

But from the very fact that the currents in such a region are so variable, thus constantly removing what they have but recently laid down, it will be less likely that their deposits will be preserved, and in our present geological studies we may disregard the exception, save to remember that it exists.

A PHILANTHROPIC TEMPERANCE MAN.

Our readers will find in another column an advertisement, for which the writer pays us one hundred and ten dollars. It offers a prize of five hundred dollars for a plan to suppress the sale of intoxicating liquors and tobacco in New Jersey. This prize is offered by a man too modest to have his name published, but who has provided guarantees of his good faith, which will be found upon perusal of the advertisement in question.

However much the possibility of securing the desired result, by the offer of such a prize, may be doubted, the man who offers it has given practical proof of his earnestness in the cause of temperance.

The field chosen for the exercise of inventive genius is a peculiarly difficult one. If our memory serves us, there is a town in New Jersey known as Hoboken, which has been a favorite Sunday resort for New York guzzlers, ever since the Sunday liquor law went into operation in this State. The man who can devise a way to prevent drinking in Hoboken will prove himself a genius of no mean order, and will fully earn the prize offered.

The Lyceum of Natural History.

The New York Lyceum of Natural History celebrated its fifty-third anniversary on the 27th of February. This organization includes, on its list of members, all of the leading scientific men of the city, and its reputation, as an active publishing society, is high in this country and in Europe.

The report of the treasurer showed the society to be out of debt, with a handsome surplus, to be carried to next year's account. During the year, Volume IX. of transactions has been completed. One hundred and six learned societies, from all parts of the world, exchange transactions and proceedings with the Lyceum, so that our New York institution is rapidly accumulating a library of great value; it does not, however, speak well for the city that the society has no permanent resting-place, nor any proper receptacle for its library and collections.

It was announced that Mr. Waterhouse Hawkins would address the next meeting, on the "Rehabilitation of extinct animals," with illustrations and drawings.

NEW PLASTIC MATERIAL.—A beautiful plastic substance can be prepared by mixing colloid with phosphate of lime. The phosphate should be pure, or the color of the compound will be unsatisfactory. On setting, the mass is found to be hard, and susceptible of a very fine polish. The material can be used extensively, applied, in modes that will suggest themselves to any intelligent artist, to high class decoration. The inventor has given it the somewhat pretentious name of artificial ivory.

THE DRAINING.—Draining tiles, laid without collars, can be protected at the joints by laying the tiles close together, and wrapping a newspaper, two or three times folded, round the ends. This plan is better than using straw, shavings, or grass, and, when the earth is packed down on the tiles, is perfectly secure.

NOTICE TO ADVERTISERS.—The circulation of the SCIENTIFIC AMERICAN having so largely increased, we are compelled to go to press hereafter one day earlier than formerly. Advertisers must bring in their advertisements as early as Thursday to insure their publication in the next issue.

TWO HUNDRED tons of silver ore per week pass through Salt Lake City.

A SHAFT is being forged at the Bridgewater Iron Works, Mass., that will weigh forty-two tons.

THE new hammer in the Bessemer Steel works at Harrisburg, Pa., weighs 35,000 pounds.

[ADVERTISEMENT.]

American Institute.—Judges on Bandsawing Machines.—Singular Decision.

It is notorious that in late years the American Institute, at their bi-annual Exhibitions, award their premiums in a somewhat unaccountable, loose manner, generally rewarding new improvements and mechanical skill with second-rate premiums, and machines which are merely exhibited for advertisements, with first; this we, the undersigned, have experienced to the full extent, at the 31st Exhibition, and we think it the most glaring blunder to award a second premium for an entirely new and useful improvement, and a first premium to a second-rate machine, without any improvements; and such was the decision of those judges. The fallacy of this judgment is apparent to every one, after a short explanation.

Our aim has been, for several years, to construct a Bandsaw Machine, which will cut bevel, twist, and square, without inclining the table. After spending a great deal of time and money, we have accomplished this, and invented the first machine of this construction in constant operation, at the late Exhibition, sawing three times as much as any other rival machine, and being so well as the best pieces of work ever sawed with a Bandsaw, and all by our own knowledge; it was found by all and every practical mechanic, and especially men in that business line, the most useful, practical, and best piece of machinery of its kind. It is so constructed that if the operator desires to cut bevel, he turns a wheel below the table, connected with a lever, and he removes the upper wheel to any desired bevel, and simultaneously moves the table, which is always kept level, and all this is done without stopping the machine. No wood slides, no work is spoiled, no saws in danger of being broken, and the whole change is made in less than half the time it would require to incline a table.

