

IMPORTANT TO INVENTORS

PATENTS FOR SEVENTEEN YEARS.

MESSRS. MUNN & CO., PROPRIETORS OF THE SCIENTIFIC AMERICAN, continue to solicit patents in the United States and all foreign countries, on the most reasonable terms.



They also attend to various other departments of business pertaining to patents, such as Extensions, Appeals before the United States Court. Interferences, Opinions relative to Infringements, &c. The long experience Messrs. MUNN & Co. have had in preparing Specifications and Drawings, has rendered them perfectly conversant with the mode of doing business at the United States Patent Office, and with the greater part of the inventions which have been patented.

Information concerning the patentability of inventions is freely given, without charge, on sending a model or drawing and description to this office.

THE EXAMINATION OF INVENTIONS.

Persons having conceived an idea which they think may be patentable, are advised to make a sketch or model of their invention, and submit it to us, with a full description, for advice. The points of novelty are carefully examined, and a written reply, corresponding with the facts is promptly sent free of charge. Address MUNN & CO. No. 37 Park Row, New York.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE.

The service we render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon what knowledge we may acquire of a similar invention from the records in our Home Office. But for a fee of \$5, accompanied with a model or drawing and description, we have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a patent, &c., made up and mailed to the inventor, with a pamphlet, giving instructions for further proceedings. These preliminary examinations are made through our Branch Office, corner of F and Seventh streets, Washington, by experienced and competent persons. Many thousands such examinations have been made through this office. Address MUNN & CO., No. 37 Park Row, New York.

HOW TO MAKE AN APPLICATION FOR A PATENT.

Every applicant for a patent must furnish a model of his invention if susceptible of one; or, if the invention is a chemical production, he must furnish samples of the ingredients of which his composition consists, for the Patent Office. These should be securely packed, the inventor's name marked on them and sent, with the Government fees, by express. The express charge should be pre-paid. Small models from a distance can often be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of MUNN & CO. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their New York correspondents; but, if not convenient to do so, there is but little risk in sending bank-bills by mail, having the letter registered by the postmaster. Address MUNN & CO., No. 37 Park Row, New York.

The revised Patent Laws, enacted by Congress on the 2d of March, 1861, are now in full force, and prove to be of great benefit to all parties who are concerned in new inventions.

The duration of patents granted under the new act is prolonged to SEVENTEEN years, and the Government fee required on filing an application for a patent is reduced from \$30 down to \$15. Other changes in the fees are also made as follows—

Table listing patent fees: On filing each caveat, \$10; On filing each application for a Patent, except for a design, \$15; On issuing each original Patent, \$20; On appeal to Commissioner of Patents, \$20; On application for Re-issue, \$30; On application for Extension of Patent, \$50; On granting the Extension, \$50; On filing a Disclaimer, \$10; On filing application for Design, three and a half years, \$10; On filing application for Design, seven years, \$15; On filing application for Design, fourteen years, \$30.

The law abolishes discrimination in fees required of foreigners, excepting natives of such countries as discriminate against citizens of the United States—thus allowing Austrian, French, Belgian, English, Russian, Spanish and all other foreigners except the Canadians, to enjoy all the privileges of our patent system (but in cases of designs) on the above terms. Foreigners cannot secure their inventions by filing a caveat; to citizens only is this privilege accorded.

During the last seventeen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN; and as an evidence of the confidence reposed in our Agency by the inventors throughout the country, we would state that we have acted as agents for at least TWENTY THOUSAND inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of inventors and patentees at home and abroad. Thousands of inventors for whom we have taken out patents have addressed to us most flattering testimonials for the services we have rendered them, and the wealth which has inured to the inventors whose patents were secured through this office, and afterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensive offices, and we are prepared to attend to patent business of all kinds in the quickest time and on the most liberal terms.

REJECTED APPLICATIONS.

We are prepared to undertake the investigation and prosecution of rejected cases on reasonable terms. The close proximity of our Washington Agency to the Patent Office affords us rare opportunities for the examination and comparison of references, models, drawings documents, &c. Our success in the prosecution of rejected cases has been very great. The principal portion of our charge is generally left dependent upon the final result.

All persons having rejected cases which they desire to have prosecuted are invited to correspond with us on the subject, giving a brief story of the case, including the official letters, &c.



W. S. L., of Pa.—We have never known a case of a near-sighted person being restored to perfect vision [by manipulating the eyes.

