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, or the most reasonable terms. They also attend to various other departments of business pertainingto 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 freelygiven, without charge, on sending a model or drawning and description to the 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, foradvice. 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 REAMINATIONS 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 pamphiet, 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 of 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, it the invention is a chemical production, he must furnish samples of the ingredients of which bis 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 satally purebase drafts from their merchants on their New York correspondents; but, if not convenient to de 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.

Therevised Patent Laws, enected by Congress on the 2d of March,

Therevised 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 ENTERTY SCATE, and the Government fee required on filing an application for a patent is reduced from \$30 to \$15. Other changes in the fees are also made as follows:

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
On application for Re-issue.
On application for Extension of Patent
On granting the Extension
On filing a Disclaimer\$10
On filing application for Design, three and a half years\$10
On tiling application for Design, seven years
On tiling application for design, fourteen years

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 Mesers, 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 paperhave become identified with the whole brotherhood of inventors and patentées 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 whole has inured to the inventors whose Datents were secured through this office, and afterwards illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars i We would state that we never had a more efficient corps of Draughtsmeu and Specification Writersthan those employed at presentin 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 successin the prosecution of rejected cases has been very great. The principal portion of our charge is generally land the properties of the properties of the principal portion of our charge is generally land the properties upon the final result.

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

CAVRATE

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. A pamphlet of advice regarding applications for patents and caveats, printed in English and German, is furnished gratis on applieation by mail. Address MUNN & CO., No. 37 Park Row, New York.

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, Brusels. We think we can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through the Scientific American Patent Agency, No. 37 Park Row, New York.

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 puraned 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, whereany 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 Fark Row, New York

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invertion 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. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receiptof \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

Models are required to accompany applications for Patents under the new law, thesame as formerly, except on design patents when two good drawings are all that are required to accompany the petition, specification and oath, except the Gover nme at 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 Instruct, e.g. printed a digest of the fees required under the new Patent Law, &c., printed in the Germanianguage, which persons can have gratis upon application at this office. Address.

MUNN & CO.,

No. 57 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. This preparation is employed to produce waves of light in chemical experiments, by dropping a piece of loaf sugar in the ether, slightly heated, and blowing gently over it with the breath.
- 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 deliquiescent 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. Sprinkle equal parts of dry hydraulic cement and clean sand over the floor, when it is damp, and you will probably remedy the evil.
- 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. Several good turbine wheels have been illustrated in the SCIENTIFIC AMERICAN. Communicate with the makers of such wheels about price, &c., and state the purpose to which you desire
- E. C. P., of Mass.—There is no special work published on spectral analysis, so far as we know. We would prefer silver to aluminun 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 surerior to that of employing fire direct to the pans.
- J. R., of Ohio.—You must heat your boxes before applying the Babbitt 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. In such a case you would require a very large conductor for a very small power.
- 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. The force is supplied by the man using it, and the longer the tool the more chance he has to exert his strength.
- 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. Such oil might be manufactured in large quantities from the birch bark of our forest trees; and possibly similar oils may be obtained from the bark of others.
- H. W., of Ohio.—You must not expect to obtain good molasses from bestroot. In France and Germany such molasses is given to pigs; it is nauseous and has a very disagreeable smell.
- given to pigs; it is nauseous and nas a very week.

 W. R. C., of Conn.—Good gas for illumination can be made from wood, but it costs more than gas made from cost. 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 Parrottrille, 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 saits and sait peter and experiment for yourself.
- R. P. W., of Ill.—Good cast-iron is easily distinguished by the closeress and smallness of its crystals and its bluish grey color. Good wrought-iron is tested by bending cold, and applying severe strains of allkinds.
- 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 called 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 philsophical 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 At erica, they contain more silver, and are beld 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., \$2); 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 Micb., \$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. Y., \$16; E. A. S., of N. Y., \$10; B. L. W., of Mass., \$228 S. G., of Ill., \$15; J. C., of R. T., \$12; S. and S., of N. Y., \$30; J. S. B., of England, \$16; D. and H., of Ind., \$16; G. F. J., of How., \$20; T. J. W., of M. H., \$25; S. W., of N. Y., \$16; A. S., of N. Y., \$25; A. A. S., of Micb., \$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 temmediately, 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:—

