of course English practice is described, gas making is very much the same in both England and America. The book is finely illustrated.

THE COMPLETE COST-KEEPER. By Horace Lucian Arnold. New York: The Engineering Magazine. 1900. 8vo. Pp. 408. Price \$5.

Many a large plant has been wrecked by inattention to such matters as cost-keeping, and the present volume ought to be welcomed by all but the hide-bound, as it contains some original systems of shop cost-keeping which are extremely valuable. Cards are advocated, and wherever they are introduced they are sure to save money and minimize labor. It is an admirable book.

FURNACE HEATING. By William G. Snow. New York: David Williams Company. 1900. 8vo. Pp. 170. Price \$1.50.

"A furnace consists essentially of a stove within a casing. Air is admitted to the space between the two, where it becomes heated, rises and flows through the pipes to the various rooms." From this lucid definition the author deals with the whole subject in a very practical manner, illustrating his text freely. We cannot recommend any better treatise on

TREATISE ON MATHEMATICAL AND GRAPHI-CAL ROOF FRAMING FOR BUILDERS AND CARPENTERS. By G. D. Inskip. Philadelphia: F. Weber & Company. 1900. 12mo. Pp. 160.

TREATISE ON MATHEMATICAL AND GRAPHI-CAL ROOF FRAMING FOR BUILDERS, CARPENTERS, ETC. By G. D. Inskip. Philadelphia: F. Weber & Company. 1900. Two vols. Narrow 8vo. Pp. 327. Price \$3.50.

This work is designed to lessen the difficulty of angular complication as in roof framing. etc., where the hypotenuse of a right-angle triangle is essential. The systems vogue among the laymen are of an intricate nature, and the student is apt to get discouraged with the multiplicity of the lines used to obtain the result. The author's system is intended to minimize the troubles of the ordinary system. By means of the tables of reductions and squares and the table of angular ratios almost any problem can be readily solved. The book is very handy in form and can be slipped in the pocket of the workman. The text in the first volume is accompanied by a large number of diagrams showing how to work out the most intricate problems. It is a most excellent series of books.

THE PRACTICAL ENGINEER POCKET-BOOK FOR 1901. Manchester, England: The Technical Publishing Company, Ltd. 1901. 24mo. Pp. 462. Leather, gilt edge. Price \$1.

We called attention in our review of the last issue of this manual to the remarkably cheap and satisfactory book which has been provided by the publishers of The Practical Engineer. The present volume is no exception to which have gone before. Many additional tables have been inserted, and several sections have been rewritten. The book compares favorably with some engineer's pocket-books which cost more than three times the amount.

STUDIES IN FOSSIL BOTANY. By Dunkinfield, Henry Scott Lord. London: Adam & Charles Black. New York: The Macmillan Company. 12mo. Pp. 533. Price \$2.75.

Fossil botany is a most fascinating subject. The author's purpose has been to present to the botanical readers those results of palæntological inquiry which appear to be of fundamental importance from the botanist's point of view. He has succeeded in making an excellent hand-book.

Wilson's Photographic Mosaics for 1901. Edited by Ed. L. Wilson. New York: The Editor. 1901. 16mo. Pp. 176. Price 75 cents.

For thirty-seven successive years "Mosaics' have been published, and each issue has been anxiously awaited by many old friends. The present volume has many excellent examples of fine portraiture, and the literary contents are fully up to the average.

A RECORD OF BOOKS LOANED FROM THE LIBRARY. Boston: Current History Company. 1900. Price 25 cents.

An excellent idea is for everyone to register the books which they loan. It will often save a book when there is any contention as to ownership.

## INDEX OF INVENTIONS

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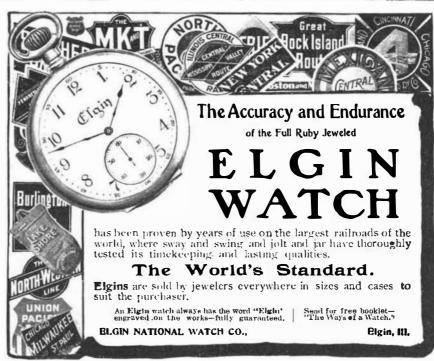
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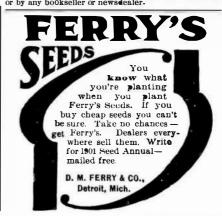
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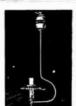
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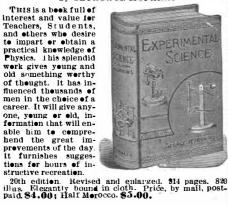
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