This Machine was awarded the Second Premium. If, on the rival Bandsaw Machine, the operator desires to saw level, he must be very careful not to have his work slide from the table, as he works on an inclined plane, and heavy blocks he cannot saw at all.

Such a Machine never had the First Premium. If the judges be not competent, why not ask them to resign, and have others appointed that are? And if, as they claim, the Managers cannot find competent men to serve, why not let the exhibitors of each branch elect their judges, as they formerly did, and no fault could then be found with the Managers of the Institute?

But, no! the exhibitor is entirely ignored on that question, and is at the mercy of a judge, who sometimes does not take interest enough for improvements, but is influenced by the biggest show, smooth talk, etc.

The American Institute was organized for the promoting of the manufacturing trade, and the encouragement of inventors; but such a course, as the above mentioned, cannot fail to discourage the same, and discredit the Institute.

We need hardly to mention that we by no means shall accept the awarded Second Premium, but refuse the same most emphatically.

FIRST & PRYBELL.

Says the Muscatine. Iowa, "Courier":

"We have done, and are still doing, business with quite a number of advertising agencies, throughout the country, and have no fault to find with them; but Messrs. Geo. P. Rowell & Co. give us more business than any other. Furnishing a large amount of advertising, and paying promptly, has put this house at the very head of agencies, and has made them a name for honesty, reliability, liberality, and promptness, which of itself is worth a fortune.

Dyspepsia: Its Varieties, Causes, Symptoms, and Cure. By E. P. MILLER, M.D. Paper, 50 cts.; Muslin, \$1. Address MILLER, HAYNES & Co., 41 West Twenty-sixth st., New York city.

Vital Force: How Wasted and How Preserved; or, Abuses of the Sexual Function, their Causes, Effects, and Means of Cure. By E. P. MILLER, M.D. Paper, 50 cts. Address MILLER, HAYNES & Co., 41 West Twenty-sixth st., New York city.

New Patent Law of 1870.

INSTRUCTIONS HOW TO OBTAIN LETTERS-PATENT

FOR NEW INVENTIONS.

Information about Caveats, Extensions, Interferences, Designs, Trade-Marks, and Foreign Patents.

FOR Twenty-five years, MUNN & Co. have occupied the leading position of Solicitors of American and European Patents. During this long experience they have examined not less than Forty Thousand Inventions, and have prosecuted upwards of THIRTY THOUSAND APPLICATIONS FOR PATENTS. In addition to this they have made, at the Patent Office, Twenty-Five Thousand Special Examinations into the novelty of various Inventions. The important advantage of Munn & Co.'s American and European Patent Agency is that the practice has been tenfold greater than that of any other agency in existence, with the additional advantages of having the aid of the highest professional skill in every department, and a Branch Office at Washington, that watches and supervises cases when necessary, as they pass through Official Examination.

MUNN & CO.,

Ask Special Attention to their System of doing Business.

Consultation and Opinions Free.

Inventors who desire to consult with MUNN & Co. are invited to call at their office 37 PARK Row, or to send a sketch and description of the invention, which will be examined and an opinion given or sent by mail without charge.

A SPECIAL EXAMINATION

is made into the novelty of an invention by personal examination at the Patent Office of all patented inventions bearing on the particular class. This search is made by examiners of long experience, for which a fee of \$5 is charged. A report is given in writing.

To avoid all possible misapprehension, MUNN & Co. advise generally, that inventors send models. But the Commissioner may at his discretion dispense with a model—this can be arranged beforehand.

MUNN & Co. take special care in preparation of drawings and specifications. If a case should for any cause be rejected it is investigated immediately, and the rejection if an improper one set aside.

NO EXTRA CHARGE

is made to clients for this extra service. MUNN & Co. have skillful experts in attendance to supervise cases and to press them forward when necessary.

REJECTED CASES.

