

44,999.—Combined Cartridge and Percussion Cap Box.—J. T. Warren, Stafford, N. Y., and Robert A. Chesebrough, New York City, assignors to said Robert A. Chesebrough :

We claim the construction and combination of the case, G, and revolving box, L, constructed, combined, and operating as herein described and for the purposes set forth.

45,000.—Hand-printing Press.—Cullen Whipple, Providence, R. I., assignor to John W. Fielder, Boston, Mass. :

I claim the ink-pad beneath the sliding bed, the sliding bed, the secondary lever, and their connections, in combination with the printing lever, all made and operating substantially as set forth or their mechanical equivalents.

45,001.—Process for the Manufacture of Good Flavored Spirits and Neutral Alcohol.—Francis Haecq, Brussels, Belgium. Patented in Belgium July 17, 1862 :

I claim, first, The process of separating injurious constituents from phlegms or other alcoholic liquid prior to distillation by diluting it, permitting it to rest, and decantation, substantially as set forth.

Second, I also claim the process of separating injurious constituents from phlegms, or other alcoholic liquid, prior to distillation, by treating it with gypsum or its equivalent, substantially as set forth.

Third, I also claim the process of separating from phlegm, or other alcoholic liquid, injurious constituents which volatilize at a lower heat than alcohol by subjecting the phlegm to continued heating at a lower temperature than is required for the distillation of alcohol, prior to the distillation, substantially as set forth.

Fourth, I also claim the process of separating the injurious constituents from phlegm, or other alcoholic liquid prior to distillation, by the combination of the three secondary sub-processes of dilution and decantation, treatment with gypsum or its equivalent, and heating at a temperature lower than is required for the distillation of alcohol, substantially as set forth.

Fifth, I also claim the process of distilling phlegm, or other alcoholic liquid, by two consecutive simultaneous and continuous distillations (the first at the lowest practicable temperature required to disengage the alcohol in vapor, and the second at a temperature sufficient to expel the remaining alcohol), and of condensing the products of each distillation in a separate vessel, so that they do not mingle, substantially as set forth.

Sixth, I also claim the process of distilling phlegm, or other alcoholic liquid, substantially as specified in the last preceding claim, in combination with the process of separating the injurious constituents prior to distillation, substantially as specified in the fourth claim.

Seventh, I also claim the process of distilling phlegm, or other alcoholic liquid, substantially as specified in the fifth claim, in combination with each of the preliminary separating processes specified in the first, second, and third claims.

45,002.—Apparatus for Concentrating and Analyzing Alcoholic Liquids.—Francis Haecq, Brussels, Belgium. Patented in Belgium July 17, 1862 :

I claim the concentrating analyzing apparatus herein described, consisting substantially of a series of chambers, analyzing channels, and return pipes, arranged within a vessel having double sides between which the cooling fluid is contained, substantially as set forth.

I also claim the construction of the vessels and pans and partitions forming analyzing channels, as herein set forth in such a manner that they may be withdrawn from the vessel that contains them for the purpose of being cleaned.

45,003.—Refrigerating Condenser for Distillers.—Francis Haecq, Brussels, Belgium. Patented in Belgium Aug. 16, 1859 :

I claim the refrigerating condenser hereinbefore described, constructed of parts enclosing a thin chamber for the reception of the vapor to be condensed and exposing broad condensing surfaces, in such manner that the parts may be separated to permit the condensing surfaces to be readily cleaned; the said condenser being provided with pipes for the supply and removal of the refrigerating fluid, and for the supply and removal of the fluid to be condensed, all operating substantially as set forth.

I also claim the combination of the aforesaid condenser with pipes for the escape of air, substantially as set forth.

45,004.—Apparatus for Cooling and Aerating Liquids.—Francis Haecq, Brussels, Belgium. Patented in Belgium Aug. 16, 1859 :

I claim the cooler hereinbefore described containing a thin chamber for the liquid to be cooled, thin chambers for the cooling liquid, a perforated gutter or its equivalent to distribute the liquid to be cooled, a pipe for its escape, and suitable means for the supply and escape of the cooling liquid, all the parts being constructed substantially as set forth.