J. L. Q., of Pa.—Spiral springs are manufactured at the Novelty Works and by Messrs. Hoe, of this city.

E. S. R., of Pa.—You will find a description of the mode of constructing an ice-house on page 16, Vol. VI (new series) of the SCIENTIFIC AMERICAN. It should be built on a northern exposure, with double boarded walls and roof, leaving a space between the planking to be packed with saw-dust or straw. It should be built above ground.

D. D., of Pa.—The best paste that you can use for a scrap-book is that which is sold for general use under the name of mucilage. It is made from starch roasted at a temperature of 300° Fah., and is called dextrine.

N. P. M., of Ohio.—To cover your pulley so that a belt will not slip on it, take an old belt and turn the flesh side out, drill holes in the pulley, make holes in the belt to correspond and rive it to the pulley with copper rivets. A better way is to lace the belt tight and throw a little rosin and oil on it; the belt will not slip then.

T. H., of Pa.—Your communication on aerial navigation is too long and otherwise unsuitable to our columns. Your MSS. is at your disposal.

J. G. G., of Ill.—We have never received your note on the length of the boiler to furnish steam at 40 pounds pressure per square inch. The length of a boiler is governed by the amount of heating surface desired, and we wish all whom it concerns to bear in mind the fact that we do not furnish estimates or calculations for building steam or any other machinery. We could not attend to a tithe of the business of this class that comes to us and give attention to our legitimate duties.

A. L. P., of N. Y.—We cannot tell you how to proceed to get the appointment of Professor of Mathematics in the Navy. You had better write to Secretary Welles on the subject. There is no publication devoted exclusively to naval engineering.

O. T. W., of Iowa.—You can obtain a work on mills and milling by addressing Henry C. Baird, of Philadelphia.

J. C., of Md.—The patentee of the connecting link resides in Texas, and it is not at all likely that he has any agent in this section.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, May 6, to Wednesday, May 13, 1863:—

- F. C. P., of N. Y., \$25; J. W. H., of N. Y., \$50; L. C., of N. J., \$16; M. & C., of N. Y., \$15; E. C. H., of N. Y., \$20; T. T. H., of N. Y., \$16; W. J., of Wis., \$20; B. W., of N. J., \$16; G. J., of N. Y., \$26; T. R., of N. Y., \$54; G. D., of Pa., \$20; J. S. C., of Mich., \$15; A. H. C., of Wis., \$26; H. S. J., of Cal., \$30; R. R., of Ill., \$12; M. T. W., of Ky., \$30; L. A. B., of Ind., \$15; R. D. N., of N. H., \$20; G. C., of N. Y., \$36; O. F. W., of Conn., \$36; J. C. W., of N. Y., \$26; S. W., of Mass., \$36; F. D. B., of Ind., \$20; A. J. H., of Pa., \$25; D. S. E., of Mass., \$16; J. H., of Pa., \$16; A. S. M., of Ill., \$2; J. M., of Cal., \$40; F. A. De M., of N. Y., \$25; C. T. D., of N. J., \$25; S. R. S., of N. Y., \$36; W. H. F., of Mass., \$20; A. M., of N. Y., \$20; J. K. U., of N. Y., \$22; O. E., of N. Y., \$45; C. F. T., of N. Y., \$16; J. B., of N. Y., \$16; L. B., of N. Y., \$16; C. M. S., of Mass., \$20; M. & M., of Cal., \$40; H. II. B., of N. Y., \$25; C. J. P., of Cal., \$15; J. H. M., of Mo., \$12; O. P., of Vt., \$16; E. & K., of Cal., \$18; B. A. H., of Iowa, \$15; G. B. McD., of Ky., \$20; F. A., Jr., of Mich., \$34; L. E. R., of Mich., \$15; E. R. S., of Mich., \$12; P. L. S., of Pa., \$25; J. C., of Va., \$7; J. F. J., of N. Y., \$10; E. J. Y. P., of N. Y., \$150; J. A. G., of Iowa, \$25; H. W. M., of N. Y., \$16; J. P., of N. Y., \$25; J. McK., of N. Y., \$20; E. L. P., of N. Y., \$41; W. C., of N. H., \$20; F. H. B., of N. Y., \$20; J. R., of Minn., \$20; H. K., of N. Y., \$16; J. W. B., of Ill., \$20; S. R. S., of N. J., \$20; T. J. McK., of Ohio, \$20; J. C., of Mass., \$150; G. G. H., of Ill., \$25; W. J., of N. H., \$25; S. F. G., of N. Y., \$25; H. W., of N. Y., \$16; R. H. B., of N. Y., \$16; J. H. R., of Conn., \$26; H. P., of Pa., \$16; S. B. D. C., of Ill., \$25; J. T., of N. Y., \$16; D. J. H., of Ohio, \$15; W. S. J., of Conn., \$25; S. W. D., of N. Y., \$12; J. N. W., of Ill., \$15; F. & B., of R. I., \$16; T. R. C., of Iowa, \$26.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, and inform us the amount, and how it was sent, whether by mail or express.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from Wednesday, May 6, to Wednesday, May 13, 1863:—

