persons cannot reason in a purely mathematical way, well enough for the analytical solution. To these the graphical method appeals to the reason through the eye, and to those accustomed to abstract reasoning, the graphical solution will be found to be a material aid.

The book is profusely illustrated with diagrammatical drawings. In short, both in the text and in the illustrations, there has been a cutting away of the unnecessary and a boiling down until only the essential remains. In footnotes, the authors refer the reader to articles in current engineering literature for detailed descriptions on special subjects.

The student will find in this work a text-book, and the engineer a book of reference.

H. J. L.

Franklin Institute.

[Proceedings of the stated meeting, held Wednesday, November 18, 1896.]

HALL OF THE FRANKLIN INSTITUTE,

PHILADELPHIA, November 18, 1896.

HENRY R. HEYL, Vice-President, in the chair.

Present, 184 members and visitors.

Addition to membership since last report, 1.

Acceptances of election to membership in the Committee on Science and the Arts were presented from Messrs. John Birkinbine, Wm. C. Henderson, Thomas Spencer and Wm. R. Webster.

Mr. Wm. T. Lewis, President of the Horological Society of Philadelphia, read a paper presenting some "Observations on Magnetized Watches." The speaker exhibited, with the aid of the projecting lantern, the results of an experimental study of the subject. (Referred for publication.)

Mr. Louis E. Levy described and illustrated the improvements in glass-gratings for half-tone engravings, devised jointly by himself and Mr. Max Levy. (Referred, for investigation and report, to the Committee on Science and the Arts.)

Prof. Samuel McCutcheon described and exhibited in operation an improved acetylene gas machine, made by the Pennsylvania Acetylene Gas Machine Company.

Mr. Charles F. Chase described and exhibited in operation the Heintz steam-trap. (Referred, for investigation and report, to the Committee on Science and the Arts.)

The Secretary gave some account of the new suspension bridge about to be built over the East River.

Adjourned.

WM. H. WAHL, *Secretary.*