

PATENTS FOR SEVENTEEN YEARS.



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

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

On filing each Caveat.....	\$10
On filing each application for a Patent, except for a design.....	\$15
On issuing each original Patent.....	\$20
On appeal to Commissioner of Patents.....	\$20
On application for Re-issue.....	\$30
On application for Extension of Patent.....	\$50
On granting the Extension.....	\$50
On filing 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, except in reference to such countries as discriminate against citizens of the United States—thus allowing English, French, Belgian, Austrian, 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.

During the last sixteen 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 more than FIFTEEN THOUSAND Inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of Inventors and Patentees at home and abroad. Thousands of Inventors for whom we have taken out Patents have addressed to us most flattering testimonials for the services we have rendered them, and the wealth which has inured to the Inventors whose Patents were secured through this Office, and afterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensive Offices, and we are prepared to attend to Patent business of all kinds in the quickest time and on the most liberal terms.

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 to us, with a full description, for advice. The points of novelty are carefully examined, and a reply written corresponding with the facts, free of charge. Address, MUNN & CO., No. 37 Park-row, New York.

Preliminary Examinations at the Patent Office.

The advice we render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon what knowledge we may acquire of a similar invention from the records in our Home Office. But for a fee of \$5, accompanied with a model or drawing and description, we have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a Patent &c., made up and mailed to the Inventor, with a pamphlet, giving instructions for further proceedings. These preliminary examinations are made through our Branch Office, corner of F and Seventh-streets, Washington, by experienced and competent persons. More than 5,000 such examinations have been made through this office during the past three years. Address MUNN & CO., No. 37 Park-row, N. Y.

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 prepaid. Small models from a distance can often be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of Munn & Co. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their New York correspondents; but, if not convenient to do so, there is but little risk in sending bank bills by mail, having the letter registered by the postmaster. Address MUNN & Co., No. 37 Park-row, New York.

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. A pamphlet of advice regarding applications for Patents and Caveats, in English and German, furnished gratis on application by mail. Address MUNN & CO., No. 37 Park-row, New York.

Rejected Applications.

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

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

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. We think we can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through our Agency.

Inventors will do well to bear in mind that the English law does not limit the issue of Patents to Inventors. Anyone can take out a Patent there.

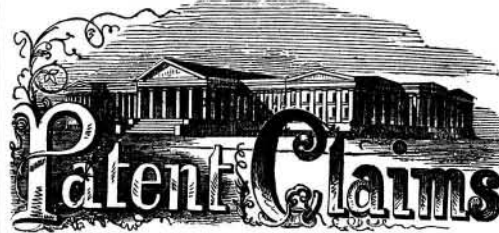
Circulars of information concerning the proper course to be pursued in obtaining Patents in foreign countries through our Agency, the requirements of different Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park-row, New York, or either of our Branch Offices.

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.

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.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING NOVEMBER 12, 1861.

Reported Officially for the Scientific American.

THE PRINTING OF PATENTS ABANDONED.

The plan adopted by Commissioner Holloway of printing the specification which forms part of the Letters Patent, he has been obliged to abandon owing to the reduced receipts of the Patent Office. Hereafter, for a time, the specifications will be engrossed on parchment as formerly. This change will obviate the great delay which has attended the issuing of patents after sealing, but the papers do not go out looking so neatly. We hope the receipts of the Office will soon justify the extra expense which attended the printing.

* * Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

2,684.—D. B. Abbey, of Horse Head, N. Y., for an Improvement in Corn Planters :

I claim the swinging seed tubes, L, with the collars, g, fitted on them and provided with the furrow shares, O, in connection with stocks or bars, P, attached to the lower ends of the tubes, L, and provided with the covering shares, Q, all being arranged to operate as and for the purpose specified.

[This invention relates to an improvement in that class of corn planters which are designed for planting corn in check rows. The object of the invention is to obtain a machine of the class specified, which can be operated by a single person—the driver—no attendant being required to operate the seed slide.]

2,685.—Albert Anderson, of Bridgeport, Conn., for an Improvement in Roller Skates :

I claim the construction of wheeled skates with a large front wheel, D, substantially as shown and described, when the axis of said wheel is arranged above that portion of the stock which receives the ball of the skater's foot so that obstructions may be easily mounted, and so that the skater will be prevented from falling forward as described.

I also claim the construction and arrangement of the stock, A, so that its rear portion will be higher than the part which receives the ball of the foot, so that the weight of the skater will be partially thrown forward upon the large front wheel, and so that the skater will be prevented from falling backward; all as set forth.

[This apparently is a great improvement in roller skates, and will insure their general adoption. The character of the invention will be fully understood by the claim.]

2,686.—Silas Barker and A. H. Smith, of Hartford, Conn., for an Improvement in Water Meters :

We claim, first, The arrangement of the cylinder, A, and the hollow piston, P, said piston having an outlet, H, from one end.

Second, The combination of the piston, D, and valves, K, K, said valves being on the end of the piston, D, and moved by the valve rod, F.

Third, The combination of the glass covering, L, on the piston, B, and the leather packing, M, in the center part of cylinder, A, said packing being kept fitted to the piston, B, by the springs, N, and held between the three parts of the cylinder, & A, A, all as set forth and described.

2,687.—O. Billings, of La Grange, Ohio, for an Improvement in Grain and Grass Harvesters :

I claim, first, The attaching of the front end of the shoe, K, of the finger bar to the adjustable bar, N, which is connected by a pendulum, P, to the lever, Q, as shown and described, for the purpose of regulating the height of the front ends of the finger, S, as set forth.

Second, The combination of the spring lever, R, relatively with the lever, S, and finger bar, L, as shown and described, whereby the weight of the outer part of the finger bar and sickle is counterpoised, or nearly so, and whereby said finger and sickle may be raised bodily when required in order to pass over obstructions.

Third, The arrangement of the crank axle, E, of the track wheel,

C, segment, G, and spring, H, substantially as and for the purpose set forth.

[The object of this invention is to obtain a grain and grass harvester which may be operated with but little side draught, the cutter or sickle allowed to conform perfectly to the irregularities of the surface of the ground, and at the same time admitting of being readily raised to pass over any obstacle which may lie in its path, while all the working parts are placed under the complete control of the operator.]

