

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.

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.

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.

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.

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 to \$15.

Table listing fees for patent services: 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-issuance, \$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.

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!

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.

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, inclosing the official letters, &c.

CAVEATS.

Persons desiring to file a caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention. The Government fee for a caveat, under the new law, is \$10.

FOREIGN PATENTS.

We are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business we have offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels.

Inventors will do well to bear in mind that the English law does not limit the issue of patents to inventors. Any one can take out a patent there.

Circulars of information concerning the proper course to be pursued in obtaining patents in foreign countries through our Agency, the requirements of different Government Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park Row, New York, or any of our branch offices.

ASSIGNMENTS OF PATENTS.

Assignments of patents, and agreements between patentees and manufacturers are carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American Patent Agency, No. 37 Park Row, New York.

It would require many columns to detail all the ways in which inventors or patentees may be served at our offices. We cordially invite all who have anything to do with patent property or inventions to call at our extensive offices, No. 37 Park Row, New York, where any questions regarding the rights of patentees will be cheerfully answered.

Communications and remittances by mail, and models by express (prepaid), should be addressed to MUNN & CO., No. 37 Park Row, New York.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on design patents when two good drawings are all that are required to accompany the petition, specification and oath, except the Government fee.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

NEW PAMPHLETS IN GERMAN.—We have just issued a revised edition of our pamphlet of Instructions to Inventors, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon application at this office. Address MUNN & CO., No. 37 Park-row, New York.



T. W., of N. Y.—Phosphorized ether is made with sulphuric ether and phosphorus. A small piece of phosphorus is placed in a phial, and some ether poured over it. The phial is then well stoppered, and shaken occasionally, until the phosphorus dissolves.

E. B., of Mo.—Any person has a right to use your invention outside of the United States; and although he may have made a large fortune by its use, you have no claim upon him for any portion of the proceeds.

C. W., Jr., of Mass.—A report on the electric light at Dungeness, Scotland, has been made to the House of Commons. It is the only source, so far as we know, from which you can obtain the information you desire respecting it.

J. W. R., of Pa.—Coal ashes contain a small quantity of potash, which is a deliquescent salt. Having mixed some of it with the hydraulic cement of which the floor of your cellar is made, this may account for the floor becoming very damp during wet weather.

J. G. H., of Mo.—A good Jonval turbine wheel would be the best that you could use on your 35-foot fall, with a regular supply of 10 cubic feet of water per second. When the quantity of water is irregular, the over-shot, or breast-wheel, should be preferred.

E. C. P., of Mass.—There is no special work published on spectral analysis, so far as we know. We would prefer silver to aluminum for spoons or any other article of domestic use.

V. B. T., of Iowa.—The flax-dressing machine to which you refer is a good one. Steam evaporators for sirups are perhaps the most safe; because you can regulate the temperature in a manner superior to that of employing fire direct to the pans.

J. R., of Ohio.—You must heat your boxes before applying the Rabbitt metal, or it will not adhere.

J. H. B., of Ohio.—Electricity may be generated by water-power, and conducted on wires to as great a distance as if generated by a battery; but you will find it too expensive and troublesome to provide it thus, for use as a motive power two miles distant.

R. A. R., of N. Y.—There is no truth in the "fact" that a long screw driver is more powerful than a short one. There is no power in a screw driver any more than there is in a potato.

S. M. P., of Maine.—Use the scraping tool instead of the sharp, keen-edged one; and you will find that the turning is much better.

L. M., of Conn.—You cannot expect to become a proficient in tempering steel without practice, and an opportunity of observing others skilled in the art.

W. H. T., of N. Y.—The birch oil of Russia which is used in the manufacture of Russia leather, and which is a powerful preservative, is obtained by submitting birch bark to distillation.

H. W., of Ohio.—You must not expect to obtain good molasses from beet root. In France and Germany such molasses is given to pigs; it is nauseous and has a very disagreeable smell.

W. R. C., of Conn.—Good gas for illumination can be made from wood, but it costs more than gas made from coal. In Germany, where coal is high in price, there are twenty different towns in which gas made from wood is used.

J. P. G., of Ill.—Starch is never attacked by insects; it is the gluten of wheat which is so subject to insect depredations. Starch manufacturers have informed us that they have kept starch for several years, and in no case have they ever noticed it depreciate in quality.

H. P. C., of N. J.—The finest qualities of silk are now raised in France, where as much care has been devoted to improving the breed of silk worms, by crossing the varieties, as has been exercised in other countries in improving the breed of sheep, to secure fine wool.