I also claim the oxygenator hereinbefore described, composed substantially of two chambers and perforated tubes through which tubes air is drawn by the flow of the liquid, all constructed substantially as set forth.

I also claim the combination of the cooler and oxygenator as described, so that the liquid may be cooled and oxygenated at one continuous operation.

45,005.—Bottle Stopper.—Peter R. Higley, Oshawa, C. W. :

I claim, first, A valve stopper composed of a frame, B, b, packing, C, and cylinder, G, the latter having an aperture, g₂ and adapted to slide within said frame so as to open communication with the bottle and pressed upward by a spiral spring, H, to close the same, substantially as set forth.

Second, I claim the metallic frame, B, b, constructed as herein specified and adapted for the application of an elastic packing, C.

Third, in combination with a stopper constructed as herein described, I claim the double link or hinge, F, F', and the yoke, D, both being attached to the collar, E, and employed in the manner and for the purposes specified.

45,006.—Composition for Protecting Ship's Bottoms.—Marius Vian, Marseilles, France :

I claim as new the herein described compound called feno-manganic mixture to be applied to the bottom of iron or iron-plated ships or vessels, in the manner and for the purpose of protecting the parts thus coated against oxidation and incrustation, substantially as set forth.

DESIGNS.

1,995.—Paint Can.—Charles F. Brand (assignor to Harrison, Brothers & Co.), Philadelphia, Pa. :

1,996.—Trunk Cover.—Henry Braunhold, New York City :

1,997.—Ink Bottle.—George G. Percival, M.D., Brooklyn, N. Y. :

RE-ISSUES.

1,806.—Lock.—Wm. H. Akins, Dryden, N. Y. Patented May 13, 1856 :

I claim, first, arranging a series of revolving disks, c, c, upon a fixed stud or bearing, D, that each in turn shall be made the means of adjusting the position of the next, the whole being operated by a turning shaft, F, substantially as herein specified.

In combination with a series of disks, c, c, arranged and operating as above described, I also claim the stationary washers, e, e, for keeping the disks apart, substantially as herein set forth.

I also claim altering the respective numbers of two or all the disks, c, by the simple change of an adjustable projection or pin from one hole to another, substantially as herein described.

I also claim the method herein described of discovering the proper numbers to open the lock, substantially as specified.

1,807.—Wringing or Squeezing Machine.—Shelden A. Bailey, Simeon S. Cook and Benedict M. Cook, Smithfield, R. I., assignees by mesne assignments of John Alender, New London, Conn. Patented Jan. 11, 1859 :

I claim, first, A roller so constructed as to yield more at its center than at or near its ends in combination with a covering of vulcanized rubber of tubular form, as and for the purpose set forth.

Second, Cog wheels in combination with vulcanized rubber rollers or any other elastic substance or compounds impervious to water.

1,808.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Re-issued Sept. 15, 1863 :

I claim depressing and elevating the aim of the gun whilst the muzzle is kept at or near the center of the port-hole, by raising and lowering the carriage of said gun, substantially in the manner and for the purposes herein described.

And I also claim controlling the muzzle of the gun by means of the tripping pan, and the guide bar on the turret whereby the muzzle of the gun may be guided fairly into the port and the size of the port be greatly reduced, substantially as described.

1,809.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Re-issued Sept. 15, 1863 :

I claim the use of a central steam joint in connection with a revolving gun tower in which the cylinders and appliances for working the gun or guns rotate with the tower; the steam joint being for the purpose of connecting the rotating pipes and cylinders within the tower with the stationary pipes outside of the tower, substantially and in the manner described.

1,810.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Re-issued Sept. 15, 1863 :

I claim so combining a revolving tower with a gun or guns, and with one or more steam cylinders and pistons and their necessary appliances, as that the gun or guns may be raised or lowered by steam, with or independent of the tower, and so that the tower, gun or guns, and cylinder, may be turned by steam horizontally, or the main cylinder remain fixed whilst the tower is revolved around it, as may be preferred and substantially as described.