MUNN & Co. give very special attention to the examination and prosecution of rejected cases filed by inventors and other attorneys. In such cases a fee of \$5 is required for special examination and report; and in case of probable success by further prosecution and the papers are found tolerably well prepared, MUNN & Co. will take up the case and endeavor to get it through for a reasonable fee to be agreed upon in advance of prosecution.

CAVEATS

Are desirable if an inventor is not fully prepared to apply for a Patent. A Caveat affords protection for one year against the issue of a patent to another for the same invention. Caveat papers should be carefully prepared. The Government fee on filing a Caveat is \$10, and MUNN & Co.'s charge for preparing the necessary papers is usually from \$10 to \$12.

REISSUES.

A patent when discovered to be defective may be reissued by the surrender of the original patent, and the filing of amended papers. This proceeding should be taken with great care.

DESIGNS, TRADE-MARKS, & COMPOSITIONS

Can be patented for a term of years, also new medicines or medical compounds, and useful mixtures of all kinds.

When the invention consists of a medicine or compound, or a new article of manufacture, or a new composition, samples of the article must be furnished, neatly put up. There should also be forwarded a full statement of its ingredients, proportions, mode of preparation, uses, and merits.

CANADIANS and all other foreigners can now obtain patents upon the same terms as citizens.

EUROPEAN PATENTS.

MUNN & Co. have solicited a larger number of European Patents than any other agency. They have agents located at London, Paris, Brussels, Berlin, and other chief cities. A pamphlet containing a synopsis of the Foreign Patent Laws sent free.

MUNN & Co. could refer, if necessary, to thousands of patentees who have had the benefit of their advice and assistance, to many of the principal business men in this and other cities, and to members of Congress and prominent citizens throughout the country.

All communications are treated as confidential. Address

MUNN & CO.,

No. 37 Park Row,

NEW YORK.

NEW BOOKS AND PUBLICATIONS.

A DICTIONARY OF WORDS AND PHRASES USED IN COMMERCE with Explanatory and Practical Remarks. By Thomas McElrath, late Chief Appraiser of Merchandise at the Port of New York. Part I., pp. 72, 8vo. New York: N. Tibbals & Son.

The application of science to the arts, and the increase in the number of commercial articles, have been so great during the present century, that special dictionaries of the words and phrases used in each science or trade have become indispensable. Mr. McElrath proposes to supply this want for the department of commerce, with which he became very familiar while occupying the office of Chief Appraiser at the Port of New York, and previously to that, as Corresponding Secretary of the American Institute. The design of the book is to give the technical words and phrases used in mercantile transactions, also statistical information, tariffs, weights, measures, coins, rules of exchange, maxims of law, and descriptions of most articles known in trade. We can recommend it as a valuable work of reference. The following we select as illustrations of the character of the work: "Asbestos, a mineral of the hornblende family, fibrous, flexible, and elastic found in silky filaments which, when mixed with oil, may be woven into a fire-proof cloth, and is used in various manufactures. It is of various colors, white, green, and brown. It is employed in the manufacture of iron safes, and by the natives of Greenland it is used as the wick for lamps. It is found on the eastern side of the Alleghenies and in other parts of the United States, but it is said that nowhere is it so abundant or of so good a quality for weaving as that which is found at Staten Island, within a few miles of the city of New York. The island of Corsica is noted for the excellent quality and abundance of this mineral. It is sometimes called amianthus, and also mountain flax." "Bath brick, a polishing brick made of a peculiar kind of clay, a calcareous substance deposited from the river or estuary at and near Bridgewater in England. The water is conveyed into vats or pits at the high spring tides, and is left there until the clay deposits itself at the bottom of the vats, when the water is drawn off at low tide. It is then manufactured into bricks, dried, and burnt; they are of the form, and nearly the size of common building brick, and are largely imported into the United States, and are used mostly for cleaning table-knives."

MYSTERY OF EDWIN DROOD. By Charles Dickens. Price, 25 cents.

MAD MONKTON. By Wilkie Collins. Price, 50 cents.

Messrs. T. B. Peterson & Bros., of Philadelphia, have just issued the above works for general circulation through the mails.

THE PHOTOGRAPHIC WORLD.

