

Possible Electrification of a Division of the Southern Pacific Railroad.

After the New York Central and Hudson River Railroad and the New York, New Haven and Hartford Railroad commenced the electrification of their divisions, adjacent to New York city, this work is referred to frequently as the largest and most important electrification which has been undertaken, and even to-day one instinctively thinks of the work in the eastern states when heavy electric railroading is mentioned. Nevertheless, there is a problem at present being studied in the Far West which seems more difficult than the conversion of a city terminal from steam to electricity, and which probably will be more expensive. This is the problem of increasing the capacity of that section of the Southern Pacific Railroad which crosses the Sierra Nevada Mountains. This division is 136 miles long, running easterly from Rocklin to Sparks. It is a part of the Sacramento division of the Southern Pacific Company, this being a direct western continuation of the Union Pacific Railroad. The possibility of electrifying this section of the road has been made a special study by Allen Babcock, electrical engineer of the Southern Pacific Company. The problem is one of exceeding difficulty, and differs greatly from the conversion of a city terminal for handling of congested traffic.

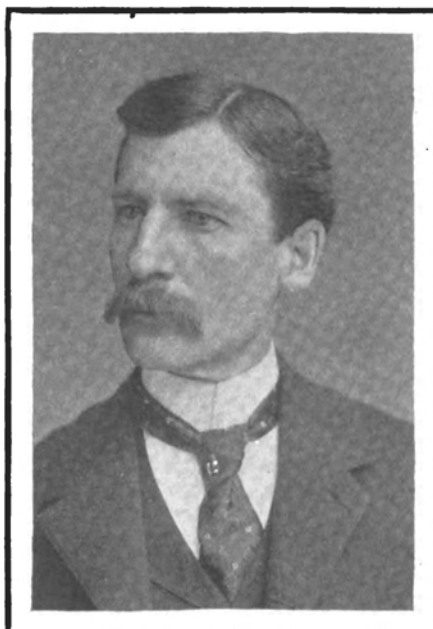
Over this section all the freight and passenger traffic of the Union Pacific road to and from central California passes. The road here is a single track line, with many sidings, high curvature, and over thirty-one miles of tunnel and snow sheds. The traffic is very irregular, though heavy, and at times up to the full capacity of steam operation. Looking towards the future, it has been decided to investigate the possibilities of increasing the traffic and capacity of the line by a change of motive power. This and the building of another low grade line seem to be the only feasible methods of meeting future increase in business.

The difficult character of the problem is due to the length of the line and the irregular, but heavy traffic, and also to the grades, as all the east-bound traffic must be lifted nearly 7,000 feet within eighty-three miles.

As mentioned before, Mr. Babcock, the company's electrical engineer, has had this problem under consideration for some time. Recently Frank J. Sprague has been retained to cooperate with him in making a report to a board, of which Mr.

Sprague will also be a member, upon the various electrical possibilities. This board will be of an advisory character, and will determine broadly whether electrification can be depended upon to produce the necessary increase of traffic facilities, and if so, what is the most likely method of application. The board, with the exception of Mr. Sprague, is composed of officers of the road. Should it reach a favorable conclusion, Mr. Sprague will be retained as consulting engineer by the road.

Some idea of the serious character of the work may be gained from the fact that freight trains, 1,000 tons or more, must be put over the line at greatly increased speed, and the fact that the average grade in the eighty-three miles referred to above is over one and one-half per cent, while



MR. FRANK J. SPRAGUE.

at times the grade is two and one-half per cent. The locomotives at present in use burn oil, and are of good steaming qualities. It would be impossible to haul trains over this division by means of coal, for during the winter certain sections of the mountain division are covered with snow twenty feet deep.

It is not learned that Mr. Sprague has formulated any definite conclusions of what system or methods will best satisfy the conditions existing. It is quite certain, however, that the problem is such as to make necessary a very careful study of what has been accomplished by the various electrical systems which have up to the present time been tested thoroughly, and also what may be looked for in the near future. Mr. Sprague has already been over the line making a special study of the situation, and expects to do so again

within a short time. This road is one of the Harriman lines, and it is rather significant that the problem of electrification as a means of increasing traffic should be taken up seriously at this time, as only a short time ago, while discussing the possibilities of increasing railroad capacity, Mr. Harriman said that it is practically impossible to increase the gauge of the lines, however desirable this might be, and the only other promising solution at present seemed to be electrification.

Mr. Sprague's retention comes just as he has completed four years as consulting engineer in the electrification of the New York Central's terminal, the new engagement very naturally following from his experience in this important work, as well as from his wide experience in electric railroad matters, in which he has taken such a leading part.

The Convention of the Illinois State Electric Association.

The eighteenth annual convention of the Illinois State Electric Association was held more or less on board the steamer Illinois, the convention taking the form of an outing rather than a formal session. The members assembled at Peoria, Ill., on August 14, at 10 o'clock in the morning. The boat proceeded to La Salle, via the Illinois river, about 100 members, including, of course, the supply men, participating in the trip. Arriving at La Salle, the party proceeded on special cars to Starved Rock Landing, from which point a steamer trip was made to the cañons, the steamer later returning to Starved Rock, where a banquet and vaudeville performance were given at the hotel. The return trip to La Salle was made the next day at 1 P. M., and the trip from La Salle was continued at 1 P. M. on Thursday.

During the convention the nominating committee presented its report, which was accepted as follows: president, E. L. Brown, Elmwood; first vice-president, F. M. Sinsabaugh, Carrollton; second vice-president, E. W. Smith, Kewanee; third vice-president, W. G. Austin, Effingham; fourth vice-president, H. A. Foster, Pontiac; secretary, H. E. Chubbuck, La Salle; treasurer, E. MacDonald, Lincoln.

A very pleasant feature of the excursion was the presentation of a gold-headed cane to retiring president Shumway, and of a diamond-studded charm to Mr. Chubbuck.