

# SAFETY FIRST

"It is a well-known fact, especially among those who know from experience, that nothing in the world makes a man or woman more safe than to have that splendid self-control which only comes through proper training. For instance: Let us recall the article that appeared in Collier's some time ago reciting the case of a woman's dress catching fire at a banquet in New York City. The diners near the poor woman became panic stricken and beat her with their hands and napkins, not doing any real good. The woman perished surrounded by men and comments made were, "had there been a football player near he would have had the good sense and quick judgment to have wrapped the woman in his coat and smothered the flames." This is not only true of the football player but of men trained in athletics generally. It learns one to think quickly and accurately, and the point I wish to make is that with this training a man is going to take better care of himself, avoiding personal injuries that might overtake him were it not for this training.

"Did you ever hear of a boxer, a ball player, or a good skater getting run over by a team of a street car? I never did. Why? Because the eye, the ear and the muscles are trained to see, hear and act quickly and correctly.

"In my opinion nothing trains the eye like boxing, and I have known cases where men who were slow to observe began to see clearly and quickly after a few boxing lessons showing how wonderful the eyesight really is when at its best, and when stimulated by quick action, such as athletics always give."

Just a few minutes each day, at some convenient time, preferably when retiring, devoted to some physical exercise, will greatly improve the physical condition of any one. If this is true, who then is responsible for your going on in your present state, making life more hazardous not only for yourself, but for your fellow laborers and the traveling public? Is this worth your while? Can you afford to devote five minutes daily to better prepare yourself for your several duties? Do you not owe this to yourself, your family, your countrymen, and above all, to the God of your being?

As a member of the Safety Committee and a co-laborer with you, for the success of this great railroad of ours, I appeal to you, not only in behalf of your sons and daughters, but yourselves, to consider a more thorough development of your physiques. It will enable you to render better service for your hire and thereby aid in maintaining the high standard of excellence the Frisco has attained, through the merits of co-operation and loyalty of her faithful employees.

## Safety First and the Public

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There are a number of relations between the great Safety First movement on American Railways and the public which may possibly be interesting. In examining these relations, it will be necessary to show parallel cases of development or non-development, as the case may be, covering the handling of safety questions by the railways and the handling of the same questions by the general public.

To fully grasp the progress made by the railways along this line of endeavor, a condensed history of railway development is essential. It was thought in 1814 that there was enough adhesion between smooth wheels and smooth rails to admit of considering some sort of locomotive, of which the "Rocket" operated by steam in 1829, was the first fully successful example. The inventor obtained a prize of \$500.00 by making his original trip in an open competition, from which it would appear that genius as applied to railroading was not a very good financial proposition in the early days.

There were 13 miles of railroad opened on the B. & O. in 1830. The original American locomotive works turned out the DeWitt Clinton in 1831, which machine weighed three and one-half tons. This forerunner of the present Mallet type belonged to the New York Central Lines, which operated from Albany to Schenectady in 1831. As early as 1850, financial and operating genius began combining short lines into larger units under single ownership. Between Albany and Buffalo, there were at one time eleven different companies, operating. Changes of passengers and freight from one car to another on these different lines were made at Dunkirk and Erie. West of Erie there was a four foot ten inch gauge and east of Erie a six foot gauge. When it was attempted to consolidate these railroads, in order to obviate making transfers, the people of Erie resorted to violence, going so far as to tear down the railroad bridge, so that no trains at all could be operated. In 1855 this bridge was rebuilt, but was again torn down and burned by the people of Erie. However, in spite of all these hardships the roads were finally consolidated between Albany and Buffalo so that a continuous trip could be made.

Railway building did not proceed very rapidly until after the Civil War. From the war until 1880 there was a considerable amount of railroad construction and from 1880 to 1890 there were seventy thousand miles of line built in the United States. At that time there was a population of about sixty-three million people with an investment of about seven and a half billion dollars in railways. At the present time there are approximately two hundred fifty thou-

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sand miles of railroads with roughly fifteen billion invested.

