

NOTES AND COMMENTS.

ELECTRICAL EQUIPMENT OF A STEAM RAILWAY.

An interesting case of the successful conversion of a steam railroad into an electrically operated one is that of the Buffalo and Lockport Branch of the Erie Railroad, which runs from Tonawanda to Lockport, N. Y. The new equipment consists of two 36-ton electric locomotives for freight service, and ten electric motor cars for passenger service. The new system was put in operation last summer, and is said to be giving the greatest satisfaction. The electric cars are run at intervals of one-half hour, instead of the large intervals between trains, as was the custom with the steam road, so that five cars at this rate are required to operate the twenty-five miles of railway between Buffalo and Lockport. On their first trip the electric cars attained a speed of fifty miles an hour, including stops.

The transformation of this line from a steam to an electrically operated road, the *Iron Age* says, marks an important step in the employment of current on the steam road. If in its operation it successfully attains the results expected, it will conclusively prove that electricity can be economically applied to the operation of branches and feeders of steam trunk line systems. It would be too much to expect an immediate conversion of these latter main lines from steam operation to operation by electricity, but with electric locomotives and motor cars profitably carrying on both freight and passenger traffic on their feeders, the entering wedge will be driven still further and the ultimate result will be so much nearer of attainment. W.

FUTURE OF THE GAS ENGINE.

The *British Journal of Gas Lighting* publishes an interesting paper lately read by Mr. W. C. Peebles before the North British Association of Gas Managers. In this, the author gives a historical sketch of the development of this type of motor and discusses the lines along which the gas engine is likely to be further developed as a commercial machine in the future.

Mr. Peebles' views are summarized in the following conclusions: "There can be no doubt that a great deal has yet to be done to improve the action of the gas engine. The main direction in which a change is to be looked for is, I think, in the cycle. But this would seem to be almost impossible without introducing complicated mechanism. At present—at least with the smaller sizes—the successful competition of the gas engine with the steam engine is due chiefly to the convenience and economy with which the gas engine can be operated, especially for intermittent work. With engines above 40 or 50 horse-power, using producer gas, the cost of working as compared with steam is very greatly in favor of the gas engine, as has been proved time after time. We shall find, therefore, that the large gas engines will not stop at 400 or 500 horse-power, but will increase gradually until they compete in power with the largest steam engines made." W.