Bilbo nedy, blood, Poke Root and Burdock Medi-cine Co..... Rem Tea,

LABELS.

9,019 "Overland Shoe," for shoes, Dixon, Bartlett

PRINTS.

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for 10 cents, provided the name and number of the patent desired and the date be given. Address Munn & Co., 361 Broadway, New York.

Canadian patents may now be obtained by the in-rentors for any of the inventions named in the fore-going list. For terms and further particulars address Munn & Co., 361 Broadway, New York.

NEW BOOKS, ETC.

THE MANUFACTURE OF LAKE PIGMENTS FROM ARTIFICIAL COLORS. By Francis Jennison, F.I.C., F.C.S. London: Scott-Greenwood & Co. New York: D. Van Nostrand Company. 1901. 8vo. Pp. 136. Price \$3.

The term "lake color" is used to distinguish pigments made from dye stuffs and coloring matters by precipitating the coloring matter as an insoluble compound which can then be used for pigmental purposes to distinguish them from natural pigments, such as ochre, umber, etc., and from chemical colors manufactured by direct combination or decomposition of distinct salts, e. g., such colors as lead chromates, Chinese biue, emerald green, etc. This is a very valuable treatise and is accompanied by plates containing samples of papers treated with lakes. There are sixteen plates. It is a most successful and valuable contribution to the literature of technology.

MANUFACTURE OF MINERAL AND LAKE PIG-MENTS. By Dr. Josef Bersch. Lon-don: Scott-Greenwood & Co. New York: D. Van Nostrand Company. 1901. 8vo. Pp. 476. Price \$5.

The present volume contains directions for the manufacture of all artificial artists' and painters' colors, enamel colors, soot and metallic pigments and is a text book for manufacturers, merchants, artists and painters, and is translated from the second revised edition by Arthur C. Wright, M. A. We hardly know any branch of chemical technology which has made such wonderful advances of late as the manufacture of colors. A large number of pig-ments have been recently discovered, distinguished by beauty of shade and permanence. The chemists are continually endeavoring to replace handsome and poisonous colors by others equally handsome but non-poisonous. The author has avoided the receipt "fetish" and has endeavored to make clear to the reader the chemical processes to which regard must be had in the manufacture of the different pigments. The treatise is the best we have ever seen upon the subject.

ALASKA. NARRATIVE, GLACIERS, NATIVES,

in a unique contribution to scientific literature which will prove of permanent value. The book is withal very readable.

MUNICIPAL ADMINISTRATION. By John A Fairlie, Ph.D. New York: Macmil-lan & Co. 1901. 8vo. Pp. 448. Price \$3.

Cities are the mark of civilization advance ing beyond the stage of self-sufficing agricultural villages. They bring forward entire-ly new problems, and how to treat them has been the study of thousands who are called upon to govern our cities. Some of them are wisely governed, and some the reverse, but there is no question that a book like the present, placed in the hands of the mayors of cities, would prove its great worth. The whole organization of the city is taken up, and each phase of the subject is discussed in a bread and rational manner.

RECOVERY WORK AFTER PIT FIRES. By Robert Lamprecht. New York: The D. Van Nostrand Company, 1901. Pp. 171; 7 plates. Price \$4.

The above volume is the result of long ex perience in various mines in different parts of the world. It is a practical mining work. The author, after an introductory chapter giving the causes of fires in coal mines, devotes the remainder of his book to prevent-ive regulations, methods of extinguishing, appliances for working in irrespirable gases, and means for rescuing imprisoned miners.

THE RISKS AND DANGERS OF VARIOUS OC CUPATIONS AND THEIR PREVENTION. By Leonard A. Parry, M.D., F.R.C.S. New York: The D. Van Nostrand Company. 1901. Pp. 192. Price \$3. This work sets forth the essential risks and dangers of the most important English industries, the mode of onset of diseases caused by some of them, together with the chief symptoms, and measures which may be taken by employers and employés to prevent such diseases. As most of the industries mentioned are followed in America also, the book is to be commended to our employers of labor and workmen.

AND COAL DUST FIRING. By Albert GAS Pütsch. Translated from the German by Charles Salter. New York: The D. Van Nostrand Company. 1901. Pp. 122; 103 illustrations. Price \$3.

This work is a complement of the author's two previous treatises on the subject, which dealt with gas-firing and smeke-consuming devices that had been patented up to 1885. It is a critical study of the various patented systems from that time up to the present, reviewing what has been done in this field and closely examining the practical importance of the different patented devices for burning this fuel.

ENGINEERING PRACTICE AND THEORY. By W. H. Wakeman. New Haven, Conn.: Published by the author. 1901. Pp. 170; 28 illustrations.

The author describes the various types of modern compound engines and gives thorough instructions for the engineer as to their handling and care. The book is a valuable one for engineers and others who have the care of steam engines.

MANUAL OF ELEMENTARY SCIENCE. By R. A. Gregory and A. V. Simmonds. London and New York: Macmillan & Co. 1901. Pp. 425; 260 illustrations.

This book was designed with the purpose of providing a repertory of experiments illustrative of the fundamental principles of physical, chemical, and astronomical science. It contains numerous experiments capable of being performed with simple apparatus by students and teachers unfamiliar with laboratory methods. It is divided into numbered sections corresponding to definite ideas, various aspects of which are first illustrated by experiment, and then dealt with descriptively. This method has also been carried out as far as possible in the astronomical part of the book, and is, so far as we know, the first attempt made at teaching astronomy inductively. The book is furnished with suitable exercises and questions, and will be of service to all beginners in science.

