



ISSUED FROM THE U. S. PATENT OFFICE
FOR THE WEEK ENDING MAY 1, 1866.

Reported Officially for the Scientific American

Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent 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.

C. J., of R. I.—We are much obliged for your offer to write us an article on "Muscular Sense," but we fear most of our readers would find it heavy.

D. T. S., of N. Y.—The English and American wire gages are not the same. Send to J. R. Browne & Sharp Providence, R. I., and get their circular on this subject.

Subscriber, of N. Y.—Brazing on cast iron is easily done by the aid of borax and brass filings. No cement will make rubber adhere firmly to cast iron. Marine glue will cause paper to stick to hard wood exposed to steam. For recipes you must look in back numbers. We cannot fill our paper with old recipes we have published numberless times.

J. B. U., of La.—The magnesium light is remarkable for its actinic power, and on this account it has so much celebrity. As a substitute for oil and gas for ordinary illuminating purposes, magnesium is impracticable on account of its expense; a pound of it costs more than a hundred dollars, while a pound of oil or gas may be bought for a few cents.

M., of S. C.—Proposes that balloonists carry up with them reservoirs of condensed gas, to be used as occasion requires, to replace the gas which may escape from the balloon, and thus to assist in prolonging the flight. The idea is not new.

PATENT OFFICE.

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 twenty years. Statistics show that nearly ONE-HALF 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 so many 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.

Judge Mason, formerly Commissioner of Patents, says, in a letter addressed to us:—"In all your intercourse with the office, I always observed a marked degree of promptness, skill, and fidelity to the interests of your clients."

Ex-Commissioner Holt says:—"Your business was very large, and you sustained and justly deserved the reputation of marked ability and uncompromising fidelity to the interests of your clients."

Ex-Commissioner Bishop says:—"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."

EXAMINATIONS.—If an inventor wishes our opinion in regard to a probable novelty of his invention, he has only to send us a pencil or pen-and-ink sketch of it, together with a description of its operation. For an opinion, without examination at the Patent Office, we make no charge, but if a

PRELIMINARY EXAMINATION AT THE PATENT OFFICE is desired, we charge the small fee of \$5. This examination involves a personal search at the Patent Office of all models belonging to the class, and will generally determine the question of novelty in advance of an application for a patent. Up to this time we have conducted over ELEVEN THOUSAND Preliminary Examinations, thus showing a more intimate knowledge of inventions at the Patent Office than can be possessed by any other person or firm.

If an inventor decides to apply for a patent, he should proceed at once to send us by express, charges prepaid, a model not over one foot in size, and substantially made. He should also attach his name and residence to the model.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:—

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 Reissue.....	\$30
On application for Extension of Patent.....	\$50
On granting the Extension.....	\$50
On filing a Disclaimer.....	\$10
On filing application for Design (three and a half years).....	\$10
On filing application for Design (seven years).....	\$15
On filing application for Design (fourteen years).....	\$30

In addition to which there are some small revenue-stamp taxes. Canadians have to pay \$500.

FOREIGN PATENTS.—Messrs. MUNN & CO. have had more experience than any other solicitors in this country in procuring foreign patents, and have old established agents in London, Paris, Brussels, Berlin, Vienna, and other large cities. Foreign business should never be entrusted to other than experienced agents.

Messrs. MUNN & CO. give special attention to the preparation Caveats, and to the prosecution of the EXTENSION OF PATENTS, REISSUE OF DEFECTIVE PATENTS, REJECTED CLAIMS, INTERFERENCES, and DISCLAIMERS. They also prepare ASSIGNMENTS, LICENSES, AGREEMENTS, and CONTRACTS, in reference to Patents, and will advise patentees when their rights are infringed in reference to bringing suits against INFRINGERS. In connection with Patent Lawyer of eminent ability, they prepare and conduct cases in the United States Courts. Indeed, there is no branch of Patent business which MUNN & CO. are not prepared to undertake.