R. F., of Mass.—The armament of the Monitors is now said to be one 8-inch Parrottrifle, and the 15-inch gun.

J. M., of Conn.—We do not know the proportions of the freezing mixture. You had better obtain the Glauber salts and saltpeter and experiment for yourself.

R. P. W., of Ill.—Good cast-iron is easily distinguished by the closeness and smallness of its crystals and its bluish-grey color. Good wrought-iron is tested by bending cold, and applying severe strains of all kinds.

G. S., of N. Y.—No reliance can be placed upon any assertions of the character you mention. We do not admit that class of matter into our columns.

R. F., of Mass.—The most simple method of making the stannate of soda, which is used to such a great extent in Europe by calico printers, is to fuse tin ore with soda.

J. H. W., of Pa.—Rosin oil is not suitable for painting, compared with linseed oil, but you might use it in the painting of outhouses. We advise you to submit your barometer to some philosophical instrument maker in Philadelphia, and not send it to any great distance to have the air removed from the tube.

M. B., of Wis.—Although the lead ores of Great Britain do not contain so much lead as those of America, they contain more silver, and are held to be more profitable to work.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, July 22, to Wednesday, July 29, 1863:—

- W. P., of N. Y., \$20; J. M. S., of N. J., \$16; R. G., of Ind., \$20; W. S. J., of Conn., \$20; E. E., of N. Y., \$20; Z. W., of Cal., \$25; J. B., of N. Y., \$20; T. J. D., of N. Y., \$45; A. C. B., of N. Y., \$12; G. W. W., of Pa., \$25; A. H. T., of R. I., \$16; I. E. P., of Conn., \$25; A. H. A., of Ind., \$12; G. S. M., of Conn., \$10; J. C. L., of Mo., \$16; J. E. Van S., of Ky., \$10; S. D. E., of Mich., \$44; G. H. L., of Ill., \$40; J. C., of Mass., \$250; E. W. H., of Ill., \$29; E. R. S., of Mass., \$16; J. L. K., of N. J., \$16; R. McD., of N. J., \$20; H. M., of N. Y., \$20; C. H. R., of Maine, \$20; T. H., of N. Y., \$20; A. B. E., of Mass., \$100; T. T. H., of N. Y., \$20; R. A. T., of N. Y., \$16; H. W., of Ohio, \$7; S. and W., of Conn., \$778; H. F. B., of Ill., \$25; C. P. C., of Mass., \$25; F. C., of N. Y., \$25; C. F., of Ill., \$15; M. D., of Ind., \$15; A. H., of Ill., \$15; K. and L., of Ohio, \$29; P. M., of Ill., \$25; S. W., of N. Y., \$16; W. and C., of N. Y., \$16; R. R. B., of N. Y., \$25; T. P. R., of Mass., \$25; D. R., of N. Y., \$20; C. T. D., of N. J., \$16; E. A. S., of N. Y., \$20; M. R. S., of N. Y., \$41; S. B. D., of N. Y., \$41; P. E., of N. Y., \$16; H. G., of N. Y., \$16; M. and B., of N. Y., \$41; W. T., of N. Y., \$10; B. L. W., of Mass., \$28; B. G., of Ill., \$16; J. J. K., of Ill., \$15; J. C., of R. I., \$12; S. and S., of N. Y., \$30; J. S. B., of England, \$16; D. and H., of Ind., \$16; G. F. J., of Iowa, \$20; T. J. W., of N. H., \$25; S. W. N., of N. Y., \$16; A. S., of N. Y., \$25; A. A. S., of Mich., \$16.

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, July 22, to Wednesday, July 29, 1863:—

- H. W., of Ohio; A. C. B., of N. Y.; M. & C., of France; J. C., of R. I.; E. P. C., of Mass.; T. J. W., of N. H.; A. S., of N. Y.; P. C., of N. Y.; R. R. B., of N. Y.; F. J., of France; W. T., of N. Y.; M. R. S., of N. Y.; I. E. P., of Conn.; A. H. A., of Ind.; B. L. W., of Mass.; G. W. W., of Pa.; J. E. Van S., of Ky.; S. & S., of N. Y.; T. P. R., of Mass.; E. B. R., of N. J.; M. & B., of N. Y.; R. W., of Mass. (3 cases); J. S. B., of England; H. F. B., of Ill.; G. F. J., of Iowa; K. & L., of Ohio; E. J. F., of Ill.; P. M., of Ill.

Binding the "Scientific American."