2,688.—Uriah Billings, of New Bedford, Mass., for an Improvement in Machines for Making Horseshoes :

I claim the combination of the goose neck, B, fixed die, C, and discharge aperture, f, with the forming mechanism, D E F G H, all constructed, arranged and operating as and for the purposes set forth.

The employment of the griper levers, J, J, in combination with the traveling rollers, L, L', and the extension arms, E' E', substantially as shown and described.

The combination of the vertical gripping levers, J, J, with the forming rollers, F, F, and die, C, substantially as and for the purpose shown and described.

[This is an exceedingly simple and efficient machine for making horseshoes—one that may be operated with a moderate power and still capable of working rapidly and in a perfect manner.]

2,689.—Ransom Cook, of Saratoga Springs, N. Y., for an Improved Exhaust Fan :

I claim the construction of an exhaust fan in the manner substantially as described.

2,690.—Ransom Cook, of Saratoga Springs, N. Y., for an Improved Fan Blower :

I claim a fan blower, constructed substantially as described.

2,691.—J. M. Currier, of Newburyport, Mass., for a Substitute for Pins in Bowling Alleys :

I claim, first, The suspended pedals, A, A, A.

Second, The arrangement consisting of the devices, 1, 2, 4 and 5, for elevating the balls and depositing them on the inclined plane, 3.

Third, The devices for raising, adjusting and operating the number plates, N, N, N.

Fourth, The devices for raising the number plates, elevating and depositing the balls and recording the number of games played, all by a single operation as described.

Fifth, The dial, O, for recording the games as arranged and described in combination with a bowling alley.

Sixth, A bowling alley comprising the above devices constructed and arranged as fully shown and described in the specification and the drawings accompanying the same.

2,692.—Lloyd Day and Milton Day, of Carroll County, Md., and Andrew Mercer, of Richmond, Howard County, Md., for an Improvement in Railroad Rails :

We claim a new and improved form of continuous railroad rail and a new method of combining the triangular bar with the chair or base bar for its reception with braces, supports or fastenings, substantially as described.

2,693.—K. H. Elliott and James Brown, of Morrisville, Vt., for an Improved Revolving Clothes Dryer :

We claim the frame, E, in connection with the lifting rope, H, clamp, J, swivel-eye, L, and block, D, the latter being connected to the horizontal arm, A, by the swivel connection formed of the pin, C, and hook, B, all arranged substantially as and for the purpose set forth.

We further claim the arrangement of the thimble, I, collar, G, and hub, F, with the knots, f, h, on the rope, H, substantially as and for the purpose specified.

[The object of this invention is to obtain a revolving clothes drier which will admit of being suspended from a horizontal arm and attached to the side of a building or any proper support and be capable of being readily raised and lowered and secured at any desired height, whereby it is believed the clothes may be more readily placed on and removed from the frame than hitherto, and the general manipulation of the device rendered extremely easy and attended with but little labor.]

2,694.—Lewis Face, of Covington, Ohio, for an Improved Washing and Wringing Machine :

I claim, first, The combination of the suds box, A, with the box or frame, B, the latter being secured to the former by hinges or joints, and said box or frame having the lever or hand, frame, C, attached, which frame, C, is connected to the wash boards, C', D', by the rods, h, h', h', all being arranged as shown to admit of the elevation of the box or frame, C, when not required for use.

Second, The uprights, D, D', attached to the sides of the suds box, A, the upright, D, being provided with the thimble, m', and crank, E, arranged substantially as shown and described, so as to grasp and hold the ends of the clothes and ensure the proper twisting or wringing of the same, as set forth.

Third, The adjustable box or frame, B, and washboards, C', D', arranged as shown in relation with the suds box, A, in combination with the wringing device formed of the uprights, D, D', thimble, m', and crank, E, all arranged for joint operation, substantially as and for the purpose set forth.

[The object of this invention is to obtain a clothes washer and wringer so arranged and combined that little operations may be thoroughly performed, and with but a simple manipulation of the parts.]

2,695.—H. P. Gengembre, of Tarentum, Pa., for an Improvement in Apparatus for Distilling Coal Oils :

I claim, the feeding and heating apparatus, consisting of the reservoir, B, pipe, D, heater, E, cock, b, and float, d, the whole applied in combination with each other, and with the retort substantially as and for the purpose specified.

And I also claim the tray, G, applied within the retort and in combination with a feeding apparatus, substantially as and for the purpose specified.

[This invention is intended more especially to be applied to apparatus for the distillation of petroleum, but is also applicable to the distillation of coal oils. It consists in certain means of feeding the still, by which the oil is delivered there into at a high temperature as fast as the distillation proceeds so that the quantity in the still is always nearly the same, and by which the holding over of the still is prevented.]

2,696.—H. B. Goodyear, of New Haven, Conn., for an Improvement in Suspending Telegraph Wires :

I claim the method described of suspending telegraph wire of insufficient strength to support itself on poles set at usual distances apart, the same consisting in the use of an auxiliary iron wire or suspension cable and hanging the said telegraph wire upon it in the manner and for the purpose set forth.

2,697.—S. S. Hamill, of East Cambridge, Mass., for an Improvement in Railroad Switch :

I claim the arrangement of the pendulous frame, I, constructed as shown, with the axle, B, bed, A, rod, K, lever, L, spring, M, and rod, N, all as shown and described.

[This invention relates to an improvement in that class of switches which are employed for city or horse railroads, and which are actuated by the drivers of the cars, a small wheel being thrown in contact with an elevated central curved rail-quit when it is required to have the cars pass on a turn-out or branch track.]

2,698.—W. H. Gray, of Philadelphia, Pa., for an Improvement in Epaulets :

I claim securing the detachable inner shell, B, having the fringe attached to the outer shell, A, by means of the strap, C, in the manner substantially as described, whereby the necessity of other fastenings for that purpose is dispensed with.

[This invention consists in a novel mode of attaching the fringe to the outer shell of the epaulet for facilitating the removal of the fringe when the shell requires cleaning, and when it is to be worn without fringe.]

2,699.—J. W. Hardie, of New York City, for Improved Construction of Knife and Fork :

I claim forming the knife handle and blade, and the fork handle and

times, respectively, out of a single piece of sheet steel, when the handles are formed thereby in the usual shape and proportions of other knifed fork handles, and nearly include all sides leaving only narrow apertures, d, f, therein, for the purpose of closely packing together and for readily cleaning, as a new article of manufacture, substantially as specified.

