

The Fireless Cook Book. By Margaret J. Mitchell. New York: Doubleday, Page & Co. \$1.25.

Great as is the number of culinary guides, none of them competes with Miss Mitchell's "Fireless Cook Book," which touches fresh ground and marks a new epoch in the art of preparing food. If housewives throughout the land understood the bearing of the book on their comfort and happiness, it would be the "best seller" of the year. As the author remarks:

Does the idea appeal to you of putting your dinner on to cook and then going visiting, or to the theatre, or sitting down to read, write, or sew, with no further thought for your food until it is time to serve it? It sounds like a fairy tale to say that you can bring food to the boiling point, put it into a box of hay, and leave it for a few hours, returning to find it cooked, and often better cooked than in any other way. Yet it is true.

The fireless cooker has long been known to Norwegians, and in Germany its use is becoming quite general. In this country the army has found it a great boon, and families are becoming gradually interested in the wonders told of it. Not a few of the adventurous women, however, have been disappointed in their experiments with it, and have come to the conclusion that it is not practical, has too limited a scope, fails to cook starchy food, and that there is little economy in using it. What these women needed was a guide to show them that the fault was not with the cooker, but with the cook. Miss Mitchell points out that, in reality, there is a saving of up to 90 per cent. in fuel, beside the great saving of time already referred to; that with the aid of the insulated oven, which is the latest development of the fireless cooker, and to which she devotes a special chapter, the variety of foods that can be cooked in this way is greatly increased; that the absence of heat and odors in the kitchen is an advantage not to be overlooked; that in the matter of flavor there is a distinct gain in fireless cookery, and well-flavored food is not only more enjoyable but also more digestible than such food as is usually cooked in our kitchens; and, finally, that the bearing of fireless cookery upon the servant problem is of superlative importance. As the author remarks, "when cooking no longer ties one to the kitchen, is no longer a labor that monopolizes one's time, dishevels one's person, and exasperates the temper, the cook may go. We shall save her wages, her food, her room, and her waste, and have more time to spend in ways that bring a more satisfactory return." No doubt, in due course of time, there will be experts who will take care of our cooking boxes. One man or woman could easily visit a dozen houses each forenoon,

start the lunches and dinners, return in the afternoon to prepare for the breakfast; and the cost per family would be small.

Fireless cookers can now be bought of various sizes and degrees of efficiency. Miss Mitchell's book gives clear directions also to those who wish to make their own hayboxes. No phase of the question is overlooked. She has found that full understanding of the management of the boxes has resulted in complete success, "followed inevitably by enthusiasm"; but there are pitfalls to be avoided, among them overcooking and undercooking, but these can readily be shunned by following her advice. The question of seasoning is discussed, and there are chapters on soups, cereals, various kinds of meats, desserts, etc., with hints as to how to tell good material from bad. In short, it is a complete cook book for the fireless method up to date; there are recipes telling how long each kind of food should remain in the cooker; menus for various occasions; recipes for cooking in small or large quantities, or for the sick; and there is an appendix relating to experiments illustrating the scientific as well as the practical side of fireless cookery.

SIMON NEWCOMB.

Prof. Simon Newcomb died at his home in Washington early Sunday morning of cancer, the first symptoms of which appeared last September. The members of his family were at his bedside when the end came. Though of American lineage, he was born in Wallace, Cumberland County, Nova Scotia, on the 12th of March, 1835. He was educated at home, but in 1853 left Canada for Maryland, where he found employment as a teacher for two or three years. Then he had the good fortune to form the acquaintance of Joseph Henry, secretary of the Smithsonian Institution, and Julius E. Hilgard, superintendent of the United States Coast and Geodetic Survey, who were greatly impressed by his aptitude for mathematics, and in 1857 secured his appointment as a computer on the United States Nautical Almanac. The office of the Nautical Almanac was then in Cambridge, which gave the young scholar an opportunity to enter the Lawrence Scientific School, from which he was graduated in 1858, remaining three years as a graduate student.

While in Cambridge, he found time to plan and execute a notable piece of astronomical work. This was the computation of the orbits of the asteroids revolving about the sun between Mars and Jupiter. His first calculations were made on four of the asteroids in 1859, and attracted much attention when presented at the meeting of the American Association for the Advancement of Science at Springfield, where he exhibited a diagram showing the changes in the orbits during thousands of years. In 1860, he published his general mathematical theory on this subject, and the treatise quickly won for him an international reputation.

