

active service 16 months ago, and he began his safety work immediately.

Carrying the message of safety to school children, Morrill has addressed more than 100,000 of the little folks in 47 towns along the Frisco lines, including Pacific, Chaffee, St. Clair, Dixon, Lebanon, Rolla, Eureka, Joplin, Sikeston, Cuba, Springfield, Aurora, Newburg, Cape Girardeau, Monett, Sullivan, St. James, Marshfield and Valley Park in Missouri; Oswego, Girard, Pittsburg, Fort Scott, Cherokee and Augusta in Kansas; Vinita, Foyil, Bushyhead, Red Fork, Sapulpa, Tulsa, Bristow, Chandler, Davenport, Oklahoma City, Enid, Hugo, Okmulgee and Henryetta in Oklahoma; Rogers, Fayetteville, Van Buren and Wilson in Arkansas; New Albany in Mississippi and Birmingham in Alabama.

He has preached a "Safety First" policy to children from the first grade to the eighth, and in the high schools.

The former locomotive engineer tells his youthful audiences of the life of a railroad man. He attracts their attention with a glowing picture of that engineering life that all boys want to lead, and holds their interest with anecdotes from his years of experience—always with a lesson of safety inculcated in the story.

He tells them that there are 265,000 railroad crossings and 65,000 engines on the main lines of American railways, and that half of the 75,000 engineers are continually at the throttle of speeding trains.

Morrill impresses the safety lesson indelibly on his hearers with stories of grade crossing accidents from his years of experience and stresses the feeling of horror which surges over the engineer when his speeding engine crushes to matchwood an automobile full of people.

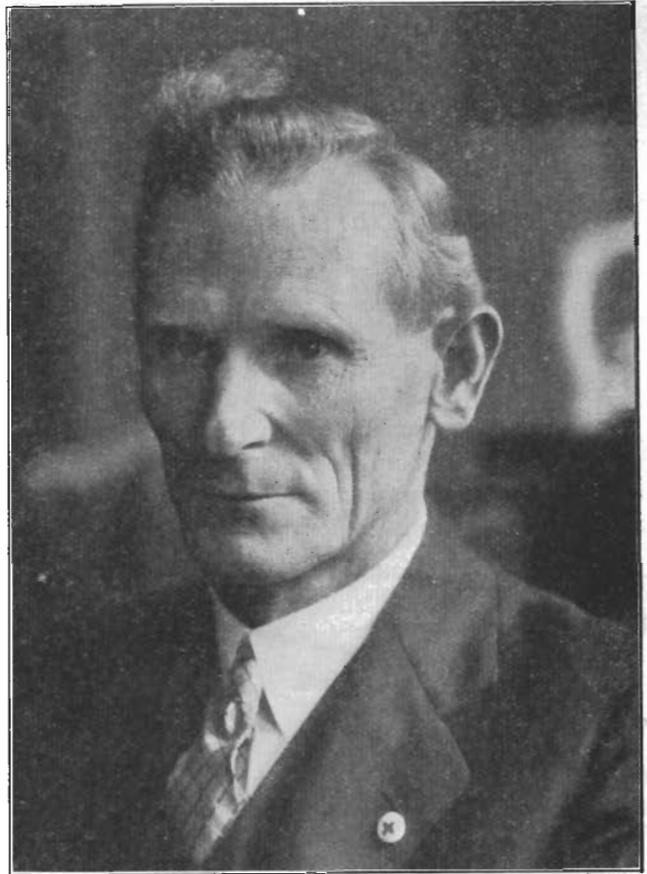
He concludes his talk with a plea to the children to insist upon a "stop, look and listen" driving policy when riding with their parents.

"That is where the good comes," the veteran says. "The parents will listen to pleas for caution from their children when all else has failed to make them careful."

Harry Harrison, of Sherman, Texas, also an engineer of twenty-one years' service, eleven of these with the Frisco, is Morrill's partner in this work.