2,700.—W. J. Hazen, of Bethany, Pa., for Improvement in Moth Traps for Beehives :

I claim the worm trap, g, pivoted at one end to the bottom of the hive as described, and provided at the other end with the wire gage covered opening, and the grooves, l, 2, 3, 4, &c., radiating therefrom, arranged and operating in combination with the inclined bottom of the hive, in the manner and for the purpose specified.

2,701.—G. A. Higgins, of New York City, for Improvement in Camp Stoves :

I claim, first, The arrangement and combination of the stove, A, and adjustable flues, E I, substantially as and for the purpose specified.

Second, In combination with the stove, A, and adjustable flues E I, the broiling oven, H, and vessels, C, D, G, two or more, arranged as shown to admit of being compactly stowed away when not required for use.

Third, The employment or use in combination with the stove, A, of one or more additional ovens, K, when constructed substantially as shown to admit of being readily detached and folded up when not required for use, and readily applied to the stove when required for use, substantially as set forth.

[An engraving and description of this invention will be found on page 328 of the present volume.]

2,702.—J. B. Hyde, of Newark, N. J., for Improvement in Manufacture of Manure from Fish :

I claim the mixing of peat, marl, clay and plaster, or either or any of said material with fish pulp or pomace for effectually grinding or pulverizing said mixture.

2,703.—Charles Kaiser, of New York City, for Improvement in Machinery for Making Needles :

I claim the combination of the following members constituting a machine for grooving the needle wire, viz: a reel for the needle wire, a rotating grooving saw, a traveling forceps, and mechanism to cause the saw to approach and recede from the axis of the needle wire and to hold it in place, the combination as a whole being and operating substantially as described.

I also claim in combination with the above enumerated members, a second rotating grooving saw and mechanism to cause the saw to approach and recede from the axis of the needle wire and to hold it in place, substantially as set forth.

I also claim the combination of the first part of my invention with a stationary forceps or holder, substantially as set forth.

I also claim the combination of the third part of my invention with a pair of knives in such manner that the grooved needle wire is cut at the proper intervals into grooved needle blanks, substantially as set forth.

I also claim the combination of the first part of my invention with a support for the needle wire and with a straightening mechanism, substantially as described.

2,704.—G. R. Kelsey, of West Haven, Conn., for Improved Curtain Fixture :

I claim the curtain fixture, consisting of the roller fitted with its disks, and caps, and operated by the coiled spring, ratchet wheel, and spring ratchet, when the whole is constructed, arranged and fitted for use, substantially as described.

2,705.—J. B. Kendall, of Boston, Mass., for Improved Horseshoe :

I claim the auxiliary shoe, B, when provided with permanent heel and toe pieces, f, and g, in combination with stationary shoe, A, both parts being secured together, substantially as and for the purpose set forth and described.

2,706.—J. W. Mackenzie, of Brooklyn, N. Y., for Improved Fire Escape :

I claim the round slotted tube-road, and traveling roller as shown in the drawings; and the arranged combination of fire and water proof tube-road and traveler with fire proof pendant tackle and iron mousing pin to hook as arranged and described, for the purpose of saving life and property, and the raising of hose and water to any part of the building, substantially as described.

2,707.—Emile Martin, of New York City, for Improvement in Self-Fastening Pins :

I claim a self-fastening screw or dress pin constructed substantially as described, the pin being held firm and steady by means of the guide tube, e, and spring fastening, h, or l, or equivalent combination.

2,708.—E. P. Russell, of Manlius, N. Y., for Improvement in Harvesters :

I claim, first, The attaching of the finger bar, J, to the main frame, A, by means of the shoe, K, provided with two eyes, h, h', which, by being fitted on the oblique or diagonal-draw bar, L, the front end of which is connected by a joint or pin to the front left hand corner of the frame, A', and the back end fitted in a bar, M, the outer end of which is attached by a joint or pin, j, to the back part of frame, A, substantially as and for the purpose set forth.

Second, In combination with a shoe, K, and draw bar, L, constructed and connected as explained, I claim a sliding shoe, h, h', of the said shoe in a vertical direction, to admit of a certain degree of play of the back part of the shoe and finger bar, and also of the platform when used.

Third, Attaching the driver's seat, O, to bars, P P, which are fitted at their lower ends in sockets, Q Q, attached to the frame, A, and arranged substantially as in the figure for the purpose set forth.

Fourth, Transmitting motion to the shaft, through the medium of a screw sleeve, D, adapted to be automatically thrown out of gear with its shaft by a backward motion of the machine, substantially as explained.

[This invention relates, first, to an improved mode of attaching the finger bar to the main frame of the machine. It also relates to an improved means for attaching the driving rod of the sickle to the crank or driving shaft. It further relates to an improved arrangement of the seat.]

2,709.—E. P. Russell, of Manlius, N. Y., for Improvement in Reels for Harvesters :

I claim, first, The arrangement and combination of the hollow or tubular shaft, G, of the driving pulley, c, the bearing, F, on the pin, E, and the sliding-reel shaft, H, substantially as and for the purpose set forth.

Second, Attaching the arms, e, to the reel shaft, H, through the medium of the metal heads, J, J, formed each of two parts, f, f', provided with radial grooves, g, having lips, l, bolted together by the bolts, h, and secured to the shaft, H, by the bolts, j, substantially as described.

[The object of this invention is to arrange the reel shaft in such a manner that it will play or work as the machine moves along, corresponding to the play or movement of the sickle produced by the latter, conforming to the inequalities of the surface of the ground.]

2,710.—C. H. Shank and S. Stephenson, of Hummelstown, Pa., for Improvement in Thrashing Machines :

We claim converting the machine either into an overshoot or under-shot thrasher, by means of the removable and convertible concave, E, and false concave, H, concave, G, and false concave, I, when respectively employed in connection with the cylinder, C, and feeding board, D, substantially in the manner and for the purpose specified.

2,711.—Thomas Slight, of Newark, N. J., for Improved Padlock :

I claim, first, The employment or use of the dog, C, and guard bar, D, when the latter is provided with a prong, e, arranged in such relation with the lower part of the dog, C, that said dog may be actuated and thrown out or free from the shackles by the action of the key in turning, substantially as described.

