

sent to Europe into engineer regiments, with regular army officers as Colonels.

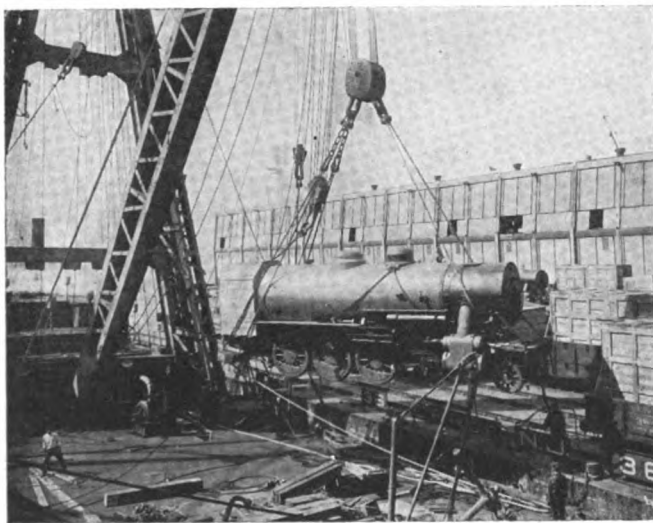
If the basic assumption that military railways were to be used solely for fighting purposes had been correct this regimental organization might have served very



Steam Shovel Loading Dump Cars; Nevers Cut-Off

well. General Pershing had not been long in Europe, however, when he became convinced that it was incorrect, and he appointed Col. (then Major) Wilgus to his immediate staff as Director of Military Railways. Col. Wilgus and the other members of the original American railway commission to Europe had studied and reported to General Pershing upon the transportation organization and methods used by the British and French, especially the former; and in September, 1917, General Pershing cabled to America that the best experience showed that transportation should be handled by a separate corps officered by men thoroughly versed in the commercial operation of railways.

One of the interesting and important facts regarding



Hoisting Locomotive from Lighter to Ship

the numerous railway storage and other structures which have been constructed by our forces in France is that they have been built without any agreements or contracts with the French as to their disposition after the war. It is assumed that the French will desire to acquire many of them, but on what basis they shall be paid for has never been determined. It may be said that the French should pay what they have cost. They are

likely to take the position that many of the structures are not suited to their need in time of peace. Furthermore, it is going to be very difficult to determine what has been the actual cost of the work which has been done. It has been done by soldiers for soldiers' pay.

The problem of determining on what basis the French should pay for the structures built by our soldiers, and for our locomotives and cars, if they decide to take them, is an extremely complicated and difficult one. Meantime, the French are engaged in preparing a bill for the use of their land, railways and so on, by our forces; and whatever may be their true opinions, their railway representatives are endeavoring to make it clear that they do not even like our railway rolling stock. In the end, a large bill will be presented by each side to the other, and it will require long negotiations to reach a settlement.

THE NIGHT SIGNAL INDICATION

By E. SHAW

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THE importance of the night signal indication cannot be over-estimated. There is a very great difference between the value of the daytime signal to an engineman when he has a view of the track immediately ahead of him, and the signal light showing at night, when it, and it only, indicates to him the condition of the block he is entering. Therefore the care of the lamp, its condition and correct alinement in relation to the track, and its frequent inspection by the maintainer is very important. In the past, due to the small wage paid to the lampmen, it was very difficult to obtain men who would put the necessary amount of effort into the care of the lamps, and frequently the maintainer had his troubles watching lamps in addition to his numerous other responsibilities.

The care of the lamp does not consist only in the filling of the fount and the lighting of the wick at regular intervals, but the lampman should make a study of his work, and know the height to which the flame ought to be turned to get the best light under all conditions of weather and temperature. The flame is very likely to get higher after burning a time, especially when certain kinds of oil are used, and this condition will easily smoke up the lamp and chimney. Then, too, some lampmen have a tendency to clean the parts of the lamp most easily reached, neglecting the corrugations on the inside of the lenses, with the result that they get gummy and the amount of light given out through them is decreased to a very great extent. In the large double lamp the inside of the mirror compartment should be frequently cleaned. The roundels in the signal spectacle must be thoroughly cleaned as often as is made necessary by the neighborhood in which the signal is located. Many lampmen do not regard the care of the spectacle roundels as a part of their work, and that such is part of the work should be impressed on their minds at the time they are instructed in the care of the lamps. The necessity of having clean oil of good quality is of prime importance, and the lampman when first hired should be taught the value of keeping his kerosene clean, both in the tank at headquarters and in the lamp founts in service. The great importance of cleanliness cannot be too strongly brought to the attention of the new lampman, and if, after several warnings, he will not heed them, he is a detriment to the service and should be released.