- F. C. P., of N. Y.; F. A. De M., of N. Y.; J. P., of N. Y.; J. W. H., of N. Y. (2 cases); C. T. D., of N. J.; S. R. S., of N. Y.; E. L. P., of N. Y.; M. & C., of N. Y.; J. K. U., of N. Y.; C. F. T., of N. Y.; T. R., of N. Y.; P. and H., of England; R. E., of Ill.; J. H. M., of Mo.; S. F. G., of N. Y.; W. J., of N. H.; C. and J. A., of Ill.; G. G. A., of Ill.; H. H. B., of N. Y.; A. H. C., of Wis.; J. S. C., of Mich.; C. S., of Ill.; G. C., of N. Y.; J. H. R., of Mich.; S. W. D., of N. Y.; E. R. S., of Mich.; F. D. B., of Ind.; J. A. G., of Iowa; W. S. J., of Minn.; S. B. and D. C., of Ill.; P. L. S., of Pa.; A. J. H., of Pa.; M. and S., of Iowa; J. C. W., of N. Y.; A. S. M., of Ill. (2 cases).

Back Numbers and Volumes of the Scientific American.

VOLUMES I., II., III., IV., V. AND VII. (NEW SERIES) complete (bound or unbound) may be had at this office and from periodical deal rs. Price, bound, \$225 per volume, by mail, \$3— which include postage. Price, in sheets, \$250. Every mechanic, inventor or artisan in the United States should have a complete set of this publica-

tion for reference. Subscribers should not fail to preserve their numbers for binding. Nearly all the numbers of VOL. VI. are out of print and cannot be supplied.

RATES OF ADVERTISING.

Twenty-five Cents per line for each and every insertion, payable in advance. To enable all to understand how to compute the amount they must send in when they wish advertisements inserted, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may deem objectionable.

GENERAL ORDERS, NO. 105.

WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE, WASHINGTON, April 28, 1863

The organization of an Invalid Corps is hereby authorized. This Corps shall consist of Companies, and, if it shall hereafter be thought best, of Battalions.

The Companies shall be made up from the following sources, viz.: First, By taking those officers and enlisted men of commands now in the field (whether actually present or temporarily absent) who, from wounds received in action or disease contracted in the line of duty, but are still capable of active field service, and are garrison duty, or such other light duty as may be required of an Invalid Corps. Regimental Commanders shall at once make out, from information received from their Medical and Company Officers, and from their own knowledge, rolls (according to the Form furnished) of the names of all the officers and enlisted men under their command who fulfill the following conditions, viz.:

- 1. That they are unfit for active field service on account of wounds or disease contracted in the line of duty; this fact being certified by a Medical Officer in the service, after personal examination.
2. That they are fit for garrison duty: this fact being likewise certified by the Medical Officer, as above, after personal examination.
3. That they are, in the opinion of their Commanding Officers, meritorious and deserving.

These rolls shall be certified by the Examining Surgeon and Regimental Commander, and transmitted, through the regular channels of military correspondence, to the Provost Marshal General of the United States. The Regimental Commander shall enter in the column of remarks, opposite each officer's name on the roll, a statement as to the general character of the officer for intelligence, industry, sobriety and attention to duty; and all intermediate Commanders shall endorse thereon such facts as they may possess in the case, or, if they have none, they shall state how far they are willing to endorse the opinion of the officer or officers making the recommendation. Similar rolls shall be forwarded from time to time, whenever the number of men fulfilling the conditions enumerated or the exigencies of the service may render it expedient.

