

If, then, such questions should not be referred to popular vote, who is to decide them, and is not a denial of the referendum in cases of this kind an imputation against the fairness of the American voter? By no means. The question of a proper fare should be settled by an expert and an impartial commission, assisted in its determination of legal matters by the courts. When this is done, the public, like any other good litigant, will accept an adverse decision if it is satisfied with the fairness of the judges, and such willingness is just as good evidence of good citizenship and far more reasonable to expect than that the public will decide against itself in a question of how much it should pay for a necessary commodity or service.

St. Paul's Cascade Electrification Will Soon Be in Full Operation

OWING to the war there has been some delay in the completion of the plan of the Chicago, Milwaukee & St. Paul Railway for electrifying its Cascade Division. In a very few weeks now, however, the new passenger locomotives will be hauling the famous "Columbian" and "Olympian" across the Cascade Range, and the stored energy in these trains will be flowing back into the companies lines or even possibly into the transmission lines of the Washington Water Power Company as the trains go down the grade. When the new passenger locomotives have been delivered for the Rocky Mountain Division and the present high-speed locomotives on that division have been regeared for freight operation, the St. Paul Railway will have two splendid electric zones, separated by a short steam division of which the early electrification would seem to be inevitable. The steam division will be in a sense isolated, and from the standpoint of operating economy it will be necessary to electrify it. A stretch of more than 1000 miles of electrified track would certainly furnish a fine demonstration of the possibilities of heavy electric traction.

At a recent gathering of railroad men and others an operator high in the motive power department of one of our principal railroads said that some years back he had been prejudiced against electrification, but observation of the results secured from the St. Paul had entirely converted him, and he is now an enthusiast for it. May his tribe rapidly increase! Results such as those secured on this road, on the Norfolk & Western Railway and others are convincing the "doubting Thomases" that at least for surmounting ranges of mountains, electrification is the thing. To be sure, they insist on reminding us that contemporaneously with the improvement of the electric locomotive the steam locomotive development has not been slow. On fairly level track where there are no long tunnels, the competition between the two types of locomotive is bound to be increasingly keen. Mounting cost of coal, however, is going more and more to force conservation of this precious mineral. Electrification of all power-consuming devices is bound to come, and heavy traction is intimately tied in with this development. The approaching completion of the electrification of the western end of the St. Paul system is a milestone in the path of progress.

Protect the Car Storage Yard Adequately From Fire

THE fire hazard in an electric railway car storage yard is one worthy of even more serious consideration than it has received. We occasionally read of a holocaust, but there are many minor fires which receive no publicity but which in the aggregate cause the loss of much greatly needed equipment. As it is not uncommon to have rolling stock to the value of \$1,000,000 accumulated in one yard, the urgency of insuring suitable fire protection for this valuable equipment is obvious. The same principle applies in yards even where the possible loss is comparatively small.

Where conditions render it practicable, some such arrangement as that described by A. E. Harvey in an article appearing in the issue of this paper for Dec. 28, 1918, is highly desirable. In this article the writer explains why and how monitor towers were installed in a rearranged yard in Kansas City, so that any point in the yard could be reached without stringing hose across the tracks. In Mr. Harvey's yard the purpose in eliminating the hose was to obviate danger of interruption of the water supply by the cars which were being moved out of the danger zone. In the storage yards of lines which use third-rail there is an additional danger of electrical shock to firemen and others when hose is strung across the tracks. There are cases, however, where there are no fire hydrant connections of sufficient capacity in the immediate vicinity of a storage yard to permit the use of towers or hydrants, so that some other form of protection against fire must be resorted to.

An illustration of this last case was discussed in the issue of this paper for Oct. 18, namely, the practice of the Elevated Railways of Chicago, which has adopted cars equipped with chemical apparatus for the protection of yards not supplied with water. While these cars are not often called into service they have at times proved to be very effective means of protection. As the cars are not equipped with motors and control and were built by the company in its own shops, the investment cost was not large.

There is also very little maintenance expense, and the depreciation is practically negligible. The fact that the cars are not equipped with motors and control does not decrease their availability or flexibility, for whenever there are any cars lying idle in the yard one is always attached to a fire car. This motor will not be needed in service until all cars have been withdrawn from the yard, after which time there is no further use for the fire car.

These examples of recent progress in safeguarding equipment in the storage yard are cited simply by way of illustration of the general principle. While the insurance companies naturally exert all possible pressure on their policyholders to reduce fire hazard, it is a good thing for the electric railways themselves to exert their initiative in this direction. The question is not merely one of keeping down the danger of loss of property, but also one of preventing the possibility of the company being hampered in the giving of good service.