While this progress in construction was developing the railroads rapidly assimilated every method for obtaining greater safety for human life in the handling of traffic. In 1867 Thos. S. Hall built the first electric signals and alarm bells to be used with switches and draw bridges. As his experiments continued and he improved his apparatus, the railroads rapidly put them into practical use and added, by so doing, a big factor towards safety in operation.

Interlocking methods of handling switches and signals in yards and terminals were borrowed from the English in 1868. It was in this year that Mr. F. D. Adams of the Boston & Albany recommended that uniform height be adopted for couplers, which did away with the old action of cars coming together and crushing a man who might be between them. About this time a number of people were working on an automatic coupler but not until 1887 was any form of coupler found which was considered both safe and automatic. The Janney type was at that time generally accepted by the railroads and rapidly put into use. The air brake of Geo. Westinghouse had developed before this from his first straight line brake in 1869 to the automatic brake in 1873. However, neither of these brakes were very successful and it was not until about 1886 that the Westinghouse quick action air brake was developed. This apparatus is still used and has been quite satisfactory. In 1908 there were locomotives and cars in service in this country to the amount of 2,302,055, of which less than 1 per cent were not fitted with air brakes and less than three-fourths of 1 per cent were not provided with automatic couplers.

From this history it will be seen that while an expenditure of about \$15,000,000,000 had been made over a comparatively short space of time on account of the rapid development of railways in this country, yet, accident prevention was given the most careful consideration and was kept constantly in the front as one of the great problems of railroad operation.

Large sums of money have been expended by the railroads in the purchase of steel equipment and the construction of roadbed devices which lend to the safety of operation. It remained, however, for the more careful railroad student of the last few years to realize that the most effective and most far reaching item in accident prevention is the education of the employe, and of the passenger, and of the citizen to take care of himself. Before going into this phase of the subject it may be worth while to study a few comparisons between railroad accidents and other mortality and accident data in order to show that the railroads have already done a remarkable amount of careful work looking to the safety of passengers.

In the case of steamboats, for example, there were during the year 1913, 436 lives lost and a total of 303,263,033 passengers carried on vessels, which are required by law to make report. From this it is readily seen that for every 695,557 passengers carried there was one life lost. In the case of American railroads, there were about 2,500,000 people carried for one life lost, figured on the same basis. In 1912 there was only one passenger killed out of every 3,000,000 passengers carried, which is a much better record than that shown by the ocean liners.

In 1909 there were 347 operating companies which carried 18,953,025,000 passengers one mile without killing one of them. It is worthy of note that this mileage of railroad operation is equal to the sum of all the passengers carried one mile in England, Scotland, Ireland, Germany and France. This is a very remarkable record and has never been equaled by any foreign country, but unfortunately it does not refer to the deaths caused by trains to trespassers but applies only to passengers on the train.

In Fourth of July accidents, due to handling fireworks, there were killed in the year 1906 -158 people, while 5,308 were injured. While that number of casualties occurred in one day, during the entire year on 240,000 miles of railroad operated in the United States there were 359 passengers killed.

From the foregoing it is evident the railroads have been keenly alive to the hazard problem and have taken the deepest interest in accident prevention from the very inception of railroading. Now, however, since safety mechanical devices have been installed, since heavy steel coaches have been rapidly put into use, the roads are specializing on spreading the gospel of "Safety First." The Frisco alone succeeded in making a reduction of 38 per cent in their casualties during four months of one year. Since "Safety First" has been thoroughly organized on the Frisco Railroad, the total number of casualties has been reduced 56 per cent a most creditable showing. Largely due to a very thorough organization of "Safety First," the Pennsylvania Railroad, during the year 1913, was able to carry 111,000,000 passengers without one death among them in a train accident.

