

are treated in this work, and its origin goes to emphasize its authoritative standing.

CADET LIFE AT WEST POINT. By Lieut Hugh T. Reed, U. S. A. Illustrated. Chicago: Published by the author. Pp. 236, xx. Price \$1.50.

This very spirited and interesting book tells how the United States cadets live at the military academy. The author seems to have been very fond of his alma mater, and writes about the humorous and social features of it with considerable gusto.

THE PRACTICAL MANAGEMENT OF ENGINES AND BOILERS. Including boiler setting, pumps, injectors, feed water heaters, steam engine economy, condensers, indicators, slide valves, safety valves, governors, steam gages, incrustation and corrosion, etc.

THE GUN AND ITS DEVELOPMENT. W. W. Greener. Sixth edition. New York: Charles Scribner's Sons. 1897. Pp. xvi, 768. Price \$4.

This treatise on the gun, by Greener, up to its last developments, in over 700 pages, can only be designated as of the greatest importance. No sportsman, really loving his gun, can afford to dispense with this work, as it covers every conceivable branch of this subject.

THE ELEMENTS OF PHYSICS. A College Text Book. By E. L. Nichols and William S. Franklin. In three volumes. Vol. III. Light and Sound. New York: The Macmillan Company. London: Macmillan & Company, Limited. 1897. Pp. vii, 201. Price \$1.50.

We here at last have a third portion of this classical treatise. It is in the line of its predecessors, carrying out the same principles. There is little to be said about it in review, except that it has the aspect of thorough modernness and puts the subject at last upon its present modern basis.

TABLES FOR EARTHWORK COMPUTATION. By C. F. Allen. Boston: Published by the author. 1893. Pp. 38. Price \$1.50.

The book is devoted simply to calculations for earthwork, and will naturally be found of great use by surveyors, engineers, and others who have to calculate masses of material which are often very awkwardly shaped.

THE DESIGNING AND CONSTRUCTION OF STORAGE RESERVOIRS. By Arthur Jacob. New York: Van Nostrand Company. 1897. Pp. 138. Price 50c.

This is a valuable addition to the green covered Van Nostrand series, many numbers of which have come to our notice. The city of New York has had ample experience in storage reservoirs, whereby the cumulative effect of a large watershed is developed and the spring freshets are in a greater or less measure made available for summer supply.

The Shoe and Leather Reporter Annual for 1897 has a valuable compilation of interesting facts and figures relative to the shoe and leather trades, of which also it affords a complete business directory for the United States and Canada, and lists of the leading houses throughout the world.

The Locomotive, in its bound volume for 1896, of 190 pages, forms a valuable record of facts especially interesting to all steam users. Published by the Hartford Steam Boiler Inspection and Insurance Company.

Business and Personal.

The charge for insertion under this head is one dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue.

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Anderson's Typewriter makes longhand faster than shorthand - one stroke prints a word! 97 Nassau St., N. Y. (See illustrated notice Sci. Am. May 22, p. 325.)

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 128th Street, New York.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. Munn & Co., publishers, 361 Broadway, N. Y.

See illustration, front page of SCIENTIFIC AMERICAN, April 24. It is manufactured by the Lidgerwood Mfg. Co., 96 Liberty Street, New York. Write for particulars.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted JUNE 1, 1897, AND EACH BEARING THAT DATE.

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