1,811.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Re-issued Sept. 15, 1863 :

I claim, first, Causing the recoil of the gun to open the exhaust part of the cylinder that runs it out and in, after the recoil has been checked by the steam, substantially as described.

Second, Causing the least movement of the gun in either direction out or in, after the recoil; to open the proper steam part and thus check its further motion until the operator is ready to move it as he may desire, substantially as described.

Third, Connecting the gun frame in such manner with the valve of the steam cylinder supporting the gun frame, as to make the valve self-acting by causing the least descent of the gun frame to open the inlet port and admit more steam, and to close the port when sufficient steam is admitted and to open the exhaust port if the cylinder have an excess of steam and the frame should begin to rise above the point at which it was fixed; thus allowing the frame to be fixed at any particular point whilst the valve gear is at the same time entirely under the control of the operator, substantially as described.

Fourth, The construction of the valve gear of the large cylinder in such manner that the inlet port shall be opened in case of the accidental descent of the gun frame, and thus check it without further injury, substantially as described.

1,812.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Re-issued Sept. 15, 1863 :

I claim making a gun tower in sections so that the top section may be lowered into the hold of the vessel, for the purpose and in the manner substantially as herein described.

1,813.—Stove.—Dennis G. Littlefield, Albany, N. Y. Patented Jan. 24, 1854. Re-issued Nov. 19, 1861. Again Aug. 26, 1862. Again March 3, 1863 :

I claim the combination of a fuel-supplying cylinder with a fire-pot, when the said supplying cylinder has its cover opening inclosed within a chamber or space communicating not only with the outlet from the fire-pot, but also with the exit flue, substantially as herein described, with the fuel-supplying cylinder, having its cover opening as part of the stove itself, and is so constructed, united, and combined with other parts of the stove, as to form a complete manufactured article or a structure having vitality as a complete individual thing for the combustion of anthracite and other concentrated fuel, substantially in the manner and for the purpose herein specified.

1,814.—Stove.—Dennis G. Littlefield, Albany, N. Y. Patented Jan. 24, 1854. Re-issued Nov. 19, 1861. Again Aug. 26, 1862. Again March 3, 1863 :

I claim the arrangement, adaptation, and combination with a fuel-supplying cylinder stove, of an illuminating case to the chamber which receives light, and the gaseous products of combustion from the burning fuel; when said case is illuminated by windows or glazed apertures arranged continuously upon every side, or in so much of its surface as may be fully exposed to view, substantially in the manner and for the purpose herein set forth.

1,815.—Stove.—Dennis G. Littlefield, Albany, N. Y. Patented Jan. 24, 1854. Re-issued Nov. 19, 1861. Again Aug. 26, 1862. Again May 19, 1863 :

I claim, first, A fire-pot constructed substantially as described, in combination with a fuel-supplying cylinder, having its cover opening surrounded by a chamber which communicates with the outlet from the fire-pot, and also with the flue leading to the chimney, when the openings in the fire-pot, or outlets therefrom, are broadest at the bottom, as and for the purpose specified.

Second, The combination of a fire-pot constructed substantially as described, with a fuel-supplying cylinder, having its cover opening surrounded by a chamber which communicates with the outlet from the fire-pot, and also with the flue leading to the chimney, when the aggregate amount of outlet space from the fire-pot exceeds the amount of inlet, as and for the purpose specified.

1,816.—Bed Canopy.—Isaac E. Palmer, Middletown, Conn. :

I claim, first, The combination of the grasping base, A A' a', with the standard, substantially as herein described irrespective of the construction of the standard.

Second, The extending frame of the canopy consisting of ribs, F F, pivoted at their center, and a hoop or band, C, connected to said ribs by metal clasps, all combined substantially as herein specified.

1,817.—Machine for Making Paper Twine, etc.—John B. Wortendyke, Godwinville, N. J. Patented May 24, 1864 :

I claim performing the twisting operation while the paper is in a moistened state, substantially as and for the purpose herein set forth.

