: Always anticipate that an automobile driver may do the unexpected thing. (D-36)

CORRECTION

In the April Bulletin, under heading "Two Rail Injuries," the first injury was reported as a loss of time of 2 days and 6 hours. Developments show that after doctor's release the laborer involved did not go to work the following day and this accident will be tabulated in the I. C. C. records as a reportable injury. (Y-36-Apr)

OSL EMPLOYES WIN THE NATIONAL SAFETY COUNCIL AWARD

For the year 1934 the employes of the Oregon Short Line Railroad Company had the lowest casualty rate of the Class I Railroads of the United States, classified under "Group C", which means all railroads having an exposure of between 8 and 20 million manhours per year, and there are 24 such railroads.

For the purpose of equalizing contestants the National Safety Council has grouped the railroads as follows:

Class I Standard Railroads

Group A—50,000,000 or more manhours
B—20,000,000 to 50,000,000 manhours
C— 8,000,000 to 20,000,000 manhours
D— 3,000,000 to 8,000,000 manhours
E— 1,000,000 to 3,000,000 manhours
F—Less than 1,000,000 manhours

The Union Pacific System is not considered as a unit in this contest but as 4 separate units, and the UP unit comes under Group B, the OSL and OWR&N under Group C and the LA&SL under Group D.

The ratings of the respective units in the National Safety Contest for the year 1934, were as follows:

		Casualties per Million Manhours
Group B—UP	2nd Place	2.66
Group C—OSL	1st Place	2.58
Group C—OWR&N	3rd Place	3.36
Group D—LA&SL	3rd Place	3.44

In making its annual award, the National Safety Council invites all of the contest winners (of which there are 9 in number) to assemble their respective representatives at some designated city for presentation of the trophy of victory; in this case a bronze plaque of special design having the figure of Victory carrying a "Universal Safety" shield and presenting a wreath to a group of railroad employes whose occupations are readily determined by equipment or tools symbolic of their work, and this design being followed by appropriate wording indicating what the award represents.

For this presentation a banquet was held in a private dining room of the Pennsylvania Hotel in New York City, and there were some 70 railroad representatives in attendance. After an appropriate address by Mr. J. E. Long, President of the National Safety Council, Mr. Lew R. Palmer, Secretary of the Committee of Awards made the trophy presentations to the respective winners. Mr. F. W. Charske, Chairman of the Executive Committee of

the Union Pacific System, with timely remarks, received the plaque for the OSL employes and then turned it over to Mr. S. H. Osborne, Asst. to Executive Vice President, who had been designated to represent the employes of the Oregon Short Line at this meeting.

WARM WEATHER PRECAUTION

During the extremely warm weather there is a possibility of employes suffering from heat exhaustion and there is also the danger of sunstroke. There is a difference between the two in symptoms and treatment. In order that you may be more familiar with this difference and the action to take in either case, the following information is given:

HOW TO TELL HEAT EXHAUSTION:

(1) Skin cold. Sweating profuse.
(2) Face pale (sometimes purplish).
(3) Chilly and often has cramps.
(4) Dizziness—feeling of sickness—the person may vomit.
(5) Usually acts dazed.
(6) Sighs when breathing.
(7) Partial or complete collapse.

WHAT TO DO:

(1) Remove to a quiet, cool place.
(2) Loosen tight clothing.
(3) Lay flat on back with head low.
(4) Keep patient warm.
(5) When conscious and able to drink, give hot coffee or water, but not ice water.
(6) Call a doctor.

HOW TO TELL SUNSTROKE:

(1) Skin dry and hot to the touch.
(2) Face red.
(3) High fever.
(4) Dizziness, raging headache with shooting pains in the head.
(5) Breathing hard and loud.
(6) May have convulsions.

WHAT TO DO:

(1) Remove to shady spot where it is cool.
(2) Strip to the underclothes.
(3) Lay on back—head and shoulders raised.
(4) Put ice or cold wet cloths on the head.
(5) Cool body with water or wet cloths. Avoid sudden shocks.
(6) When conscious and able to drink, give person cold but not ice water.
(7) No stimulants.
(8) Call a doctor.

RAILROAD WEEK

Although June 10th to 15th has been designated as Railroad Week on the Western Railroads—every week should be Railroad Week and the benefits derived and enthusiasm aroused by the demonstrations of that particular week should be carried on throughout the year.

BASIC SAFETY IDEAS

Taken from National Safety Council's News Letter of May, 1935

Broadly speaking, there are about two fundamental questions which may be asked regarding human behavior. Why do individuals act as they do? Can we make people do as we want them to? The idea that human action is motivated basically by rational processes is essentially artificial and unreal. Most people act as they do because they have already developed conscious or unconscious attitudes concerning most subjects. Attitudes as factors in human action may be characterized as follows:

1. They tend always to express themselves in action.
2. They tend to have a strong emotional coloring.
3. They do not involve rational processes as an antecedent to action.
4. They may be conscious or unconscious.
5. Attitudes are associated with and are easily released by symbols, signs, slogans, phrases, catchwords and pictures in individual cases to build up a stereotype or mental picture in which the attitude is personalized and characterized in graphic form. Newspapers make large use of this mechanism in appeal to group attitudes. Slogans must always appeal to attitudes. Whoever stopped to analyze a slogan? It is what the slogan implies or suggests that makes it effective.
6. Where fundamental attitudes are involved the response is used in proportion to the intensity of the stimulus.
7. Attitudes may be developed as a result of a single experience or they may be established by a systematic and persistent propaganda. An example of the first is the establishment of a negative attitude toward an individual or race as a result of a single experience. In the second case, our attitude toward safety may be established as a result of a continuous presentation of materials arranged in dramatic and dynamic settings suggesting health, well-being, efficiency and the like.

The objective of every safety program should be the modification of individuals' attitudes so that everyone will become safety minded . . . Propaganda is the technique involved in bringing about changes in mental attitudes . . . Propaganda campaigns may be divided into three classes: first, the campaign may be directed to already existing attitudes; second, the objective may be the establishment of new attitudes; and third, opposing attitudes must be overcome

—S. N. Stevens, Professor of Psychology, Northwestern University.

The above extract from Dr. Stevens' analysis of safety is well worth reading a second and third time. It is a very concise description of "Safety Mindedness." We want our readers of this bulletin to study it and then compare its theories with the practices we have had in effect on the Union Pacific since July 1st, 1912, when it became apparent to all concerned that something had to be done to eliminate the prevailing idea previous to that time that the railroad or the factory was no place for the person who was afraid to take a chance. Since that time, through the application of safety principles the decrease in deaths and injuries has been surprising, but this is no place to stop. The psychological moment has arrived for each employe of this system to become safety minded to such an extent that we will from now on **entirely eliminate** carelessness, chance taking, horse play, shirking duties and responsibilities, etc., so that all of our employes will be "at Work" instead of some being "At Rest" or recuperating from some disabling injury, and through the thorough understanding of the fundamentals of Safety First and the application of the principles and rules of safety which have been issued on this system from time to time, hold the position as the safest railroad system in the world. It can easily be done at this time if we will all show an interest in our slogan of Safety First and work together to bring into effect the third class of propaganda mentioned by Dr. Stevens, that of overcoming the opposing attitudes, which includes carelessness, chance taking and the like.

Accident Prevention Bulletin

March 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this system, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—SECOND MONTH

Including casualties and careful estimates of manhours for the month of February in calculating the cumulative rates for the period January 1st to February 28th, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

General Manager

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	1.37	8.23
2	F. H. Knickerbocker	LA&SL	1.93	14.45
3	H. J. Plumhof	OSL	2.19	14.79
4	N. A. Williams	UPRR	2.91	16.97
	System total for 1935		2.46	15.07
	Last year for same period		2.44	13.28

Division Superintendents

1	H. A. Connett—Ore.	5	A. L. Coey—LA&SL
2	J. E. Mulick—Nebr.	6	M. C. Williams—Wash.
3	E. C. Manson—OSL	7	C. P. Cahill—Colo.
4	W. H. Guild—Kans.	8	C. C. Barnard—Wyo.

Division Engineers

1	H. A. Roberts—Ore.	5	R. M. Jolley—Nebr.
2	M. C. Williams—Wash.	6	R. L. Adamson—LA&SL
3	L. V. Chausse—OSL	7	W. C. Perkins—Kans.
4	S. H. Osborne—Colo.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	G. A. Jordan—Wyo.	6	G. M. Walsh—Poca. Shops
2	L. W. Shirley—OWR&N	7	A. V. James—Nebr.
3	J. Gogerty—Omaha Shops	8	G. R. Wilcox—Kans.
4	J. F. Long—LA&SL	9	C. Spicka—Chey. Shops
5	W. J. Nolan—Colo.	10	P. J. Norton—OSL

FEBRUARY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	6	—	Transp.	—	2	2
OSL	—	1	1	Mech.	—	1	—
OWR&N	—	—	2	M. of W.	—	4	1
LA&SL	—	—	—	Miscel.	—	—	—
Employes	—	7	3	Employes	—	7	3
Psgrs.	—	1	—				
Pers. Car.	—	—	—				
Total	—	8	3				

CASUALTIES JANUARY 1 TO MARCH 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	16	4	Transp.	1	10	4
OSL	—	4	2	Mech.	—	5	1
OWR&N	—	2	2	M. of W.	—	8	2
LA&SL	—	2	—	Miscel	—	1	1
Employes	1	24	8	Employes	1	24	8
Psgrs.	—	2	—				
Pers. Car.	—	—	—				
Total	1	26	8				

WELL, THAT'S BETTER!

February closed with no fatal and only 8 reportable and 3 lost time casualties, one of the reportable being an elderly lady passenger. This total for the Union Pacific System is such an improvement over the several preceding months that we are sure it must be just as encouraging to the supervisors and employes as it is to the Safety Department.

Both the Nebraska and Washington Divisions had a clear record for the month; the Transportation Department, aside from the lady passenger, had 2 reportable and 2 lost time injuries to employes, one reportable being unavoidable as far as men on the train were concerned; the Mechanical Department had but 1 reportable; and if the Maintenance of Way Department had done as well, the performance for the month would have been a record breaker.

TRANSPORTATION DEPARTMENT

THE ENGINE CAME UNCOUPLED

A double-header freight train of 56 cars was pulling slowly out of a station, and the conductor and brakeman had just gotten on the caboose, when the leading engine became uncoupled from the second engine due to the knuckle breaking on the pilot coupler. This of course parted the air hose and caused a hard run-in of slack at the rear of train. The conductor and brakeman in the caboose were both thrown to the floor, the latter receiving a sprained left leg which will probably cause a week or 10 days loss of time from work.

The Mechanical Department employes who inspect and repair locomotives should be prompted by this occurrence to remember that pilot couplers are sometimes called upon to stand just as severe strains as the coupler at the rear of the tender, and should be just as carefully inspected and maintained. In this case there was probably some additional strain on the coupler due to the fact that the second engine was only working on one side; the accident was unavoidable so far as the train employes were concerned. (C-3)

TELEGRAPH OPERATOR FALLS OUT OF CAR

A telegraph operator was assisting in unloading merchandise from a refrigerator car equipped with a flat auxiliary floor rack. While he was standing just inside the doorway he reached over toward one end of the car to pick up a package, and as he straightened up the sole of his left shoe caught under a floor slat causing him to lose his balance and fall out through the open doorway, alighting on his hip. The surgeons found he had received a fractured pelvis bone, and such cases usually require about three months in bed before the fractured bone is safe to depend upon for walking about.

This case, like many others previously related in these Bulletins, shows how easily one may receive serious injury from a comparatively minor misstep or slight inattention to footing. We can nearly always "feel" improper footing in time to correct it, if we are sufficiently safe-minded and will stop further movement, and change our position to make sure everything is right before going ahead. (C-2)

THE ROLLER ROLLED

A freight warehouse trucker was fortunate to only get a bruised heel, keeping him from work for two days, instead of a more severe hurt due to his failure to take proper precautions.

A shipment of cylindrical steel rollers about 5 inches in diameter by 21 inches long and weighing 140 lbs. each were to be loaded in a car, and eleven of these rollers were placed crosswise on the bed of a four-wheeled truck, eight of them laid in the lower tier with three others in a second tier on top of them. The front roller was not long enough to catch at both ends behind the stanchions or stakes at the front corners of the truck, and consequently only one end of the front roller was thus secured. Neither the warehouse foreman, the checker, nor the man who went to move this truck noticed or realized the danger in this situation or took the pains to properly block the free end of the forward roller. When a trucker took hold of the tongue of the truck and started pulling it along the floor, the weight of the rollers on top and the jostling movement of the truck caused the front roller to slip out between the stakes and rebound, striking the trucker on the back of the heel, fortunately resulting in only a bruise instead of a broken bone.

The fact that three heavy rollers were laid on top of others should have made it self-evident that the ones on the bottom would tend to spread out and separate at the least disturbance. If any of the men involved had shown a reasonable degree of concern for safety, they would have firmly blocked the free end of the forward roller so it could not possibly work out between the stanchions. As a matter of fact they did block the rear roller, but depended upon the slight security at one end of the front roller to hold it, and thus set the trap for an accident. (O-8)

FIREMAN SPRAINS ARM

A locomotive fireman attempting to throw coal back into the corner of his firebox put a "corkscrew twist" on the handle of his shovelful as it went into the fire door, straining his right arm so severely that he lost three days from work.

You may consider yourself able to do both plain and fancy firing, but you are less likely to get hurt if you stick to the plain variety. (O-28)

HOW THE LADY GOT HURT

One of our most important passenger trains, consisting of 13 cars and pulled by 2 engines, drew up in front of the depot at a subdivision terminal in the mountains. When the train stopped the manhole of the road engine tender was about 10 feet beyond the proper position for the water spout. The grade was slightly ascending in the direction the train was headed, and the engineer undertook to back the train to the correct "spot," instead of making a slow backup movement of perhaps a carlength, coming to a gradual stop, and then pulling ahead again to the correct position. His failure to follow standard practice resulted in a jerk toward the rear end of the train just at a time when this lady was putting on her dress in a sleeping car dressing room, with both hands extended above her head. She was unable to catch herself and fell to the floor of the dressing room, resulting in a bruised back and considerable muscle soreness, incapacitating her for several days.

Nearly all of our rules and standard practices have been established as a result of not one, but many, accidents or incidents in past experience. The employe who attempts to deviate from them frequently finds, as this engineer did, that it is better to follow the instructions than to try a short cut and get into trouble, for which neither excuse nor apology can be accepted. (S-7)

MECHANICAL DEPARTMENT

BADLY HURT IN FALL FROM ENGINE TANK

A mechanic and his helper were servicing a locomotive just outside the roundhouse at an intermediate terminal, shortly before noon. The helper gave signals to the mechanic in the engine cab until the engine was properly spotted, after which the mechanic in the cab set the brakes, locked the throttle, put the reverse lever on center, and then opened one of the injectors to put water in the boiler and looked out of the cab window. He was surprised to see his helper lying on the ground between the water crane and the track. He scrambled off the engine and finding the helper was apparently seriously injured, immediately called an ambulance. He was taken to the hospital where his injuries were found to be a broken right wrist, four fractured ribs and severe bruises. It is thought he will be unable to work for two months.

When he was in condition to be questioned several days later the injured man was unable to recall any of his movements immediately prior to the accident. He stated, however, that he was sure he followed his usual practice of climbing up the rear ladder of the engine tender to the walkway extending from the rear of the water cistern to the coal hopper near the front of the tank, then climbing the extra step or two on ladder irons to the manhole platform. He would then turn back the manhole cover, pick up the spout hook and pull the water spout around. After his accident it was found that the manhole cover had been turned back, but the spout hook had been undisturbed and the water spout had not been turned. It is not known whether he became dizzy and fell from the manhole platform or whether he lost his balance when he leaned over and turned the manhole cover back.

There have been similar occurrences, both to mechanical employes and locomotive firemen, and we want to call their attention to the fact that moving about on the top platform of an engine tender, or on top of the coal, is always more or less hazardous because there is nothing to hold to in order to steady the body in case of losing balance, either due to wind or insecure footing. It is no disgrace to be extremely careful when in such exposed position. (D-27)

MAINTENANCE OF WAY DEPARTMENT

WRENCH FALLS FROM MOVING MOTOR CAR

A small motor car of the FM-41 type was being used by a section foreman and his two laborers during the winter months, and on the day of the accident they had spent the morning patrolling the westbound track to the end of the section, where they finished work they had begun the previous day. At this point the two main tracks are some 200 or 300 feet apart, and a long "crossover track" of light rail extends between them for the use of track cars getting from the low grade line to the high grade line. They ran their loaded motor car over this crossover to the eastward track, intending then to travel back on that track to the end of their section to do further work. As the distance was short, the foreman was tempted to run the motor car backward, instead of turning it around as he knew he ought to do. Yielding to this temptation they started eastward with the car backing up, the tools lying in the trays at either side of the deck, being apparently secure and in proper position. However, the rear ends of such cars, (the leading end in this case), are not provided with metal panels to retain tools, in fact the tools stick out over the back end of the car. As they approached the point where they expected to stop, the foreman set the brakes and the car slowed down so rapidly that a track wrench lying on top of other tools slid off and tipped down in front of the car, striking a tie. This was a 48-inch track wrench, with jaws at one end, tapering back to a rounded shank on the handle end. This rounded point was hurled upward by the motion of the car and struck the foreman under the thighs, puncturing and tearing a bad wound in the left thigh and severely bruising the right one. He will be lucky if he is able to work within a month.

It should not be necessary to repeat here that the rules and instructions which have been issued both in circular letters and oral instructions for years prohibit running track cars backward when traveling. This, of course, is especially important when tools are carried, particularly long tools which extend over the open end of the car. If such tools slide out behind the car there is seldom any danger involved. Some of the worst injuries to track men have occurred from tools shaking out over the forward edge of a motor car. No matter how good a foreman you are, or how many years of experience you have had, you cannot afford to take a chance and run a car in backward motion under such circumstances. The fact that the man responsible in this case was seriously hurt does not minimize his fault in violating rules and taking chances of injury to others as well as himself, and it reflects no credit upon the supervisory officers who are responsible for his training. (Y-21)

FINGER MASHED IN FROG

It was necessary to change out a heavy spring rail frog of 100-pound rail section at an intermediate station, and three adjoining section gangs of two or three men each were assembled to do the work. The new frog had been left by the supply train at the side of the track about 100 feet from where it was to be put into service. The men turned it upside down and pried it forward with bars until it was up crosswise of the track resting upon the track rails, in which position it was slid along on the track to the point where the old frog was to be taken out. In order to get it laid out parallel with the track and between the rails of the turnout, it was twisted about until one end had dropped down inside the rail, and they were endeavoring to slide the other end off onto the ties. In his eagerness to assist, one man took hold of the upturned flange or base of the frog right at the tip-end, to slide it off of the track rail onto the ties. When it slid off, it dropped so quickly he could not let loose, and the end of the third finger of his left hand was caught between the corner of the frog rail and the track rail, mashing it so that it had to be amputated at the first joint. He should be able to work in two or three weeks.

It is difficult either to explain or excuse this kind of work. The roadmaster was not present, although there had been another injury on this same territory not long ago when two or three gangs working together endeavored to handle a frog in somewhat similar manner. The foreman in charge of the job, on whose section the switch was located, evidently did not have everybody lined up to keep their hands off the frog and use only bars or tongs for moving it.

This case is another reminder to all roadmasters that the handling of a heavy main track frog is a job that warrants his own personal supervision if it is at all possible for him to be there. In any event it is up to the man in charge to watch every individual move, insist upon the work being handled slowly and carefully, and to restrain men who are too eager and anxious to help and who may even be willing to take a chance in order to expedite the job. The fact that some of the men may not be accustomed to working under the foreman in charge adds to the necessity for taking unusual precautions. (Y-17)

TRIPS ON CLINKER

A section foreman and his three laborers had unloaded the tools from their motor car at the point where they were to work, and started to push the car a few rail lengths to a set-off to remove it from the track. The foreman was pushing on the right rear corner of the car, the other three men pushing on the other corners. As they walked along, the foreman stepped on a loose clinker lying in the cinder ballast and stumbled and fell, breaking his right ankle. He will be incapacitated for some six weeks. An alert, watchful man, who picks the best place to walk and watches where he is stepping, is rarely the victim of an accident like this. (K-22)

STRUCK BY A FALLING ROCK

A considerable part of our railroad runs through mountainous country, frequently in canyons and along the edge of cliffs and steep, rocky hills. In many places where the formation is such that rock slides may occur we have long stretches of "rock fence" —woven wire fencing, stretched in long panels, the ends of which are connected to the signalling circuits, so that any strain or impact from rock slides or land slides will stretch the fence and open the signal circuits, stopping all trains until it can be determined whether the track is obstructed.

Near the entrance to a tunnel a few days ago a rock slide had damaged the rock fence and a section gang was assisting a signal maintainer to restore the fence to proper position. While they were thus engaged another rock slide started coming down. The section foreman heard and saw it, called a warning, and he and his men were able to scramble out of the way, but the maintainer who was busily at work could not move quickly enough and was struck by a bounding stone, fracturing his left arm just above the wrist. We believe this is one instance in which the term "unavoidable" is justified. (Y-9)

SAND SPATTERED IN EYE

A section laborer was engaged with others in the reapplying of rail anchors to the track, and when he swung his maul to strike a rail anchor a little sand and gravel was caught by the swinging maul and spattered out as it struck the solid steel, a flake being imbedded in his right eyeball. The resulting inflamation caused him two days' loss of time under a doctor's care before he could resume duty.

It is a wise precaution, before striking track bolts, sides of angle bars or rail anchors, to scrape away the gravel or ballast so that the swinging maul or sledge will not gather dirt on the end of the tool as it hits. Less than two years ago a section foreman lost his eye entirely from a similar occurrence. Don't take a chance with your eye when the remedy is so simple. (D-6)

SAFETY AND EFFICIENCY

The following is a condensed version of an excellent paper read recently at a semi-annual meeting of maintenance of way foremen:—

Kelso, Cal., Febr. 20, 1935

Mr. Chairman and Gentlemen:

I have been requested by our unit General Chairman to prepare an outline on "Safety and Efficiency" in doing work. I don't know as I can say much in the way of safety that would enlighten you any more than what you have already received from our supervisors from time to time in their trips over the line.

Doing work in a safe way generally falls to the foreman in charge of the work. He should think over whatever he is going to do; have his mind on this particular job and the safest way possible to avoid any accident, and caution his men to do work in a safe manner, and see that they take no unnecessary chances that might result in some injury to themselves or brother workers.

I happened to get to attend a safety meeting at Kelso recently and there were some very good points explained as to why a great many accidents occur, mostly from just not thinking what you are doing, and letting your men work in a dangerous way, instead of telling them and showing them just how the work should be done. It was brought out that in two-thirds of all accidents and personal injuries, the person in trouble will say that he was not thinking what he was doing.

Take men handling ties, rails, or tools in any way: if the men are not schooled to have their minds on the work they are doing, some one is going to be injured. Lots of times we find that two men like to work together but they put in most of their time talking, perhaps about something that has happened the night before, and their minds are not on their work at all. Men of this kind should be separated and cautioned, and put with men who are more quiet and have their minds on their work. If this does not cause them to be more thoughtful and safer, they should be let out of the service before they are injured, or injure some one else.

Lots of times you will see men engaged in picking up material who will grab up an end of whatever they are handling without looking where the other fellow's fingers or toes are, and the result is that some one is injured. Foremen should look out for men of this kind; talk to them and show them just how material should be handled in safety to themselves and the other men. We will often find that these men are willing to do their work in a safe manner if we just spend a few minutes showing them how it should be done.

There will be jobs come up that require especial carefulness to avoid accident or injury to some one, and we should always pick the man most suited for this particular job. The handiest man and the safest man should be used in all cases in doing work that requires the most safety practice.

In flagging we should always send out the best and safest men, as you are depending solely on your flagman for protecting the lives of train crews and passengers as well as your own men, and you cannot risk any improper flagging protection. It is true that lots of times we would like to keep these better men to do the work we are going to do, but the foreman is on the job to show the men who are not so good, and even though it takes longer, we will get the job done in a safe way, for we know we can depend on our flagging protection while at work.

A foreman should always be on the lookout for anything lying around yards or switches that might cause tripping or stumbling injuries. In working around yards, see that all tools and materials are kept clear and in order, so train men will not fall over same. Shovels should always be turned upside down so no one will step on blade of shovel, causing some one to get hurt. I find that men who want to hold their jobs,—and most of them do,—are men who will take to the safe practice of doing work, and in the handling of material and tools, if the foreman in charge just takes a little time and explains "how and why."

In my opinion it is an unsafe practice to let a man tightening bolts stand on the same side of the rail as the nut he is tightening. As the nut gets tight he will get in line with the wrench, brace his feet together and pull towards himself, and if the wrench slips or bolt breaks, the man is sure to fall. It a man stands on opposite side of rail from bolt he is tightening, he has one foot ahead for a brace, so in case of wrench slipping or bolt breaking, he will not fall.

(Note: See another article on "Tightening Track Bolts" in this Bulletin.—Editor.)

A very unsafe practice is letting two men drive the same spike. When spiking, one man hitting over the rail, if the man hitting over rail hits a glancing blow, there is too much chance that the man on the other side of rail will get hit. I have seen three men during my time get legs broken in this manner of spiking, maul glancing while hitting over the rail. It takes no longer for each man to drive his own spike than it does for the two of them to drive first one spike, then the other, and by each man driving his own spike he is working in safety.

Safety in using motor-cars: The only way this can be accomplished is take no chances in going to work or coming in at night. Don't try to make a certain set-off to meet a train unless you are sure it is perfectly safe to do so. It is better to be ten minutes late than to take a chance on having to wait six months to get back to work—if at all—after the motor car is struck, and the further chance of getting some one hurt by not complying with safety rules.

It is very regrettable that only a short time ago we had an accident on a work train loading rails with a steam crane resulting in dismissal of the men concerned because safety was disregarded in order to save a little time. If the safe way had been followed and a little more time taken to make the move safely, the men in trouble would still be working.

We should all take a lesson from this accident and be sure we are making our next move in safety to ourselves and others. By doing this we will keep out of trouble as well as keep some one else out of trouble.

We should watch the little details of safety and do everything possible to help our roadmaster in every way, and by doing this, we will be helping ourselves. It is much better to go along with work in such a way that the roadmaster does not have to criticize us every time he comes along about something that we already should have had done.

A. A. Lough,
Section Foreman.

TIGHTENING TRACK BOLTS

At another point in this bulletin we print an article written by a track foreman, in which he expresses the opinion that a man tightening track bolts should stand on the opposite side of the rail from the nut he is tightening.

We recently heard a rather extended discussion on this subject, and it was the opinion of the majority of foremen present that it was safer to stand on the same side of the rail as the nut being tightened, especially for right-handed men. As all track bolts are made with right-hand threads, a man standing on the same side as the nut he is working on has his right arm and shoulder in direct line with the top of the long handled wrench on which he is pulling, and he is in safest position for a strong pull, with his left foot forward toward the bolt and his right foot extended backward close to the rail as he pulls. It was the opinion of these foremen that in such position there was the least danger of a man falling if the wrench should slip, or the bolt should break, and the least likelihood of him being seriously hurt even if he did fall.

Of course the most important safety feature in tightening bolts is to see that the wrenches are in first-class condition and properly fit the nut to be tightened and then see that the wrench is properly applied to the nut so that it gets a full bearing surface, with the handle of the wrench perfectly erect, so there is no tendency to slip off due to pulling on the corners of the nut shoulders.

IMPROVING THE SAFETY OF TRAINMEN

Every trainman working today has vivid recollections of the turmoil of war-time. He can easily recall also the feeling of relief following the Armistice, the gradual return of the troops and the settling down to the more normal and orderly pace of peace-time. These memories are still fresh because these things occurred seemingly such a short time ago. The railroads had just got settled down to smooth and efficient operation by 1923.

It is pretty hard for us to realize what a remarkable improvement has been made in the safety of railroad operation in these few years since then. In 1923 there were about 22 train accidents (collisions, derailments and break-downs) for each million train miles run, but this rate decreased until in 1933 there were barely 7 such accidents per million train miles. That was a decrease of 68% in ten years. In that same period personal injuries to trainmen have been reduced in frequency 65%; in other words—trainmen now are only getting hurt about one-third as often, per million hours worked, as in 1923.

Collisions and derailments are becoming rarer each year, just as hot boxes, broken wheels and drawbar failures are passing out of the picture. In like manner the elimination of weak equipment and the improvement of brake apparatus as well as increased skill in handling locomotives, are all contributing factors to this remarkable elimination of accidents and personal injuries. Is our progress from here on going to be the result of further mechanical improvements, or must we give more attention to human improvement in order to prevent the still too frequent casualties to men in train, engine and yard service? Let us think about this for a few minutes.

There was a time when coupling and uncoupling of cars and hose connections was a major cause of train service accidents but better maintenance of these devices has helped to reduce that cause. **The accidents of that kind still occurring are due almost entirely to unnecessary chance-taking by men who won't take the time to stop the movement and make sure the cars will stand still, before attempting to adjust couplers or go between the cars.**

Better types of switchstands and better maintenance of switches has gone far toward eliminating the possibility of injury handling switches. The old "ball-lever" switch stands which were so often toe-mashers have practically disappeared. In like manner, the elimination of narrow truss bridges, the gradual improvement in requiring buildings and structures to be kept to standard clearance lines, and the enforcement of regulations against working on the close clearance side of tracks has almost done away with casualties from striking fixed structures.

But there are three accident sources which cannot be very well improved by mechanical means, namely, falls from box cars and coal cars, missteps getting on and off the cars, and being struck and run over while standing or moving about on or near the track. The relative importance of these three conditions is in the order they are named. Falls from equipment are the most frequent; falls in connection with handling brakes, either while on the brake platform or getting onto it or getting off of it, and falls from ladder irons or from roofs of cars. Some of these falls are due to stopping, starting or coupling of cars. In nearly every case the victim could prevent the fall by being more alert to what is taking place around him; he can usually tell, or has reason to know, when the moving car he is riding is about to be slowed down or stopped, or started or speeded up, and he can nearly always tell when a coupling is about to be made. **The point is that too often he is not sufficiently concerned at the possibility of getting hurt to stay away from the ladders or brake platform for a few seconds, until the expected disturbance is over!**

Getting on and getting off moving equipment produces far too many casualties, not because of anything wrong with the grab iron or steps or stirrups but because of something wrong with the man at that particular moment. Too often it is because the cars are moving too fast; many trainmen rather pride themselves on their ability to catch on rapidly moving cars or cabooses and are reluctant to give the necessary signals to slow down, or to register an emphatic complaint. **Sometimes it takes more nerve to stay off, or refuse to attempt to get on and to make the train stop or interrupt the switching job, than it takes to make a snappy flying catch, with the chance of losing a leg or a life!** Oftener, however, these accidents are not because the equipment is moving too fast; in fact, it may be moving at moderate or slow speed, and because the getting on or getting off seems so easy, the trainman gives little or no thought to his movements, but makes them casually or indifferently, and he is as surprised as anybody when the accident happens. He will tell you that the cars were not moving fast, that there were no obstructions in the way, that the grab irons and steps were all right, and he can't even explain to himself why he got hurt. **He doesn't like to admit that he just wasn't paying much attention to what he was doing at the moment because it seemed so common-place!**

The "struck and run over" accidents are still with us, but are becoming much less frequent. Slowly but steadily men who work around tracks and cars are learning the invaluable lesson about keeping well in the middle between tracks, and always looking around in both directions before stepping foul of the track or crossing it. The few cases we have had in the last year or two were more often the result of a sudden impulse to dart across a track when it was known that moving cars were coming. Often, men can yield to this impulse and not get hurt, but one misstep and it is all over. The best lesson any trainman can give himself is to "set the air" on himself the next time he is tempted to run across to the other side ahead of a moving train or cars, and make himself stand still and wait until they have passed. It takes real willpower to do it, but it may add many years to your lifetime.

Don't you see, Mr. Trainman or Mr. Switchman, that the kind of mishaps that are occurring most frequently in your occupation today are the kind that can only be stopped by your own self-control. They are the kind of accidents that cannot be stopped by any ingenious mechanical contrivances, or any changes in the layouts or methods of doing work. They can't be stopped by wishing, or talking, or making rules. They can only be prevented so far as you are concerned by you simply taking hold of yourself and making yourself take those few precautions that will keep such accidents from happening to you. If everyone of you who have read this article thus far will just make a firm resolution down in your own heart that so far as you are concerned you're going to change your ways if they need it, there won't be half or one-third as many trainmen and switchmen hurt in 1935 as there were last year on our line. This is important, not for the sake of the Company, not for the sake of your supervisor, but for the sake of yourself and your loved ones. Do it!

ACCIDENTS ON OTHER RAILROADS

We have just read accounts in accident bulletins from other roads of the following occurrences:

Two carpenters were up on a scaffold applying sheathing to the inside wall of a roundhouse when the scaffold swayed away from the wall, causing both men to lose balance and fall to the frozen ground, a distance of some 10 feet, one man receiving a sprained foot and the other a fractured arm. Evidently the scaffolding was not properly secured to the wall structure.

When a locomotive equipped with train control was hurriedly ordered out of a roundhouse, several men were working on it at the same time. An electrician was checking up the headlight and electric generator, while a mechanic was under the engine repairing a driver spring. He had to disconnect some brake rods in order to work on the springs. This man failed to comply with the instructions to cut out and bleed off the brakes before disconnecting them. While he was working, the electrician slowed down the electric generator so sharply that the reduced current caused the automatic train control device to set the brakes, and the resulting movement of the brake levers caught the mechanic under the engine, crushing and killing him. He paid the supreme penalty for failure to comply with a sensible rule.

On another railroad in this territory there recently occurred one of those rare accidents which prompts us to renew a warning to you.

A number of steel cylinders of carbon dioxide gas, much the same size, shape and construction as the oxygen cylinders used in gas welding process, were being transferred from one truck to another in a warehouse. The trucks were set end to end, as the cylinders were piled lengthwise on the truck, and the man who was transferring them would simply slide a cylinder endwise from one truck to another. He says he did not drop this cylinder, but it certainly exploded, shattering boards in the truck and very badly mutilating the trucker's leg.

The report of a Federal inspector who investigated the case says that the cylinder had a defect in the shell at the point where it burst, consisting of a crack about seven-eighths of the way through the wall. It had been in service for a long time and was made before more improved processes of manufacture had been developed. Nevertheless, the accident occurred while the cylinder was being handled, and this should be a warning to everyone never to drop or unnecessarily shake or jar these high pressure cylinders.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

Jan. 1st to Feb. 28th

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Acc. Rate	Cas. Rate
1934	40	5	18	23	5,731,845	6.98	4.01
1935	38	3	8	11	6,404,227	5.93	1.72
Increase Decrease	5%	.....		52%	12%	15%	57%

Accident Prevention Bulletin

January 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—END OF YEAR

Including casualties and careful estimates of manhours for the month of December in calculating the cumulative rates for the period January 1st to December 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

General Manager

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	H. J. Plumhof	OSL	2.58	16.08
2	N. A. Williams	UPRR	2.66	16.99
3	F. N. Finch	OWR&N	3.34	19.31
4	F. H. Knickerbocker	LA&SL	3.44	19.83
	System total for 1934		2.81	17.43
	Last year for same period		2.32	13.39

Division Superintendents

1	W. H. Guild—Kans.	5	M. C. Williams—Wash.
2	E. C. Manson—OSL	6	A. L. Coey—LA&SL
3	J. E. Mulick—Nebr.	7	H. A. Connett—Ore.
4	W. C. Wolcott—Colo.	8	C. C. Barnard—Wyo.

Division Engineers

1	W. C. Perkins—Kans.	5	R. L. Adamson—LA&SL
2	R. M. Jolley—Nebr.	6	W. H. Lowther—Wyo.
3	L. V. Chausse—OSL	7	H. A. Roberts—Ore.
4	S. H. Osborne—Colo.	8	M. C. Williams—Wash.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	G. A. Jordan—Wyo.
2	P. J. Norton—OSL	7	J. F. Long—LA&SL
3	L. W. Shirley—OWR&N	8	G. R. Wilcox—Kans.
4	J. Gogerty—Omaha Shops	9	W. J. Nolan—Colo.
5	A. V. James—Nebr.	10	G. M. Walsh—Poca. Shops

DECEMBER CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	9	3	Transp.	1	8	1
OSL	—	5	—	Mech.	—	6	1
OWR&N	—	4	1	M. of W.	—	4	2
LA&SL	—	1	—	Miscel.	—	1	—
Employes	1	19	4	Employes	1	19	4
Psgrs.	—	—	—				
Pers. Car.	—	2	—				
Total	1	21	4				

CASUALTIES JANUARY 1 TO DECEMBER 31ST

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	7	96	34	Transp.	7	75	14
OSL	2	27	6	Mech.	1	47	14
OWR&N	1	30	4	M. of W.	3	33	12
LA&SL	1	20	1	Miscel.	—	18	5
Employes	11	173	45	Employes	11	173	45
Psgrs.	—	7	—				
Pers. Car.	1	3	—				
Total	12	183	45				

AT LEAST IT IS CONSISTENT

About the best that can be said for our accident record in December is that it was consistent with the last few months preceding it—consistently disappointing! The only unit of the system which closed the year with a better casualty rate than for the year before was the O-WR&N, and that is rather a left-handed compliment, as their casualty rate for 1933 was very poor.

On another page of this bulletin will be found a classification of the casualties in each of the major departments according to fundamental causes. Read it.

TRANSPORTATION DEPARTMENT

SWITCHMAN CRUSHED ON ERECTION CRANE

A big self-propelling steel erection crane being used in rebuilding a viaduct had been tied up on a spur track next to the eastward freight main line in a large terminal during the 30-minute lunch period. As the crane pilot, an elderly switchman, was returning from lunch to get the machine out on the main line for further work he was told by the assistant foreman to bring the machine out on the main line to the east side of the viaduct job on which they were working, and to have the boom headed east. When he arrived at the crane, which had the boom headed west, he pulled the uncoupling lever to separate the machine from its tender and as the engineer was standing in the cabin doorway he gave him a signal to move westward, and followed that with a signal to turn the boom around; he then started walking westward toward the main line switch about half a block away. It was a cold, raw day and he was not a fast walker; apparently when the west end of the moving crane came along beside him going in the same direction, he yielded to the traditional impulse of a switchman to ride any car going faster than his normal walk, and caught onto the sill step, holding to the grab iron on top of the flat deck and looking forward in the direction of movement. He forgot that the crane was turning the boom around as it traveled, and did not look up or about him; he was caught in that position by the back end of the cabin as the rotating movement was completed, and was badly crushed, resulting in instant death.

This switchman had been acting as pilot of this machine for many weeks, and a great many times this same movement had been made in just the same way. It was his regular practice to walk up to the switches, and none of the workmen closely associated with him can understand why he climbed on this time. He knew very well that the cabin came flush with the end of the deck when the machine was revolved, and he himself had given the signal for the revolving motion as he had so often done before.

The crane engineer in the cabin could not see the pilot on the sill step, and did not know anything was wrong until a crossing watchman ran alongside and called to him.

The rules provide that the pilot or ground man of a crane, clamshell or similar self-propelling hoist shall ride in the cabin, if he needs to ride, when the machine is traveling on long moves, as the moves around this job were short he had walked most of the time. The rebuilding of this viaduct had been in progress for nearly three months with a force of 125 to 150 men, and it had just been opened to traffic that morning; so carefully had the work been supervised that not a single lost time injury had resulted to any employe on the job until this tragic occurrence just as the work was being finished. (N-18)

A MIRACULOUS ESCAPE

Although painfully hurt, this switchman was extremely fortunate to escape permanent loss of limbs or death. Shortly before daylight his engine was making two or three switches of cars from a switching lead onto three parallel tracks, and as he was the field man he caught the leading car of 16 being shoved into clear. There were several inches of loose snow on the ground and the car he caught had some snow on the roof and on the brake step, which was at the leading end of the car. He had just stepped down onto this brake platform to set the brake when a slight run out of slack resulted in his feet slipping from the platform, and he was unable to retain his hold on the brake wheel and fell with his legs across the rail. He grabbed the angle cock and air hose, supporting most of the weight of his body, as the wheels shoved his legs along on the rail for about 12 feet before the car stopped. Luckily for him, his clothes did not catch between the wheel and rail and his injuries consisted only of bad brush burns from the sliding on the rail and the rubbing of the wheels against his thighs and he will probably resume work after a month or five weeks.

Surely this man will be a life-long teacher of safety in advocating the utmost caution in handling brakes on box cars, especially when necessary to go on the front end of the leading car for

that purpose. He knows from bitter experience that there is no job more dangerous than that. It is done successfully many times a day in all railroad yards, but the success depends entirely upon unfailing watchfulness and a firm grip and footing. When there is snow and sleet on brake platforms it is much better to hold the move when the switch is thrown, and go up and set the end brakes before the shove is made—then nobody will have to get out "on the point" while the cars are moving. (N-1)

CONDUCTOR LOSES ARM

A mixed train having two baggage cars and a coach with a number of freight cars behind them, was coming to a stop at a small station about eight o'clock in the evening to load and unload mail and express. The conductor was on the steps at the head end of the coach, and seeing that they were going to run two or three car-lengths beyond the depot before stopping, he got off the moving cars near the end of the depot. He slipped and fell close to the rail, the wheels crushing his left arm just above the elbow, necessitating amputation.

Although undoubtedly actuated by a commendable desire to expedite the work, this middle-aged conductor unnecessarily took a chance in getting off moving cars at night with this deplorable result. Nothing can restore that arm to him now; but you can save your arm or your leg or your life if you will think of him every time you are tempted to get off moving cars at night just to save a few steps or a few seconds walking back. (C-6)

ONE MISTAKE LEADS TO ANOTHER

A switch engine crew coupled their engine to a caboose and five cars of stock and shoved these cars to the yard office where they stopped to get the waybills and load the stockmen into the caboose. They then started the half-mile shove to the stockyards where the cars were to be unloaded. Three or four blocks from the yard office the conductor realized he did not have as many waybills as he had cars. As he was riding on top of the leading car he signalled the engine crew to stop, and started walking back toward the engine to tell them they would have to back up to the yard office and get the rest of the bills. When he got to the caboose, instead of climbing down the first end ladder he undertook to step around the cupola and go to the ladder nearest the engine. This type of caboose does not have a continuous handrail around the top of the cupola, but only corner irons, and he failed to throw his light along the top of the cupola as he started around. To use his expression, "He just ran out of grab-iron," and fell from the side of the cupola to the ground, receiving severe bruises which disabled him for a couple of weeks.

While his failure to see that he had bills for all of his cars before leaving the office was the primary mistake, and his failure to go down the first caboose ladder was the second mistake, the most serious error was his failure to even momentarily throw his light along the grab-irons as well as the narrow running board as he started around the cupola. Much of your success in night work depends upon the way you use your lantern. Learn to use it to safeguard your movements, as well as to give signals. (C-5)

HASTY STEP RESULTS IN BROKEN LEG

The crew of a short run turn-around local freight had arrived at their farther terminal in early morning, and the engineer, fireman, head brakeman and a carman were turning the engine on a hand-power turntable barely long enough to accommodate it. They had turned the table and engine around and the fireman stepped into the track behind the tender to put the lock bar in place, and after doing so started to step around the corner of the tank to go to the gangway. He says he thought he heard someone call "She's moving," and he turned around quickly; his foot slipped and he fell across the rail with his right leg under him, breaking a bone just above the ankle. The other men say that no one called, and the engine did not move; in fact, the engineer says he had not taken the lock pin out of the throttle nor released the brakes nor closed the cylinder cocks. There was no snow or ice on the ground or track, but everything was covered with heavy frost, which probably contributed to his slip when he made the hasty movement. (D-31)

ANOTHER FIREMAN SLIPS

This fireman was climbing from the top of his tender down into the gangway of the engine and was reaching one foot down to the next ladder iron when the top foot slipped off, resulting in a fall of about three feet. He received a badly sprained ankle which disabled him ten days or two weeks.

Nobody but you can tell whether your hand hold or footing is safe when you are climbing—but you can tell! You know by the "feel" of your hands and feet and body whether you are secure or not. Don't get in a hurry when you're climbing up or down. Know that the "feel" is right, or make it right, before you go a step further. (O-11)

YARD CLERK STRUCK BY ENGINE

It was very foggy in the early daylight of a chilly morning when a yard clerk set out up through the yard with a bunch of waybills for a terminal freight house office. This part of the yard is on a high fill, and he expected to follow the tracks until he came to a path leading down to the streets and sidewalk. He may not have been aware that he had come alongside the main track and certainly he did not hear a passenger train drifting up behind him at about 25 miles an hour. He was struck and knocked down a sloping riprapped embankment, receiving a skull fracture, several broken ribs and bad bruises which will probably disable him two months.

Every railroad man should train himself never to walk along close to a track—especially in fog, snow, rain, smoke or heavy wind. Keep clear of the track even though the walking may not be so good. (W-1)

THREE LESS AT FAULT

A telegraph operator had been to the section house early in the morning to call the section foreman out and was returning to the depot through a light snow when he slipped on covered ice and fell, dislocating his knee. (D-25)

A freight handler was assisting two others moving a crated motor weighing about 1200 lbs. on a hand truck. It was necessary to reverse the movement and in changing hands another man let his handle slip, throwing a sudden unexpected weight on the truck handle which this man was holding, and he lost five days with a sprained back. (K-21)

A fireman had been cleaning out between sections of the steam "foot-warmer" radiator in the floor of his seat deck, and was just replacing the wooden grating over it when one of the radiator compartments burst, blowing steam and dirt into his face and eyes. He was off just less than three days before resuming his regular job. This is the first occurrence of the kind on our lines, although there are many such radiators which have been in service a long time. He probably turned some cold water on the hot radiator which precipitated the breaking. (K-9)

TWO POSTAL CLERKS HURT

A railway postal clerk was sorting mail when a ten-pound box on top of a pile of bags slid off and struck his left foot, fracturing the great toe and bruising two others. The train was enroute between stations, and he as well as other members of the crew say there was no unusual or unexpected movement of the equipment. But as he will be incapacitated for a couple of weeks and the accident occurred on a moving train, it is being so reported. (D-1)

Another railway postal clerk inside his mail car went to pull the door open as the train was approaching a station but the door stuck, and without waiting to see what caused the sticking he gave it a jerk. One of the strap iron protection strips across the upper part of the door had become loose at the back end and caught against the edge of the pocket into which the door slides when opened. His jerk knocked the strip loose and the front end of it caught the back of his right hand, making a deep cut, but fortunately not damaging the tendons. He will be disabled about two weeks. (O-24)

MECHANICAL DEPARTMENT

TOE MASHED HANDLING ENGINE SPRING

A hostler was assisting three mechanics who were trying to load a heavy locomotive trailer spring at the side of an outdoor track onto a two-wheel hand truck. They got the lip of the truck under the bottom of the spring, but when they went to tip it back, it slipped and turned over, the end striking the hostler's right great toe. The resulting fracture will disable him for two or three weeks.

It was icy all around where this spring was laying, and these men spoke among themselves of the hazard, and thought they were trying to be careful. A little sand or cinders scattered all around for better footing and also on the ice where the spring would rest, before turning it up, might have saved a painful injury. (D-32)

ANOTHER SNOW AND ICE CASE

A freight carman was engaged with others cutting apart and tearing down an old steel tank car on the "tear-down track." Three or four inches of snow had fallen during the night, and in walking around the end of the tank this man stepped on a piece of smooth flat iron under the snow, and his foot slipped out from under him. He fell upon his left arm across a piece of angle iron, fracturing the forearm, which will probably take five or six weeks to heal.

If it was necessary to do this kind of work out in open in the snow, the least these men could have done in the interest of safety was to take brooms and brush away the snow from the scrap iron littered around the job so they could see the slippery pieces as they stepped about. If the scrap had been kept thrown back so as to leave a clear footing around the job, the snow would not have set a trap for this workman. The foreman's alibi that he cautioned the men to look out and be careful to avoid slipping in the snow is just a good example of short-sighted supervision. A really safe minded supervisor is not satisfied with warning about a hazard if there is any practical way to remove the hazard or avoid men having to expose themselves to it. (PS-4)

TRACTOR OPERATOR'S ERROR

No doubt you have frequently seen the short, heavy tractor cranes used in roundhouses which a skillful driver can maneuver in close places to do the heavy lifting about locomotives. A driver was trying to maneuver one of these cranes into position near a roof post between two locomotives on stall pits in a roundhouse, so he could connect up the plug to charge the battery during the noon hour. Standing on the open back end of the tractor watching the boom in front of him, with his back close to the big cylinder of the locomotive, he turned on the controller to move the machine forward, but forgot to throw the reverse lever in forward position, and when the power was turned on, the tractor moved backward, pinning him against the locomotive cylinder with the end of the steering rod against his abdomen. It was necessary to perform an operation to ascertain the extent of internal injuries which proved to be serious, and resulted in death two weeks later.