From the figures just given, it at once becomes evident that "Safety First" is a practical proposition. The efforts put forth on the railroads have brought about results which are very pleasing to the employe. In view of the efforts which have been made by the railroads to take care of the traveling public, they have a right to expect and no doubt will obtain the heartiest co-operation from the American people. This co-operation, in so far as railroads are concerned, can best be given along the lines of mitigating the trespassing evil. The railroads today stand ready

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and willing to aid in every movement of local organization for educating the people so that they too may understand how to take care of their own safety. While the railroads know that there were 198 persons murdered in New York City alone in 1912, and that during the same year in the same city there were 249 people run over by automobiles and horse vehicles, as against a total of 318 passengers killed during the entire year on all the railroads in the United States; yet, they do not show disposition to criticize the great cities of the country which allow these things to continue, but they are now working vigorously to eliminate to a further extent the accidental death to passengers on their own line; and further are pleading with the public to assist them in stopping the terrible fatalities due to trespassing. In all states, with the exception of a few cases, the railroads are almost powerless to stop these deaths on account of the fact that the laws do not admit of the arrest and the prosecution of trespassers.

During the year 1912 there were 5,434 trespassers killed on the right-of-way of the American railroads. In all cases these people had no business whatever in the positions which brought about their death. The railroads have furnished high power electric headlights on practically all their fast trains and on most of their slower freight trains, and they have posted the right-of-way with warning signs, and are now endeavoring through their section foremen and other employes to keep trespassers off their tracks and property. This will result in very little actual benefit, unless the general public are educated to realize the danger of trespassing, and unless stringent and enforceable laws are passed for keeping trespassers from railroad grounds. Of the total number of trespassers killed during 1912, 10 per cent were tramps and hoboes; 70 per cent were citizens of the locality in which they were killed, many of them heads of families; and 20 per cent were children under 14 years of age, who were using the railroad tracks in order to get to school, or for hopping cars; and, in some cases, most unfortunately, were sent there by their parents to pick up coal. In 1912 there were killed every day by railroad trains, three children who had absolutely no business whatever on or near the tracks. There were approximately fifteen people a day, in that year, nearly one every hour and a half, struck while standing or walking on railroad tracks in this country, when there was no necessity for their being in that position. The number of trespassers killed by trains has increased from 4,076 killed in 1891 and 4,769 injured during the same year to 5,558 killed in 1913 and 6,310 injured.

From 1892, in which there were 376 passengers killed in train accidents, the number has been reduced in 1913 to 181 killed in train accidents in this country.

By comparing statistics for the railways in Great Britain with our own, we find in England there were 1,785 people per mile of track, while in the United States there are only 370 people per mile of track. Yet, on the English railroads in 1897 there were 132 passengers killed and only 500 trespassers killed. In this country during the same year there were 272 passengers killed and 3,919 trespassers whose lives were sacrificed. In other words, there are about 17 times as many trespassers killed as there were passengers killed in the United States, while in England the ratio is only four times; and to further pyramid the enormity of this condition you will notice there are five times as many people per mile of railroad in England as in the United States. The better condition in England is directly due to the better trespassing laws and to the better manner in which they are enforced in that country.

During the past 24 years there have been 15,054 tramps and hoboes trespassing on railway property who were injured or lost their lives, 31,049 children under 18 years of age were hurt or killed and 149,163 citizens of the locality in which the accident happened were either injured or sacrificed because the laws of the country are not such that they could be kept from the right-of-way and because they had not been fully educated in regard to the danger of trespassing on railroad grounds. When we realize this total of 225,266 would make a town the size of Denver, Colo., or Atlanta, Ga., or Birmingham, Ala., or Memphis, Tenn., or Oakland, Cal., or five times the size of Springfield, Mo., we cannot help but be forcibly awakened to the appalling situation.

It is in this phase of accident prevention that the railroads and the public should be closely allied. You, as an American citizen, are probably not personally responsible for any one of the 225,266 persons killed or injured through carelessness or improper knowledge, but you are indirectly responsible in the future for any death occurring in this manner if you do not assist, by every means possible, in the prevention of these accidents. You can write to your representative in the state legislature, you can write to your representative in the federal law-making body, you can use your influence in your own community. You are under obligation to engage in the organization of safety committees and meetings. It is a duty you cannot escape, to attend these meetings, and to use every effort to spread knowledge in regard to danger and in regard to prevention of accidents. The figures given above would be dry and uninteresting if it were not for the terrible tragedy involved in each individual case. It is not possible to fully comprehend and realize the pain and sorrow, and often, the subsequent misery brought about through the avoidable death of those 108,000 persons killed during the past 24 years. These