1,818.—Machine for Making Paper Twine, etc.—John B. Wortendyke, Godwinville, N. J. Patented May 24, 1864 :

I claim, first, The moistening of the paper of which the twine is to be formed, while or its way over or between the rolls by which it is delivered to the spindle or throstle by which the twisting is performed, substantially as herein described.

Second, The employment in a machine for making twine or cord from paper, of a paper guide, E, or other equivalent device, for gathering up the paper edgewise, or laterally, in the form of roping, substantially as herein described, on its way to a spindle, throstle, or other twisting device.

Third, The grooving of the roller, B, substantially as and for the purpose herein specified.

TO OUR READERS.

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.

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.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a *bona-fide* acknowledgement of our reception of their funds.



PATENTS

GRANTED

FOR SEVENTEEN YEARS

MUNN & COMPANY,

In connection with the publication of the SCIENTIFIC AMERICAN, have acted as Solicitors and Attorneys for procuring "Letters Patent" for new inventions in the United States and in all foreign countries during the past seventeen years. Statistics show that nearly ONE-THIRD of all the applications made for patents in the United States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in foreign countries are procured through the same source. It is almost needless to add that, after seventeen years' experience in preparing specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office; but they take pleasure in presenting the annexed testimonials from the three last ex. Commissioners of Patents.

Messrs. MUNN & CO.—I take pleasure in stating that, while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE CAME THROUGH YOUR HANDS. I have no doubt that the public confidence thus indicated has been fully deserved, as I have observed, in all your intercourse with the office, a marked degree of promptness, skill, and fidelity to the interests of your employers. Yours very truly, CHAS. MASON.

Judge Mason was succeeded by that eminent patriot and statesman, Hon. Joseph Holt, whose administration of the Patent Office was so distinguished that, upon the death of Gov. Brown, he was appointed to the office of Postmaster-General of the United States. Soon after entering upon his new duties, in March, 1859, he addressed to us the following very gratifying letter:

Messrs. MUNN & CO.—It affords me much pleasure to bear testimony to the able and efficient manner in which you discharged your duties as Solicitors of Patents, while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and I doubt not justly deserved) the reputation of energy, marked ability, and uncompromising fidelity in performing your professional engagements. Very respectfully, your obedient servant, J. HOLT.

Hon. Wm. D. Bishop, late Member of Congress from Connecticut, succeeded Mr. Holt as Commissioner of Patents. Upon resigning the office he wrote to us as follows:

Messrs. MUNN & CO.—It gives me much pleasure to say that, during the time of my holding the office of Commissioner of Patents, a very large proportion of the business of inventors before the Patent Office was transacted through your agency; and that I have ever found you faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Attorneys with skill and accuracy. Very respectfully, your obedient servant, Wm. D. Bishop.

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.

As an evidence of the confidence reposed in their Agency by inventors throughout the country, Messrs. MUNN & CO. would state that they have acted as agents for more than 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 they have taken out patents have addressed to them most flattering testimonials for the services rendered them; and the wealth which has inured to the individual souls whose patents were secured through this office, and afterwards illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! Messrs. MUNN & CO. would state that they never had a more efficient corps of Draughtsmen and Specification Writers than those employed at present in their extensive offices, and that they are prepared to attend to patent business of all kinds in the quickest time and on the most liberal terms.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE.

The service which Messrs. MUNN & CO. 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 they may acquire of a similar invention from the records in their Home Office. But for a fee of \$5, accompanied with a model, or drawing and description, they 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 the Branch Office of Messrs. MUNN & CO., corner of F. and Seventh streets, Washington, by experienced and competent persons. Many thousands of such examinations have been made through this office, and it is a very wise course for every inventor to pursue. 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 a draft on New York, payable to the order of Messrs. 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.

Patents are now granted for SEVENTEEN years, and the Government fee required on filing an application for a patent is \$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.....	\$30
On appeal to Commissioner of Patents.....	\$30
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).....	\$15
On filing application for Design (seven years).....	\$15
On filing application for Design (fourteen years).....	\$30

The Patent Laws, enacted by Congress on the 2d of March, 1861.

now in full force, and prove to be of great benefit to all parties who are concerned in new inventions.