There is a very valuable lesson in this case for every man who has occasion to operate these tractors. There is always a temptation to make quick moves, but the above occurrence illustrates the importance of taking time to "see where you are at" and to make sure that your controls are properly set. (K-20)

BAD FALL FROM ENGINE TENDER

At a terminal roundhouse an engine was on the outbound track at the coal chute and a hostler attendant was up on the left running board of the cylindrical tank endeavoring to remove a marker lamp from its bracket on the rear wall of the coal hopper in order to clean the lamp. The lamp seemed to stick and he took both hands to pull it upwards. When it suddenly came loose from the tapered socket he lost his balance and fell outward from the running board, with arms outstretched, landing on both hands on the hard ground below. The fall fractured bones in both wrists which will probably disable him six weeks or more.

A little safe-mindedness would have prompted this man to get a hammer or any handy tool and rap that bracket loose from its socket rather than take the chance which he took. A little safe-mindedness inside your head is worth far more than strong arms and a sturdy back. In fact it will enable you to keep those strong arms and back safe from just such injuries as this. (Y-17)

FALLS INTO ASH PIT

A fire-knocker who has worked around a terminal coal chute for several years was cleaning the ash pan on an engine about eleven o'clock at night and needed a short handled hoe. He walked around the back end of the engine, and thinking he knew exactly where he was and where the end of the ashpit was, he started to cross the track and fell in the pit a few feet from its end. He received bruises which kept him from work for four days.

The vicinity of this accident is flood-lighted but there was a shadow back of the engine tank which darkened the end of the ashpit. This man was so familiar with the location where he has worked many nights, that he took no precaution to assure that he was back beyond the end of the pit but started boldly across, thinking he knew. Many a man has met with accident on the railroad from thinking he knew, and failing to pause a moment or take an extra glance which really makes the difference between knowing and not knowing. (Y-8)

CARMAN HIT BY COUPLER SPRING

A carman was stooped down under the end of a car, assisting in putting a new drawbar assembly in place. They had the coupler and yoke started up between the draft arms, supported by a jack, and he was trying to put the plates and springs in place when a spring slipped out, dropped to the ground and bounced against his left ankle. He did not think it amounted to much but next morning the ankle was so badly swollen he had to lay off two days doctoring it before he could resume his regular work. He is an experienced man and had no one but himself to blame for letting the spring drop. (O-9)

MACHINIST SPRAINS ANKLE

A machinist walked along the store house platform rapidly, and as he stepped from the level portion to the inclined ramp at the end of the platform he turned his ankle so badly as to fracture the tip of one of the bones and will be off duty for six weeks. (S-4)

MAINTENANCE OF WAY DEPARTMENT

A NOVEMBER CASE

A section laborer at an outlaying station was tightening a track bolt with an ordinary track wrench and was pulling hard when his hand slipped off striking himself in the groin. The bruise resulted in considerable swelling and pain, but was such that the doctor was willing for him to return to duty if he would avoid heavy exertion, such as lifting.

Contrary to our instructions, the roadmaster returned this man to his section, instructing the foreman that the man should only be assigned light work such as cleaning up around the houses, and when the roadmaster found a few days later that this man was not going out with the gang at all, but merely "puttering" around the bunkhouse, he did not promptly report the further disability. A few days later a safety inspector checking up on the case reported the circumstances, enabling us to make a correct report to the I. C. C. The roadmaster was drastically reprimanded and his superior officers criticised for failure to check up the case, but in consideration of the roadmaster's long service he was permitted to retain his position after reimbursing the company for all wages paid the injured man during the two weeks he did not go out to work with the gang. (S-25)

SECTION FOREMAN BADLY HURT

A section gang on a single track main line closed up their work at the end of the day and walked about 450 feet to their motor car, which was set off on a temporary landing made of cross ties. They put the car on the track, loaded the small wooden frame and pivot which they used as a "turntable," and backed up to the point of work to load up their tools. While thus engaged they saw a signal indication showing that a train was approaching some distance behind them. The foreman told one of his men to go back and flag the train, and he and the other men got on the car and ran it forward to the point where they had previously set off, where they replaced their turntable and got their car off the track. The train, which was a light engine, was unable to stop short of this point after being flagged, and the men did not have time to throw their turntable out of the track. When the engine struck the turntable pieces of flying debris hit the section foreman, fracturing his upper left arm and his left hip at the joint, which will probably disable him for three months.

Investigation developed that the car could have been taken off the track at the point where they first stopped in ample time to get both the track car and the turntable clear of the approaching engine. As the track in this vicinity is very crooked, the man on the engine could not see the flagman until they were almost upon him, and the short distance was not sufficient to permit stopping the engine before striking the turntable. Under the rules in effect in this territory the foreman was not required to send out a flagman when the signals indicated no train approaching, and he says he took prompt action when the signal changed. He realizes now that too much time was lost running back to the previous point before undertaking to remove his car from the track. (O-17)

TWO SLIPS CAUSE SERIOUS HURTS

Section men were instructed to assist a shipper loading horses at our stock pens. A car was loaded and the inside door plank had been put in place when the shipper concluded to add two more horses to the load. At his request, a sectionman climbed up on the chute gate to reach over and lift the door plank, when his foot slipped and he fell backward between the loading platform and the car, fracturing his left arm which will disable him for six weeks or more. (D-7)

A crossing watchman was in his shanty about 4:00 p. m. when he saw a train approaching his crossing and hastily started out the doorway to protect traffic. It was snowing and he slipped on the light snow covering the wooden platform in front of the shanty, breaking a bone in his left ankle. He will probably be unable to work for a month. (W-3)

A little less haste and a little more deliberation when you are working around snow, frost or icy conditions, will save you from such injuries.

EYE INJURED FROM STRIKING CLAW BAR

A section laborer used a spike maul to strike the heel of a claw bar held by another man while repairing a switch. A flake from the roughened surface in the middle of the heel of the claw bar penetrated the left eye of the man swinging the maul, inflicting a

very serious injury. The flake of steel was successfully removed by the surgeon, and it is hoped the sight of the eye can be preserved.

Accidents of this kind are so rare we have not required goggles to be worn when necessary to hit a claw bar with a sledge or maul, but have required the claw bars to be kept ground off to avoid any mushrooming or fraying of the edges. Flakes like this almost invariably fly at right angle to the point of contact between the maul and the claw bar. If the striker and the man holding the claw bar will keep their faces a little out of that right angle line they can almost certainly avoid the possibility of such an accident as this. Just remember that such flakes fly in practically the same direction as water would if there was a drop of it at the point where the bar was hit, and if you keep your face out of the line of spatter of water it will be out of the line of any flying flakes from the face of the claw bar. (Y-15)

TWO LOST TIME INJURIES

A B&B helper had an unusual mishap while working with an air hammer equipped with a hammer drill cutting through frost in digging a trench. He held to the drill handle, forcing the bit down into the earth by hammer blows until it went through the frost, then jerked it up with his hands to set it at a new place. It stuck a little and he gave another jerk, and this time it came out of the hole and smacked down on his big toe. The tip of the toe was mashed, but the surgeon was able to dress it so he could resume work before the expiration of three days. (Y-7)

A steel bridgeman was carrying two planks from a material yard to his outfit cars when he stepped on ice concealed by a thin layer of snow, slipped and fell, straining his back. He was off a day and a half. (Y-16)

MISCELLANEOUS DEPARTMENTS

A DC&H Department supply car messenger was unloading supplies from the side door of his car to a truck on the depot platform. He had two empty three-gallon milk cans in his hands when he slipped on the threshold and fell between the car and the truck, bruising his knee and chest badly, and disabling him for three or four weeks. The milk cans prevented him from catching himself readily when he slipped. (S-1)

A CONDUCTOR'S LETTER

The editor of this bulletin was cheered and encouraged by a letter received just before the holidays from a conductor, who is not a close friend, but is one of the many working acquaintances made in past years. His letter so strongly carriers the fine spirit of many loyal Union Pacific men that we publish it below:

"Dear Mr. Warfel:

Having worked with you many times in work train service, when you were a roadmaster, and knowing you as I do, I want to tell you it gives me great sadness as I look over our safety performance for the year of 1934. I have been in the service of this great institution for 22 years and have always tried to render a safe, dependable, courteous and friendly service; but it looks as if during the year 1934 we men in the Transportation Department have failed you in the safe performance of our duties. I can see no good reason why we should ever indulge in any unsafe practice, as we have the safest and best institution to work for, with the best equipment, the best working conditions and the best officers in the world. I am going to give you my word of honor that during the year of 1935 I will strive body, mind and soul to render that safe and efficient service which this great railroad so rightfully and justly deserves from every employe.

SAFETY, LOYALTY, COURTESY and FRIENDSHIP is the Union Pacific code of service, and may we all unite to preserve that sacred code and encourage every other employe to do so.

Wishing you a happy, prosperous and more successful New Year," etc.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

Jan. 1st to Dec. 31st

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Acc. Rate	Cas. Rate
1933	198	21	63	84	35,934,953	5.51	2.34
1934	239	30	53	83	39,428,965	6.06	2.11
Increase	21%	.....		—	10%	10%	
Decrease				1%			10%

GENERAL ANALYSIS OF EMPLOYE CASUALTIES 1934

Before going into a classification of casualties in the major departments of the railroad for the year, the department totals appearing in the first column on the front page are again quoted:

	F	E	LT	Total
Transp, Dept.	7	75	14	96
Mech. Dept.	1	47	14	62
M. of W. Dept.	3	33	12	48
Miscl. Depts.	0	18	5	23
Total	11	173	45	229

TRANSPORTATION DEPARTMENT

In the Transportation Department the total of 96 casualties may be classified as follows:

(Class)

(1) 25 due to injured man's own clumsiness or lack of dexterity in handling himself.

(2) 34 due to injured man's failure to observe and take precautions against a plainly evident hazard.

(3) 7 casualties wholly and solely the fault of a fellow employe.

(4) 9 due to joint negligence of the injured man and one or more fellow employes.

(5) 2 due to unsafe methods or conditions which alert supervision should have observed and corrected or provided against.

(6) 19 due to no cause reasonably chargeable to either employes or supervision. (Includes such cases as trucks or autos struck at crossings or driven into trains, derailments, break-in-twos caused by concealed defects which could not be detected by careful inspection, etc.)

MECHANICAL DEPARTMENT

The total of 62 employe casualties among Mechanical Department employes are classified as follows:

(1) 22 due to injured man's own clumsiness or lack of skill in handling himself.

(2) 18 due to injured man's failure to observe and take precautions against plainly evident hazards.

(5) 21 due to unsafe methods or conditions which alert supervision should have observed and corrected or protected against before accident resulted.

(6) 1 due to no cause reasonably chargeable to either employes or supervision.

MAINTENANCE OF WAY DEPARTMENT

The 48 casualties to Maintenance of Way Department employes are classified as follows:

(1) 16 due to injured man's own clumsiness, carelessness or lack of skill in handling himself.

(2) 8 due to injured man's failure to observe and take precautions against a plainly evident hazard.

(4) 4 due chiefly to joint negligence of injured man and fellow employe.

(5) 17 due to unsafe methods or conditions which alert supervision should have observed and corrected or protected against.

(6) 3 due to no cause reasonably chargeable to employes or supervision.

At first glance one might think that the first two classes in these lists might be combined, but there is a big difference between them. Some men are just naturally less adept and skillful in the use of their hands and feet than others, and such men are more likely than others to have slips, falls and fumbles; but such men may also have thoughtful minds and may more readily see the hazard or impropriety in the setup of a job than the other fellow. We have had many cases of men who were very skillful and dexterous with their hands but could not see a perfectly obvious hazard. Thus, a brakeman who is adept at always catching on a rapidly moving car or caboose will undertake to do so right in front of a switch stand, or soft ground, or an icy place. While both Class 1 and Class 2 cases are the fault of the injured man, there is really a great difference in the personal characteristics of the employes so classified, and a smart supervisor will recognize that entirely different methods are necessary with these two kinds of men. More than half of all the injuries in each of the three major departments fall in Class 1 and Class 2.

A most disconcerting feature, particularly in the Mechanical and Maintenance of Way departments, is the number of casualties which occurred because unsafe methods or conditions had either not been recognized by supervisors and foremen, or they had not evolved any improvement in methods or required any correction of conditions.

The supervisors in each department are being furnished lists of the casualties classified under each of the above headings. No doubt some of them will be inclined to argue about the classification of cases under their own jurisdiction, but we have tried to be fair and unbiased in our analysis. We hope that it will prompt supervisors to give more serious thought and study to the constructive side of accident prevention.

Accident Prevention Bulletin

August 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—SEVENTH MONTH

Including casualties and careful estimates on man-hours for the month of July in calculating the cumulative rates for the period January 1st to July 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

Rank	Name	General Manager Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	1.39	9.93
2	F. H. Knickerbocker	LA&SL	2.46	14.75
3	N. A. Williams	UPRR	2.52	15.26
4	H. J. Plumhof	OSL	2.94	18.78
	System total for 1935		2.42	15.07
	Last year for same period		2.36	14.82

Division Superintendents

1	M. C. Williams—Wash.	5	A. L. Coey—LA&SL
2	H. A. Connett—Ore.	6	C. P. Cahill—Colo.
3	J. E. Mulick—Nebr.	7	E. C. Manson—OSL
4	W. H. Guild—Kans.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	C. W. Pitts—Colo.
2	R. L. Adamson—LA&SL	6	L. V. Chausse—OSL
3	W. C. Perkins—Kans.	7	R. M. Jolley—Nebr.
4	L. W. Althof—Ore.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	J. F. Long—LA&SL	6	A. V. James—Nebr.
2	L. W. Shirley—OWR&N	7	C. F. Spicka—Chey. Shops
3	J. Gogerty—Omaha Shops	8	G. R. Wilcox—Kans.
4	W. J. Nolan—Colo.	8	P. J. Norton—OSL
5	G. M. Walsh—Poca. Shops	10	G. A. Jordan—Wyo.

JULY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	9	3	Transp.	—	6	2
OSL	1	3	1	Mech.	—	3	2
OWR&N	—	3	1	M. of W.	2	4	1
LA&SL	—	1	—	Miscel.	—	3	—
Employes	2	16	5	Employes	2	16	5
Psgrs.	—	—	—				
Pers. Car.	—	—	—				
Total	2	16	5				

CASUALTIES JANUARY 1 TO AUGUST 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	5	53	12	Transp.	2	36	12
OSL	1	20	4	Mech.	1	19	3
OWR&N	—	8	7	M. of W.	3	27	7
LA&SL	—	10	—	Miscel.	—	9	1
Employes	6	91	23	Employes	6	91	23
Psgrs.	—	4	—				
Pers. Car.	—	3	—				
Total	6	98	23				

July is another month which will show up badly on our accident record, by recording 2 fatalities, 16 reportable and 5 lost time injuries, of which 15 injuries may be classed as avoidable with reasonable care on the part of the party injured, and 8 as unavoidable in so far as the party injured was concerned. Carelessness is a word frequently used and thought by many as inapplicable in expressing the cause of a personal injury. Careless is defined as heedless, inattentive, thoughtless or unobservant—and the avoidable injuries occurring during this month can be classed under one or the other of these definitions of the word careless in justice to the party injured. The Safety Department implores you to be attentive to the work you are doing; careful of the manner in which you are doing it; thoughtful of the consequences of using wrong methods or violating rules by yourself and fellow employes and observant of conditions surrounding a piece of work, that you or your fellow workers may not sustain a personal injury.

TRANSPORTATION DEPARTMENT

PROBABLY NOT USING LIGHT

A switchman had ridden a cut of cars in to a track, and after applying the hand brake, came down side ladder and dropped off while cars were moving at a speed estimated to be about two miles per hour. He states that he stepped on some small object on the ground which rolled, resulting in the sprain of his right ankle. The ground conditions at this point were good, except that immediately after accident a small piece of rock and a small piece of coal, each about the size of an egg, were found, and it is possible that he stepped on one of these small objects. The accident happened at 12:45 AM, on a clear, dark night, and emphasizes the necessity for men getting off of cars during the hours of darkness using their lanterns to see that the ground where they are stepping is clear of obstructions, either large or small. (O-3)

GETTING OFF HEAD END FOOTBOARD

At about 5:35 AM, on a clear, bright morning, a switchman sprained his left ankle while getting off the front footboard of an engine, just before the engine came to a full stop, at a road crossing. He claimed he caught his foot between crossing plank and footboard of engine, which action caused the heel of his shoe to be loosened and his ankle, or instep injured. (K-4)

WEEDS CAUSE INJURY

A westbound train was picking up a car of wheat located at the east end of an elevator track, and in making this move it was necessary to couple into and shove 3 cars spotted at a middle elevator to a connection with the car to be put into train. The caboose had stopped on main track, about opposite the middle elevator and the rear brakeman walked across to a point near the end of the 3 cars to be moved. The elevator track at this point was in a slight cut, with ground sloping easily to the top of track tie, and at point where the brakeman was standing, the ground was about 6 inches higher than top of tie, and covered with heavy growth of weeds, ranging in height from 2½ to 3½ feet. Indications on ground show that while brakeman was standing preparatory to mounting side ladder of car and ride in to connection with car at elevator, he trampled the weeds backward at right angles to track and was standing on weed stems. As the car he intended to ride approached he raised his right foot and extended his arms to reach grabiron when his left foot slipped out from under him and he sat down with his heel against the track rail. Before he could pull his foot away from the rail it was caught under moving wheel and so injured as to require removal of all toes of his left foot. Had this brakeman not disturbed the weeds by bending them backward from the track, or had he bent them parallel with the track, it is probable he would not have been injured as there was no other contributory cause to this injury and the cars were moving slowly. (K-8)

AN UNUSUAL ACCIDENT

A freight extra west was moving at a speed of about 40 miles per hour between switches at a station, when brakes went into emergency, breaking the knuckle on back of tank of engine, and in west end of second car from engine where the air hose parted. The conductor of this train was required to register at the last stop made, and after registering he proceeded to front end of the train and instead of riding on the engine he opened the doors on both sides of the first car back of the engine, hooking them back in open position, and got inside of the car to ride to the next stop, a distance of about 33 miles. The cause of the first car breaking away from the engine, and the second car away from the first car, was the safety bar coming down on 63rd car in train and breaking branch air pipe on car immediately following, causing brakes to be set in emergency. The conductor states he was riding in the center of the car when he felt a jar, and went to the side door looking ahead, he observed engine some eight or ten car lengths ahead of the train at which time the car in which he was riding was moving slowly. He looked back and at that time the rear of his train struck his car with force sufficient to throw him headlong out of side door of car, into the gravel between main line and passing track, entailing three fractured vertebrae and deep cut on right forehead. Instructions were in effect on this territory and known to this conductor, that trainmen must not ride inside of closed cars on freight trains, and this conductor violated such instructions. (D-11)

FIREMAN NOT CAREFUL

The crew was called for a first section of a regular freight train and engine crew reported on duty at 3:30 PM. After the fireman had looked at his fire and tried the stoker, he procured the two green flags required to display signals for a following section of this train, and to put them in place he got out of the side cab window, with the two green flags on their staffs in his right hand. He had taken one or two steps on foot rail alongside of cab holding on to handrail over eaves of cab, when he reached the point of turn at front of cab where he attempted to take a new hold with his left hand and evidently let go of his right hand hold on railing, as he fell to the ground before having reached the front of cab where he would have stepped over to running board alongside the boiler. The fireman's only explanation is that he was attempting this move with two flags in one hand and failed to get complete grip on handhold. The foot rail alongside of the cab of engine is narrow and presents insecure footing under the best conditions and should never be used under any circumstances except in extreme emergency. We repeat cautionary advice to firemen: **When necessary to put up signals on front of engine, get out of cab on side ladder and climb up front of engine.** Had this been done, in this case, an accident resulting in two fractured wrists would have been prevented. (O-35)

LOOKING OUT CUPOLA WINDOW

A rear brakeman, riding in the cupola of his caboose, opened the window to observe train while rounding a curve, when a piece of hot sand from engine lodged in his right eye. He reported to the company doctor on arrival at terminal and was told he could work back to the home terminal. As his eye pained him on arriving at home terminal he went to the doctor who removed a particle of sand and put a patch over his eye, holding him off duty for a period of 2½ days. We sometimes wonder why employes who have duties requiring them to look out of cupola windows or from rear platform of caboose, do not provide themselves with clear glass goggles to avoid painful injuries of this character. (O-20)

CLOSE CLEARANCE

A switchman working in a terminal yard had assisted in putting cars in on track No. 2 and knew the cars had close clearance for cars moving on track No. 3. To make a cut in cars he was working, he got on side ladder of a car and was operating cut lever to open knuckle with his foot, requiring several attempts before knuckle opened. While doing this he was watching the knuckle and failed to look ahead, he was close to the standing car when he jumped off the side ladder, and in swinging around struck the end of the standing car and suffered injuries consisting of dislocation of outer end of right collar bone, bruises on left side and partial fracture or crack at lower edge of pelvis bone. It was known by all members of crew that this car on east end of No. 2 track was at close clearance and it was their intention to move it into clear with the completion of switching cut of cars they were handling. A case of not foreseeing the possibilities of personal injury in the setup of cars they had recently made. (N-47)

SQUIRT HOSE CAUSES BURN

While picking up cars in a yard, the fireman put on injector and at same time slightly opened squirt hose valve. He then got down on deck to use squirt hose and when he pulled hose up from container, live steam and water splashed on both ankles, resulting in burns which incapacitated him for 2 days and 4 hours. This injury might be classed as thoughtlessness on the part of the fireman, but as thoughtlessness is a synonym for carelessness, we are classifying it as carelessness. (N-53)

MECHANICAL DEPARTMENT

NOT USING SAFETY APPLIANCE

A machinist apprentice was putting an air drum on the left side of an engine, using the standard air drum lifting clamp, shown on sketch No. 143 Standard Shop Practices. Drum had been lifted from the floor by overhead crane and moved about 20 feet, and was in position in brackets just ahead of air pump and machinist apprentice took hold of lifting clamp to make a slight adjustment in the drum, when it slipped out of the clamp and in falling struck the shoulder of another machinist apprentice who had just gotten out of engine pit, resulting in injuries which may cause several months loss of time. Investigation developed air drum slipped because safety chains which are provided to avoid such accidents were not being used in this case. It further developed that machinist apprentice handling the air drum had not been properly instructed by his supervisor as to how to handle a job of this kind. Apparently a case of a foreman being inattentive to his duties as a supervisor of other employes. (PS-9)

FOOT INJURY WHILE HANDLING ICE

A car inspector was assisting in replenishing ice in cooler of an ice-activated cooling system on a passenger car, and was carrying the ice in his hand from a small truck located about 10 feet from the car, when a piece of ice, about 10 lbs. in weight, fell from the 75 lb. piece he was carrying, striking the instep bone of his left foot and breaking same. This happened about 10:30 P. M. on a station platform and truck was standing in shadow of car. The 10 lb. piece might have been loose at the time car inspector picked up the ice but on account of the light not being good, such condition was not observed. Had this ice been handled with regular ice tongs this injury probably would not have occurred. (K-17)

CONTRIBUTORY NEGLIGENCE

In carrying out a program of rebuilding steel underframe wooden top box cars into all-steel cars, at one of

our larger shops, a gang of carmen was engaged in dismantling the wooden body of a car. The car being worked on had wooden sides and roof with steel ends and a carman was inside of the car burning off rivetheads with a torch, preparatory to removing metal parts from the car. He had burned off the rivetheads on inside of the metal car end on the top ladder tread, and the second tread from the roof, but the rivets had not been punched out and ladder treads removed. A carman helper assigned to removing the running boards from the roof of the car, to get to his work, went up the end ladder and when he reached the second grabiron from the roof, it pulled loose and the carman helper fell to the ground injuring his right ankle. Movable ladders were available but definite instructions as to their use while stripping cars had not been put into effect and men were using side or end ladders on cars for getting on roof when portable ladders were not in place. Also carmen had instructions that when burning off rivetheads of ladder treads they must immediately remove the treads. The lack of definite instructions as to use of portable ladders and violation of instructions about removing ladder treads when cut loose, made a combination which caused this injury. (OS-12)

USING UNSAFE METHODS UNTIL INJURED

A machinist working in a roundhouse, removing the link from the right side of an engine, with radius bar, hanger pin bolts, link block and link block pin removed and the link resting on small wooden block on top of the radius bar, desired to raise the link slightly to release pressure on the wooden block and allow link to drop to the floor. To line up wooden block so it would be released the helper placed bar under lower end of link which was close to the floor in order to raise the link slightly, and at this time machinist placed right hand between cheek plate and link to align block so link would drop out, when link tipped forward slightly and slipped off bar, dropping to the floor, catching machinist's finger in a bolt hole in top of link, cutting off end of third finger of right hand. This machinist is an old employe and has been engaged in this class of work for the past 12 years; was familiar with the operation he was doing and had performed the same operation in this manner numerous times before. This appears to be a case of previously used method establishing a practice which proved to be unsafe when some little thing went wrong. Watch out for unsafe practices. (K-34)

MAINTENANCE OF WAY DEPARTMENT

LACK OF DEFINITE UNDERSTANDING

A train of 59 combination side and bottom dump steel cars, loaded with gravel, was being unloaded eastwardly in double track territory, under the supervision of a roadmaster and with the foremen and laborers of two section gangs, they had unloaded 31 cars out of the first 34 of the string; 3 loaded cars being scattered through the eastwardly 17 cars, for the reason the bottom hoppers could not be opened on these 3 cars and gang did not have equipment with them for opening side dumps when unloading. To clear eastward track for a passenger train, work train was headed to the west end of a center passing track, which track was equipped with crossovers to main track located in the center of passing track. Roadmaster told conductor to set out the 34 cars of this string, east of the crossover and bring his engine back on the remaining 25 cars which they would unload on No. 2 track west of the station in the afternoon. He then had his men partially unwind the bottom dumps on the 25 cars to save time in handling while dumping and as it was noontime they went to lunch. During the noon period someone made the remark that the first car ahead of the caboose could not be center dumped and evidently the conductor overheard this remark. After lunch string of 25 cars was moved out and unloaded on eastward track, unloading being completed about 3:30 PM and all cars unloaded either through bottom or side dumps. Prior to arrival at station, roadmaster told work train conductor that he wanted to unload the 3 loaded cars in the east end of the string of 34, setting to the east of the crossover, on No. 1 track about one-quarter mile west of the west switch of station. The string of 25 empty cars was pulled in at the west end of center passing track and stopped short of the crossover; the engine was put through the crossover and down the main track to the head end of the string of 34 cars, and during this move, conductor went to the station to get a line-up for work on westbound track. When he came out of depot he walked down the south side of the string of empty cars and called to the roadmaster who was supervising the men closing the bottom dumps and side dumps on the 25 cars, asking "shall I take the whole string"—to which the roadmaster answered in effect—"it makes no difference to me if you want to handle that way", evidently having in mind the string of 34 cars. Roadmaster also told the conductor at this time that men were working closing dumps on the 34 cars and to warn them before engine coupled onto these cars which the conductor did. The head brakeman looked west from the engine cab, saw the signals were up which to him indicated the west switch was open and he proceeded east on the westbound track to flag. The engineer saw these signals but to him they indicated the crossover was open. To the conductor his query about taking the whole string evidently meant all the cars between engine and caboose and in explanation of why he wanted to take out the 25 empty cars in this move, he stated he thought the car next to the caboose had not been unloaded although he had been present and was checking the unloading of these 25 cars. The conductor gave the fireman a back-up signal and the engineer believing he was to move through crossover, started back as though both switches were lined for the move. The conductor got on west car of the string and when some two or three cars from the 25, jumped off and gave a stop signal but the 34 coupled into the 25 with sufficient force to move the 25 about a car length with the air set. Section men were closing dumps on the cars at the time conductor gave his signal and they could be plainly seen by him. A man was working in the fourth car ahead of the caboose, punching out rocks—the foreman reached under this car to clear a rock at the time coupling was made resulting in his being knocked down and a wheel passing over his right arm near the shoulder, and due to loss of blood and shock he died in the hospital about 15 hours later. A regrettable accident brought about by difference of understanding as to what constituted the whole string. Had the roadmaster asked the conductor "What do you mean by the whole string?" and received explanation the situation would have been corrected and a man's life saved. Or had the conductor, on observing men were closing dumps on the string of 25 cars, determined all men were in the clear before making coupling, as required by the rules, this life would have been saved. Clear and definite understanding as to how work is to be done, and what moves are to be made, between roadmaster, supervisors or foremen directing the work, and the trainmen must be had and these with no chance of misunderstanding if we are going to keep away from accidents and fatalities of this kind. (N-8)

NOT WRITING-DOWN LINE-UP

On a branch line in mountain territory, on account of short visibility, due to curvatures, section foremen have been equipped with portable telephones and are permitted to operate over their section on line-ups received from the dispatchers, this method of handling being necessary and train movements few in number. For morning information the dispatcher puts out the line-up to the operator of a station located about midway on this branch, who goes on duty at 7:00 AM, and the foreman calls this operator on telephone and gets the line-up from him. A foreman desiring to move west called up the operator for line-up and received it exactly as given by the dispatcher, and in this line-up he was advised that an extra-east had left the station at which the operator was located and some 30 miles west of the point where foreman received line-up at 7:10 AM. Operator also states that after giving foreman the line-up he called him by name and said—"This extra-east that left at 7:10 is a caboose-hop." The foreman went to his gang and when asked if he had a line-up said "yes, everything is clear." One of his men said "did you get anything on the extra train that went up about midnight last night?" The foreman said "nothing on it", although this was the caboose-hop to which his particular attention had been called. Gang left the tool house about 8:05 AM and had moved about 8 miles when engine of extra-east was observed about 300 feet away, in a cut on a curve. The four section men got off without falling or without injury but the section foreman evidently tried to get his car in back motion and had got the driving mechanism of a No. 40 Fairbanks-Morse car in reverse at the time he was hit. Car was derailed and it moved some 30 or 40 feet before foreman was thrown off. Foreman received injuries from which he died two hours later.

Instructions require foremen to write down line-ups as received from the operator and had the roadmaster checked his foremen to know this was being done the foreman fatally injured could not have overlooked the fact that he was going against an eastward light extra and protected accordingly. (D-17)

TRACK MOTOR CAR FAILURE

A section foreman with three men was operating his motor car on his section when it was derailed and one of the laborers was sufficiently injured to be off duty for two days. Derailment was caused by flange breaking off the left front wheel of motor car and with a rolled steel wheel the worn condition sufficient to cause the flange to break off should be readily visible to anyone inspecting the wheel of a car. (D-20)

STRAINED BACK LIFTING MOTOR CAR

A track motor car, weighing about 1100 lbs. and loaded with tools and supplies to the amount of about 435 lbs. was being moved off passing track to main line. In lifting front end of car onto main track, foreman and two men were on the front end and two men standing on the lifting bar at the rear end. One of the laborers spoke of hurting his back and on being examined by the doctor it was determined he had strained a joint and he was incapacitated for several days. If foremen will instruct their men as to how to lift any object—that is by keeping their backs reasonably straight and bending their knees, using their legs in the lift, instead of bending over and using the back in the lift, they will prevent accidents of this kind. (O-14)

CREOSOTE CAUSES BURN

On a rail relaying job, following the adzing machine, creosote oil is applied to the adzed part of the tie, this being followed by application of tie plates on which the rail is laid. An extra gang laborer, adjusting a tie plate on a tie which had been freshly creosoted to make the plate fit rail, struck the plate with the spike maul and creosote splashed into his eyes resulting in a slight burn and the loss of two days time. (Y-37)

STRINGER ON FOOT

On a branch line, stringers which had been taken out of a bridge, were being trucked into a side track and loaded on a flat car. Some 30 stringers had been loaded and two carpenters were engaged in moving a piece of 8 inch by 17 inch by 15 ft. stringer endwise while standing on edge to place it in position for shipment on the car. Both men were using cant hooks in this operation and for some cause unknown, stringer turned over on its side and caught the foot of one of the carpenters breaking instep bone, resulting in reportable injury. No conditions entered into this injury except as made by the injured man. (N-38)

RECEIVED BURNS REMOVING RADIATOR CAP

The operator of an air compressor used in connection with rail relaying work, undertook to remove radiator cap on radiator serving gas engine which operates the compressor, while the radiator was boiling. This radiator cap was fitted with a trigger arrangement and prior to moving the trigger, compressor operator warned other men to look out but as the cap released he was unable to get away from the steam and hot water and suffered burned back from neck to hip which incapacitated him for a week. Removing radiator caps from hot radiators is always dangerous and should never be done until radiator has cooled down sufficiently to permit it being done in safety. (Y-71)

MISCELLANEOUS

A tie bucker, while engaged in unloading and piling ties at a timber treating plant, fell from the top of pile and in falling pulled a tie off the edge of the pile and the tie fell on and caused fracture of his right leg. This man was working alone and had built the ties up to the 19th tier; he had piled 10 ties on the top of this tier, after which he climbed to top of the pile to straighten these ties with a pickaroon, and while engaged in straightening a tie the pickaroon struck a knot, causing it to release from the tie just as he pulled which caused him to lose balance and fall. (D-3)

A store department foreman and crane operator with four laborers was engaged in unloading 45 ft. piling from car to skids—two laborers being in the car straightening the end loops and two on the ground with short pike poles guiding the piling to position. Piling was three tiers high, one of the laborers working on the ground failed to reach the end of the pile with his four foot pike pole and stepped on one of the pilings in the bottom tier of the skid. His foot slipped off injuring his right knee. He states that about 10:00 PM it began to hurt him. He went to the doctor who put him in the hospital for recovery from a sprained knee. If this injury occurred as claimed there was no contributing cause and it resulted from carelessness on the part of the man himself. (Y-32)

A kitchen helper, in cleaning steam table in kitchen of a restaurant, in some manner accidentally upset one of the steam table jars and fearing that it would fall to the floor he made a quick grab for it and his hand came in contact with a French knife, which was lying on the steam table, cutting center knuckle of right hand. Helper states he did not see this knife at the time and did not know that it was lying on the steam table. It resulted in an injury which incapacitated this helper for several days. (S-5)

Accident Prevention Bulletin

June 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—FIFTH MONTH

Including casualties and careful estimates of manhours for the month of May in calculating the cumulative rates for the period January 1st to May 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

General Manager

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	1.01	6.81
2	N. A. Williams	UPRR	2.19	12.74
3	F. H. Knickerbocker	LA&SL	2.11	14.04
4	H. J. Plumhof	OSL	3.24	17.85
	System total for 1935		2.20	12.94
	Last year for same period		2.11	12.83

Division Superintendents

1	H. A. Connett—Ore.	5	C. P. Cahill—Colo.
2	J. E. Mulick—Nebr.	6	A. L. Coey—LA&SL
3	M. C. Williams—Wash.	7	E. C. Manson—OSL
4	W. H. Guild—Kans.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	R. M. Jolley—Nebr.
2	C. W. Pitts—Colo.	6	L. V. Chausse—OSL
3	R. L. Adamson—LA&SL	7	W. C. Perkins—Kans.
4	L. W. Althof—Ore.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	J. Gogerty—Omaha Shops	6	G. R. Wilcox—Kans.
2	J. F. Long—LA&SL	7	A. V. James—Nebr.
3	G. M. Walsh—Poca. Shops	8	W. J. Nolan—Colo.
4	G. A. Jordan—Wyo.	9	P. J. Norton—OSL
5	L. W. Shirley—OWR&N	10	C. F. Spicka—Chey. Shops

MAY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	4	3	Transp.	—	6	1
OSL	—	5	—	Mech.	—	2	—
OWR&N	—	1	—	M. of W.	—	1	2
LA&SL	—	—	—	Miscel.	—	1	—
Employes	—	10	3	Employes	—	10	3
Psgrs.	—	1	—				
Pers Car.	—	—	—				
Total	—	11	3				

CASUALTIES JANUARY 1 TO JUNE 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	2	32	8	Trans.	2	24	7
OSL	—	16	3	Mech.	—	12	1
OWR&N	—	4	2	M. of W.	—	16	4
LA&SL	—	6	—	Miscel.	—	6	1
Employes	2	58	13	Employes	2	58	13
Psgrs.	—	4	—				
Pers. Car.	—	—	—				
Total	2	62	13				

BETTER, BUT NOT GOOD

Accidents occurring during the month of May on the System totaled 11 reportable, including 1 passenger, and 3 lost time, as against 15 reportable and 1 lost time during April. The Washington Division again went free of accidents resulting in personal injuries.

Considering the additional forces working in May over forces in April, due to seasonal increase particularly in the Maintenance of Way Department, the reduction per million manhours is slightly better than indicated by the foregoing comparison. Also, we were fortunate in not having any accidents during May which resulted in permanent disability to an employe or passenger.

Transportation Department

SWITCH STAND INVOLVED

A switchman, with 18 years' service, was lining a switch for movement of a car into a track seldom used. He found the switch stand hard to throw, by reason of accumulation of cinders and dirt in the switch points, and after partially cleaning out the points, he pulled the lever of the Low Star switch stand around nearly to place, and to get lever into socket took hold of top of stand with his hand and pushed lever into place with his foot, resulting in strained ligaments in the calf of his right leg and an estimated disability of some three weeks. A little more care in cleaning out the switch points, so the lever could have been placed in socket by hand power, might have prevented this injury. Warning: Old practices often indulged in many times give unexpected results. (K-1)

TRAINS PARTING

A train moving upgrade on one of our mountain divisions parted by reason of drawbar pulling out of first car behind engine, air going into emergency, causing a brakeman riding in the caboose to be thrown to the floor, spraining his back and neck, which disabled him for a period of about ten days. (Y-9)

Another train on another mountain division, moving at a speed estimated to be about 15 miles per hour, parted by reason of yoke rivets shearing and allowing drawbar to pull out of 10th car from head end of train. With the air going into emergency, a brakeman in the caboose was thrown against a table set up over the seat box and sustained a fractured rib, with estimated disability of some two to three weeks. (C-2)

FELL INTO COAL PIT

At a meat packing plant at one of our main terminals there is a coal pit in connection with the plant, with a depth of about 8 feet and widths varying from 16 to 24 feet. This pit is equipped with a track about 100 feet long for bottom unloading of coal cars, and ends close to a brick building, being served on the right hand side with a planked walk. The pit had not been used for storage of coal for a period of about two years, but track is used for unloading of cars into buildings located on both sides of pit.

At about 8:30 P. M. on a dark night, with a light rain falling, a switch crew headed into the spur track serving the coal pit to pick up two cars. By reason of curvature

in track it was necessary for switchman to work on the fireman's side in order to pass signals, and on this side there was no plank walk over pit. Coupling was made to the first car and switchman walked ahead to make the joint on the first of two cars standing over the coal pit. When the coupling was made, he started forward to disconnect coupling between these two cars and stepped into coal pit, falling about eight feet, resulting in severe bruises and fracture of left hip and a bone in the left hand, with probable disability of six weeks.

Brakeman involved states that he was under the impression the walk over the pit was on the fireman's side, and that while he had his light burning and was looking where he was stepping, the shadows cast by the buildings did not allow his light to penetrate the darkness sufficiently to show him that he was stepping into the coal pit opening. (N-9)

FELL FROM TOP OF CAR

A switchman, with nine years' service in one of our main terminals, had as part of his work the duty of seeing that sufficient brakes were set on certain cuts of cars to hold them on the spot. While performing this duty he noticed the brakes on two end cars of a string of 18 were not set sufficiently tight and he went on top at the north end of the north car and walked to the south end where the brake ends of both cars were located. He set the brake on the north car and leaving his light on the south end of the north car, stepped over to the other brake platform and set that brake. He states that after setting brake he started to get onto top of car, when the brake let loose and he became overbalanced and fell backwards to the ground, resulting in bruises and a fracture of his right ankle. This switchman states he had not taken hold of the grab iron on top of car, and it is probable that had he done so he would not have become overbalanced. (D-15)

PLATFORM FOULED TRACK

At one of our terminals, top icing of PFE cars is done at a privately owned icing plant, equipped with an icing dock having extension hinged apron platforms to reach from the dock to top of car, the extension platforms being equipped for hooking back in an upright position when not in use. A car had been spotted at the far end of this icing platform for icing during the day, and the night switching crew went in after it with the engine foreman riding on lead footboard. After making coupling, the engine foreman walked to forward end of car on engineman's side and between car and icing platform. He got on ladder end of car, gave proceed signal, and started to climb ladder to top of car as car was being shoved northward. Just as he reached top of car with his head and shoulders, he came in contact with the hinged apron platform which was down and he was knocked off car to ground, causing serious injury to back and probability of being incapacitated for about 60 days.

This appears to be a case of carelessness on the part of some employe, not directly connected with the railroad company, in leaving an apron platform in an improper position. (D-60)

PASSENGER STUMBLED

A passenger on one of our through trains got off train at a wayside station after the other passengers had alighted and Pullman Porter in charge of car had gone into the car to perform some duty he had overlooked. The wayside station was well equipped with brick platform and the train stopped there for some five minutes for inspection. This passenger in detraining, claimed he was injured by stubbing his toe on the step box and falling on the platform, causing fracture of his right ankle and injury to his right knee. (S-1)

FREIGHT HOUSE TRUCKER INJURED

At a terminal freight house a shipment of gas pipe was received, the pipe varying in length from 5 to 12 feet, and in size from 1 to 4 inches. The pipe was being moved with two-wheeled trucks into a car, and the particular load causing the injury consisted of six pieces, two being 4-inch, and the balance smaller. In moving truck onto bridge between platform and car, the pipe shifted and operator lowered truck to floor, stepped around to left side of track to straighten load, when one piece of 4 inch pipe rolled off onto the floor, rebounding and striking him on the right foot, resulting in bruise to great toe and a lost time injury of 2½ days. This injury apparently resulted from overloading or using the wrong type of truck in transporting this pipe. (K-5)

Mechanical Department

INJURED CHANGING TRUCKS

A carman and helper had taken a truck out from under a freight car and moved the replacement truck in position. Car had been lowered with air jacks but center plates did not mesh and top plate was resting on rim of lower plate. The carman attempted to place two pieces of oak blocking under sidebearing of car and had one finger on top of the oak blocks. As he was making this move the center plates dropped into position, causing the oak blocks to flip upward, with result that his finger was caught between oak block and side sill of car, causing an injury which may result in loss of portion of finger. The load had been taken off the jacks and was on center plates at the time of injury and carman's helper had warned him the jack had been released. Carman also states that he was aware he was taking a chance. A plain case of violating safety rules which provide that men must not get under cars for work of this character unless the carbodies are supported on jacks or trestles. (O-21)

WEDGE FALLS ON FOOT

A pipe fitter helper was assisting pipe fitter in putting a piece of new jacket on barrel of underside of boiler. The piece of jacket as shaped did not fit, and the assistant pipe fitter took this piece of jacket to a work bench to make necessary correction. The work bench was 35 inches high, and on it was an old piece of brass wedge of considerable size. The pipe fitter helper used this wedge in reshaping the piece of metal jacket. In doing this, he pulled the wedge over close to the edge of the work bench so that it might be in a better position for his work, and when through shaping the piece of boiler jacket steel he picked it up, at which time the brass wedge fell on his left foot, fracturing small bones and causing an injury which resulted in several days loss of time. A little care in working around and with heavy materials pays good dividends. (D-46)

Maintenance of Way Department

CONTRIBUTORY NEGLIGENCE

On work connected with the renewal of a new truss bridge, a temporary trestle bridge had been erected over a foundation excavation. This bridge was being removed and the track rail on same being taken up with a dragline machine. The dragline helper had the duty of placing the rail tongs on the rail and giving operator signals for lifting and swinging rail into clear. At the the same time several laborers were engaged nearby in bunching the track ties from which the rail had been removed for purpose of attaching chain sling to be used by the dragline machine in clearing ties from the deck of the bridge. A laborer was working on his knees, with his back to the machine, bunching ties, apparently not paying attention to the position he was getting into with relation to the rail being handled. Dragline operator states positively that he looked to see if everyone was in the clear before giving signal to lift rail, but evidently laborer moved backward after the dragline helper's observation, and as rail lifted it swung slowly and struck laborer's left foot, resulting in a bruise which incapacitated him for work for a period of two days. This injury can be classed as resulting from contributory negligence by the laborer and dragline helper, both being about equally involved. (Y-6)

STEPPED ON TRACK RAIL

An extra gang laborer moving from point of work to motor car preparatory to going to home point stepped on top of a track rail, slipped and fell, cutting a small gash in right knee. His wound was dressed by a company doctor and he was then taken home. The kneecap became inflamed and after working one-half day subsequent to the accident it was necessary for this laborer to lay off, and it is now estimated his disability will be about ten days. During the month of May on the territory on which this accident occurred, the slogan was: "Do not step on track rails." (D-20)

TRACK CAR INJURY

An extra gang laborer, with eight other employes, was engaged in handling a motor car from section tool house to the track. The runway to the tool house had been equipped with rails, but one rail had been removed and one wheel of the car was down between two ties, making it necessary to raise the front end of the car to clear the ties. The laborer injured was at the front end of the car lifting, and as the other men shoved the car it moved forward quickly, catching this man's foot, resulting in a bruise and the loss of the nail from the great toe. The foreman of this gang was close by engaged in unlocking the trailer for the motor car, and evidently failed to note that the laborer had stepped around in front of the car to make the lift to clear the wheel. This may be a case of foreman not looking, or looking and not seeing, but anyway it resulted in a lost time accident of three days. (Y-26)

Miscellaneous Departments

AUTOMOBILE INVOLVED

A crossing watchman was engaged in protecting traffic while a freight train was moving over crossing, when an automobile, being driven by a man 82 years of age, struck the watchman fracturing his right leg below the hip joint. The automobile then ran into the side of train, striking the fourth car back of engine, turned around, ran over four tracks where there were no crossing planks and did not stop until had run about one-half block south of crossing in the direction from which it had previously approached. In Police Court the automobile driver pleaded guilty to reckless driving and was fined. But this in no way makes up for the suffering and inconvenience the crossing watchman will have to endure. Moral: Always anticipate that an automobile driver may do the unexpected thing. (D-36)

CORRECTION

In the April Bulletin, under heading "Two Rail Injuries," the first injury was reported as a loss of time of 2 days and 6 hours. Developments show that after doctor's release the laborer involved did not go to work the following day and this accident will be tabulated in the I. C. C. records as a reportable injury. (Y-36-Apr)

OSL EMPLOYES WIN THE NATIONAL SAFETY COUNCIL AWARD

For the year 1934 the employes of the Oregon Short Line Railroad Company had the lowest casualty rate of the Class I Railroads of the United States, classified under "Group C", which means all railroads having an exposure of between 8 and 20 million manhours per year, and there are 24 such railroads.

For the purpose of equalizing contestants the National Safety Council has grouped the railroads as follows:

Class I Standard Railroads

Group A—50,000,000 or more manhours
B—20,000,000 to 50,000,000 manhours
C— 8,000,000 to 20,000,000 manhours
D— 3,000,000 to 8,000,000 manhours
E— 1,000,000 to 3,000,000 manhours
F—Less than 1,000,000 manhours

The Union Pacific System is not considered as a unit in this contest but as 4 separate units, and the UP unit comes under Group B, the OSL and OWR&N under Group C and the LA&SL under Group D.

The ratings of the respective units in the National Safety Contest for the year 1934, were as follows:

		Casualties per Million Manhours
Group B—UP	2nd Place	2.66
Group C—OSL	1st Place	2.58
Group C—OWR&N	3rd Place	3.36
Group D—LA&SL	3rd Place	3.44

In making its annual award, the National Safety Council invites all of the contest winners (of which there are 9 in number) to assemble their respective representatives at some designated city for presentation of the trophy of victory; in this case a bronze plaque of special design having the figure of Victory carrying a "Universal Safety" shield and presenting a wreath to a group of railroad employes whose occupations are readily determined by equipment or tools symbolic of their work, and this design being followed by appropriate wording indicating what the award represents.

For this presentation a banquet was held in a private dining room of the Pennsylvania Hotel in New York City, and there were some 70 railroad representatives in attendance. After an appropriate address by Mr. J. E. Long, President of the National Safety Council, Mr. Lew R. Palmer, Secretary of the Committee of Awards made the trophy presentations to the respective winners. Mr. F. W. Charske, Chairman of the Executive Committee of

the Union Pacific System, with timely remarks, received the plaque for the OSL employes and then turned it over to Mr. S. H. Osborne, Asst. to Executive Vice President, who had been designated to represent the employes of the Oregon Short Line at this meeting.

WARM WEATHER PRECAUTION

During the extremely warm weather there is a possibility of employes suffering from heat exhaustion and there is also the danger of sunstroke. There is a difference between the two in symptoms and treatment. In order that you may be more familiar with this difference and the action to take in either case, the following information is given:

HOW TO TELL HEAT EXHAUSTION:

(1) Skin cold. Sweating profuse.
(2) Face pale (sometimes purplish).
(3) Chilly and often has cramps.
(4) Dizziness—feeling of sickness—the person may vomit.
(5) Usually acts dazed.
(6) Sighs when breathing.
(7) Partial or complete collapse.

WHAT TO DO:

(1) Remove to a quiet, cool place.
(2) Loosen tight clothing.
(3) Lay flat on back with head low.
(4) Keep patient warm.
(5) When conscious and able to drink, give hot coffee or water, but not ice water.
(6) Call a doctor.