Second, The employment or use of the key catchers, k, one or more, arranged in connection with the tumblers, or formed on separate or special plates, to operate as and for the purpose specified.

2,712.—David Steinberg, of San Francisco, Cal., for Improved Mode of Setting Artificial Teeth :

I claim combining the teeth with the gold, platinum or other metal plate, by means of india rubber or other gum capable of vulcanization, applied in the manner specified.

[This invention consists in the combination of hard vulcanized india-rubber, with a gold platinum or other metal plate, as a base for art-

ficial teeth, in such manner that the india rubber serves as a means of uniting the teeth with the plate, but is prevented from coming in contact with the palate and gums by the interposition of the plate, by which combination several important advantages are obtained.]

2,713.—Silas Stuart, of Sterling Center, Mass., for Improvement in Steam Boilers :

I claim the tube, A, and chamber, B, connected by the tubes, B', and forming the boiler and fire chamber, A', in combination with the jacket, E, and pipe, I, all arranged substantially as and for the purpose set forth.

I further claim the annular grate, J, when arranged to rise and fall, substantially as described.

2,714.—I. P. Tice, of New York City, for Improvement in Projectile for Rifled Ordnance :

I claim, first, The construction of a projectile for ordnance with its body composed of a single casting of iron and a surrounding ring of lead or other suitable material, capable of lateral expansion, when such casting is of such form that the force employed to ram it home, or the force to which it is subject in its discharge, will cause it to be broken into two or more pieces, which will act in such manner as to cause the said ring to be expanded, substantially as and for the purpose specified.

Second, Constructing the two parts, A and B, of the projectile with collars, i and j, substantially as and for the purpose specified.

Third, The corrugated metal band, r, applied in combination with the packing ring, c, substantially as set forth.

2,715.—John Tustin, of Petaluma, Cal., for Improvement in Reaping Machines :

I claim, first, A swivel guide, H, to the upright, G, by means of a screw, e, passing through a nut or socket, o, on the upright, and provided with jam nuts, q, q, substantially as shown, for the purpose of adjusting the shoe or rake, R, further forward or backward, on the platform, B, as may be desired.

Second, The arrangement and combination of the two bars, I, J, and spring, L, with the guide, H, and crank, v, of shaft, M, all constructed and employed in the manner explained, to admit of the operation of the shoe or rake, R, on the platform, B, as set forth.

2,716.—G. W. Van Brunt, of Rolling Prairie, Wis., for Improvement in Seeding Machines :

I claim the arrangement of the rotating hubs, G, and sliding shells or cylinders, H, the latter being connected with the slide, J, having the tubes, Q, attached, substantially as and for the purpose set forth.

[This invention consists in an improved means for regulating the discharge of the seed so that the same may be sown in greater or less quantities over a given area, as may be desired. It also consists in an improved means for distributing the seed in a broadcast manner, and further in an improved arrangement of the cultivator or harrow teeth, whereby the whole of the latter may be raised simultaneously when desired, and any one of the teeth, when at work, allowed to rise and fall independently of the others, so as to conform to the inequalities of the surface of the ground.]

2,717.—Justus Baron Von Liebig, of Munich, Bavaria, for Improvement in Electroplating with Copper and other Metals, the Silvered Surfaces of Mirrors and other Articles for Protecting the Same :

I claim the use, in the galvano-plastic process of depositing upon silver or silvered surfaces, gold, copper, nickel or other metals of the neutral solutions of the metal to be deposited prepared with the double tartrate of soda, potash or ammonia, in the manner substantially as described.

Also, the mode hereinbefore described of coating the silvered surfaces of glass mirrors or other articles with a metallic film of gold, copper, nickel or other metals by the use, in the electroplating process of the neutral solution of copper, and the alkaline solutions of other metals, in the manner substantially as set forth.

2,718.—Frederick Walton, of Haughton Dale, Denton, England, for Improved Mode of Treating Drying Oils, for Manufacture of Varnish and other Purposes, Patented in England Jan. 27, 1860

As an improved article of manufacture, I claim: first, A varnish made by converting drying oil into semi-resinous material, in manner as described, and then dissolving in a solvent, as stated.

Second, I claim the producing a semi-resinous material from drying oil by the combined process of exposing it in thin films, on a suitable surface, to currents of warm air and afterward separating it from the surface either by a solvent or by pressure, as described.

Third, I claim the production of the semi-resinous material, as described, the preparing drying oil by causing it to pass repeatedly in very fine streams through warm air, as described.

Fourth, I claim the producing, by rollers or otherwise, sheets of semi-resinous material, either alone or mixed with other substances, the said sheets being either combined with a woven or other fabric, or otherwise, as described.

2,719.—Enos Waterbury, of Stamford, Conn., for Improved Automatic Gates :

I claim, first, The arrangement of the sector, F, with a sliding weight, G, attached, toothed segments, d, d, placed loosely on shaft D, arms, o, o, attached to the shaft, D, and the plate, R, attached to the sector, F, the arms, o, o, being connected to the segments, d, d, which gear with the segments, c, c, by the pins, p, p, and the plate, R, connected to the arm, H', by the pin, t, substantially as and for the purpose set forth.

Second, The flap, g, connected with the shaft, D, as shown, in connection with the sliding rods, l, l, on the gate, all arranged to operate as and for the purpose set forth.

[This invention relates to an improved gate of that class which is operated or opened and closed by the vehicle, the wheels of the latter as they approach and leave the gate] actuating certain levers which put in motion the parts which open and close the gate. The object of the invention is to obtain a simple means for effecting the result, which will operate efficiently without being liable to derangement from slight casualities.]

2,720.—James White, of Cleveland, Ohio, for Improved Camp Bedstead :

I claim the pieces, D, D, and cams, F, in combination with the side pieces, A, A', head pieces, H, H', and K, legs, B, and canvas, G, when these several parts are constructed, arranged and operated, as and for the purpose specified.

2,721.—J. M. Luther (assignor to W. E. Hartshorn), of Salina, N. Y., for Improvement in Process of Purifying Brine for the Manufacture of Salt :

I claim the introduction of bicarbonate of soda or sal soda into the brine in the manufacture of salt by the boiling process, either before or during the boiling process, substantially as and for the purpose specified.