If an inventor wishes to apply for a patent, all he has to do is to write to us freely for advice and instruction, and he will receive prompt attention. If his invention contains any patentable features, he can depend upon getting his Letters Patent. All communications considered confidential. Send models and fees addressed to

MUNN & CO.,
No. 37 Park Row.

54,272.—Butter Worker.—J. P. Adams, Whitney's Point, N. Y.:

I claim the arrangement of the frame, D, pivoted at b, the rock shaft, S, the arm, M, and the swivel joint, N, used with the bowl, F, and its connections, substantially as and for the purpose herein specified.

54,273.—Joint of Spectacle Bow.—Henry C. Ammidown, Southbridge, Mass.:

I claim a spectacle joint having a construction, substantially as described.

54,274.—Meat Chopper.—Frederick Ashley, New York City:

I claim in combination with a suitable box or receptacle for the meat or other article to be chopped or cut, the swinging chopper or knife beam, E, having arms, L, I, when so arranged and connected together that by the up and down movement of the said beam the said meat box will be rotated, substantially as described and for the purpose specified.

I also claim the use of a spiral or other suitable spring connected with the chopper beam, as and for the purpose specified.

[This invention consists in arranging the vessel in which the meat to be chopped is placed, in such a manner that it can freely revolve, and in so connecting the beam having the chopping knife hung at one end, so as to swing up and down to the said meat receptacle, that by the up and down movement of the knife beam the receptacle will be revolved, thereby causing all portions of the meat contained in it to be subjected to the action of the chopper, as it is from time to time depressed or brought down upon the same.]

54,275.—Hanger for Shaving.—John E. Atwood, Mansfield, Mass.:

I claim, First, The disk, w, applied to the head, l, of the screw, C, and operating in connection with the ribs or feathers, E, E, to hold the said screw, substantially as herein set forth.

Second, The disk, v, constructed and applied to the nut, u, and operating in connection with the ribs or feathers, E, E, to hold the said nut, substantially as herein set forth.

Third, The shoulder or annular disk, r, constructed and applied to, and operating in connection with the shouldered nut, m, n, and ribs or feathers, h, h, substantially as herein set forth, for the purpose specified.

Fourth, The arms, G, working in vertical grooves in the sides of the journal box so as to admit of the vertical adjustment of the said journal box, substantially as herein set forth for the purpose specified.

Fifth, The rotating feeding disk, I, weighted levers, J, J, and wipers, j, j, arranged with reference to each other and with the oil vessel, H, and shaft, B, substantially as herein set forth for the purpose specified.

54,276.—Water Elevator.—Stephen L. Avery, Norwick, N. Y.:

First, I claim the combination as herein described, of a weight, F, with the rim of a loose annular friction collar, E, when said collar is combined with a crank, D, and with the ratchet wheel of a windlass, substantially in the manner and for the purpose herein set forth.

Second, I claim the combination of a central, circular, slotted washer, k, with an annular friction brake and crank, D, and with a shaft, A, substantially in the manner and for the purpose herein specified.

Third, I claim also the metallic windlass drum, when said drum is composed of two sections, G, G, formed substantially as herein described, and united together and secured upon a shaft in the manner herein set forth.

Fourth, I claim in combination with the valve, M, of a well bucket, a jointed connecting and lifting rod, o, made substantially in the manner and for the purpose herein set forth.

54,277.—Clock Escapement.—Benjamin Bacon, Jr., Morristown, Ill.:

I claim the pallet above shown, consisting of two parts, each mounted on a different axis, and connected to each other by arms, joined to each other, so that the motions of one of the parts is controlled by those of the other, substantially as described.

54,278.—Gas Pipe Tongs.—David Bannister, Philadelphia, Pa.:

I claim the lever, A, with its hardened edge, C, and notch, D, in combination with the hook, B, made in the manner and for the purpose specified.

54,279.—Sorghum Funnel.—Abraham Bare, Mexico, Ohio:

First, I claim a cylindro-conical funnel, A, B, which is constructed with a strainer, a, applied at the junction of the cylinder with the cone, substantially in the manner described.