Omce from Wednesday, July 22, to Wednesday, July 22, 1883;—
H. W., of Ohio; A. C. B., of N. Y.; M. & O., 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. B., of N. Y.; P. I., 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. (3cases); J. S. C., of Kanfas; 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 bonn The SGIRSTIFIG AWERICAN being the only publication in the country which records the doings of the United States Patent Office, it is preserved by a large class of its patrons, lawyers and others, for reference Some complaints have been made that our pastmode of binding in cloth is not serviceable, and a wish has been expressed that we would adopt the style of binding used on the old series, i. e., heavy board dies covered with marble paper, and morocco backs and corners.

Believing that the latter style of binding will better please a large

portion of our readers, we commenced on the expiration of Volume VII. to bind the sheets a nt to us for the purpose in heavy board sides, covered with marble paper and leather backs and corners.

The price of binding in the above style is 75 cents. We shall be nable hereafter to furnish covers to the trade, but will be hap receive orders for hinding at the publication office, No. 37 Park receive or un. Row, New York.

RATES OF ADVERTISING.

Twenty-five Cents per line for each and every insertion, payable in advance. To enable all to understand how to calculate the payance in authorise. It is made an object of much stain in the continue time amount they must send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns, and, as heretofore, the blishers reserve to themselves the right to reject any advertisemen hey may deem objectionable.

A VALUABLE WORK FOR INVENTORS, PATENTEES AND MANUFACTURERS.

The publishers of the Scientific Assentian have just prepared, with much care, a pamphiet of information about Patents and the Patent Laws, which ought to be in the hands of every inventor and putentee, and also of mandacturers who use patented loventions, the character of this energy work will be better understood after reading the following ayoopse of its contents:—
The complete Patent Law Amendment Act of 1861—Practical Instructions to Inventors, how to obtain Letters Patent, also about Models—Designs—Caresta—Trade-marks—Assignments—Revenof Tax—Extensions—Interferences—Infringements—Appeals—Revisione Tax—Extensions—Interferences—forfungements—Abandonment of Inventions—Best Mode of Introducing them—Importance of the Specification—What will prevent the Granting of Patents—Abandonment of Inventions—Best Mode of Introducing them—Importance of the Specification—Special Control of the Careting of Patents—Schedule of

ant Feet also a variety of miscellancous items on patent has questions.

It has been the design of the publishers to not only furnish, in convenient from the preservation, a symposis of the Parker Law and Francros, but also be answer a great variety of questions which have been put to them from time to time during their practice of upwards of sementees years, which replies are not accessible in any other force. The publishers will promptly forward the pamphiat by mall, on receipt of all cents in peakage samps.

Address MUNN & CO., Publishers of the Schenziff Akardon, No. 37 Park Bow, New York.

TALBOT'S PATENT CALIPERS.—ONE-HALF OR THE whole of the Patent Bight of Talbot's Improved Catters for sale. See illustration and description in No. 6 Vol. IX of the Scientific Assertas. For further toformation apply to or address D. 67 TALBOT, Wurnester, Mass.

PIGHT FOR THE STATE OF NEW YORK FOR SALE.—
Improved Automatic Weighing Scale. This scale operates without the use of weights or springs, is community, simple and obest, always reliable, never gets out of order, has every advantage of the spring balance without its disadvantages, and can be adopted to every kind of scale now in use, and is superior to any scale now in use. For terms &c., address as soon as possible L. C. CROWELL, 187 Salem street. Boston. Mass.

