

of constructive practice, is not all that it is *essential for an engineer to know*. Wherefore, these last words are those on which the whole question turns; and we feel free to adhere to the broader view, and to announce it as a demonstrated proposition, that any officer of instruction, in a school for professional scientific training, who teaches anything *which it is essential for an engineer to know*, is, to that extent, a "professor of civil engineering," and a member of a duly constituted faculty of engineering.

In now dismissing the subject for the present at least, we have only to add, that in discussing it, we hope we have expressed no unjust or unwelcome thought.

Rens. Pol. Inst., Nov. 1867.

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## Franklin Institute.

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Proceedings of the Stated Monthly Meeting, December 18th, 1867.

THE meeting was called to order with the President, Mr. J. Vaughan Merrick, in the chair.

The minutes of the last meeting were read and approved.

The Actuary submitted the minutes of the Board of Managers, with the following abstract of the proceedings at their stated meeting, held December 11th, 1867.

The special committee appointed to prepare resolutions to be presented at the next stated meeting of the Institute for adoption, in reference to the death of Prof. Faraday, reported the following preamble and resolutions, viz:—

Whereas, Formal notification having been received by the Franklin Institute, from the Royal Society, of the decease of Professor M. Faraday, it seems appropriate to the Board of Managers that the following resolution should be offered to the Institute at its stated meeting:—

*Resolved*, That the Institute recognizes in the death of Professor Faraday a serious loss to the progress of science, which owes so much in various departments to his genius and industry.

*Resolved*, That the name of Professor Faraday should be cherished and honored as second to none of those which have adorned the annals of science.

*Resolved*, That a copy of these resolutions shall be officially transmitted to the Royal Society of Great Britain.

On motion it was

*Resolved*, That it is expedient that an exhibition of American Arts and Manufactures should be held during the year 1868 in the city of Philadelphia by the Franklin Institute, and that the President be requested to appoint a special committee to take the subject into consideration, and report at the next meeting of the Board with reference to obtaining suitable accommodation therefor, and an appropriate plan of action to be pursued.

The resignation of membership in the Board by Messrs. E. Y. Townsend, Charles H. Crump, and John Rice were accepted.

Donations to the Library were received from the Institute of Actuaries and Society of Arts, London; Commodore F. A. Jenkins, U.S.N., Chief of the Bureau of Navigation; Frederick Emerick, Esq., Washington, D.C.; Stephen P. Sharpless, Esq., Cambridge, Mass.; Messrs. Joel Giles, Josiah Copley, R. S. Menamin, Edward Shippen, and Chas. Macdonald Philadelphia.

The various Standing Committees reported their minutes, and the Committee on Experiments in Steam Expansion reported progress.

A paper by Mr. Thos. Dunn, on the Construction of Iron Bridges without Scaffolding, was then read by the Secretary. The Secretary's Report on Novelties in Science and the Mechanic Arts was read.

The following nominations of candidates for officers for the ensuing year were then made:—

For President, J. Vaughan Merrick; Vice-President, Professor Robert E. Rogers; Treasurer, Mr. Frederick Fraley; Secretary, Professor Henry Morton; Auditor, Mr. William Biddle; Board of Managers, William B. Le Van, Percival Roberts, Jacob Naylor, Alex. Irvine, Samuel Sartain, Henry A. Bower, O. H. Wilson, Robert H. Long, Charles Bullock, J. H. Lenville, E. Longstreth, W. B. Wilstach, Enoch Lewis, R. A. Tilghman, Jacob G. Neafie, Barton M. Jenks.

The President then appointed the following gentlemen as Judges of Election: William A. Rolin, C. S. Bement, Samuel Hart, Hector Orr, M. C. Haines.

The meeting was then, on motion, adjourned.

HENRY MORTON, *Secretary*.