Second, By taking those officers and enlisted men still in the service and borne on the rolls, but who are absent from duty, in Hospitals or Convalescent Camps, or are otherwise under the control of Medical Officers. In these cases the Medical Officer in attendance shall prepare the rolls according to Form, entering the names of officers and men from the same Regiment on a roll by themselves, and send them, with the certificate of the Surgeon, duly signed, to the proper Regimental Commander, who will forward them, as heretofore specified, subject to the same conditions and requirements. If, in any case, the Regimental Commander shall think an officer unfit, in point of character to continue in the service of the Invalid Corps, though disabled and certified by the Surgeon, he will state his objection in the column of remarks, and note the exception before signing the certificate. If any officer or enlisted man now in the service, but absent and beyond the reach of a Medical Officer in charge of a Hospital or Convalescent Camp, desires to enter this Corps, he will take the course indicated below for those who have been honorably discharged from the service.

Third, By accepting those officers and enlisted men who have been honorably discharged on account of wounds or disease contracted in the line of duty, and who desire to re-enter the service. In the case of an officer, application for appointment must be made to the Provost Marshal General of the United States through the officer detailed as Acting Assistant Provost Marshal General of the State. No application of this kind will be considered unless the following conditions are completely fulfilled:—

- 1. That the applicant produce the certificate of the Surgeon of the Board of the District in which he resided, certifying that he was unfit for active field duty on account of wounds or disease, and is not liable to draft, but is fit for garrison duty.
2. That he furnish evidence of an honorable discharge on account of wounds or disability contracted in the line of duty.
3. That he produce recommendations from the Regimental, Brigade and Division Commanders under whom he formerly served, that he is worthy of being thus provided for, and capable of returning adequate service to the Government. In case it shall be impracticable to get this last evidence, he may, having established the first two points above, satisfy the Board of Enrollment that he is deserving, and present its certificate of the fact. This evidence must all be obtained by the applicant, and must be transmitted with his application for appointment.

If there be no Acting Assistant Provost Marshal General for the State, the application may be forwarded through the Adjutant General of the State, who is desired to endorse thereon such facts in the military history of the applicant as he may know, or as are afforded by his records, and forward the same to the Provost Marshal General of the United States. Enlisted men, honorably discharged on account of wounds or disability, and desiring to re-enlist in this Corps, will present themselves to the Board of Enrollment for the District in which they reside, for examination by the Surgeon thereof, who shall examine them and report the result to the Board of Enrollment.

The Board shall then consider each case, and if the applicant is found to fulfill the conditions specified below, the Board shall give him a certificate to that effect, viz.:

- 1. That he is unfit for service in the field.
2. That he is fit for garrison duty.
3. That he is meritorious and deserving.
4. That he was honorably discharged from the service.

The Provost Marshal for the District shall then send the application, with this certificate of the Board, to the Acting Assistant Provost Marshal General of the State, who shall procure such evidence of character and records of the Corps as he may require, and if satisfied that it is a meritorious case, and that the man is deserving, he will enlist him in accordance with such special rules as the Provost Marshal General may establish.

Medical Inspectors, Surgeons in charge of Hospitals, Military Commanders, and all others having authority to discharge, under existing laws and orders, are forbidden to grant discharges to any men under their control who may be fit for service in the Invalid Corps. The Provost Marshal General is charged with the execution of this order, and the troops organized under it will be under the control of his Bureau.

By order of the Secretary of War: E. D. TOWNSEND, Assistant Adjutant General,

21 4

BOOTH & MORFIT'S ENCYCLOPEDIA OF CHEMISTRY.—Just ready, the seventh edition of the Encyclopedia of Chemistry, theoretical and practical in its application to the arts, metallurgy, mineralogy, geology, medicine and pharmacy, by James C. Booth, Melter and Refiner, U. S. Mint, assisted by Campbell Morfit, and others, and published by the Manufacturers of Soap, and Candles, and various other books. In one volume, large 8vo. Illustrated by numerous engravings on stone and wood, 978 pages, compactly printed, neatly and strongly bound in sheep, \$5. The contents of this valuable book being so very full, it is entirely impossible to publish any list. Some idea of its range and completeness can be formed from the fact that it contains more than 5,000 articles, many of them of a full and most elaborate nature. The above or any other of my Practical and Scientific publications sent by mail free of postage. Every reader of the SCIENTIFIC AMERICAN is particularly invited to send for a catalogue, which will be sent free of postage. HENRY CAREY BAIRD, Publisher of Practical and Scientific Books, 406 Walnut street, Philadelphia.