HOW TO TELL SUNSTROKE:

(1) Skin dry and hot to the touch.
(2) Face red.
(3) High fever.
(4) Dizziness, raging headache with shooting pains in the head.
(5) Breathing hard and loud.
(6) May have convulsions.

WHAT TO DO:

(1) Remove to shady spot where it is cool.
(2) Strip to the underclothes.
(3) Lay on back—head and shoulders raised.
(4) Put ice or cold wet cloths on the head.
(5) Cool body with water or wet cloths. Avoid sudden shocks.
(6) When conscious and able to drink, give person cold but not ice water.
(7) No stimulants.
(8) Call a doctor.

RAILROAD WEEK

Although June 10th to 15th has been designated as Railroad Week on the Western Railroads—every week should be Railroad Week and the benefits derived and enthusiasm aroused by the demonstrations of that particular week should be carried on throughout the year.

BASIC SAFETY IDEAS

Taken from National Safety Council's News Letter of May, 1935

Broadly speaking, there are about two fundamental questions which may be asked regarding human behavior. Why do individuals act as they do? Can we make people do as we want them to? The idea that human action is motivated basically by rational processes is essentially artificial and unreal. Most people act as they do because they have already developed conscious or unconscious attitudes concerning most subjects. Attitudes as factors in human action may be characterized as follows:

1. They tend always to express themselves in action.
2. They tend to have a strong emotional coloring.
3. They do not involve rational processes as an antecedent to action.
4. They may be conscious or unconscious.
5. Attitudes are associated with and are easily released by symbols, signs, slogans, phrases, catchwords and pictures in individual cases to build up a stereotype or mental picture in which the attitude is personalized and characterized in graphic form. Newspapers make large use of this mechanism in appeal to group attitudes. Slogans must always appeal to attitudes. Whoever stopped to analyze a slogan? It is what the slogan implies or suggests that makes it effective.
6. Where fundamental attitudes are involved the response is used in proportion to the intensity of the stimulus.
7. Attitudes may be developed as a result of a single experience or they may be established by a systematic and persistent propaganda. An example of the first is the establishment of a negative attitude toward an individual or race as a result of a single experience. In the second case, our attitude toward safety may be established as a result of a continuous presentation of materials arranged in dramatic and dynamic settings suggesting health, well-being, efficiency and the like.

The objective of every safety program should be the modification of individuals' attitudes so that everyone will become safety minded . . . Propaganda is the technique involved in bringing about changes in mental attitudes . . . Propaganda campaigns may be divided into three classes: first, the campaign may be directed to already existing attitudes; second, the objective may be the establishment of new attitudes; and third, opposing attitudes must be overcome

—S. N. Stevens, Professor of Psychology, Northwestern University.

The above extract from Dr. Stevens' analysis of safety is well worth reading a second and third time. It is a very concise description of "Safety Mindedness." We want our readers of this bulletin to study it and then compare its theories with the practices we have had in effect on the Union Pacific since July 1st, 1912, when it became apparent to all concerned that something had to be done to eliminate the prevailing idea previous to that time that the railroad or the factory was no place for the person who was afraid to take a chance. Since that time, through the application of safety principles the decrease in deaths and injuries has been surprising, but this is no place to stop. The psychological moment has arrived for each employe of this system to become safety minded to such an extent that we will from now on entirely eliminate carelessness, chance taking, horse play, shirking duties and responsibilities, etc., so that all of our employes will be "at Work" instead of some being "At Rest" or recuperating from some disabling injury, and through the thorough understanding of the fundamentals of Safety First and the application of the principles and rules of safety which have been issued on this system from time to time, hold the position as the safest railroad system in the world. It can easily be done at this time if we will all show an interest in our slogan of Safety First and work together to bring into effect the third class of propaganda mentioned by Dr. Stevens, that of overcoming the opposing attitudes, which includes carelessness, chance taking and the like.

Accident Prevention Bulletin

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April 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—THIRD MONTH

Including casualties and careful estimates of manhours for the month of March in calculating the cumulative rates for the period of January 1st to March 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

Rank	Name	General Manager Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	.91	7.72
2	N. A. Williams	UPRR	2.16	13.61
3	H. J. Plumhof	OSL	2.87	17.20
4	F. H. Knickerbocker	LA&SL	3.11	18.67
	System total for 1935		2.21	13.95
	Last year for same period		2.37	13.31

Division Superintendents

1	H. A. Connett—Ore.	5	A. L. Coey—LA&SL
2	J. E. Mulick—Nebr.	6	E. C. Manson—OSL
3	W. H. Guild—Kans.	7	C. P. Cahill—Colo.
4	M. C. Williams—Wash.	8	C. C. Barnard—Wyo.

Division Engineers

1	H. A. Roberts—Ore.	5	L. V. Chausse—OSL
2	M. C. Williams—Wash.	6	R. L. Adamson—LA&SL
3	S. H. Osborne—Colo.	7	W. C. Perkins—Kans.
4	R. M. Jolley—Nebr.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	L. W. Shirley—OWR&N	6	A. V. James—Nebr.
2	J. Gogerty—Omaha Shops	7	G. A. Jordan—Wyo.
3	J. F. Long—LA&SL	8	G. R. Wilcox—Kans.
4	W. J. Nolan—Colo.	9	C. F. Spicka—Chey. Shops
5	G. M. Walsh—Poca. Shops	10	P. J. Norton—OSL

MARCH CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	1	1	Transp.	1	4	2
OSL	—	4	1	Mech.	—	1	—
OWR&N	—	—	—	M. of W.	—	1	—
LA&SL	—	3	—	Miscel.	—	2	—
Employes	1	8	2	Employes	1	8	2
Psgrs.	—	1	—				
Pers. Car.	—	—	—				
Total	1	9	2				

CASUALTIES JANUARY 1 TO APRIL 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	2	17	5	Transp.	2	14	6
OSL	—	8	3	Mech.	—	6	1
OWR&N	—	2	2	M. of W.	—	9	2
LA&SL	—	5	—	Miscel.	—	3	1
Employes	2	32	10	Employes	2	32	10
Psgrs.	—	3	—				
Pers. Car.	—	—	—				
Total	2	35	10				

NOT GOOD ENOUGH

When we compare our accidents with the country at large, taking into that comparison all industries as well as home and traffic accidents, the number of deaths and injuries per thousand employes is considerably better than the general average, but there are still too many reportable accidents on the property as will be seen from the following list of those occurring during the month of March 1935. There was 1 fatal, 9 reportable, including 1 passenger, and 2 lost time casualties. The Nebraska, Colorado and Washington Divisions as well as the main shops at Omaha, Cheyenne and Pocatello have a clear record for the month, leaving this list of 12 accidents to be divided among the other five divisions.

The Transportation Department accounts for more than 60% of the total employe casualties for the month.

TRANSPORTATION DEPARTMENT

STEPPED TOO CLOSE TO THE MAIN TRACK

We can not say just why a trainmaster on one of our divisions placed himself in a dangerous position with fatal results. A freight train parted near the rear end while entering a yard, breaking the draw bar on one of the cars. The forward portion of the train was taken to the station and this officer accompanied a switch engine which was sent to bring in the car with the damaged draw bar and the rear end of the train. All employes involved in the work of attaching the switch engine to the rear of the parted train got off the switch engine on the right hand side of the eastward main track where they were safe from trains passing on the westward main track. During the preparations for making this coupling, the trainmaster stepped over to a point close to the forward end of the bad-order car, between the main tracks and shortly thereafter stepped back close enough to the westward track to be struck and killed by a westbound freight train which he failed to hear approaching.

This accident impressively brings to the attention of all the necessity for being constantly on the alert for their own safety as well as that of others while working on or near live tracks, particularly main tracks over which trains operate frequently and some of them at high speed.

The constant avoidance of proximity to main lines is a practice that will become more or less of a safety habit and in contrast, a disregard of such a practice is liable, sooner or later, in some absent-minded moment to result seriously or fatally.

A lesson may well be drawn from this case and see to it at all times that you are standing in a safe place before you permit yourself or others to become so engrossed in the work that a misstep might result seriously. (Y-29)

COUPLING NOT PROPERLY MADE.

A freight train was made up in a division terminal yard with a passenger engine (breaking in) coupled on ahead of the regular road engine to double head this train for the first sixty miles out of the terminal. Before train had moved ten miles, the locking block on rear coupler of the leading engine worked up out of place separating the engines. The leading engine moved away from the second engine and parted the air hose which caused an emergency application of the air brakes and the resultant quick stop of the train caused the conductor and one brakeman who were in the caboose to suffer some bruises and sprains which caused the brakeman to lose ten days from work and the conductor lost two and one half days. These two injuries could have been avoided if the employe who coupled the engines together had paid enough attention to his work to see that the locking block in each coupler was properly seated when the coupling was made. (D-1)

PERFORMING HIS CUSTOMARY DUTY

A conductor was performing his regular duty very much the same as he had done for years. He had boarded cars and alighted from them again many times without mishap, but this time he evidently did not have his mind centered on what he was doing, or probably the train was moving a little faster than he estimated when he got on and in placing his foot on the caboose step a muscle in the calf of his leg was strained and some of the muscle fibres were ruptured. He lost six days from work. Learn to place your foot properly and safely on a caboose step or a car stirrup and do it that same way every time and if the train is moving too fast—DO NOT TRY TO BOARD IT. (D-39)

CLOSE CLEARANCE

Occasionally a trainman or yardman is injured due to being caught between a car and a platform or between a car and some building where there is insufficient room. Employes have been repeatedly cautioned and instructed, at our safety meetings, to watch

out for close quarters and it has also been brought to their attention through this bulletin. This month we have a case where a switchman in a division terminal was riding the end ladder of a car being moved to an industry platform where the clearance is a little less than ten inches between the center of a car and the platform due to a curve in the track. The foreman called to this switchman telling him not to get between the car and platform, but in less than a minute he did just what he had been told not to do. He was injured about the chest and died five days later. This switchman had ten years experience and he was fully aware of the conditions in the locality where he was working, and the accident was due to his failure to observe Time Table Rule 899 and failing to heed a warning given him just before the accident occurred. (D-46)

NOT PREPARED

A freight train was approaching a small station when the engineer reduced speed for a short distance and then started to increase speed. This caused a jerk and a brakeman who was riding on the caboose step was not prepared for the change in speed, and struck his side against the hand rail fracturing a rib. It is hard to realize that a man who has chosen train service for his vocation would be caught riding on the outside step of a caboose without having a firm grip on the hand railing to protect himself from any sudden start or stop. (S-28)

CLIMBING UP BROKEN STEPS

While a road train was doing station work at a small station the platform of the caboose was pulled away from the caboose body. After this occurred the engineer joined other members of the crew in inspecting the damaged equipment and climbed up on the broken steps of the damaged platform. As might be expected under the circumstances, the steps gave way under his feet and he fell and bruised his side. There were no bones broken, but he lost two days from his work. (K-24)

INJURY TO PASSENGER

A train was being held for the late arrival of a lady passenger at a small station. She had hurried quite a distance before reaching the train and after the brakeman had assisted her up the coach steps and the train started, she appeared to be exhausted and fell against the doorway of the car, bruising her hip. According to the doctor's report she was disabled four days. This is an unfortunate occurrence as it not only keeps the division, but the whole unit on which it occurred from having a clear record for the month. (O-15)

MECHANICAL DEPARTMENT

FOOT SLIPPED OFF GRAB IRON

A car inspector climbed onto the roof of a box car to pass a signal for the removal of a blue flag and on returning to the ground his foot slipped from one of the grab irons in the side ladder of this car and he fell, fracturing his left arm. Again we repeat "Watch your step!" (Y-26)

MAINTENANCE OF WAY DEPARTMENT

FOOT SLIPPED—KNEE CAP DISLOCATED

While a work train was unloading ties along the track, two laborers were lifting a tie to throw it over the side of the car when one of these men slipped on a creosoted tie and dislocated his right knee cap. He was disabled eight days. Although this man advised that this same knee had been injured some time ago and was not in the best of condition, the disability occurred while he was engaged in railroad work and we must count it as a reportable accident. (D-37)

MISCELLANEOUS DEPARTMENTS

LOSES END OF INDEX FINGER

A district lineman was riding on a track motor car which was moving about 15 miles per hour when he undertook to rearrange some of the tools he had loaded onto the car. In reaching for a hand axe he claims he reached too far and had the end of his right index finger caught between the drive chain and sprocket which crushed the last joint of his finger to such an extent that it had to be amputated and he will lose about thirty days from work. (S-13)

USING THE WRONG SAW

A Store Department employe who had several years of experience with power saws wanted to rip a small piece of wood and used a circular saw. He could not use the guide as he was making a diagonal cut, therefore for safety he should have used a band saw. His right thumb was caught by the circular saw and one joint of the thumb was taken off. (S-31)

We are quoting herewith an article contributed by one of our conductors at a safety meeting a short time ago—

"Safety First in the beginning was a gigantic undertaking, which involved huge sums of money, persistence and determination on the part of those interested in elimination of accidents which were causing an enormous number of deaths and maimed or broken bodies. The efforts of this humanitarian organization should be highly complimented by all workers, and regarded with the greatest esteem; for, through their tireless efforts in our behalf, the list of casualties have diminished to a more sensible ratio.

Education in Safety First of the workers was a seven league step in the right direction, assisted by employer and employes it has developed to a degree of safety mindedness heretofore unknown.

We still have a long way to go, and only through continued cooperation can we expect to succeed. If Carelessness was abolished over night, one of the major causes of accidents would be eliminated, thereby dropping the ratio again to a new low.

An employe who goes on duty with a clear mind, sufficient rest and who is on the alert, has a better chance of returning home to those he loves and who love him than an employe whose mind is clouded by some domestic trouble, insufficient rest, financial worries, physical or mental sickness and last but not least an ordinary dreamer.

Too much stress cannot be used in urging employes who feel ill to remain at home, regardless of financial conditions, as a mind or body that is sick cannot function properly and an accident might then render you useless to your employer or yourself forever. Experience is a great teacher and sometimes a very costly one; so why not benefit through the experience of others by reading the Accident Prevention Bulletin thoroughly at no cost whatever, but at an enormous profit to ourselves.

Safety First has its enemies who are relentless and powerful, reinforced by thousands of invisible henchmen that prey upon us ready to administer a decisive blow the minute we drop our guard or become careless. This sort of warfare cannot continue. Safety minded warriors are slowly but surely closing around themselves an impregnable armour of pure 100% Safety First steel that any general should be proud to command.

I am sure the morale of the employes is instrumental in prompting the cause of Safety First by accepting the suggestions of safety from the employer in the manner in which it is given. Do not ridicule, or encourage hilarity unless the author employes a humorous side and be sure that it was given for the humor intended. Officials interested in this phase of work can promote a feeling of sincerity and will be rewarded by their employes by determination. To be publicly criticised for a suggestion given sincerely is detrimental to the cause; and we should most certainly be solicitous of the success of two words that should contribute so much to our own individual welfare.

I have tried to present a few facts and their compensation for the strict adherence to the rules pertaining to Safety First. Safety First is the medium through which we can receive a semi-monthly dividend, particularly in the recreation we enjoy and which is most essential to the stimulation of body and mind, which thereby creates alertness and coordination of the body which is one of the best preventives for accidents that is known.

In repetition, strict adherence to rules, advice taken from those interested in our welfare and our own personal interests are of paramount importance; and when our usefulness is ended, we will find we possess a body not broken or maimed, but one sound in every respect and within, a feeling of peace and contentment.

(Sgd) W. I. SONDERGARD,
Conductor, U. P. R. R."

The following is a contribution from one of our Car Inspectors at another meeting.

By Herbert L. Price, Car Inspector, Union Pacific Railroad Company, Salina, Kansas, March 4th, 1935.

The greatest quality in a nation is justice. The greatest quality in a man is loyalty. Where there is loyalty there is Safety, and where there is Safety, there is progress. Treachery marks the careless man, and loyalty marks the good man. Loyalty to your country, your employer, your friends, your fellow workmen, your beliefs, your ancestry, your promises and your purposes—that makes life worth while. Loyalty is courage, devotion and Safety.

Loyalty to your country or to your employing officer, while essential to every-day life, is not the only loyalty or the most important. Faithfulness and truth; Safety in the affairs of every-day life, are as important to the existence and progress of human

beings or business as fresh air and water to the human body. Safety in a man is like the strength of steel in a tall building, like the added power of the steel rod in reinforced concrete.

The best thing one man can say of another is, I know that I can trust him. Trust is based on loyalty and safety. Safety should be taught and preached to children, emphasizing its importance in their relations with each other in the family, and their relations with the outside world. A loyal and safe man will do this. Happy is the family strongly united in loyalty and safety, each knowing that he can depend on and trust the other.

Instinctively men stimulate loyalty and safety, create it artificially in secret societies, with special pass words, serious oaths and dreadful penalties for violation of the oaths. The man who works safely, even though exposed to all kinds of weather and conditions, is sustained by the loyalty of his family. Devotion to family, sacrificing personal ambition, finding complete happiness in providing for the future welfare of your family, and future generations, is loyalty beyond doubt.

Standards of loyalty vary as man's individual status varies, but each man, true to his own self, is a loyal and safe man. Safety is in our hearts. We know when we obey its orders. We know when we disobey them. The unsafe man feels his unsafeness with shame.

The safe man finds in safety his reward greater than profit, and well he may for safety is true nobility. The loyal, safe man ranks high in the world. Loyalty to your ideals, persistent determination to do the best that is in you, never giving way to ease or self-indulgence, as the easiest way—that is loyalty and safety.

There are better men and big men in the great crowd, but where there is loyalty and safety, there is no discouraged man. Life is worth while so long as a man is true to himself, loyal to his better instincts, and obedient to his conscience. Times may be good or bad, life may be hard or easy, but for the loyal and safe man who knows that he is doing the best he can do, in the safest way possible, there is no downcast heart.

CROSSING WATCHMAN'S ELECTRIC LANTERN

The hooded, oil-burning lanterns which have been standard for crossing watchmen on our System Lines for a long time have been replaced by electric lanterns. For some time the Signal and Safety Departments have been endeavoring to get an efficient electric lantern which would give a much more easily seen and arrestive indication to highway traffic when swung across the streets. As there was no lantern on the market for this purpose it was necessary to experiment for some time before a satisfactory lamp was developed. As a result of these experiments an order was finally placed with a manufacturer for production of a sufficient quantity to supply all crossings on the railroad, and these have been received and put in service.

In spite of decided increases, both in the number of trains run and the amount of vehicular traffic during 1934, our crossing accident and casualty ratios have been held down close to the record of the previous year. This has been due in large measure to the almost uniformly excellent whistle and bell warning by enginemen, the care with which switching movements are protected, and the alertness and faithfulness of the crossing watchmen. Through the use of these new electric lamps we hope to make still further improvement in the prevention of night accidents on crossings.

The following article in regard to unloading gasoline is taken from the Bureau of Explosives Accident Bulletin No. 111 and should be read by all who may have anything to do with the handling of gasoline in large quantities. The location and date of the fire in question is not shown but it occurred during the hot weather last year and it is well to read this and keep it in mind and help prevent future fires of like nature. This one is very much like a gasoline fire which occurred at Ardmore, Oklahoma, in 1915 which caused the deaths of 47 persons and injuries to 524 others.

"Disasters of this kind are due to boiling over of the contents of the tank when the manhole cover is removed while pressure exists in the tank.

Our records show that at least 32 such accidents have occurred and that this is the first one since October 1, 1927, and since the Commission made mandatory the use of manhole closures of a type which cannot be removed while the interior of the tank is subjected to pressure. This requirement applies to all tank cars used for the shipment of inflammable liquids having a vapor pressure in excess of 16 pounds per square inch, absolute at 100° Fahr. (about one and one-half pounds gauge).

Other rules of the Commission, such as requiring the domes of tank cars to be placarded with three special placards warning against removal of manhole cover while gas pressure exists in tank (see paragraph 245 of the regulations) and requiring the tank car to be relieved of all interior pressure before manhole cover is removed [see paragraph 265 (c) and (d)], have been in effect for a great many years. Failure to observe this warning or to follow the procedure prescribed was the cause of all accidents of this type which have occurred since the one at Ardmore, Okla., and the three which preceded it.

In the case under consideration the material in the car, as far as we are able to determine, had a vapor pressure not exceeding 16 pounds per square inch, absolute at 100° Fahr. and therefore was not required to be shipped in a tank car bearing the special dome placards and a manhole cover of the type required in paragraph 243(c) of the Commission's regulations. However, the records show that the dome of this car was placarded, although not required as the vapor pressure is reported to have been only 12 pounds per square inch, absolute, at 100° Fahr. (these placards are required only when the pressure exceeds 16 pounds, absolute, at 100° Fahr.). Apparently these warning placards did not remind the unloader of paragraphs 265(c) and (d), which apply to all tank car shipments of inflammable liquids, for there is no evidence to show that he followed the procedure laid down in these rules. It is particularly important to observe these rules during periods of high atmospheric temperature such as existed at the time of this accident.

Two witnesses saw the unloader remove the manhole cover and gasoline and vapor shoot into the air to a height of 25 feet. Ignition and explosion occurred a few seconds later. It is not known what ignited the vapor, but it probably was either the hot fire in a cook stove in a house 100 feet away, or a pipe being smoked by a man about the same distance away, as the house was damaged and the man burned to death. Three children also died from burns and the unloader was blown off the car a distance of about 75 feet and burned to death.

This tragedy might well be brought to the attention of every person engaged in the handling of dangerous articles as convincing evidence that there is a good reason back of each rule in the Commission's regulations and that these rules should be learned and obeyed not because they are the law but because they are just plain common sense instructions based on the mutual efforts and the wide experience of carriers, shippers, and users of dangerous articles for the sole purpose of safeguarding their employes and the public.

Unfortunately, common sense is not as common a characteristic of human nature as indifference, carelessness, and ignorance. Hence, we must always strive to supplement rules and instructions with mechanical devices which will automatically prevent these commoner characteristics of man defeating the purpose of all good regulations. The manhole covers now required by paragraph 243(c) of the Commission's regulations is one example. Had the car involved in this accident been equipped with such a cover, this tragedy would not have happened.

The fact that the material in this car, according to the only evidence available, was such as did not require this type of cover places the responsibility on the unloader, who apparently did not use common sense nor follow the rules with which he should have been famaliar.

In fighting a fire of this type, in fact in any case where a tank car is on fire at manhole opening, safety valves, or other openings in the tank and there is other matter on fire in the vicinity of the tank, the first effort should be to extinguish all fire in the vicinity and then apply water to the outside of the shell of the tank to cool it. This reduces the amount of vapor escaping from the openings at which it is burning, which manner of burning is not a serious hazard, being similar to that of a torch. Otherwise, if the flame is extinguished while the contents of the tank is hot, vapor will escape through these openings and spread much in the same manner as it did at first, and when it reaches a source of ignition, it will cause a second disaster, possibly of greater magnitude than the first."

TAKEN FROM I. C. C. REPORTS

On an eastern railroad there was a derailment of a passenger train which resulted in the death of 1 person and injury to 31 other persons. In this instance the equipment was in good condition and the track was well laid and well maintained. A heavy snow was falling all afternoon. The accident occurred at 7:30 P. M. The engineer realized that the snow was getting deep and instead of running at the usual rate of speed, he was only moving about 35 miles per hour, which carefulness on his part no doubt prevented a much more serious accident. The cause of this derailment was snow getting packed in the flange ways at a road crossing. The crossing watchman on duty during that afternoon and evening stated that highway traffic was unusually heavy that day on account of other roads being blocked by the storm and that he had been working continually trying to keep the flange ways clear of snow which was being continually packed in by the highway traffic. However, immediately prior to the approach of this train

the crossing watchman permitted fifty or more vehicles to move over the crossing and then lowered the gates but did not give himself enough time to clear the packed snow from the crossing before the train arrived at that point and the derailment resulted. (ICC 1962)

On another eastern railroad there was a rear-end collision of two freight trains. A local freight train stopped on the main line to pick up some cars. The caboose of this train was just west of a block signal. The flagman was whistled back, but he did not go back far enough to furnish reasonable protection and had no torpedoes down. The engineer of the second train, which was an extra, knew the local train was not far ahead of him and after receiving a permissive signal about one mile east of the point of accident, failed to reduce the speed of his train sufficient to permit him to stop in the distance his view of the track ahead was clear. He admitted in the investigation that he knew he was taking a chance but claimed he did not want to have his train stall on the slight ascending grade. This is another serious accident resulting from experienced men failing in their duty. One thought it was not necessary to do a complete job of flagging when he knew there was a through train following and the other thought it was better to take a chance on a collision on the pretense that he was afraid of having his train stall. As has been said before there is no room for the chance-taker on this system whether he is in the train service or any other kind of service. It is to forestall occurrences of this kind that we have a number of tests and observances conducted each month. (ICC 1955)

Railroad men in mountain territory know that sudden rain storms may develop in a valley or canyon without giving any indication a few miles away. Such a severe local rainstorm occurred on a mountain division of a western railroad, with disastrous results. The thunderstorm centered over a comparatively small gulch on the mountainside and a large volume of water came down this gulch, overflowed a cross ditch on the brow of a cut through which the track runs, and washed mud, sand and gravel into the cut to a maximum height of about three feet, covering a distance of 100 feet of track. A 12-car passenger train received a clear automatic signal indication as it approached the curve on which this cut is located and encountered the pile of dirt while moving about 30 miles an hour. The engine and first five cars were derailed, the locomotive being turned over on its side, and the tank torn loose from the tender frame. The engineer was seriously injured and six other employes, including the fireman, two mail clerks, express messenger, news agent and cook were hurt, in addition to 34 passengers!

The section gang had patrolled the track early in the morning and then went to work putting in ties on a branch line a few miles away. Shortly before three o'clock in the afternoon the foreman saw that a storm was gathering, stopped work and started for the main line, but they encountered a small rock slide on the branch which delayed them, and they did not reach the main line in time to patrol ahead of the passenger train.

There is a real lesson in this case for all Maintenance of Way men in mountain territory. At the first indication of a rainstorm, notify the dispatcher and start patrolling track, and don't be satisfied with merely inspecting points where high water has formerly caused trouble. This accident occurred at a point where they had never had sand or mud washed in before. You can never tell where trouble will develop when a cloudburst strikes. (ICC-1921)

The columns of this bulletin have been devoted largely to the cause and effect of accidents, the number of persons who have suffered and are suffering from them, and the ways and means of preventing accidents. However, let us turn to the "Credit" side of the ledger for a moment where it will be found a very large majority of employes are listed. In other words, taking the month of March for example, for each employe who sustained an injury of such nature that it necessitated making an entry on the "Debit" side of the safety record, there are approximately two thousand five hundred employes on the "Credit" side of the ledger.

Regardless of the department in which you are employed or the position you hold, it is most important that safety be uppermost in your mind in performing your duties, as that is the only way to insure a decrease in the number of entry marks on the "Debit" side of the ledger.

To go through an entire month without a debit entry would not be a miracle, but simply the result of united effort on the part of all employes. It can be done, and let us all do our part to accomplish it.

In 1924 we began awarding merit cards to foremen who had gone through a whole calendar year without an injury to themselves or any one working under their supervision, and of the number of foremen who received a one-year card in 1924, 442 of them are now eligible for and will receive a card for a clear record for eleven consecutive years ending December 31st, 1934.

In addition to these we have 969 other foremen who have served from one to ten years without injury to themselves or those under their supervision, making a total of 1,411 who will soon receive merit cards for their excellent performance in the line of safety.

Below, you will find a beautiful little poem on carefulness which we found in the Association of American Railroads' Circular No. S-439 and are copying it for your benefit.

A LETTER TO DAD

1—I've thought of you a lot, dear Dad,
Since you were taken away,
I think of you and miss you,
Each hour of every day.

2—For you were such a pal to me,
And loved me, Oh! so true,
Not only that, but you were just
As good to Mother, too.

3—We didn't think we'd lose you, Dad,
You were so big and strong,
But after you were hurt so bad,
You didn't linger long.

4—I hate to tell you all the news,
For it may make you sad,
For things are so far different,
Because you left us, Dad.

5—You know the little home we had,
For Mother, You and Me?
Well—we don't live there any more,
For we have moved, you see.

6—The man you bought it from was kind,
But he couldn't let us stay,
For when the notes you signed were due,
My Mother couldn't pay.

7—She went to work the other day,
But I can't tell you where,
Because she said you'd feel so bad,
If you knew that she is there.

8—She doesn't earn much money,
And the work is hard to do,
And we will have to do our best,
Without the help from you.

9—I guess I won't go far in school,
As you wanted me to do,
For Mother says it costs so much,
That she can't send me through.

10—Our neighbors say 'twas all your fault.
You took Safety as a joke,
It was all right for boys like me,
But not for older folk.

11—I'll bet if you could just come back,
And see us for a day,
You'd know that Safety is for men,
And "Carefulness" does pay.

12—Just one thing more I'll tell you
When I get to be a Man,
I'll wear your Safety Button Dad,
And be careful as I can.

—Selected.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

January 1st to March 31st

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Acc. Rate	Cas. Rate
1934	61	11	25	36	8,771,584	6.95	4.10
1935	58	5	15	20	9,574,443	6.06	2.09
Increase Decrease	5%	.....		44%	9%	13%	49%

Accident Prevention Bulletin

April 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN."

COMPETITIVE RANKING—THIRD MONTH

Including casualties and careful estimates of manhours for the month of March in calculating the cumulative rates for the period of January 1st to March 31st, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

Rank	Name	General Manager Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	.91	7.72
2	N. A. Williams	UPRR	2.16	13.61
3	H. J. Plumhof	OSL	2.87	17.20
4	F. H. Knickerbocker	LA&SL	3.11	18.67
	System total for 1935		2.21	13.95
	Last year for same period		2.37	13.31

Division Superintendents

1	H. A. Connett—Ore.	5	A. L. Coey—LA&SL
2	J. E. Mulick—Nebr.	6	E. C. Manson—OSL
3	W. H. Guild—Kans.	7	C. P. Cahill—Colo.
4	M. C. Williams—Wash.	8	C. C. Barnard—Wyo.

Division Engineers

1	H. A. Roberts—Ore.	5	L. V. Chausse—OSL
2	M. C. Williams—Wash.	6	R. L. Adamson—LA&SL
3	S. H. Osborne—Colo.	7	W. C. Perkins—Kans.
4	R. M. Jolley—Nebr.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	L. W. Shirley—OWR&N	6	A. V. James—Nebr.
2	J. Gogerty—Omaha Shops	7	G. A. Jordan—Wyo.
3	J. F. Long—LA&SL	8	G. R. Wilcox—Kans.
4	W. J. Nolan—Colo.	9	C. F. Spicka—Chey. Shops
5	G. M. Walsh—Poca. Shops	10	P. J. Norton—OSL

MARCH CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	1	1	Transp.	1	4	2
OSL	—	4	1	Mech.	—	1	—
OWR&N	—	—	—	M. of W.	—	1	—
LA&SL	—	3	—	Miscel.	—	2	—
Employes	1	8	2	Employes	1	8	2
Psgrs.	—	1	—				
Pers. Car.	—	—	—				
Total	1	9	2				

CASUALTIES JANUARY 1 TO APRIL 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	2	17	5	Transp.	2	14	6
OSL	—	8	3	Mech.	—	6	1
OWR&N	—	2	2	M. of W.	—	9	2
LA&SL	—	5	—	Miscel.	—	3	1
Employes	2	32	10	Employes	2	32	10
Psgrs.	—	3	—				
Pers. Car.	—	—	—				
Total	2	35	10				

NOT GOOD ENOUGH

When we compare our accidents with the country at large, taking into that comparison all industries as well as home and traffic accidents, the number of deaths and injuries per thousand employes is considerably better than the general average, but there are still too many reportable accidents on the property as will be seen from the following list of those occurring during the month of March 1935. There was 1 fatal, 9 reportable, including 1 passenger, and 2 lost time casualties. The Nebraska, Colorado and Washington Divisions as well as the main shops at Omaha, Cheyenne and Pocatello have a clear record for the month, leaving this list of 12 accidents to be divided among the other five divisions.

The Transportation Department accounts for more than 60% of the total employe casualties for the month.

TRANSPORTATION DEPARTMENT

STEPPED TOO CLOSE TO THE MAIN TRACK

We can not say just why a trainmaster on one of our divisions placed himself in a dangerous position with fatal results. A freight train parted near the rear end while entering a yard, breaking the draw bar on one of the cars. The forward portion of the train was taken to the station and this officer accompanied a switch engine which was sent to bring in the car with the damaged draw bar and the rear end of the train. All employes involved in the work of attaching the switch engine to the rear of the parted train got off the switch engine on the right hand side of the eastward main track where they were safe from trains passing on the westward main track. During the preparations for making this coupling, the trainmaster stepped over to a point close to the forward end of the bad-order car, between the main tracks and shortly thereafter stepped back close enough to the westward track to be struck and killed by a westbound freight train which he failed to hear approaching.

This accident impressively brings to the attention of all the necessity for being constantly on the alert for their own safety as well as that of others while working on or near live tracks, particularly main tracks over which trains operate frequently and some of them at high speed.

The constant avoidance of proximity to main lines is a practice that will become more or less of a safety habit and in contrast, a disregard of such a practice is liable, sooner or later, in some absent-minded moment to result seriously or fatally.

A lesson may well be drawn from this case and see to it at all times that you are standing in a safe place before you permit yourself or others to become so engrossed in the work that a misstep might result seriously. (Y-29)

COUPLING NOT PROPERLY MADE.

A freight train was made up in a division terminal yard with a passenger engine (breaking in) coupled on ahead of the regular road engine to double head this train for the first sixty miles out of the terminal. Before train had moved ten miles, the locking block on rear coupler of the leading engine worked up out of place separating the engines. The leading engine moved away from the second engine and parted the air hose which caused an emergency application of the air brakes and the resultant quick stop of the train caused the conductor and one brakeman who were in the caboose to suffer some bruises and sprains which caused the brakeman to lose ten days from work and the conductor lost two and one half days. These two injuries could have been avoided if the employe who coupled the engines together had paid enough attention to his work to see that the locking block in each coupler was properly seated when the coupling was made. (D-1)

PERFORMING HIS CUSTOMARY DUTY

A conductor was performing his regular duty very much the same as he had done for years. He had boarded cars and alighted from them again many times without mishap, but this time he evidently did not have his mind centered on what he was doing, or probably the train was moving a little faster than he estimated when he got on and in placing his foot on the caboose step a muscle in the calf of his leg was strained and some of the muscle fibres were ruptured. He lost six days from work. Learn to place your foot properly and safely on a caboose step or a car stirrup and do it that same way every time and if the train is moving too fast—DO NOT TRY TO BOARD IT. (D-39)

CLOSE CLEARANCE

Occasionally a trainman or yardman is injured due to being caught between a car and a platform or between a car and some building where there is insufficient room. Employes have been repeatedly cautioned and instructed, at our safety meetings, to watch

out for close quarters and it has also been brought to their attention through this bulletin. This month we have a case where a switchman in a division terminal was riding the end ladder of a car being moved to an industry platform where the clearance is a little less than ten inches between the center of a car and the platform due to a curve in the track. The foreman called to this switchman telling him not to get between the car and platform, but in less than a minute he did just what he had been told not to do. He was injured about the chest and died five days later. This switchman had ten years experience and he was fully aware of the conditions in the locality where he was working, and the accident was due to his failure to observe Time Table Rule 899 and failing to heed a warning given him just before the accident occurred. (D-46)

NOT PREPARED

A freight train was approaching a small station when the engineer reduced speed for a short distance and then started to increase speed. This caused a jerk and a brakeman who was riding on the caboose step was not prepared for the change in speed, and struck his side against the hand rail fracturing a rib. It is hard to realize that a man who has chosen train service for his vocation would be caught riding on the outside step of a caboose without having a firm grip on the hand railing to protect himself from any sudden start or stop. (S-28)

CLIMBING UP BROKEN STEPS

While a road train was doing station work at a small station the platform of the caboose was pulled away from the caboose body. After this occurred the engineer joined other members of the crew in inspecting the damaged equipment and climbed up on the broken steps of the damaged platform. As might be expected under the circumstances, the steps gave way under his feet and he fell and bruised his side. There were no bones broken, but he lost two days from his work. (K-24)

INJURY TO PASSENGER

A train was being held for the late arrival of a lady passenger at a small station. She had hurried quite a distance before reaching the train and after the brakeman had assisted her up the coach steps and the train started, she appeared to be exhausted and fell against the doorway of the car, bruising her hip. According to the doctor's report she was disabled four days. This is an unfortunate occurrence as it not only keeps the division, but the whole unit on which it occurred from having a clear record for the month. (O-15)

MECHANICAL DEPARTMENT

FOOT SLIPPED OFF GRAB IRON

A car inspector climbed onto the roof of a box car to pass a signal for the removal of a blue flag and on returning to the ground his foot slipped from one of the grab irons in the side ladder of this car and he fell, fracturing his left arm. Again we repeat "Watch your step!" (Y-26)

MAINTENANCE OF WAY DEPARTMENT

FOOT SLIPPED—KNEE CAP DISLOCATED

While a work train was unloading ties along the track, two laborers were lifting a tie to throw it over the side of the car when one of these men slipped on a creosoted tie and dislocated his right knee cap. He was disabled eight days. Although this man advised that this same knee had been injured some time ago and was not in the best of condition, the disability occurred while he was engaged in railroad work and we must count it as a reportable accident. (D-37)

MISCELLANEOUS DEPARTMENTS

LOSES END OF INDEX FINGER

A district lineman was riding on a track motor car which was moving about 15 miles per hour when he undertook to rearrange some of the tools he had loaded onto the car. In reaching for a hand axe he claims he reached too far and had the end of his right index finger caught between the drive chain and sprocket which crushed the last joint of his finger to such an extent that it had to be amputated and he will lose about thirty days from work. (S-13)

USING THE WRONG SAW

A Store Department employe who had several years of experience with power saws wanted to rip a small piece of wood and used a circular saw. He could not use the guide as he was making a diagonal cut, therefore for safety he should have used a band saw. His right thumb was caught by the circular saw and one joint of the thumb was taken off. (S-31)

We are quoting herewith an article contributed by one of our conductors at a safety meeting a short time ago—

"Safety First in the beginning was a gigantic undertaking, which involved huge sums of money, persistence and determination on the part of those interested in elimination of accidents which were causing an enormous number of deaths and maimed or broken bodies. The efforts of this humanitarian organization should be highly complimented by all workers, and regarded with the greatest esteem; for, through their tireless efforts in our behalf, the list of casualties have diminished to a more sensible ratio.

Education in Safety First of the workers was a seven league step in the right direction, assisted by employer and employes it has developed to a degree of safety mindedness heretofore unknown.

We still have a long way to go, and only through continued cooperation can we expect to succeed. If Carelessness was abolished over night, one of the major causes of accidents would be eliminated, thereby dropping the ratio again to a new low.

An employe who goes on duty with a clear mind, sufficient rest and who is on the alert, has a better chance of returning home to those he loves and who love him than an employe whose mind is clouded by some domestic trouble, insufficient rest, financial worries, physical or mental sickness and last but not least an ordinary dreamer.

Too much stress cannot be used in urging employes who feel ill to remain at home, regardless of financial conditions, as a mind or body that is sick cannot function properly and an accident might then render you useless to your employer or yourself forever. Experience is a great teacher and sometimes a very costly one; so why not benefit through the experience of others by reading the Accident Prevention Bulletin thoroughly at no cost whatever, but at an enormous profit to ourselves.

Safety First has its enemies who are relentless and powerful, reinforced by thousands of invisible henchmen that prey upon us ready to administer a decisive blow the minute we drop our guard or become careless. This sort of warfare cannot continue. Safety minded warriors are slowly but surely closing around themselves an impregnable armour of pure 100% Safety First steel that any general should be proud to command.

I am sure the morale of the employes is instrumental in prompting the cause of Safety First by accepting the suggestions of safety from the employer in the manner in which it is given. Do not ridicule, or encourage hilarity unless the author employes a humorous side and be sure that it was given for the humor intended. Officials interested in this phase of work can promote a feeling of sincerity and will be rewarded by their employes by determination. To be publicly criticised for a suggestion given sincerely is detrimental to the cause; and we should most certainly be solicitous of the success of two words that should contribute so much to our own individual welfare.

I have tried to present a few facts and their compensation for the strict adherence to the rules pertaining to Safety First. Safety First is the medium through which we can receive a semi-monthly dividend, particularly in the recreation we enjoy and which is most essential to the stimulation of body and mind, which thereby creates alertness and coordination of the body which is one of the best preventives for accidents that is known.

In repetition, strict adherence to rules, advice taken from those interested in our welfare and our own personal interests are of paramount importance; and when our usefulness is ended, we will find we possess a body not broken or maimed, but one sound in every respect and within, a feeling of peace and contentment.

(Sgd) W. I. SONDERGARD,
Conductor, U. P. R. R."

The following is a contribution from one of our Car Inspectors at another meeting.

By Herbert L. Price, Car Inspector, Union Pacific Railroad Company, Salina, Kansas, March 4th, 1935.

The greatest quality in a nation is justice. The greatest quality in a man is loyalty. Where there is loyalty there is Safety, and where there is Safety, there is progress. Treachery marks the careless man, and loyalty marks the good man. Loyalty to your country, your employer, your friends, your fellow workmen, your beliefs, your ancestry, your promises and your purposes—that makes life worth while. Loyalty is courage, devotion and Safety.

Loyalty to your country or to your employing officer, while essential to every-day life, is not the only loyalty or the most important. Faithfulness and truth; Safety in the affairs of every-day life, are as important to the existence and progress of human

beings or business as fresh air and water to the human body. Safety in a man is like the strength of steel in a tall building, like the added power of the steel rod in reinforced concrete.

The best thing one man can say of another is, I know that I can trust him. Trust is based on loyalty and safety. Safety should be taught and preached to children, emphasizing its importance in their relations with each other in the family, and their relations with the outside world. A loyal and safe man will do this. Happy is the family strongly united in loyalty and safety, each knowing that he can depend on and trust the other.

Instinctively men stimulate loyalty and safety, create it artificially in secret societies, with special pass words, serious oaths and dreadful penalties for violation of the oaths. The man who works safely, even though exposed to all kinds of weather and conditions, is sustained by the loyalty of his family. Devotion to family, sacrificing personal ambition, finding complete happiness in providing for the future welfare of your family, and future generations, is loyalty beyond doubt.

Standards of loyalty vary as man's individual status varies, but each man, true to his own self, is a loyal and safe man. Safety is in our hearts. We know when we obey its orders. We know when we disobey them. The unsafe man feels his unsafeness with shame.

The safe man finds in safety his reward greater than profit, and well he may, for safety is true nobility. The loyal, safe man ranks high in the world. Loyalty to your ideals, persistent determination to do the best that is in you, never giving way to ease or self-indulgence, as the easiest way—that is loyalty and safety.

There are better men and big men in the great crowd, but where there is loyalty and safety, there is no discouraged man. Life is worth while so long as a man is true to himself, loyal to his better instincts, and obedient to his conscience. Times may be good or bad, life may be hard or easy, but for the loyal and safe man who knows that he is doing the best he can do, in the safest way possible, there is no downcast heart.

CROSSING WATCHMAN'S ELECTRIC LANTERN

The hooded, oil-burning lanterns which have been standard for crossing watchmen on our System Lines for a long time have been replaced by electric lanterns. For some time the Signal and Safety Departments have been endeavoring to get an efficient electric lantern which would give a much more easily seen and arrestive indication to highway traffic when swung across the streets. As there was no lantern on the market for this purpose it was necessary to experiment for some time before a satisfactory lamp was developed. As a result of these experiments an order was finally placed with a manufacturer for production of a sufficient quantity to supply all crossings on the railroad, and these have been received and put in service.

In spite of decided increases, both in the number of trains run and the amount of vehicular traffic during 1934, our crossing accident and casualty ratios have been held down close to the record of the previous year. This has been due in large measure to the almost uniformly excellent whistle and bell warning by enginemen, the care with which switching movements are protected, and the alertness and faithfulness of the crossing watchmen. Through the use of these new electric lamps we hope to make still further improvement in the prevention of night accidents on crossings.

The following article in regard to unloading gasoline is taken from the Bureau of Explosives Accident Bulletin No. 111 and should be read by all who may have anything to do with the handling of gasoline in large quantities. The location and date of the fire in question is not shown but it occurred during the hot weather last year and it is well to read this and keep it in mind and help prevent future fires of like nature. This one is very much like a gasoline fire which occurred at Ardmore, Oklahoma, in 1915 which caused the deaths of 47 persons and injuries to 524 others.

"Disasters of this kind are due to boiling over of the contents of the tank when the manhole cover is removed while pressure exists in the tank.

Our records show that at least 32 such accidents have occurred and that this is the first one since October 1, 1927, and since the Commission made mandatory the use of manhole closures of a type which cannot be removed while the interior of the tank is subjected to pressure. This requirement applies to all tank cars used for the shipment of inflammable liquids having a vapor pressure in excess of 16 pounds per square inch, absolute at 100° Fahr. (about one and one-half pounds gauge).

Other rules of the Commission, such as requiring the domes of tank cars to be placarded with three special placards warning against removal of manhole cover while gas pressure exists in tank (see paragraph 245 of the regulations) and requiring the tank car to be relieved of all interior pressure before manhole cover is removed [see paragraph 265 (c) and (d)], have been in effect for a great many years. Failure to observe this warning or to follow the procedure prescribed was the cause of all accidents of this type which have occurred since the one at Ardmore, Okla., and the three which preceded it.

In the case under consideration the material in the car, as far as we are able to determine, had a vapor pressure not exceeding 16 pounds per square inch, absolute at 100° Fahr. and therefore was not required to be shipped in a tank car bearing the special dome placards and a manhole cover of the type required in paragraph 243(c) of the Commission's regulations. However, the records show that the dome of this car was placarded, although not required as the vapor pressure is reported to have been only 12 pounds per square inch, absolute, at 100° Fahr. (these placards are required only when the pressure exceeds 16 pounds, absolute, at 100° Fahr.). Apparently these warning placards did not remind the unloader of paragraphs 265(c) and (d), which apply to all tank car shipments of inflammable liquids, for there is no evidence to show that he followed the procedure laid down in these rules. It is particularly important to observe these rules during periods of high atmospheric temperature such as existed at the time of this accident.

Two witnesses saw the unloader remove the manhole cover and gasoline and vapor shoot into the air to a height of 25 feet. Ignition and explosion occurred a few seconds later. It is not known what ignited the vapor, but it probably was either the hot fire in a cook stove in a house 100 feet away, or a pipe being smoked by a man about the same distance away, as the house was damaged and the man burned to death. Three children also died from burns and the unloader was blown off the car a distance of about 75 feet and burned to death.

This tragedy might well be brought to the attention of every person engaged in the handling of dangerous articles as convincing evidence that there is a good reason back of each rule in the Commission's regulations and that these rules should be learned and obeyed not because they are the law but because they are just plain common sense instructions based on the mutual efforts and the wide experience of carriers, shippers, and users of dangerous articles for the sole purpose of safeguarding their employes and the public.

Unfortunately, common sense is not as common a characteristic of human nature as indifference, carelessness, and ignorance. Hence, we must always strive to supplement rules and instructions with mechanical devices which will automatically prevent these commoner characteristics of man defeating the purpose of all good regulations. The manhole covers now required by paragraph 243(c) of the Commission's regulations is one example. Had the car involved in this accident been equipped with such a cover, this tragedy would not have happened.

The fact that the material in this car, according to the only evidence available, was such as did not require this type of cover places the responsibility on the unloader, who apparently did not use common sense nor follow the rules with which he should have been famaliar.

In fighting a fire of this type, in fact in any case where a tank car is on fire at manhole opening, safety valves, or other openings in the tank and there is other matter on fire in the vicinity of the tank, the first effort should be to extinguish all fire in the vicinity and then apply water to the outside of the shell of the tank to cool it. This reduces the amount of vapor escaping from the openings at which it is burning, which manner of burning is not a serious hazard, being similar to that of a torch. Otherwise, if the flame is extinguished while the contents of the tank is hot, vapor will escape through these openings and spread much in the same manner as it did at first, and when it reaches a source of ignition, it will cause a second disaster, possibly of greater magnitude than the first."