In 1861, he was appointed professor of mathematics in the United States navy and transferred to Washington. In 1870, having been already elected a member of the National Academy of Sciences, he was sent to observe a total eclipse of the sun, visible on the Mediterranean, and established a station at Gibraltar. Unfortunately, the principal observations were prevented by clouds, but he seized the opportunity to make certain original studies concerning the minor motions of the moon. Lunar tables showing the recognized motions of the moon were already in existence, notably those constructed by Hansen and published by the British government in 1857; but even before 1870, it had been found that the observed positions of the earth's satellite did not correspond with the computed positions, as shown by error in the calculation of the eclipses and in other ways; but the problem had not been solved. Newcomb at once attacked it, visiting different observatories and consulting the earliest records extant. The task was not abandoned until formulæ had been found for constructing accurate lunar tables.

He now applied himself to the accurate determination of the "elements of the solar system," including the measurement of the dimensions, weights, and orbits of the principal planets, the larger asteroids, and the more important satellites or planetary moons. This work was carried forward in connection with official duty as opportunity offered. As early as 1867 he had published a final memoir on the secular variations of the orbits of the asteroids; this was followed in 1874 by results of investigations concerning the orbit of the planet Uranus. The final researches into the motions of the moon were published in 1876, and other results were set forth at frequent intervals in official reports, as well as in unofficial scientific papers.

In 1877 he was appointed senior professor of mathematics in the United States navy, with the relative rank of captain, and superintendent of the Nautical Almanac Office, which he held until 1897, when he retired with the relative rank of rear-admiral. In 1884 he was appointed professor of mathematics and astronomy in Johns Hopkins University. This post he resigned in 1893, but was reappointed in 1898. For a number of years he was professor of astronomy at Columbia University, and his services were called into requisition, of course, when the Lick Observatory, in California, was in course of establishment. He helped materially in the preparation of the equipment, and passed on the glass and mountings of the great telescope.

A list of the various volumes and essays published by Professor Newcomb would fill several columns. Among the most important may be mentioned those "On the Secular Variations and Mutual Relations of the Orbits of the Asteroids," "An Investigation of the Orbit of Neptune, with General Table of Its Motion," "Researches on the Motion of the Moon," "Measure of the Velocity of Light," and "Development of the Perturbative Function and Its Derivative in Sines and Cosines of the Eccentric Anomaly, and in Powers of the Eccentricities and Inclinations." He also wrote a series of textbooks on algebra, geometry, trigonometry, logarithms, calculus, and astronomy, besides his well-known general

work on "Popular Astronomy." On finance and political economy he published several books, including the "A, B, C of Finance," and many articles in the magazines. One of his latest essays was on the subject of aeronautics. He thought that airships might be useful in scouting expeditions, but doubted whether they could ever be developed for carrying freight or passengers commercially.

He was a member of the leading scientific societies of this country, including the American Association for the Advancement of Science, of which he was president in 1877, and the National Academy of Science, of which he was vice-president from 1883 to 1889. He was the first president of the American Society for Psychical Research. During his long and busy life he was the recipient of all the ordinary and many special honors from most of the learned institutions and associations of the world.

Samuel Edward Warren, at one time professor of descriptive geometry in the Rensselaer Polytechnic Institute, and afterwards in the Massachusetts Institute of Technology, has died at the age of seventy-seven. He published a long list of textbooks, beginning with "General Problems in Descriptive Geometry" (1860), and ending with "Descriptive Geometry" (1904).

A dispatch from Paris announces the death last Sunday of Henri-François Peudefer de Parville, the scientific writer and editor of *La Nature*. M. de Parville was born in 1839, at Evreux. He was an officer of the Legion of Honor, and had received decorations from Italy, Turkey, and Greece. He wrote many articles on scientific subjects for the *Journal des Débats*, the *Journal Officiel*, and other publications. His books are: "Causeries scientifiques," "La Planète Mars," and "La Clef de la Science."

Art.

Geofroy Tory, Painter and Engraver: First Royal Printer; Reformer of Orthography and Typography under François I. An Account of His Life and Works, by Auguste Bernard. Translated by George B. Ives. Boston: Houghton Mifflin Co. Edition limited to 350 copies. \$37.50 net.