\$60 A MONTH! WE WANT AGENTS AT \$60 A month, expenses paid, to sell our Everlasting Pencils, Oriental Burners, and thirteen other new, useful and curious articles. Fifteen circulars sent free. Address SHAW & CLARK, 21 12\* Maine.

FILAX, HEMP, JUTE AND MANILLA.—RICHARD KITSON, Lowell, Mass., manufacturer of ne die-pointed card clothing for carding flax, hemp, jute and manilla. 21 13

BUREAU OF ORDNANCE.

Washington City, April 1, 1863. This Bureau is desirous of ascertaining whether rifled cannon can be made of wrought iron of sufficient and uniform endurance and economy to warrant their being preferred to guns of cast iron only...

RAILROAD IRON FOR SALE.

UNITED STATES MILITARY RAILROAD OFFICE, 250 G STREET, WASHINGTON, D. C., May 12, 1863. The undersigned will receive bids for the purchase of 928 220-2240 tons new railroad iron, weighing 60 lbs. to the yard...

THE CELEBRATED CRAIG MICROSCOPE WILL BE mailed, prepaid, for \$2 25, with 6 beautiful mounted objects for \$3; with 24 objects for \$5, by HENRY CRAIG, 180 Center street (3d floor), New York. Liberal discount to dealers.

JACQUARD MACHINES, WITH APPURTENANCES, manufactured and put up. Looms for narrow goods, from silk ribbon to cotton tape, built to order on the most approved principles.

MANUFACTURERS OF THE SPRINGFIELD MUSKET (1855) can obtain a few thousand each of Bands, Rear Leaf Sights and Side Screw Washers. Warranted to pass Government inspection.

READER, IF YOU WANT EMPLOYMENT, OR WANT the best (two-threaded) Sewing Machine ever manufactured, send to ISAAC HALE, JR., & CO., Newburyport, Mass., for a descriptive circular of terms, &c.

GUTTA-PERCHA CEMENT ROOFING.—THIS ROOFING is fire and water-proof—costs only about one-third as much as tin, and is far more durable. Can be applied by ordinary laborers.

LIQUID GUTTA-PERCHA CEMENT FOR COATING and preserving metal roofs, and for repairing leaky roofs of all kinds. These materials are shipped ready for use (no heat required).

DEAF! DEAF! ARTIFICIAL EARS FOR THE DEAF. Send for a descriptive pamphlet to E. HASLAM, 32 John street, New York.

NERVOUS DISEASES AND PHYSICAL DEBILITY, arising from Specific causes. In both sexes—new and reliable treatment, in Reports of the Howard Association—sent in sealed envelopes, free of charge. Address Dr. J. SKILLIN HOUGHTON, Howard Association, No. 2 South Ninth street, Philadelphia, Pa.

FOR SALE.—TWO CYLINDER BOILERS, 30 INCHES in diameter, 30 feet long and in good order, now in use by the West Haven Engine Company in West Haven, Conn., which are soon to be replaced by larger ones.

ENGLISH EXCELSIOR SOLVENT POWDER FOR cleaning boilers and prevention of scale, put up in casks containing about 30 pounds each, price 25 cents per pound. For references, &c., address THE ROBEY & CO. DUNBAR, agent for the United States and Canada, 67 William street, New York.

STEVENSON'S JONVAL TURBINE WATER WHEELS, which gave the greatest useful effect over all others, at the trials at Philadelphia, are manufactured at the Novelty Iron Works. Address J. E. STEVENSON, 200 Broadway, New York.

STEREOPTICONS WITH POWERFUL HYDRO-OXYGEN LIGHTS; Magic Lantern, with oil, gas or oxyacetylene lamps; Dissolving Views; Scenes of the War; Women of the Bible; Scripture Views; Astronomical Views; Views in the Holy Land; Comic Pictures, &c. Our priced and illustrated catalogue (a new edition) sent by mail free of charge.

PATENT OFFICE MODELS, SCIENTIFIC INSTRUMENTS, Tools, and all kinds of small Machinery and Drawings made to order by BIETNER & KRIG, 510 Broadway, New York.

TO MANUFACTURERS AND INVENTORS.—LIGHT storage, with facilities for selling. Parties wishing to make it a depot for the sale of their manufactures can have desk-room and storage on reasonable terms. Agencies solicited and satisfactory references given. Location good and storage room ample. Address T. TOWNSEND, 23 Dey street, New York.