[This invention consists in the introduction into the brine, in the manufacture of salt by boiling, of bicarbonate of soda or sal soda, for the purpose of neutralizing or expelling by precipitation the chlorides of calcium and magnesium which generally constitute the principal impurities in the brine.]

2,722.—Joseph Short, of New York City, assignor to Chas. Short, of Salem, Mass., for Improvement in Knapsack :

I claim the arrangement of the back and shoulder straps, E, E, the neck strap, F, and the bottom straps, h, h, the same being constructed and applied together and to the bottom of the knapsack, in manner and so as to operate as set forth.

2,723.—Turner Williams (assignor to himself and David Heaton, 2d), of Providence, R. I., for Improved Crank for Driving Sewing Machines and other Machinery :

I claim, first, Attaching the connecting rod, L, to two auxiliary pins, h, or their equivalent, instead of directly to the crank pin, d, substantially as shown and described.

Second, I claim the alternate connecting and disconnecting of the said auxiliary pins or an equivalent means of attachment to and from the crank pin, d, of a crank, in the act of turning such crank by means of a treadle or other device for the imparting a reciprocating movement, substantially as described, for the purpose specified.

2,724.—J. D. Woodruff, of Brooklyn, N. Y., assignor to T. B. Peck, of Yonkers, N. Y., for Improvement in Saddles :

I claim the arrangement, as described, and at a suitable angle of inclination to overhang and support the leg of the rider equally along their surface from top to bottom of the stops, 5, upon a riding saddle, substantially as described, and in such a manner as to secure the advantages set forth.

2,725.—H. S. Fisher, of Newburg, Pa., for Improved Means of Sealing Preserve Cans :

I claim the use of paper or other fibrous pallets, saturated and coated on both surfaces with a composition such as specified, in combination with a preserve can or jar, and with the cap, B, and retaining device, C, in the manner and for the purpose specified.

RE-ISSUE.

130.—E. A. Tuttle, of Brooklyn, N. Y., for Improvement in Registers and Ventilators. Patented June 19, 1856 :

I claim the construction of the valves and plates with pins or projections, arranged to operate together, substantially as shown and described, without the use of any intervening parts or pieces, as set forth.

[The nature of this invention consists in the improved arrangement of the working parts of the ventilator, by which the partially rotating open or scroll front piece is made to operate directly upon and in contact with balanced or unbalanced valves, in opening or closing the register, dispensing with the use of connecting rods, links or other apparatus used in the construction of other ventilators or registers.]

DESIGN.

123.—J. A. Eshleman, of Philadelphia, Pa., for design for a Cravat.

FOR THE WEEK ENDING NOVEMBER 19, 1861.

2,726.—Nathan Ames, of Saugus Center, assignor to Parker and Perkins, of Meriden, Conn., for Improved Means of Attaching Forks, Spoons and Knives :

I claim, first, Confining to the blade and handle of any knife a detachable fork or spoon, or both, by the elasticity of the fork or spoon and knife blade, operating in combination with a button, b, slot, c, pin, p, and hole, h, or their equivalents, substantially as and for the object specified.

Second, So applying and attaching a fork to a knife that one of the outer tines shall be flush, or a little more than flush, with the knife edge, to prevent the latter from cutting when handled, or carried in a pocket, substantially as described.

2,727.—J. W. Andrews, of Norristown, Pa., for Improvement in Gun and Bayonet Battery :

I claim, first, The bars, F and G, into which are secured a number of bayonets, g, h, i, and j, &c., arranged, constructed and operated in connection with a carriage, substantially as and for the purpose described.

Second, I claim the combination of a number of guns and bayonets, fixed, arranged, and operated on a carriage, substantially in the manner set forth and for the purpose described.

2,728.—G. L. Baar, of Indianapolis, Ind., for Improved Scroll Saw :

I claim an endless saw, S, in combination with the two pulleys, D' D', each propelled by the same belt, arranged as described.

2,729.—Simon Brooks, of Chester, Conn., for Improvement in Machinery for Bending Hooks and Staples :

I claim a bed piece, A, spindle, D, hinged arm, E, pivoted set or tool, F, G, and clamping lever, H, I, when combined arranged and operated in the manner and for the purpose described.

[This invention is designed for bending hooks and eyes, such as are used in hanging picture frames, looking glasses and other similar articles. It consists in a device for clamping and holding the blank while the hook or eye is being formed. It also consists in the manner of hinging the set whereby only one operation is required to bend and finish a hook or eye.]

2,730.—A. S. Carner, of Brooklyn, N. Y., for Improvement in Camp Chests :

I claim, first, The slides, O, O', clasp, Q, and plug, Z, when the same are arranged in combination with the movable top, X, substantially as described.

Second, The slides, O, O', movable top, X, and folding leaves, O O', when the same are arranged substantially as described for the purposes set forth.

Third, The slides, O, O', movable top, X, when the same are arranged in combination with the hinged legs, D, and the straps, F, substantially as described.

Fourth, A trunk, with its parts arranged and constructed substantially as and for the purposes specified, it being susceptible of a ready conversion into a table.

2,731.—Lewis Eikenberry, of Philadelphia, Pa., for Improvement in Steam Slide and Cut-off Valves :

I claim the described method of adjusting combined working and cut-off valves relatively to the ports of a steam engine cylinder, in combination with the specified operation of the same, for the purpose set forth.

2,732.—W. H. Elliot, of Plattsburgh, N. Y., for Improvement in Pump for Oil Wells :

I claim, first, The employment of an inner well or trap, in combination with the pump, as and for the purpose specified.

Second, The employment of a floating valve, k, in combination with the pump, as and for the purpose set forth.

2,733.—R. B. Fitts, of Philadelphia, Pa., for Improvement in Army Feed and Water Buckets :

I claim the flexible rim, B, rigid ball, C, and plates, f, f, the same being constructed and combined together with the flexible holder, A, so as to operate together, substantially in the manner described and for the purposes specified.

2,734.—John Gault, of Boston, Mass., for Improvement in Projectiles for Ordnance :

I claim, first, The combination of the hollow sectional projectile connected by a chain, or its equivalent, inclosed and carried within itself, and the charge regulated by the fuse, to extend its sections at any desired point, as set forth.

Second, I claim securing the sections of the projectile at its front end or point, with cap or nut, or its equivalent, as described and for the purposes set forth.