Of Geofroy Tory, royal printer to François I, classical scholar, poet, reformer of French orthography, bookseller, designer, miniaturist, so high an opinion has existed among collectors that the lack of an authoritative biography in English and of means of becoming familiar with his crisp designs has been a constant surprise. This is actually the first English translation of Auguste Bernard's "Geofroy Tory, peintre et graveur," the earliest edition of which was published in 1857, the second edition, embodying later discoveries, in 1865. No other work has since appeared in rivalry to this. The thoroughness of M. Bernard's researches has been attested by A. W. Pollard of the British Museum Library, who has

said that "they are so well done that no one has any excuse for going over the ground again." The same authority several years ago regretted that no French publisher since the development of modern processes of reproduction has had the enterprise to substitute proper illustrations for the meagre and not particularly faithful woodcuts which accompany M. Bernard's commentary, and which have so disappointed readers, unfamiliar with the originals.

M. Bernard's monograph, as revised by him in 1865, was divided into three parts: biography, bibliography, and iconography. Certain supplementary facts are given in appendices. The biographical sketch contains all that patient research has unearthed regarding the artist's career. He was born in humble circumstances at Bourges about 1480. Under favoring patronage he studied at the local university, and afterwards in Italy, of which he always retained a grateful memory. In 1504 he went to Paris to fill a professorship and to edit post-classical Latin authors. When he began to take interest in typography is uncertain. It was apparently before he made a second journey to Italy, on returning from which in 1518 he began to practice engraving. The death of a favorite daughter, Agnes, in 1522, led to his adopting as the mark of his bookshop, a sign of his own grief, the Pot Cassé, with its broken jar signifying the dissolution of the body; the toret which pierces it, Fate; the three chains and padlocks, the closing of life by the three fatal goddesses. Many variants of this symbol appear in books which he printed. The results of the printer's studies in the French language and his indignation against the *rustic*, who were changing its nature on the pretext of perfecting it, appeared in the recondite illustrated book, "Champ Fleury," devoted to theories of typography and language, which was published in 1529, and which made important recommendations leading to genuine linguistic reform. In 1531 Tory was appointed King's Printer to François I, being the first to hold that office. He died not long after, probably between June and October, 1533.

M. Bernard's bibliography describes minutely the books "that we owe to Tory, whether as publisher, as author, or as bookseller and printer"; the iconography gives the works "which he enriched with his paintings and engravings during twenty years of his life."

The justice of Tory's fame appears in any survey of his influence upon contemporaries and immediate successors, or of recent developments in the printing art. His versatility and industry were almost incredibly great. M. Bernard, indeed, maintains that scarcely an illustrated volume of any consequence was published in Paris during the first half of the sixteenth century which does

not embody designs and decorative ideas evolved or suggested by Tory. A score or more of fellow engravers and booksellers employed him to engrave their private marks. His vignettes, marks, and symbols were copied by printers of his own and other countries during a long period. Ornamentation, for instance, plainly derived from Tory, has lately been noted in specimens of early American colonial printing. For a man whose first training was literary, his draughtsmanship was highly competent. There is some doubt as to the extent of his achievements as a painter; yet the productions of the miniaturist of about 1520, which are signed respectively "G" and "Godefroy," are attributed by M. Bernard, with apparently good reason, to our Tory. As one of the foremost philologists of his time, and an enthusiastic patriot anxious to contribute to the improvement of his mother tongue, he was responsible for fixing many of the French forms, supplying accents and the cedilla, and settling important questions of orthography. Above all, he impressed upon his age the value of simplicity, proportion, harmonious color, logic, sanity—qualities which were conspicuous in the best French typography for a long time after his death, and which, it is needless to say, have become national characteristics.

The lessons in style taught by Tory to his contemporaries have been effectively re-read among most of those present-day printers who, in plying their trade, try also to practise a fine art. In contradistinction to some of the arts and crafts which affect Gothic and mediæval models, the printing art, following the example of the finest work of the Italian and French Renaissance, has come to depend for its effects upon clear, beautiful type, good paper, and well-proportioned type-pages. The black illegibility of books supposed to be artistic in design because archaic in appearance has been succeeded by an agreeable grayness of tone and by the legibility that is the first mark of good printing. Style is less often than formerly confounded with mannerism.

The reputation of the Riverside Press Editions as works of fine art, done under the personal supervision of Bruce Rogers, will be sustained by this publication. Although illustrated with reproductions of designs of varying sizes, shapes, and color, selected from many sources, and hence lacking in the unity that may be achieved when all the decorative elements have been designed to create a single impression, the "Tory" is likely to have a high place in the series that began about a decade ago with the publication of the "Sonnets and Madrigals of Michael Angelo." The pages, viewed individually and in pairs, are invariably agreeable; although, seen serially, their transition from one kind of design to another, or to no design, is