Harrison joined the safety work of the road when the Department of Safety was transferred to Mr. Harry W. Hudgens, chief claim agent, from the Insurance Department of Mr. G. L. Ball, insurance commissioner.

Twelve thousand school children in Oklahoma and Texas have heard Harrison's plea for safety at railroad crossings, and have had the points driven home through a series of pictures which Harrison carries with him and exhibits in his talks.



HARRY HARRISON, SUPERINTENDENT OF SAFETY

Harrison addressed the Oklahoma State Teachers' Association meeting at Oklahoma City, February 12, and through the teachers, his influence in safety matters reached 40,000 pupils whom the teachers instructed.

Both Morrill and Harrison stress safety measures other than railroad, including highway, street crossing and electrical, and give valuable information on preventive and precautionary treatment.

A short time ago, Harrison broadcast from Station KFRU at Bristow, Oklahoma, with a talk on safety.

The two men feel that their work is bringing results, and their belief is substantiated by Mr. Hudgens, who made the following statement on safety work:

"We have made every man in a supervisory capacity responsible for the accidents in his department. Every traveling representative of the company is chairman of a committee of one to report all defects, hazards or dangerous practices which he might see in his travels over the road. This, of course, was not limited to the traveling representatives, but to each and every employe. If they saw any employe doing his work in an

(Continued on Page 39.)

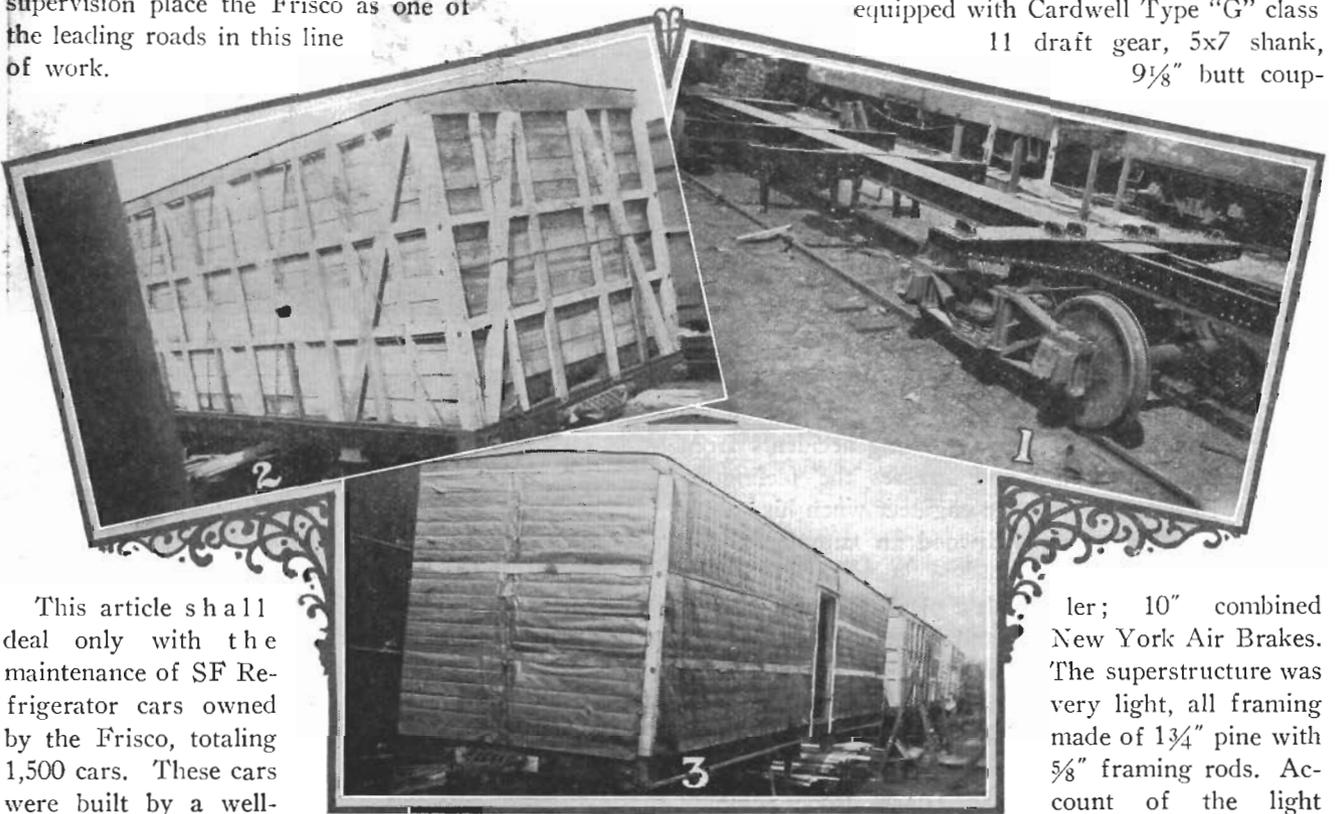
Maintenance of 1500 S. F. Refrigerator Cars Was Costly Job—Frisco Leads Others