2,735.—M. La Rue Harrison, of Burlington, Iowa, for Improved Mode of Applying the Bolster in Railroad Car Trucks :

I claim the employment of a sawing bolster, H, made in one piece, in combination with the pendulous stirrups, C, C, springs, E, E, slotted stirrups, F, F, boxes, c, c, and bolts, b, b, g, g, all as shown and described for the purpose set forth.

[See engraving of this invention on another page.]

2,736.—A. Hoffman and H. W. Limebeck, of Halfday, Ill., for Improvement in Cultivators :

We claim the seed box, C, cam wheel, k, lever, f, harrow, e, teeth, b, b, and plow, q, q, and w, when all are constructed and arranged, substantially in the manner and for the purpose set forth.

2,737.—Otis Howe, of Cambridgeport, Mass., for Improved Spring Bed Bottom :

I claim my improved mode of constructing the rocker and applying it to the bedstead or bed frame, viz, making such rocker with one or more legs, and constructing the bedstead or bed frame with one or more concave or haring sockets, to receive, support and rest such legs or legs, in manner substantially as described, and enable such to vibrate longitudinally of the spring bearer, and to be raised out of such sockets, substantially as specified.

2,738.—W. L. Hubbell, of Brooklyn, N. Y., for Improved Means of Attaching Traces to Carriages :

I claim the cross bolt, c, applied to the eye, a, of the whiffletree, in the manner and for the purposes specified.

2,739.—Junius Judson, of Rochester, N. Y., for Improvement in Governors for Steam Engines :

I claim the swivel collar, h, revolving freely on the rod, b, between

the fixed collars, j, or their equivalents, so as to receive and turn with the ends of the governor arms, and thereby obviate excessive friction and destructive wear, substantially as specified.

2,740.—D. S. Kimball, of Lowell, Mass., for Improvement in Carding Engines:

I claim my improved carding machine, having its parts constructed and made to operate together, in manner substantially as set forth. I also claim the application of the guards, c, c, or their equivalents, to the sides of the frame, and so as to operate with the main card cylinder, in manner and for the purpose set forth.

2,741.—Thomas Lee, of Newark, N. J., for Improvement in Breech-Loading Firearms:

I claim removing the spent cartridge from its chamber by means of the arms, c, c, pins, e, e, and parols, a, a, in combination with appliances, substantially as shown, for opening and closing the breech, all essentially for the purpose and in the manner set forth.

2,742.—Elisha Matteson, of Brooklyn, N. Y., for Improvement in Projectiles for Firearms:

I claim, first, Making the base of the angular passage, B C C A', of the projectile in its transverse vertical section in the form of a section of a truncated cone, in the manner and for the purpose described.

Second, A cartridge formed of the improved projectile, A B C A', and the ordinary charged paper or bag case and a rubber band, in the manner and for the purpose described.

2,743.—Morris Mattson, of Boston, Mass., for Improvement in Enema Syringes:

I claim the invention, consisting of the perforated screw plug, m, on to which the connecting pipe screws, confining the bag between the pipe and the head, s, of the plug, in the manner substantially as described.

2,744.—J. C. and C. N. Mayberry, of White Rock, Ill., for Improvement in Harvesting Machines:

I claim, first, The elevated yoke, E, connecting the linked rear rail, b, of the balanced frame, A, and employed in connection with the thrusting tongue, D, rope, F, and pulley, c, d, substantially as and for the purposes set forth.

Second, The endless conveying and elevating apron, K, carried at one end in an inclined frame, L M, jointed midway of its length in standards, g, in the manner and for the purpose shown and explained.

[This invention relates to certain improvements in that class of harvesters in which the team is placed behind the frame of the machine, and an endless apron employed for discharging the cut grain. The object of the invention is to balance the machine more evenly than hitherto, cause the same to work steadier or with less vibration, equalize the draught, render the cutting device capable of being raised and lowered with facility, and enable the discharging apron to be adjusted to suit receiving wagons of different heights.]

2,745.—Wm. Morehouse, of Buffalo, N. Y., for Improvement in Lamps:

I claim the combination of the cylinder or case, D, tube, C, and plates, E F, arranged relatively with the wick tube, B, and cone or deflector, E, to operate as and for the purpose set forth.

[An engraving of this invention will soon appear in our paper.]

2,746.—Wm. Morehouse, of Buffalo, N. Y., for Improvement in Sash Supporters:

I claim a sash retainer, constructed and operating in the manner and for the purpose set forth.

I claim constructing the bearings, d, of the box, E, plane-surfaced, and of a length greater than the diameter of the axle of the wheel, B, in the manner and for the purpose set forth.

I claim regulating the pressure of the roller, B, upon the sash rail, i, by means of the inclined shouldered brake, H, and tapered set screw, n, in the manner and for the purpose specified.

2,747.—L. M. Olmsted, of Binghamton, N. Y., for Improvement in Oilers:

I claim an oiler, made with a semi-spherical bottom, without seam, a flexible cover and a conducting wire attached to the extremity of the tube, all as shown and described.

[The nature of this invention consists in making the body of an oiler of semi-spherical form, so that no matter in what position it is placed, if left free to act of itself it will assume an upright position. It also consists in making the cover of the oiler flexible instead of the bottom or sides, thus bringing all seams above the oil in the cap. It also consists in an arrangement of conducting wire to prevent waste of oil by running down on the outside of the nozzle every time the oiler is used.]

2,748.—H. J. Phillips, of New York City, for Improvement in Convertible Overcoat and Tent:

I claim a combined tent, overcoat and cape, made as shown and described.

2,749.—Charles Ray, of Boston, Mass., for Improvement in Stirrups:

I claim the application to the sides of stirrups of a revolving surface, however arranged, so as to prevent the feet of the rider from catching in the stirrups, in combination with a step or bottom having a fixed and non-rotating surface, and which bottom shall be rigidly attached to the frame of the stirrup, substantially as described.

2,750.—Addison M. Sawyer, of Fitchburg, Mass., for Improvement in Canister Shot for Ordnance:

I claim a canister shot, constructed in the manner substantially as described.

2,751.—Thomas Schankwiler, of Fayette, N. Y., for Improved Mode of Constructing Horse Powers:

I claim the arrangement and combination of the levers, c, draft rods, f, fulcrum bearing, d, socket, e, and connecting rod, g, substantially in the manner and for the purposes shown and described.