TECHNICAL GAS ANALYSIS. By Frank H. Bates. Philadelphia: Philadelphia Book Company. 1901. 16mo. Pp. 98. Leather. Price \$1.





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
- 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.
- the same. Special Written Information on matters of personal rather than general interest cannot be expected without remuneration. Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of
- Minerals sent for examination should be distinctly marked or labeled.

(8555) W. S. asks: Is it possible to consume all the oxygen in a confined quantity of air, viz., in a sealed iron pipe? A. Yes; by placing copper scraps in the pipe and heat-ing the air in the pipe. The oxygen combines with the copper, forming a solid substance, and leaving the nitrogen uncombined.

(8556) M. J. M. asks: 1. I have a folding camera 4 x 5, with lens 1 5-16 inches in diameter. Can I use it for a 5x7 camera? A. To cover a 5x7 plate a lens with a focal length of about 8 inches is used. 2-How can I remedy a ground glass which has become blurred and spotted by water and breathing on it? A. Wash it with soap and water, and afterward do not handle it. 3. Is there any paste made that can be used on squeegeed prints that has but little water or moisture in it, for it will spoil the print? A. There are many formulas in the photographic books for pastes or mountants made of gelatine. These do not penetrate the paper very much. 4. Can you give me the formula for flash-light powder? A. Flash-light powder is finely powdered magnesium. You should buy it from photographic dealers. 5. Will you please tell me what is the matter with my intensifying solution. I made it as per directions, but after it had stood several days it became crystallized at the bottom and shaking would not dissolve it. A. The water is saturated with the substances employed in the formula. Filter the solution. It is not injured by the crystals. 6. I have a lot of trouble with my exposure. I cannot always time it just right. Which would be the best for me to do-to get an exposure meter or an exposure book in which I would have to register every exposure? A. Nothing but experience and a careful study of the light can enable you to expose properly. You cannot become a photographer by the use of a meter or a book. It is, however, well to record the conditions of our exposures, so that we may study them and improve by our experience. Keep an exposure book by all means. 7. I wish to become proficient in the art of photography. What book or books would you advise me to procure to advance in that direction? A. We recommend and can supply you with the fol-"The lewing beeks relating to photography: "The Amateur Photographer," by Wallace, price \$1: "A Manual of Photography," by Brothers, price \$6, post free. 8. Is there any way to burnish my prints and keep the card from A. We do not curling without a burnisher? knew of any way of burnishing without a burnisher. Most amateurs use paper which has no gloss, such as velox, platinotype, bromide, etc. 9. Is it necessary to have a license to sell pictures? A. Some cities may require a license for selling anything. We do not think a license is required to sell a photograph any more than to sell a penny whistle you may have made. 10. Can you give me the address of some firm that has good lenses? A. See our advertising columns for addresses.

(8557) C. M. writes: 1. I want to use a call bell in kitchen, battery to be in second story, from which run two wires. I want oue push button in one room, one in second room, one in parlor, one in room down stairs, also one in dining room-five push buttons; how could I connect all buttons to work properly with only one bell? A. Carry one wire from

Vols. I. and II. By John Burroughs John Muir and George Bird Grunnell. New York: Doubleday, Page & Co. 1901. Pp. 383. Price \$15 net.

The present portly volumes are a very choice example of the bookmaker's art. They are beautifully printed and bound and the illustrations are of a high order and are well executed, and the color work being especially fine. It is a book which will appeal to all An students of travel and exploration and natural history. The Harriman expedition was one of these happy thoughts which sometimes occur to those whose position enables them to benefit the world at large by the outfitting of such an expedition. The papers are all written either by three authors, or by specialists such as Professors B. E. Fernow, Henry Gannett. C. Hart Merriam and William Healy Dall. The scientific aspect of the expedition is never forgetten for a moment, and the collaboration scientific grounds. The illustrations are exeof these eminent scientific men has resulted crable.

The first of a series to be known as The Industrial Gas Series. The author is an expert of the subject, and the book seems to be an eminently practical discussion of a somewhat difficult subject.

CONDUIT WIRING AND ERECTION. By L. M. Waterhouse. Londo Co. 16mo. Pp. 66. London: S. Rentell &

INTRODUCTION TO MODERN SCIENTIFIC CHEMISTRY. By Dr. Lassar-Cohn. Translated by M. N. Pattison Muir, M.A. New York: D. Van Nostrand Company. 1901.

This work is in the form of popular lectures suited for University extension students and general readers. The book can be followed easily by anyone who takes a serious interest in natural science. It gives a succinct and accurate presentation of chemistry on strictly



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one post of the battery to the bell, and from the other side of the bell a wire which shall branch through each push button to the other side of the battery. There will then be a complete and separate circuit through battery, bell and a push button. 2. I have one lamp. 8 candle power, 26 volts: could I light it with 14 cells improved standard Fuller battery: If so, how about the amperes it will use with 26 velts? A. You probably can light the lamp when the battery is freshly charged. 3. How old is Mr. Edison? Also, who was the first that invented the electric light? I mean both the arc and incandescent lamp? A. Mr. Edison was born February 11, 1847. The first man who ever saw a spark from artificially excited electricity is said to have been Otto von Guericke in 1660. This was the first electric light. Sir Humphry Davy is credited with first producing an electric arc light in 1801. He had a battery of 3,000 plates, each four inches square, and used charceal points

(Continued on page \$14)