TAKEN FROM I. C. C. REPORTS

On an eastern railroad there was a derailment of a passenger train which resulted in the death of 1 person and injury to 31 other persons. In this instance the equipment was in good condition and the track was well laid and well maintained. A heavy snow was falling all afternoon. The accident occurred at 7:30 P. M. The engineer realized that the snow was getting deep and instead of running at the usual rate of speed, he was only moving about 35 miles per hour, which carefulness on his part no doubt prevented a much more serious accident. The cause of this derailment was snow getting packed in the flange ways at a road crossing. The crossing watchman on duty during that afternoon and evening stated that highway traffic was unusually heavy that day on account of other roads being blocked by the storm and that he had been working continually trying to keep the flange ways clear of snow which was being continually packed in by the highway traffic. However, immediately prior to the approach of this train

the crossing watchman permitted fifty or more vehicles to move over the crossing and then lowered the gates but did not give himself enough time to clear the packed snow from the crossing before the train arrived at that point and the derailment resulted. (ICC 1962)

On another eastern railroad there was a rear-end collision of two freight trains. A local freight train stopped on the main line to pick up some cars. The caboose of this train was just west of a block signal. The flagman was whistled back, but he did not go back far enough to furnish reasonable protection and had no torpedoes down. The engineer of the second train, which was an extra, knew the local train was not far ahead of him and after receiving a permissive signal about one mile east of the point of accident, failed to reduce the speed of his train sufficient to permit him to stop in the distance his view of the track ahead was clear. He admitted in the investigation that he knew he was taking a chance but claimed he did not want to have his train stall on the slight ascending grade. This is another serious accident resulting from experienced men failing in their duty. One thought it was not necessary to do a complete job of flagging when he knew there was a through train following and the other thought it was better to take a chance on a collision on the pretense that he was afraid of having his train stall. As has been said before there is no room for the chance-taker on this system whether he is in the train service or any other kind of service. It is to forestall occurrences of this kind that we have a number of tests and observances conducted each month. (ICC 1955)

Railroad men in mountain territory know that sudden rain storms may develop in a valley or canyon without giving any indication a few miles away. Such a severe local rainstorm occurred on a mountain division of a western railroad, with disastrous results. The thunderstorm centered over a comparatively small gulch on the mountainside and a large volume of water came down this gulch, overflowed a cross ditch on the brow of a cut through which the track runs, and washed mud, sand and gravel into the cut to a maximum height of about three feet, covering a distance of 100 feet of track. A 12-car passenger train received a clear automatic signal indication as it approached the curve on which this cut is located and encountered the pile of dirt while moving about 30 miles an hour. The engine and first five cars were derailed, the locomotive being turned over on its side, and the tank torn loose from the tender frame. The engineer was seriously injured and six other employes, including the fireman, two mail clerks, express messenger, news agent and cook were hurt, in addition to 34 passengers!

The section gang had patrolled the track early in the morning and then went to work putting in ties on a branch line a few miles away. Shortly before three o'clock in the afternoon the foreman saw that a storm was gathering, stopped work and started for the main line, but they encountered a small rock slide on the branch which delayed them, and they did not reach the main line in time to patrol ahead of the passenger train.

There is a real lesson in this case for all Maintenance of Way men in mountain territory. At the first indication of a rainstorm, notify the dispatcher and start patrolling track, and don't be satisfied with merely inspecting points where high water has formerly caused trouble. This accident occurred at a point where they had never had sand or mud washed in before. You can never tell where trouble will develop when a cloudburst strikes. (ICC-1921)

The columns of this bulletin have been devoted largely to the cause and effect of accidents, the number of persons who have suffered and are suffering from them, and the ways and means of preventing accidents. However, let us turn to the "Credit" side of the ledger for a moment where it will be found a very large majority of employes are listed. In other words, taking the month of March for example, for each employe who sustained an injury of such nature that it necessitated making an entry on the "Debit" side of the safety record, there are approximately two thousand five hundred employes on the "Credit" side of the ledger.

Regardless of the department in which you are employed or the position you hold, it is most important that safety be uppermost in your mind in performing your duties, as that is the only way to insure a decrease in the number of entry marks on the "Debit" side of the ledger.

To go through an entire month without a debit entry would not be a miracle, but simply the result of united effort on the part of all employes. It can be done, and let us all do our part to accomplish it.

In 1924 we began awarding merit cards to foremen who had gone through a whole calendar year without an injury to themselves or any one working under their supervision, and of the number of foremen who received a one-year card in 1924, 442 of them are now eligible for and will receive a card for a clear record for eleven consecutive years ending December 31st, 1934.

In addition to these we have 969 other foremen who have served from one to ten years without injury to themselves or those under their supervision, making a total of 1,411 who will soon receive merit cards for their excellent performance in the line of safety.

Below, you will find a beautiful little poem on carefulness which we found in the Association of American Railroads' Circular No. S-439 and are copying it for your benefit.

A LETTER TO DAD

1—I've thought of you a lot, dear Dad,
Since you were taken away,
I think of you and miss you,
Each hour of every day.

2—For you were such a pal to me,
And loved me, Oh! so true,
Not only that, but you were just
As good to Mother, too.

3—We didn't think we'd lose you, Dad,
You were so big and strong,
But after you were hurt so bad,
You didn't linger long.

4—I hate to tell you all the news,
For it may make you sad,
For things are so far different,
Because you left us, Dad.

5—You know the little home we had,
For Mother, You and Me?
Well—we don't live there any more,
For we have moved, you see.

6—The man you bought it from was kind,
But he couldn't let us stay,
For when the notes you signed were due,
My Mother couldn't pay.

7—She went to work the other day,
But I can't tell you where,
Because she said you'd feel so bad,
If you knew that she is there.

8—She doesn't earn much money,
And the work is hard to do,
And we will have to do our best,
Without the help from you.

9—I guess I won't go far in school,
As you wanted me to do,
For Mother says it costs so much,
That she can't send me through.

10—Our neighbors say 'twas all your fault.
You took Safety as a joke,
It was all right for boys like me,
But not for older folk.

11—I'll bet if you could just come back,
And see us for a day,
You'd know that Safety is for men,
And "Carefulness" does pay.

12—Just one thing more I'll tell you
When I get to be a Man,
I'll wear your Safety Button Dad,
And be careful as I can.

—Selected.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

January 1st to March 31st

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Acc. Rate	Cas. Rate
1934	61	11	25	36	8,771,584	6.95	4.10
1935	58	5	15	20	9,574,443	6.06	2.09
Increase					9%		
Decrease	5%	.....		44%		13%	49%

Accident Prevention Bulletin

March 10, 1935

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this system, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—SECOND MONTH

Including casualties and careful estimates of manhours for the month of February in calculating the cumulative rates for the period January 1st to February 28th, the relative ranking of groups supervised by the officers named appear to be as tabulated below:

Rank	Name	General Manager Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	1.37	8.23
2	F. H. Knickerbocker	LA&SL	1.93	14.45
3	H. J. Plumhof	OSL	2.19	14.79
4	N. A. Williams	UPRR	2.91	16.97
	System total for 1935		2.46	15.07
	Last year for same period		2.44	13.28

Division Superintendents

1	H. A. Connett—Ore.	5	A. L. Coey—LA&SL
2	J. E. Mulick—Nebr.	6	M. C. Williams—Wash.
3	E. C. Manson—OSL	7	C. P. Cahill—Colo.
4	W. H. Guild—Kans.	8	C. C. Barnard—Wyo.

Division Engineers

1	H. A. Roberts—Ore.	5	R. M. Jolley—Nebr.
2	M. C. Williams—Wash.	6	R. L. Adamson—LA&SL
3	L. V. Chausse—OSL	7	W. C. Perkins—Kans.
4	S. H. Osborne—Colo.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	G. A. Jordan—Wyo.	6	G. M. Walsh—Poca. Shops
2	L. W. Shirley—OWR&N	7	A. V. James—Nebr.
3	J. Gogerty—Omaha Shops	8	G. R. Wilcox—Kans.
4	J. F. Long—LA&SL	9	C. Spicka—Chey. Shops
5	W. J. Nolan—Colo.	10	P. J. Norton—OSL

FEBRUARY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	6	—	Transp.	—	2	2
OSL	—	1	1	Mech.	—	1	—
OWR&N	—	—	2	M. of W.	—	4	1
LA&SL	—	—	—	Miscel.	—	—	—
Employes	—	7	3	Employes	—	7	3
Psgrs.	—	1	—				
Pers. Car.	—	—	—				
Total	—	8	3				

CASUALTIES JANUARY 1 TO MARCH 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	1	16	4	Transp.	1	10	4
OSL	—	4	2	Mech.	—	5	1
OWR&N	—	2	2	M. of W.	—	8	2
LA&SL	—	2	—	Miscel	—	1	1
Employes	1	24	8	Employes	1	24	8
Psgrs.	—	2	—				
Pers. Car.	—	—	—				
Total	1	26	8				

WELL, THAT'S BETTER!

February closed with no fatal and only 8 reportable and 3 lost time casualties, one of the reportable being an elderly lady passenger. This total for the Union Pacific System is such an improvement over the several preceding months that we are sure it must be just as encouraging to the supervisors and employes as it is to the Safety Department.

Both the Nebraska and Washington Divisions had a clear record for the month; the Transportation Department, aside from the lady passenger, had 2 reportable and 2 lost time injuries to employes, one reportable being unavoidable as far as men on the train were concerned; the Mechanical Department had but 1 reportable; and if the Maintenance of Way Department had done as well, the performance for the month would have been a record breaker.

TRANSPORTATION DEPARTMENT

THE ENGINE CAME UNCOUPLED

A double-header freight train of 56 cars was pulling slowly out of a station, and the conductor and brakeman had just gotten on the caboose, when the leading engine became uncoupled from the second engine due to the knuckle breaking on the pilot coupler. This of course parted the air hose and caused a hard run-in of slack at the rear of train. The conductor and brakeman in the caboose were both thrown to the floor, the latter receiving a sprained left leg which will probably cause a week or 10 days loss of time from work.

The Mechanical Department employes who inspect and repair locomotives should be prompted by this occurrence to remember that pilot couplers are sometimes called upon to stand just as severe strains as the coupler at the rear of the tender, and should be just as carefully inspected and maintained. In this case there was probably some additional strain on the coupler due to the fact that the second engine was only working on one side; the accident was unavoidable so far as the train employes were concerned. (C-3)

TELEGRAPH OPERATOR FALLS OUT OF CAR

A telegraph operator was assisting in unloading merchandise from a refrigerator car equipped with a flat auxiliary floor rack. While he was standing just inside the doorway he reached over toward one end of the car to pick up a package, and as he straightened up the sole of his left shoe caught under a floor slat causing him to lose his balance and fall out through the open doorway, alighting on his hip. The surgeons found he had received a fractured pelvis bone, and such cases usually require about three months in bed before the fractured bone is safe to depend upon for walking about.

This case, like many others previously related in these Bulletins, shows how easily one may receive serious injury from a comparatively minor misstep or slight inattention to footing. We can nearly always "feel" improper footing in time to correct it, if we are sufficiently safe-minded and will stop further movement, and change our position to make sure everything is right before going ahead. (C-2)

THE ROLLER ROLLED

A freight warehouse trucker was fortunate to only get a bruised heel, keeping him from work for two days, instead of a more severe hurt due to his failure to take proper precautions.

A shipment of cylindrical steel rollers about 5 inches in diameter by 21 inches long and weighing 140 lbs. each were to be loaded in a car, and eleven of these rollers were placed crosswise on the bed of a four-wheeled truck, eight of them laid in the lower tier with three others in a second tier on top of them. The front roller was not long enough to catch at both ends behind the stanchions or stakes at the front corners of the truck, and consequently only one end of the front roller was thus secured. Neither the warehouse foreman, the checker, nor the man who went to move this truck noticed or realized the danger in this situation or took the pains to properly block the free end of the forward roller. When a trucker took hold of the tongue of the truck and started pulling it along the floor, the weight of the rollers on top and the jostling movement of the truck caused the front roller to slip out between the stakes and rebound, striking the trucker on the back of the heel, fortunately resulting in only a bruise instead of a broken bone.

The fact that three heavy rollers were laid on top of others should have made it self-evident that the ones on the bottom would tend to spread out and separate at the least disturbance. If any of the men involved had shown a reasonable degree of concern for safety, they would have firmly blocked the free end of the forward roller so it could not possibly work out between the stanchions. As a matter of fact they did block the rear roller, but depended upon the slight security at one end of the front roller to hold it, and thus set the trap for an accident. (O-8)

FIREMAN SPRAINS ARM

A locomotive fireman attempting to throw coal back into the corner of his firebox put a "corkscrew twist" on the handle of his shovelful as it went into the fire door, straining his right arm so severely that he lost three days from work.

You may consider yourself able to do both plain and fancy firing, but you are less likely to get hurt if you stick to the plain variety. (O-28)

HOW THE LADY GOT HURT

One of our most important passenger trains, consisting of 13 cars and pulled by 2 engines, drew up in front of the depot at a subdivision terminal in the mountains. When the train stopped the manhole of the road engine tender was about 10 feet beyond the proper position for the water spout. The grade was slightly ascending in the direction the train was headed, and the engineer undertook to back the train to the correct "spot," instead of making a slow backup movement of perhaps a carlength, coming to a gradual stop, and then pulling ahead again to the correct position. His failure to follow standard practice resulted in a jerk toward the rear end of the train just at a time when this lady was putting on her dress in a sleeping car dressing room, with both hands extended above her head. She was unable to catch herself and fell to the floor of the dressing room, resulting in a bruised back and considerable muscle soreness, incapacitating her for several days.

Nearly all of our rules and standard practices have been established as a result of not one, but many, accidents or incidents in past experience. The employe who attempts to deviate from them frequently finds, as this engineer did, that it is better to follow the instructions than to try a short cut and get into trouble, for which neither excuse nor apology can be accepted. (S-7)

MECHANICAL DEPARTMENT

BADLY HURT IN FALL FROM ENGINE TANK

A mechanic and his helper were servicing a locomotive just outside the roundhouse at an intermediate terminal, shortly before noon. The helper gave signals to the mechanic in the engine cab until the engine was properly spotted, after which the mechanic in the cab set the brakes, locked the throttle, put the reverse lever on center, and then opened one of the injectors to put water in the boiler and looked out of the cab window. He was surprised to see his helper lying on the ground between the water crane and the track. He scrambled off the engine and finding the helper was apparently seriously injured, immediately called an ambulance. He was taken to the hospital where his injuries were found to be a broken right wrist, four fractured ribs and severe bruises. It is thought he will be unable to work for two months.

When he was in condition to be questioned several days later the injured man was unable to recall any of his movements immediately prior to the accident. He stated, however, that he was sure he followed his usual practice of climbing up the rear ladder of the engine tender to the walkway extending from the rear of the water cistern to the coal hopper near the front of the tank, then climbing the extra step or two on ladder irons to the manhole platform. He would then turn back the manhole cover, pick up the spout hook and pull the water spout around. After his accident it was found that the manhole cover had been turned back, but the spout hook had been undisturbed and the water spout had not been turned. It is not known whether he became dizzy and fell from the manhole platform or whether he lost his balance when he leaned over and turned the manhole cover back.

There have been similar occurrences, both to mechanical employes and locomotive firemen, and we want to call their attention to the fact that moving about on the top platform of an engine tender, or on top of the coal, is always more or less hazardous because there is nothing to hold to in order to steady the body in case of losing balance, either due to wind or insecure footing. It is no disgrace to be extremely careful when in such exposed position. (D-27)

MAINTENANCE OF WAY DEPARTMENT

WRENCH FALLS FROM MOVING MOTOR CAR

A small motor car of the FM-41 type was being used by a section foreman and his two laborers during the winter months, and on the day of the accident they had spent the morning patrolling the westbound track to the end of the section, where they finished work they had begun the previous day. At this point the two main tracks are some 200 or 300 feet apart, and a long "crossover track" of light rail extends between them for the use of track cars getting from the low grade line to the high grade line. They ran their loaded motor car over this crossover to the eastward track, intending thon to travel back on that track to the end of their section to do further work. As the distance was short, the foreman was tempted to run the motor car backward, instead of turning it around as he knew he ought to do. Yielding to this temptation they started eastward with the car backing up, the tools lying in the trays at either side of the deck, being apparently secure and in proper position. However, the rear ends of such cars, (the leading end in this case), are not provided with metal panels to retain tools, in fact the tools stick out over the back end of the car. As they approached the point where they expected to stop, the foreman set the brakes and the car slowed down so rapidly that a track wrench lying on top of other tools slid off and tipped down in front of the car, striking a tie. This was a 48-inch track wrench, with jaws at one end, tapering back to a rounded shank on the handle end. This rounded point was hurled upward by the motion of the car and struck the foreman under the thighs, puncturing and tearing a bad wound in the left thigh and severely bruising the right one. He will be lucky if he is able to work within a month.

It should not be necessary to repeat here that the rules and instructions which have been issued both in circular letters and oral instructions for years prohibit running track cars backward when traveling. This, of course, is especially important when tools are carried, particularly long tools which extend over the open end of the car. If such tools slide out behind the car there is seldom any danger involved. Some of the worst injuries to track men have occurred from tools shaking out over the forward edge of a motor car. No matter how good a foreman you are, or how many years of experience you have had, you cannot afford to take a chance and run a car in backward motion under such circumstances. The fact that the man responsible in this case was seriously hurt does not minimize his fault in violating rules and taking chances of injury to others as well as himself, and it reflects no credit upon the supervisory officers who are responsible for his training. (Y-21)

FINGER MASHED IN FROG

It was necessary to change out a heavy spring rail frog of 100-pound rail section at an intermediate station, and three adjoining section gangs of two or three men each were assembled to do the work. The new frog had been left by the supply train at the side of the track about 100 feet from where it was to be put into service. The men turned it upside down and pried it forward with bars until it was up crosswise of the track resting upon the track rails, in which position it was slid along on the track to the point where the old frog was to be taken out. In order to get it laid out parallel with the track and between the rails of the turnout, it was twisted about until one end had dropped down inside the rail, and they were endeavoring to slide the other end off onto the ties. In his eagerness to assist, one man took hold of the upturned flange or base of the frog right at the tip-end, to slide it off of the track rail onto the ties. When it slid off, it dropped so quickly he could not let loose, and the end of the third finger of his left hand was caught between the corner of the frog rail and the track rail, mashing it so that it had to be amputated at the first joint. He should be able to work in two or three weeks.

It is difficult either to explain or excuse this kind of work. The roadmaster was not present, although there had been another injury on this same territory not long ago when two or three gangs working together endeavored to handle a frog in somewhat similar manner. The foreman in charge of the job, on whose section the switch was located, evidently did not have everybody lined up to keep their hands off the frog and use only bars or tongs for moving it.

This case is another reminder to all roadmasters that the handling of a heavy main track frog is a job that warrants his own personal supervision if it is at all possible for him to be there. In any event it is up to the man in charge to watch every individual move, insist upon the work being handled slowly and carefully, and to restrain men who are too eager and anxious to help and who may even be willing to take a chance in order to expedite the job. The fact that some of the men may not be accustomed to working under the foreman in charge adds to the necessity for taking unusual precautions. (Y-17)

TRIPS ON CLINKER

A section foreman and his three laborers had unloaded the tools from their motor car at the point where they were to work, and started to push the car a few rail lengths to a set-off to remove it from the track. The foreman was pushing on the right rear corner of the car, the other three men pushing on the other corners. As they walked along, the foreman stepped on a loose clinker lying in the cinder ballast and stumbled and fell, breaking his right ankle. He will be incapacitated for some six weeks. An alert, watchful man, who picks the best place to walk and watches where he is stepping, is rarely the victim of an accident like this. (K-22)

STRUCK BY A FALLING ROCK

A considerable part of our railroad runs through mountainous country, frequently in canyons and along the edge of cliffs and steep, rocky hills. In many places where the formation is such that rock slides may occur we have long stretches of "rock fence" —woven wire fencing, stretched in long panels, the ends of which are connected to the signalling circuits, so that any strain or impact from rock slides or land slides will stretch the fence and open the signal circuits, stopping all trains until it can be determined whether the track is obstructed.

Near the entrance to a tunnel a few days ago a rock slide had damaged the rock fence and a section gang was assisting a signal maintainer to restore the fence to proper position. While they were thus engaged another rock slide started coming down. The section foreman heard and saw it, called a warning, and he and his men were able to scramble out of the way, but the maintainer who was busily at work could not move quickly enough and was struck by a bounding stone, fracturing his left arm just above the wrist. We believe this is one instance in which the term "unavoidable" is justified. (Y-9)

SAND SPATTERED IN EYE

A section laborer was engaged with others in the reapplying of rail anchors to the track, and when he swung his maul to strike a rail anchor a little sand and gravel was caught by the swinging maul and spattered out as it struck the solid steel, a flake being imbedded in his right eyeball. The resulting inflamation caused him two days' loss of time under a doctor's care before he could resume duty.

It is a wise precaution, before striking track bolts, sides of angle bars or rail anchors, to scrape away the gravel or ballast so that the swinging maul or sledge will not gather dirt on the end of the tool as it hits. Less than two years ago a section foreman lost his eye entirely from a similar occurrence. Don't take a chance with your eye when the remedy is so simple. (D-6)

SAFETY AND EFFICIENCY

The following is a condensed version of an excellent paper read recently at a semi-annual meeting of maintenance of way foremen:—

Kelso, Cal., Febr. 20, 1935

Mr. Chairman and Gentlemen:

I have been requested by our unit General Chairman to prepare an outline on "Safety and Efficiency" in doing work. I don't know as I can say much in the way of safety that would enlighten you any more than what you have already received from our supervisors from time to time in their trips over the line.

Doing work in a safe way generally falls to the foreman in charge of the work. He should think over whatever he is going to do; have his mind on this particular job and the safest way possible to avoid any accident, and caution his men to do work in a safe manner, and see that they take no unnecessary chances that might result in some injury to themselves or brother workers.

I happened to get to attend a safety meeting at Kelso recently and there were some very good points explained as to why a great many accidents occur, mostly from just not thinking what you are doing, and letting your men work in a dangerous way, instead of telling them and showing them just how the work should be done. It was brought out that in two-thirds of all accidents and personal injuries, the person in trouble will say that he was not thinking what he was doing.

Take men handling ties, rails, or tools in any way: if the men are not schooled to have their minds on the work they are doing, some one is going to be injured. Lots of times we find that two men like to work together but they put in most of their time talking, perhaps about something that has happened the night before, and their minds are not on their work at all. Men of this kind should be separated and cautioned, and put with men who are more quiet and have their minds on their work. If this does not cause them to be more thoughtful and safer, they should be let out of the service before they are injured, or injure some one else.

Lots of times you will see men engaged in picking up material who will grab up an end of whatever they are handling without looking where the other fellow's fingers or toes are, and the result is that some one is injured. Foremen should look out for men of this kind; talk to them and show them just how material should be handled in safety to themselves and the other men. We will often find that these men are willing to do their work in a safe manner if we just spend a few minutes showing them how it should be done.

There will be jobs come up that require especial carefulness to avoid accident or injury to some one, and we should always pick the man most suited for this particular job. The handiest man and the safest man should be used in all cases in doing work that requires the most safety practice.

In flagging we should always send out the best and safest men, as you are depending solely on your flagman for protecting the lives of train crews and passengers as well as your own men, and you cannot risk any improper flagging protection. It is true that lots of times we would like to keep these better men to do the work we are going to do, but the foreman is on the job to show the men who are not so good, and even though it takes longer, we will get the job done in a safe way, for we know we can depend on our flagging protection while at work.

A foreman should always be on the lookout for anything lying around yards or switches that might cause tripping or stumbling injuries. In working around yards, see that all tools and materials are kept clear and in order, so train men will not fall over same. Shovels should always be turned upside down so no one will step on blade of shovel, causing some one to get hurt. I find that men who want to hold their jobs,—and most of them do,—are men who will take to the safe practice of doing work, and in the handling of material and tools, if the foreman in charge just takes a little time and explains "how and why."

In my opinion it is an unsafe practice to let a man tightening bolts stand on the same side of the rail as the nut he is tightening. As the nut gets tight he will get in line with the wrench, brace his feet together and pull towards himself, and if the wrench slips or bolt breaks, the man is sure to fall. It a man stands on opposite side of rail from bolt he is tightening, he has one foot ahead for a brace, so in case of wrench slipping or bolt breaking, he will not fall.

(Note: See another article on "Tightening Track Bolts" in this Bulletin.—Editor.)

A very unsafe practice is letting two men drive the same spike. When spiking, one man hitting over the rail, if the man hitting over rail hits a glancing blow, there is too much chance that the man on the other side of rail will get hit. I have seen three men during my time get legs broken in this manner of spiking, maul glancing while hitting over the rail. It takes no longer for each man to drive his own spike than it does for the two of them to drive first one spike, then the other, and by each man driving his own spike he is working in safety.

Safety in using motor-cars: The only way this can be accomplished is take no chances in going to work or coming in at night. Don't try to make a certain set-off to meet a train unless you are sure it is perfectly safe to do so. It is better to be ten minutes late than to take a chance on having to wait six months to get back to work—if at all—after the motor car is struck, and the further chance of getting some one hurt by not complying with safety rules.

It is very regrettable that only a short time ago we had an accident on a work train loading rails with a steam crane resulting in dismissal of the men concerned because safety was disregarded in order to save a little time. If the safe way had been followed and a little more time taken to make the move safely, the men in trouble would still be working.

We should all take a lesson from this accident and be sure we are making our next move in safety to ourselves and others. By doing this we will keep out of trouble as well as keep some one else out of trouble.

We should watch the little details of safety and do everything possible to help our roadmaster in every way, and by doing this, we will be helping ourselves. It is much better to go along with work in such a way that the roadmaster does not have to criticize us every time he comes along about something that we already should have had done.

A. A. Lough,
Section Foreman.

TIGHTENING TRACK BOLTS

At another point in this bulletin we print an article written by a track foreman, in which he expresses the opinion that a man tightening track bolts should stand on the opposite side of the rail from the nut he is tightening.

We recently heard a rather extended discussion on this subject, and it was the opinion of the majority of foremen present that it was safer to stand on the same side of the rail as the nut being tightened, especially for right-handed men. As all track bolts are made with right-hand threads, a man standing on the same side as the nut he is working on has his right arm and shoulder in direct line with the top of the long handled wrench on which he is pulling, and he is in safest position for a strong pull, with his left foot forward toward the bolt and his right foot extended backward close to the rail as he pulls. It was the opinion of these foremen that in such position there was the least danger of a man falling if the wrench should slip, or the bolt should break, and the least likelihood of him being seriously hurt even if he did fall.

Of course the most important safety feature in tightening bolts is to see that the wrenches are in first-class condition and properly fit the nut to be tightened and then see that the wrench is properly applied to the nut so that it gets a full bearing surface, with the handle of the wrench perfectly erect, so there is no tendency to slip off due to pulling on the corners of the nut shoulders.

IMPROVING THE SAFETY OF TRAINMEN

Every trainman working today has vivid recollections of the turmoil of war-time. He can easily recall also the feeling of relief following the Armistice, the gradual return of the troops and the settling down to the more normal and orderly pace of peace-time. These memories are still fresh because these things occurred seemingly such a short time ago. The railroads had just got settled down to smooth and efficient operation by 1923.

It is pretty hard for us to realize what a remarkable improvement has been made in the safety of railroad operation in these few years since then. In 1923 there were about 22 train accidents (collisions, derailments and break-downs) for each million train miles run, but this rate decreased until in 1933 there were barely 7 such accidents per million train miles. That was a decrease of 68% in ten years. In that same period personal injuries to trainmen have been reduced in frequency 65%; in other words—trainmen now are only getting hurt about one-third as often, per million hours worked, as in 1923.

Collisions and derailments are becoming rarer each year, just as hot boxes, broken wheels and drawbar failures are passing out of the picture. In like manner the elimination of weak equipment and the improvement of brake apparatus as well as increased skill in handling locomotives, are all contributing factors to this remarkable elimination of accidents and personal injuries. Is our progress from here on going to be the result of further mechanical improvements, or must we give more attention to human improvement in order to prevent the still too frequent casualties to men in train, engine and yard service? Let us think about this for a few minutes.

There was a time when coupling and uncoupling of cars and hose connections was a major cause of train service accidents but better maintenance of these devices has helped to reduce that cause. **The accidents of that kind still occurring are due almost entirely to unnecessary chance-taking by men who won't take the time to stop the movement and make sure the cars will stand still, before attempting to adjust couplers or go between the cars.**

Better types of switchstands and better maintenance of switches has gone far toward eliminating the possibility of injury handling switches. The old "ball-lever" switch stands which were so often toe-mashers have practically disappeared. In like manner, the elimination of narrow truss bridges, the gradual improvement in requiring buildings and structures to be kept to standard clearance lines, and the enforcement of regulations against working on the close clearance side of tracks has almost done away with casualties from striking fixed structures.

But there are three accident sources which cannot be very well improved by mechanical means, namely, falls from box cars and coal cars, missteps getting on and off the cars, and being struck and run over while standing or moving about on or near the track. The relative importance of these three conditions is in the order they are named. Falls from equipment are the most frequent; falls in connection with handling brakes, either while on the brake platform or getting onto it or getting off of it, and falls from ladder irons or from roofs of cars. Some of these falls are due to stopping, starting or coupling of cars. In nearly every case the victim could prevent the fall by being more alert to what is taking place around him; he can usually tell, or has reason to know, when the moving car he is riding is about to be slowed down or stopped, or started or speeded up, and he can nearly always tell when a coupling is about to be made. **The point is that too often he is not sufficiently concerned at the possibility of getting hurt to stay away from the ladders or brake platform for a few seconds, until the expected disturbance is over!**

Getting on and getting off moving equipment produces far too many casualties, not because of anything wrong with the grab iron or steps or stirrups but because of something wrong with the man at that particular moment. Too often it is because the cars are moving too fast; many trainmen rather pride themselves on their ability to catch on rapidly moving cars or cabooses and are reluctant to give the necessary signals to slow down, or to register an emphatic complaint. **Sometimes it takes more nerve to stay off, or refuse to attempt to get on and to make the train stop or interrupt the switching job, than it takes to make a snappy flying catch, with the chance of losing a leg or a life!** Oftener, however, these accidents are not because the equipment is moving too fast; in fact, it may be moving at moderate or slow speed, and because the getting on or getting off seems so easy, the trainman gives little or no thought to his movements, but makes them casually or indifferently, and he is as surprised as anybody when the accident happens. He will tell you that the cars were not moving fast, that there were no obstructions in the way, that the grab irons and steps were all right, and he can't even explain to himself why he got hurt. **He doesn't like to admit that he just wasn't paying much attention to what he was doing at the moment because it seemed so common-place!**

The "struck and run over" accidents are still with us, but are becoming much less frequent. Slowly but steadily men who work around tracks and cars are learning the invaluable lesson about keeping well in the middle between tracks, and always looking around in both directions before stepping foul of the track or crossing it. The few cases we have had in the last year or two were more often the result of a sudden impulse to dart across a track when it was known that moving cars were coming. Often, men can yield to this impulse and not get hurt, but one misstep and it is all over. The best lesson any trainman can give himself is to "set the air" on himself the next time he is tempted to run across to the other side ahead of a moving train or cars, and make himself stand still and wait until they have passed. It takes real willpower to do it, but it may add many years to your lifetime.

Don't you see, Mr. Trainman or Mr. Switchman, that the kind of mishaps that are occurring most frequently in your occupation today are the kind that can only be stopped by your own self-control. They are the kind of accidents that cannot be stopped by any ingenious mechanical contrivances, or any changes in the layouts or methods of doing work. They can't be stopped by wishing, or talking, or making rules. They can only be prevented so far as you are concerned by you simply taking hold of yourself and making yourself take those few precautions that will keep such accidents from happening to you. If everyone of you who have read this article thus far will just make a firm resolution down in your own heart that so far as you are concerned you're going to change your ways if they need it, there won't be half or one-third as many trainmen and switchmen hurt in 1935 as there were last year on our line. This is important, not for the sake of the Company, not for the sake of your supervisor, but for the sake of yourself and your loved ones. Do it!

ACCIDENTS ON OTHER RAILROADS

We have just read accounts in accident bulletins from other roads of the following occurrences:

Two carpenters were up on a scaffold applying sheathing to the inside wall of a roundhouse when the scaffold swayed away from the wall, causing both men to lose balance and fall to the frozen ground, a distance of some 10 feet, one man receiving a sprained foot and the other a fractured arm. Evidently the scaffolding was not properly secured to the wall structure.

When a locomotive equipped with train control was hurriedly ordered out of a roundhouse, several men were working on it at the same time. An electrician was checking up the headlight and electric generator, while a mechanic was under the engine repairing a driver spring. He had to disconnect some brake rods in order to work on the springs. This man failed to comply with the instructions to cut out and bleed off the brakes before disconnecting them. While he was working, the electrician slowed down the electric generator so sharply that the reduced current caused the automatic train control device to set the brakes, and the resulting movement of the brake levers caught the mechanic under the engine, crushing and killing him. He paid the supreme penalty for failure to comply with a sensible rule.

On another railroad in this territory there recently occurred one of those rare accidents which prompts us to renew a warning to you.

A number of steel cylinders of carbon dioxide gas, much the same size, shape and construction as the oxygen cylinders used in gas welding process, were being transferred from one truck to another in a warehouse. The trucks were set end to end, as the cylinders were piled lengthwise on the truck, and the man who was transferring them would simply slide a cylinder endwise from one truck to another. He says he did not drop this cylinder, but it certainly exploded, shattering boards in the truck and very badly mutilating the trucker's leg.

The report of a Federal inspector who investigated the case says that the cylinder had a defect in the shell at the point where it burst, consisting of a crack about seven-eighths of the way through the wall. It had been in service for a long time and was made before more improved processes of manufacture had been developed. Nevertheless, the accident occurred while the cylinder was being handled, and this should be a warning to everyone never to drop or unnecessarily shake or jar these high pressure cylinders.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

Jan. 1st to Feb. 28th

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Acc. Rate	Cas. Rate
1934	40	5	18	23	5,731,845	6.98	4.01
1935	38	3	8	11	6,404,227	5.93	1.72
Increase					12%		
Decrease	5%	.....		52%		15%	57%

Accident Prevention Bulletin

September 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF AUGUST

Including casualties and careful estimates of manhours for the month of August in calculating the cumulative rates for the period January 1st to August 31st, the relative ranking of groups supervised by the officers named appears to be as tabulated below:

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	N. A. Williams	UPRR	2.26	14.98
2	F. N. Finch	OWR&N	2.93	15.77
3	F. H. Knickerbocker	LA&SL	2.99	16.17
4	H. J. Plumhof	OSL	2.47	16.20
	System Total 1934		2.46	15.41
	Last year for same period		2.11	12.27

Division Superintendents

1	M. C. Williams—Wash.	5	W. C. Wolcott—Colo.
2	C. E. Hedrix—Kans.	6	A. L. Coey—LA&SL
3	J. E. Mulick—Nebr.	7	H. A. Connett—Ore.
4	E. C. Manson—OSL	8	C. C. Barnard—Wyo.

Division Engineers

1	R. M. Jolley——Nebr.	5	M. C. Williams—Wash.
2	W. C. Perkins—Kans.	6	S. H. Osborne—Colo.
3	L. V. Chausse—OSL	7	H. A. Roberts—Ore.
4	R. L. Adamson—LA&SL	8	W. A. Lowther—Wyo.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	L. W. Shirley—OWR&N
2	P. J. Norton—OSL	7	A. V. James—Nebr.
3	J. Gogerty—Omaha Shops	8	W. J. Nolan—Colo.
4	J. F. Long—LA&SL	9	G. R. Wilcox—Kans.
5	G. A. Jordan—Wyo.	10	G. M. Walsh—Poca. Shops

AUGUST CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	9	3	Transp.	1	8	1
OSL	1	3	2	Mech.	—	4	4
OWR&N	—	4	—	M. of W.	—	5	—
LA&SL	—	1	—	Miscel.	—	—	—
Employes	1	17	5	Employes	1	17	5
Psgrs.	—	1	—				
Pers. Car.	—	—	—				
Total	1	18	5				

CASUALTIES JANUARY 1 TO SEPTEMBER 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	3	54	27	Transp.	2	36	7
OSL	2	16	3	Mech.	1	29	11
OWR&N	—	18	2	M. of W.	2	21	9
LA&SL	—	12	—	Miscel.	—	14	5
Employes	5	100	32	Employes	5	100	32
Psgrs.	—	7	—				
Pers. Car.	1	—	—				
Total	6	107	32				

August has been an unfortunate month; thoughtlessness and disregard of safety training have brought grief and disappointment to more employes and their dependents than in any month this year, except June. The more serious injuries include one immediate fatality and another case of death 34 hours after injury. The coming of autumn and relief from the hot, dry months should bring us new courage and determination to stop these needless misfortunes.

TRANSPORTATION DEPARTMENT

RUN OVER AFTER FALLING FROM CAR

It was just after dark on a Saturday night that a branch line local was finishing switching at the last important station before reaching the terminal and closing their week's work. They had a refrigerator car load of potatoes coupled ahead of the engine and their last move was to get around this car which they were to take in their train.

With the conductor at the switch and the head brakeman on the short ladder of the car next to the engine pilot, they undertook to make a running switch or "drop" of the car. The brakeman pulled the pin when the engine slacked after the movement was started, and he then stepped off to the ground and caught the side ladder at opposite end of car and climbed up to the brake platform. However, the space between the moving engine and car was too short to permit throwing the switch and the conductor did not throw it, so the car followed the engine in onto straight track instead of moving through a crossover. The engine crew saw that the car was following them and kept their engine moving slowly backward until the car was stopped, at which time it was a few feet from the engine pilot.

A second brakeman who had been on a street crossing to protect the move, seeing that the running switch failed, walked around the farther end of the standing car and called up to the brakeman on the brake step that he would make the coupling for him, so they could go back and try it over. On his signal, given from the ground, the engine coupled into the car and continued moving forward toward the switch. Just after this movement got under way the brakeman on the ground heard a cry, and in the light from the engine saw his partner beside the rail. The movement was stopped at once, and from a position almost opposite the engine cab, the brakeman who had been on top of the car was found dragging himself away from the rail, his left leg badly mutilated from ankle to thigh. The crew quickly obtained an automobile and rushed him to the hospital, but the injury and shock were so severe he died a few hours later.

This brakeman's lighted electric lantern was found standing upright on top of the car in front of the end ladder grab iron. The hand brake had been released, and it seems evident that although knowing the engine was about to couple to the car, he had turned from the brake wheel after releasing the brake and was reaching for his lantern to start down the ladder just as the engine coupled to the car. He was thus unprepared for the mild disturbance of ordinary coupling, and fell partly across the rail where the forward movement of the car wheels caught his leg.

The fact that his lantern was not disturbed corroborates the statement of the brakeman and enginemen that the coupling was perfectly ordinary and certainly not severe enough to cause an experienced man to slip off.

If every trainman and switchman will only realize that his safety while handling a brake or getting to and from it depends entirely upon keeping firm hold and good footing and being alert to what is going on, we will not have to record such sad occurrences as this. Don't be ashamed to admit that you are afraid of falling from cars. Take pains to be slow and careful around brake platforms and ladders every time. (D-21)

BROKEN SHAFT—BROKEN THUMB

A freight train was about halfway between terminals when the right rocker arm shaft on the valve gear broke, and of course they had to stop. The engineer got some chain and undertook to chain up the broken part to the running board of his engine so the locomotive could be moved. While he was taking up slack in the chain the broken piece slipped and jerked the chain taut, catching and mashing his right thumb. It will be two or three weeks before he can use it sufficiently to resume work.

On jobs like this only your own watchfulness, alertness and careful manipulation will keep you from getting hurt. (C-14)

LUCKY TO LOSE ONLY HIS THUMB

A switch crew brought their engine to the end of a number of separated cars on an industry track which were to be coupled up and moved. The engine foreman walked up along the cars, looking to see that knuckles were open where couplings were to be made, while the engine started slowly shoving the cars together. Noticing one knuckle out of position, the foreman yielded to that old foolish impulse to flip it around before the car moved. He wasn't quick enough, and the end of his left thumb was caught and crushed between couplers and had to be amputated.

This engine foreman has been a yardmaster at times during heavy business and has many years of experience. While illness in his family and other domestic worries has given him much concern in recent weeks, it is very doubtful if that had anything to do with the case. A man rarely gets hurt the first time he indulges in an unsafe practice or takes a chance. Break yourself of that chance taking habit before it breaks you. (N-50)

BOILING OIL

That sinister expression "boiled in oil," no doubt has its origin in the common knowledge that oil burns and scalds are so much more painful than water or steam burns. No doubt this is due to the fact that the oil is of heavier consistency and does not evaporate or lose its heat as fast as water.

This fireman, fortunately, did not get into the oil, but he did get considerable hot oil on him, causing painful and rather serious burns, which will disable him for two weeks.

He had just climbed onto the engine preparatory to going out on his run, and started to adjust the lubricator. He first opened the valve admitting steam to the lubricator, then reached around it to open the condensing valve. On this lubricator the small wheel of the drain valve is located at right angles to the wheel of the condensing valve and within two inches of it. The drain valve had not been screwed very tightly shut, and in turning the condensing valve the friction of the back of his hand also turned the drain valve, under which was an elbow opening directly toward him, and a spurt of hot oil was blown out onto his face and neck.

While it is possible he got hold of the wrong valve, he insists he did not. At any rate the Mechanical Department is rearranging all lubricator drain valves which have openings pointing in the direction of men in the cab. (O-37)

TWO SPRAINS

In August another conductor got in a hurry while climbing down the side of a box car to throw a switch, and stepped off the car while it was moving slowly without watching his step. He had on new shoes, too large for him, and the combination of haste, new shoes and thoughtlessness, resulted in a badly sprained ankle, with ten days or two weeks off duty. The sprain might not have been so bad, but he put such hot water on the ankle in an effort to reduce the swelling that he complicated matters by blistering it. (D-49)

On another division, a few days later, a train crew had set out cars for storage on a siding, and were setting brakes on them. A brakeman, 27 years young, after setting the brake on a flat car, thought climbing off was too slow and jumped from the deck to the ground, spraining his right knee when he alighted. He won't work for ten days, either. (K-29)

Haste and eagerness to get the work done are commendable traits, if accompanied by alertness and thoughtfulness. The difference between success and failure in any quick move lies in the keenness of mind behind it. Either one of these men could tell you that now.

THREE EYE INJURIES

A fireman and two brakemen got cinders or other foreign particles in their eyes during August. One brakeman was able to resume duty before the expiration of three days, but the fireman and other brakeman each had several days off duty before the inflammation was sufficiently reduced to permit them to return to work. (D-27, O-43 and Y-10)

LADY PASSENGER INJURED

A peculiarity of our passenger injuries this year is that there have been four or five cases of lady passengers injuring the tip of the spinal column when they have sat down unexpectedly, due to some minor slack surge of the train. These instances have occurred at widely separated points, and in no case was the handling of the train unusually severe, nor did it cause discomfort to other people. In each instance the lady was walking or standing facing in opposite direction to train movement, and the slight application of brakes or slacking of cars, caused her to fall backward, striking on the tip of the spinal column.

In the present instance occurring in August a passenger train of 11 cars was slowly backing into a terminal station, coming to a gradual stop. A lady was standing in the narrow passageway near the front door of a coach. As the car slowed down she was unable to retain her balance or catch herself, with the result that she sat down hard and the bruise at end of spinal column was sufficient to keep her from getting about for several days. (O-11)

MECHANICAL DEPARTMENT

THUMB PULLED OUT OF HAND

A freight carman suffered an unusual and very serious injury, when his glove caught and wrapped on the chuck or bit of a portable pneumatic reamer, and pulled his right thumb out, severing it from the hand at the base joint. He had been reaming out a hole in a car sill when the reamer bit stuck in the hole and came loose from the chuck. He and his helper removed the air motor and laid it on its side while the carman put the bit back into the chuck. The helper was holding the two handle levers of the motor, one of which is equipped with a spring sleeve which acts as a throttle control. After inserting the bit, the carman thoughtlessly turned the body of the motor upward while his helper was holding the throttle sleeve firmly, and this had exactly the same effect as if the machine had been left still and the helper had turned on the throttle. The bit and chuck started rotating rapidly while still in the grasp of the carman, and his glove was wrapped around the bit, pulling his thumb in with it, resulting in tearing it from the hand.

The accident is even more serious because this man had lost the index and middle finger from this same hand years ago, and will now have only the two outer fingers left on the stub hand.

Mechanical Department safety rule No. 52 reads:

> "Employes are prohibited from wearing gloves or finger rings while operating moving machinery, except by special authority from shop superintendent or master mechanic."

Had this man been working bare-handed, it is probable he would have received only minor skin lacerations when the motor started unexpectedly. (OS-3)

CARMAN JUMPS OFF SCAFFOLD

In the larger car repair sheds, fixed stationary scaffolds are provided to facilitate work around roof edges of cars. The roof edge of an ordinary car comes about breast high to a man standing on the scaffold. At one of these points a carman had been applying roof boards and wanted to mark the final board for sawing or ripping so it would fit flush with the end of the car. As he stood on the scaffold and reached around to mark the board he lost his balance, and, realizing he was going to fall, tried to jump to the floor below. The truck of this car was also being repaired, and a pair of mounted wheels stood in such position that he was unable to miss the end of the axle as he dropped, and struck it with his right heel, fracturing the heel bone. Such injuries usually require about six weeks to heal.

The same admonition often given about work on ladders applies to scaffolds. Don't try to lean out from one in order to reach a point too far to one side or so as to risk losing your balance. As a matter of fact, what this carman should have done was to have gotten on the roof, set his end board in place, and marked the underside while he was in that more secure position. (N-33)

PLAIN CASE OF INATTENTION

A locomotive repairman was applying driver brake shoes to an engine in the repair shop, and a machinist apprentice was helping him. The apprentice was seated on a box in the shallow pit under the engine, and his job was to help hold the brake shoe in place and prevent it from falling while it was being fitted into the brake head by the repairman working from the outside. When they attempted to put a shoe in place they found the brake head too close to the wheel and it would have to be pried back. The repairman told the apprentice to wait a minute while he got a bar, and, having secured it, the repairman started to manipulate the brake head, with the brake shoe partly inserted between brake head and wheel. The apprentice was not watching the job and was sitting with his foot directly under the brake shoe which fell out, struck his foot, and broke the left middle toe near the base. This will keep the apprentice out of a job for 30 days, during which time he should reflect on how much it would have been worth to him to watch what was going on and be on the alert for movements made. (PS-6)

A HERNIA CASE

A carman, kneeling on the ground under a car pulling on a ¾-inch "S" wrench, felt a pain in the groin which proved to be from an original hernia and had to be operated upon, causing several weeks' disability. (PS-7)

FUMBLES CAUSE FOUR LOST TIME INJURIES

A carman was grinding off the broken face of a draft lug from an old style car coupler on a power driven emery wheel, preparatory to welding it. He turned the top edge in too firmly against the wheel, and the lower edge of the lug slipped off the tool rest, the bottom of it being kicked against the lower part of his abdomen, causing a bruise and a rupture of a small blood vessel. After two days off duty he resumed work, but was relieved from any heavy lifting which might cause the bruise to give further trouble. He was fully able to carry on a regular assigned job which did not involve heavy lifting, but he has learned something about holding bulky material on a narrow tool rest while trying to grind all over the face of it on a power grinder. (Y-52)

A machinist assigned to repack an air pump piston at the air end of the pump had removed the packing gland but found difficulty pulling out the old packing. He turned on the pump so the stroke of the piston rod would help to take the packing out. When the old packing slipped out he forgot to shut off the power as he reached in with his fingers to pull the ring off the rod. Of course, just at that time the pump reversed its stroke and his left index finger was caught between the stuffing box and the packing nut, mashing off the tip. He came back to work the third day, but wished that he had used his head more and his fingers less. (Y-2)

A machinist was holding a big box wrench on the wrist pin nut of a locomotive in the roundhouse, while his helper was striking the wrench handle with an 8-lb. sledge to tighten the nut. The helper made a slight error in direction, so that his sledge touched the guide yoke, deflecting the blow, and he struck the machinist on the third finger of his right hand, mashing the tip of it. No doubt the machinist said several things at the time, but on further reflection he says now he will keep his hands so far back away from the striking face of a box wrench that the striker would have to use a pillow to hit it.

Whenever you are going to swing a striking tool in close quarters, look around and pick the position which is least likely to result in contacting anything else when you go to swing. You can generally figure out a way to avoid possibility of such a mislick as this man made. (Y-19)

A locomotive repairman setting up wedges, binders, brake beam hangers, etc., preparatory to "wheeling" an engine in the back shop, set one brake beam hanger so erect that a moment later it fell over across his left instep. He stayed home two days and a half nursing that bruised foot before it was sufficiently recovered that he could return to work in the shop at his regular job. He knows that he set his own trap. (PS-2)

MAINTENANCE OF WAY DEPARTMENT

TWO BAD FALLS FROM BRIDGES

In repairing a bridge, the gang foreman and five men were putting a new outside stringer in place under the deck. The deck of this pile bridge had been jacked up and the old stringer removed, and the new one had been let down in place, resting on three caps or across two spans. Three men were operating the small hand derrick attached to a push car and had lowered the stringer to the caps. The foreman had gotten down on one cap while a bridge carpenter had gotten on another to bar the stringer back into place under the ties while its weight was partly supported by the hand crane.

This was a 12-span bridge, and the bridgeman was on No. 6 span, about 35 feet above ground. He had a small pointed bridge bar in his hand for use in pinching the stringer over, and although there was no movement of the stringer nor a mishap of any nature, he apparently became overbalanced and fell to the ground below, resulting in fractures and internal injuries which caused his death 34 hours later.