2,752.—W. G. Sherwin, James McFarland and Charles Thieme, of Cincinnati, Ohio, for an Improvement in Breech-Loading Ordnance:

I claim, first, The arrangements of a nipple, H, I, at the bottom of a cartridge chamber, when in position for loading, so that the vent will be automatically closed, substantially as set forth.

Second, In combination with a nipple, H, which requires the charge in a vertical position, as explained, the projecting point or points, I, of the nipple, for the purpose of opening the cartridge by its own weight in the act of loading.

Third, The cock or cap, J, adapted to perform the several offices of capping, firing and uncapping the nipple, together with holding the vibratory breech rigidly and exactly to its place while discharging, substantially as set forth.

2,753.—Aaron Shute, of Flushing, N. Y., for an Improvement in Fire-Escapes:

I claim the chain ladder, E, when connected to the building and to the tilting-box, D, and the latter provided with catches or levers, b, b, arranged as described or in any equivalent way, so as to admit of the releasing of the box, D, and the liberation of the ladder, E, when required, and for the purpose set forth.

2,754.—David N. Skillings, of Boston, Mass., assignor to Himself and D. B., Flynt, of Cambridge, Mass., for an Improvement in Portable Houses:

I claim my improved portable house, having its framing constructed substantially as described, and the sides, ends and roof constructed in sections, as set forth, and applied to the framing in the manner specified.

2,755.—Charles Ward, of Salem, Mass., for an Improved Mode of Securing Knobs to Doors, Drawers, &c.:

I claim the described attachment for fastening on knobs or other articles, substantially as specified.

2,756.—S. L. Whetstone, of Cincinnati, Ohio, for an Improvement in Locomotives:

I claim the use in a locomotive of wheels applied to bear against opposite sides of a rail, in combination with wheels running upon top of the same rail, when the side wheels derive suitable pressure from the weight of the locomotive through a system of levers, or their substantial equivalents, as represented.

2,757.—W. A. Wood, of Moosick Falls, N. Y., for an Improvement in Rakes for Harvesters:

I claim, first, A jointed rake stale that will, in connection with an endless traveling belt, traverse the sides of the platform, and sweep therefrom, and deliver the cut grain, substantially as described.

Second, I claim connecting the jointed rake stale to the outer or grain side of the platform, so that the delivery point for the gavel may be next to, or at, or near the rear of the main frame, substantially as described.

2,758.—George Bradley, of Paterson, N. J., assignor to Jacob S. Rogers, of the same place, for an Improvement in Carding Engines:

I claim, first, Causing a scripping cylinder, C, covered with card clothing or equivalent material, which retains the strippings to be automatically operated against the main cylinder, so as to strip it during a certain period and then to be separated therefrom, and to be in turn stripped or cleaned by suitable mechanism, and to deposit the strippings separate from the fibers which are being carded, substantially in the manner and for the purpose described.

Second, Turning the scripping cylinder, C, slowly backward, or in the reverse direction to that in which it performs its function of a stripper, and thereby subjecting its surface to the action of the clearing comb, N, or its equivalent, in combination with a motion of the said scripping cylinder, C, to and from the main cylinder, substantially as and for the purposes set forth.

2,759.—D. M. Chamberlain, of West Roxbury, Mass., assignor to Himself and Alexander H. Twombly, of Boston, Mass., for an Improvement in Tubes for Surface Condensers:

I claim a surface condenser having its tubes strengthened by rings, as set forth for the purpose specified.

2,760.—W. E. Frost, of Clinton, Mass., assignor to Washburn & Moen, of Worcester, Mass., for an Improvement in Skirt Wire:

I claim a skirt wire, A, provided with an openly braided covering, B, when combined with a suitable size, or glazing, b, as set forth.

[This invention has for its object, first, economy in stock; second, rapidity of construction; third, an improved appearance when in a finished state; fourth, durability, and, fifth, a greater facility than usual in manufacturing the skirts.]

2,761.—John W. Lane, of Newton, N. J., assignor to W. and B. Douglas, of Middletown, Conn., for an Improvement in Pumps:

I claim the water chamber, or reservoir, C, in combination with the induction pipe formed of two parts, B and B' so arranged and applied to the pump to operate as and for the purpose set forth.

2,762.—E. C. Townsend (assignor to Smith & Browner), of New York City, for Improvement in Neck Ties:

I claim a neck tie made of paper, and adapted to the neck of the wearer, substantially in the manner described.

2,763.—Christian Weitman (assignor to himself, M. W. Glynn and A. Mageman), of Independence, Iowa, for Improved Device for Shrinking Tires:

I claim the plate, A, provided with a series of semicircular concentric ribs, b, in combination with the chain, B, and lever, C, all arranged substantially as and for the purpose set forth.

[The object of this invention is to obtain a simple device whereby the tires of wheels may be shrunk so as to fit snugly and tightly to the wheels without the necessity of cutting and re-welding them, the invention admitting of ordinary persons, not mechanics, such as farmers, teamsters, &c., setting the tires of their own vehicles when necessary without the aid of a mechanic.]

2,764.—G. F. Wilson, of Providence, R. I., for Improvement in Army Cooking Wagons:

I claim, first, Combining the above mentioned oven with an army wagon or other vehicle, substantially as described.

Second, The combination of the said oven or baker with either the boiler or broiling apparatus or both, and this combination with the wagon substantially as described, for the purpose of making a portable army cooking stove.

2,765.—Arnold Hamilton, of Broad Brook, Conn., for Improvement in Breech-Loading Firearms:

I claim the combination and arrangement of the sliding-chamber, C, with the conical-shaped chamber of the barrel, A, at its breech and the lever-toothed sector, F E, substantially as and for the purpose described.

RE-ISSUES.

131.—Wendell Wright, of New York City, for Improvement in Friction Clutches. Patented June 15, 1852:

I claim, first, Operating the friction segments to bring them into and out of contact with the inner periphery of the pulley by means of a connection with a sleeve, E, sliding longitudinally upon the shaft of the pulley, substantially as described.

Second, So supplying the friction segments in combination with the shaft hand pulley that the centrifugal force developed in the segments by the rotary motion, shall be allowed to force them outward against the inner periphery of the pulley, and so be productive of friction between the segments and pulley and made instrumental in or accessory to the transmission of rotary motion, substantially as described.

