use, operation, and setting of the slide-valve and independent cut-off, overlaid with a discussion of the various forms of valve-gardens, and of automatic cut-off and throttling engines. A chapter treating of compound and tripart and quadruple expansion engines comes next, after which condensers, pumps, and pumping-engines are considered. Next is given a chapter on the mis-
cellaneous parts and minor details of the engine, embracing the stop-valves, throttle-valves, and relief-valves, stuffing-boxes, belting, lubricators, etc., followed by a chapter on the management of engines and pumps, engine trials, and dynamos.

When the subject of boilers is reached, a chapter is devoted to the theory and combustion of the various types of boilers in use, and another to their constructive details and strengths. The concluding chapter of the book treats of the appendages and accessories of boilers, their decay, management, etc. At first blush, after a hasty glance through the pages of this book, the price of it would seem too great; but, after a careful examination, that impression disappears. True, the material from which the author evolved the work was abundant and ready to hand, but the illustrations alone (and they are many) "came easy." The labor of working over the material, — putting it "into perspective," as it were, effectively, discriminates and judiciously, — and welding together into a book suitable alike to the needs of the student, the engineer, and the miscellaneous seeker for information, must have been enormous.

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-Messrs. Ginn & Co. announce "The Industrial Primary Arithmetic," by James Baldwin, Ph.D., to be published in April. This work possesses many features which distinguish it from others of its class. Theory gives place to practice. The pupils

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—The March Magazine of American History opens with a study of the public career of Gen. Francis E. Spinner the financier, by Rev. Isaac S. Hartley, D.D. The paper includes a description of Gen. Spinner's part in the conception and issue of the "greenbacks." The second article is a story, by Hubert Howe Bancroft, of his varied experiences in bringing out his first book, describing his literary pilgrimage from California to visit the notable authors of Boston and New York. In the third paper we have a sketch, with portrait, of Rev. Samuel M. Isaacs, written by his son Abram S. Isaacs, Ph.D. Following this, Mr. A. W. Clason of Virginia contributes an account of the Pennsylvania Convention, 1788. The next is a paper from the pen of Hon. Charles K. Tuckerman of Florence, Italy, entitled "An Hour with George Bancroft," in which he describes his last visit to the great historian; then comes a sonnet on the same theme, "George Bancroft, 1800-91," by William C. Richards. An article that will interest a large class of readers in all parts of the country is "Slavery in Canada," by J. C. Hamilton, LL.B. "The Homespun Age," a chapter by M. C. Williams, relates to early settlements in the interior valleys of Tennessee. "The Hunters of Kentucky," an old song, composed just after the battle of New Orleans, from W. Abbott; the description of the frontispiece by the editor; and "Washington at Tarrytown in 1783," by M. D. Raymond,—complete the principal features of the issue.

—Under the title "Hints to Power Users," Mr. Robert Grimshaw, whose "Catechisms of the Steam Engine, Pump, and Boiler," and other practical works, have proved so popular, has prepared some non-technical advice to the men who pay the bills. It is issued by the Cassell Publishing Company, New York City.

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