WATER WHEELS.—REYNOLD'S PATENT.—THE best turbine in use; powerful and economical in use of water Call uponor address as at our office. Works at Oswego.

TALLCOTT & UNDERHILI, 483 Broadway, New York.

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

WAIT'S IMPROVED JONVAL TURBINE WATER-wheel. The best and cheapest wheel in use. Heavy, atrong and durable, adapted to all heads, easily set up and never gets out of order. Circulars sent on application. P. II. WAIT, Sandy Hill,

N. Y.

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, in which to hold this

GREAT NATIONAL EXHIBITION.
The exhibition will be general, embracing MANUFACTURES of all kinds, NEW INVENTIONS, IMPROVEMENTS IN AGRICULTURAL IMPLEMENTS and the MECHANIC ARTS generally, excepting only machinery propelled by steam-nower. Premiums, consisting of Gold, Sliver, and Bronze Medals, and Diplomas, will be awarded on the decision of competent and impartial judges Articles for competition for the premiums will be received commencing August 28, 1863, and the tart will be opened to the public on Managers,
Circular sgiving fall particulars can be had at the roomsof the Institute in the Cooper Vaion Building.

By Order of the Managers,
WM. H. BUTLER, Chairman.

JOHN W. CHAMBERS, SCROLL, SAWS, SAW RENCH.

TOR WOOD LATHES, SCROLL SAWS, SAW BENCH-ES and wood-working machinery, address J. A. FAY & CO., or E. C. TAINTER, succeeding partner, Worcester, Mass. 23 & 26-3 & 6 Vol. 9 *

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

P. J. IVES, BRISTOL, CONN., MANUFACTURES of 10th all kinds of machine and fancy screws. Address as above.

A GENTS AND SOLDIERS.—AGENTS WANTED everywhere. From \$5 to \$15 a day guaranteed. Send along your name and the names of your friends. I will pay any person \$1 for each extra name they send that will act as an agent. Write plain the names, post office, county and State. If a soldier, the name, company, regiment and tection. Address P. S. KORDON, Cincinnati, \$\int_{0}\$bio.

DOLLAR POCKET STEREOSCOPE.—THE MOST charming invention yet offered for adding interest to Partrait Cards, Suere-scopic Views and Photographic Albums—just patented. To be had at \$31 Broadway and at bookstores, photographers, &c. 1*

PLACK DIAMOND STEEL WORKS, PITTSRURGE Pa PARK BROTHER & CO., manufacturers of best quality Reduced Dast Sized, square, dat and actuaces, of all sizes warranted squal to any imported or manufactured in this country. Office and Wershouse, No. 169 and 151 First street, and 120 and 122 Second prece, Pittsburgh, Pa

The Cheapest mode of introducing but the best of bread from materials that farmers always have on hand Bread made in this manner contains nothing but flour and common bread; is more digestible and much less disposed to turn to acid. Common bread, like every thing that has been fermented, ferments again to the great discussive of many stomachs, and not only so, but acting as a ferment, it communicates to all food in contact with it. The bread being free from all yeasty particles, is more digestible and not so likely to create flatutence or turn acid on weak then stible and not so likely to create flatutence or turn acid on weak then sche as fermented bread is apt to do, and, when of the finest quality, it is beneficial to those who suffer from headache, acidity, flatulence, it is beneficial to those who suffer from headache, acidity, flatulence, or pains after meals, and to all who are subject to cout or gravel; it is also useful in many affections of thes kin; a saving of 25 pounds of flour per barretia effected by this process. Be sure and cet that with B T. BABIITT's name on, or you will not get the recipe with sour milk, nor the quality. For sale by store-keepers generally or at the manufactory, Nos. 6t to 74 Washington street, New York.