Shops at Springfield, Monett, Sherman, and Fort Scott Engaged in Rebuilding and Improving Equipment

By G. W. MOORE, Asst. Supt. of Motive Power

ONLY those most concerned with the Car Department affairs on the Frisco Railroad, know that this railroad is one of the leading roads in building and rebuilding its own equipment. Adequate shops, the most up-to-date equipment, and very efficient supervision place the Frisco as one of the leading roads in this line of work.

These cars are of 60M capacity, 4¼x8" journals, 33" cast wheels, arch bar trucks with cast steel body bolsters; Sampson steel underframes and consisted of built-up body bolsters, 9", 20-pound channels, draft sills, cover plated with 9", 20-pound needle beams; equipped with Cardwell Type "G" class 11 draft gear, 5x7 shank, 9½" butt coup-



This article shall deal only with the maintenance of SF Refrigerator cars owned by the Frisco, totaling 1,500 cars. These cars were built by a well-known car and foundry company and sent to the Frisco in 1912 and 1913.

The first year these cars were in existence, they gave some trouble. It was necessary to spend many hundred thousands of dollars before the trouble was found and remedy applied. They were painted white, with black letters and red ends and on account of the trouble these cars gave, someone nick-named them "White Hopes". It was found the trucks did not have sufficient lateral, which caused them to jump the track. This trouble was remedied by planing off the column guides on the metal truck bolsters.

ler; 10" combined New York Air Brakes. The superstructure was very light, all framing made of 1¾" pine with ⅝" framing rods. Account of the light superstructure of this

DESCRIPTIVE MATTER ON NEXT PAGE

car, the body went to pieces rapidly and on account of the reputation these cars had on foreign lines, we could not get them over interchange. The cars were then taken through the shops, but did not receive any substantial repairs. The paint was changed from white to yellow, changing the identity of the cars, but the paint did not make the cars any more useful than when they were white, and they gradually found their way into the rough freight class. The 9", 20-pound channel draft sills broke off at body bolster, due to the fact there were only four ⅝" bolts

GENERAL DIMENSIONS OF REBUILT SF REFRIGERATOR CARS

Length over end sills.....	40'
Width over end sills.....	9' 2"
Height to top of running board.....	12' 11 1/8"
Length inside.....	33'
Width inside.....	8' 4 1/8"
Capacity.....	60,000 pounds
Journals.....	4 1/4 x 8"
Air Brakes, 10" New York	
K-2 Triple Valves	

in the wood draft sill and end sill, and the continually hammering on these sills in switching, and in train movement. There was nothing to hold them but the four 5/8" bolts per channel and they finally broke and permitted the sill to work sidewise.

