

### Meeting of the Central Electric Railway Association.

The regular bi-monthly meeting of the Central Electric Railway Association was held in the Anthony Hotel, Fort Wayne, June 3. A number of special cars, filled with members and invited guests, came from Louisville, Cleveland, Dayton, Indianapolis, Toledo and Detroit.

The meeting was called to order by A. A. Anderson, president.

The report of the secretary showed that twenty-six new members had joined the association since the last meeting.

The first paper was by J. A. Gohen, of the Clenola Company of Indianapolis, on "Piecework." In considering the practicability of piecework in interurban service, Mr. Gohen said that experience would sustain the assertion that piecework, if properly conducted, makes better and more diligent workmen than day work. About all the average day worker seems to consider is that the company has agreed to pay him so much for so many hours per day, whether he does or does not give commensurate service. Under the piecework system, the ambitious man becomes a co-partner of his employer, and is remunerated for any increased efforts on his part. Mr. Gohen set out the lines of work that could be done by piecework and exhibited a schedule of prices for each division.

President Anderson, in opening the discussion, said he was not familiar with the piecework plan in a general way, but admitted that it seemed to be both feasible and economic. Mr. Spring and Mr. Shelton said they had had experience with the piecework plan in the shops in the repair and assembling of cars, but doubted if the work of a shop could be carried on in its entirety under the piecework system.

Mr. Gohen closed the discussion by saying he was a convert to the system, and also answered very satisfactorily the many questions asked. He said it was the more rational method of paying for labor, because the underlying principle required the employes' co-operation in the business and prevented labor unions demanding that good and indifferent workmen be paid a similar wage.

The afternoon session was opened by the reading of an interesting and instructive paper on the "Accounting Department," by W. B. Wright, auditor of the Indianapolis & Cincinnati Traction Company.

At the conclusion of the programme

President Anderson read an invitation from the Mayor of Dayton, Ohio, asking the members of the association to the Wright Brothers' home-coming celebration in that city June 16, at which their flying machines would be demonstrated.

The members and visitors were then taken on special cars to the Spy-Run power house, operated by the Fort Wayne and Wabash Valley Traction Company, as the guests of M. J. Kehoe, superintendent of the company, who acted as guide and instructor.

It was decided to hold the next meeting at Detroit, August 26. The time for the regular fall meeting would be September 27, but on account of September being a busy month with the interurban lines it was thought best to have the meeting a month earlier. S.

### Progress of Electric Mine Pumping.

Cornwall, the most southwesterly county of England, has been producing tin from prehistoric times, and even now is quite a factor in the tin supply of the world.

The art of mining may be said to have originated in Cornwall, and Cornish miners have been prominent all over the world in developing the mineral resources of other countries.

In the beginning of the steam age in the early part of the last century, and indeed up to quite recent times, Cornwall was always to the front in adopting the latest methods in the development of her mines, and was identified in many ways with the evolution of the steam engine. The old Cornish pumping engine, with its wonderful efficiency, speedily attained a pre-eminence which it held undisputed for many years.

It comes then almost as a shock to hear that in this conservative old English county, electricity has at last obtained such a foothold as to threaten the very existence of the old Cornish engine.

At a recent general meeting, the directors of the premier tin mine of the county announced that after prolonged and anxious consideration, the joint recommendation of the mine manager and a firm of consulting electrical engineers to drive the pumps and stamps by electric motors had been adopted. This was in spite of the fact that some previous applications of electricity in Cornish mining have proved unsuccessful.

In this particular mine it was found that the installation of a Cornish pumping engine would cost more than an isolated electric plant, and that a capital expenditure of \$100,000 would be saved by taking

power from an electric supply company, with the operating cost about the same, or even less than at present. The mine manager recommended the use of duplicate pumping sets to insure reliability.

Now that electricity has gained such a strong footing in Cornwall, the complete displacement of the steam engine by the electric motor is only a matter of time, and the next steady rise in the price of tin should bring all the larger mines into line with the march of modern progress.

### The Advantages of Electrification.

A leading Boston electrical engineer is quoted as follows in the *Wall Street Journal*: "It has become the fashion to harp upon the excessive cost of steam-railroad electrification. It is time that the other side of the story were told. One great advantage is the low cost of locomotive maintenance. In a hilly country on a two per cent grade it costs fourteen cents per car-mile for steam-locomotive maintenance. The cost of electric-locomotive maintenance will not exceed four cents per car-mile, and the electric locomotive can take a two per cent grade at twenty-five miles per hour, where a steam locomotive could hardly do half that speed. The cost of stopping an electric locomotive is hardly ten per cent of that of stopping a steam locomotive.

"Another saving is in the longer continuous run which the electric locomotive can make. The New York Central, for example, thinks nothing of running its electric locomotives on continuous stretches of 2,000 miles without having them hauled up for inspection or repairs. No steam locomotive could possibly do this, and on through trains locomotives are changed every 150 or 200 miles, as the case may be."

### The Philadelphia Section, American Institute of Electrical Engineers.

The annual social meeting of the Philadelphia Section of the American Institute of Electrical Engineers was held on Wednesday evening, June 2, at the Pointsettia Hotel, Atlantic City, N. J. A large number of members and guests were present, and covers were laid for 100. Paul Spencer presided, and among the others present were Ralph W. Pope, secretary of the American Institute of Electrical Engineers, Professor Rowland of Drexel Institute, Professor Hoadley and Dr. Allerman of Swarthmore College, and Professor Franklin, of Lehigh University.