25 tf

The CHEAPEST MODE OF INTRODUCING

INVENTORS AND CONSTRUCTORS OF NEW AND serving the CHEAPEST MODE of INTRODUCING

INVENTORS AND CONSTRUCTORS OF NEW AND serving the continuous illustrated and described in the columns of the SCIENTI
FIC AMERICAN on payment of a reasonable charge for the edgravation of the skin; a saving of 25 pounds of the party for whom they are executed as soon as they have been used.

We wish it understood, however, that no second-hand or pooreograv
ings, such as parentees often getexecuted by inexperienced artists for printing circulars and handbills from, can be admitted into these pages.

WOOD-WORK (NG MACHINES.—A FULL SETT VI for car and sash and door work. Two Woodworth planers 6 rolls, 14 inches. One Gray & Wood planer 16 by 20. one Danie's planer, one planer and matcher, two molding two teneuing, and two mortising machines, two serol saws, one boring machine, two saw tables, one circular saw mill, one "Wicks" re-slitting mill, one cut-off saw, one blind sist muchine, belong &c. all in good order and chero for cash. Address CHARLES H. SaiTH, 135 North Third action. Painted blinds, Pa. 342

MACHINERY.—SLIDE LATHES, IRON PLANERS, upright drills, bolt-cutting machines, milling machines, gear culling engines, punching machines, universal chucks, &c., at 135 North Third street, Philadelphia, Pa., CHARLES H. SMITH.

VULCANIZED RUBBER

Adapted to mechanical purposes—WACHINE BELTING, STEAM PACKING, VALVES, HOSE, EMERY VULCANITE WHEELS, Ac. &c. D. pretimes, prices, &c. can be obtained on application to the NEW YORK BELL'ING AND PACKING COMPANY, New YORK BELL'ING AND PACKING COMPANY, JOHN H. CHEEVEN, Treasurer.

A N ENGINEER COMMANDING A LARGE BUSINESS And some cash capital, is desirous of entering into partnership in a well established machine shop. Address H. O., care of DR. KENT, 176 Blocker street, New York.

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 of,
which alone is worth the price of it. Territory for sale. For particulars inquireof A. WH(YE & CO., proprietors and manufacturers,

lenesse, Henry columns, III. Geneseo, Henry county, ill.

RIBER-CLEANING MACHINE.—THIS VALUABLE machine, the invention of Eduardo J. y Patrullo, and illustrated on page 263, last volume, SCIENTIFIC AMERICAN, is nog. on exhibition, where the public are invited to examine it, at the establishment of TODD & RAFFERTY, No. 13 Dey street, New York.

PLATINA! ALL SHAPES! FOR ALL PURPOSES. imported by SUTTON & RATEPER, 743 Broadway, N. Y. leed

WANTED—SCRAP IRON OLD BOHLERS, AND ULA
V Iron Machinery.—The subscribers estilyer oath for any quan
tity of Wrought or Cast Sorap Iron, Old Balbara, and Old Iron Machinery, delivered at their warehouse, 28. Su, and 32 Terrace street.
Buff.to, or at their Rolling Mill and Naji Paccary, Black Rock, N. Y.
Buff.to, July, 1883.
2 169
FRATT & CO

A MONTH! WE WANT AGENTS AT \$60 A month, expenses paid, to settle our Exactasting Pencils. Orients Burners, and thirte no ther new, needli and non-tous articles. Fitteen sirculars sent free. Address SHAW &-CLARK, Biddeford, Maine.

PEOK!S PATENT DROP PRESS.—ALL THE SIZES used in the manufacture of silver, brass or tinware, lamps, spoons, jewelry, &c.; also for forging purposes, on hand or made to order, by MILO, PEUK & CO. New Haven, Comb. 22 13*

NERVOUS DISEASES AND PHYSICAL DEBILITY, arising from Specific ossass, which saves—new and reliable treatment, in Reports of the Heward Assessment sent in scaled letter invelopes, free of charge. Address Dr. J. SKILLIN HOUGHTON, Howard Association, No. 2 South Ninth street, Philadelphia, Pa.

