lighting and for the general scientific public. It treats of the elementary theory of electric lighting, of mechanical and electrical measurements necessary, of the various sources of power and then of the dynamo electric generators themselves; of the forms of arcs and resistant lamps, secondary batteries, peculiarities of the various electric lighting systems, and finally of the applications of this form of lighting, with its advantages and cost.

The matter is presented in an unpretentious manner, and, what is most gratifying, the descriptions of obsolete and impracticable appliances are omitted. If called upon to recommend a volume for first reading on machinery relating to electric lighting we could scarcely find one so likely to meet the wants of the majority of inquirers. M. B. S.

Franklin Institute.

[*Proceedings of the Stated Meeting, held June* 18, 1884.]

Mr. William P. Tatham in the chair. Present, 179 members and 14 visitors.

The minutes of the May meeting of the INSTITUTE, of the Board of Managers, and of the several standing committees were reported and approved. Thirty-nine (39) persons were elected members at the last meeting of the Board.

On the recommendation of the Board of Managers, the following gentlemen were unanimously elected as honorary members of the Institute:

Sir Alexander Grant, Bt., Principal of the University of Edinburgh, 21 Lansdown Crescent, Edinburgh; Professor Thomas C. Archer, Director of the Edinburgh Museum of Science and Art, Edinburgh; Professor William Swan, LL.D., F.R.S.E., Ardachaple, Helensburgh, President of the Royal Scottish Society of Arts; Edward Sang, Esq., LL.D., F.R.S.E., 6 Molendo Terrace, Edinburgh, Secretary of the Royal Scottish Society of Arts.

Mr. Charles J. Quetil read a paper descriptive of a "Triangular Suspension Truss," which he had devised, and which is proposed for elevated railroads, bridges, roofs, viaducts, etc. The paper was discussed by Mr. Hugo Bilgram and the author. It has been referred to the Committee on Publications.

Mr. S. Lloyd Wiegand read a paper explanatory of the phenomena accompanying "Tests by Hydrostatic Pressure." The paper was discussed by Messrs. J. W. Nystrom, Bilgram, and the author. The paper has been referred for publication.

Mr. J. W. Nystrom, described and showed in operation, a magnetic engine of his invention.

The Secretary's report embraced some remarks on the future water supply of the city of Philadelphia, based principally upon the report of Col. William Ludlow, Chief of the Water Department.

Several mechanical inventions were shown and described. Adjourned.

WILLIAM H. WAHL, *Secretary.*