Second, The combination of the cylindro-conical funnel, A, B, with a removable strainer, C, substantially as specified.

Third, The combination of a fixed or permanent strainer, a, with a removable strainer, c, and a funnel, substantially as described.

54,280.—Cultivator.—Henry Barnes, Burlington, Wis.:

I claim the combination and arrangement of the thills, A, standards, G, H, cross pieces, C, D, rods, L, M, and connecting bars, O, constructed and employed in the manner and for the purposes specified.

54,281.—Bed Bottom.—S. W. Beach, Niles, Mich.:

First, I claim the levers, B, B, in combination with the bed bottom, C, and spring, C, substantially as specified.

Second, So mounting a bed bottom that the same will receive its necessary springing motion from a single spring, C, arranged so as to operate substantially as specified.

[This invention consists in mounting the bed bottom on levers whose lower ends are operated upon by a spring arranged transversely across the bedstead, all the parts being so constructed and arranged that the bed bottom will have the desired rising and falling motion, to make an easy sleeping bed.]

54,282.—Measuring Faucet.—Edmund Bigelow, Springfield, Mass.:

First, I claim the measuring chamber, D, constructed of glass or other suitable non-corrosive material as described, and constructed, fitted to the metal portion, A, of the measuring faucet, as herein specified.

Second, And in combination therewith the valve, F, and piston E, arranged and operated, substantially as and for the purpose specified.

Third, The head or cut-off, G, when used in connection with the valve, F, and piston, E, and arranged relatively with the opening, e, and vent, f, in the part, A, of the faucet to operate in the manner, substantially as and for the purpose specified.

54,283.—Staple.—Byron Boardman, Norwich, Conn.:

I claim a staple provided with longitudinal grooves or corrugations in combination with transverse ribs elevated to about the same height above the body of the staple as are the corrugations, the whole being so shaped as to be capable of being formed by swaging machinery, for the purpose and substantially in the form above described.

54,284.—Brush.—Joshua Boggs, Harrisburg, Pa.:

I claim the brush head or body, constructed of a piece of sheet metal, cut and folded in the required form, substantially as shown and described.

54,285.—Sheep Rack.—George W. Boynton, Auburn, N. Y.:

I claim the combination of the bar, m, the boards, O and P, the slides, j, the levers, e, the rods, t, and the links, c, the whole constructed and operating as and for the purpose herein specified.

54,286.—Sash Fastener.—Benjamin Bray, Methuen, Mass.:

I claim the combination of the triangular toothed rack the triangular toothed spring catch and the locking device of the said catch, constructed, arranged and applied to a window sash and frame, substantially in the manner and for the purpose as herein before specified.

54,287.—Bag Fastener.—W. P. Brooks, Fairmount, Minn.:

I claim an improved bag fastener, constructed and arranged substantially as herein described and for the purpose set forth.

[The object of this invention is to furnish a fastener by the use of which grain or other bags may be securely tied or fastened, and as quickly unfastened when desired. And it consists of a strong piece or disk of leather riveted to the side of the bag near its mouth. Through this leather disk are formed holes, through which is passed a string forming loops on the sides of said disk. One of these loops is passed over the mouth of the bag, and the others are so arranged as to hold the bag securely fastened and yet allow it to be readily unfastened when desired.]

54,288.—Water Wheel.—Harvey Brown, Chalfant, Ohio:

First, I claim a water wheel provided with semi-annular buckets, A, arranged as shown, in combination with a series of chutes, E, in the case, D, which encompass the wheel, substantially as described.

Second, Operating, opening and closing the gates, F, by means of rods, G, attached at their outer ends by gimbal or other equivalent joints to crank rods secured to the outer ends of the buckets, and attached at their inner ends to a ring, H, fitted loosely on the wheel shaft, B, substantially as shown and described.

[This invention relates to certain new and useful improvements in horizontal water wheels, and it consists, first, in an improved arrangement of gates, and the mode of operating the same, and in an improved form of buckets, as hereinafter fully shown and described, whereby it is believed, that a large per centage of the power of the water is obtained.]