This bridge carpenter was 49 years old and had had 15 to 18 years' experience. He was known as a thoroughly capable and reliable man. The cap on which he was working was even safer than others, in that it had a full water barrel setting on a 3x3 platform at the outer end of the cap, thus giving additional room and affording added support in case of losing balance. Work of this nature always entails the hazard of falling, and every man so engaged must realize that his first duty is to himself to assure his own safety. No matter how troublesome a job is or how long it takes, don't get so eager or exert yourself so much as to endanger your balance or the security of your footing. (C-3)

In a large terminal city on our line several steel bridges of considerable length carry the traffic of various streets over the railroad yard which skirts the lower edge of the hills along a water course. A steel erection gang was renewing and reenforcing the steel floor beams and bracings, with the floor removed from half the bridge where they were working. When this work was first started, temporary working planks of 2x10 material had been cut to fit between parallel girders so they could not slip endwise and would afford reliable footing. Most of the workmen followed instructions to use these fitted planks, but the victim of this accident was using a shorter plank, with one end resting on the bottom flange of a girder, and the other end laid across a bottom brace. His job was to drive rivets with a pneumatic hammer. Preliminary to riveting, a drift pin was inserted in the first hole, and he undertook to drive this drift pin up with the air hammer to bring all the rivet holes in line. He stood on the plank above mentioned, with the end behind him not braced and merely resting on a diagonal, while he shoved against the rapidly vibrating pneumatic hammer. His forward pressure and the vibration of the work going on caused the plank below him to gradually work off the six-inch flange of the girder, and it suddenly dropped out from under him, precipitating him to the ground some 30 feet below. He received fractures of the leg, arm and back, and it will probably be six weeks or two months before he is able to get out again.

One would think the danger in this situation would have been apparent to him or any other men working around him. Certainly, all men in the gang accustomed to steel erection work realize the danger of vibration as it may affect loose end planks. We repeat again that interest and enthusiasm for the work in hand and eagerness to get it done are all commendable qualities if controlled by a sound and conservative judgment, which looks first to see that everything is safe and that the workman will not be endangered by the move to be made. (N-29)

INJURED WHEN MOTOR CAR LEAVES RAIL

On one part of the line there are still a considerable number of small motor track cars, known as "one rail" cars, where the body of the car, engine and riders are over one rail, with guide arms extending to smaller wheels running on the opposite rail. A bridge foreman and a helper were riding on one of these cars and, after a stop, had proceeded 250 or 300 feet when they slowed down for a farm crossing. After drifting over the crossing slowly, the power was turned on, and the engine spun the rear wheel two or three times before gripping the rail. This disturbance caused the car to run toward the guide wheels which climbed the farther rail and the car dropped off the track, moving only 30 feet after it struck the ground. The helper fell off in front of the car and the dislocation and fracture of the left wrist which he received was probably due to his outstretched arm striking a tie.

The track was straight, the car was in good condition, and the accident, like others which occasionally happen with this type of car, was probably due to failure of the men to sit with their bodies well inside the running rail so as to put as great an amount of their weight as possible on the guide wheels. (W-9)

COAL CAR DUMP LEVER INJURES TRACKMAN

At an intermediate terminal yard, one of the four dumping sections of a self-clearing gondola car loaded with coal opened up and dumped a part of the coal on the track. Section men were called to shovel the coal away and to close the car dump. It was after working hours when the men were called, and the foreman could not be immediately reached, but the three laborers who responded felt perfectly able to handle the job. The square "wind-up" shaft is equipped with a ratchet wheel and pawl like a brake shaft, but in horizontal position, and instead of several teeth the ratchet wheel has but six, which necessitates a considerable turn of the shaft to permit the pawl to engage the next tooth. It was never intended that these shafts would have to be wound up under load as in this case. The men inserted a bar in the lever socket and turned the shaft so that a wheel tooth was considerable beyond the pawl which would hold it. One of the laborers then inserted a rock between the ratchet tooth and the pawl, which he though would hold all the slack they had. When the other men removed the bar to turn up the lever and get a fresh "bite" the rock slipped, causing the lever to fly up and the right index finger of one of the men was caught between the lever and the corner of the car, badly mashing and fracturing it, with probably three weeks' disability. The folly of trying to insert a rock between a ratchet wheel and its pawl is of course clear to them now, as it must be to you. Don't be tempted to take such silly chances. What if the job does take longer? The company is only too willing to pay for the extra time necessary to do the job the safe, careful way. (Y-56)

ROLLING STONE CAUSES BAD FALL

A 56-year-old track walker was patrolling the track, walking between the rails ballasted with pebbles. He stepped on a round stone which rolled under him and he fell across a rail, striking on his side and back. In considerable pain, he was taken to the doctor who found symptoms of internal injury and he will probably have to lose two or three weeks recovering from the unfortunate slip.

You who read this bulletin each month must certainly realize that only constant glancing at the ground ahead where you are walking will keep you from such a serious mishap as this. (O-23)

MISCELLANEOUS DEPARTMENTS

A MOVING STORY

We don't mean that this is especially pathetic, although it was no fun for the victim. Part of the clerical force in an accounting office were being moved to another room. Carpenters were moving the heavier furniture, and, of course, the clerks themselves moved part of the lighter material. It was desired to set a heavy filing case against a wall in which there was a door. The case was set down several inches from the wall, and after the carpenter had removed the knob from the door and locked it in position, he stepped to one end of the filing case to slide it back against the wall. One of the clerks thought to help him by stepping to the opposite end and lifting and shoving that end back. After the exertion he could hardly straighten up, and within an hour or two he found he had a badly sprained back. It was a week before he could return to the job. Don't try heavy lifts and unusual feats of strength to which you are not accustomed. Let those who are in practice handle such jobs. (LA-2)

BAD DERAILMENT—NO CASUALTY

Pride in our excellent reputation for safe handling of trains would prompt us to omit any mention of this case which reveals an almost pitiful degree of negligence on the part of several men, but we feel impelled to publish it for the benefit of other employes in similar work, in the hope it will prevent the possibility of a future accident from the same cause.

When a heavy freight train arrived at a station at the top of a long grade, the helper engine which had been assisting was detached and went to the wye where it cleared the main line for a passenger train. The freight train pulled into the siding and, after the passenger train left, it started to head out onto the main line through a crossover almost opposite where the helper engine was standing. The road engineer arranged with the helper engineer to line up the cross over switches, after their train pulled out, and thus prevent the necessity for slowing down while the rear brakeman closed these switches. After this arrangement was made the road engineer whistled two long blasts, received an acknowledgement from the rear end, and the train departed, the helper crew signalling to the rear trainmen that they would get the switches. It was about the middle of a fine clear afternoon.

After the rear end of the freight train had departed, the fireman of the helper engine threw the main line switch from the wye for his engine to come out onto the main track, and while the engineer moved the engine, the fireman stepped across and threw the side track end of the crossover to its normal position for straight track. His engine having cleared the wye switch in the meantime, he then stepped back over to the main track and lined the wye switch to normal position and got up on the engine without ever touching the switch at the main line end of the crossover. This helper engine then proceeded, running through the main line end of the crossover which had not been restored to normal, and which was not observed by either the engineer or fireman. The helper engine followed behind the freight train about 15 miles to the district terminal.

There are no automatic signals on this line, practically a branch, with but two passenger trains and one freight train scheduled in each direction daily. About two hours after the freight train and the helper had departed, the regular passenger train in the same direction arrived at this station, made the usual stop, and departed, without noticing the red target of this trailing point switch which was clearly indicating that it was in wrong position. They also ran through the switch and continued on some 15 miles to the end of this engine crew's run. Four or five hours later this same engineer took charge of the engine of a passing train in the opposite direction and started on his return run. Approaching the station where unknowingly he had already run through this switch, he failed to note the red light of the switch stand during the few hundred feet it was visible after he rounded the curve, and his engine encountered the open points and was derailed while moving 30 miles per hour. The mail and baggage cars were also derailed but none of the equipment was turned over. Fortunately, no one received more than a severe shaking up, the cars in which passengers were riding not being derailed and merely coming to a quick stop. The line was tied up for a number of hours awaiting the arrival of a wrecking crew who rerailed the train and repaired the track.

The helper engineer and fireman failed to line up the main line switch for which they had willingly assumed full responsibility; not only that, but they run their engine thru the switch which they had failed to line without noticing its position. The engineer and fireman on the following passenger train also failed to note the position of the switch target and ran through the switch, and this same engineer with this same fireman on the return trip failed to note the indication of the switch light during several hundred feet while it was in sight, and derailed his train. Surely every engineman, switchman and trainman can read the lesson in this case without further comment from us. (D-213)

LET'S CUT OUT THE FAST DRIVING

While we all know, in a general way, that unsafe driving is causing a tremendous number of deaths in auto accidents, we become more alarmed when the victims are our own acquaintances and friends. Within the past month and but a few days apart two similar accidents occurred to employes, both bringing deaths and permanent disabilities into Union Pacific families. In both cases the evidence indicates that the cars were attempting to take curves at too high a speed, resulting in leaving the road and overturning.

These are just two out of hundreds of accidents of similar nature occurring every week. National Safety Council figures so far this year indicate that about 34,000 people will be killed in auto accidents in 1934, compared with the 31,000 in 1933. Are you going to blot out the happiness of yourself and your family by adding more names to that fearful roll, or will you take hold of yourself right now, and use your persuasive power on others, to prevent further sacrifices to this hungry monster called SPEED?

It takes more sense and judgment to drive safely. Any foolish smart-aleck can drive fast. Everyone knows there is an exciting nervous thrill in speeding down the highway, passing car after car, hearing the whine of the tires on the pavement, or feeling the little skidding roll of the gravel as you take the turns. But is that thrill worth more than life itself?

How many husbands, fathers and lovers have stood beside a hospital bed and looked at the suffering bandaged form of a loved one and said, "I'd give anything in the world to bring her back?" And all he needed to have given was just a thought,—a thought before the crash,—the mere sane thought, "I don't have to drive so fast. Life and happiness are too precious. I'm going to slow down, take my time, take a little dust if necessary, but we're going to live and keep our precious bodies whole, so we can enjoy thousands of days after this one."

Let's convert ourselves to that thought, not just while we're sitting around in a safety meeting, but while we're sitting behind the wheel of a fine, fast car. Let's talk it to other people too, and if enough of us do that and keep at it, we can prevent offering up so many of our loved ones and ourselves to the false god of SPEED!

FROM A THOUGHTFUL ENGINEER

In our mail the other day there was a letter from an old acquaintance who is running a locomotive on the district where the editor formerly worked. It was not written for publication, but only to suggest a good idea. The writer's words ring so true that we publish the letter just as it was received.

"As I go along in the railroad game, I just wonder if each one of us old heads ever stop and think what safety first really means to us. Over in Chicago the other day I saw something that sort of impressed me as meaning a lot. And as it is the time of year that there should be a lot of the younger men returning to service, I thought I'd tell you about it.

"As I went through a large printing plant I noticed framed on the wall in bold face type these words:

'DON'T SPOIL THE JOB. IF YOU DON'T UNDERSTAND ASK. THERE IS SOMEONE ON THE JOB WHO DOES.'

"I was just thinking how good that would apply on our jobs, especially with the younger men, but with a lot of us old men, too. Like many another simple statement has done, it started me thinking what a lot of meaning was expressed in such a few words. Looking back over my own experience, covering quite a while, I can see many costly mistakes that I would not have made had I but asked some one on the job that did know. I have also seen some annoying and expensive errors made by others who should have come to me and asked.

'IF YOU DON'T UNDERSTAND, ASK!"

"A simple and easy thing to do and yet how few there are who do it. I wonder why? The answer seems to be because of false pride; we just hate to admit that we don't 'savvy' so we stumble and blunder on, when the way would be much easier if we would just ask someone that does know.

"Safety First,—if you don't understand, ask!"

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(Eight Months Jan. 1st to Sept. 1st)

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Accl. Rate	Cas. Rate
1933	102	13	33	46	22,438,334	4.55	2.05
1934	133	19	39	58	24,699,422	5.38	2.35
Increase	30.%	.....	.....	26.%	10.%	18.%	15.%

Accident Prevention Bulletin

September 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF AUGUST

Including casualties and careful estimates of manhours for the month of August in calculating the cumulative rates for the period January 1st to August 31st, the relative ranking of groups supervised by the officers named appears to be as tabulated below:

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	N. A. Williams	UPRR	2.26	14.98
2	F. N. Finch	OWR&N	2.93	15.77
3	F. H. Knickerbocker	LA&SL	2.99	16.17
4	H. J. Plumhof	OSL	2.47	16.20
	System Total 1934		2.46	15.41
	Last year for same period		2.11	12.27

Division Superintendents

1	M. C. Williams—Wash.	5	W. C. Wolcott—Colo.
2	C. E. Hedrix—Kans.	6	A. L. Coey—LA&SL
3	J. E. Mulick—Nebr.	7	H. A. Connett—Ore.
4	E. C. Manson—OSL	8	C. C. Barnard—Wyo.

Division Engineers

1	R. M. Jolley——Nebr.	5	M. C. Williams—Wash.
2	W. C. Perkins—Kans.	6	S. H. Osborne—Colo.
3	L. V. Chausse—OSL	7	H. A. Roberts—Ore.
4	R. L. Adamson—LA&SL	8	W. A. Lowther—Wyo.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	L. W. Shirley—OWR&N
2	P. J. Norton—OSL	7	A. V. James—Nebr.
3	J. Gogerty—Omaha Shops	8	W. J. Nolan—Colo.
4	J. F. Long—LA&SL	9	G. R. Wilcox—Kans.
5	G. A. Jordan—Wyo.	10	G. M. Walsh—Poca. Shops

AUGUST CASUALTIES

By Units	F	R	LT
UPRR	—	9	3
OSL	1	3	2
OWR&N	—	4	—
LA&SL	—	1	—
Employes	1	17	5
Psgrs.	—	1	—
Pers. Car.	—	—	—
Total	1	18	5

By Depts.	F	R	LT
Transp.	1	8	1
Mech.	—	4	4
M. of W.	—	5	—
Miscel.	—	—	—
Employes	1	17	5

CASUALTIES JANUARY 1 TO SEPTEMBER 1

By Units	F	R	LT
UPRR	3	54	27
OSL	2	16	3
OWR&N	—	18	2
LA&SL	—	12	—
Employes	5	100	32
Psgrs.	—	7	—
Pers. Car.	1	—	—
Total	6	107	32

By Depts.	F	R	LT
Transp.	2	36	7
Mech.	1	29	11
M. of W.	2	21	9
Miscel.	—	14	5
Employes	5	100	32

August has been an unfortunate month; thoughtlessness and disregard of safety training have brought grief and disappointment to more employes and their dependents than in any month this year, except June. The more serious injuries include one immediate fatality and another case of death 34 hours after injury. The coming of autumn and relief from the hot, dry months should bring us new courage and determination to stop these needless misfortunes.

TRANSPORTATION DEPARTMENT

RUN OVER AFTER FALLING FROM CAR

It was just after dark on a Saturday night that a branch line local was finishing switching at the last important station before reaching the terminal and closing their week's work. They had a refrigerator car load of potatoes coupled ahead of the engine and their last move was to get around this car which they were to take in their train.

With the conductor at the switch and the head brakeman on the short ladder of the car next to the engine pilot, they undertook to make a running switch or "drop" of the car. The brakeman pulled the pin when the engine slacked after the movement was started, and he then stepped off to the ground and caught the side ladder at opposite end of car and climbed up to the brake platform. However, the space between the moving engine and car was too short to permit throwing the switch and the conductor did not throw it, so the car followed the engine in onto straight track instead of moving through a crossover. The engine crew saw that the car was following them and kept their engine moving slowly backward until the car was stopped, at which time it was a few feet from the engine pilot.

A second brakeman who had been on a street crossing to protect the move, seeing that the running switch failed, walked around the farther end of the standing car and called up to the brakeman on the brake step that he would make the coupling for him, so they could go back and try it over. On his signal, given from the ground, the engine coupled into the car and continued moving forward toward the switch. Just after this movement got under way the brakeman on the ground heard a cry, and in the light from the engine saw his partner beside the rail. The movement was stopped at once, and from a position almost opposite the engine cab, the brakeman who had been on top of the car was found dragging himself away from the rail, his left leg badly mutilated from ankle to thigh. The crew quickly obtained an automobile and rushed him to the hospital, but the injury and shock were so severe he died a few hours later.

This brakeman's lighted electric lantern was found standing upright on top of the car in front of the end ladder grab iron. The hand brake had been released, and it seems evident that although knowing the engine was about to couple to the car, he had turned from the brake wheel after releasing the brake and was reaching for his lantern to start down the ladder just as the engine coupled to the car. He was thus unprepared for the mild disturbance of ordinary coupling, and fell partly across the rail where the forward movement of the car wheels caught his leg.

The fact that his lantern was not disturbed corroborates the statement of the brakeman and enginemen that the coupling was perfectly ordinary and certainly not severe enough to cause an experienced man to slip off.

If every trainman and switchman will only realize that his safety while handling a brake or getting to and from it depends entirely upon keeping firm hold and good footing and being alert to what is going on, we will not have to record such sad occurrences as this. Don't be ashamed to admit that you are afraid of falling from cars. Take pains to be slow and careful around brake platforms and ladders every time. (D-21)

BROKEN SHAFT—BROKEN THUMB

A freight train was about halfway between terminals when the right rocker arm shaft on the valve gear broke, and of course they had to stop. The engineer got some chain and undertook to chain up the broken part to the running board of his engine so the locomotive could be moved. While he was taking up slack in the chain the broken piece slipped and jerked the chain taut, catching and mashing his right thumb. It will be two or three weeks before he can use it sufficiently to resume work.

On jobs like this only your own watchfulness, alertness and careful manipulation will keep you from getting hurt. (C-14)

LUCKY TO LOSE ONLY HIS THUMB

A switch crew brought their engine to the end of a number of separated cars on an industry track which were to be coupled up and moved. The engine foreman walked up along the cars, looking to see that knuckles were open where couplings were to be made, while the engine started slowly shoving the cars together. Noticing one knuckle out of position, the foreman yielded to that old foolish impulse to flip it around before the car moved. He wasn't quick enough, and the end of his left thumb was caught and crushed between couplers and had to be amputated.

This engine foreman has been a yardmaster at times during heavy business and has many years of experience. While illness in his family and other domestic worries has given him much concern in recent weeks, it is very doubtful if that had anything to do with the case. A man rarely gets hurt the first time he indulges in an unsafe practice or takes a chance. Break yourself of that chance taking habit before it breaks you. (N-50)

BOILING OIL

That sinister expression "boiled in oil," no doubt has its origin in the common knowledge that oil burns and scalds are so much more painful than water or steam burns. No doubt this is due to the fact that the oil is of heavier consistency and does not evaporate or lose its heat as fast as water.

This fireman, fortunately, did not get into the oil, but he did get considerable hot oil on him, causing painful and rather serious burns, which will disable him for two weeks.

He had just climbed onto the engine preparatory to going out on his run, and started to adjust the lubricator. He first opened the valve admitting steam to the lubricator, then reached around it to open the condensing valve. On this lubricator the small wheel of the drain valve is located at right angles to the wheel of the condensing valve and within two inches of it. The drain valve had not been screwed very tightly shut, and in turning the condensing valve the friction of the back of his hand also turned the drain valve, under which was an elbow opening directly toward him, and a spurt of hot oil was blown out onto his face and neck.

While it is possible he got hold of the wrong valve, he insists he did not. At any rate the Mechanical Department is rearranging all lubricator drain valves which have openings pointing in the direction of men in the cab. (O-37)

TWO SPRAINS

In August another conductor got in a hurry while climbing down the side of a box car to throw a switch, and stepped off the car while it was moving slowly without watching his step. He had on new shoes, too large for him, and the combination of haste, new shoes and thoughtlessness, resulted in a badly sprained ankle, with ten days or two weeks off duty. The sprain might not have been so bad, but he put such hot water on the ankle in an effort to reduce the swelling that he complicated matters by blistering it. (D-49)

On another division, a few days later, a train crew had set out cars for storage on a siding, and were setting brakes on them. A brakeman, 27 years young, after setting the brake on a flat car, thought climbing off was too slow and jumped from the deck to the ground, spraining his right knee when he alighted. He won't work for ten days, either. (K-29)

Haste and eagerness to get the work done are commendable traits, if accompanied by alertness and thoughtfulness. The difference between success and failure in any quick move lies in the keenness of mind behind it. Either one of these men could tell you that now.

THREE EYE INJURIES

A fireman and two brakemen got cinders or other foreign particles in their eyes during August. One brakeman was able to resume duty before the expiration of three days, but the fireman and other brakeman each had several days off duty before the inflammation was sufficiently reduced to permit them to return to work. (D-27, O-43 and Y-10)

LADY PASSENGER INJURED

A peculiarity of our passenger injuries this year is that there have been four or five cases of lady passengers injuring the tip of the spinal column when they have sat down unexpectedly, due to some minor slack surge of the train. These instances have occurred at widely separated points, and in no case was the handling of the train unusually severe, nor did it cause discomfort to other people. In each instance the lady was walking or standing facing in opposite direction to train movement, and the slight application of brakes or slacking of cars, caused her to fall backward, striking on the tip of the spinal column.

In the present instance occurring in August a passenger train of 11 cars was slowly backing into a terminal station, coming to a gradual stop. A lady was standing in the narrow passageway near the front door of a coach. As the car slowed down she was unable to retain her balance or catch herself, with the result that she sat down hard and the bruise at end of spinal column was sufficient to keep her from getting about for several days. (O-11)

MECHANICAL DEPARTMENT

THUMB PULLED OUT OF HAND

A freight carman suffered an unusual and very serious injury, when his glove caught and wrapped on the chuck or bit of a portable pneumatic reamer, and pulled his right thumb out, severing it from the hand at the base joint. He had been reaming out a hole in a car sill when the reamer bit stuck in the hole and came loose from the chuck. He and his helper removed the air motor and laid it on its side while the carman put the bit back into the chuck. The helper was holding the two handle levers of the motor, one of which is equipped with a spring sleeve which acts as a throttle control. After inserting the bit, the carman thoughtlessly turned the body of the motor upward while his helper was holding the throttle sleeve firmly, and this had exactly the same effect as if the machine had been left still and the helper had turned on the throttle. The bit and chuck started rotating rapidly while still in the grasp of the carman, and his glove was wrapped around the bit, pulling his thumb in with it, resulting in tearing it from the hand.

The accident is even more serious because this man had lost the index and middle finger from this same hand years ago, and will now have only the two outer fingers left on the stub hand.

Mechanical Department safety rule No. 52 reads:

> "Employes are prohibited from wearing gloves or finger rings while operating moving machinery, except by special authority from shop superintendent or master mechanic."

Had this man been working bare-handed, it is probable he would have received only minor skin lacerations when the motor started unexpectedly. (OS-3)

CARMAN JUMPS OFF SCAFFOLD

In the larger car repair sheds, fixed stationary scaffolds are provided to facilitate work around roof edges of cars. The roof edge of an ordinary car comes about breast high to a man standing on the scaffold. At one of these points a carman had been applying roof boards and wanted to mark the final board for sawing or ripping so it would fit flush with the end of the car. As he stood on the scaffold and reached around to mark the board he lost his balance, and, realizing he was going to fall, tried to jump to the floor below. The truck of this car was also being repaired, and a pair of mounted wheels stood in such position that he was unable to miss the end of the axle as he dropped, and struck it with his right heel, fracturing the heel bone. Such injuries usually require about six weeks to heal.

The same admonition often given about work on ladders applies to scaffolds. Don't try to lean out from one in order to reach a point too far to one side or so as to risk losing your balance. As a matter of fact, what this carman should have done was to have gotten on the roof, set his end board in place, and marked the underside while he was in that more secure position. (N-33)

PLAIN CASE OF INATTENTION

A locomotive repairman was applying driver brake shoes to an engine in the repair shop, and a machinist apprentice was helping him. The apprentice was seated on a box in the shallow pit under the engine, and his job was to help hold the brake shoe in place and prevent it from falling while it was being fitted into the brake head by the repairman working from the outside. When they attempted to put a shoe in place they found the brake head too close to the wheel and it would have to be pried back. The repairman told the apprentice to wait a minute while he got a bar, and, having secured it, the repairman started to manipulate the brake head, with the brake shoe partly inserted between brake head and wheel. The apprentice was not watching the job and was sitting with his foot directly under the brake shoe which fell out, struck his foot, and broke the left middle toe near the base. This will keep the apprentice out of a job for 30 days, during which time he should reflect on how much it would have been worth to him to watch what was going on and be on the alert for movements made. (PS-6)

A HERNIA CASE

A carman, kneeling on the ground under a car pulling on a ¾-inch "S" wrench, felt a pain in the groin which proved to be from an original hernia and had to be operated upon, causing several weeks' disability. (PS-7)

FUMBLES CAUSE FOUR LOST TIME INJURIES

A carman was grinding off the broken face of a draft lug from an old style car coupler on a power driven emery wheel, preparatory to welding it. He turned the top edge in too firmly against the wheel, and the lower edge of the lug slipped off the tool rest, the bottom of it being kicked against the lower part of his abdomen, causing a bruise and a rupture of a small blood vessel. After two days off duty he resumed work, but was relieved from any heavy lifting which might cause the bruise to give further trouble. He was fully able to carry on a regular assigned job which did not involve heavy lifting, but he has learned something about holding bulky material on a narrow tool rest while trying to grind all over the face of it on a power grinder. (Y-52)

A machinist assigned to repack an air pump piston at the air end of the pump had removed the packing gland but found difficulty pulling out the old packing. He turned on the pump so the stroke of the piston rod would help to take the packing out. When the old packing slipped out he forgot to shut off the power as he reached in with his fingers to pull the ring off the rod. Of course, just at that time the pump reversed its stroke and his left index finger was caught between the stuffing box and the packing nut, mashing off the tip. He came back to work the third day, but wished that he had used his head more and his fingers less. (Y-2)

A machinist was holding a big box wrench on the wrist pin nut of a locomotive in the roundhouse, while his helper was striking the wrench handle with an 8-lb. sledge to tighten the nut. The helper made a slight error in direction, so that his sledge touched the guide yoke, deflecting the blow, and he struck the machinist on the third finger of his right hand, mashing the tip of it. No doubt the machinist said several things at the time, but on further reflection he says now he will keep his hands so far back away from the striking face of a box wrench that the striker would have to use a pillow to hit it.

Whenever you are going to swing a striking tool in close quarters, look around and pick the position which is least likely to result in contacting anything else when you go to swing. You can generally figure out a way to avoid possibility of such a mislick as this man made. (Y-19)

A locomotive repairman setting up wedges, binders, brake beam hangers, etc., preparatory to "wheeling" an engine in the back shop, set one brake beam hanger so erect that a moment later it fell over across his left instep. He stayed home two days and a half nursing that bruised foot before it was sufficiently recovered that he could return to work in the shop at his regular job. He knows that he set his own trap. (PS-2)

MAINTENANCE OF WAY DEPARTMENT

TWO BAD FALLS FROM BRIDGES

In repairing a bridge, the gang foreman and five men were putting a new outside stringer in place under the deck. The deck of this pile bridge had been jacked up and the old stringer removed, and the new one had been let down in place, resting on three caps or across two spans. Three men were operating the small hand derrick attached to a push car and had lowered the stringer to the caps. The foreman had gotten down on one cap while a bridge carpenter had gotten on another to bar the stringer back into place under the ties while its weight was partly supported by the hand crane.

This was a 12-span bridge, and the bridgeman was on No. 6 span, about 35 feet above ground. He had a small pointed bridge bar in his hand for use in pinching the stringer over, and although there was no movement of the stringer nor a mishap of any nature, he apparently became overbalanced and fell to the ground below, resulting in fractures and internal injuries which caused his death 34 hours later.

This bridge carpenter was 49 years old and had had 15 to 18 years' experience. He was known as a thoroughly capable and reliable man. The cap on which he was working was even safer than others, in that it had a full water barrel setting on a 3x3 platform at the outer end of the cap, thus giving additional room and affording added support in case of losing balance. Work of this nature always entails the hazard of falling, and every man so engaged must realize that his first duty is to himself to assure his own safety. No matter how troublesome a job is or how long it takes, don't get so eager or exert yourself so much as to endanger your balance or the security of your footing. (C-3)

In a large terminal city on our line several steel bridges of considerable length carry the traffic of various streets over the railroad yard which skirts the lower edge of the hills along a water course. A steel erection gang was renewing and reenforcing the steel floor beams and bracings, with the floor removed from half the bridge where they were working. When this work was first started, temporary working planks of 2x10 material had been cut to fit between parallel girders so they could not slip endwise and would afford reliable footing. Most of the workmen followed instructions to use these fitted planks, but the victim of this accident was using a shorter plank, with one end resting on the bottom flange of a girder, and the other end laid across a bottom brace. His job was to drive rivets with a pneumatic hammer. Preliminary to riveting, a drift pin was inserted in the first hole, and he undertook to drive this drift pin up with the air hammer to bring all the rivet holes in line. He stood on the plank above mentioned, with the end behind him not braced and merely resting on a diagonal, while he shoved against the rapidly vibrating pneumatic hammer. His forward pressure and the vibration of the work going on caused the plank below him to gradually work off the six-inch flange of the girder, and it suddenly dropped out from under him, precipitating him to the ground some 30 feet below. He received fractures of the leg, arm and back, and it will probably be six weeks or two months before he is able to get out again.

One would think the danger in this situation would have been apparent to him or any other men working around him. Certainly, all men in the gang accustomed to steel erection work realize the danger of vibration as it may affect loose end planks. We repeat again that interest and enthusiasm for the work in hand and eagerness to get it done are all commendable qualities if controlled by a sound and conservative judgment, which looks first to see that everything is safe and that the workman will not be endangered by the move to be made. (N-29)

INJURED WHEN MOTOR CAR LEAVES RAIL

On one part of the line there are still a considerable number of small motor track cars, known as "one rail" cars, where the body of the car, engine and riders are over one rail, with guide arms extending to smaller wheels running on the opposite rail. A bridge foreman and a helper were riding on one of these cars and, after a stop, had proceeded 250 or 300 feet when they slowed down for a farm crossing. After drifting over the crossing slowly, the power was turned on, and the engine spun the rear wheel two or three times before gripping the rail. This disturbance caused the car to run toward the guide wheels which climbed the farther rail and the car dropped off the track, moving only 30 feet after it struck the ground. The helper fell off in front of the car and the dislocation and fracture of the left wrist which he received was probably due to his outstretched arm striking a tie.

The track was straight, the car was in good condition, and the accident, like others which occasionally happen with this type of car, was probably due to failure of the men to sit with their bodies well inside the running rail so as to put as great an amount of their weight as possible on the guide wheels. (W-9)

COAL CAR DUMP LEVER INJURES TRACKMAN

At an intermediate terminal yard, one of the four dumping sections of a self-clearing gondola car loaded with coal opened up and dumped a part of the coal on the track. Section men were called to shovel the coal away and to close the car dump. It was after working hours when the men were called, and the foreman could not be immediately reached, but the three laborers who responded felt perfectly able to handle the job. The square "wind-up" shaft is equipped with a ratchet wheel and pawl like a brake shaft, but in horizontal position, and instead of several teeth the ratchet wheel has but six, which necessitates a considerable turn of the shaft to permit the pawl to engage the next tooth. It was never intended that these shafts would have to be wound up under load as in this case. The men inserted a bar in the lever socket and turned the shaft so that a wheel tooth was considerable beyond the pawl which would hold it. One of the laborers then inserted a rock between the ratchet tooth and the pawl, which he though would hold all the slack they had. When the other men removed the bar to turn up the lever and get a fresh "bite" the rock slipped, causing the lever to fly up and the right index finger of one of the men was caught between the lever and the corner of the car, badly mashing and fracturing it, with probably three weeks' disability. The folly of trying to insert a rock between a ratchet wheel and its pawl is of course clear to them now, as it must be to you. Don't be tempted to take such silly chances. What if the job does take longer? The company is only too willing to pay for the extra time necessary to do the job the safe, careful way. (Y-56)

ROLLING STONE CAUSES BAD FALL

A 56-year-old track walker was patrolling the track, walking between the rails ballasted with pebbles. He stepped on a round stone which rolled under him and he fell across a rail, striking on his side and back. In considerable pain, he was taken to the doctor who found symptoms of internal injury and he will probably have to lose two or three weeks recovering from the unfortunate slip.

You who read this bulletin each month must certainly realize that only constant glancing at the ground ahead where you are walking will keep you from such a serious mishap as this. (O-23)

MISCELLANEOUS DEPARTMENTS

A MOVING STORY

We don't mean that this is especially pathetic, although it was no fun for the victim. Part of the clerical force in an accounting office were being moved to another room. Carpenters were moving the heavier furniture, and, of course, the clerks themselves moved part of the lighter material. It was desired to set a heavy filing case against a wall in which there was a door. The case was set down several inches from the wall, and after the carpenter had removed the knob from the door and locked it in position, he stepped to one end of the filing case to slide it back against the wall. One of the clerks thought to help him by stepping to the opposite end and lifting and shoving that end back. After the exertion he could hardly straighten up, and within an hour or two he found he had a badly sprained back. It was a week before he could return to the job. Don't try heavy lifts and unusual feats of strength to which you are not accustomed. Let those who are in practice handle such jobs. (LA-2)

BAD DERAILMENT—NO CASUALTY

Pride in our excellent reputation for safe handling of trains would prompt us to omit any mention of this case which reveals an almost pitiful degree of negligence on the part of several men, but we feel impelled to publish it for the benefit of other employes in similar work, in the hope it will prevent the possibility of a future accident from the same cause.

When a heavy freight train arrived at a station at the top of a long grade, the helper engine which had been assisting was detached and went to the wye where it cleared the main line for a passenger train. The freight train pulled into the siding and, after the passenger train left, it started to head out onto the main line through a crossover almost opposite where the helper engine was standing. The road engineer arranged with the helper engineer to line up the cross over switches, after their train pulled out, and thus prevent the necessity for slowing down while the rear brakeman closed these switches. After this arrangement was made the road engineer whistled two long blasts, received an acknowledgement from the rear end, and the train departed, the helper crew signalling to the rear trainmen that they would get the switches. It was about the middle of a fine clear afternoon.

After the rear end of the freight train had departed, the fireman of the helper engine threw the main line switch from the wye for his engine to come out onto the main track, and while the engineer moved the engine, the fireman stepped across and threw the side track end of the crossover to its normal position for straight track. His engine having cleared the wye switch in the meantime, he then stepped back over to the main track and lined the wye switch to normal position and got up on the engine without ever touching the switch at the main line end of the crossover. This helper engine then proceeded, running through the main line end of the crossover which had not been restored to normal, and which was not observed by either the engineer or fireman. The helper engine followed behind the freight train about 15 miles to the district terminal.

There are no automatic signals on this line, practically a branch, with but two passenger trains and one freight train scheduled in each direction daily. About two hours after the freight train and the helper had departed, the regular passenger train in the same direction arrived at this station, made the usual stop, and departed, without noticing the red target of this trailing point switch which was clearly indicating that it was in wrong position. They also ran through the switch and continued on some 15 miles to the end of this engine crew's run. Four or five hours later this same engineer took charge of the engine of a passing train in the opposite direction and started on his return run. Approaching the station where unknowingly he had already run through this switch, he failed to note the red light of the switch stand during the few hundred feet it was visible after he rounded the curve, and his engine encountered the open points and was derailed while moving 30 miles per hour. The mail and baggage cars were also derailed but none of the equipment was turned over. Fortunately, no one received more than a severe shaking up, the cars in which passengers were riding not being derailed and merely coming to a quick stop. The line was tied up for a number of hours awaiting the arrival of a wrecking crew who rerailed the train and repaired the track.

The helper engineer and fireman failed to line up the main line switch for which they had willingly assumed full responsibility; not only that, but they run their engine thru the switch which they had failed to line without noticing its position. The engineer and fireman on the following passenger train also failed to note the position of the switch target and ran through the switch, and this same engineer with this same fireman on the return trip failed to note the indication of the switch light during several hundred feet while it was in sight, and derailed his train. Surely every engineman, switchman and trainman can read the lesson in this case without further comment from us. (D-213)

LET'S CUT OUT THE FAST DRIVING

While we all know, in a general way, that unsafe driving is causing a tremendous number of deaths in auto accidents, we become more alarmed when the victims are our own acquaintances and friends. Within the past month and but a few days apart two similar accidents occurred to employes, both bringing deaths and permanent disabilities into Union Pacific families. In both cases the evidence indicates that the cars were attempting to take curves at too high a speed, resulting in leaving the road and overturning.

These are just two out of hundreds of accidents of similar nature occurring every week. National Safety Council figures so far this year indicate that about 34,000 people will be killed in auto accidents in 1934, compared with the 31,000 in 1933. Are you going to blot out the happiness of yourself and your family by adding more names to that fearful roll, or will you take hold of yourself right now, and use your persuasive power on others, to prevent further sacrifices to this hungry monster called SPEED?

It takes more sense and judgment to drive safely. Any foolish smart-aleck can drive fast. Everyone knows there is an exciting nervous thrill in speeding down the highway, passing car after car, hearing the whine of the tires on the pavement, or feeling the little skidding roll of the gravel as you take the turns. But is that thrill worth more than life itself?

How many husbands, fathers and lovers have stood beside a hospital bed and looked at the suffering bandaged form of a loved one and said, "I'd give anything in the world to bring her back?" And all he needed to have given was just a thought,—a thought before the crash,—the mere sane thought, "I don't have to drive so fast. Life and happiness are too precious. I'm going to slow down, take my time, take a little dust if necessary, but we're going to live and keep our precious bodies whole, so we can enjoy thousands of days after this one."

Let's convert ourselves to that thought, not just while we're sitting around in a safety meeting, but while we're sitting behind the wheel of a fine, fast car. Let's talk it to other people too, and if enough of us do that and keep at it, we can prevent offering up so many of our loved ones and ourselves to the false god of SPEED!

FROM A THOUGHTFUL ENGINEER

In our mail the other day there was a letter from an old acquaintance who is running a locomotive on the district where the editor formerly worked. It was not written for publication, but only to suggest a good idea. The writer's words ring so true that we publish the letter just as it was received.

"As I go along in the railroad game, I just wonder if each one of us old heads ever stop and think what safety first really means to us. Over in Chicago the other day I saw something that sort of impressed me as meaning a lot. And as it is the time of year that there should be a lot of the younger men returning to service, I thought I'd tell you about it.

"As I went through a large printing plant I noticed framed on the wall in bold face type these words:

'DON'T SPOIL THE JOB. IF YOU DON'T UNDERSTAND ASK. THERE IS SOMEONE ON THE JOB WHO DOES.'

"I was just thinking how good that would apply on our jobs, especially with the younger men, but with a lot of us old men, too. Like many another simple statement has done, it started me thinking what a lot of meaning was expressed in such a few words. Looking back over my own experience, covering quite a while, I can see many costly mistakes that I would not have made had I but asked some one on the job that did know. I have also seen some annoying and expensive errors made by others who should have come to me and asked.

'IF YOU DON'T UNDERSTAND, ASK!"

"A simple and easy thing to do and yet how few there are who do it. I wonder why? The answer seems to be because of false pride; we just hate to admit that we don't 'savvy' so we stumble and blunder on, when the way would be much easier if we would just ask someone that does know.

"Safety First,—if you don't understand, ask!"

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(Eight Months Jan. 1st to Sept. 1st)

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Accl. Rate	Cas. Rate
1933	102	13	33	46	22,438,334	4.55	2.05
1934	133	19	39	58	24,699,422	5.38	2.35
Increase	30.%	.....	.....	26.%	10.%	18.%	15.%

Accident Prevention Bulletin

August 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF JULY

Including casualties and careful estimates of manhours for the month of July in calculating the cumulative rates for the period January 1st to July 31st, the relative ranking of groups supervised by the officers named appears to be as tabulated below:

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	2.62	13.50
2	H. J. Plumhof	OSL	2.22	13.63
3	N. A. Williams	UPRR	2.20	15.11
4	F. H. Knickerbocker	LA&SL	3.12	17.00
	System Total 1934		2.35	14.80
	Last year for same period		1.99	11.52

Division Superintendents

1	M. C. Williams—Wash.	5	E. C. Manson—OSL
2	C. E. Hedrix—Kans.	6	H. A. Connett—Ore.
3	J. E. Mulick—Nebr.	7	A. L. Coey—LA&SL
4	W. C. Wolcott—Colo.	8	C. C. Barnard—Wyo.

Division Engineers

1	R. M. Jolley—Nebr.	5	S. H. Osborne—Colo.
2	L. I. Hammond—Kans.	6	R. L. Adamson—LA&SL
3	M. C. Williams—Wash.	7	H. A. Roberts—Ore.
4	L. V. Chausse—OSL	8	W. A. Lowther—Wyo.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	G. M. Walsh—Poca.
2	P. J. Norton—OSL	7	A. V. James—Nebr.
3	J. Gogerty—Omaha Shops	8	L. W. Shirley—OWR&N
4	J. F. Long—LA&SL	9	W. J. Nolan—Colo.
5	G. A. Jordan—Wyo.	10	G. R. Wilcox—Kans.

JULY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	8	8	Transp.	—	4	3
OSL	—	3	—	Mech.	—	3	—
OWR&N	—	2	—	M. of W.	—	2	2
LA&SL	—	—	—	Miscel.	—	4	3
Employes	—	13	8	Employes	—	13	8
Psgrs.	—	3	—				
Pers. Car.	—	—	—				
Total	—	16	8				

CASUALTIES JANUARY 1 TO AUGUST 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	3	45	24	Transp.	1	28	6
OSL	1	13	1	Mech.	1	25	7
OWR&N	—	14	2	M. of W.	2	16	9
LA&SL	—	11	—	Miscel.	—	14	5
Employes	4	83	27	Employes	4	83	27
Psgrs.	—	6	—				
Pers. Car.	1	—	—				
Total	5	89	27				

Our employe casualty rate of 2.35 per million manhours for the first 7 months of 1934 is just 18 per cent worse than the 1.99 at same time last year. However, last year's figures grew worse through the final 5 months and closed at 2.32 per million manhours.

If by vigorous, active work we can improve during the last 5 months of this year, we can still beat 1933 easily,—in fact if we can keep our average down to 9 reportable employe injuries per month, our rate for 1934 would be about 1.99 casualties per million manhours! Do your part and let's try for it!

TRANSPORTATION DEPARTMENT

BEER TRUCK DRIVEN INTO TRAIN

A freight train was pulling through a large county seat town at about 10:30 PM at a speed around 15 m.p.h. when an emergency application of the brakes caused a hard stop on the rear end. The caboose had just passed the depot, where the conductor had caught the train order hoop and stepped inside the caboose to sit down and read the orders. The brakeman was standing on the rear of the platform giving a proceed signal when the impact came. The conductor received a fractured collar bone when he was thrown against the desk; the brakeman got his right side bruised by lurching against the end wall of the caboose. The conductor will lose about 4 weeks, but the brakeman was not seriously hurt and resumed work on the third day after his injury.

After the stop it was found that a new beer truck making a delivery trip of some 200 miles, and being driven by comparative strangers to the locality, had struck the train 14 cars from the engine, breaking the air pipes and causing the sudden application of brakes. The truck was badly damaged and both the operating driver and the relief driver (who was asleep) were cut and bruised, disabling them for two or three weeks. The view of the crossing was clear and it was fairly illuminated by street lights, with the standard cross-buck signs prominently in view. Eye witnesses stated that the truck appeared to be traveling about 50 m.p.h. just before the collision. (K-11)

KNOCKED OFF CAR BY HARD COUPLING

At an intermediate terminal a yard switch crew let two coal cars roll into a yard track at a speed which would insure them clearing the lead. It was dark and they did not see exactly where the cars stopped. They proceeded with other switching and about an hour later started in on this same track, shoving five cars, intending to couple onto the two cars previously left there. The field man threw the switch for heading in and climbed onto the side of the leading coal car. His foreman caught the next car behind, which was an oil tank car, and after looking back to see that the pin puller also got on, the foreman climbed up onto the running board of the oil tank. He had just gotten both feet on the running board and started to take hold of the horizontal hand iron when there was a hard shock of coupling, and the foreman fell off to the ground. When he tried to get up he found his left leg was broken just above the ankle. It will take two or three months for the two broken bones to heal.

This accident was caused by failure of both the field man riding the front of the string and the injured foreman to properly slow down the movement, when they did not know just where they would find the two cars. When the field man discovered the cars about a car length away he gave a stop signal and jumped off, but his signal was not seen by the foreman in time to save himself when the hard coupling was made.

Accidents of this nature can be easily avoided by taking just a little more time and moving a little slower while shoving to couplings at night, when the cars cannot be clearly seen. (K-1)

CAN YOU INVENT THIS DEVICE?

What we seem to need on this and other railroads is a trainman's lantern that can see for him! Nearly all trainmen and switchmen use electric lanterns which throw a good light to the ground, and the company supplies good bulbs and batteries. Yet nearly every month we record ankle sprains to these men from stepping on uneven surface, stones, etc., while carrying a lighted lantern. The lantern cannot do the looking!

This freight brakeman stepped off a car which was almost stopped, his lighted lantern in his hand, but not glancing at the pebble lying at the ballast edge. Of course he stepped on the rock and turned his ankle, losing two days getting it in shape to resume work. Look where you step! (C-1)

"FOR WANT OF A NAIL THE SHOE WAS LOST"

You remember that old jingle which began with the above words and ended by telling how the whole kingdom was lost for the want of a horse shoe nail? Well, something like that happened in this case. In order to apply a new bushing to the back end of the right main rod of an engine in the round house, the eccentric rod had been removed. When it was put back the machinist who put the pin through it and put the nut on failed to put a cotter key in place to secure the nut,—in fact, he even failed to tighten the nut with a wrench. Later, when this engine got out on the road on a freight train and was moving about 35 miles per hour, for want of a cotter key the nut worked off, for want of a nut the pin worked out, for want of a pin the eccentric rod dropped out and kicked back in a circle, striking the reach rod from the power reverse gear and then striking the operating rod to the cylinder cock lever, which knocked the lever back against the engineer's right leg, jabbing him four inches above the ankle and causing a wound which took twelve days to heal.

This injury and two or three jobs might have been saved had the machinist been more attentive, or had the inspector noted the condition before the engine left the dispatch track, or had the engineer detected the omission before taking the engine out on the run. (D-1)

FALLS OFF WHEN SLACK RUNS OUT

A string of some 33 cars was being shoved by an engine toward a road crossing in broad daylight. The engine foreman was about in the middle of the string walking over the tops of cars when the signal was given by the switchman riding the head end to slow down so he could flag the crossing. The cars were moving at slow speed and the engineer applied the independent air brake. Although the foreman knew what was going on, he lost his balance when the slack ran out and jumped to the ground, breaking both legs. He died two days later from a blood clot lodged in the brain. (O-16)

BOTH WILL LOOK WORSE FOR A WHILE

The appearance of the engineer's discipline record and of the rear brakeman's face are both now temporarily marred as a result of poor handling of air brakes on a train of empties which moved down a canyon grade one night last month. The unskillful handling of the "air" resulted in breaking the coupler knuckle in the rear of the tender, separating the air hose and causing a severe run-in of slack at the rear. The rear brakeman lost two days getting a cut lip and cheek doctored up so he could work again, after being thrown against a caboose partition.

The brakeman's face will probably be cleared up sometime before the engineer's record is. A little thoughtfulness could have prevented any blemish of either one. (Y-39)

A PASSENGER SUICIDE

A 75-year-old man showed signs of becoming somewhat deranged mentally while a passenger on a train crossing one of the mountain ranges enroute to the Southwest. He was not violent, but seemed under the delusion that he ought to get off at each stop, and that the train must be carrying him beyond his destination.

The trainmen looked after him carefully at each stop, even taking him for a walk up and down the platform, thinking the open air might clear his mind. He seemed somewhat better thereafter and when the train approached a point entering double track where speed is restricted to 20 miles per hour the brakeman felt no hesitancy in going to the side vestibule door of the coach in which this man was riding and opening the upper half of the door to see the train order signal and give the proceed signal. The old man followed the brakeman into the vestibule, but as all other doors were tightly closed and only the upper half open, the brakeman felt no alarm for him. After the brakeman shut the upper half of the door he had opened, he looked around, and not seeing the old gentleman, stepped into the adjoining vestibule just in time to see him jump from the side door which he had opened while the brakeman was looking out for the train order signal. Although the speed was comparatively slow, the old man was instantly killed.