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PATENT DEALERS TAKE NOTICE.—THE INVENTOR of two good inventions—one a stubble plow and the other a sheep-shear—wishes to correspond with some one that will take an interest in them and pay all the expenses of getting them patented and have one-half the profits. Address F. VAN DOREN, Adrian, Mich.

\$75 A MONTH! I WANT TO HIRE AGENTS IN every county at \$75 a month, expenses paid, to sell my new cheap Family Sewing Machines. Address S. MADISON, Alfred, Maine.

A VALUABLE WORK FOR INVENTORS, PATENTEES AND MANUFACTURERS.

The publishers of the SCIENTIFIC AMERICAN have just prepared, with much care, a pamphlet of information about Patents and the Patent Laws, which ought to be in the hands of every inventor and patentee, and also of manufacturers who use patented inventions. The character of this useful work will be better understood after reading the following synopsis of its contents: The complete Patent Law Amendment Act of 1861—Practical Instructions to Inventors, how to obtain Letters Patent, also about Models—Designs—Caveats—Trade-marks—Assignments—Revenue Tax—Extensions—Interferences—Infringements—Appeals—Re-issues of Defective Patents—Validity of Patents—Abandonment of Inventions—The Mode of Introducing them—Importance of the Specification—Who are entitled to Patents and who will present the Granting of a Patent—Patents in Canada and European Patents—Schedule of Patent Fees; also a variety of miscellaneous items on patent law questions.

WOOD-WORKING MACHINERY, DESIGNED FOR the manufacture of cars, carriages, sash, blinds, doors, moldings, patterns, piano-forte and cabinet work, agricultural implements, packing boxes, lumber, &c. Made by RICHARDSON, MERIAM & CO., Worcester, Mass.

MACHINERY.—S. C. HILLS, No. 12 PLATT-STREET New York, dealer in Steam Engines, Boilers, Planers, Lathes, Chucks, Drills, Pumps; Moulding Tenoning and Sash Machines; Woodworth's and Daniels' Planers, Dick's Punches, Presses and Shears; Cob and Corn Mills; Harrison's Grist Mills; Johnson's Shingle Mills; Beijing, Oh, &c.

READY ROOFING.—THIS ARTICLE IS MADE OF the thickest woven fabric ever used for roofing; invented and manufactured expressly for our own use. (See page 176 of the current volume of the SCIENTIFIC AMERICAN for full description.) Needs no coating of cement to be spread upon the surface after being nailed upon the roof-boards, as every other kind of roofing does. It costs less than half the price of tin, is far more durable, and is easily applied by any one. READY ROOFING COMPANY, 73 Maiden Lane, New York.

GILLESPIE'S GOVERNOR AND REGULATOR.—THE attention of mill-owners and others is respectfully invited to this valuable improvement for regulating the speed of water wheels, for which purpose it has never been equaled. Unlike other regulators of water wheels, it is quick and very sensitive, while it works upon an entirely new principle. It is the most simple and durable governor ever used, and is therefore the cheapest. We warrant every machine to give satisfaction, or no sale. J. E. GILLESPIE & CO., Renton, N. J.

TO PERSONS ENGAGED IN MANUFACTURING ARTICLES used in Woolen Mills.—I desire to obtain the address of all persons engaged in manufacturing articles used in Woolen Mills, such as Reed-makers, Shuttle-makers, Bobbin-makers, Picker-makers, Comb-makers, &c.; also manufacturers of Patent Oil-cans, Patent Tenon Planers, Patent All-articles used or connected with Woolen Mills. Parties interested please take notice and send their business card to THOMAS STIBBS, Dealer in Manufacturers' Supplies, Worcester, Ohio.

TO INVENTORS.—THE UNDERSIGNED HAS GOOD facilities at his place of business in this city to sell a really valuable and profitable article, and now and hereafter, he might be disposed to advance some capital, and to manufacture the same, if necessary. Address HERMAN J. ROSENCRANZ (care of J. SCOTT), New York.

GUN SCREWS! GUN SCREWS!—THE SUBSCRIBER has on hand and is manufacturing gun screws which they will warrant to fit "Springfield" guns. They also sell orders for gun screws to fit other guns. Samples can be seen at our store, No. 74 Beekman street, New York. FELLOWS, HOFFMAN & CO., 12 12<sup>th</sup>.

DON'T FORGET, SUPERIOR DOUBLE SAW-BENCHES, \$55. Circulars sent. C. P. S. WARDWELL, Lake Village, N. H.