BOLTS, NUTS AND WASHERS OF ALL SIZES CONstruction on hand for sale by LEACH BROTHERS, 36 Liberty 13.4

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 celerated Double-cylinder Saw Gin for upland or shortstaple. The above
Gins are acknowledged to be without their equal; they do more work
and produce a better sample than any offered in the market. We
also manufacture a large variety of hand Gins, both for long and short
staples. Persons intending to order for the coming crop of cotton
will do well to do so soon, in order to secure their Gins in season,
FRANKLIN H. LUMMUS, General Agent, No. 82 John street, New
York.

OLD PENS AND CASES AT WHOLESALE AND retail—gennine goods. Also, the best Fountain Pen in the world. Send stamp for circular. GEORGE F. HAWKES, Manufacturer, 64 Nassau street, New York.

ANE'S PATENT LIFTING JACK-VERY EASILY operated, compact, simple and cheap. For cut and description see page 495, vol. VIII. (new series). Scientific Arrivan. State rights for scir. Communications in relation to rights or or orders for Jacks may be addressed to J. G. LANE, Washington, N. Y. 18

TOR SALE—A PATENT GRANTED ON MARCH 17, 1863. Described in the SCIENTIFICAMERICAN, Vol. VII., No. 20, a spring skate which is light and durable, with an improved revolving heel scraw. Samples can be seen at Wallou's Skate Emporium No. 67 Warren street, or at the owner's, 178 Water street, New York. 25, 109.

RAN BLOWERS—DIMPFEL'S, ALDEN'S, McKENZIE'S
and others, for Steamboats, Iron Works, Founderies, Smith
Shops, Jaweiers, &c., on hand for sale by LEACH BEOTHERS, 36
Liberty street, New York. 2 13*

TRON PLANERS, ENGINE LATHES, DRILLS AND othermachinists' 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.

A MESSIEURS LES INVENTEURS.—AVIS IMPORT-aut. Les inventeurs non familiers avec la langue Anglaise, et qui préféreraient nous communiquer leurs inventions en Français, peuvent nois addresser dans leur-langue hatele. Euroyez nous dessin et une description concise pour notre examen. Tomas com-munications sevont recues en confidence. MUNA & CO., Beientific American office, No. 37 Park Row, New York.

ings, such as patenties often getexecuted by inexperienced artists for printing circulars and handbills from, can be admitted into these pages. We also reserve the right to accept or reject such subjects as are presented for publication. And it is not our desire to receive orders for engraving and publishing any but good Inventions or Machines. and such as do not meet our approbation in this respect, we shall declin to publish.

MUNN & CO.

Publishers of the SCIENTIFIC AMERICAN,

No. 37 Park Row, New York City.

OIL! OIL! OIL
For Railroads, Steamers, and for Machinery and Buruing, PEASE'S Improved Engine and Signal Oil, indorsed and recommended by the highest authority in the United States. This Oil possesses qualities vitally essential for lubricating and hurning, and found in no other oil. It is offered to the public upon the most reliable, thorough and practical test. Our most skillful engineers and mashinists pronounce is superior to and chasper than any other, and the only off these is all cases reliable and will not gam. The SOMENTIFIC ARESTOLAN, after several tests, pronounces it "superior to any other they have ever used for machinery." For sule only by the Inventor and Manufasturer, F. S. PEASE, No. 61 Main street, Buffalo, N. Y.

Suffian, N. Y. N.B.—Reliable orders filled for any part of the United States and 24 13*

CUILD & GARRISON'S CELEBRATED STEAM
Pumps.—Adapted to every variety of memping. The principal
styles are the Direct Action Excelsior Steam Pump, the improved
Balance Wheel Pump, Duplex Vacuum and Steam Pump, and the
water Propeller, an entirely new invention for pumping large quantities at a light 11t. For sale at Nos. 55 and 57 First street, Willamsburgh, and No. 74 Beekman street, New York.

