

having a knuckle connection. The lower member of each hinge is secured to the upper portion of the door...

Designs.

ANTI-RATTLER PLATE. — Charles T. Redfield, Glen Haven, N. Y. The leading feature of this design consists in arranging an upright wing at an angle slightly less than a right angle to the lower or base wing...

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for 10 cents each. Please send the name of the patentee, title of the invention, and date of this paper.

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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Schwab Stamp & Seal Co., Milwaukee. Send for cat'g.

Notes & Queries.

HINTS TO CORRESPONDENTS.
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 This is for our information and not for publication.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.

(7461) M. R. B. asks how to prepare a drill for making holes in glass. A. A flat drill, made of new steel and heated to a dark red and plunged in the ordinary zinc chloride soldering solution, will drill glass readily.

(7462) R. A. C. says: 1. How can a fine telescope lens be cleaned without injuring it? A. A very soft old linen handkerchief is best; if greasy, wipe with a little tissue paper wet with weak alkali.

NEW BOOKS, ETC.

THE STORAGE BATTERY. A Practical Treatise on the Construction, Theory and Use of Secondary Batteries. By Augustus Treadwell. New York: The Macmillan Company. 1898. Pp. xix, 257. Price \$1.75.

not a treatise on the mathematical theory of electricity only, but successfully brings theory and practice together. Some elementary acquaintance on the part of the reader with electrical phenomena and their laws is presupposed...

COAL CATECHISM. By William Jasper Nicolls. Philadelphia and London: J. B. Lippincott Company. 1898. Pp. 218. Price \$1.50.

The "Coal Catechism" is intended for a great number of intelligent readers who have no technical training and yet who prefer to seek knowledge by reading special subjects rather than fiction. A large proportion of them have neither time nor inclination to peruse the great geological and statistical reports of the coal industry of the United States...

THE TRACTION ENGINE: ITS USE AND ABUSE. By James H. Maggard. Revised and enlarged by an expert engineer. Philadelphia: David McKay. 1898. Pp. 128. Price \$1.

A book of instruction for operators of farm engines has been needed for some time, and the present work appears to deal with the subject in a practical manner. First a general description of trucking engines is given, followed by general directions for the proper use of engines and boilers, telling what to do in case of an emergency.

TALES FROM McCLURE'S: WAR. Being true stories of camp and battlefield. New York: Doubleday & McClure Company. 1898. Pp. 193. Price 25 cents.

A charming series of little books is now being issued by the publishers of McClure's Magazine. The present volume, of almost vest pocket size, contains a number of thrilling stories by Major-General Nelson A. Miles and others.

AMERICAN CEMENTS. By Uriah Cummings. Boston: Rogers & Mansion. 1898. 8vo. Pp. 299. Price \$3.

Since the publication of Gen. Gillmore's classic work, many years ago, no book has been produced which deals with the subject of American rock cements. The period since the publication of Gen. Gillmore's treatise has been far the most important in the history of the industry. The changes which have taken place during this time, the marked advances which have been made and the new processes which are being employed and the marvelous growth of the trade resulting from a widening of the markets for the production, clearly present a profitable field for investigation, and furnish many facts worthy of record.

OUTLINES OF PRACTICAL HYGIENE. By C. Gilman Currier, M. D. Third edition, revised and enlarged. E. B. Treat & Co. 1898. Pp. 461. Price \$2.

Practical hygiene is one of the most important subjects which the architect or physician has to encounter. The present work appears to be an eminently thorough and practical treatise upon the subject, dealing with soil and climate, clothing, bathing, exercise, occupation, lighting, heating, ventilating, building and streets, foods, diet, water, the disposal of wastes, the disposal of the dead, bacteria, disease and disinfection, longevity, etc.

A MANUAL OF HYGIENE AND SANITATION. By Seneca Egbert. Philadelphia and New York: Lea Brothers & Company. 1898. Pp. 368, vii. Price \$2 25.

The present work contains a plain statement of the fundamental principles and facts of hygiene and sanitation together with such explanations and details based on American practice as serve to make the work clear and readable. Of all the medical sciences, clearly the most important is that which prevents disease instead of curing it, and which deals with entire communities as well as with individuals.

HAND-BOOK OF NATURE STUDY. For teachers and pupils in elementary schools. By D. Lange. New York and London: The Macmillan Company. 1898. Cloth. 12mo. Pp. 329. Price \$1.

This work is a valuable primer to natural history and science, and is calculated to afford teachers the means of inculcating their pupils with desirable and essential knowledge regarding the more common plants, trees, birds, insects and quadrupeds, without entailing upon themselves special courses of study. The book is thoroughly practical, and as valuable to the instructed as to the instructor.

THE GENERAL MANAGER'S STORY. Herbert Elliott Hamblen. New York: Macmillan Company. 1898. Pp. 311. Price \$1 50.

We cannot have too many good stories about American railway life, which differs in many respects from that in other countries. The book is very interesting and, at the

same time, gives a great deal of information about rail-roading which the ordinary individual is desirous of acquiring, when he can obtain it with little mental effort. After reading this book, one can discuss learnedly about "broke in two," "flagging" and other mysteries of the rail.

ELECTRIC CATALOGUE OF ELECTRICAL PLANTS AND MACHINERY FOR ELECTRIC LIGHTING, TRANSMISSION OF POWER, ELECTRO-PLATING, DEPOSITING, WELDING, ETC. By Ernest Scott & Mountain, Limited. Newcastle-on-Tyne.

The volume before us is a bound collection of catalogues, and is interesting as showing the use of electric power for many purposes. It is handsomely got up and is freely illustrated by wood engravings, half tones and line drawings. It probably illustrates some of the best examples of British engineering practice.

THE DIFFERENTIAL. Published by the Junior Class of Case School of Applied Science. Cleveland, Ohio. Pp. 147, xxxiii.

THE MDCCCXCIX CORNELLIAN. The book of the Junior Class of Cornell University. Vol. xxx. 1898. Pp. 284, 49.

TO INVENTORS.

An experience of fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices, which are low, in accordance with the times and our extensive facilities for conducting the business.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

JUNE 28, 1898,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Table listing various inventions and their corresponding patent numbers. Includes items like Abdominal supporter, Acid and making same, Adjustable chair, Aerated water fountain, etc.

Table listing various inventions and their corresponding patent numbers. Includes items like Chute and crib, Clear tip cutter, Cigarette, H. Goldenfarb, Clamp, machine presser, etc.

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