high merit of the work. The Roman type is used throughout.

ANGEWANDTE ELEKTROCHEMIE. Erster Band. Die Primär und Secundar Elements. Von Dr. Franz Peters. Wien, Pest, Leipzig: A. Hartleben's Verlag. 1897. Pp. xiv, 338. Price $1.20.

This book is one of the attractive German monographs of which so many have appeared from this publishing house. It is devoted to batteries, primary and secondary, and in its three hundred-odd pages the subject of batteries, wet, dry, thermo and secondary, is really most excellently treated, with numerous and quite satisfactory illustrations. The thoroughness of the treatment is testified to by nearly a six page registry of names of the batteries mentioned in the text.

CORPORATION BOOKKEEPING IN A NUTSHELL. With an appendix containing a chapter on the Treatment of Manufacturing Accounts, the Latest and Most Approved Rules for Averaging Accounts, the Shortest and Best Rules for Computing Interest, Rules for Locating Errors in Trial Balances, Short Cuts in Figures, etc. By P. H. Grover. Detroit, Mich.: The Bookkeeper Company, Limited. 1897. 8vo. Pp. 94, tables. Price $2.

Strange to say, the science of accounting is still in a transitory state, so that there are constant demands for shorter, clearer and more intelligent methods of recording the transactions. The present work is devoted to probably the most complicated form of bookkeeping that is in use by large corporations, requiring summaries, tabulations, statement sheets, etc. It gives a clear exposition of the modern methods which are employed. The author shows a familiarity with the most complicated forms of trial balances, involving one-half dozen different corporations.

EMBALMING AND EMBALMING FLUIDS. With the bibliography of embalming. By Charles W. McCurdy. Wooster, Ohio: The Herald Printing Company. 1896. Pp. 84. Price $1.

The thesis of Prof. McCurdy is unique. It is in no sense of the word a practical guide to the professional embalmer, but is a scientific treatise upon embalming and embalming finids. A large part of the work is devoted to a bibliography of embalming. It is one of the most complete special bibliographiee which has ever come under our notice.

THE POLARIZING PHOTO-CHRONOGRAPH. By Albert Cushing Crehore, Ph.D., and George Owen Squire, Ph.D. New York: John Wiley & Sons. Pp. 150, with numerous plates. Price $3.

A Dartmouth College professor and an army lieutenant attached to the United States Artillery School give an account in this book of experiments made in developing the perfected instrument now principally used in determining the velocities of projectiles. The unit of time to be dealt with in such experiments is so very small that the work of designing and constructing a practically efficient instrument has been participated in by numerous experimenters, whose labors have extended through several years. In trials inside the bore of a three inch field gun, the recorded times bore about the same relation to a second as a second does to a third of an hour. The basis of the chronograph is the influence of the magnetic field as generated by the electric field upon light, the use of light as an agent being greatly facilitated by the recent development of rapid photographic plates, some records on sensitive plates having been made by exposures of only 1-100,000 of a second. The new instrument, with which the more recent experiments were conducted, was made by J. A. Brashear, of Allegheny, Pa., and the measuring instrument for it was made by Warner & Swasey, of Cleveland, Ohio.

MAINTENANCE OF WAY STANDARDS ON AMERICAN RAILWAYS. Chicago: Roadmaster and Foreman. Pp. 557. Price $2.

This book contains a great amonnt of technical information and rules and instructions governing roadway departments of the leading railways of the United States. The forms of reports required from roadmasters, section foremen, and all who have supervisory duties relative to the construction and repairs of the different roads, together with minute specifications of important details, are here given in a way to facilitate comparison, and be of assistance to the practical railroad man.

SANITARY HOUSE DRAINAGE. By T. E. Coleman. New York: Spon & Chamberlain. Pp. 186. Price $2.

A convenient handbook for architects, engineers and builders is here presented, with the matter and illustrations so arranged as to place the subject well within the comprehension of any nontechnical individual who wishes to supervise or plan such work for his own dwelling. A good deal of attention is given to the ventilation, flushing, and cleansing of drains, a thorough, safe construction of good capacity being strongly recommended.

PRACTICAL GAS FITTING. New York: David Williams. Pp. 116. Price $1.

This book is a reprint of two illustrated articles originally appearing in the Metal Worker, and written by J. W. Hughes and W. B. Gray, both practical gas fitters. The different manner in which these two workmen treat their subject cannot but be of interest to plumbers and others interested in this class of work.

HOT WATER MANUAL. By Walter Jones. Chicago: The American Artisan Press. Pp. 220. Price $3.

This book contains information and suggestions on the best methods of heating public, private, and horticultural buildings, treating on the high and low pressure systems, duplicate boilers, radiators, swimming baths, Turkish baths, etc.

Business and Personal.

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Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.

References to former articles or answers should give date of paper and page or number of question.

Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.

Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.

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Scientific American Supplements referred to may be had at the office. Price 10 cents each.

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JUNE 8, 1897,

AND EACH BEARING THAT DATE.

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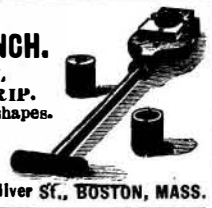

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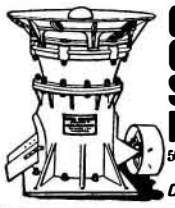

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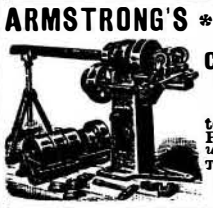

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