FAN BLOWERS.—DIMPFL'S, ALDEN'S, MCKENZIE'S and others, for Steamboats, Iron Works, Foundries, Smith Shops, &c. On hand for sale by LEACH BROTHERS, 86 Liberty street, New York.

EXCELSIOR MOWER AND REAPER.—THE BEST IN use—the patent for sale or lease. A fortune can be made by building these machines. Territories for sale. Send for a circular and you will get all the particulars. ROBERT BRYSON, Schenectady, N. Y.

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BOLTS, NUTS AND WASHERS OF ALL SIZES CONSTANTLY on hand for sale by LEACH BROTHERS, 86 Liberty street New York.

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**Improved Patent Clothes Frame.**

Nearly all our readers who are housekeepers have experienced the difficulties arising from a want of sufficient laundry room, and especially in large cities where the space allotted to each family is comparatively small, this want has been made peculiarly manifest. These difficulties are overcome by the invention of the clothes frame herewith illustrated and described, as it affords a very large amount of space in which to hang garments and occupies a small compass. The annexed cuts represent the improved clothes frame.

Fig. 1 is a perspective view of the frame as opened for use. Fig. 2 is a perspective view of it when closed.

To open the apparatus the buttons, *a*, are first turned into position to release the side-pieces, A A, and the said side-pieces are then, by means of the

against the central post, G; the outer ends of the arms, F E E', lowered by means of the slides, D; and the sides, A, are replaced and secured in position.

This apparatus provides a large extent of drying surface when open, and may be folded within a very compact space when not in use. A frame, 6 feet high and 7 feet square, will afford 120 feet of space on which to hang clothes. Any required part of the frame can be brought into use, while the rest of it remains closed. By adapting the respective ends of the arms to slide vertically upon the central post and side-pieces, the entire frame may be folded within the height of the central post, instead of (as is commonly the case) occupying a greater vertical height folded than open.

The patent for this invention was procured through the Scientific American Patent Agency, on Feb. 24,