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deaths may seem remote, but it is hardly possible that you do not live near some railroad, or that you do not in some way come in contact with the railroads of the United States. It is not a long step to imagine that you will be called upon some day to bear the pain and sorrow of carrying some friend from the scene of an accident of this kind, or possibly you may some day go through the terrible agony of seeing your own child or wife mangled and torn, when by a little more education in safety it would have been made clear that there was no necessity for being in the position which resulted in death. It devolves, therefore, upon you to use every effort you have towards helping the American railroads stamp out the trespassing evil.

It has been argued that the railroads are selfish and wish to save money by this safety movement. While no doubt there will be money saved to the railroads if accidents are prevented, yet this is by no means the primary object. In the first place, the phase of accident prevention mentioned above, practically speaking, does not incur any expense against the railroads as they are not liable for death to trespassers or any accident to a trespasser. In the second place the officials of the various railroad companies in the United States are extremely human men who have wives and families and whose interests and hardships are much the same as those of other average citizens. A careful study of the situation will convince you, if you are skeptical, that this movement originated and has been carried out by the operating officers of the various railroads who are not directly influenced by finance in the sense of the term generally accepted by the public.

It is evident that the railroads of the United States have always been leaders in cutting to the very lowest point accidents on their property, and in connection with their somewhat hazardous line of commercial undertaking, and now they have undertaken to lead in this great development of accident prevention known as the "Safety First" movement. It was born in the office of a railroad system and it has been reared and propagated by the railroads until now the great beauties it possesses are rapidly being appreciated by the entire industrial world.

Other great movements for good, such as the public school system in the United States, were originally met with considerable opposition, but this latest phase of accident prevention has not only not met any serious opposition, but it has been welcomed and generally approved of by the great body of American railway employes. It is built along right lines. It is constructive. It gives every opportunity for individual effort. It is based primarily on unselfishness. It appeals equally to the radical temperament and to the slow conservative thinker. It is now only in its in-

fancy, but it is spreading like the waters of an unconfined sea. There is not only room but the time and necessity exists for you in the further unfolding of the great beauty of this most remarkable movement known as "Safety First."

**L. B. Washington, District Passenger Agent,  
Jacksonville, Fla.**

Many tourists who go to Florida for the winter season take with them their private automobiles, and their carelessness in driving across railroad tracks, in making their trips over the country, is one of the most frequent causes of accidents.

In driving across railroad tracks on the different highways, automobile drivers virtually flirt with death. They fail to pay any attention whatever to the highway regulations "STOP—RAILROAD CROSSING."

A number of accidents occur in Florida every winter because of failure to Stop, Look and Listen. These accidents could be avoided if automobile drivers would observe the rules on the Railroad Crossing Sign. Not only do they forget entirely the feelings of the engineers and the number of lives that have been entrusted to their care, but they ignore their own safety and the safety of those with them.

## "Lumisheen" at the Front

A "shining" example of what can be accomplished by the proper use of the right material is reflected in the excellent appearance of "FRISCO" LOCOMOTIVE FRONT ENDS AND STACKS; the use of "LUMISHEEN" PAINT, manufactured by the RABOK MANUFACTURING COMPANY of St. Louis, on our Engines has excited favorable comment among Railroad Officials and the public in general.

Among the many engines which take their place with the well groomed are 1335, 1338 and 1048, seen in service on Eastern Division.

Best results obtained by strict observance of Rules for Application and Care --"Keep it up boys, we lead."

Every man has within himself a continent of undiscovered character—be your own Columbus.

# *Twelve Things To Remember*



- ☞ The value of time
- ☞ The success of perseverance.
- ☞ The pleasure of working.
- ☞ The dignity of simplicity.
- ☞ The worth of character.
- ☞ The power of kindness
- ☞ The influence of example.
- ☞ The obligation of duty.
- ☞ The wisdom of economy.
- ☞ The virtue of patience.
- ☞ The improvement of talent.
- ☞ The joy of originating.