54,289.—Pump.—Ashur Burr, Middlesex, Conn.:

First, I claim the self-packing joint produced by the construction and arrangement of three notches, D, with their inclines, C, and the inclined flange, c, upon the one part, and corresponding projections, E, upon the other part, substantially as specified.

Second, The construction of the valve seat, G, the base, A, and cylinders, B, when constructed and joined together, substantially in the manner and for the purposes herein specified.

Third, Combination of the valve, H, with the valve, H, and seat, substantially in the manner and for the purpose set forth.

Fourth, The lips, T, and tongue, u, operating substantially in the manner and for the purpose described.

54,290.—Wrench.—Robert B. Butler, Allentown, Pa.:

I claim the two bars, C, F, having jaws upon each end and the inner corners or edges notched or toothed in combination with the hollow wrench handle having a spiral screw thread and parallel longitudinal grooves, a, upon its inside, when arranged together a nut, so as to operate, substantially in the manner described and for the purpose specified.

[This invention consists in so constructing the wrench and arranging its two jaws with regard to each other, that it can be easily adjusted and applied to nuts of varying sizes.]

54,291.—Pump.—Adam S. Cameron, New York City:

I claim the combination of a steam or power pump and an independently operating hand pump with one set of valves, which is common to both pumps and capable of operating with either, as may be required, substantially as herein specified.

I also claim a pump and a separate hand pump having one set of valves common to both I claim a cross head which serves both the purpose of holding the power pump piston stationary and of a support for the fulcrum of the hand pump lever when the latter pump is at work, substantially as herein described.

54,292.—Bed Bottom.—Samuel A. Canfield, Carlstadt, N. J.:

I claim the combination of the crank-shaped rods, g, g, and guard ropes, h, h, with the elastic bands, D, D, and recessed brackets, c, c, substantially as and for the purpose herein specified.

54,293.—Sugar Cane Mill.—Nathan B. Carr, Madison, Wis.:

I claim providing the levers, E, which have suitable boxes for the journals of the roller, B, with an oscillating fulcrum, substantially as and for the purposes herein specified.

I claim the arrangement of the roller, B, the levers, E, the oscillating fulcrum, F, and frame, A, when constructed and operating substantially in the manner and for the purposes described.

54,294.—Harvester Rake.—C. L. Carter, Union City, Ind.:

The arrangement of the pendent bar, H, bar, I, bar, E, crank, c, shaft, J, crank, rod, c, and wheel, B, operating in the manner and for the purpose herein specified.

I further claim the arrangement of the bar, I and N, bar, E, arm, M, cord, g, pendent bar, H, bar, L, and rake, K, constructed and operating in the manner and for the purpose herein specified.

[The object of this invention is to obtain a simple automatic raking attachment for harvesters, and it consists in hanging or suspending a rake over the platform of a harvester, and operating the same, whereby the draught of the harvester will not be materially increased and the work performed in a very efficient manner.]

54,295.—Packing for Pump Pistons.—John Carter, Philadelphia, Pa.:

I claim the expanding packing, H, and wedge, E, upon the conical body, C, all combined and arranged substantially as described.

54,296.—Manufacture of Confectionery.—Lewson E. Chase, Charlestown, Mass., assignor to Chase & Company, Boston, Mass.:

I claim the use or employment of glycerin in the manufacture of confectionery, substantially as and for the purpose set forth.

54,297.—Lock.—Charles Claude, New York City:

The tube, D, and disk or plate, g, provided with a guard, h, nose, i, and stop pin, in combination with the hinged bit of the key, K, latch or bolt, B, and one or more tumblers, L, all constructed and operating substantially as and for the purpose set forth.

54,298.—Harvester Rake.—Henry Clymo, Galen, Ill.:

I claim the loaded or weighted rake arm, J, placed on tube or rod G, so as to work or turn thereon, in a vertical plane and also to slide thereon horizontally in connection with an endless band, guide strip, e, e, provided respectively with a notched flap and inclined plane, all arranged to operate, in the manner substantially as and for the purpose set forth.