It is important that all works of reference should be well bound. The Scientific American being the only publication in the country...

Believing that the latter style of binding will better please a large portion of our readers, we commenced on the expiration of Volume VII...

The price of binding in the above style is 75 cents. We shall be glad hereafter to furnish covers to the trade...

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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...

The complete Patent Law Amendment Act of 1861—Practical Instructions to Inventors, how to obtain Letters Patent, also about Models—Designs—Trade-marks—Assignments—Reversion Tax—Restoration—Infringements—Appeals—Rescissions of Defective Patents—Validity of Patents—Abandonment of Inventions—Best Mode of Introducing them—Importance of the Specification—Who are entitled to Patents—What will prevent 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.

It has been the design of the publishers to not only furnish, in convenient form for preservation, a synopsis of the Patent Law and Practice, but also to answer a great variety of questions which have been put to them from time to time during their practice of upwards of twenty years...

TALBOT'S PATENT CALIPERS.—ONE-HALF OR THE WHOLE OF THE PATENT RIGHT OF TALBOT'S IMPROVED CALIPERS FOR SALE. See illustration and description in No. 6 Vol. IX of the Scientific American.

RIGHT FOR THE STATE OF NEW YORK FOR SALE.—Improved Automatic Weighing Scale. This scale operates without the use of weights or springs, is compact, simple and cheap...

WATER WHEELS.—REYNOLD'S PATENT.—THE best turbine in use; powerful and economical in use of water. Call upon our office. Wm. H. Underhill, 432 Broadway, New York.

A CHEMIST EXPERIENCED IN ALL BRANCHES OF manufacture and science, desires employment in a chemical or dyeing business. Can give the best of references. Address FREDERICK HOFFMAN, 178 Fulton street, New York.

WAIT'S IMPROVED JONVAL TURBINE WATER-WHEEL. The best and cheapest wheel in use. Heavy, strong and durable, adapted to all heads, and set and net cost put out of order. Circulars sent on application.

FAIR OF THE AMERICAN INSTITUTE, 1863.—The Board of Managers of the American Institute hereby give notice that they have rented THE ACADEMY OF MUSIC, in Fourteenth street and Irving place, for the month of September...

GREAT NATIONAL EXHIBITION. The exhibition will be general, embracing MANUFACTURES of all kinds, NEW INVENTIONS, IMPROVEMENTS IN AGRICULTURE, AGRICULTURAL IMPLEMENTS and the MECHANICAL ARTS generally...

FOR WOOD LATHES, SCROLL SAWS, SAW BENCHES and wood-working machinery, address J. A. FAY & CO., or E. C. TAINTER, succeeding partner, Worcester, Mass.

WOODWORK PLANERS.—IRON FRAMES TO PLANE 18 to 24 inches wide, at \$100 to \$120. For sale by S. C. HILLS, No. 12 Platt-street, New York.

R. J. IVES, BRISTOL, CONN., MANUFACTURER of all kinds of machine and fancy screws. Address as above.

AGENTS AND SOLDIERS.—AGENTS WANTED everywhere. From \$5 to \$15 a day guaranteed. Send along your name and the names of your friends.

DOLLAR POCKET STEREOSCOPE.—THE MOST charming invention yet offered for adding interest to Parrot Cards, Stereoscopic Views and Photographic Albums...

BLACK DIAMOND STEEL WORKS, PITTSBURGH Pa. PARK BROTHER & CO., manufacturers of best quality Bedstead Steel, square, flat and octagonal, of all sizes. Warranted equal to any imported or manufactured in this country.

B. T. BABBITT ON MAKING BREAD, WITH FULL directions on each package of Salazar's, showing how to make the best of bread from materials that farmers always have on hand.

WOOD-WORKING MACHINES.—A FULL SET for car and sash and door work. Two Woodworth planers 6 rolls, 14 inches. One Gray & Wood planer 16 by 20...

MACHINERY.—SLIDE LATHES, IRON PLANERS, upright drills, bolt-cutting machines, milling machines, gear cutting engines, punching machines, vertical chucks, &c.

VULCANIZED RUBBER.—Adapted to mechanical purposes.—MACHINE BELTING, STEAM PACKING, VALVES, HOSE, EMERY VULCANITE WHEELS, &c.

AN ENGINEER COMMANDING A LARGE BUSINESS and some cash capital, is desirous of entering into partnership in a well established machine-shop.

WHITE'S PATENT GOVERNOR AND CHECK VALVE.—A perfect regulator of steam, and always safe, as it checks the speed of an engine if the governor belt breaks or comes off.