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 (except in cases of designs) on the above terms. Foreigners cannot secure their inventions by filing a caveat; to citizens only is this privilege accorded.

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 is \$10. A pamphlet of advice regarding applications for patents and caveats is furnished gratis, on application by mail. Address MUNN & CO., No. 37 Park Row, New York.

REJECTED APPLICATIONS.

Messrs. MUNN & CO. are prepared to undertake the investigation and prosecution of rejected cases, on reasonable terms. The close proximity of their Washington Agency to the Patent Office affords them rare opportunities for the examination and comparison of references, models, drawings, documents, &c. Their success in the prosecution of rejected cases has been very great. The principal portion of their 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 MUNN & CO., on the subject, giving a brief history of the case, inclosing the official letters, &c.

FOREIGN PATENTS.

Messrs. MUNN & CO., are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business they have offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. They think they can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through their agency.

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 MUNN & CO'S Agency, the requirements of different Government Patent Offices, &c., may be had, gratis, upon application at the principal office, No. 37 Park Row, New York, or any of the branch offices.

SEARCHES OF THE RECORDS.

Having access to all the official records at Washington, pertaining to the sale and transfer of patents, MESSRS. MUNN & CO., are at all times ready to make examinations as to titles, ownership, or assignments of patents. Fees moderate.

INVITATION TO INVENTORS.

Inventors who come to New York should not fail to pay a visit to the extensive offices of MUNN & CO. They will find a large collection of models (several hundred) of various inventions, which will afford them much interest. The whole establishment is one of great interest to inventors, and is undoubtedly the most spacious and best arranged in the world.

MUNN & CO. wish it to be distinctly understood that they do not speculate or traffic in patents, under any circumstances; but that they devote their whole time and energies to the interests of their clients.

COPIES OF PATENT CLAIMS.

MESSRS. MUNN & CO., having access to all the patents granted since the rebuilding of the Patent Office, after the fire of 1836, can furnish the claims of any patent granted since that date, for \$1.

THE VALIDITY OF PATENTS.

Persons who are about purchasing patent property, or patentees who are about erecting extensive works for manufacturing under their patents, should have their claims examined carefully by competent attorneys, to see if they are not likely to infringe some existing patent, before making large investments. Written opinions on the validity of patents, after careful examination into the facts, can be had for a reasonable remuneration. The price for such services is always settled upon in advance after knowing the nature of the invention and being informed of the points on which an opinion is solicited. For further particulars address MUNN & CO., No. 37 Park Row New York.

EXTENSION OF PATENTS.

Many valuable patents are annually expiring which might readily be extended, and if extended, might prove the source of wealth to their fortunate possessors. Messrs. MUNN & CO. are persuaded that very many patents are suffered to expire without any effort at extension, owing to want of proper information on the part of the patentees, their relatives or assigns, as to the law and the mode of procedure in order to obtain a renewed grant. Some of the most valuable grants now existing are *extended patents*. Patentees, or, if deceased, their heirs, may apply for the extension of patents, but should give ninety days' notice of their intention.

Patents may be extended and preliminary advice obtained, by consulting or writing to MUNN & CO., No. 37 Park Row, New York.

ASSIGNMENTS OF PATENTS.

The assignment of patents, and agreements between patentees and manufacturers, 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.

UNCLAIMED MODELS.

Parties sending models to this office on which they decide not to apply for Letters Patent and which they wish preserved, will please order them returned as early as possible. We cannot engage to retain models more than one year after their receipt, owing to their vast accumulation, and our lack of storage room. Parties, therefore, who wish to preserve their models should order them returned within one year after sending them to us, to insure their obtaining them. In case an application has been made for a patent the model is in deposit at the Patent office, and cannot be withdrawn.

It would require many columns to detail all the ways in which the inventor or Patentee 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.



