

NEW BOOKS AND PUBLICATIONS.

A TEXT BOOK ON SHADES AND SHADOWS AND PERSPECTIVE. Prepared for the use of students in technical schools. By John E. Hill. Second edition, revised and enlarged, first thousand. New York: John Wiley & Sons, London: Chapman & Hall, Ltd. 1896. Pp. 101. Plates xii. Price \$2.

Perspective is always an attractive subject, and in the above work will be found shades and shadows and perspective treated a good deal from the draughtsman's and artist's standpoint, as well as from that of the mathematician. The work is clearly stated and includes numerous problems and a very liberal quantity of plates. Apparently an index is not considered necessary. It has all that is requisite in its table of contents.

A HISTORY OF ELEMENTARY MATHEMATICS, WITH HINTS ON METHODS OF TEACHING. By Florian Cajori, Ph.D. New York: The Macmillan Company, London: Macmillan & Company, Ltd. 1896. Pp. 304, viii. Price \$1.50.

This excellent and most interesting work, with its very elaborate index and beautiful make up, indicates a subdivision of the subject which of late years has come into prominence; we refer to the history of education. It is an exhaustive monograph on the world's work in mathematics from the most ancient times to the present day, with examples taken from all parts of the world and all nations, and is an important contribution to that science. One especially interesting portion is the examination of the status of elementary geometry and its future.

CHARTS FOR LOW PRESSURE STEAM HEATING. FOR THE USE OF ENGINEERS, ARCHITECTS, CONTRACTORS, AND STEAM FITTERS. By J. H. Kinealy, D.E. New York: Spon & Chamberlain. London: E. & F. N. Spon. 1896. Pp. 4. Price \$1.

These charts are for the purpose of giving rapid determinations of the factors of steam heating. They will be found exceedingly useful not only in final estimates, but in presenting results to possible customers on short notice.

TO INVENTORS

An experience of nearly fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices, which are low, in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO. office SCIENTIFIC AMERICAN, 361 Broadway, New York.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted DECEMBER 15, 1896, AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Table of inventions with descriptions and patent numbers, starting with 'Air forcing apparatus, operating mechanism for, F. J. Mitchell...' and ending with 'Buckle, lock, M. W. Lynch...'.

Table of inventions with descriptions and patent numbers, starting with 'Bung and flushing key for same, faucet, D. Beebe...' and ending with 'C Oehlmann...'.

Table of inventions with descriptions and patent numbers, starting with 'Indicator, J. W. Kea...' and ending with 'Station indicator, M. Furst...'.

Table of inventions with descriptions and patent numbers, starting with 'Station indicator, railway, A. Palfy...' and ending with 'Welding apparatus, E. H. Amet...'.

TRADE MARKS.

Table of trade marks with descriptions and patent numbers, starting with 'Ale, T. McMullen & Company...' and ending with 'Wood filters, C. A. Reeve & Company...'.

DESIGNS.

Table of designs with descriptions and patent numbers, starting with 'Birdstead, G. Semel...' and ending with 'Velocipede fork and crown, A. G. Moore...'.