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 re-volving box. L, constructed, combined, and operating as herein de-scribed and for the purposes set forth. Local Mark and the purposes set forth.

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

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.—Francois Haeck, Brussels, Belgium. Patented in Belgium July 17, 1862 : I claim, first, The process of separating injurious constituents from phlegms or other alcoholi liquid prior to dist lation by dilut-ing it, permitting it to rest, and decantation, substantially as set orth Second, I also claim the process of separating injuries.

from phlegms or other alcoholic liquid prior to disti lation by dilut-ing it, permitting it to rest, and decantation, substantially as set orth Second, I also claim the process of separating injurious constitu-ents 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 heat-ing 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 con-stituents from phlegm, or other alcoholic liquid prior to distillation of alcohol, substantially as set forth. Forth, I also claim the process of separating the injurious con-stituents from phlegm, or other alcoholic liquid prior to distillation of al-cohol, substantially as set forth. Firth, I also claim the process of distilling phlegm, or other alco-holic liquid, by two consecutive simultaneous and continuous distil-tations (the first at the lowest practicable temperature required to disengage the alcohol in yapor, and the second at a temperature suf-fucent to expel the remaining alcohol, and of condensing the pro-ducts of each distillation in a separate vessel, so that they do not mingle, substantially as septified in the last preceding claim, in combination with the process of separating the liquidue constitu-ents prior to distillation, substantially as specified in the fourth claim. Seventh, I also claim the process of distilling phlegm, or other alco-nolic liquid, substantially as specified in the fourth claim.

ombinatio ents prior claim

claim. Seventh, I also claim the process of distilling phlegm, or other al-coholic liquid, substantially as specified in the fifth claim, in combin-ation with each of the preiminary separating processes specified in the first, second, and third claims.

the nrst, second, and thurd claims.
45,002. — Apparatus for Concentrating and Analyzing Alcoholic Liquids.—Francois Haeck, Brussels, Belgium, Patented in Belgium July 17, 1662:
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.

tween which the cooling num is concerned, in tween which the cooling num is concerned, if 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 cleansed.

the purpose of being cleansed.
45.003.—Refrigerating Condenser for Distillers.—Francois Haeck, 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 condenser fing surfaces to be readly cleansed; the said condenser being provided with pipes 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.

A new commune conformation of the aforesaid condenser with pipes for the escape of air, substantially as set forth.
45,004.—Apparatus for Cooling and Aerating Liquids.— Francois Haeck, 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 guiter or its equivalent to distribute the liquid to be cooled, a pipe for its escape, and suitable means for the supply and tailing as set forth.
I also claim the oxygenator hereinbefore described, composed substantially of two chambers and perforated tubes through which tubes are its 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 Stonper.—Peter R Higdow Oxheme.

Bottle Stopper.—Peter R. Higley, Oshawa 45,005.

w

C. W.: I claim, first, A valve stopper composed of a frame, B b, packing, C, and cylinder. G, the latter having an aperture, gZ 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, substan-tially 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 de-scribed, 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-man-ganic 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 Har rison, Brothers & Co.), Philadelphia, Pa.:

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

1,997.—Ink Bottle.—George G. Percival, M.D., Brook-lyn, N. Y.:

RE-ISSUES.

RE-ISSUES. 1,806, --Lock. --Wm. H. Akins, Dryden, N. Y. Patented May 13, 1856: I claim so arranging a sories of revolving disks, c c, upon a fixed stud or bearing. D, that each in turn shall be made the measus of ad-justing the position of the next, the whole being operated by a turn-ing 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 keep-ing the disks apart, substantially as herein sot forth. Talso claim aftering 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. T also claim the method herein described. 1 soc claim the method herein described. 1 soc laim the method herein described discovering the proper numbers to open the lock, substantially as herein scale the discribed.

numbers to open the lock, substantiany 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 clastic 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 muz-zle of the gun may be guided fairly into the port and the size of the port be greatly reduced, substantially as described.

port be greatly reduced, substantially as described.
1,809.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Reissued 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 punpose 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, store of connecting the totating press and cynneters within the stationary pipes outside of the tower, substantially and in the manner described.
1, sto...-Operating Guns and Gun Towers...James B. Eads, St. Louis, Mo. Patented March 31, 1863. Revised Sept. 15, 1863:
I claim so combining a revolving tower with a gun or guns, and without or morphatement of the tower, and their necessary are an and cylinders and pistons and their necessary are an and cylinder, may be trained to lowered by state and cylinder, may be trained to lowered by a state of the tower, and so that the tower, gun or guns, and without the tower, and so that the tower, gun or guns, and orlinder, may be turned by steam horizontally, at the man or guns, and withing the tower, and so that the tower, gun or guns, and cylinder, may be turned by steam horizontally, at the man or guns, and orlinder, may be turned by steam horizontally, at the may be preferred and substantially as described.
1, sti...Operating Guns and Gun Towers...James B. Eads, St. Louis, Mo. Patented March 31, 1863. Reissued 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 issued Sept. 15, 1863:
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 null 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 or is admitted and to open the exhaust port if the cylinder is admitted and to open the exhaust port if the cylinder is admitted and to open the state state port if the cylinder is admitted and to open the state state port if the cylinder the whole with whils the valve gear is at the same time entirely under the control of the operator, substantially as described.
Fourth, The construction of the valve g

1,812.