FIBER-CLEANING MACHINE.—THIS VALUABLE machine, the invention of Eduardo J. y Parrullo, and illustrated on page 263, last volume, Scientific American, is now on exhibition.

PLATINA! ALL SHAPES! FOR ALL PURPOSES. Imported by RUTTON & RAFFERTY, 743 Broadway, N. Y.

WANTED.—SCRAP IRON, OLD BOILERS, AND OLD Iron Machinery. The subscribers will buy cash for any quantity of Wrought or Cast Scrap Iron, Old Boilers and Old Iron Machinery.

\$60 A MONTH! WE WANT AGENTS AT \$60 A month, expenses paid, to sell our Wonderful Penicils, Orienta Burners, and thirty or other new, useful and curious articles.

PECK'S PATENT DROP PRESS.—ALL THE SIZES used in the manufacture of silver, brass or tinware, lamps, spoons, jewelry, &c.

NERVOUS DISEASES AND PHYSICAL DEBILITY, arising from Specific causes, both sexes—new and reliable treatment, in Reports of the Howard Association, sent in sealed letter envelopes, free of charge.

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

COTTON GINS! COTTON GINS!! THE NEW YORK Cotton Gin Company manufacture and offer for sale the Excelsior Roller Gin for Sea Island or long staple cotton; also Brown's celebrated Double-cylinder Saw Gin for upland or shortstaple.

GOLD PENS AND CASES AT WHOLESALE AND retail—genuine goods. Also, the best Fountain Pen in the world. Send stamp for circular.

LANE'S PATENT LIFTING JACK.—VERY EASILY operated, compact, simple and cheap. For cut and description see page 456, Vol. VIII, (new series), Scientific American.

FOR SALE.—A PATENT GRANTED ON MARCH 17, 1863. Described in the Scientific American, Vol. VII, No. 20. A spring skate which is light and durable, with an improved revolving heel-screw.

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

IRON PLANERS, ENGINE LATHES, DRILLS AND other machinists' tools, of superior quality, on hand and finishing, for sale low. For description and price address NEW HAVEN MANUFACTURING COMPANY, New Haven, Conn.

PAYE'S PATENT FORGE HAMMER.—ADAPTED TO both heavy and light forgings, with an adjustable stroke of from one inch to three feet, on hand for sale by LEACH BROTHERS, 86 Liberty street, New York.

MESSEURS LES INVENTEURS.—AVIS IMPORTANT. Les inventeurs et familles avec la langue anglaise, et qui preferent une communication avec les inventeurs en France, peuvent nous adresser dans leur langue, l'adresse, le nom et un dessin et une description concise pour notre examen.

THE CHEAPEST MODE OF INTRODUCING INVENTIONS.

INVENTORS AND CONSTRUCTORS OF NEW AND useful Contrivances or Machines, of whatever kind, can have their Inventions illustrated and described in the columns of the SCIENTIFIC AMERICAN on payment of a reasonable charge for the engraving.

No charge is made for the publication, and the cuts are furnished to the party for whom they are executed as soon as they have been used. We wish it understood, however, that no second-hand or poor engravings, such as patentees often get executed by inexperienced artists...

MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, No. 37 Park Row, New York City.

OIL! OIL! OIL For Railroads, Steamers, and for Machinery and Burning. PEASE'S Improved Engine and Signal Oil, indorsed and recommended by the highest authority in the United States.

GUILD & GARRISON'S CELEBRATED STEAM Pumps.—Adapted to every variety of pumping. The principal styles are the Direct Action Excelsior Steam Pump, the improved Balance Wheel Pump, Duplex Vacuum and Steam Pumps, and the Water Propeller, an entirely new invention for pumping large quantities at a light lift.

VALUABLE DOCK PROPERTY FOR SALE.—THE subscriber offers for sale a valuable plot of ground on Newtown Creek, near Penny Bridge, in the city of Brooklyn.

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

TO PHOTOGRAPHERS.—IMPROVED PHOTOGRAPHIC Camera, Patented March 25, 1862, by A. B. WILSON (Patentee of the Wheeler and Wilson Sewing Machine), adapted to all photographic work.

PORTABLE STEAM ENGINES.—COMBINING THE maximum of efficiency, durability and economy with the minimum of weight and price. They are widely and favorably known, more than 200 being in use.

F LAX, HEMP, JUTE AND MANILLA.—RICHARD KILTON, Lowell, Mass., manufacturer of needle-pointed card clothing for carding flax, hemp, jute and manilla.