In 1922, we started to rebuild this class of equipment and have taken up, or reinforced the weak places and after rebuilding, they are first-class refrigerator cars. We are strengthening the draft sills by cutting off the 9", 20-pound channel just ahead of body bolster and using 9", 25-pound channels, 61" long and splicing them together with a 40", 9", 25-pound channel, placing the draft sill and splice back to back and riveting through, and in addition to the coupler carry iron, we are using a special yoke carry iron applied to end sill and the two draft sill channels; one 7/8" bolt through each draft sill channel and two 7/8" bolts through end sill.

The Cardwell Type "G" class 11 draft gear is being replaced with the Miner A-69 Friction Draft Gear with Type "D" A. R. A. couplers, 5x7 shank, 9 3/8" butt.

Photograph No. 1 shows steel underframe and trucks of car. Note the entire superstructure of cars has been completely torn down due to the decayed condition of all wood material, and the insulation. The next operation is to apply the wood sills on top of steel underframe and properly insulate the bottom between the sills with two courses of one-half inch hair felt, with four courses of insulation paper and two courses of 13/16 insulation lumber and one course of one-half inch insulation lumber, with two-inch tongue and groove flooring laid in Lucas Car Cement.

Photograph No. 2 shows the new superstructure and

bottom of car. The superstructure is now ready for the insulation. Particular attention has been paid to getting maximum efficiency from the insulation; the hair felt insulation is applied in one piece to each section of car; one piece from door post to corner post on side of car outside; one piece of hair felt at end of car outside of framing. Insulation is applied the same on inside of framing. The roof of car between carlines is insulated the same as car body. Experience has shown the difficulty of keeping the walls of dead air space tight in movable structures such as refrigerator cars, and unless these walls are tight so as to prevent all circulation of air, space as an insulating medium is largely destroyed.

Two-inch tongue and groove flooring is used and is laid in No. 1 Lucas Cement; drip pans are also laid in Lucas Car Cement and the post braces, top of sills, are also mopped with Lucas Car Cement. Lucas Cement is a waterproofing material and it keeps the water and dampness out of the floor and insulation.

This class of refrigerator equipment is now being equipped with floor racks. These cars, as rebuilt have been used in all kinds of refrigerator service, with excellent results.

Photograph No. 3 shows outside insulation.

Photograph No. 4 shows two of the finished cars.

These photographs were made at Monett, Mo., where we have an output of from twenty-five to thirty-five rebuilt cars per month.

To substantiate statement made in the first of this article, below is given a summary of the work now under construction at the different points, and in other issues of the magazine, different phases of the car work will be discussed:

YALE, TENNESSEE

400 new 110,000 capacity steel flat bottom coal cars being built.

SPRINGFIELD, MO., NORTH SHOPS

200 coal cars, 73,000 series being rebuilt; 250 stock cars being built on trucks and steel underframes of SF refrigerator cars; 325 box cars on steel underframes and trucks of SF refrigerator cars being rebuilt.

WEST SHOPS, SPRINGFIELD, MO.

400 box cars, series 120,000 to 125,499, capacity 80M, being rebuilt.

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University Leaders in Effort to Stop Care-Free Bumming of College Students

Turmoil of Accidents and Weakening of Response to Law Is Direct Result of Such Practice—Dr. Frank H. Leavell States

College students who "bo it" on freight trains from city to city for football games in the fall months, are due to have their "fun" stopped if the efforts of Frank H. Leavell, executive secretary of the Inter-board Commission of the Southern Baptist convention, are successful.

For years, the pastime of University men students in the football season, has been to "ride the rods" from town to town, following the football team of their alma mater from conquest to conquest.

Undoubtedly the spirit of these care-free students has not been a malicious one. All men who have had college days will realize that. They are simply enthusiastic, reckless, care-free and somewhat disregardful of the rights of others.

And this "bumming" hasn't been an unfriendly business.

Doubtless the train crews have entered into the spirit of the occasion. They have turned unseeing eyes as a troupe of students slipped atop a car, or slid onto the rods. By their quiet and unofficial attitude they have acquiesced, if they did not do so by words.