132.—[Re-issues Nos. 127 and 128, of October 29, were cancelled, and Nos. 132 and 133 issued in lieu thereof.] D. G. Littlefield, of Albany, N. Y., for Improvement in Stoves:

I claim an organization which temporarily confines the gases of the supply coal in a coalsupply chamber, then burns the gases of the supply coal, and the gases of the incandescent coal laterally below and outside of the coal supply chamber, and entirely down to the grate and thereafter, circulates the spent gases or a portion of them over the top of the coal supply chamber, and then it and the outer wall of the stove, and finally discharges them through a flue leading outside the room in which the stove is situated.

133.—D. G. Littlefield, of Albany, N. Y., for Improvement in Stoves. Patented Jan. 24, 1854:

I claim, first, The vertical wedge-shaped passages between the grate bars of the fire pot substantially as described.

Second, The employment of a grated fire pot forming a downward continuation of a coal supply pot, in combination with a gas-consuming chamber or flue between the outer case and the connected fire and coal supply pot, and an externally discharging spent-gas pipe, substantially as and for the purpose set forth.

Third, I claim an illuminated exterior wall, M, in combination with a coal supply chamber and an intermediate gas-consuming chamber, substantially as described.

DESIGNS.

H. G. Thompson (assignor to Hartford Carpet Company), New York City, for 15 patents for Designs for Carpet Patterns.

NOTE.—The number of applicants for patents is steadily augmenting and the Patent Office begins again to assume a busy aspect. Of the above list of patents, THIRTY-THREE of the number were cases, the specifications and drawings of which were prepared at the Scientific American Patent Agency.

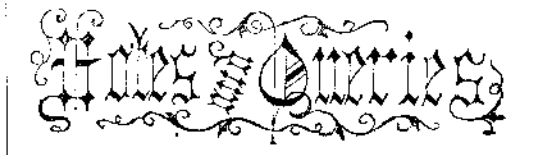
TO OUR READERS.

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 is 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 on the time for which it was pre-paid has expired.

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 inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1863, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

NEW PAMPHLET 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.



C. G., of Mo.—The method practiced in the French cavalry in the Crimea, of securing their horses at night, was to stretch a strong rope along the ground, fastening it securely, and then tying the horse to it by one of his fore legs.

H. R., of Md.—We shall be happy to attend to the examination of your rejected case at the Patent Office. If the reasons for refusing your claims are unsound, which is not unusual, we can no doubt prosecute them to a successful issue, in spite of the rejection.

G. C., of Mass.—We advise you to have a preliminary examination made of your invention through the Patent Office. This examination is carefully made through our Branch Office, and will generally determine beforehand the novelty of your plan. As a precautionary measure we recommend it to inventors who intend to apply for a patent.

A. D. C., of Mass.—A cement of plaster of Paris should be able to stop the leak in your jar containing the silver solution. Apply a thin cement of the plaster on the inside, so as to fill up the crack.

H. W. C., of N. Y.—A gun has been constructed with a wrought-iron cylinder heated and suspended in a mould and molten cast iron cast around it, so as to form a partly cast and wrought-iron gun.

D. T., of Ohio.—You can obtain carbonic acid gas in large quantities by heating chalk in a clay retort up to a red heat. This is the cheapest mode of obtaining this gas known to us, but a more simple method consists in pouring sulphuric acid among chalk or marble dust. The acid combines with the lime and sets the gas free.

N. Van H., of Pa.—Beechwood boiled in linseed oil for about three minutes and fitted endwise in journal boxes, makes very durable and excellent bearings for the shafting of machinery.

P. S., of Mass.—You wish to know the cheapest solution that you can use for neutralizing sulphuric acid in your blocks of timber. A caustic alkaline lye made by stirring equal weights of common soda and fresh slacked lime in water, then allowing the sediment to settle to the bottom of the vessel, is the cheapest and best that you can use. The clear lye thus made is the well-known "washing fluid," and it is the lye that is employed for making hard soap by boiling oil or grease with it for several hours.

H. G., of N. Y.—The Commissioner of Patents has no power to annul an existing patent. He can order an interference to be declared between an existing patent and a pending application for a patent for the same invention, and then require testimony from each party in order to substantiate the question of priority of invention. If this is proved by the applicant for the pending case, the Commissioner exercises the right to grant the second patent.

H. D. P., of N. Y.—On page 356, Vol. III. (new series) of the SCIENTIFIC AMERICAN, you will find an engraving of President Lincoln's mode of buoying vessels over sand bars. It was patented May 22, 1849, and will expire the same month and day, in 1863, unless he gets a renewal of his patent, which it is not probable he will do. We are not aware whether he is or is not the first President elected from the ranks of inventors.

D. J. C., of Mass.—The back pressure of the atmosphere on exhaust ports of an engine is in proportion to the size of the ports and it is the same relatively as it regards the size of the muzzle of a gun. The larger the area of muzzle in proportion to the bore of the barrel the greater, therefore, should be the recoil of the gun.

A. B. C., of C. W.—We do not know the address of the manufacturers of enameled cloth for carriage top but the article is made in Newark, N. J.

E. D. H., of C. W.—The McNary Knitting Machine Co., No. 25 William street, have patents for knitting stockings complete. Address also, J. B. Aiken, of Manchester, H.

R. W., of Ill.—We are not acquainted with the proportions of the ingredients used in making Arnold's writing fluid. It has never been patented, and is therefore kept secret from the public.

G. P., of N. Y.—Lead one-eighth of an inch thick will resist the pressure of steam, provided the pipe is small enough. The larger the pipe the thicker must the lead be. Iron is better.

W. B., of Iowa.—Make the area of the chimney of your steam boiler equal to that of all the flues, carry it up 40 feet high, make the inside smooth, with a good coat of plaster and you will obtain a good draft. There are no fears of the chimney drawing if it is kept warm and dry.—There is a great variety of opinions among millers respecting the best dress of burr stones. Study those which have been illustrated in the SCIENTIFIC AMERICAN. See page 192, Vol. 4, present series.

L. C. R., of N. J.—The flooring of a basement with a cellar underneath should endure as long as that of any other floor if you maintain a circulation of air underneath. If you char the joists of such flooring by slightly burning them they will last much longer. Hot pitch, or a solution of sulphate of copper, applied to the joists and flooring will also tend to render them more enduring.