\$75 A MONTH! I WANT TO HIRE AGENTS IN every county at \$75 a month, expenses paid, to sell my new cheap Family Sewing Machine. Address S. MADISON, 21 1/2 St. W. Va.

DAMPER REGULATORS.—GUARANTEED TO effect a great saving in fuel, and give the most perfect regularity of power. For sale by the subscribers, who have established their exclusive right to manufacture damper regulators, using apparatus, or for the vessels of any kind.

WATER WHEELS.—WARREN'S TURBINE WATER Wheel and Turbine Regulator are used successfully in over 600 extensive cotton and woolen mills, where the greatest economy in water is at stake.

POWER LOOM WIRE CLOTHS AND NETTINGS, superior in quality and at low prices, by the CLINTON WIRE CLOTH COMPANY, Clinton, Mass. N. B.—Our trade-mark "Power Loom Wire Cloth."

Zur Beachtung für deutsche Erfinder. Die Unterzeichneten haben eine Anstalt, die Erfindern das Verbalten angibt, um sich ihre Patente zu sichern, herauszugeben, und verabfolgen solche gratis an dieselben.

Die Patent-Bezüge der Vereinigten Staaten. nebst den Regeln und der Geschäftsform der Patent-Office und Anleitungen für den Erfinder, um sich Patente zu sichern, in den Ver. St. (so wohl als in Europa). Ferner Anzüge aus den Patent-Bezügen fremder Länder und darauf bezügliche Nachrichten; ebenfalls nützliche Hinweise für Erfinder und solche, welche Patente zu erlangen wollen.

MUNN & CO., 37 Park Row, New York.

**Improved Paper-cutting Machine.**

In all job printing offices much inconvenience has long been experienced in the machinery for cutting paper. The machine generally used cuts the paper by a "plow," so constructed that the clamp which holds the paper fast to the table has attached to its head an adjustable knife-blade; this is pushed backwards and forwards on the paper until the task is performed; the knife moving downwards at each stroke. The edges of paper cut in this way are often left rough, and so pressed together that the sheets require careful separation before they can be fed to the printing press.

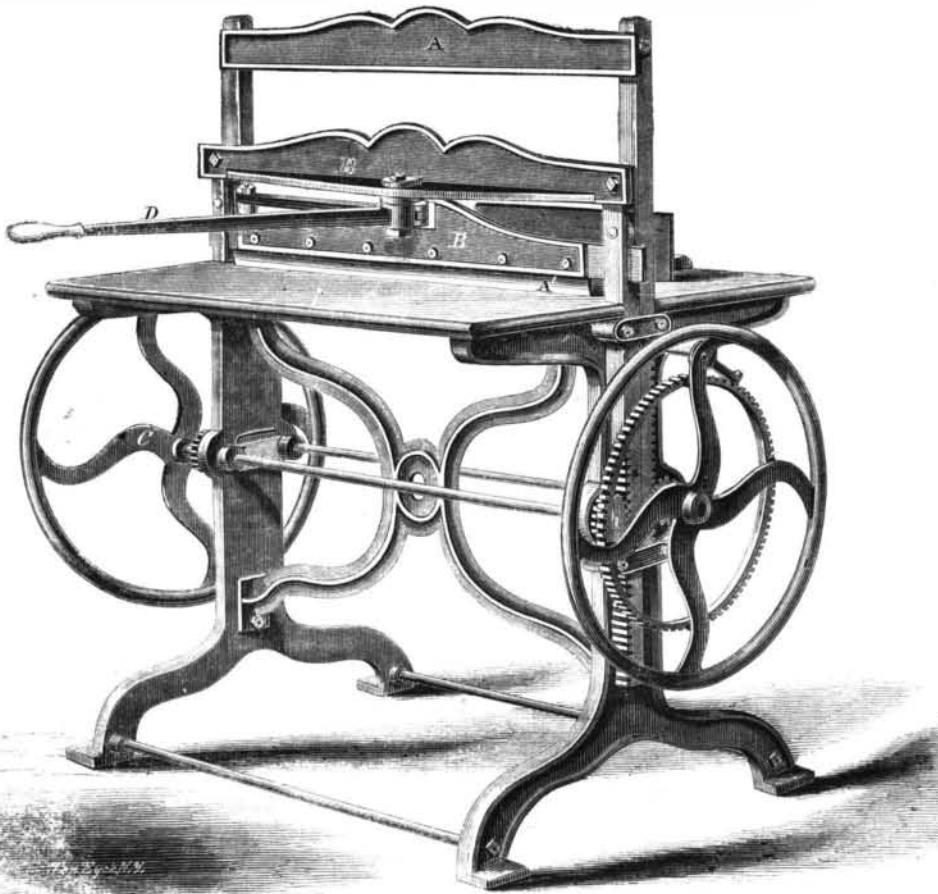
The machine represented in the engraving published herewith entirely overcomes these objections, and is a valuable tool for bookbinders as well as