1 tf GUILD, GARRISON & CO

VALUABLE DOCK PROPERTY FOR SALE,—THE vanbscriberoffers for sale a valuable plot of ground on Newtown freek, near Penny Bridge, in the city of Brooklyn. Tae property is very desirably situated in the Seventeenth Ward. Meeker averua, a great thorough/are, formding the southerly boundary of the premises. A valuable dock privilege of over 400 feet on Newtown Creek, renders the property very desirable for large manufacturing or storage purposes. Vessels of six or eight feet draft can navigate the creek at low tide, and of much greater capacity at high water. The upland and water privilege comprises bout nineteen scress, and will be sold very cheap, and the terms of payment made liberal. For further particulars, address J. B. 2011.100K, attorney for theowners, No. 35 Massau street, New York.

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 CBAIG, 180 Center street (3d flacer), New York Liberal discount to dealers.

"The Craig Microscopes are just what they claim to be, and those who wish for such an article will not be disappointed if they should obtain one of these."—N. V. Methodist.

19 13°

TO PHOTOGRAPHERS.—IMPROVED PHOTOGRAHIC Camers, Patented March 25, 1862, by A. B. WILSON (Patentes of the Wheeler and Wilson Sewing Machine), adapted to all photographic work; such as Landscapes, Stereoscopic Views, Carte Visites, Ambrotypes, &c. Can be used by amateurs and others from printed directions. Send for a circular. Address A. B. ILSON, Waterbury,

DORTABLE STEAM ENGINES—COMBINING THE maximum of efficiency, durability and economy with the minimum of weight and price. They save widely and favorably known, more than 20 being in the Ali washied actiofactory or no said. A large stook on hand ready for immediate spylication. Beautifus directly circulars and on application. Address J. O. HOADLEY, Lawrence, Mass. 213

PLAX, HEMP, JUTE AND MANULA RICHARD KITSON, Lowell, Mass., manufacturer of needle-pointed pard clothing for carding flax, hemp, jute and manifa.

DAMPER REGULATORS.—GUARANTEED TO EFof power. For sale by the subscribers, who have satabilished their saclusive right to manufacture damper regulators, using disphragums
or Saxible vessels of any kind. Orders promptly attended to, or information given, by addressing Clark's Parent Syram and Figs
Regulators Contests, No. 5 Park Place, New York.

Beaponsible agents wanted.

WATER WHEELS.—WARREN'S TURBINE WATER
Wheel and Turbine Regulator are used successfully is over 508
extensive cotton and woolen mills, where the greatest economy i
water is at take. Send for illustrated pamphiet. Address ALONZO
WARREN, Agent for American Water wheel Company, No. 31 Exchange streat Boston, Mass.

DOWER 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."

Bur Beachtung fin beutsche Erfinder. Die Unterzeichneten baben eine Anseitung, die Erfindern bas Berbalten angibt, um fich ihre Patente zu fichern, berausgegeben, und vorabfolgen folde gratis an bieselben. Erfinder, welche nicht mit ber englischen Sprache befannt find, tonnen fore Mitthellungen in ber beutschen Sprache machen. Siggen von Erfindungen mit turgen, deutlich geschriebenen Beschreibungen beifebe man ju abbrefftren an Auf ber Office wird beutich gesprochen.
Dafeibst ift au baben .

Die Potent-Geleke der Fereinigien Staaten.

nebit ben Regeln und ber Gefchaftsortnung ber Patent. Office und Anleitungen fur ben Erfinder, um fic Patente au fichern, in ten Ber. St. fewohl als in Europa. Ferner Austuge aus ben Patent. Welegen frember ganber und barauf bejugliche Barbichtage; ebenfalls nuglio Winte fir Erfinder und folde, miebe votentieren wollen.
Preis 30 Ces., per Doft 25 Ces.