12.—Operating Guns and Gun Towers.—James B. Eads, St. Louis, Mo. Patented March 31, 1863. Re-issued Sept. 15, 1863 : claim making a gun tower in sections so that the top section be lowered into the hold of the vessel, for the purpose and in manner substantially as herein described.

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 fre-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, when the case forming said inclosing chamber becomes a part of the stove itself, and is so constructed, united, and combined with other parts of the stove, as to form a complete individual thing for the combustion of anthracite and other concentrated fuel, sub-stantially in the manner and for the purpose herein specified. 1 814.—Store.—Dennis G. Littlefield. Albanv. N. Y.

for the combustion of anthracite and other concentrated fuel, sub-stantially in the manner and for the purpose herein specified. 1614.—Stove.—Dennis 6. Littlefleid, Albany, N. Y. Patented Jan. 24, 1854. Re-issued Nov. 19, 1861. Again May. 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 combination from the byrning 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.

Inder of its surface as may be inly exposed to rive, 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 fuels supplying cylinder, having its coveropening surrounded by a chamber which communicates with the outlet from the fire-pot, and also with the fue leading to the chimner, 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, which has its cover open-ing surrounded by a chamber which communicates with the outlet from the fire-pot, and also with the flue leading to the chimner, 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,

the amount of finlet, 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 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. 1917 Meahing for Mahing for more the theory for the standard.

1817.—Machine for Making Paper Twine, etc.—John B. Wortendyke, Godwinville, N. J. Patented May 24. 1864 :

ann performing the twisting operation while the paper is in a ened state, substantially as and for the purpose herein set mois forth

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

WORKENLYAC, GOUNTATION, and WORKENLY WORKENLY CONTRACT, CONTRACT,

twisting device. d, The grooving of the roller, B, substantially as and for the se herein specified. purpo

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 pat-ents, 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



ed as Solicitors and Attorneys for procuring "Letters Patent " for new investions in the United States and in all foreign countries during the past seventsen 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 years³ experience in pre. paring specifications and drawings for the United States Patent Office, prietors of the SCIENTIFIC AMERICAN are perfectly conthe pr the proprietors of the Solidarian and American are period of the versant 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 always 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, CHAR. MARON. ly, CHAS. MASON.

CHAR MAGON. 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.

Ionowing very gratilying letter. MESSRS. MUNN & CO.:-It affords me much pleasure to bear test-mony 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 sus-tamed (and I doubt not justy deserved) the reputation of energy, marked ability, and uncompromising fidelity in performing your pro-fessional engagements. Very respectfully, your obedient servant, J. HOLT.

Hon. Wm. D. Bishop, late Member of Congress from Connecticut, succeeded Mr. Hoit as Commissioner of Patents. Upon resigning the office he wrote to us as follows: Mssass, Muxx & Co. .--It gives me much pleasure to say that, dur-ing 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 servart, WM. D. BISHOP.

THE EXAMINATION OF INVENTIONS.

Persons having conceived an idea which they think may be patent able, are advised to make a sketch or model of their invent submit it to us, with a full description, for advice. The points of novelty are carefully examined, and a written reply, corresponding

which the facts, is promptly sent, free of charge. Address MUNN & CO., No. 37 Park Bow, New York. As an evidence of the confidence reposed in their Agency by in ventors 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 brother head of the part of a patentice at home and with the whole brotherhood of inventors and patentees, at home and With the whole brotherhood of inventors and patentees, at home and abroad. Thousands of inventors for whom they have taken out pat-ents have addressed to them most flattering testimonials for the ser-vices rendered them; and the wealth which has inured to the individ uals 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 payar had a more afficient corms of Draughtengan and Spacification 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, 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 per-sons. 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 investories in the Patent Office. These should be securely packed, the inventor's name marked on them, and sent, with the Government ees, 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 inremote 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 regis tered 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 filingan application for a patent is \$15. Other changes in the fees are also made as follows :--

On filing each Caveat	
On filing each application for a Patent, except for a design.\$15	
On issuing each original Patent	
On appeal to Commissioner of Patents	
On application for Re-issue	
On application for Extension of Patent\$50	
On granting the Extension\$50	
On filing a Disclaimer	
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)	
The Petentil awa engred by Congress on the 2d of March 1061	