This is a new monthly magazine, somewhat similar in character to the Philadelphia Photographer, and is issued by the same publishers, Messrs. Bennerman & Wilson, Philadelphia, Pa. The Photographic World is edited by Edward L. Wilson, an able writer and practical photographer. The new magazine contains a large amount of valuable information relating to the economy and practice of the art to which it is devoted, and will doubtless attain a wide and permanent circulation.

SCRIBNER'S MONTHLY MAGAZINE.

The March number of this new and popular magazine is out, and, as usual, full of original and interesting matter. Some of the best writers in the country contribute to this monthly. J. G. Holland, the popular author, is its editor. Scribner & Co., publishers, 654 Broadway, New York.

We are in receipt of Nos. 1 and 2, Vol. II., of the American Journal of Syphilology and Dermatology. Edited by M. H. Henry, M.D., Surgeon to the New York Dispensary Department of Venereal and Skin Diseases, and published by F. W. Christern, No. 77 University Place, New York city. It is an ably conducted quarterly journal, devoted to the dissemination of professional knowledge upon two classes of diseases, intimately connected, and unfortunately, far too prevalent. To the profession, this quarterly must possess peculiar interest.

THE SEED CATALOGUE of B. K. Bliss & Sons, for 1871, is a valuable work, of 138 large pages. In addition to full information respecting cultivation, with the names, prices, and descriptions of some two thousand species, it also contains over two hundred excellent engravings of flowers, new varieties of vegetables, etc. Some colored plates are also given. Price 25 cents. See advertisement in another column.

Queries.

[We present herewith a series of inquiries embracing a variety of topics of greater or less general interest. The questions are simple, it is true, but we prefer to elicit practical answers from our readers, and hope to be able to make this column of inquiries and answers a popular and useful feature of the paper.]

- 1.—**COATING FOR BOAT BOTTOMS.**—What is the best material for coating the bottoms of small pleasure boats, used partly in fresh and partly in salt water? The coating is desired to protect the bottom from fouling, and to preserve the wood.—A. A. R.
- 2.—**CANDLE WICKS.**—Is there any preparation which will prevent candle wicks from smoking and smelling badly, when the flame is extinguished?—E. D. F.
- 3.—**IVORY KEYS.**—I have attempted to glue the ivory on to a melodeon key, from which the ivory veneer had loosened. The glue shows through, changing the color of the key, and the ivory curls up. How ought I to do this work?—J. H.
- 4.—**GLASS STOPPERS.**—How are glass stoppers ground at the necks of bottles?—L. D.
- 5.—**PULVERIZED SOAP.**—Can hard soap be reduced to a fine granular powder? and if so, how?—M. B. C.
- 6.—**FUSEES.**—How are the fusees, used for cigar lighting, made, and what is the composition used?—L. B.
- 7.—**KEY MAKING.**—What sort of machinery is used, to cut the wards in blank keys, in large establishments?
- 8.—**SOLDERING FLUID.**—How can I make a soldering fluid for soft solder that will work well on iron, brass, or copper, and that will not require the removal of grease, or the cleansing of the surfaces to be united.—C. W.
- 9.—**SPINNING TIN PLATE.**—Can common tin plate (iron and tin alloy) be spun up successfully, like brass? I do not succeed, though I can spin up brass well enough. Can any one help me by advice in this matter?—T. J. K.
- 10.—**GRAFTING WAX.**—Will some one give the best recipe for grafting wax for use early and late in the grafting season?—J. H. A.
- 11.—**CEMENT FOR GLASS SYRINGES.**—What is a better cement for the pewter cups of glass syringes than plaster of Paris? These cups, cemented in the ordinary way, come loose when the syringes are used, and cause great annoyance. Nearly all the syringes sold for medical use are defective in this respect.—P. E. G.
- 12.—**CANNED OYSTERS.**—What is the method of canning oysters? Will some one give me the title and publisher of a good work on food preserving?—J. M.
- 13.—**BLEACHING AND COLORING BROOM CORN.**—I wish recipes for the above purposes.—F. B.
- 14.—**PAINT FOR OLD WEATHER-BOARDING.**—I wish a recipe for the cheapest and best paint for outside work, so as to save oil, in the first coating on old dry weather-boarding or brick-work.—W. O. D.