A. M., of N. Y.—Your definitions of a wheel and of a pinion are correct, but your definition of a bevel gear is incorrect. The sense in which this term is generally employed by mechanics in our workshops corresponds precisely with its definition by the best lexicographers. Webster says, "Bevel (French *meau*), An angle that is not a right angle is called a bevel angle whether obtuse or acute." He cites as authority for this definition Bailey, Johnson, and the Encyclopedia. Nicholson defines bevel-gear as "Wheel-work whose cogs stand beveling, or at an oblique angle to the shaft." Brande's definition of bevel-gear is, "In mechanics, a species of wheel-work, in which the axes of two wheels working into each other are neither parallel nor perpendicular, but inclined to one another in a certain angle." A miter wheel is one kind of bevel wheel, that kind in which the teeth are inclined at an angle of 45 degrees.

T. M., of Pa.—The written agreement to which you allude in reference to the management and sale of your patent having been signed and sealed by both contracting parties, cannot be altered by parole evidence. The agreement must explain itself, and you have now no remedy in law for any omission.

P. A., of Mass.—The invention described in your letter for opening and closing shutters on buildings by means of a knob and spindle on the inside is quite old. We think a patent can be obtained for the amalgamator, and we have forwarded by mail the necessary instructions.

W. N. A., of Pa.—The method of preparing barrels to which you refer for holding refined oil, is patented, and no one has a right to use it without the patentee's consent.

D. L., of Mass.—Paraffin is an oily substance distilled from cannel coal. The product when dissolved in a mixture of hydro-carbons is largely used for lubricating machinery.

M. S. B., of Mass.—If, as you say, the method of sending a cipher message described in a recent number is 2,000 years old, it must by this time be quite new, and is therefore a very good one.

C. H. W., of Conn.—A double threaded screw runs no faster through a nut than a single threaded one of the same pitch. Double or triple thread screws are the only means of cutting extraordinarily quick pitches on small rods or shafts.

J. D. R., of N. S.—Lumber is frequently dried in steam heated kilns. Address Messrs. H. Oliver & Co., Box 93, New Haven.

J. M., of N. Y.—Your idea of an iron-clad locomotive is not new, and the possibility of taking Richmond by building a railroad in a trench and running the engine up to it, is, we fancy, rather remote.

W. H. W., of Mass.—The path of a body projected upward from the earth in any direction other than a vertical one is a parabola, except as it is modified by the resistance of the air.

J. E. G., of R. I.—As your article repeats very nearly the ideas of your former communication we do not publish it.

J. T. S., of N. Y.—You had better order a preliminary examination of your sliding cylinder engine. There is some doubt about it, as that principle has been used in many cases. As you have now stated the case the engine would not work; the cylinder would slide back and forth between the two pistons without stirring the crank-shaft, unless its resistance were less than that of the pistons, which is unlikely. You have got an idea, somewhere, work it out. We cannot tell you who makes duck guns. Your ideas about them will doubtless be acceptable. We can tell better when we see them.

J. M., of Kansas.—A common steam engine could be worked by compressed air, but if the power that you have is not sufficient to drive your mill, you would lose a portion of it by using it first to compress air into a reservoir, and then employing that compressed air to work an engine. There would be a consumption of power in friction, in overcoming inertia of the parts, and in developing heat by the compression, without any corresponding gain.

M. V. B. P., of Canada East.—Powdered plumbago is simply dusted over the wax molds for electrotype castings. There is only one man in the country who prepares plumbago fine enough for this use.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, Nov. 2, 1864, to Wednesday, Nov. 9, 1864:—