Mr. Leavell is right when he wants the practice stopped.

In the wake of this apparently innocent fun runs a riotous turmoil of accidents and of disrespect for established law and order.

Mr. Leavell, through the medium of *The Baptist Student*, a Southern school publication reaching many colleges, has forcefully checked this practice up to the students as the equivalent of stealing. Rides on railroad trains are to be paid for, while in "bumming" this ride is taken without tariff—is stolen.

Mr. Leavell believes, and rightfully so, that a natural result of such practice is a weakening in the students' response to the law enforcement.

But not on that ground alone does he base his plea for stopping "bumming" expeditions.

A letter from Forrest C. Feezor, professor of Bible at William Jewell College, Liberty, Mo., tells in an eloquent and tragic manner of a heart-sickening tragedy which resulted from a care-free, light-hearted trip of this kind.

Here is the letter:

Mr. Frank H. Leavell,
Memphis, Tennessee.
Dear Mr. Leavell:

Our campus is at present under the pall of a recent tragedy. Returning from a trip of "bumming" at 2:30 A. M., Saturday, a student alighting from the train here in Liberty, was jerked under the cars, suffering the loss of an arm, leg, eyesight and internal injuries that resulted in death some hours later. Perhaps through the daily press intelligence of the accident has come to you.

Fraternally yours,
(Signed) F. C. FEEZOR.

The name of the student is not necessary.

His case is legion. Accidents of this kind are happening every day, every week, every month.

Mr. Leavell's efforts to reduce this sort of tragedy are highly commendable and worthy of the co-operation of every railroad in America.

Third Veterans' Reunion to be Gala Event in May

All aboard for the third Veterans' Reunion at Springfield!

The old veterans are organizing forces, the committees are busy planning for the entertainment, and this reunion promises to tip the scales in every respect.

The executive committee has had several meetings and so far the program has been outlined as follows:

The meeting will be held May 27th and 28. Bulletins will be issued from time to time, fully outlining all plans.

It was agreed that the first day would be taken up with the barbecue.

The Mosque will be rented again, as in 1924, for much the same program as the preceding year. There will be some excellent speakers, and a splendid program of entertainment.

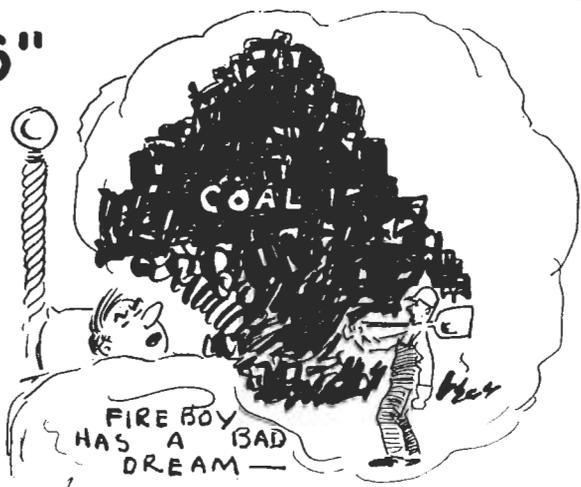
There will be a "Stunt Night" and every division on the railroad will be asked to put on a stunt. Keen competition will assure the veterans of a good program.

Division Chairmen will have charge of each division and there will be General Chairmen. "Uncle Billy" Morrill, who covers the system often, will keep close tab on the activities.