Another passenger going through the vestibules saw the old man just as he pulled the door open and slipped around it. He had not given any indication of wanting to get off the train while moving at any previous time and the only real concern the crew had felt for him was the possibility he might get off and remain off the train at some local stop. As he opened the door and jumped from the train of his own volition while deranged, we assume that this accident will not be charged against our records as a passenger fatality in the ICC annual statement, but will be recorded in the special table for such cases. It is therefore not being charged against the unit or division on which it occurred in our competitive standings. (S-38)

THREE LADY PASSENGERS HURT

One week after the alleged occurrence we received a wire stating that a lady 75 years old had apparently received a fracture of the hip while in a coach at our terminal station just before it left on a connecting line. She said she was standing up when the car was coupled into and fell back into the seat, causing some pain in her hip. The pain and inconvenience of movement became worse in the next two or three days and finally an X-ray examination indicated a fracture. No employe of our line knew anything of such an occurrence, nor was it reported by the crew of the connecting line, but if the circumstances are as stated, the casualty must be charged against our record. (N-51)

Another lady about 60 years of age, wife of an employe and riding on a pass, started to the dressing room of the sleeper after arising in the morning, and lost her balance while walking through the aisle as the train was rounding a curve. As she was opposite the opening between two seats, she was unable to catch hold of anything, and fell upon her outstretched arms, fracturing the radius bone at the wrist. She will probably not be able to use the left hand to any extent for a month. (D-14)

The third case was that of a lady passenger, age 34, who was walking through the center aisle of the lounge car at the rear of a limited train in early evening, as it was moving slowly down the center of a street leaving a large city station. There is considerable vehicular traffic on this street, which is paved all the way across the double track main line. When the engineer saw a truck turn out around other traffic and head toward his locomotive he made a quick application of brakes, which threw this lady off balance, and she sat down hard on the floor severely bruising the lower end of her spinal column. The injury made it difficult for her to stand or walk for several days. (S-15)

MECHANICAL DEPARTMENT

DRIVING BOXES GET TWO

The removal of driving boxes from driver axles which have been taken out from under locomotives is always attended with some hazard, particularly to the man who is not fully alert. It is pretty general practice to turn the boxes upside down on the axle and let them drop off after the cellar pins have been removed. Often the packing cellar sticks between the two arms of the driving box so it does not readily fall off, and it is necessary to either use a buggy bar and pry the cellar out from between the arms of the box or tap the latter down with a sledge until it becomes free and drops.

We had two men hurt doing this job in July. One man was prying up the cellar, as above mentioned, and when the box came loose from the cellar it dropped to the planked floor and turned over on the foot of the workman who was standing between the wheels while using the bar. Two bones were broken in the right instep and it will be some four or five weeks before he can walk again. (N-8)

The second case is almost exactly like the first, except that the driving box was inverted at the time the cellar keys were being removed and dropped off just as the workman knocked the last key out with a punch. The box struck the floor awkwardly and turned over on his foot, striking the left instep and breaking one bone which will take four weeks to heal. (C-6)

Removal of a driving box from an axle is greatly simplified when either a portable or overhead crane is available. By means of four short chains attached to a central ring with L-shaped lugs at the four ends, which can be inserted into the cellar key holes, a heavy box can be removed from the axle and placed wherever desired. With the crane attached to the driving box in upright position, by attaching the first two chains as soon as the first key is removed, the box can be held steady while the second key is driven out and the cellar removed. When no crane is available a driving box may be safely removed by the same method as was used in above cases if the workman is alert and stands well away from the box, prepared to step further back quickly when it starts to drop. The Mechanical Department is now trying to work out a uniform method for use when a crane is not available for assisting.

STRUCK IN HEAD BY SLEDGE

While inspecting a freight train in the train yard, car inspectors found that a brake beam safety bar attached to the spring plank on the car truck was partly loose and hanging down. The bar had been attached with two rivets but one of them had been broken and the other was loose. To avoid the necessity of switching this car to the repair track, the car foreman got a long cutting bar and a sledge, and with the assistance of a carman undertook to cut the single rivet still holding the safety bar so it could be taken entirely off. To hold the cutting or chisel bar in proper position it was necessary to kneel on the ground, stooping low, and reset the bar after each blow. For the first few blows the carman held the bar and the foreman did the striking. Then they changed places, the foreman holding the bar. Each time before the carman would strike he would first bring his sledge up against the end of

the bar after it had been reset, to make sure of proper striking position. The bar was heavy and rather difficult to control on account of stooped position of the holder, and either the end of the bar was moved a little after the striker pulled back to strike or else he misdirected his blow, for the sledge missed the end of the bar entirely and before it could be held back struck the foreman on the forehead over the temple, resulting in a severe skull fracture and concussion.

A great many such injuries as this have been eliminated in recent years by substituting oxy-acetylene cutting for mechanical cutting in the removal of bolts, rivets, plates, etc. Work such as these men were doing necessarily involves considerable hazard. As no cutting torch was available in the train yard, it would obviously have been better to switch the car to the repair track long enough to make the cut. (N-12)

MAINTENANCE OF WAY DEPARTMENT

PAINTER FALLS FROM LADDER SCAFFOLD

The ceiling of a depot waiting room was being repainted and the painter doing the work had set up two "A" ladders to support a 2x12 scaffold plank between them about eight feet above the floor. He had his paint bucket setting on the scaffold beside him as he stood brushing the paint overhead, and having covered as much territory as he could reach from one position, he stepped further away and turned around to pick up his bucket and move it closer to him. He became overbalanced and jumped to prevent alighting awkwardly. As frequently happens when these sudden high jumps are undertaken, the bone in his right heel was fractured. He will have plenty of time in the next three or four weeks to reflect on the advantage of moving carefully and deliberately when working on scaffolds. (O-29)

POOR HANDLING OF TIE TONGS

A lot of mashed and broken fingers and toes and a lot of falls are prevented by the use of tie tongs, but the tie tong is not a fool proof tool. The spurs of the tongs have to be set firmly enough into the wood to prevent slipping and the harder the pull or the lift the more care necessary to see that the spurs have a proper grip. Here's what happened to one man who didn't take the necessary precaution last month.

An extra gang laborer was straightening up ties at side of track, using a pair of tongs, and wanted to turn a tie at right angles to the rail. He stood astraddle of tie, hooked his tongs about the middle, and undertook to raise and swing the tie at the same time. His tongs slipped and the tie rolled against the inside of his shin, scraping off some skin. He continued working with it without getting a bandage or first aid treatment until that night. While the injury was not painful, infection developed two or three days later, which caused a disability of a week or ten days. If the foreman had promptly sent this man to the nearest doctor for proper bandaging and treatment at the time of occurrence he would probably only have lost two or three hours, and the man's wages, the foreman's standing, and the accident record would have all been saved from impairment. This is a good example of what may happen when a foreman fails to take prompt action in having a comparatively minor injury promptly treated. (K-21)

KNOCKED THE WIND OUT OF HIM

A laborer at the tie plant stood inside of a coal car while manipulating a tie sliding chute into a different position for loading ties. His foot slipped and he fell across the top edge of the car upon the pit of his stomach, which knocked the wind out of him and caused a moderate bruise, beside making him sick for a little while. He lost a day and a half. The best preventive against this sort of thing is to keep a foot well braced ahead of or behind you when you are making any heavy exertion, so that if anything should slip, the braced foot will enable you to keep your balance. (Y-43)

GETS PIECE OF STEEL IN FOREARM

A B&B carpenter was holding a chisel while another carpenter struck it with a sledge while cutting steel castings loose from a concrete wall. A small fragment of steel cracked from the edge of the sledge and struck him in the forearm. The probing of the wound and removal of the piece caused a soreness which kept him off two and one-half days.

We buy the finest mauls and sledges obtainable in the market, but there is no such tool made which will not develop chipped fractures around the edge of the striking head when hit against rail or other hard steel. Sometimes these pieces do not fly off at the time the fracture starts, but crack out later when the same corner of the sledge is struck against something else. This can be prevented in two ways; first, by striking squarely on the proper tool and avoiding striking the rail; second, by frequently inspecting the faces of mauls and sledges to make sure there is no cracking around the edge, indicating one of those crescent shaped pieces is about to break out. (Y-37)

MISCELLANEOUS DEPARTMENTS

THREE ERRORS IN STORE DEPT.

The Store Department this month contributes three outstanding examples of lack of safe-mindedness. Anyone of these three cases would afford sufficient text for a good long safety sermon, but we'll try to give you only a brief outline in this and the two following items.

The lead which is melted and poured into the counterbalance pockets of locomotive drive wheels comes in bars or ingots weighing about 100 lbs. which are moulded with lugs or ears at the ends to facilitate handling. In Store Department stock these bars are piled in crisscross layers with four or five bars to the layer. A storeman brought up a truck alongside a pile of these bars to take a number of them away, and started lifting them from the pile into the hopper. He stood facing the ends of bars in the top layer, and when pulling a bar toward him instead of lifting it clear he dragged it on the front bar of the tier below, dislodging that one, which fell on his foot, badly mashing it with compound fractures of two bones.

There is a lesson here for all men who have to handle material, such as angle bars, rail joints, ingots of bronze, brass, etc., which are ordinarily crisscrossed in piling. First, the piles must not be so high that the material cannot be conveniently lifted from the top of the pile to the bed of the truck for moving. Second, the man must stand high enough above the top of the pile that he can lift each individual piece clear instead of dragging them endways. Third, he must be taught to do it that safe way every time and avoid such painful injuries as this which caused from one to two months' disability. (D-23)

HURT TRYING TO PREVENT ACCIDENT

At a large general store a big flat trailer truck, with track rails extending lengthwise on it, is used to transfer mounted car wheels from one point to another. The tractor crane operator and a laborer had just set two mounted pairs of wheels on this trailer when they were called to assist in pulling another tractor out of soft ground. They had to pull their trailer off the road before leaving it, and to make this move they chocked the loaded wheels with small wooden blocks. When the trailer started to move, the little wood blocks just naturally jolted out of place, and one pair of wheels started to roll back toward the end of the trailer. Seeing the wheels start rolling, the laborer, who was alongside, made a quick step or two to catch the wheels and prevent them from rolling off the back end of the trailer bed. He slipped and fell with his leg under the rear trailer wheel, breaking the bones of the left lower leg which will incapacitate him for six weeks or more. If this man had been as eager to properly block the wheels in the first place as he was in trying to stop them rolling after they got away, the accident could have been prevented. (D-27)

CAUGHT IN ELEVATOR

In the open air platform at the rear of our largest oil storage warehouse there is an old hydraulic elevator for handling barrels of oil, etc., from basement to platform or vice versa. A trap door consisting of two hinged leaves is pushed open by the elevator when it rises and closes over the top of the elevator when it descends to the basement. A storeman and his assistant desired to take a hand truck from the platform down into the basement. As the truck was started onto the elevator, the storeman pulled the chain which started the elevator going down, before the four-wheeled truck was entirely on. The young man handling the truck tried to pull it back off, while the storeman on the elevator tried to pull it the rest of the way on, with the result that the trap door closed down while the tongue of the truck was still being held by the man on the platform, and he got a badly mashed index finger of the right hand. The finger was thoroughly dressed and protected by a metal loop which enabled him to resume duty the third day after his injury.

Too hasty action by both men caused this one. They had no understanding between them. The storeman meant to lower the elevator to adjust it to floor level but started it too fast. The helper should have waited till the elevator was completely stopped before pushing the truck onto it. (N-49)

THREE D. C. & H. CASES

There were one reportable and two lost time injuries among Dining Car and Hotel Department employes in July. The reportable injury occurred to the manager of a cook outfit in an extra gang who was lifting a cake of ice from the large ice box in the provision car. A peculiar twist of his body while thus exerting himself resulted in a hernia which had to be operated upon by the surgeon, causing a disability of about three weeks. (Y-9)

The fourth cook in a dining car kitchen scratched his left thumb on the chipped edge of a dish and developed a slight in-

fection three days later. He lost one day and two hours getting the wound sterilized and infection stopped. Had he reported the minor injury immediately when it occurred and had it dressed by the doctor at the next station it might have prevented the slight infection and avoided any loss of time. (N-16)

The second lost time injury was caused by the projecting handle of a garbage can in a dining car kitchen, when the third cook struck his knee against it. The bruised knee became a little sore and stiff a few days later and after receiving medical attention he was deadheaded to his home terminal where treatment enabled him to resume duty after losing three days' time. This garbage can was one of the very few in service not equipped with drop handle, all of which were immediately removed and replaced with drop handle cans to prevent a recurrence. (N-28)

CROSSING WATCHMAN BADLY HURT

Shortly after dark, at one of the principal street crossings over our tracks in a large town, the crossing watchman went out onto the crossing with his lantern to stop highway traffic for the passage of a train which was still about one block from the intersection. Several cars stopped, but one driver, apparently oblivious to conditions around him, drove onto the crossing and struck the watchman, knocking him down and fracturing both bones of the lower right leg, the break extending into the knee joint. No doubt it will be several months before he recovers. Witnesses in other cars said they could plainly see his lantern being waved, and their testimony resulted in holding the driver of the car involved for court action. (N-43)

CHANGES IN THE ACCIDENT RECORDS

In our bulletin of June 10, in the last paragraph of the article regarding the award of the National Safety Council Bronze Plaques, we mentioned the fact that while the ICC Annual Report for 1933 will show the same casualty rate for the Union Pacific System as was given in our bulletin of February, there would be some differences in the figures for the individual units. This was due to differences between the ICC bureau and ourselves in crediting man-hours and charging of accidents between units. The accidents and man-hours of the mechanical forces at Salt Lake have formerly been taken into the account of the LA&SL unit in our own tabulations because that terminal is under LA&SL supervision, although the property belongs to the OSL and the men have been carried on OSL pay rolls. In like manner, accidents and man-hours of the dining car department have been allocated to other units, although all DC&H employes are carried on UPRR pay rolls.

The Interstate Commerce Commission has been charging the accidents to whatever unit we showed on our reportes, but they have been crediting the man-hours to the unit making the pay rolls.

In order that our records for the various units, as well as the System, shall be in complete harmony with the records of the ICC, accidents in the Salt Lake mechanical force will hereafter be charged to the OSL, which handles their pay rolls, and accidents among DC&H employes will be charged to the UPRR, which handles their pay rolls, and the man-hours of these forces will be similarly credited. We are making the necessary corrections retroactive to January 1, 1934, and the standings of units, mechanical supervisors, etc., as shown on the first page of this issue of the bulletin, are based on these corrected figures.

DERAILMENT DUE TO UNSPIKED TIES

About three months ago the engineer and fireman of a 21-car freight train were killed, and the conductor and brakeman in the caboose were injured, when their train was derailed while moving about 15 miles per hour on the tracks of a terminal road. A section gang had been renewing ties during the morning, changing out two or three and even four at a place, and had left a number of them unspiked. They had this piece of track under flag protection while they were working but called in the flagman during the noon hour and there was no protection on this piece of track when the accident occurred at 12:35 P. M.

After the accident it was found that, of the 75 ties in a distance of 120 feet at point of derailment 36 of them were not spiked, and the first mark of derailment was at a point where four ties in a bunch were unspiked. The weather was hot and there were indications that the unspiked rail had kinked, causing the derailment. Every track foreman who has permitted men to leave ties unspiked while engaged in tie renewals should profit from the reading of this fatal accident which developed from that practice. (ICC-1912)

KILLED BY "HORSE PLAY"

In spite of wide publicity which has been given such terrible occurrences in the past, it seems there are still some industrial workmen so thoughtless and so ignorant that they must repeat the most inhuman practical joke of "goosing" a fellow workman with an air hose.

A few days ago the newspapers of the country carried the pathetic story of a Servian workman inflated to more than double his normal size by fellow workers in the roundhouse of an eastern railroad. Surgeons performed an emergency operation in an effort to save his life. Almost invariably in such cases the intestine is ruptured and the victim dies.

Entirely aside from the use of the air jet, there is no more detestable kind of horse-play than that referred to as "goosing," and there should be no place on a railroad or in any other industry where men with that perverted sense of humor could hold a job. Any instance of the kind should result in instant dismissal of the perpetrators.

HANDLING OBJECTS, MATERIALS AND SUPPLIES

The writer recently had the good fortune to receive a copy of a paper on the above subject prepared by Mark Fulton, Superintendent of Safety MKT RR, and the following is briefly condensed from the original detailed and instructive article.

"It isn't what you handle,—it's how you handle it."

Some workmen expect their foremen to tell them how and to show them how, not just once but over and over again like a child or school boy. The foreman or supervisor will find help in a study of the principles gleaned from experience.

Material is handled by men or machinery or both,—coupled with brains. The requirements in the order of importance are—

1. A safe foreman;
2. Safe men;
3. Safe machinery and tools.

The foreman is most important, for a safe foreman can bring his forces through unhurt, regardless of unsafe conditions, equipment or tools. To make his workmen safe, the foreman has to do three things: (a) select fit men; (b) educate them in safe working methods; (c) discipline them with judgment to insist on their education being used all the time. Men who are not sound, whole or well, or who do not have the right mental capacity and attitude, must be kept out or put out of the force.

The classes of men most likely to get in trouble handling material are three:—the green horn who needs teaching and training; the day dreamer who has to be jolted out of his indifference, lack of concentration on the job or heedlessness; the old head who has the "let her rip" or "to h— with it" attitude due to being disgruntled or grouchy or sore. He must be given a good confidential talking to before being publicly reprimanded or disciplined if he won't bring himself out of it.

The safe foreman in charge of handling materials and objects will teach his men the fundamentals of safety as follows:

How to lift,—using the leg and arm muscles, keeping the back as straight as possible.
When to lift,—in unison with others on the word called.
When to let go,—according to previous understanding or on the word called.
Where to stand,—properly distributed and clear of danger.
To pile and load securely.
To sense and observe the balance or trickiness of unweildy objects.
To keep clear of nails and splinters and spills.
To keep out from under suspended loads.
To choose the best available footing, watch the step and take plenty of time where footing is obstructed or unsafe.
To shun horse-play, confusion and misunderstanding.
To look before throwing or dropping things.
To get help when needed to assure full control, due to unusual weight or unweildiness.
To keep from in front of rolling things.
To keep feet and hands out of way of possible falls or drops of objects.
To keep the mind where the body is and applied to the work in hand.

Supervisors holding safety meetings or safety talks with their employes will find plenty of features for discussion in the above.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(Seven Months Jan. 1st to Aug. 1st)

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Accl. Rate	Cas. Rate
1933	82	11	27	38	19,394,320	4.23	1.96
1934	113	17	36	53	21,174,367	5.34	2.50
Increase	38.%	.....	.....	39.%	9.%	26.%	28.%

Accident Prevention Bulletin

August 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF JULY

Including casualties and careful estimates of manhours for the month of July in calculating the cumulative rates for the period January 1st to July 31st, the relative ranking of groups supervised by the officers named appears to be as tabulated below:

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	F. N. Finch	OWR&N	2.62	13.50
2	H. J. Plumhof	OSL	2.22	13.63
3	N. A. Williams	UPRR	2.20	15.11
4	F. H. Knickerbocker	LA&SL	3.12	17.00
	System Total 1934		2.35	14.80
	Last year for same period		1.99	11.52

Division Superintendents

1	M. C. Williams—Wash.	5	E. C. Manson—OSL
2	C. E. Hedrix—Kans.	6	H. A. Connett—Ore.
3	J. E. Mulick—Nebr.	7	A. L. Coey—LA&SL
4	W. C. Wolcott—Colo.	8	C. C. Barnard—Wyo.

Division Engineers

1	R. M. Jolley—Nebr.	5	S. H. Osborne—Colo.
2	L. I. Hammond—Kans.	6	R. L. Adamson—LA&SL
3	M. C. Williams—Wash.	7	H. A. Roberts—Ore.
4	L. V. Chausse—OSL	8	W. A. Lowther—Wyo.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	G. M. Walsh—Poca.
2	P. J. Norton—OSL	7	A. V. James—Nebr.
3	J. Gogerty—Omaha Shops	8	L. W. Shirley—OWR&N
4	J. F. Long—LA&SL	9	W. J. Nolan—Colo.
5	G. A. Jordan—Wyo.	10	G. R. Wilcox—Kans.

JULY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	8	8	Transp.	—	4	3
OSL	—	3	—	Mech.	—	3	—
OWR&N	—	2	—	M. of W.	—	2	2
LA&SL	—	—	—	Miscel.	—	4	3
Employes	—	13	8	Employes	—	13	8
Psgrs.	—	3	—				
Pers. Car.	—	—	—				
Total	—	16	8				

CASUALTIES JANUARY 1 TO AUGUST 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	3	45	24	Transp.	1	28	6
OSL	1	13	1	Mech.	1	25	7
OWR&N	—	14	2	M. of W.	2	16	9
LA&SL	—	11	—	Miscel.	—	14	5
Employes	4	83	27	Employes	4	83	27
Psgrs.	—	6	—				
Pers. Car.	1	—	—				
Total	5	89	27				

Our employe casualty rate of 2.35 per million manhours for the first 7 months of 1934 is just 18 per cent worse than the 1.99 at same time last year. However, last year's figures grew worse through the final 5 months and closed at 2.32 per million manhours.

If by vigorous, active work we can improve during the last 5 months of this year, we can still beat 1933 easily,—in fact if we can keep our average down to 9 reportable employe injuries per month, our rate for 1934 would be about 1.99 casualties per million manhours! Do your part and let's try for it!

TRANSPORTATION DEPARTMENT

BEER TRUCK DRIVEN INTO TRAIN

A freight train was pulling through a large county seat town at about 10:30 PM at a speed around 15 m.p.h. when an emergency application of the brakes caused a hard stop on the rear end. The caboose had just passed the depot, where the conductor had caught the train order hoop and stepped inside the caboose to sit down and read the orders. The brakeman was standing on the rear of the platform giving a proceed signal when the impact came. The conductor received a fractured collar bone when he was thrown against the desk; the brakeman got his right side bruised by lurching against the end wall of the caboose. The conductor will lose about 4 weeks, but the brakeman was not seriously hurt and resumed work on the third day after his injury.

After the stop it was found that a new beer truck making a delivery trip of some 200 miles, and being driven by comparative strangers to the locality, had struck the train 14 cars from the engine, breaking the air pipes and causing the sudden application of brakes. The truck was badly damaged and both the operating driver and the relief driver (who was asleep) were cut and bruised, disabling them for two or three weeks. The view of the crossing was clear and it was fairly illuminated by street lights, with the standard cross-buck signs prominently in view. Eye witnesses stated that the truck appeared to be traveling about 50 m.p.h. just before the collision. (K-11)

KNOCKED OFF CAR BY HARD COUPLING

At an intermediate terminal a yard switch crew let two coal cars roll into a yard track at a speed which would insure them clearing the lead. It was dark and they did not see exactly where the cars stopped. They proceeded with other switching and about an hour later started in on this same track, shoving five cars, intending to couple onto the two cars previously left there. The field man threw the switch for heading in and climbed onto the side of the leading coal car. His foreman caught the next car behind, which was an oil tank car, and after looking back to see that the pin puller also got on, the foreman climbed up onto the running board of the oil tank. He had just gotten both feet on the running board and started to take hold of the horizontal hand iron when there was a hard shock of coupling, and the foreman fell off to the ground. When he tried to get up he found his left leg was broken just above the ankle. It will take two or three months for the two broken bones to heal.

This accident was caused by failure of both the field man riding the front of the string and the injured foreman to properly slow down the movement, when they did not know just where they would find the two cars. When the field man discovered the cars about a car length away he gave a stop signal and jumped off, but his signal was not seen by the foreman in time to save himself when the hard coupling was made.

Accidents of this nature can be easily avoided by taking just a little more time and moving a little slower while shoving to couplings at night, when the cars cannot be clearly seen. (K-1)

CAN YOU INVENT THIS DEVICE?

What we seem to need on this and other railroads is a trainman's lantern that can see for him! Nearly all trainmen and switchmen use electric lanterns which throw a good light to the ground, and the company supplies good bulbs and batteries. Yet nearly every month we record ankle sprains to these men from stepping on uneven surface, stones, etc., while carrying a lighted lantern. The lantern cannot do the looking!

This freight brakeman stepped off a car which was almost stopped, his lighted lantern in his hand, but not glancing at the pebble lying at the ballast edge. Of course he stepped on the rock and turned his ankle, losing two days getting it in shape to resume work. Look where you step! (C-1)

"FOR WANT OF A NAIL THE SHOE WAS LOST"

You remember that old jingle which began with the above words and ended by telling how the whole kingdom was lost for the want of a horse shoe nail? Well, something like that happened in this case. In order to apply a new bushing to the back end of the right main rod of an engine in the round house, the eccentric rod had been removed. When it was put back the machinist who put the pin through it and put the nut on failed to put a cotter key in place to secure the nut,—in fact, he even failed to tighten the nut with a wrench. Later, when this engine got out on the road on a freight train and was moving about 35 miles per hour, for want of a cotter key the nut worked off, for want of a nut the pin worked out, for want of a pin the eccentric rod dropped out and kicked back in a circle, striking the reach rod from the power reverse gear and then striking the operating rod to the cylinder cock lever, which knocked the lever back against the engineer's right leg, jabbing him four inches above the ankle and causing a wound which took twelve days to heal.

This injury and two or three jobs might have been saved had the machinist been more attentive, or had the inspector noted the condition before the engine left the dispatch track, or had the engineer detected the omission before taking the engine out on the run. (D-1)

FALLS OFF WHEN SLACK RUNS OUT

A string of some 33 cars was being shoved by an engine toward a road crossing in broad daylight. The engine foreman was about in the middle of the string walking over the tops of cars when the signal was given by the switchman riding the head end to slow down so he could flag the crossing. The cars were moving at slow speed and the engineer applied the independent air brake. Although the foreman knew what was going on, he lost his balance when the slack ran out and jumped to the ground, breaking both legs. He died two days later from a blood clot lodged in the brain. (O-16)

BOTH WILL LOOK WORSE FOR A WHILE

The appearance of the engineer's discipline record and of the rear brakeman's face are both now temporarily marred as a result of poor handling of air brakes on a train of empties which moved down a canyon grade one night last month. The unskillful handling of the "air" resulted in breaking the coupler knuckle in the rear of the tender, separating the air hose and causing a severe run-in of slack at the rear. The rear brakeman lost two days getting a cut lip and cheek doctored up so he could work again, after being thrown against a caboose partition.

The brakeman's face will probably be cleared up sometime before the engineer's record is. A little thoughtfulness could have prevented any blemish of either one. (Y-39)

A PASSENGER SUICIDE

A 75-year-old man showed signs of becoming somewhat deranged mentally while a passenger on a train crossing one of the mountain ranges enroute to the Southwest. He was not violent, but seemed under the delusion that he ought to get off at each stop, and that the train must be carrying him beyond his destination.

The trainmen looked after him carefully at each stop, even taking him for a walk up and down the platform, thinking the open air might clear his mind. He seemed somewhat better thereafter and when the train approached a point entering double track where speed is restricted to 20 miles per hour the brakeman felt no hesitancy in going to the side vestibule door of the coach in which this man was riding and opening the upper half of the door to see the train order signal and give the proceed signal. The old man followed the brakeman into the vestibule, but as all other doors were tightly closed and only the upper half open, the brakeman felt no alarm for him. After the brakeman shut the upper half of the door he had opened, he looked around, and not seeing the old gentleman, stepped into the adjoining vestibule just in time to see him jump from the side door which he had opened while the brakeman was looking out for the train order signal. Although the speed was comparatively slow, the old man was instantly killed.

Another passenger going through the vestibules saw the old man just as he pulled the door open and slipped around it. He had not given any indication of wanting to get off the train while moving at any previous time and the only real concern the crew had felt for him was the possibility he might get off and remain off the train at some local stop. As he opened the door and jumped from the train of his own volition while deranged, we assume that this accident will not be charged against our records as a passenger fatality in the ICC annual statement, but will be recorded in the special table for such cases. It is therefore not being charged against the unit or division on which it occurred in our competitive standings. (S-38)

THREE LADY PASSENGERS HURT

One week after the alleged occurrence we received a wire stating that a lady 75 years old had apparently received a fracture of the hip while in a coach at our terminal station just before it left on a connecting line. She said she was standing up when the car was coupled into and fell back into the seat, causing some pain in her hip. The pain and inconvenience of movement became worse in the next two or three days and finally an X-ray examination indicated a fracture. No employe of our line knew anything of such an occurrence, nor was it reported by the crew of the connecting line, but if the circumstances are as stated, the casualty must be charged against our record. (N-51)

Another lady about 60 years of age, wife of an employe and riding on a pass, started to the dressing room of the sleeper after arising in the morning, and lost her balance while walking through the aisle as the train was rounding a curve. As she was opposite the opening between two seats, she was unable to catch hold of anything, and fell upon her outstretched arms, fracturing the radius bone at the wrist. She will probably not be able to use the left hand to any extent for a month. (D-14)

The third case was that of a lady passenger, age 34, who was walking through the center aisle of the lounge car at the rear of a limited train in early evening, as it was moving slowly down the center of a street leaving a large city station. There is considerable vehicular traffic on this street, which is paved all the way across the double track main line. When the engineer saw a truck turn out around other traffic and head toward his locomotive he made a quick application of brakes, which threw this lady off balance, and she sat down hard on the floor severely bruising the lower end of her spinal column. The injury made it difficult for her to stand or walk for several days. (S-15)

MECHANICAL DEPARTMENT

DRIVING BOXES GET TWO

The removal of driving boxes from driver axles which have been taken out from under locomotives is always attended with some hazard, particularly to the man who is not fully alert. It is pretty general practice to turn the boxes upside down on the axle and let them drop off after the cellar pins have been removed. Often the packing cellar sticks between the two arms of the driving box so it does not readily fall off, and it is necessary to either use a buggy bar and pry the cellar out from between the arms of the box or tap the latter down with a sledge until it becomes free and drops.

We had two men hurt doing this job in July. One man was prying up the cellar, as above mentioned, and when the box came loose from the cellar it dropped to the planked floor and turned over on the foot of the workman who was standing between the wheels while using the bar. Two bones were broken in the right instep and it will be some four or five weeks before he can walk again. (N-8)

The second case is almost exactly like the first, except that the driving box was inverted at the time the cellar keys were being removed and dropped off just as the workman knocked the last key out with a punch. The box struck the floor awkwardly and turned over on his foot, striking the left instep and breaking one bone which will take four weeks to heal. (C-6)

Removal of a driving box from an axle is greatly simplified when either a portable or overhead crane is available. By means of four short chains attached to a central ring with L-shaped lugs at the four ends, which can be inserted into the cellar key holes, a heavy box can be removed from the axle and placed wherever desired. With the crane attached to the driving box in upright position, by attaching the first two chains as soon as the first key is removed, the box can be held steady while the second key is driven out and the cellar removed. When no crane is available a driving box may be safely removed by the same method as was used in above cases if the workman is alert and stands well away from the box, prepared to step further back quickly when it starts to drop. The Mechanical Department is now trying to work out a uniform method for use when a crane is not available for assisting.

STRUCK IN HEAD BY SLEDGE

While inspecting a freight train in the train yard, car inspectors found that a brake beam safety bar attached to the spring plank on the car truck was partly loose and hanging down. The bar had been attached with two rivets but one of them had been broken and the other was loose. To avoid the necessity of switching this car to the repair track, the car foreman got a long cutting bar and a sledge, and with the assistance of a carman undertook to cut the single rivet still holding the safety bar so it could be taken entirely off. To hold the cutting or chisel bar in proper position it was necessary to kneel on the ground, stooping low, and reset the bar after each blow. For the first few blows the carman held the bar and the foreman did the striking. Then they changed places, the foreman holding the bar. Each time before the carman would strike he would first bring his sledge up against the end of

the bar after it had been reset, to make sure of proper striking position. The bar was heavy and rather difficult to control on account of stooped position of the holder, and either the end of the bar was moved a little after the striker pulled back to strike or else he misdirected his blow, for the sledge missed the end of the bar entirely and before it could be held back struck the foreman on the forehead over the temple, resulting in a severe skull fracture and concussion.

A great many such injuries as this have been eliminated in recent years by substituting oxy-acetylene cutting for mechanical cutting in the removal of bolts, rivets, plates, etc. Work such as these men were doing necessarily involves considerable hazard. As no cutting torch was available in the train yard, it would obviously have been better to switch the car to the repair track long enough to make the cut. (N-12)

MAINTENANCE OF WAY DEPARTMENT

PAINTER FALLS FROM LADDER SCAFFOLD

The ceiling of a depot waiting room was being repainted and the painter doing the work had set up two "A" ladders to support a 2x12 scaffold plank between them about eight feet above the floor. He had his paint bucket setting on the scaffold beside him as he stood brushing the paint overhead, and having covered as much territory as he could reach from one position, he stepped further away and turned around to pick up his bucket and move it closer to him. He became overbalanced and jumped to prevent alighting awkwardly. As frequently happens when these sudden high jumps are undertaken, the bone in his right heel was fractured. He will have plenty of time in the next three or four weeks to reflect on the advantage of moving carefully and deliberately when working on scaffolds. (O-29)

POOR HANDLING OF TIE TONGS

A lot of mashed and broken fingers and toes and a lot of falls are prevented by the use of tie tongs, but the tie tong is not a fool proof tool. The spurs of the tongs have to be set firmly enough into the wood to prevent slipping and the harder the pull or the lift the more care necessary to see that the spurs have a proper grip. Here's what happened to one man who didn't take the necessary precaution last month.

An extra gang laborer was straightening up ties at side of track, using a pair of tongs, and wanted to turn a tie at right angles to the rail. He stood astraddle of tie, hooked his tongs about the middle, and undertook to raise and swing the tie at the same time. His tongs slipped and the tie rolled against the inside of his shin, scraping off some skin. He continued working with it without getting a bandage or first aid treatment until that night. While the injury was not painful, infection developed two or three days later, which caused a disability of a week or ten days. If the foreman had promptly sent this man to the nearest doctor for proper bandaging and treatment at the time of occurrence he would probably only have lost two or three hours, and the man's wages, the foreman's standing, and the accident record would have all been saved from impairment. This is a good example of what may happen when a foreman fails to take prompt action in having a comparatively minor injury promptly treated. (K-21)

KNOCKED THE WIND OUT OF HIM

A laborer at the tie plant stood inside of a coal car while manipulating a tie sliding chute into a different position for loading ties. His foot slipped and he fell across the top edge of the car upon the pit of his stomach, which knocked the wind out of him and caused a moderate bruise, beside making him sick for a little while. He lost a day and a half. The best preventive against this sort of thing is to keep a foot well braced ahead of or behind you when you are making any heavy exertion, so that if anything should slip, the braced foot will enable you to keep your balance. (Y-43)

GETS PIECE OF STEEL IN FOREARM

A B&B carpenter was holding a chisel while another carpenter struck it with a sledge while cutting steel castings loose from a concrete wall. A small fragment of steel cracked from the edge of the sledge and struck him in the forearm. The probing of the wound and removal of the piece caused a soreness which kept him off two and one-half days.

We buy the finest mauls and sledges obtainable in the market, but there is no such tool made which will not develop chipped fractures around the edge of the striking head when hit against rail or other hard steel. Sometimes these pieces do not fly off at the time the fracture starts, but crack out later when the same corner of the sledge is struck against something else. This can be prevented in two ways; first, by striking squarely on the proper tool and avoiding striking the rail; second, by frequently inspecting the faces of mauls and sledges to make sure there is no cracking around the edge, indicating one of those crescent shaped pieces is about to break out. (Y-37)

MISCELLANEOUS DEPARTMENTS

THREE ERRORS IN STORE DEPT.

The Store Department this month contributes three outstanding examples of lack of safe-mindedness. Anyone of these three cases would afford sufficient text for a good long safety sermon, but we'll try to give you only a brief outline in this and the two following items.

The lead which is melted and poured into the counterbalance pockets of locomotive drive wheels comes in bars or ingots weighing about 100 lbs. which are moulded with lugs or ears at the ends to facilitate handling. In Store Department stock these bars are piled in crisscross layers with four or five bars to the layer. A storeman brought up a truck alongside a pile of these bars to take a number of them away, and started lifting them from the pile into the hopper. He stood facing the ends of bars in the top layer, and when pulling a bar toward him instead of lifting it clear he dragged it on the front bar of the tier below, dislodging that one, which fell on his foot, badly mashing it with compound fractures of two bones.

There is a lesson here for all men who have to handle material, such as angle bars, rail joints, ingots of bronze, brass, etc., which are ordinarily crisscrossed in piling. First, the piles must not be so high that the material cannot be conveniently lifted from the top of the pile to the bed of the truck for moving. Second, the man must stand high enough above the top of the pile that he can lift each individual piece clear instead of dragging them endways. Third, he must be taught to do it that safe way every time and avoid such painful injuries as this which caused from one to two months' disability. (D-23)

HURT TRYING TO PREVENT ACCIDENT

At a large general store a big flat trailer truck, with track rails extending lengthwise on it, is used to transfer mounted car wheels from one point to another. The tractor crane operator and a laborer had just set two mounted pairs of wheels on this trailer when they were called to assist in pulling another tractor out of soft ground. They had to pull their trailer off the road before leaving it, and to make this move they chocked the loaded wheels with small wooden blocks. When the trailer started to move, the little wood blocks just naturally jolted out of place, and one pair of wheels started to roll back toward the end of the trailer. Seeing the wheels start rolling, the laborer, who was alongside, made a quick step or two to catch the wheels and prevent them from rolling off the back end of the trailer bed. He slipped and fell with his leg under the rear trailer wheel, breaking the bones of the left lower leg which will incapacitate him for six weeks or more. If this man had been as eager to properly block the wheels in the first place as he was in trying to stop them rolling after they got away, the accident could have been prevented. (D-27)

CAUGHT IN ELEVATOR

In the open air platform at the rear of our largest oil storage warehouse there is an old hydraulic elevator for handling barrels of oil, etc., from basement to platform or vice versa. A trap door consisting of two hinged leaves is pushed open by the elevator when it rises and closes over the top of the elevator when it descends to the basement. A storeman and his assistant desired to take a hand truck from the platform down into the basement. As the truck was started onto the elevator, the storeman pulled the chain which started the elevator going down, before the four-wheeled truck was entirely on. The young man handling the truck tried to pull it back off, while the storeman on the elevator tried to pull it the rest of the way on, with the result that the trap door closed down while the tongue of the truck was still being held by the man on the platform, and he got a badly mashed index finger of the right hand. The finger was thoroughly dressed and protected by a metal loop which enabled him to resume duty the third day after his injury.

Too hasty action by both men caused this one. They had no understanding between them. The storeman meant to lower the elevator to adjust it to floor level but started it too fast. The helper should have waited till the elevator was completely stopped before pushing the truck onto it. (N-49)

THREE D. C. & H. CASES

There were one reportable and two lost time injuries among Dining Car and Hotel Department employes in July. The reportable injury occurred to the manager of a cook outfit in an extra gang who was lifting a cake of ice from the large ice box in the provision car. A peculiar twist of his body while thus exerting himself resulted in a hernia which had to be operated upon by the surgeon, causing a disability of about three weeks. (Y-9)

The fourth cook in a dining car kitchen scratched his left thumb on the chipped edge of a dish and developed a slight in-

fection three days later. He lost one day and two hours getting the wound sterilized and infection stopped. Had he reported the minor injury immediately when it occurred and had it dressed by the doctor at the next station it might have prevented the slight infection and avoided any loss of time. (N-16)

The second lost time injury was caused by the projecting handle of a garbage can in a dining car kitchen, when the third cook struck his knee against it. The bruised knee became a little sore and stiff a few days later and after receiving medical attention he was deadheaded to his home terminal where treatment enabled him to resume duty after losing three days' time. This garbage can was one of the very few in service not equipped with drop handle, all of which were immediately removed and replaced with drop handle cans to prevent a recurrence. (N-28)

CROSSING WATCHMAN BADLY HURT

Shortly after dark, at one of the principal street crossings over our tracks in a large town, the crossing watchman went out onto the crossing with his lantern to stop highway traffic for the passage of a train which was still about one block from the intersection. Several cars stopped, but one driver, apparently oblivious to conditions around him, drove onto the crossing and struck the watchman, knocking him down and fracturing both bones of the lower right leg, the break extending into the knee joint. No doubt it will be several months before he recovers. Witnesses in other cars said they could plainly see his lantern being waved, and their testimony resulted in holding the driver of the car involved for court action. (N-43)

CHANGES IN THE ACCIDENT RECORDS

In our bulletin of June 10, in the last paragraph of the article regarding the award of the National Safety Council Bronze Plaques, we mentioned the fact that while the ICC Annual Report for 1933 will show the same casualty rate for the Union Pacific System as was given in our bulletin of February, there would be some differences in the figures for the individual units. This was due to differences between the ICC bureau and ourselves in crediting man-hours and charging of accidents between units. The accidents and man-hours of the mechanical forces at Salt Lake have formerly been taken into the account of the LA&SL unit in our own tabulations because that terminal is under LA&SL supervision, although the property belongs to the OSL and the men have been carried on OSL pay rolls. In like manner, accidents and man-hours of the dining car department have been allocated to other units, although all DC&H employes are carried on UPRR pay rolls.

The Interstate Commerce Commission has been charging the accidents to whatever unit we showed on our reportcs, but they have been crediting the man-hours to the unit making the pay rolls.

In order that our records for the various units, as well as the System, shall be in complete harmony with the records of the ICC, accidents in the Salt Lake mechanical force will hereafter be charged to the OSL, which handles their pay rolls, and accidents among DC&H employes will be charged to the UPRR, which handles their pay rolls, and the man-hours of these forces will be similarly credited. We are making the necessary corrections retroactive to January 1, 1934, and the standings of units, mechanical supervisors, etc., as shown on the first page of this issue of the bulletin, are based on these corrected figures.

DERAILMENT DUE TO UNSPIKED TIES

About three months ago the engineer and fireman of a 21-car freight train were killed, and the conductor and brakeman in the caboose were injured, when their train was derailed while moving about 15 miles per hour on the tracks of a terminal road. A section gang had been renewing ties during the morning, changing out two or three and even four at a place, and had left a number of them unspiked. They had this piece of track under flag protection while they were working but called in the flagman during the noon hour and there was no protection on this piece of track when the accident occurred at 12:35 P. M.

After the accident it was found that, of the 75 ties in a distance of 120 feet at point of derailment 36 of them were not spiked, and the first mark of derailment was at a point where four ties in a bunch were unspiked. The weather was hot and there were indications that the unspiked rail had kinked, causing the derailment. Every track foreman who has permitted men to leave ties unspiked while engaged in tie renewals should profit from the reading of this fatal accident which developed from that practice. (ICC-1912)

KILLED BY "HORSE PLAY"

In spite of wide publicity which has been given such terrible occurrences in the past, it seems there are still some industrial workmen so thoughtless and so ignorant that they must repeat the most inhuman practical joke of "goosing" a fellow workman with an air hose.

A few days ago the newspapers of the country carried the pathetic story of a Servian workman inflated to more than double his normal size by fellow workers in the roundhouse of an eastern railroad. Surgeons performed an emergency operation in an effort to save his life. Almost invariably in such cases the intestine is ruptured and the victim dies.

Entirely aside from the use of the air jet, there is no more detestable kind of horse-play than that referred to as "goosing," and there should be no place on a railroad or in any other industry where men with that perverted sense of humor could hold a job. Any instance of the kind should result in instant dismissal of the perpetrators.

HANDLING OBJECTS, MATERIALS AND SUPPLIES

The writer recently had the good fortune to receive a copy of a paper on the above subject prepared by Mark Fulton, Superintendent of Safety MKT RR, and the following is briefly condensed from the original detailed and instructive article.

"It isn't what you handle,—it's how you handle it."

Some workmen expect their foremen to tell them how and to show them how, not just once but over and over again like a child or school boy. The foreman or supervisor will find help in a study of the principles gleaned from experience.

Material is handled by men or machinery or both,—coupled with brains. The requirements in the order of importance are—

1. A safe foreman;
2. Safe men;
3. Safe machinery and tools.

The foreman is most important, for a safe foreman can bring his forces through unhurt, regardless of unsafe conditions, equipment or tools. To make his workmen safe, the foreman has to do three things: (a) select fit men; (b) educate them in safe working methods; (c) discipline them with judgment to insist on their education being used all the time. Men who are not sound, whole or well, or who do not have the right mental capacity and attitude, must be kept out or put out of the force.

The classes of men most likely to get in trouble handling material are three:—the green horn who needs teaching and training; the day dreamer who has to be jolted out of his indifference, lack of concentration on the job or heedlessness; the old head who has the "let her rip" or "to h— with it" attitude due to being disgruntled or grouchy or sore. He must be given a good confidential talking to before being publicly reprimanded or disciplined if he won't bring himself out of it.

The safe foreman in charge of handling materials and objects will teach his men the fundamentals of safety as follows:

How to lift,—using the leg and arm muscles, keeping the back as straight as possible.
When to lift,—in unison with others on the word called.
When to let go,—according to previous understanding or on the word called.
Where to stand,—properly distributed and clear of danger.
To pile and load securely.
To sense and observe the balance or trickiness of unweildy objects.
To keep clear of nails and splinters and spills.
To keep out from under suspended loads.
To choose the best available footing, watch the step and take plenty of time where footing is obstructed or unsafe.
To shun horse-play, confusion and misunderstanding.
To look before throwing or dropping things.
To get help when needed to assure full control, due to unusual weight or unweildiness.
To keep from in front of rolling things.
To keep feet and hands out of way of possible falls or drops of objects.
To keep the mind where the body is and applied to the work in hand.

Supervisors holding safety meetings or safety talks with their employes will find plenty of features for discussion in the above.

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(Seven Months Jan. 1st to Aug. 1st)

Year	Number of Accidents	Casualties			Locomotive Miles	Per Mill. Loco. Miles	
		Killed	Injured	Total		Accl. Rate	Cas. Rate
1933	82	11	27	38	19,394,320	4.23	1.96
1934	113	17	36	53	21,174,367	5.34	2.50
Increase	38.%	.....	.....	39.%	9.%	26.%	28.%

Accident Prevention Bulletin

June 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF MAY

Including casualties and careful estimates of manhours for the month of May in calculating the cumulative rates for the period January 1st to May 31st, the relative ranking of groups supervised by the officers named appears to be as tabulated below.

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	H. J. Plumhof	OSL	2.08	10.41
2	F. N. Finch	OWR&N	2.07	10.63
3	N. A. Williams	UPRR	1.94	13.52
4	F. H. Knickerbocker	LA&SL	3.04	15.53
	System Total 1934		2.11	12.80
	Last year for same period		1.87	10.89

Division Superintendents

1	M. C. Williams—Wash.	5	J. E. Mulick—Nebr.
2	W. H. Guild—Kans.	6	W. C. Wolcott—Colo.
3	E. C. Manson—OSL	7	A. L. Coey—LA&SL
4	H. A. Connett—Ore.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	M. H. Brown, Jr.—OSL
2	L. I. Hammond—Kans.	6	R. L. Adamson—LA&SL
3	R. M. Jolley—Nebr.	7	S. H. Osborne—Colo.
4	H. A. Roberts—Ore.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	A. V. James—Nebr.
2	P. J. Norton—OSL	7	J. D. Killian—Wyo.
3	J. Gogerty—Omaha Shops	8	L. W. Shirley—OWR&N
4	G. A. Jordan—Colo.	9	G. M. Walsh—Poca. Shops
5	J. F. Long—LA&SL	10	G. R. Wilcox—Kans.

MAY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	6	3	Transp	—	4	—
OSL	—	2	—	Mech.	—	2	2
OWR&N	—	—	1	M. of W.	—	3	3
LA&SL	—	4	1	Miscel.	—	3	—
Employes	—	12	5	Employes	—	12	5
Psgrs.	—	—	—				
Pers. Car	—	—	—				
Total	—	12	5				

CASUALTIES JANUARY 1 TO JUNE 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	2	27	12	Transp.	—	17	2
OSL	—	9	—	Mech.	1	16	5
OWR&N	—	8	1	M. of W.	1	10	6
LA&SL	—	9	1	Miscel.	—	10	1
Employes	2	53	14	Employes	2	53	14
Psgrs.	—	2	—				
Pers. Car.	1	—	—				
Total	3	55	14				

If only one or two of the twelve reportable and five lost time casualties in May could have been prevented it would have improved our standing for the year to date. Read the following columns and see which accidents were inexcusable.

The four reportable casualties on the LA&SL Unit during May has put them in fourth place. The UPRR, though having the lowest I. C. C. rating for employes, stands third on contest basis due to fatalities and injuries to passengers and persons carried.

We won't make any further comments about individual units, but if you noticed the number of casualties charged to each in April, and in May (above), you must have discovered something!

TRANSPORTATION DEPARTMENT

A NEW INJURY FROM AN OLD FOLLY

When his engine backed six cars to a gentle coupling with the caboose, a brakeman noticed that the lock block did not drop to make the coupling secure. Maybe he thought nothing could go wrong on such a pleasant morning,—or maybe he didn't think at all! At any rate he stepped between the cars and rested his right hand on the top of the couplers to balance himself while he reached underneath with his left hand to manipulate the bottom end of the lock block and make it drop into place. As he did so, the brakes released on the car, which always results in a little easement or adjustment of tension between drawbars, and this time it was just enough to badly pinch the thumb and finger of his right hand between the face of one coupler knuckle and the pocket of the adjoining drawbar. No bones were broken, but several stitches had to be taken in the mashed thumb and finger, necessitating three weeks' disability.