Z. W., of N. J., \$250; A. H., of N. Y., \$40; G. F. W., of Mo., \$20; J. S., of N. Y., \$15; T. B. G., of N. Y., \$20; V. D. S., of Iowa, \$20; J. K., of N. Y., \$20; A. W. S., of N. Y., \$45; B. S., of N. Y., \$25; C. E. S., of Iowa, \$20; J. R. M. S., of N. Y., \$15; H. L., of Ind., \$20; A. W. H., of N. Y., \$20; W. N. B., of Ind., \$20; W. F. R., of N. Y., \$16; T. M. L., of N. Y., \$16; K. & L., of R. I., \$65; J. P. N., of N. J., \$25; J. H. J., of Ohio, \$16; T. W. H., of Wis., \$30; A. P. K. W., of Mass., \$25; D. & R., of Conn., \$30; H. K. W., of Vt., \$25; S. E. H., of Conn., \$16; B. C., of N. Y., \$25; G. F. J. C., of N. J., \$25; J. F. D., of N. Y., \$25; S. A. M., of Ohio, \$20; H. J. D., of N. Y., \$20; G. W. B., of Ohio, \$20; O. P. F., of N. Y., \$20; G. B., of N. Y., \$15; J. C., of Conn., \$55; H. & B., of N. Y., \$40; G. B. F., of N. Y., \$15; A. P., of Wis., \$20; T. W., of Ill., \$20; I. E. A. R., of Cal., \$20; O. S., of N. Y., \$20; E. T., of Pa., \$30; J. S. T., of N. Y., \$30; J. E. M., of Ill., \$15; S. R., of Pa., \$16; R. R. V. J., of Ohio, \$25; W. T., of Ill., \$16; D. B. N., of Ind., \$20; L. N. V., of Cal., \$30; L. B. L., of Cal., \$25; A. W. L., of N. Y., \$15; J. P. E., of Ohio, \$25; H. H., of Conn., \$30; G. A. McC., of N. Y., \$25; R. N., of N. Y., \$25; P. L., of N. Y., \$25; P. M., of Mass., \$20; L. A. C., of N. Y., \$40; H. P., of N. Y., \$40; C. & T., of Conn., \$20; W. & S., of N. Y., \$45; E. W. M., of Ill., \$20; A. F. H., of Mass., \$20; G. & S., of N. Y., \$15; R. D., of Mich., \$20; K. & E., of Iowa, \$45; J.

W., of Cal., \$36; A. S., of N. Y., \$48; W. S., of Mich., \$25; B. J., of N. J., \$15; J. R., of N. H., \$25; D. C. A., of Iowa, \$16; F. G. S., of Mass., \$25; H. B. B., of Mass., \$16; J. S. F., of Nevada, \$12; S. & B., of Mich., \$16; C. L., of Ill., \$20; J. H. P., of Conn., \$30; O. B., of N. Y., \$25; J. H. P., of N. Y., \$15; J. W., of N. Y., \$25; L. A. C., of N. Y., \$25; D. C. S., of N. Y., \$40; G. C., of N. Y., \$16; I. S. A., of N. Y., \$20; W. W. P., of Ill., \$20; M. & R., of N. Y., \$40; P. & H., of N. Y., \$25; C. D. B., of Mich., \$25; A. A. S., of N. Y., \$639; J. B., of N. Y., \$40; S. G. S., of Pa., \$50; B. S. H., of N. Y., \$10; P. P., of N. Y., \$25; R. N., of N. Y., \$40; W. B., of Iowa, \$20; R. S. F., of N. Y., \$15; R. & K., of N. Y., \$20.

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, stating 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, Nov. 2, 1864, to Wednesday, Nov. 9, 1864:— Z. W., of N. J.; H. & B., of N. Y.; J. R., of N. H.; D. B. N., of Ind.; J. S. F., of Nevada; H. B., of Mass.; G. A. McC., of N. Y.; R. N., of N. Y.; P. P., of N. Y.; H. K. W., of Vt.; J. F. D., of N. Y.; J. W., of Cal.; K. & L., of R. I.; T. W. H., of Wis.; E. T., of Pa.; C. L., of Ill.; J. W., of N. Y.; J. B., of N. Y.; C. D. B., of Mich.; J. P. E., of Ohio; P. L., of N. Y.; F. G. S., of Mass.; I. N. V., of Cal.; W. S., of Mich.; B. C., of N. Y.; G. F. J. C., of N. J.; L. A. C., of N. Y.; J. H. P., of Conn.; P. S. H., of N. Y.; A. H., of N. Y.; H. P., of N. Y.; D. & R., of Conn.; R. V. J., of Ohio; J. G., of Md.; A. K. P. W., of Mass.; J. S. T., of N. Y.; H. C. R., of Ill.; I. S. S., of N. Y.; M. & W. B. G., of N. J.; O. B., of N. Y.