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 back wards 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 tryworks 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 tuns, and has ten feet stroke; the full force of the blow being 135 tuns. The large lathe in the same establishment will bore and face 30 feet diameter, and turn 37 feet long.



OF THE

SCIENTIFIC AMERICAN.

THE BEST MECHANICAL PAPER IN THE WORLD.

NINETEENTH YEAR!

VOLUME IX .-- NEW SERIES.

The publishers of the SCIENTIFIC AMERICAN beg to announce that on the fourth day of July, 1869, a new volume con it will continue to be the aim of the publishers to render of each successive number more attractive and useful than any of its

The SCIENTIFIC AMERICAN is devoted to the interests of Popular Science, the Mechanic Arts, Manufactures, Inventions, Agriculture, Commerce, and the Industrial pursuits generally, and is valuable and instructive not only in the Workshop and Manufactory, but also in the Household, the Library and the Reading Room.

The SCIENTIFIC AMERICAN has the reputation, at home and abroad, of being the best weekly journal devoted to mechanical and industrial pursuits now published; and the proprietors are determined to keep up the reputation they have earned during the eighteen years they have been connected with its publication,

To the Mechanic and Manufacturer !

No person engaged in any of them nical pursuits should think of doing without the SCIENTIFIC AMERICAN. It costs but six conts per week; every number contains from six to ten engravings of new es and inventions which cannot be found in any other publication. It is an established rule of the publishers to insert none but prioringl engravings, and those of the first class in the art, drawn and engraved by experienced artists, under their own supervision, expressly for this paper.

Chemists, Architects, Millwrights and Farmers!

The SCIENTIFIC AMERICAN will be found a most useful journal to them. All the new discoveries in the science of chemistry are given in its columns, and the interests of the architect and carpenter are not overlooked; all the new inventions and discoveries appertaining to se pursuits being published from week to week. Useful and p tical information pertaining to the interests of millwrights and millowners will be found published in the SCIENTIFIC AMERICAN. which information they cannot possibly obtain from any other source; subjects in which planters and farmersare interested will be found disdin the SCIENTIFIC A MERICAN: most of the improve agricultural implements beingillustrated in itscol

To the Innentre !

The SCIENTIFIC AMERICAN is indispensable to every inventor. it not only contains illustrated descriptions of nearly all the bestin ventions 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 Ger many; thus placing in our possession all that is transpiring in mecal science and art in those old countries. From those journals we shall continue to transfer to our columns conjous extracts of whatever we may deem of interest to our readers.

TERMS.

To mail subscribers :- Three Dollars a Year, or One Dollar for four months. One Dollar and Fifty Cents pay for one complete volume of 415 pages; two volumes comprise one year. A new volume commenced on the fourth day of July, 1868.

CLUB BATES.

Five Copies, for Six Months	30
Ten Copies for Six Months	15
Ten Copies, for Twelve Months	2
Fifteen Copies, for Twelve Months	34
Twenty Copies, for Twelve Months	4

For all clubs of Twenty and over the yearly subscription is only Names can be sent in at different times and from different Post-offices. Specimen copies will be sent gratis to any part of the

Western and Canadian money or Post-office stamps taken at psr for subscriptions. Canadian subscribers will please to remit 25 cents extra en each year's subscription to pre-pay postage.

MUNN & CO., Publishers, 37 Park Row, New York. FROM THE STEAM TRESS OF JOHN A GRAP



MONTAGUE'S PAPER-CUTTING MACHINE.

printers. It is so simple that a minute description | between the screward the cheese is so balanced as to is hardly necessary. The paper is placed under a clamp, A, similar in its operation to that of the "plow." The knife, A', is avery long blade, cover-The knife, A', is avery 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 dowell 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.

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 curriers, 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 ex pense in fitting up large establishments at various points in the Eastern States, with whom the fishermen are thus brought into direct competition.—Ens

Ventilating Hay Mows.

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

" Ventilating large bodies of hay is not often practised, and results in mow heated hay, when it is no 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