Only a year ago, in the Bulletin of May, 1933, we related a similar case of an experienced brakeman resting his hand on the coupler, with engine attached to the train, and who got his finger mashed in the same way. Mr. Trainman and Mr. Switchman, how many of these cases do you have to hear about before you conclude to stop that foolish practice of resting your hand on a drawbar when you are between cars? (S-13)

SWITCHMAN FALLS FROM BRAKE PLATFORM

The foreman of a terminal yard switching crew rode a detached empty box car into clear on a yard track, stopping the car with the hand brake which was at the rear in direction of movement. He says that when the car stopped, with the brake still set, he held to the brake wheel with his right hand while with his left hand he reached for the roof grab iron, and with his left foot reached for the end ladder iron, and that while he was in this position the brake let loose, causing him to fall. The brake wheel, ratchet and other parts were in first class condition. While it seems improbable that the accident occurred just as related, there is no question about his falling from the platform, resulting in breaking the radius bone in the forearm and two wrist bones, which will probably incapacitate him for several weeks.

The manipulation of hand brakes is one of the chief sources of injuries to trainmen, and a frequent cause of injury is the effort to get "the last notch". Usually a car can be stopped without the most extreme application of the hand brakes if a man starts applying the brakes early enough. It is that extraordinary exertion trying to get the "last notch" which often results in the feet slipping, or in failure of the pawl to engage the ratchet wheel, thus permitting a reverse or kick-back of the brake wheel which causes the brakeman to lose his balance and fall. Even if "the last notch" is secured, it frequently sets a trap for the next man who has to release the brake, as the exertion in releasing it is apt to have the same effect. Falls also result from releasing the ratchet dog after the car is stopped and then holding to the free brake wheel, which is still under partial tension, while reaching for the roof grab iron with the left hand. The tendency of the brake wheel to revolve makes it a very poor support and a partial revolution of the wheel may mean a miss with the left hand. It is far better to hold to the grab iron with the left hand, while pulling with the right, to disengage the ratchet and release the brake. (D-47)

ENGINEER BREAKS ARM IN CAB

A mixed train of 40 cars had made a station stop, and after starting again had attained a speed of 10 or 15 miles an hour, when the engineer thought it would be a good time to blow out the water gauge glass and water column. It was broad daylight, between 5:00 and 6:00 PM, when he turned half way around on his seat box and stepped down onto the deck. However, when he stepped forward his right toe caught on something which he thinks was the quarter-inch air jet hose, and he sprawled forward to his hands and knees toward the fireman's seat, turning his left wrist under him. It pained him somewhat but he thought it was only a sprain, as

he was able to continue the use of his left hand on the throttle while completing his trip. After arrival at the terminal, however, an X-ray examination showed he had fractured a bone just above the wrist and he will be off duty for about a month.

If you have been reading these Bulletins you may recall seeing, once or twice or a hundred times, "look where you are about to step." (Y-29)

RUPTURES MUSCLE FIBERS IN LEG

A switchman was walking along the switching lead at ordinary pace as his engine was shoving five cars alongside him, at the same speed as he was walking. He stepped in towards the corner of a car to operate the uncoupling lever, when he felt a pain in the calf of his left leg. He says there was nothing hasty, sudden or unusual in the movement, and he did not trip or stumble. However, the pain continued and the leg began to swell, and when he went to the surgeon it was found that the peculiar strain placed on the leg in that particular movement had apparently pulled the muscle fibers apart, and he would have to stay off the leg for two or three weeks.

Under the ICC rules any damage to or distortion of any part of the body occurring to an employe at work, and sufficient to incapacitate him for more than three days, constitutes a reportable injury, and this case must therefore be so tabulated. It seems highly probable that either some pecularity of this movement or possibly uneven surface on which he stepped may have been a factor in causing this unusual strain. (S-27)

MECHANICAL DEPARTMENT

BURNED BY A FLASH THROUGH FIREBOX DOOR

An oil-burning locomotive had arrived at a terminal roundhouse, and the burner had been shut off about 15 minutes, although the inside of the firebox was still quite hot. An experienced boilermaker and his helper got on the engine to scale the carbon deposit from around the burner by use of a long bar through the fire box door. They say they turned the blower partly open to draw the gasses from the firebox through the stack, as the engine was still under steam. They had opened the firebox door and started to work, when a flash fire occurred in the firebox, the flame going out through the firebox door, slightly singeing the boilermaker's neck and burning the helper's face and ear quite severely. The boilermaker was able to continue at work, but his helper lost three days before he could resume. It is fortunate they were not more seriously injured.

After an oil burner in a locomotive has been turned off there is apt to be some vaporization of fuel oil from around the nozzle for some little time, and the inflammable gasses may flash when air is admitted to the firebox due to sparks from the hot carbon, unless the blower is turned on with sufficient force to draw the gasses completely out of the firebox as they are generated. It was apparent in this case, and admitted by both men, that they did not have the blower turned on hard enough. In fact one man was just reaching for the blower to turn it further open when the flash occurred. Enginemen and mechanics in territory where oil burning locomotives are used can get a lesson from this case. (S-28)

FEET SCALDED IN ROUNDHOUSE PIT

The day shift had just come to work in a roundhouse, and it was necessary to get out a locomotive for a passenger run. One of the first things to be done was to test the ash pan for possible spark leaks, which necessitates filling it full of water to detect holes or crevices. Another job on this engine was to inspect the cellar packing of driving journals and engine trucks.

A boilermaker turned the water hose into the ash pan to fill it for the test, and made the mistake of using the hot water hose instead of cold water hose for the filling. He did some other work in the meantime and came back to find the ash pan practically full of water. He noticed it was not leaking, shut off and withdrew the hose, and then started to open the ash pan door and let the water out into the roundhouse pit. In the meantime the cellar packer had gone under the engine and was working on a boxing about 15 feet ahead of the ash pan. The boilermaker claims he called to all around the engine that he was going to open the ash pan and walked alongside the engine, not seeing anyone underneath it. However, there is some question about this as the cellar packer said he heard no warning. At any rate the boilermaker turned the ash pan full of water loose into the roundhouse pit, and not until then did he realize it was hot water instead of water from the cold line. The water swirled around the feet of the cellar packer who came hurriedly out of the pit and it was found that his feet and ankles had been moderately scalded by the hot water. He will probably be unable to work for two weeks.

This is just another good example of men getting in too big a hurry to take the customary, thorough precaution in connection with their work. However, haste is no excuse for the boilermaker turning hot water instead of cold water into the ash pan, nor for failure to make a thorough patrol and give ample warning before releasing the water, no matter how hot or cold. If the cellar packer heard any call of any kind he should have done what you should do if you are under an engine,—call out and find what is going on to make sure no movement is to be made which might endanger you. (Y-4)

HURT WINDING THE CLOCK

For no good reason except that it has "always been there" they have a key wind clock on the wall of the wood working mill at one of our terminal shops. At 4:20 P. M., Friday afternoon, just before close of work for the week, a mill-man set up a stepladder in front of the clock to wind it up. There was a small pile of 12-ft. lumber, about two feet high and a little over two feet wide, along the wall under the clock, so he could not set the ladder as close to the wall as it should have been. He placed it parallel to the wall, climbed up on the third step, and reached out from the side of the ladder to open the clock door. Although he had performed this same operation for many years, this time he lost his balance and fell, striking on the pile of lumber, dislocating his right shoulder. The arm will have to be kept in a sling for approximately two weeks until he can safely use it again.

Many, many people have fallen from stepladders when trying to work too far out to one side, either due to losing their balance, or having the ladder "kick out" from under them. The boy or girl or housewife who makes such a mistake can perhaps be excused on the ground that they never had any safety training, but that excuse cannot be offered in this case. If you have occasion to use a stepladder, (and most of us have from time to time), make up your mind right now to see that the ladder is properly set so you don't have to lean your body out sideways beyond the side of the ladder. (C-3)

HOT WELDING TORCH STRIKES EYE

A pipefitter had been kneeling on the floor, using the oxy-acetylene welding torch to burn a hole through a tank frame. Having finished the job, he turned off the torch and started to rise, with the torch held loosely in his hand. The hose caught either on his knee or his toe, causing the torch to flip upwards as he held it, the hot end striking his right eye. This caused a rather painful but not serious burn, barely touching the eyeball, but not near the pupil. He was able to go to work the third day, thankful that the contact had not been an instant longer which might have seriously impaired or ruined his eyesight.

Many of you who read this have occasion to use welding torches and electrodes. You should form the habit of pulling up a little slack in the welding hose or cable before you turn on the gas or start the arc at the beginning of the job. That will prevent the torch or electrode from being jerked out of your hand if anybody or anything accidently kicks against the line. In the same way, when you have finished welding, swing the torch or electrode out and see that the hose or cable is clear of your legs or other obstruction before you move or raise up. Such practice may help you avoid burns about the face or eyes due to unexpected jerks of the tool. (O-2)

MAINTENANCE OF WAY DEPARTMENT

GAS EXPLOSION IN OUTFIT CAR

A bridge and building foreman had two cylinders of acetylene and two cylinders of oxygen in his tool car, which had been there for sometime, and had been instructed to ship them back to the Store Department. Shortly after his gang had gone to work in the morning at the stockyards of a way station, the foreman went to the tool car and thought he would ascertain whether these cylinders were charged or empty before shipping them. The cylinders were standing near the middle of an 18-ft. compartment used for tools and work bench, the other end of the car being partitioned off with the door locked. The opposite door, at the end of the car, was standing part way open when the foreman opened the valve of one of the acetylene cylinders. Presumably he had some idea of letting the tank discharge, for the valve must have been open some little time. He says he closed the acetylene valve and then opened the valve on an oxygen cylinder, and from its hissing sound found that it also was partially charged.

In the meantime the station pumper was passing by the outfit on the main track, and smelled the strong odor of acetylene. Seeing the local freight approaching some distance away, he went up on the platform of the tool car to the partly opened door, and called to the foreman to shut off the gas as there was a train coming. The pumper had just finished speaking when there was an explosion in the car which blew the door shut and forced it right on through the opening into his face, the force knocking him

off the platform. Flames which shot through the door opening ignited his clothing also, but he was able to quickly put out the fire and was not seriously burned. The foreman came running out with his clothing burning, and was pretty badly burned before the fire was extinguished. Members of the gang ran over from the stockyards and extinguished the fire in the car. The doctor estimates the foreman will be disabled three or four weeks.

The train was entirely too far away to have ignited the gas. Neither the foreman nor the pumper were smoking, and there was no fire of any kind in the car. It was first thought that contact of the oxygen with some greasy door hinges in an open bin might have caused spontaneous ignition, but it seems more probable that the foreman struck a spark with his wrench when trying to shut off the tanks.

This foreman not only violated the rule which requires that the adjustable regulators must be applied before releasing gas from a cylinder, but also violated all rules of common sense in releasing gases in an enclosed room. If there was any excuse at all for letting the gas out of these cylinders they should first have been taken out of doors. Of course he has learned all that now from painful experience. The thousands of others who read this can save themselves from similar trouble by heeding his example of what not to do. (S-7)

THREE RAIL GANG INJURIES

Starting a gang of more than a hundred men at laying rail is always attended with some hazard, particularly when a majority of them are inexperienced at the work. The starting of such a job in May resulted in two reportable injuries, notwithstanding the efforts of supervisors and foremen to properly instruct the men.

A man operating a power adzing machine did not take the trouble to clear away a loose bond wire from the vicinity of the adzing head, with the result that the wire was caught and swung rapidly around, striking his left little toe. He at first thought it was only a bruise, but an X-ray examination revealed a fractured bone, with an estimated disability of three weeks. (C-13)

Three or four men with lining bars were throwing the string of old released rail out of the track, and one of them was holding his bar loosely against the rail while others a short distance away were prying it further out. A sudden spring of the rail knocked the bar out of his hands and it fell upon his right foot, causing a bruise which kept him off the job for two days and a half. (C-14)

While driving spikes, with his maul, a chip of steel flew and struck a laborer in the right knee, resulting in two days loss of time having the wound X-rayed and sterilized, after which he was able to resume duty. (C-2)

TIE FALLS OFF PUSH CAR

A section gang had loaded three tiers of creosoted ties on a push car, each tier crosswise of the one beneath it. When unloading them, one laborer got on the load and pushed the ties endwise off the car into the hands of two men on the ground, who carried the ties to the side of the track. He had pushed several ties off in this manner until finally the tie at the edge of the next tier below, over which these ties had been sliding, fell from the car onto the foot of one of the men on the ground, resulting in a bad bruise and ten days' layoff.

There is always danger of the outside tie being knocked off while ties are being slid off in this manner The safer way is for the man on the car to tip the ties clear off onto the ground and, then let the men on the ground pick the tie up afterward. There have been a number of foot injuries in past years from exactly the same cause as here related. (Y-40)

SLIPS HANDLING TRACK WRENCH

It is disappointing to find section men still working on this railroad who do not stand properly when using a track wrench. Yet an experienced section laborer lost two days from work last month caused by that very thing. He didn't have his foot braced when the wrench slipped, and he fell across the rail, badly bruising his chest and knocking the wind out of him. Such a case is a reflection not only on the man himself but on his foreman as well. (N-19)

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(January 1st to May 31st)

	Number of Accidents	Number of Casualties Killed	Reportable	Slight
Five months—1933	65	8	24	15
Five months—1934	92	14	31	13
Increase	27	6	7	—
Decrease	—	—	—	2

MISCELLANEOUS DEPARTMENTS

RIGHT HAND MUTILATED IN BUZZ SAW

At a wood working plant operated by the Store Department, a rip saw machine is equipped with a wide head, so that four or five circular saws can be bolted together and used as a Dado machine for cutting wide grooves or slots in lumber. A carpenter was using this machine to groove the slots in short oak footguard blocks to be inserted in track frogs. This same man had made numbers of blocks the same way at other times, and on this occasion had sawed grooves in nine blocks and was working on the tenth when the accident occurred.

Contrary to rule, he decided to use a pair of cotton gloves, putting the glove on the right hand and wadding up the left glove inside the palm of the right, to use as a pad while pushing the oak blocks through the saw. Just as he had completed the cut on the tenth block, the saw caught the wrist of the padded glove, pulling his hand down towards the saw and severing the tip of his right thumb and his entire index finger. It will be six weeks or two months before he can resume work with the mutilated hand.

Employes may at times think some of the safety rules are unwarranted, and wonder why safety inspectors and supervisors are so strict in requiring compliance with them. This injury is a good example of why we have in the safety rule book the following:

> "52. Employes are prohibited from wearing gloves or finger rings while operating moving machinery, except by special authority from shop superintendent or master mechanic."

If this carpenter had reported to his superintendent that he was having difficulty in handling these blocks without gloves and asked his advice as to some better way of handling material, instead of taking it upon himself to use the gloves and pad, he might have saved himself a painful and permanent injury. (Y-11)

LINEMAN FALLS OUT OF TREE

As he was patrolling the line on his track car, a lineman of many years' experience saw that the small limbs of a medium size cottonwood tree had grown out to a point where they were about to foul the wires. Accordingly, he set his car off the track, put on his climbers, and climbed the leaning tree trunk to a height of about 12 feet above the ground. Believing his spurs were firmly set, he hold to the tree trunk with his left hand while chopping off several small limbs with his hand ax. Just as he cut the last limb loose, either the lurch of his body or the repeated movements of his chopping resulted in his spur slipping out and he was unable to catch himself. He fell to the ground in such a way as to break his collar bone, which will keep him off the job for a month. He says he did not use his safety belt for the reason that it somewhat restricts a man's movements when cutting limbs on trees, but believes if he had the job to do over he would use the safety belt anyway and not take another chance on such a fall as this.

There is no hard and fast rule as to the wearing of safety belts in tree trimming, and it must properly be left to the judgment of the lineman doing the work. The fact that he had 24 years of experience is simply a reminder that we still need to use as much care the 24th year as we did the first year of our work. (D-19)

SPECIAL AGENT SHOT

A special agent, or railroad policeman, looking over cars at an intermediate terminal point late in the evening heard someone operate the door locking lever on an ice car. He walked around the car and asked the man and woman standing at the car door what they were doing; when the man in reply asked who he was, the special agent told them he was an officer. Immediately the pilferer, who had apparently been holding a drawn gun at his side, shot four times at the officer, two bullets inflicting flesh wounds in the thighs, which will incapacitate him for three or four weeks. The couple ran, the injured officer pursuing the man, who was caught and is now awaiting trial. (S-53)

LOOK AT THE BACK PAGE

During the past year in which the monthly Bulletin has been issued as a four-page folder, the back page has been devoted to maintaining the actual record in cold figures of the casualties and rates, which necessarily lagged some six weeks behind the date of issue.

You have probably not even glanced at that back page more than once in the past year. But look at it this time,—you will find the dry statistics replaced by reading matter which ought to interest you if you are an alert, up-to-date railroad employe.

Hereafter the statistics which have formerly appeared on the back page will be typed and schapirographed in this office and forwarded to interested general and division officers and safety agents. We will also be glad to put on our monthly mailing list for this statistical report any safety officers of any other railroads who do not find sufficient statistical information in the first column of the first page of this monthly Bulletin.

NATIONAL SAFETY COUNCIL AWARD TO L. A. & S. L.

At a dinner in Chicago, May 22nd, the National Safety Council's Annual Awards were made to railroads having the lowest employe casualty rates per million man-hours worked. The railroads are classified into seven groups according to size, as gauged by the total hours worked each year.

In Group A, both the C. & N. W. and C. M. St. P. & P made lower records in 1933 than the Union Pacific System. In Group B, the N. Y. N. H. & H. and the Atlantic Coast Line made lower records than the U. P. R. R. unit. In Group C, the O. S. L. R. R. made the lowest record, but was not eligible for the award because of having won last year. This award was accordingly given to the C. St. P. M. & O. Ry., which was next in rank. In Group D, the Los Angeles & Salt Lake had the lowest record and was awarded a beautiful bronze plaque similar to those which have been won by this and other units of the system in several annual contests in the past. The L. A. & S. L. has been at the head of Group D, with the lowest casualty rate, for ten out of the eleven years covered by these awards.

A most interesting feature of the award dinner was the fact that it was a sort of "father and son" banquet. Carl R. Gray, jr., vice-president and general manager of the C. St. P. M. & O. Ry. Co., received the award for his road, which was immediately followed by presentation of the plaque for the L. A. & S. L. to Carl R. Gray, sr., president of the Union Pacific, who, with graceful comment, turned it over to F. H. Knickerbocker, general manager of that line. In accepting the plaque, Mr. Knickerbocker paid high tribute to the men in the M. of W. department, whose perfect record was a big factor in winning the award.

Officers and others who receive copies of the "Green Book" showing the casualty rates for all railroads as calculated by the I. C. C. will notice a considerable difference between the rates shown therein for the individual units of the Union Pacific System and the corresponding rates published on the back page of our Bulletin of February 10th. The reason is that in our own figures we apportion part of the man-hours of the D. C. & H. dept. to the three western units, and also give man-hours of the mechanical department at Salt Lake to the L. A. & S. L.; while in the I. C. C. records all D. C. & H. man-hours are credited to the U. P. R. R., and the mechanical department hours at Salt Lake are credited to the O. S. L. R. R. We will probably revise our method of charging accidents and crediting man-hours between units so as to conform more closely with the I. C. C. distribution.

THEY HAVE A RIGHT TO BE PROUD

Mr. W. Averill Harriman, Chairman of the Board, has just signed 479 Meritorious Service Award Cards, certifying that the foremen named thereon have maintained a perfect safety record throughout the ten years from January 1, 1924, to December 31, 1933. The cards are now being distributed personally by the superintendents and departmental officers.

This number is approximately one-third of the total number of foremen on the Union Pacific System. However, this does not mean that only one-third of the gangs on the System have gone ten years without injury. There have been many changes of foremen in that time, and the cards are awarded only in recognition of the foreman's accomplishments in supervising, rather than for the record of the gangs. Thus, if a foreman leaves the service or otherwise loses his position after having made a clear record for several years, that record is terminated with him, and the new foreman who succeeds him with the same gang must start making a record of his own. The economic necessities of recent years have resulted in abolition of many foremen's positions, and have made necessary many changes. Probably not more than half of the 1,500 foremen now working on the Union Pacific System have been continuously in foremen's positions since January 1, 1924, and the 479 of them receiving these coveted Ten-Year Cards represent a decided majority of those who have served in such position throughout the decade.

A card is issued to each foreman whose gang or crew has gone through an entire calendar year, not only without an injury reportable to the I. C. C. but also without an injury sufficient to prevent a man in the gang from carrying on his regular duties for more than one day.

To be eligible for a card a foreman must have had actual supervision of a gang for the major portion of each year counted in his record. When a casualty disabling a man for more than one day occurs in his gang, it terminates the foreman's continuous record and he must then start over, completing a calendar year without a casualty before being again eligible for a One-Year Card as a start on a new record.

One-Year Cards are signed by division superintendents or by departmental officers of similar jurisdiction. The cards for each succeeding year are signed by officers of higher rank, until the cards for the fifth year are signed by the president. Cards for the sixth, seventh, eighth and ninth years are unsigned, and simply commemorate the fact that the foreman has continued his clear record.

How many Fifteen-Year Cards do you suppose will be issued in 1939?

TRAIN ACCIDENTS ON OTHER ROADS

COMBINED DERAILMENT AND COLLISION

The following are brief summaries of reports issued by the Bureau of Safety, Interstate Commerce Commission, following their investigation of accidents occurring recently on other railroads.

In February there was a very serious derailment of a passenger train on a large mid-western railroad connecting with our own. The engine and tender broke loose and turned over down a fill and stopped bottom up; five of the seven cars in the train were also derailed, the head car colliding with the engine of another passenger train standing on a diverging track, and turned that engine over also. The fireman of the moving train and the engineer of the standing train were killed; 10 passengers, 2 mail clerks, 3 employes and 1 cook were injured.

The derailment occurred just before reaching a wye switch on a ten-degree curve. The standing passenger train, which was struck by the derailed cars, was on the other leg of the wye with the engine facing this switch. The accident was caused by the moving train entering the ten-degree curve at too high a rate of speed. The maximum speed permitted on this curve was 25 miles per hour, and the investigators felt that the speed of the train was considerably greater than that, but they questioned whether even that speed should have been permitted, considering the inadequate elevation of the outer rail.

Maintenance of way and transportation men should get a lesson from this case as to the necessity for fixing safe speed restrictions and vigorously enforcing them. The fact that the moving train was ten minutes late, and that the train standing on the wye was thus being delayed for ten minutes, could not be considered an excuse for excessive speed coming into the meeting point. (ICC 1887)

RUNNING ON "SHORT TIME"

Two third-class regular freight trains on a road connecting with ours in the Northwest were scheduled to meet at a siding, so located that the west switch is on a three-degree curve in a cut with the view obscured by embankments, trees and brush. Eastward trains are superior by direction, and the westward train passed the last siding approaching the meeting point, realizing they could barely make it, but both the engineer and conductor apparently being willing to take the chance. There were two brakemen on the engine, and it was stopped ten or twelve car lengths from the switch to let both of them run ahead, one to flag the train which was due, the other to open the switch. The engine and four cars had just got started into the siding when the eastward train came around the curve. They saw the flagman only a short distance from the switch but they could not stop before colliding, destroying four cars of the train heading in and overturning the engine of the main line train, injuring the engineer and fireman.

We believe the best prevention for such accidents is detection of the practice of runing on short time, and drastic discipline of the employes involved, before the practice leads to accidents such as this. (ICC 1890)

SONG OF THE HILLS

To pass on a curve may end in a swerve
That will ring down the curtain for you.
Or in case of a smash or a hard head-on crash
You may kill other motorists too.

Under no circumstances should drivers take chances
On roads where the vision is blurred.
The graveyards are filled with folks who were killed
By autos, unseen and unheard.

Nine times out of ten you may make it, but then,
The very next time that you try,
A big motor truck may wipe out your luck
And you'll end in the sweet bye-and-bye.

How foolish men are to speed up the car,
Unmindful of what lies ahead.
We gamble with Fate and learn, when too late,
That carefulness beats being dead!

—Western Union Safety Bulletin.

Accident Prevention Bulletin

June 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.
Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF MAY

Including casualties and careful estimates of manhours for the month of May in calculating the cumulative rates for the period January 1st to May 31st, the relative ranking of groups supervised by the officers named appears to be as tabulated below.

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	H. J. Plumhof	OSL	2.08	10.41
2	F. N. Finch	OWR&N	2.07	10.63
3	N. A. Williams	UPRR	1.94	13.52
4	F. H. Knickerbocker	LA&SL	3.04	15.53
	System Total 1934		2.11	12.80
	Last year for same period		1.87	10.89

Division Superintendents

1	M. C. Williams—Wash.	5	J. E. Mulick—Nebr.
2	W. H. Guild—Kans.	6	W. C. Wolcott—Colo.
3	E. C. Manson—OSL	7	A. L. Coey—LA&SL
4	H. A. Connett—Ore.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	M. H. Brown, Jr.—OSL
2	L. I. Hammond—Kans.	6	R. L. Adamson—LA&SL
3	R. M. Jolley—Nebr.	7	S. H. Osborne—Colo.
4	H. A. Roberts—Ore.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	C. Spicka—Chey. Shops	6	A. V. James—Nebr.
2	P. J. Norton—OSL	7	J. D. Killian—Wyo.
3	J. Gogerty—Omaha Shops	8	L. W. Shirley—OWR&N
4	G. A. Jordan—Colo.	9	G. M. Walsh—Poca. Shops
5	J. F. Long—LA&SL	10	G. R. Wilcox—Kans.

MAY CASUALTIES

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	—	6	3	Transp	—	4	—
OSL	—	2	—	Mech.	—	2	2
OWR&N	—	—	1	M. of W.	—	3	3
LA&SL	—	4	1	Miscel.	—	3	—
Employes	—	12	5	Employes	—	12	5
Psgrs.	—	—	—				
Pers. Car	—	—	—				
Total	—	12	5				

CASUALTIES JANUARY 1 TO JUNE 1

By Units	F	R	LT	By Depts.	F	R	LT
UPRR	2	27	12	Transp.	—	17	2
OSL	—	9	—	Mech.	1	16	5
OWR&N	—	8	1	M. of W.	1	10	6
LA&SL	—	9	1	Miscel.	—	10	1
Employes	2	53	14	Employes	2	53	14
Psgrs.	—	2	—				
Pers. Car.	1	—	—				
Total	3	55	14				

If only one or two of the twelve reportable and five lost time casualties in May could have been prevented it would have improved our standing for the year to date. Read the following columns and see which accidents were inexcusable.

The four reportable casualties on the LA&SL Unit during May has put them in fourth place. The UPRR, though having the lowest I. C. C. rating for employes, stands third on contest basis due to fatalities and injuries to passengers and persons carried.

We won't make any further comments about individual units, but if you noticed the number of casualties charged to each in April, and in May (above), you must have discovered something!

TRANSPORTATION DEPARTMENT

A NEW INJURY FROM AN OLD FOLLY

When his engine backed six cars to a gentle coupling with the caboose, a brakeman noticed that the lock block did not drop to make the coupling secure. Maybe he thought nothing could go wrong on such a pleasant morning,—or maybe he didn't think at all! At any rate he stepped between the cars and rested his right hand on the top of the couplers to balance himself while he reached underneath with his left hand to manipulate the bottom end of the lock block and make it drop into place. As he did so, the brakes released on the car, which always results in a little easement or adjustment of tension between drawbars, and this time it was just enough to badly pinch the thumb and finger of his right hand between the face of one coupler knuckle and the pocket of the adjoining drawbar. No bones were broken, but several stitches had to be taken in the mashed thumb and finger, necessitating three weeks' disability.

Only a year ago, in the Bulletin of May, 1933, we related a similar case of an experienced brakeman resting his hand on the coupler, with engine attached to the train, and who got his finger mashed in the same way. Mr. Trainman and Mr. Switchman, how many of these cases do you have to hear about before you conclude to stop that foolish practice of resting your hand on a drawbar when you are between cars? (S-13)

SWITCHMAN FALLS FROM BRAKE PLATFORM

The foreman of a terminal yard switching crew rode a detached empty box car into clear on a yard track, stopping the car with the hand brake which was at the rear in direction of movement. He says that when the car stopped, with the brake still set, he held to the brake wheel with his right hand while with his left hand he reached for the roof grab iron, and with his left foot reached for the end ladder iron, and that while he was in this position the brake let loose, causing him to fall. The brake wheel, ratchet and other parts were in first class condition. While it seems improbable that the accident occurred just as related, there is no question about his falling from the platform, resulting in breaking the radius bone in the forearm and two wrist bones, which will probably incapacitate him for several weeks.

The manipulation of hand brakes is one of the chief sources of injuries to trainmen, and a frequent cause of injury is the effort to get "the last notch". Usually a car can be stopped without the most extreme application of the hand brakes if a man starts applying the brakes early enough. It is that extraordinary exertion trying to get the "last notch" which often results in the feet slipping, or in failure of the pawl to engage the ratchet wheel, thus permitting a reverse or kick-back of the brake wheel which causes the brakeman to lose his balance and fall. Even if "the last notch" is secured, it frequently sets a trap for the next man who has to release the brake, as the exertion in releasing it is apt to have the same effect. Falls also result from releasing the ratchet dog after the car is stopped and then holding to the free brake wheel, which is still under partial tension, while reaching for the roof grab iron with the left hand. The tendency of the brake wheel to revolve makes it a very poor support and a partial revolution of the wheel may mean a miss with the left hand. It is far better to hold to the grab iron with the left hand, while pulling with the right, to disengage the ratchet and release the brake. (D-47)

ENGINEER BREAKS ARM IN CAB

A mixed train of 40 cars had made a station stop, and after starting again had attained a speed of 10 or 15 miles an hour, when the engineer thought it would be a good time to blow out the water gauge glass and water column. It was broad daylight, between 5:00 and 6:00 PM, when he turned half way around on his seat box and stepped down onto the deck. However, when he stepped forward his right toe caught on something which he thinks was the quarter-inch air jet hose, and he sprawled forward to his hands and knees toward the fireman's seat, turning his left wrist under him. It pained him somewhat but he thought it was only a sprain, as

he was able to continue the use of his left hand on the throttle while completing his trip. After arrival at the terminal, however, an X-ray examination showed he had fractured a bone just above the wrist and he will be off duty for about a month.

If you have been reading these Bulletins you may recall seeing, once or twice or a hundred times, "look where you are about to step." (Y-29)

RUPTURES MUSCLE FIBERS IN LEG

A switchman was walking along the switching lead at ordinary pace as his engine was shoving five cars alongside him, at the same speed as he was walking. He stepped in towards the corner of a car to operate the uncoupling lever, when he felt a pain in the calf of his left leg. He says there was nothing hasty, sudden or unusual in the movement, and he did not trip or stumble. However, the pain continued and the leg began to swell, and when he went to the surgeon it was found that the peculiar strain placed on the leg in that particular movement had apparently pulled the muscle fibers apart, and he would have to stay off the leg for two or three weeks.

Under the ICC rules any damage to or distortion of any part of the body occurring to an employe at work, and sufficient to incapacitate him for more than three days, constitutes a reportable injury, and this case must therefore be so tabulated. It seems highly probable that either some peculiarity of this movement or possibly uneven surface on which he stepped may have been a factor in causing this unusual strain. (S-27)

MECHANICAL DEPARTMENT

BURNED BY A FLASH THROUGH FIREBOX DOOR

An oil-burning locomotive had arrived at a terminal roundhouse, and the burner had been shut off about 15 minutes, although the inside of the firebox was still quite hot. An experienced boilermaker and his helper got on the engine to scale the carbon deposit from around the burner by use of a long bar through the fire box door. They say they turned the blower partly open to draw the gasses from the firebox through the stack, as the engine was still under steam. They had opened the firebox door and started to work, when a flash fire occurred in the firebox, the flame going out through the firebox door, slightly singeing the boilermaker's neck and burning the helper's face and ear quite severely. The boilermaker was able to continue at work, but his helper lost three days before he could resume. It is fortunate they were not more seriously injured.

After an oil burner in a locomotive has been turned off there is apt to be some vaporization of fuel oil from around the nozzle for some little time, and the inflammable gasses may flash when air is admitted to the firebox due to sparks from the hot carbon, unless the blower is turned on with sufficient force to draw the gasses completely out of the firebox as they are generated. It was apparent in this case, and admitted by both men, that they did not have the blower turned on hard enough. In fact one man was just reaching for the blower to turn it further open when the flash occurred. Enginemen and mechanics in territory where oil burning locomotives are used can get a lesson from this case. (S-23)

FEET SCALDED IN ROUNDHOUSE PIT

The day shift had just come to work in a roundhouse, and it was necessary to get out a locomotive for a passenger run. One of the first things to be done was to test the ash pan for possible spark leaks, which necessitates filling it full of water to detect holes or crevices. Another job on this engine was to inspect the cellar packing of driving journals and engine trucks.

A boilermaker turned the water hose into the ash pan to fill it for the test, and made the mistake of using the hot water hose instead of cold water hose for the filling. He did some other work in the meantime and came back to find the ash pan practically full of water. He noticed it was not leaking, shut off and withdrew the hose, and then started to open the ash pan door and let the water out into the roundhouse pit. In the meantime the cellar packer had gone under the engine and was working on a boxing about 15 feet ahead of the ash pan. The boilermaker claims he called to all around the engine that he was going to open the ash pan and walked alongside the engine, not seeing anyone underneath it. However, there is some question about this as the cellar packer said he heard no warning. At any rate the boilermaker turned the ash pan full of water loose into the roundhouse pit, and not until then did he realize it was hot water instead of water from the cold line. The water swirled around the feet of the cellar packer who came hurriedly out of the pit and it was found that his feet and ankles had been moderately scalded by the hot water. He will probably be unable to work for two weeks.

This is just another good example of men getting in too big a hurry to take the customary, thorough precaution in connection with their work. However, haste is no excuse for the boilermaker turning hot water instead of cold water into the ash pan, nor for failure to make a thorough patrol and give ample warning before releasing the water, no matter how hot or cold. If the cellar packer heard any call of any kind he should have done what you should do if you are under an engine,—call out and find what is going on to make sure no movement is to be made which might endanger you. (Y-4)

HURT WINDING THE CLOCK

For no good reason except that it has "always been there" they have a key wind clock on the wall of the wood working mill at one of our terminal shops. At 4:20 P. M., Friday afternoon, just before close of work for the week, a mill-man set up a stepladder in front of the clock to wind it up. There was a small pile of 12-ft. lumber, about two feet high and a little over two feet wide, along the wall under the clock, so he could not set the ladder as close to the wall as it should have been. He placed it parallel to the wall, climbed up on the third step, and reached out from the side of the ladder to open the clock door. Although he had performed this same operation for many years, this time he lost his balance and fell, striking on the pile of lumber, dislocating his right shoulder. The arm will have to be kept in a sling for approximately two weeks until he can safely use it again.

Many, many people have fallen from stepladders when trying to work too far out to one side, either due to losing their balance, or having the ladder "kick out" from under them. The boy or girl or housewife who makes such a mistake can perhaps be excused on the ground that they never had any safety training, but that excuse cannot be offered in this case. If you have occasion to use a stepladder, (and most of us have from time to time), make up your mind right now to see that the ladder is properly set so you don't have to lean your body out sideways beyond the side of the ladder. (C-3)

HOT WELDING TORCH STRIKES EYE

A pipefitter had been kneeling on the floor, using the oxy-acetylene welding torch to burn a hole through a tank frame. Having finished the job, he turned off the torch and started to rise, with the torch held loosely in his hand. The hose caught either on his knee or his toe, causing the torch to flip upwards as he held it, the hot end striking his right eye. This caused a rather painful but not serious burn, barely touching the eyeball, but not near the pupil. He was able to go to work the third day, thankful that the contact had not been an instant longer which might have seriously impaired or ruined his eyesight.

Many of you who read this have occasion to use welding torches and electrodes. You should form the habit of pulling up a little slack in the welding hose or cable before you turn on the gas or start the arc at the beginning of the job. That will prevent the torch or electrode from being jerked out of your hand if anybody or anything accidently kicks against the line. In the same way, when you have finished welding, swing the torch or electrode out and see that the hose or cable is clear of your legs or other obstruction before you move or raise up. Such practice may help you avoid burns about the face or eyes due to unexpected jerks of the tool. (O-2)

MAINTENANCE OF WAY DEPARTMENT

GAS EXPLOSION IN OUTFIT CAR

A bridge and building foreman had two cylinders of acetylene and two cylinders of oxygen in his tool car, which had been there for sometime, and had been instructed to ship them back to the Store Department. Shortly after his gang had gone to work in the morning at the stockyards of a way station, the foreman went to the tool car and thought he would ascertain whether these cylinders were charged or empty before shipping them. The cylinders were standing near the middle of an 18-ft. compartment used for tools and work bench, the other end of the car being partitioned off with the door locked. The opposite door, at the end of the car, was standing part way open when the foreman opened the valve of one of the acetylene cylinders. Presumably he had some idea of letting the tank discharge, for the valve must have been open some little time. He says he closed the acetylene valve and then opened the valve on an oxygen cylinder, and from its hissing sound found that it also was partially charged.

In the meantime the station pumper was passing by the outfit on the main track, and smelled the strong odor of acetylene. Seeing the local freight approaching some distance away, he went up on the platform of the tool car to the partly opened door, and called to the foreman to shut off the gas as there was a train coming. The pumper had just finished speaking when there was an explosion in the car which blew the door shut and forced it right on through the opening into his face, the force knocking him

off the platform. Flames which shot through the door opening ignited his clothing also, but he was able to quickly put out the fire and was not seriously burned. The foreman came running out with his clothing burning, and was pretty badly burned before the fire was extinguished. Members of the gang ran over from the stockyards and extinguished the fire in the car. The doctor estimates the foreman will be disabled three or four weeks.

The train was entirely too far away to have ignited the gas. Neither the foreman nor the pumper were smoking, and there was no fire of any kind in the car. It was first thought that contact of the oxygen with some greasy door hinges in an open bin might have caused spontaneous ignition, but it seems more probable that the foreman struck a spark with his wrench when trying to shut off the tanks.

This foreman not only violated the rule which requires that the adjustable regulators must be applied before releasing gas from a cylinder, but also violated all rules of common sense in releasing gases in an enclosed room. If there was any excuse at all for letting the gas out of these cylinders they should first have been taken out of doors. Of course he has learned all that now from painful experience. The thousands of others who read this can save themselves from similar trouble by heeding his example of what not to do. (S-7)

THREE RAIL GANG INJURIES

Starting a gang of more than a hundred men at laying rail is always attended with some hazard, particularly when a majority of them are inexperienced at the work. The starting of such a job in May resulted in two reportable injuries, notwithstanding the efforts of supervisors and foremen to properly instruct the men.

A man operating a power adzing machine did not take the trouble to clear away a loose bond wire from the vicinity of the adzing head, with the result that the wire was caught and swung rapidly around, striking his left little toe. He at first thought it was only a bruise, but an X-ray examination revealed a fractured bone, with an estimated disability of three weeks. (C-13)

Three or four men with lining bars were throwing the string of old released rail out of the track, and one of them was holding his bar loosely against the rail while others a short distance away were prying it further out. A sudden spring of the rail knocked the bar out of his hands and it fell upon his right foot, causing a bruise which kept him off the job for two days and a half. (C-14)

While driving spikes, with his maul, a chip of steel flew and struck a laborer in the right knee, resulting in two days loss of time having the wound X-rayed and sterilized, after which he was able to resume duty. (C-2)

TIE FALLS OFF PUSH CAR

A section gang had loaded three tiers of creosoted ties on a push car, each tier crosswise of the one beneath it. When unloading them, one laborer got on the load and pushed the ties endwise off the car into the hands of two men on the ground, who carried the ties to the side of the track. He had pushed several ties off in this manner until finally the tie at the edge of the next tier below, over which these ties had been sliding, fell from the car onto the foot of one of the men on the ground, resulting in a bad bruise and ten days' layoff.

There is always danger of the outside tie being knocked off while ties are being slid off in this manner The safer way is for the man on the car to tip the ties clear off onto the ground and, then let the men on the ground pick the tie up afterward. There have been a number of foot injuries in past years from exactly the same cause as here related. (Y-40)

SLIPS HANDLING TRACK WRENCH

It is disappointing to find section men still working on this railroad who do not stand properly when using a track wrench. Yet an experienced section laborer lost two days from work last month caused by that very thing. He didn't have his foot braced when the wrench slipped, and he fell across the rail, badly bruising his chest and knocking the wind out of him. Such a case is a reflection not only on the man himself but on his foreman as well. (N-19)

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(January 1st to May 31st)

	Number of Accidents	Number of Casualties Killed	Reportable	Slight
Five months—1933	65	8	24	15
Five months—1934	92	14	31	13
Increase	27	6	7	—
Decrease	—	—	—	2

MISCELLANEOUS DEPARTMENTS

RIGHT HAND MUTILATED IN BUZZ SAW

At a wood working plant operated by the Store Department, a rip saw machine is equipped with a wide head, so that four or five circular saws can be bolted together and used as a Dado machine for cutting wide grooves or slots in lumber. A carpenter was using this machine to groove the slots in short oak footguard blocks to be inserted in track frogs. This same man had made numbers of blocks the same way at other times, and on this occasion had sawed grooves in nine blocks and was working on the tenth when the accident occurred.

Contrary to rule, he decided to use a pair of cotton gloves, putting the glove on the right hand and wadding up the left glove inside the palm of the right, to use as a pad while pushing the oak blocks through the saw. Just as he had completed the cut on the tenth block, the saw caught the wrist of the padded glove, pulling his hand down towards the saw and severing the tip of his right thumb and his entire index finger. It will be six weeks or two months before he can resume work with the mutilated hand.

Employes may at times think some of the safety rules are unwarranted, and wonder why safety inspectors and supervisors are so strict in requiring compliance with them. This injury is a good example of why we have in the safety rule book the following:

> "52. Employes are prohibited from wearing gloves or finger rings while operating moving machinery, except by special authority from shop superintendent or master mechanic."

If this carpenter had reported to his superintendent that he was having difficulty in handling these blocks without gloves and asked his advice as to some better way of handling material, instead of taking it upon himself to use the gloves and pad, he might have saved himself a painful and permanent injury. (Y-11)

LINEMAN FALLS OUT OF TREE

As he was patrolling the line on his track car, a lineman of many years' experience saw that the small limbs of a medium size cottonwood tree had grown out to a point where they were about to foul the wires. Accordingly, he set his car off the track, put on his climbers, and climbed the leaning tree trunk to a height of about 12 feet above the ground. Believing his spurs were firmly set, he held to the tree trunk with his left hand while chopping off several small limbs with his hand ax. Just as he cut the last limb loose, either the lurch of his body or the repeated movements of his chopping resulted in his spur slipping out and he was unable to catch himself. He fell to the ground in such a way as to break his collar bone, which will keep him off the job for a month. He says he did not use his safety belt for the reason that it somewhat restricts a man's movements when cutting limbs on trees, but believes if he had the job to do over he would use the safety belt anyway and not take another chance on such a fall as this.

There is no hard and fast rule as to the wearing of safety belts in tree trimming, and it must properly be left to the judgment of the lineman doing the work. The fact that he had 24 years of experience is simply a reminder that we still need to use as much care the 24th year as we did the first year of our work. (D-19)

SPECIAL AGENT SHOT

A special agent, or railroad policeman, looking over cars at an intermediate terminal point late in the evening heard someone operate the door locking lever on an ice car. He walked around the car and asked the man and woman standing at the car door what they were doing; when the man in reply asked who he was, the special agent told them he was an officer. Immediately the pilferer, who had apparently been holding a drawn gun at his side, shot four times at the officer, two bullets inflicting flesh wounds in the thighs, which will incapacitate him for three or four weeks. The couple ran, the injured officer pursuing the man, who was caught and is now awaiting trial. (S-53)

LOOK AT THE BACK PAGE

During the past year in which the monthly Bulletin has been issued as a four-page folder, the back page has been devoted to maintaining the actual record in cold figures of the casualties and rates, which necessarily lagged some six weeks behind the date of issue.

You have probably not even glanced at that back page more than once in the past year. But look at it this time,—you will find the dry statistics replaced by reading matter which ought to interest you if you are an alert, up-to-date railroad employe.

Hereafter the statistics which have formerly appeared on the back page will be typed and schapirographed in this office and forwarded to interested general and division officers and safety agents. We will also be glad to put on our monthly mailing list for this statistical report any safety officers of any other railroads who do not find sufficient statistical information in the first column of the first page of this monthly Bulletin.

NATIONAL SAFETY COUNCIL AWARD TO L. A. & S. L.

At a dinner in Chicago, May 22nd, the National Safety Council's Annual Awards were made to railroads having the lowest employe casualty rates per million man-hours worked. The railroads are classified into seven groups according to size, as gauged by the total hours worked each year.

In Group A, both the C. & N. W. and C. M. St. P. & P made lower records in 1933 than the Union Pacific System. In Group B, the N. Y. N. H. & H. and the Atlantic Coast Line made lower records than the U. P. R. R. unit. In Group C, the O. S. L. R. R. made the lowest record, but was not eligible for the award because of having won last year. This award was accordingly given to the C. St. P. M. & O. Ry., which was next in rank. In Group D, the Los Angeles & Salt Lake had the lowest record and was awarded a beautiful bronze plaque similar to those which have been won by this and other units of the system in several annual contests in the past. The L. A. & S. L. has been at the head of Group D, with the lowest casualty rate, for ten out of the eleven years covered by these awards.

A most interesting feature of the award dinner was the fact that it was a sort of "father and son" banquet. Carl R. Gray, jr., vice-president and general manager of the C. St. P. M. & O. Ry. Co., received the award for his road, which was immediately followed by presentation of the plaque for the L. A. & S. L. to Carl R. Gray, sr., president of the Union Pacific, who, with graceful comment, turned it over to F. H. Knickerbocker, general manager of that line. In accepting the plaque, Mr. Knickerbocker paid high tribute to the men in the M. of W. department, whose perfect record was a big factor in winning the award.

Officers and others who receive copies of the "Green Book" showing the casualty rates for all railroads as calculated by the I. C. C. will notice a considerable difference between the rates shown therein for the individual units of the Union Pacific System and the corresponding rates published on the back page of our Bulletin of February 10th. The reason is that in our own figures we apportion part of the man-hours of the D. C. & H. dept. to the three western units, and also give man-hours of the mechanical department at Salt Lake to the L. A. & S. L.; while in the I. C. C. records all D. C. & H. man-hours are credited to the U. P. R. R., and the mechanical department hours at Salt Lake are credited to the O. S. L. R. R. We will probably revise our method of charging accidents and crediting man-hours between units so as to conform more closely with the I. C. C. distribution.

THEY HAVE A RIGHT TO BE PROUD

Mr. W. Averill Harriman, Chairman of the Board, has just signed 479 Meritorious Service Award Cards, certifying that the foremen named thereon have maintained a perfect safety record throughout the ten years from January 1, 1924, to December 31, 1933. The cards are now being distributed personally by the superintendents and departmental officers.

This number is approximately one-third of the total number of foremen on the Union Pacific System. However, this does not mean that only one-third of the gangs on the System have gone ten years without injury. There have been many changes of foremen in that time, and the cards are awarded only in recognition of the foreman's accomplishments in supervising, rather than for the record of the gangs. Thus, if a foreman leaves the service or otherwise loses his position after having made a clear record for several years, that record is terminated with him, and the new foreman who succeeds him with the same gang must start making a record of his own. The economic necessities of recent years have resulted in abolition of many foremen's positions, and have made necessary many changes. Probably not more than half of the 1,500 foremen now working on the Union Pacific System have been continuously in foremen's positions since January 1, 1924, and the 479 of them receiving these coveted Ten-Year Cards represent a decided majority of those who have served in such position throughout the decade.

A card is issued to each foreman whose gang or crew has gone through an entire calendar year, not only without an injury reportable to the I. C. C. but also without an injury sufficient to prevent a man in the gang from carrying on his regular duties for more than one day.

To be eligible for a card a foreman must have had actual supervision of a gang for the major portion of each year counted in his record. When a casualty disabling a man for more than one day occurs in his gang, it terminates the foreman's continuous record and he must then start over, completing a calendar year without a casualty before being again eligible for a One-Year Card as a start on a new record.

One-Year Cards are signed by division superintendents or by departmental officers of similar jurisdiction. The cards for each succeeding year are signed by officers of higher rank, until the cards for the fifth year are signed by the president. Cards for the sixth, seventh, eighth and ninth years are unsigned, and simply commemorate the fact that the foreman has continued his clear record.

How many Fifteen-Year Cards do you suppose will be issued in 1939?

TRAIN ACCIDENTS ON OTHER ROADS

COMBINED DERAILMENT AND COLLISION

The following are brief summaries of reports issued by the Bureau of Safety, Interstate Commerce Commission, following their investigation of accidents occurring recently on other railroads.

In February there was a very serious derailment of a passenger train on a large mid-western railroad connecting with our own. The engine and tender broke loose and turned over down a fill and stopped bottom up; five of the seven cars in the train were also derailed, the head car colliding with the engine of another passenger train standing on a diverging track, and turned that engine over also. The fireman of the moving train and the engineer of the standing train were killed; 10 passengers, 2 mail clerks, 3 employes and 1 cook were injured.