Back Numbers and Volumes of the "Scientific American."

VOLUMES III., IV., VII., AND X., (NEW SERIES) complete (bound) may be had at this office and from periodical dealers. Price, bound, \$25 per volume, by mail, \$3—which includes postage. Every mechanic, inventor or artisan in the United States should have a complete set of this publication for reference. Subscribers should not fail to preserve their numbers for binding VOLS. I., II., V., VI. and VIII. are out of print and cannot be supplied.

BINDING.—Those of our subscribers who wish to preserve their numbers of the SCIENTIFIC AMERICAN for future reference, can have them substantially bound in heavy board sides, covered with marble paper, and leather backs and tips, for 75 cents per volume.

PATENT CLAIMS.—Persons desiring the claim of any invention

which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and enclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park 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 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 publishers reserve to themselves the right to reject any advertisement they may deem objectionable.

A RARE CHANCE.—FOR SALE AT YOUR OWN PRICE, the entire patents of my Wind-wheel and Governor, illustrated in No. 1, Vol. XI., new series, of the SCIENTIFIC AMERICAN. The inventor having other business which requires his whole attention, will sell the above patents on the most liberal terms. The Governor works equally well attached to any kind of machinery where a Governor is required. It is especially adapted to Water-wheels, it being very sensitive and giving a strong and positive movement. Copies of the illustration furnished on application. Address JOHN P. BURNHAM, Chicago, Ill. 21 3*

PATENTS !! — VALUABLE ENGLISH AND AMERICAN PATENTS introduced, manufactured, or sold for cash on commission. Consignments respectfully solicited. Address SNYDER & WALTER, 229 Broadway, New York. Refer to H. D. Smith, Esq., Chemical Bank, New York; and J. W. Kirby, Metropolitan Bank, New York. 1

SEWING MACHINE.—WANTED AN AGENCY FOR the very best family machine of the day of moderate price. Send full particulars, samples of work, terms, and a postage stamp to Box 270, Racine, Wis. 21 2*

BOOKS BY RETURN MAIL.—ANY BOOK, MAP, Chart, Portrait, Album, Magazine, or Paper, sent "by return of first post," at Publishers' Prices. Editors, Agents, Preachers, Teachers, and others supplied. All works on Phonography, Hydrography, Anatomy, Medicine, Mechanics, Dictionaries, Gazetteers, Encyclopedias, and on the Natural Sciences. Address Messrs. FOWLER & WELLS, Purchasing Agents, 359 Broadway, New York. P. S.—All the New York Expresses call at our house, 359, daily. 21 4*

WE HAVE GOOD FACILITIES FOR SELLING A really valuable patented article to country merchants, and would take the agency of such a one, and perhaps might manufacture the same if simple and cheap. Address RILEY, RINGOLD & CO., New York. 21 2*

ROLLING MILL.—WANTED TO KNOW OF PARTIES that would roll all kinds of Metals, in large or small quantities. CHARLES CONRADT, No. 325 Walnut street, Philadelphia, Pa. 1*

PLATINA IN ANY QUANTITY IMPORTED AND for sale by SAMUEL S. WHITE, 658 Broadway New York. 21 2*

PORTER'S FOOT-REST AND BLACKING-BOX.—Illustrated on another page. Rights for sale. The whole patent may be had for \$7,000. Address JOHN H. PORTER, 415 Hudson street, New York. 1*

INVENTORS IN WANT OF CASH CAPITAL TO introduce their inventions can hear of a party who will furnish any reasonable amount, by addressing W. B. G., Box 5,722, New York. N. B.—None need apply unless having really useful articles. Give description. 21 12*