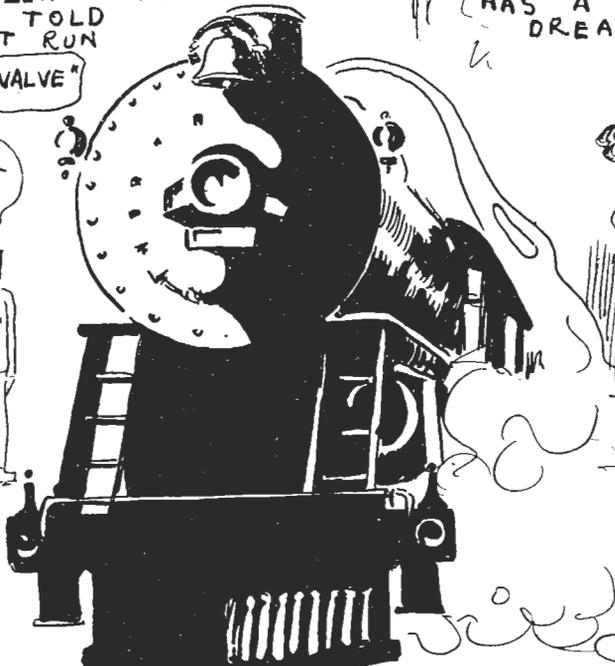
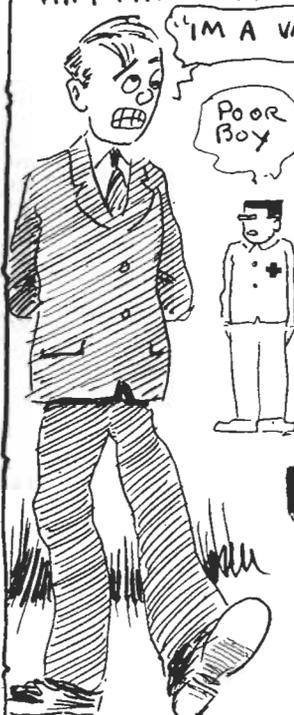
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"AMONG OURSELVES" FIRE MEN AND ENGINEERS

ROOKIE'S CONCEPTION OF
KNIFE USED IN "CUTTING BOARDS"



SAD PICTURE OF FIREBOY
WHO TRIED TO LEARN ALL
THE ENGINEER TOLD
HIM THE FIRST RUN

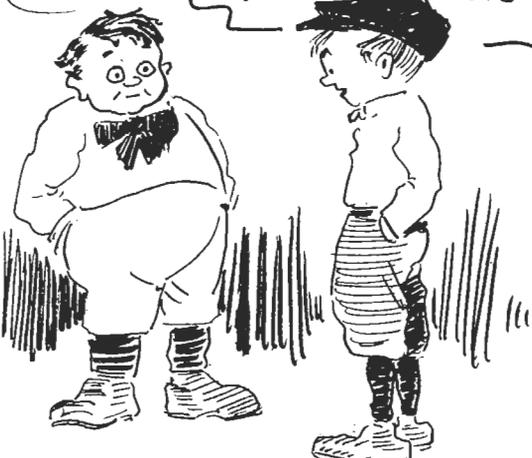
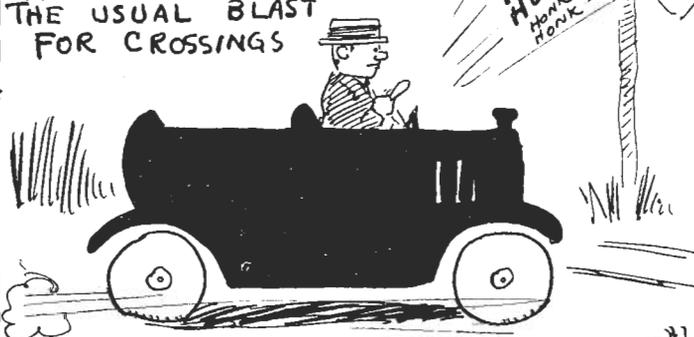


"WIFEY, COME AND
DO SOMETHING YOU
AINT EVER DONE
BEFORE."
WHAT IS IT?
"KISS AN ENGINEER."

RAIN OR SHINE - THEY
NEVER FAIL.



HOGHEAD SOUNDS
THE USUAL BLAST
FOR CROSSINGS



JOHN GODSEY