The derailment occurred just before reaching a wye switch on a ten-degree curve. The standing passenger train, which was struck by the derailed cars, was on the other leg of the wye with the engine facing this switch. The accident was caused by the moving train entering the ten-degree curve at too high a rate of speed. The maximum speed permitted on this curve was 25 miles per hour, and the investigators felt that the speed of the train was considerably greater than that, but they questioned whether even that speed should have been permitted, considering the inadequate elevation of the outer rail.

Maintenance of way and transportation men should get a lesson from this case as to the necessity for fixing safe speed restrictions and vigorously enforcing them. The fact that the moving train was ten minutes late, and that the train standing on the wye was thus being delayed for ten minutes, could not be considered an excuse for excessive speed coming into the meeting point. (ICC 1887)

RUNNING ON "SHORT TIME"

Two third-class regular freight trains on a road connecting with ours in the Northwest were scheduled to meet at a siding, so located that the west switch is on a three-degree curve in a cut with the view obscured by embankments, trees and brush. Eastward trains are superior by direction, and the westward train passed the last siding approaching the meeting point, realizing they could barely make it, but both the engineer and conductor apparently being willing to take the chance. There were two brakemen on the engine, and it was stopped ten or twelve car lengths from the switch to let both of them run ahead, one to flag the train which was due, the other to open the switch. The engine and four cars had just got started into the siding when the eastward train came around the curve. They saw the flagman only a short distance from the switch but they could not stop before colliding, destroying four cars of the train heading in and overturning the engine of the main line train, injuring the engineer and fireman.

We believe the best prevention for such accidents is detection of the practice of runing on short time, and drastic discipline of the employes involved, before the practice leads to accidents such as this. (ICC 1890)

SONG OF THE HILLS

To pass on a curve may end in a swerve
That will ring down the curtain for you.
Or in case of a smash or a hard head-on crash
You may kill other motorists too.

Under no circumstances should drivers take chances
On roads where the vision is blurred.
The graveyards are filled with folks who were killed
By autos, unseen and unheard.

Nine times out of ten you may make it, but then,
The very next time that you try,
A big motor truck may wipe out your luck
And you'll end in the sweet bye-and-bye.

How foolish men are to speed up the car,
Unmindful of what lies ahead.
We gamble with Fate and learn, when too late,
That carefulness beats being dead!

—Western Union Safety Bulletin.

Accident Prevention Bulletin

May 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—END OF APRIL

Including casualties and careful estimates of manhours for the month of April in calculating the cumulative rates for the period January 1st to April 30th, the relative ranking of groups supervised by the officers named appears to be as tabulated below. On the back page of this bulletin will be found the authentic completed statistics up to April 1st but not including the month just closed.

APRIL CASUALTIES

By Units	F	R	LT
UPRR	1	2	2
OSLRR	—	2	—
OWR&N	—	—	—
LA&SL	—	2	—
Employes	1	6	2
Psgrs.	—	1	—
Pers. Car.	1	—	—
Total	2	7	2

By Depts.	F	R	LT
Transp.	—	1	—
Mech.	1	3	1
M. of W.	—	2	1
Miscel.	—	—	—
Employes	1	6	2

CASUALTIES JANUARY 1 TO MAY 1

By Units	F	R	LT
UPRR	2	21	9
OSLRR	—	7	—
OWR&N	—	8	—
LA&SL	—	5	—
Employes	2	41	9
Psgrs.	—	2	—
Pers. Car.	1	—	—
Total	3	43	9

By Depts.	F	R	LT
Transp.	—	13	2
Mech.	1	14	3
M. of W.	1	7	3
Miscl.	—	7	1
Employes	2	41	9

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	H. J. Plumhof	OSL	2.05	10.27
2	F. H. Knickerbocker	LA&SL	2.13	10.65
3	F. N. Finch	OWR&N	2.59	12.97
4	N. A. Williams	UPRR	1.96	14.41
	System Total 1934		2.09	13.08
	Last year for same period		1.76	9.84

Division Superintendents

1	M. C. Williams—Wash.	5	A. L. Coey—LA&SL
2	W. H. Guild—Kans.	6	H. A. Connett—Ore.
3	E. C. Manson—OSL	7	J. E. Mulick—Nebr.
4	W. C. Wolcott—Colo.	8	C. C. Barnard—Wyo.

Division Engineers

1	M. C. Williams—Wash.	5	R. L. Adamson—LA&SL
2	L. I. Hammond—Kans.	6	H. A. Roberts—Ore.
3	S. H. Osborne—Colo.	7	M. H. Brown, Jr.—OSL
4	R. M. Jolley—Nebr.	8	W. H. Lowther—Wyo.

Mechanical Supervisors

1	G. A. Jordan—Colo.	6	J. D. Killian——Wyo.
2	C. Spicka—Chey. Shops	7	A. V. James—Nebr.
3	P. J. Norton—OSL	8	L. W. Shirley—OWR&N
4	J. Gogerty—Omaha Shops	9	G. M. Walsh—Poca. Shops
5	J. F. Long—LA&SL	10	G. R. Wilcox—Kans.

While the casualties occurring in April were fewer in number than for any month so far this year, they include two fatalities, one to an employe and one to a stock caretaker, both cases being charged against the U. P. R. R.

With the O-W. R. & N. making a clear record for April and the L. A. & S. L. and O. S. L. reporting two each, the contest ratings of all four units come nearer together. It is now very close between the O. S. L. and the L. A. & S. L. for first place. The two fatal accidents have forced the U. P. R. R. into last place on the weighted basis, although it rates first on the I. C. C. basis for employes.

TRANSPORTATION DEPARTMENT

FIREMAN FALLS FROM TENDER

The one employe in this department injured in April was a fireman in freight service. His engine had a lower tank than those ordinarily used, and after he got the water spout into the tank manhole, the loop of the valve lever was too high for him to reach while standing on the running board. Instead of using the spout hook to draw it down, he tried to step up on the top of the round, inclined spout, and reach up to the loop; he slipped, fell over the side of the tank, struck the platform below, and will be off three or four weeks with two fractured ribs.

When that lurking temptation whispers in your ear, "Oh, go on and take a chance,—you can do it!"—listen to the clear, sure voice of your safety training,—"No, the hospitals are full of chance-takers, do it the safe way!" (S-29)

STOCK CARETAKER KILLED

At a subdivision terminal a westbound freight train stopped just before noon to change crews. As there was no switching to be done, and no passenger train due at that time of day, the train remained on the main track with the caboose about 40 carlengths east of the depot platform. A caretaker in charge of a car of hogs on this train walked to the depot with the incoming conductor, who introduced him to the outbound conductor.

The stockman said he wanted to eat before the train left, and the new conductor showed him where the lunch room was and told him to return to the depot where they would pick him up. The stockman finished eating, went out on the platform, and had started walking east along the north or depot side of the train, as it started pulling slowly west to stop the caboose at the depot. Both the conductor and rear brakeman were west of this man, and did not realize he was the one they were going to stop for at the depot until they saw him try to get on the front steps of the caboose, and fall. Although the train was only moving about three miles an hour, and stopped in four carlengths, he had been dragged by the truck frame and his pelvic bones fractured as well as being internally injured, and he died a few hours later.

His failure to wait at the depot until the caboose was stopped there for him, and his unwise attempt to get on the forward steps instead of the rear, resulted in the needless sacrifice of his life.

All freight train men and yard employes should endeavor to personally look after stockmen, and always assure them that the caboose will be stopped to allow them to get on or off. (Y-10)

AN ODD PASSENGER INJURY

A gentleman coming out of the toilet into the smoking room of a 'tourist' sleeper in late afternoon, stepped on a cake of soap which had been dropped by a fellow passenger who was shaving. He slipped and fell, fracturing the middle finger of his right hand. As he is an artist, such an injury would naturally incapacitate him, and as the accident occurred on a moving train it is considered reportable to the Interstate Commerce Commission. There is manifestly nothing the railroad company could do to prevent such an occurrence. (N-11)

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(January 1st to April 30)

	Number of Accidents	Number of Casualties Killed	Reportable	Slight
Four months—1933	59	6	23	13
Four months—1934	73	11	27	9
Increase	14	5	4	—
Decrease	—	—	—	4

Regardless of the indifference or folly of vehicle drivers, let us do all we possibly can by effective use of whistle, bell, flag and lantern, to change those "increases" to "decreases" before the end of 1934.

MECHANICAL DEPARTMENT

ELECTRICIAN ELECTROCUTED

At a large terminal, the roundhouse and back-shop are on one side of the yard and the car repair plant is on the other side of the switching yards. Electric power comes from the city lines at 13,200 volts to an outdoor transformer station enclosed with a 10-foot fence, and located near the back-shop boiler house. The high tension lines come to the top of a pole inside the fence, then drop down to three horizontal heavy wires or "bus-bars" about nine feet above ground inside of this fence. Lower powered current for the car shop goes out on lines from a second pole just inside the fenced enclosure, and fuses for this line are on this same pole.

The power had gone off in the car shop, and the electrician had started to locate the trouble. He set a ladder up from outside the fence against the pole carrying the low pressure line, apparently intending to climb up and examine the fuses on this pole.

When sudden failure of power in the main shops attracted the immediate attention of other employes, they found this electrician's body lying across the three horizontal bus-bars inside the fence. Death had been instantaneous.

Apparently he had started to climb the pole from the top of the ladder, but as no one had seen his movements it was difficult to conjecture how he could have gotten in such position as to fall across the bars several feet from the pole. He was thoroughly acquainted with the lines from 14 years of experience. (K-1)

TOES MASHED TAKING OFF SIDE ROD

This is an example of what is likely to happen from getting in the wrong position. This machinist was taking down the left back side rod on a 2-10-2 engine in the round house. The knuckle pin was out and the front end of the rod rested on the floor. The back end was still on the crank pin of the rear driver in the top-back-quarter position.

Instead of standing back of the rear end of the rod where he would be entirely clear when it fell, he stood with his feet near the front end of it, and pried the back end off. When it fell, the rod bounced and the front end struck and mashed the first three toes of his right foot.

A two or three weeks' enforced vacation brings little enjoyment when it has to be spent in bed or on crutches. (N-9)

POWER WRENCH IMPROPERLY SECURED

Pneumatic power wrenches work a lot faster and with less exertion than hand wrenches, but they can make as much or more trouble if not handled right. For instance:

A boilermaker and helper were using one to tighten stay bolt caps in the top row on the right side of the engine. They had a two-plank scaffold to work on. The 30-inch holding lever of their power wrench was equipped with a tail chain which could be wrapped around any projecting stud or bolt to take the holding strain. Of course this wrap of chain had to be held in place to prevent slipping while the power was being applied. The boilermaker held the body of the motor wrench on the cap, while the helper operated the trigger control on the lever with his right hand, his left holding the chain wrap. When the cap drew tight, the lever jerked, the chain slipped off and the helper lost his balance and fell nine feet to the floor. The fall cracked the pelvic bone, and it will probably be three months before he can work again.

There were good studs, fountain pipes and other anchorage for that tail chain, better than the shallow knob of a stay bolt cap, especially considering the angle at which they were working. See that the tail chain on your wrench is secured to a substantial anchorage. (OS-6)

THUMB CAUGHT IN PNEUMATIC RIVETER

It is common practice to use a pneumatic riveting hammer for driving the prosser pin while expanding ends of boiler flues in the locomotive fire box. It is not a difficult job and there is rarely any trouble encountered doing it. Probably there would not have been any mishap in this case, if the man handling the gun had learned what every other mechanic should learn from this account.

This boilermaker was in the fire box of an engine at a terminal roundhouse in midafternoon, using the prosser pin in the ends of boiler flues, and driving the pin with a No. 60 air gun. He says he was standing on one foot, with the other knee upraised to help steady the gun or hammer, and with his left hand extended and holding the end of the hammer barrel near the tip. Either he lost balance or his hand slipped, and his left thumb was caught by the button snap in the end of the hammer, causing a compound fracture, which will mean three or four weeks off duty.

It seems obvious that when thus standing on one foot, exerting pressure against the gun or hammer, he was just inviting trouble, for the least slip when in such a position will mean throwing the operator off balance. Even then he might not have had trouble if his hand had not been so close to the vibrating snap at the end of the gun barrel. This again illustrates what we said once before about power driven hand-tools,—like dumb animals they will do an awful lot of work for you if properly handled, but you cannot afford to get careless with them or get in wrong position. The air hammer, air wrench or air or electric saw are not mean, in fact they don't have any disposition at all. They won't raise up and kick you like a Missouri mule, just out of spite! But just as a faithful horse may step on you accidently if you stand in the wrong place, one of these tools can do you a lot of damage if you don't stand in the right place, or hold it right. (S-3)

FOOT SLIPS THROUGH LADDER

A locomotive crane operator had placed a 10-ft. ladder against the exposed engine mechanism just ahead of the cab of his crane and had been standing on the fifth rung of the ladder while tightening up the crank pin bearing. After finishing he started down, quite unconcerned, but his right foot slipped off the third rung and his leg went through the ladder, straining the ligaments in the back of his right knee. He was able to resume duty the third day, but realizes that the mishap might have put him in the hospital.

During the course of a year our records will show several injuries to men while climbing up and down ladders. They constitute, of course, only a few of the many thousands of chances for slipping, but make up your mind now that you won't be one of those few who either fail to set the ladder properly, don't use care in climbing up or down, or try to lean too far out one way or the other when working on one. (K-10)

MAINTENANCE OF WAY DEPARTMENT

SIGNAL MAN BREAKS ARM CRANKING WINDLASS

Some years ago men in the signal department on one unit of this system developed a novel scheme for expediting the handling of signal storage batteries being distributed from the supply car. As a matter of fact, it wasn't a bad idea, if they hadn't neglected the mechanism which they developed.

They wanted to have a small gasoline track car accompany the battery supply car over each district, so one of the batterymen could travel ahead of the train and unlock signal cases or, when the train was standing, change out nearby batteries and avoid unnecessary stops of the train. So they rigged a sturdy, swinging crane, securely hinged to the edge of the wide battery car door, with a pully block in the end of the crane arm, and a small hand winch on the door post. A cable led from the winch to the pulley and had a ring on the end of it, provided with four short chains for looping over the four corners of a small track car. They could run a track car up alongside the battery car, hook the tackle to it, wind up the winch, raise the car, and then swing it around into the box car. When they next wanted to use the motor car they reversed the operation and set it out on the ground.

The trouble was that they did not watch the maintenance of the winch. Eventually, two or three teeth became broken and the pawl or ratchet got worn, but no one took the time or trouble to see that it was repaired. Last month when making the usual battery trip a signalman went to operate the winch and lift the track car into the battery car. When he let the load rest against the ratchet pawl it slipped, and the crank flew around, fracturing his left arm between the elbow and wrist. Both bones were broken, and he will probably lose six weeks. His painful experience and the disciplinary loss of time by others, might all have been saved if any of them had given the necessary attention to the device they were using.

The rules wisely provide that you are responsible for inspecting and watching the equipment you use, and for promptly reporting any defects in it, taking the mechanism out of service if necessary to avoid the possibility of an accident. Don't risk an injury, or loss of a job, by neglecting such simple precautions. (D-10)

A HERNIA CASE

The unusual thing about this hernia was that a loop of the intestines slipped down into the leg tissue where it could not be readily detected, instead of following the usual course, and it was three or four days before the condition could be definitely determined. Possibly the injury would never have occurred if the foreman had not been so forgetful.

The section foreman and three laborers left their tool house in the morning and after they had proceeded some three miles the foreman realized they did not have sufficient spike mauls for the day's work, so he stopped the car and told the men to turn it around so they could go back to the tool house for more tools. While they were turning the car around one of the laborers lifting at the rear complained of pain in the lower abdomen, but continued working during the day. When he continued to feel pains he was sent to the doctors but they could find no evidence of the hernia, as this type gives no surface indication. However, they sent him to the chief surgeon, who properly diagnosed the case and promptly operated. The man will probably be off duty more than a month. (D-5)

THIS KIND OF INJURY BECOMING RARE

Maybe we should not have used the above title but it is a fact, and we are not superstitious. The method developed in the last two or three years of unloading the large majority of ties for annual tie renewals with special tie-train gangs, has resulted in almost entirely eliminating injuries which used to be so frequent during the tie distributing season. The injury here recorded is comparatively trivial, but did result in loss of a day and a half from work. This section laborer was lifting the front end of a tie over the edge of a car when he caught the extreme end of his left middle finger between the tie and car, mashing it so badly that the tip had to be trimmed off. The surgeon applied a metal cap or thimble after dressing the injury, and the man resumed regular duties the second day after his injury. (C-2)

ENGINE INTO RIVER

A report issued by the Bureau of Safety of the I. C. C. last month relates details of an accident occurring in the northwest part of the country during January, when there was a great deal of water trouble due to excessive rains and thaws in that territory. The accident occurred at 3:30 in the morning when a three-car passenger train moving between six and ten miles an hour approached a three-span bridge where the fill had been undermined by high water. The track gave way under the engine, which came uncoupled from the train and rolled over into the river, killing the fireman. Both approaches to this bridge had been washed out by even higher water in the river a month before, and had been again filled with new earth but not riprapped. The small bridge where this accident occurred carried the track, parallel to the main river, across a small gulch or tributary stream which was also at flood stage.

The point of interest to us is that although several miles of track in the vicinity of this bridge had been repeatedly flooded and washed out during the preceding weeks, and a large force of men was constantly engaged in keeping the track open, the night patrol gang which piloted this train did not continue entirely over their section, but stopped about a mile short of this bridge and let the train go ahead. The foreman thought that as the water in the river was not so high as it had been the month before there would be no danger at this bridge and it was not necessary for him to go that far. If he had continued another mile he would undoubtedly have found this condition ahead of the train and could have prevented this accident and death of the fireman.

We are just entering the season of the year when a considerable part of our line is subject to cloudburst and high water. Each foreman and supervisor should resolve now that whenever there is the slightest cause for concern as to the safety of track, every foot of track in the possible danger zone will be fully patrolled before permitting trains to pass, particularly at night. Our maintenance forces have a high reputation to maintain in locating the danger points and protecting them before accidents occur. (ICC 1885)

USING BLOCKING WITH JACKS

The writer has just read in the Safety Bulletin of another railroad an account of an accident in which a bridge engineer received a fractured skull, and ribs broken off at the spine, when jack blocking fell upon him from the deck of a bridge, a distance of 14 or 15 feet. This was another of those cases where too much blocking was used on the head of a jack, with the result that the blocking kicked out.

In the past few years we have had two or three accidents of similar kind, due to putting several blocks between the head of the jack and the load, instead of building up substantial blocking under the foot of the jack and using only a single block between the jack-head and the load. This feature is especially important with lever or step-type jack. There is a tendency, when the load is taken up, for the prying down or lifting up the lever to kick the jack out, and this tendency is much worse toward the head of the jack than beneath it. There is much less danger when broad blocking is used under the jack and the head kept as close to the load as possible. Make a mental note of this, and avoid being responsible for serious injury to yourself or fellow workmen from unskillful use of jack blocking. (M-15)

PRACTICAL, SAFE SUPERVISION

A few days ago the recently appointed executive officer of a sizeable railroad told the writer that on his first inspection trip over the line he asked a superintendent, (who had been on that job for eight years), to light a fusee. The superintendent took the fusee, looked it over, finally turned up the end of the little black cloth sealing strip, reached in his pocket for a match and tried to light the end of that cloth strip to ignite the fusee! Obviously that was the first time in his life that the superintendent had ever attempted to light a fusee. That simple action told the executive a great deal about what was the matter on that railroad, which was too much 'swivel-chair supervision'.

How can a superintendent who is not familiar with all the details of switching and train handling at the various points on his division expect to issue practical instructions for expediting the service? How can he expect to fairly judge the degree of responsibility or error of each man connected with an accident, if he does not know precisely how that employe should function?

The same executive, mentioned in the first paragraph, referred to a maintenance officer who discovered one wheel loose on the front axle of a heavy track car and thought he had found a defective condition. He did not know that all track cars have a loose wheel to expedite turning the car off the track. To men on our road such a situation seems ridiculously impossible. We are so accustomed to 'personal direction' of every detail we do not realize the great distance which separates the highly efficient organization from one that is very inefficient.

The above incidents are merely by way of a preamble to a brief comment on the value of practical supervision. We believe that the most efficient and safest railroad operation can only be obtained with supervisors who have intimate personal knowledge of the details of the work they supervise, coupled with keen powers of observation and a high degree of intelligence, which enables them to constantly develop safer and more efficient methods or mechanisms.

And let's realize that safety and efficiency go hand in hand, and that any method or any tool which produces more output is a failure unless it also produces that output more safely.

What we are getting around to is this: Our railroad is not going to stand still. It must continue to advance. The foreman or supervisor in any line of work ten years from now must be a more highly specialized man than one in the same position today. Are you going to keep up with the parade? Are you going to use your eyes and your wits and keep studying all the details of your track, your equipment, your men, or whatever you work with, and keep bringing them to a higher degree of perfection?

ECHOES FROM THE SPOKANE REGIONAL MEETING

The northwestern region annual meeting of the Safety Section, ARA, was held at Spokane, Washington, May 1st. Seven or eight railroads participated and nearly 350 railroad men attended. A number of Union Pacific men took part in the discussions or read papers, and we believe you will be interested in some of their comments:

J. T. Thatcher, General Yardmaster, Portland, Oregon: "In my opinion the real cause for 90% of personal injuries is that the body is working in one location but the mind is in an entirely different place. As a rule you will not find this condition when men are working at a good rate of speed, as they have to keep their minds on their work and keep on the alert. It is when they are working slowly and their movements are sluggish that their minds begin to drift away from the work, and then you have a good setting for an accident."

L. S. Hanford, Conductor, LaGrande: "The pin puller should never cut a car loose at more than five miles per hour, and only at such a speed when he knows his grade and brakes. The time is coming when shifting loads in open cars as well as damage to lading in closed cars must be stopped. Such switching is all uncalled for. Slow the movement down more before pulling the pin, work closer to the switch when making cut or, if necessary, use enough men to ride the cars to a slow joint."

F. A. Boscow, Roadmaster, Walla Walla: "Tongs should always be used in applying or removing ties and they must be kept sharp with the point properly canted; the men must be instructed in the proper way of taking hold of ties with tongs so they will not slip off."

Guy Stephens, Machinist, Spokane: "A good workman can always be identified by the arrangement of his tools ready for use, and the condition in which he keeps them."

Levy Gustafson, Boilermaker, Portland: "The caliber of a mechanic is advertised by the way he wears his overalls. Keep your eye on this and see if it is not so."

Arthur Rutherglen, Safety Agent, Portland: "Too often we read lengthy reports of I. C. C. accident investigations which conclude with finding that 'had the signal been properly respected', or 'had the rule been properly obeyed', or 'had the speed restrictions been observed', etc., the accident would not have occurred. All very true. But ask yourself this question: 'Did the accident occur the first time that the employes involved failed to comply with the rule?' Probably not; more likely they had not been made to acquire the necessary habit of strict rule compliance, and as a result the performance at the time of the accident was just the usual one which the supervisors had been going along with."

COMPARATIVE CASUALTY STATISTICS

Month of March and Period January 1 to March 31, 1934

CASUALTIES TO ALL EMPLOYES ON DUTY, PASSENGERS AND PERSONS CARRIED UNDER CONTRACT

The contestant groups are listed in the order of their "Contest Rating" for the period. The contest rating is determined by charging 15 points for a fatal injury, 5 points for a reportable injury and 1 point for a lost time injury, and dividing the total number of points by the number of millions of manhours. The I. C. C. casualty rating (unweighted) for employes on duty is also shown as a matter of information.

Rank	Contestants	MONTH				YEAR TO DATE					
		Casualties			Man-Hours	Casualties			Man-Hours	I.C.C. Rating (Emp.)	Contest Rating
		F	RI	LT		F	RI	LT			
1 LA&SL	Psgrs. & PC	—	—			—	—				
	Employes	—	—	—	619,137	—	3	—	1,759,707	1.70	8.52
2 OSL	Psgrs. & PC	—	—			—	—				
	Employes	—	2	—	904,667	—	5	—	2,509,167	1.99	9.96
3 UPRR	Psgrs. & PC	—	—			—	1				
	Employes	1	8	2	3,088,869	1	19	7	8,618,998	2.32	14.15
4 OWR&N	Psgrs. & PC	—	—			—	—				
	Employes	—	1	—	783,244	—	8	—	2,324,396	3.44	17.21
UP System	Psgrs. & PC	—	—			—	1				
	Employes	1	11	2	5,395,917	1	35	7	15,212,268	2.37	13.28
Last Year	*Psgrs. & PC*	—	—			—	*1*				
	Employes	—	*9*	*1*	*4,314,885*	—	*23*	*6*	*12,958,946*	*1.77*	*9.72*

CASUALTIES CHARGED TO DIVISIONS & SHOPS

Note—Figures for Division Superintendents include casualties and manhours of Division Engineers' forces, but not Mechanical Supervisors, Store or other System Departments.

Division Superintendents

1	Washington	Division	—	—	—	199,730	—	—	—	686,765	—	—
2	Kansas	Division	—	—	—	399,880	—	1	1	1,088,249	.92	5.51
3	OSL	Division	—	—	—	566,717	—	2	—	1,544,331	1.30	6.48
4	LA&SL	Division	—	—	—	317,395	—	2	—	894,695	2.24	11.18
5	Colorado	Division	—	—	—	226,494	—	1	2	612,757	1.63	11.42
6	Nebraska	Division	—	2	—	595,615	—	5	—	1,652,283	2.42	15.13
7	Oregon	Division	—	—	—	314,290	—	3	—	867,672	3.46	17.29
8	Wyoming	Division	1	2	—	341,915	1	2	1	914,542	3.28	28.43

Division Engineers

1	OSL	Division	—	—	—	229,882	—	—	—	564,769	—	—
2	Washington	Division	—	—	—	111,203	—	—	—	401,187	—	—
3	Kansas	Division	—	—	—	150,481	—	—	1	357,370	—	2.80
4	Colorado	Division	—	—	—	101,579	—	—	1	251,750	—	3.97
5	Nebraska	Division	—	—	—	192,111	—	1	—	495,023	2.02	10.10
6	LA&SL	Division	—	—	—	135,641	—	1	—	363,507	2.75	13.75
7	Oregon	Division	—	—	—	127,481	—	1	—	333,777	3.00	14.98
8	Wyoming	Division	1	—	—	142,641	1	—	—	353,043	2.83	42.48

Mechanical Supervisors

1	Omaha	Shops	—	—	—	128,826	—	—	—	370,783	—	—
2	Colorado	Division	—	—	—	118,502	—	—	—	343,065	—	—
3	Cheyenne	Shops	—	—	—	112,333	—	—	—	328,177	—	—
4	OSL	Division	—	—	—	91,591	—	—	—	267,841	—	—
5	LA&SL	Division	—	—	—	174,367	—	1	—	504,142	1.98	9.92
6	Kansas	Division	—	1	1	143,501	—	1	1	414,220	2.41	14.49
7	Nebraska	Division	—	1	—	218,378	—	2	—	631,807	3.16	15.83
8	Wyoming	Division	—	—	—	153,592	—	2	—	439,902	4.55	22.73
9	OWR&N	Division	—	1	—	149,024	—	3	—	425,630	7.05	35.24
10	Pocatello	Shops	—	1	—	85,699	—	2	—	248,427	8.05	40.25

Accident Prevention Bulletin

March 10, 1934

Issued monthly by the Safety Department for employes of the Union Pacific System.

Included herein are accounts of all casualties causing disability of more than one day to employes on duty, passengers or persons carried under contract on lines of this System, and items selected from other sources. The details of accidents, and comments thereon, are intended only for the information of railroad employes and for their education in the prevention of accidents; not for general publication.

"FROM THE MISTAKES OF OTHERS, A WISE MAN CORRECTS HIS OWN"

COMPETITIVE RANKING—SECOND MONTH

Including casualties and careful estimates of manhours for the month of February in calculating the cumulative rates for the period January 1st to February 28th, the relative ranking of groups supervised by the officers named appears to be as tabulated below. On the back page of this bulletin will be found the authentic completed statistics up to February 1st but not including the month just closed.

General Managers

Rank	Name	Unit	Estimated Rates I. C. C.	Weighted
1	H. J. Plumhof	OSL	1.80	9.01
2	N. A. Williams	UPRR	1.81	10.83
3	F. H. Knickerbocker	LA&SL	2.51	12.56
4	F. N. Finch	OWR&N	4.40	21.98
	System Total 1934		2.30	12.51
	Last year for same period		1.61	9.19

Division Superintendents

1	M. C. Williams—Wash.	5	E. C. Manson—OSL
2	C. C. Barnard—Wyo.	6	A. L. Coey—LA&SL
3	W. H. Guild—Kans.	7	W. C. Wolcott—Colo.
4	J. E. Mulick—Nebr.	8	H. A. Connett—Ore.

Division Engineers

1	M. H. Brown, Jr.—OSL	5	L. I. Hammond—Kans.
2	M. C. Williams—Wash.	6	S. H. Osborne—Colo.
3	R. M. Jolley—Nebr.	7	R. L. Adamson—LA&SL
4	W. H. Lowther—Wyo.	8	H. A. Roberts—Ore.

Mechanical Supervisors

1	G. R. Wilcox—Kans.	6	A. V. James—Nebr.
2	J. Gogerty—Omaha Shops	7	J. F. Long—LA&SL
3	C. Spicka—Chey. Shops	8	G. M. Walsh—Poca. Shops
4	G. A. Jordan—Colo.	9	J. D. Killian—Wyo.
5	P. J. Norton—OSL	10	L. W. Shirley—OWR&N

FEBRUARY CASUALTIES

By Units	F	R	LT
UPRR	—	4	3
OSLRR	—	2	—
OWR&N	—	5	—
LA&SL	—	2	—
Employes	—	13	3
Passengers	—	1	
Pers. Car.	—	—	
Total	—	14	3

By Depts.	F	R	LT
Transp.	—	6	1
Mech.	—	3	—
M. of W.	—	2	2
Miscel.	—	2	—
	—	13	3

The February figures shown above will not improve the System casualty rate for the first two months of 1934, which is considerably higher than for the corresponding period of last year.

The OSL and the UPRR are very close competitors for the first position; the LA&SL seems just now to be third, while the OWR&N employes are digging further into the "cellar" position with 5 reportable cases this month, including one from January not reported in the previous Bulletin.

Departmentally, the Transportation employes are in the limelight with 6 reportable injuries for February, but these include two unfortunate victims of a most unusual grade crossing accident, which is related in another column, and which the injured men were unable to prevent.

The Mechanical forces can get a clear idea of what is needed to improve their performance by reading the details of the 3 injuries to their fellow workers.

Maintenance of Way men are charged with two reportable cases and two lost time, one of the latter coming very near being more severe. There was also another serious accident to a water service man who fell into a bridge opening at night while walking to the caboose of a standing train, but he was not on duty at the time.

A special agent's fall counted one in the miscellaneous, and the other was a store employe, making four Store Department cases in the two months, as against two for the whole year of 1933.

TRANSPORTATION DEPARTMENT

A TRAIN IN FLAMES

One of the most deplorable and inexcusable accidents of recent years occurred during the month, when a two-car passenger train, running about sixty-five miles an hour, struck a gasoline loaded trailer being pulled over a highway crossing by a large truck. The driver of the truck, which was moving east, had stopped some 40 feet from the track while a southbound freight train was passing, and as soon as the caboose cleared the crossing, he glanced toward it and started to drive across the tracks.

Although the crossing sign post carried the warning "Two Tracks", and it was almost noon of a clear day, he took only the one brief look to the right before starting. He says he kept the truck in low gear all the way across, which, of course required several seconds, and did not look again toward the south. Had he done so he could easily have seen the northbound passenger train coming, for it was plainly visible and the engineer was blowing the whistle.

The fireman's shout of warning enabled the engineer to apply the emergency brakes and close the throttle just before the crash, which also derailed the front engine truck. When the engine struck the rear half of the trailer the sectional tanks containing about 1,000 gallons of gasoline were burst open, drenching the locomotive and cars which instantly ignited. During the short interval while the train was coming to a stop the engineer shouted to the fireman to jump from the burning cab and he finally did so, but the engineer stayed on through the remaining distance and climbed off as the engine stopped, his clothes in flames. The trainmen quickly put out the fire in his clothing, and he was taken promptly to a hospital but he succumbed to his serious burns two days later. He had proven true to the most heroic tradition of his craft. The fireman, who had done all he could before complying with the engineer's call to jump off, was also very seriously burned, and received a head wound and bruises. He will not be able to work for two months or more.

The baggage car and coach were badly scorched, and the windows broke from the heat before the gasoline burned itself out, but the steel cars prevented further damage and protected the passengers and the balance of the crew from injury. The truck driver was uninjured—in fact did not know a train had struck his vehicle until he climbed out of his cab. When he felt the jerk, he thought an axle had broken.

Will the rest of us not learn from this man's fearful blunder to use greater care at railroad crossings? (D-8)

HE DIDN'T LOOK AHEAD

We have a feeling that we have used that same headline before, but if you get the lesson maybe we won't have to write it again soon.

Way up in the mountains about midmorning of a chill cloudy day, just after going to work, a local switch engine backed up grade to a mine tipple, coupled onto 3 cars of ore, charged the air brakes and started down to the yard. A brakeman on the rear car thought he heard the wheels sliding and climbed down the side ladder to see if they were, without looking ahead for any obstruction alongside the track.

The crew missed him at the yard and came back. They found him in a dazed condition with a gash in his scalp and it was two days before he could work. His head had struck a post which the mine company had set near the track some time ago. He had been in on this track several times on previous trips, but whether he had or had not, he should have acquired the safe habit of constantly watching ahead when on the side of moving cars or engines. Have you formed that habit? (Y-9)

UNCERTAIN BECAUSE UNREPORTED

We do not often have "doubtful cases", either as to the circumstances of occurrence or extent of disability, for immediate reporting and prompt investigation almost certainly disclose the facts as to both. But here is an example of improper and inconsistent action which results in a division being charged with a reportable casualty as occurring in January.

This switch engine foreman says a ground throw switch stand lever sprung up and struck the outer edge of his left hand at noon on a Friday. That evening he asked the yard clerk for an order on the doctor, but said nothing about an injury. As he had recently secured several such orders for sore throat, the clerk asked no questions. Sunday this man, who had already obtained passes, laid off and took a trip lasting two weeks, treating the hand himself. After returning he finally called on the company doctor with the hand still slightly swollen, though x-ray showed no fracture, and asked the doctor to fill out insurance papers.

The doctor's report was the first information of the alleged injury.

This man says he could have worked, though with some inconvenience, throughout his period of absence, but felt justified in claiming insurance because he lost the time off. This claim, and the fact the hand showed evidence of severe bruise two weeks later, resulted in charging it as sufficient to incapacitate for more than three days.

An employe who fails to report an injury of any sort is only making trouble for himself and his supervisors, as this man now realizes. (O-16-Jan.)

PICKED THE WRONG TIME

About an hour before daylight a branch line freight train took siding to meet another train, and the caboose marker lamps were turned green to rear as required. As soon as the train on the main track went by, the conductor climbed up the ladder irons into the cupola to turn the cupola light back to red, as his train was to move out at once. The train started as he was handling the lamp, his foot slipped off the ladder iron and he fell to the floor. He struck his right cheek against something as he fell, resulting in a fracture under the eye, which will involve a month off duty.

This experienced trainman simply made an error in not waiting until he felt the train start before turning the lights. It is not enough merely to want to be a safe man,—we must get into the habit of thinking how to be safe. The "how" often consists in properly timing our movements. (N-15)

AIR HOSE BURST

Another caboose cupola was the scene of an accident, but this brakeman could not time the action, as in the case of the conductor previously related.

This train of 119 cars was moving along about 25 miles an hour when an air hose burst on the 9th car from the engine. The rear brakeman was seated in the cupola, and the slack running in from the heavy brake application threw him against the front window. His nose and face were bruised and cut, and he was off duty a week.

Scrupulous inspection of hose and brake appurtenances by mechanical employes has made such occurrences more and more infrequent. Separating charged air hose by hand instead of letting them pull apart avoids the abuse of the hose which too often causes such failures. (O-7)

WATER BOTTLE BROKE

In the dispatcher's office at one of our larger depots there is a water cooler of the type which has a 5-gallon glass bottle of water inverted over the cooling tank. The janitor had filled this bottle under a faucet at the sink, and with his left hand holding the bottle neck and right hand under bottom he started to lift it out. Apparently the top of it struck the faucet breaking the bottle neck and cutting a deep gash in his left wrist, partly severing a tendon. His disability will amount to two weeks, a serious penalty for unskillful handling. (K-6)

LADY PASSENGER HURT

Two ladies were passengers in the coach at the rear of a 13-car mixed train, and just as the engine was stopping for a water spout, one lady got up and stepped out in the aisle facing the rear of car apparently going to get a drink. When the train stopped she lost her balance and fell backward in sitting position. She complained of severe pain during balance of trip, and on arrival at her destination it was reported she had a fractured bone at tip of spinal column. (N-20)

MECHANICAL DEPARTMENT

INEXCUSABLE RULE VIOLATION

Our blue flag rules require the flag to be displayed on a locomotive outside the roundhouse when mechanical employes are working on it. The rule is very strictly enforced and observed, but it was neglected at a small junction point where two men were filling lubricator and rod cups. The engine was on the outbound lead and the engineer was in the cab ready to start. He heard one man tell the other to get clear as the engine was ready to go. Without further observation the engineer moved the reverse rod, catching the right forearm of the rodcup man between radius bars and fracturing a bone which will take a month to heal.

If the flag had been up the engineer would never have thought of moving anything till it was taken down, but he should have at least looked out and made sure the men were out of the way. Strict compliance, at little stations as well as big ones, saves injuries and jobs, as several of those connected with this case now realize. (O-12)

CARMAN FALLS FROM COACH ROOF

At six-thirty of a mild morning, a carman started to water a coach through the roof plugs. The coach was standing detached on a siding near the depot. Instead of setting his ladder with the upper end in the grooved hand irons provided at one end of the roof, he set it resting against the smooth edge at the other end. He climbed up and started to step to the roof when either he or the ladder slipped and he fell to the hard platform. He was bruised and dazed in addition to a badly broken upper left arm, and will no doubt lose six weeks or more.

There have been several cases of carmen falling from car roofs in the past year,—enough to indicate that this is one of the major hazards of this occupation. Every carman, car foreman or supervisor should undertake now to get this fact impressed upon the minds of all in the department, and take such precautions about work "on top," that there will be no more of these serious falls due to taking a chance.

"Many a man who took a chance wishes he could put it back." (S-22)

COUPLER SPRING GETS AWAY

Crouched under the end of a car with his left leg extended forward, a carman was trying to insert a heavy spring in the drawbar yoke when it slipped and dropped out, breaking his left ankle. Although an experienced man he cannot account for it, but will have six weeks to figure out a better position when putting up springs. (O-24)

MAINTENANCE OF WAY DEPARTMENT

BAD FALL FROM TANK ROOF

At a tie and timber treating plant, a gasket had burst out at a joint in a creosote pipe line, filling a depressed valve box with slimy black creosote oil. Only a few steps away there was an auxiliary tank on lower ground, its sloping metal roof being about eight feet above level of ground around the valve box. The foreman decided to bail the oil out of the valve box and pass the buckets up to a man on the tank roof who would empty them into the tank through a two-foot square hatchway about 18 inches from the edge.

The man kneeling or half reclining on the edge of the roof would reach down with a two-foot hook to the bail of the bucket held up by the man below, then pull it up and empty it, letting it down again. The bulk of the oil was so handled and the man came down off the roof which had, of course, gotten spattered and slippery around the hatchway.

It was later found that a little more oil would have to be dumped, and a different man got on the roof. Instead of sitting down or kneeling, he undertook to stand at the edge of the roof and reach with the hook for the bucket below. As he did so his feet slipped on the painted tin and he fell off, striking the gang plank used by the man below. His left wrist was broken and a vertebra in his neck fractured, and he will be unable to work for 6 or 8 weeks.

The injured man should have knelt or sat down, as the other man did, instead of standing up while lifting. (O-11)

TIE FELL ON FOOT

Two extra gang laborers were unloading ties from a gondola car. The first man took hold of tie lying next to end of car, lifted one end of it a short distance from floor and started to move around to get the tie away from end of car preparatory to lifting it over the side. The tie was wet and slippery with creosote and slipped from his hands, dropping on the second laborer's right foot, fracturing the great toe, which will disable him for three or four weeks.

The second man should have stayed back out of the way until the first man got the tie out where it could be handled. (S-28)

ANOTHER MAN IN HOT WATER

Maybe we have used that heading too, but we can not help it. This man could have, though, if before he went down into the manhole of the roundhouse sewer he had requested his fellow workers to stop the flow of water for a little while. But he didn't,—he climbed down the ladder, with his boots rolled half down and tried to work. Hot water ran in or was splashed into his left boot and he got a pretty painful burn, but resumed work after losing 2 days.

Don't take chances, there is always a way to avoid them. (K-3)

CREOSOTE IN EYE

A tie gang laborer got something in his eye and thought he rubbed it out. A day or two later it got quite inflamed, possibly from creosote off his hands. The oculist kept him off for two days while treating the eye, which quickly improved so he could resume work. (C-5)

MISCELLANEOUS DEPARTMENTS

STORE MAN SLIPS IN SNOW

A store stockman went to walk around a tractor trailer loaded with lumber and slipped on packed snow in the roadway. When he fell his left shoulder was snapped out of joint. This is the fourth time this same shoulder has slipped out, and the doctor strapped it securely and advised him to remain at home for a week.

We would advise also to use more care and deliberation when moving about on snow covered walks. (N-27)

SPECIAL AGENT FALLS THROUGH BRIDGE

This man was riding a freight train at night to watch for pilferers. When the train stopped between stations due to a broken branch pipe, he started walking up alongside in the dark and failed to see the opening of a small bridge. He fell 10 or 12 feet severely spraining his right ankle, with 10 days' disability. (N-19)

HIGHWAY CROSSING ACCIDENTS—U. P. SYSTEM

(January 1st to February 28th)

	Number of Accidents	Number of Casualties Killed	Reportable	Slight
Two months—1933	37	6	21	6
Two months—1934	41	4	18	5
Increase	4	—	—	—
Decrease	—	2	3	1

The tragic crossing accident related in another column reveals that the noise of a truck and the indifference of a driver may sometimes nullify the effect of the engineer's best efforts to warn with the whistle, but the engineer who fills the last 12 seconds of approach with continuous sound, punctuated by not over one second of silence between blasts, will rarely be involved in an accident.

AN ACCIDENT THAT DID NOT HAPPEN!

About 7:50 PM, February 14th, north of Centerville, between Salt Lake and Ogden, the fireman of southbound passenger train No. 19 was surprised to see a big motor truck standing on the northbound track apparently headed for Ogden. The truck was several hundred feet from any highway crossing when the electric headlight revealed it. He called to the engineer and they stopped in time to flag a northbound freight train and apprize them of the danger ahead. This freight train slowly approached and stopped behind the stalled truck and assisted in unloading it. They had to drag it back several hundred feet to a road crossing by chains attached from locomotive to truck to get it clear of the track. The freight train was delayed nearly two hours and a passenger train behind them was delayed forty-five minutes.

The truck driver had travelled eastward on a country road, looking for a through State Highway. The road on which he was traveling lead to an open station platform, and instead of turning around and going back, he undertook to drive up the tracks in search of a crossing which would take him over to the highway. He had just encountered the switch where his truck stalled and partially overturned, when the passenger train came along on the other track and discovered the situation. Suppose they had not seen that truck!

BRIEF NOTES FROM I. C. C. REPORTS

No. 1843. Track tools left in an unlocked box near the track at night enabled a malicious miscreant to disconnect rail ends and derail an 8-car passenger train, turning over the engine, killing engineer, fireman and 2 trespassers, injuring 6 others.

No. 1846. An agent-operator came on duty while the local freight was switching at his station, failed to turn his order board red, later accepted a meet order for them, but they left town with a clear board and without the order. One and a half miles from the town they collided with the other train named in that order, injuring an engineer and a brakeman.

No. 1854. The engineer on a two-car passenger train, with orders to hold main track and meet a freight, delayed using his brakes too long, ran by the switch and collided with the freight, which had just stopped to head in. He was killed and 11 others hurt.

No. 1856. A switch engine was moving around an obscured curve on the main track in a terminal yard on the time of the only scheduled train, (passenger), which the entire crew had forgotten about. The collision which resulted injured 10, including 2 passengers. The management was criticised for tolerating lax practices.

"SAFETY FIRST"

It is not our policy to publish verses, but the following were noticed in a pamphlet which recently came to this office and appeared to so aptly express the feelings of most railroad men today that we are glad to pass them on to you.

The days of "Wabash Billy"
And the "Hot-foot Kid" are past—
It's time we all should see it
And better first than last;
For of all our mortal enemies
The one we should fear worst,
Is the one who likes to ridicule
The motto, "Safety First."

There was a time in days gone by
When each boss was a king
If he said "Go," you had to go,
And run like everything;
And if you said it wasn't safe
You surely would get cursed,
But things have changed since by-gone days,
And we have "Safety First."

Men used to think the only way
To work and hit the ball,
Was to do a thing haphazard
Though it wasn't safe at all;
And though you lost an arm or leg
You did it if you "durst";
But we don't do it that way now,
Since we have "Safety First."

When safety rules made their debut
Some men said it was bunk;
And seemed to think they couldn't work
With anything but junk;
And if you spoke of safety
Their lips in scorn were pursed,
They said you were a "scissor-bill"
And "To hell with Safety First."

But that old gang is getting scarce,
They are growing mighty few,
And safety boys are in their place
Protecting me and you;
And unsafe work has been cut out
While safe ways are rehearsed,
And "pencil peddlers" will be less,
With thanks to "Safety First."

So let's all get together,
You, I and all the rest,
And plan our work the safest way
So each can do his best;
And if we save one life or limb
We'll feel well reimbursed
For all the effort we put out
Promoting "Safety First."

—W. H. Stober, Switchman,
Camas Prairie R. R., Lewiston, Ida.

COMPARATIVE CASUALTY STATISTICS

Month of January, 1934

CASUALTIES TO ALL EMPLOYES ON DUTY, PASSENGERS AND PERSONS CARRIED UNDER CONTRACT

The contestant groups are listed in the order of their "Contest Rating" for the period. The contest rating is determined by charging 15 points for a fatal injury, 5 points for a reportable injury and 1 point for a lost time injury, and dividing the total number of points by the number of millions of manhours. The I. C. C. casualty rating (unweighted) for employes on duty is also shown as a matter of information.

Rank	Contestants		MONTH					
			Casualties			Man-Hours	ICC Rating (Emp.)	Contest Rating
			F	RI	LT			
1	OSL	Psgrs. & PC	—	—	—			
		Employes	—	1	—	853,508	1.17	5.86
2	LA&SL	Psgrs. & PC	—	—				
		Employes	—	1	—	610,395	1.64	8.19
3	UPRR	Psgrs. & PC	—	—				
		Employes	—	6	2	2,907,983	2.06	11.00
4	OWR&N	Psgrs. & PC	—	—				
		Employes	—	3	—	846,574	3.54	17.72
	UP System	Psgrs. & PC	—	—				
		Employes	—	11	2	5,218,460	2.11	10.92
	Last Year	*Psgrs. & PC*	—	*1*				
		Employes	—	*3*	*2*	*4,569,304*	*.66*	*4.81*

CASUALTIES CHARGED TO DIVISIONS & SHOPS

Note—Figures for Division Superintendents include casualties and manhours of Division Engineers' forces, but not Mechanical Supervisors, Store or other System Departments.

Division Superintendents

1	Nebraska	Division	—	—	—	557,928	—	—
2	OSL	Division	—	—	—	523,728	—	—
3	Kansas	Division	—	—	—	362,373	—	—
4	Wyoming	Division	—	—	—	301,429	—	—
5	Washington	Division	—	—	—	292,274	—	—
6	LA&SL	Division	—	1	—	309,574	3.23	16.15
7	Colorado	Division	—	1	1	202,345	4.94	29.65
8	Oregon	Division	—	2	—	289,890	6.90	34.50

Division Engineers

1	Washington	Division	—	—	—	179,251	—	—
2	OSL	Division	—	—	—	178,137	—	—
3	Nebraska	Division	—	—	—	156,919	—	—
4	LA&SL	Division	—	—	—	122,867	—	—
5	Wyoming	Division	—	—	—	108,624	—	—
6	Kansas	Division	—	—	—	106,160	—	—
7	Colorado	Division	—	—	—	78,623	—	—
8	Oregon	Division	—	1	—	109,149	9.16	45.80

Mechanical Supervisors

1	LA&SL	Division	—	—	—	175,803	—	—
2	OWR&N	Division	—	—	—	145,699	—	—
3	Kansas	Division	—	—	—	143,891	—	—
4	Omaha	Shops	—	—	—	121,588	—	—
5	Colorado	Division	—	—	—	118,665	—	—
6	Cheyenne	Shops	—	—	—	115,748	—	—
7	OSL	Division	—	—	—	93,859	—	—
8	Nebraska	Division	—	1	—	212,412	4.70	23.53
9	Pocatello	Shops	—	1	—	85,404	11.71	58.55
10	Wyoming	Division	—	2	—	151,032	13.24	66.21