**A New Enterprise.**

The Menhaden fishery is attracting considerable attention in this vicinity, the present year, in consequence of the almost fabulous profits said to have been realized in the business by parties in other places. Two small vessels recently sailed from this port, and a brig has been added to the fleet. The brig has been fitted in a thorough manner by her agent for doing a heavy stroke of business, with little trouble and in an expeditious manner. She has try-works similar to those of a whaler, except that they are fitted to burn wood. The fish are first boiled in these till they are soft, and then transferred to a powerful set of screw presses, fitted up with novel appliances suited to the work in hand. Among these is an arrangement by which the heavy blocking

a steam-boiler. The work of cutting was a good steam bath. The heat subsided in a few days, and the hay came out bright. Last year I constructed a ventilator in the same bay, of four scantling, with rounds two and a half feet long, and fifteen inches apart, and placed it in the center of the bay, over a hole in the floor connecting with the air outside. It is in fact a four-sided ladder. I saw no signs of steam on the mow after it was filled."

A LARGE steam hammer in the works of Messrs. Lazell, Perkins & Co., Bridgewater, Mass., weighs upwards of eleven tons, and has ten feet stroke; the full force of the blow being 135 tons. The large lathe in the same establishment will bore and face 30 feet diameter, and turn 37 feet long.

**MONTAGUE'S PAPER-CUTTING MACHINE.**

printers. It is so simple that a minute description is hardly necessary. The paper is placed under a clamp, A, similar in its operation to that of the "plow." The knife, A', is a very long blade, covering the entire length to be cut, held in the frame, B, which moves vertically; and when pressed upon the paper by means of a wheel, C, at the left hand of the operator, is vibrated by his right hand, by a lever, D, in front of the machine.

The paper cut in this way is left in the most perfect condition. An adjustable gage on the table is an aid to rapid cutting of books, pamphlets and job work in general. The machine is also more quickly made ready for operation than some others. Machinery for applying greater power than can be obtained by hand can be applied at comparatively little expense. An application for a patent has been filed. Printers, and others interested, will find a specimen machine at E. R. Webb's Printer's Warehouse, 110 Fulton street, New York, which they will do well to examine. Further information can be had by addressing the inventor, Mr. Charles Montague, at Hartford, Conn.

**FOOD FOR FATTENING POULTRY.**—The cheapest and most advantageous food to use for fattening every description of poultry is ground oats. These must not be confounded with oatmeal, or with ordinary ground oats. The whole of the grain is ground to a fine powder; nothing of any kind is taken from it. When properly ground, one bushel of the meal will more effectually fatten poultry than a bushel and a half of any other meal. The greatest point in fattening poultry is to feed at daybreak.

between the screw and the cheese is so balanced as to be easily swung into and out of position by one man. The vessel carries a number of large tanks, of a united capacity of several hundred barrels, and the oil runs into them through pipes directly from the presses, without bailing. All the spare room in the hold is devoted to empty barrels for the refuse remaining after the oil is pressed out, which is by some means converted into "guano."

The oil is mostly used by carriers, but it is said to have been lately discovered to be superior to linseed oil for paint. About a gallon of oil is obtained from a barrel of fish at this season, and from two to three and-a-half gallons in the fall.—*New Bedford Standard.*

[This may be a new enterprise for fishermen, but it is not to capitalists, who have been at great expense in fitting up large establishments at various points in the Eastern States, with whom the fishermen are thus brought into direct competition.—*Eds*

**Ventilating Hay Mows.**

A correspondent (H. Walker), of the *Country Gentleman*, gives the following as his experience with hay mows:—

"Ventilating large bodies of hay is not often practised, and results in mow-heated hay, when it is not thoroughly cured. In the summer of 1861, I filled a bay thirty-four by twenty-two feet, and eighteen feet high; as I supposed, well cured. Soon after it was filled, I had occasion to visit the mow, and found that a large amount of steam or vapor was rising from the hay. I took a hay-knife, and cut two round holes four feet in diameter and five feet deep, which when done had the appearance of an escape-pipe from



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