A new lamp before being placed in service should receive a thorough inspection by the maintainer. A good lamp is very necessary, and a well lined up light cannot

be obtained with any but a lamp that is as nearly perfect as it possibly can be made. The single lamp in general use is usually correct, causing very little trouble if the signal is properly lined up and the lamp kept clean. But with the large double lamp in use on the Chicago & North Western showing a combination of red and green for caution, it is necessary to be certain of a properly set up lamp. The green is thrown parallel to the red light by means of a mirror set at an angle of 45 deg. to the face of the lamp, and located in a compartment attached to the main part of it. If the light from the flame, passing through a clear lens to the mirror, does not strike it squarely in the center, the result will cause the green to be out of a parallel line, and either merge with or diverge from the red, making a light that it is next to impossible to line up correctly. A lamp of this kind that is not true and cannot permanently be made so should be rejected.

Frequent night inspections by the maintainer is also very desirable if he wishes to have good lights on his section. These inspections should be made by motor car and from an engine. From the engine the maintainer can note the actual conditions under which an engine-man is working. By using a motor car, if any particular light shows up poorly he can make an immediate inspection, and see if the signal is out of line, flame turned too

low or otherwise determine the cause of the trouble. Especially after signals have been straightened, is it well to make a motor car inspection. Upon finding a signal badly out of line the maintainer should lose no time in correcting the trouble, as a light turned low on a badly lined up signal may result in a failure checked against that signal and against the maintainer's record. A very good way to line up a signal light at night is by using a telephone set, as the maintainer located at the proper distance from the signal can give very clear instructions to the man lining up the light as to just what needs to be done. This method saves time, and allows a number of lights to be taken care of in a short period of time.

Signal lights are sometimes very hard to distinguish at points near towns, because of electric street and station lights being in a direct line with them. In most cases where a signal is so located, a request made to the proper authorities will result in the offending light being covered and the cause of the trouble removed. A great deal of valuable information can be obtained by the maintainer by getting the opinion of several of the enginemen running over his territory, and if he can then by persistent effort satisfy the most chronic kicker among them, his efforts will have been repaid and a great deal of his lamp trouble will have been eliminated.

The Railway Signal Association Reorganized

*The Director General Combines the Activities of Several Associations
With the American Railway Association*

AFTER the government assumed control of the railroads the status of a number of the railroad associations was in doubt and for a time it was feared the activities of some would be suspended during the period of government control. It was then proposed to amalgamate some of the auxiliary associations with the American Railway Association, but no action was taken along this line until the director general of railroads, on January 10, 1919, issued Circular 70 stating that during the period of federal control, and in order to provide a responsible channel through which the director general may obtain recommendations for the advancement of railroad practice, the American Railway Association has revised its articles of organization and by-laws and will change its name to the American Railroad Association.

The scope of the association has been enlarged and will cover the former activities of the American Railway Association, American Railway Master Mechanics' Association, Association of Railway Telegraph Superintendents, Association of Transportation and Car Accounting Officers' Freight Claim Association, Master Car Builders' Association, Railway Signal Association, and Railway Storekeepers' Association.

The new organization will consist of five sections, viz.: Section 1—Operating. Section 2—Engineering. Section 3—Mechanical. Section 4—Traffic. Section 5—Transportation.

Railroads under federal control are members of the association, and are directed to be represented and participate in the activities of each section through their proper officers.

The articles of organization and the by-laws of the newly organized American Railroad Association are given in full and are as follows:

The name of this organization is the "American Railroad Association."

Its object is the discussion and recommendation of methods for the scientific and economical construction, maintenance and operation of American railroads.

Its action shall be recommendatory and not be binding upon any member. During the period of federal control of the railroads recommendations requiring authoritative action shall be submitted to the director general. If approved by the director general, such recommendations will be either promulgated to the railroads by him, or by his direction, through the American Railroad Association.

Its membership consists of carriers which operate American steam railroads, but no carrier operating less than one hundred miles of road, including trackage rights, or which operates primarily as a plant facility shall be eligible for membership. Each carrier shall be entitled to exercise the right of one membership for each one thousand miles of road, or fraction thereof, operated by it, including trackage rights. The executive committee shall in all cases determine the qualifications for membership under these articles. The executive committee may admit to the association as associate members carriers which, in the judgment of the executive committee, are not eligible for membership.

Each membership is entitled to one vote, which vote shall be cast only by an official of the member voting. Associates shall not be entitled to vote, but otherwise shall have the same standing as members.

A carrier not under federal control may terminate its membership by formal withdrawal after the payment of assessments due; or, if a carrier not under federal control shall fail to pay its dues and assessments for two consecutive years its membership may be terminated by the executive committee.

Its officers consist of a president, a first vice-president, a second vice-president, a general secretary and treasurer. The president and the vice-presidents must be officers of members of the association. The term of each of these officers is two years. During the period of federal control of railroads, representatives of the United States Railroad Administration will be eligible to serve as officers or members of committees of the association. A vacancy in any of the offices shall be filled by vote of the executive committee for the unexpired term. The committees for conducting the work of the association as an organization shall consist of an executive committee of nine elected