Fig. 1

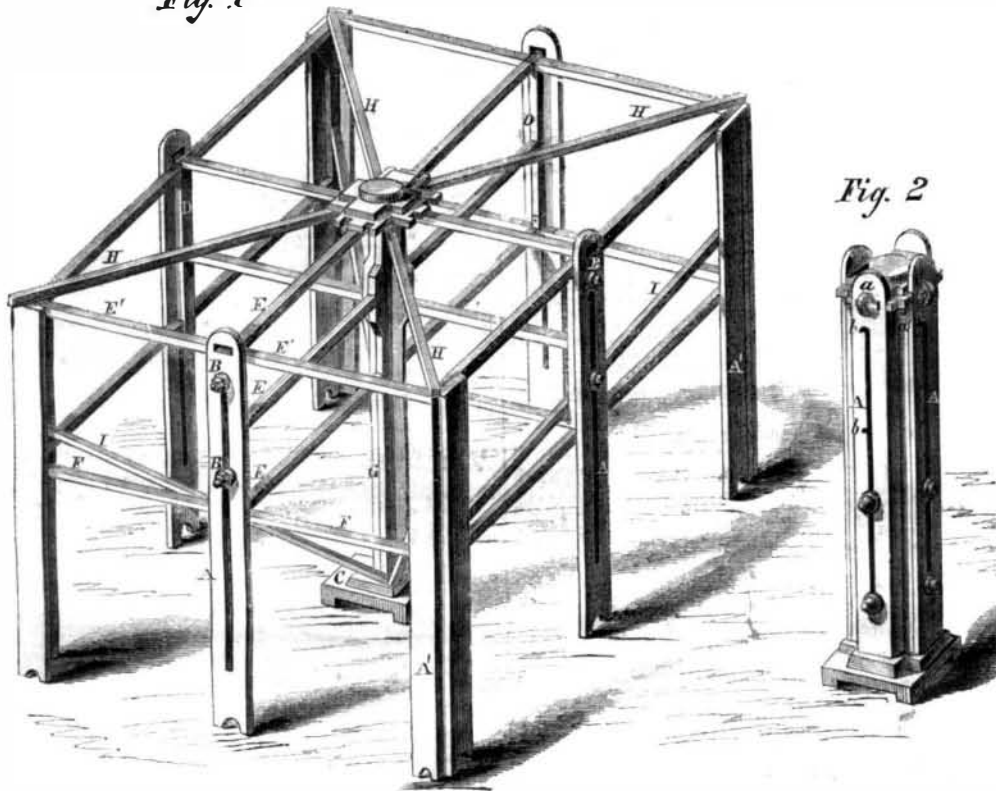


Fig. 2

**MAYHUGH'S PATENT CLOTHES FRAME.**

knobs, B, drawn out at the top and up out of the pedestal, C. They may then be drawn forward and the slides, D (Fig. 1), at the same time run up until the arms, E E and F, acquire horizontal positions where they are held by resting the pins or bolts, on which the knobs, B, are mounted, in the notches, *b*, Fig. 2. The arms, E, are attached at their respective ends to the slides, D, by means of horizontal hinges, and to horizontal vertically-sliding hinges on the central post, G. The ends of the arms, indicated by E', are also provided with horizontal hinges, attached respectively to the slides, D, and the upper part of the secondary side-pieces, A A. The arms, E, are attached at one end to the slide, D, by a horizontal hinge, and at the other end to the secondary side-pieces, A A, by a horizontal hinge adapted to allow the arms the required vertical movement on said secondary side-pieces. The buttons, *a*, are now turned so as to release the side-pieces, A A, and the latter are drawn forward at the top and up out of the slots in the pedestal, when they may be moved around until the arms, F E', are at right angles with the arms, E (as shown in Fig. 1); they are held in position in the same manner as the arms, E. The rods, H, each hinged at one end to the central post and having a pin at the other end, are then placed in position to brace and connect together the tops of the secondary side-pieces, A A, which may be connected at the bottom by a common hook and staple. The braces, I, are hinged or pivoted to the pedestal, C, and extended to impart rigidity to the side-pieces, A; the apparatus is then ready for use.

When it is desired to close the frame, the action is simply reversed, the brace rods, H I, being folded

1863, and further particulars may be obtained by addressing the inventor, James P. Mayhugh, at Leitersburgh, Washington county, Md.

**Revival of Mosaic Work in Venice.**

The beautiful art of producing various designs by inlaying in colored glass, minerals and metals, which had become almost obsolete, has been revived in Venice. A correspondent of the *Boston Advertiser*, writing from that city, states that he has lately visited the mosaic manufactory, which is in an old palace on the banks of the Grand Canal. He states that about two hundred artisans are employed cutting the colored glass, grinding and polishing the pieces and fitting them together, forming most beautiful productions. Groups of the Savior and the Apostles, figures of saints, &c., are produced in exquisite style, for windows of cathedrals. Inlaid tables, caskets and rich vases, mounted in silver and precious stones, are also made. A beautiful mosaic floor is being made for the Viceroy of Egypt, and mosaics for windows in the Queen's chapel at Windsor are being produced from designs drawn by the princess of Prussia.

**DO NOT SWEAR!**—Profane swearing is very justly regarded by all true gentlemen as a most debasing practice. The utterance of an oath quickly sinks a man in the estimation of all who entertain proper notions of true manhood. We have noticed that the habit is quite too common among our mechanics; and we would urge upon them to quit it. If a man happens to pound his finger with a hammer, the injury and pain are made none the less severe by swearing about it. The tongue is an unruly member and needs constant watching lest it become fouled with immoral sediment.

**HOUSES IN CHINA.**—In China, a man is not allowed to build a house above his legitimate rank in society. He may acquire a fortune by his own exertions, but, unless he holds some office, or is born to some rank, he has no liberty of architecture. Every matter relating to building is the subject of regulation by the police. The laws of the empire detail and enforce, with the greatest precision, the mode of constructing a residence for a prince of the first, second, or third rank or of a grandee, or of a mandarin. According to the ancient law, the number and height of the apartments, the length and height of a building, are all regulated with precision, from the plain citizen to the mandarin, and from the mandarin up to the emperor himself.

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**To the Inventor!**

The SCIENTIFIC AMERICAN is indispensable to every inventor as it not only contains illustrated descriptions of nearly all the best inventions as they come, but each number contains an Official List of the Claims of all the Patents issued from the United States Patent Office during the week previous; thus giving a correct history of the progress of inventions in this country. We are also receiving, every week, the best scientific journals of Great Britain, France and Germany; thus placing in our possession all that is transpiring in mechanical science and art in those old countries. We shall continue to transfer to our columns copious extracts from those journals of whatever we may deem of interest to our readers.

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