

## RECENT AMERICAN INVENTIONS.

**Apparatus for Evaporating**—The object of this invention is to arrange a furnace and an evaporating pan in such relation to each other that the expressed stalks from the sugar cane may be used as fuel, and thereby an economical and very effective apparatus for evaporating saccharine liquids be produced. The invention consists in the arrangement of a pit dug in the ground or built up of brick, and provided with suitable air-holes and a damper, and also with a conical arched spout to receive the stalks and refuse of sugar cane, in combination with an evaporating pan furnished with a series of heating tubes in such a manner that the heat derived from burning the expressed stalks and refuse of sugar cane in said pit may be passed through the heating tubes in the pan, or that the communication between the pan and the pit may be shut off at pleasure. It consists further in the arrangement of a reciprocating scraper acting on the exterior surface of the heating tubes and on the bottom of the pan, in such a manner that the juice is prevented sticking to the heating surface where it would be burned, and so impart a disagreeable flavor and color to the sirup. The patentee is Wm. Thomson, of Detroit, Mich.

**Revolving Ordnance and Firearms**—This invention consists in a novel mode of securing the many-chambered cylinder of a revolving cannon or small-arm in place, whereby its easy removal and replacement, when under any circumstances desirable, is provided for. The principal objects of the invention are, first, to provide, by the use of two or more cylinders that may be quickly changed at pleasure, for the rapid repetition of the discharge of revolving ordnance or small arms without overheating the chambers; second, to provide for the loading of a piece of ordnance, arranged on the deck of a ship or other vessel or in *barbette*, by men below the deck or waterline, or below the embrasure through which the gun is fired. James A. Whalen, of Brooklyn, N. Y., is the inventor.

**Firearms**—W. W. Gould, of Skowhegan, Maine, is the patentee of an improvement in firearms. The object of his invention is to obtain a more perfect combustion of the charge of gunpowder in ordnance and firearms than is effected by the ordinary construction of the vent and thereby to obtain a more forcible discharge of the projectile and greater length of range and depth of penetration; and to this end it consists in the construction of the vent to convey the fire from one point on the outside of the gun to two or more points in the charge.

## New Publications.

**THE CHANNINGS; A Domestic Novel of Real Life.** By Mrs. Henry Wood, Author of "The Earl's Heirs," "East Lynne, or the Earl's Daughter," "The Castle's Heirs," "The Mystery," "A Life Secret," &c. Published by T. B. Peterson & Bros., Philadelphia. F. A. Brady, Agent, New York. Price 50 cents.

**AUTO-PHOTOGRAPH ALBUM.** Messrs. Samuel Bowles & Co., Publishers, Springfield, Mass.

We have received from the above firm something new in the way of albums. They style it the auto-photograph album, it being designed to contain the picture of the friend or public character whose likeness you may wish to preserve; but there is also a nice arrangement for the autograph, which may be inserted underneath the picture. The album now before us has a compact and steady feeling, which assures us that it is well made, and will bear all the handling which curiosity may require of it. If any one wishes to purchase an album they had better send to this firm for one of their neat little manual of prices.

**THE BIBLÉOTHECA SACRA.** Published by Warren F. Draper, Andover, Mass.

The volume of this profound theological review for the present quarter contains essays on the "Doctrines of Methodism," "English Etymology," "Divine Decrees," &c.

## 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.

**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* acknowledgment of our reception of their funds.

**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 1800, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

**NEW PAMPHLETS 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.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING APRIL 22, 1862.

Reported Officially for the Scientific American.

\* \* 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.

35,008.—O. W. Bayley, of Somerville, Mass., for Improvement in Breech-Loading Firearms:

I claim the combination of the breech piece, D, with the cylinder, E, which is moved forward after the breech piece is in place, to tighten the joint at the rear end of the barrel, substantially in the manner described.

35,009.—J. B. Bowen and J. E. Baker, of Madison, Wis., for Improvement in Harvesters:

We claim the combination of the two projecting arms, E E, of the rake head, the rake carrier, G, and vertical pivot, H, stationary on the frame of the machine, the rake hinging around the rake carrier, and the rake carrier hinged around the pivot, when the rake carrier is so constructed and situated as not to extend over the platform, substantially as and for the purpose specified.

35,010.—C. P. Brockett, of New Haven, Conn., for Improved Lamp Burner:

I claim, first, The plate, F, with cone, G, attached, pivoted to the plate, E, and the plunger, G', attached thereto and working on the inclined ends, f, of the box, substantially as and for the purpose set forth.

Second, The tube stopper, h, attached to the under side of the plate, F, in combination with the cross bar, l, secured to the plate, E, and in such relation with plate, F, and cone, G, as to elevate plate, F, and stopper, h, and admit of said stopper being raised out of and fitted in tube, C, by the movement of plate, F, as set forth.

Third, The tube, C, fitted in the burner, A, in connection with the movable plate, F, arranged substantially as shown, to cover the tube when the burner is in use and the lamp lighted, and to expose the tube for filling the lamp when the plate, F, is shoved off from the burner.

[This invention relates to an improved lamp burner of that class which is designed for burning coal oil and other hydrocarbons, and in which a glass chimney is employed for producing a requisite draught to support proper combustion for illuminating purposes. The object of the invention is to obtain a burner which will admit of the lamp being supplied with oil without detaching it from the lamp, and which will also admit of the chimney being so adjusted as to render the wick tube accessible for the purpose of trimming the wick and placing the same in the tube without detaching the chimney from the burner.]

35,011.—William Burgyes, of Chelsea, Mass., for Improvement in Sweat Bands for Hats:

I claim the described arrangement and combination of the inelastic and flexible band, a, with the head lining, b, and the air space, d, arranged between the hat body and head lining, and for the purpose as set forth.

35,012.—Hiram Clark, of Rochester, N. Y., for an Improvement in Skates:

I claim the employment in skates of bent (by steam) or boiling) wooden foot pieces, for the purposes set forth.

35,013.—W. R. Cunningham, of Brooklyn, Ohio, for Improvement in Water Elevators:

I claim the self-regulating brake, composed of the spring, 8 8 8, the sliding journal box, 7, the rubber, 11, used in connection with the friction flange, 10, the whole being constructed substantially in the manner and for the purpose specified.

35,014.—G. W. Dechant, of Berrysburg, Pa., for Improved Rotating Meat Chopper:

I claim moving the block, A, intermittently by means of the cog, j, on the block, A, and the radial cog, I', on the face of the cog wheel, I, in combination with the cutters, C, K, when these parts are arranged and operated as set forth.

35,015.—F. W. Dexter, of Randolph, N. Y., for Improvement in Box Setters for Wheel Hubs:

I claim a clamp for holding the hub for boring, consisting of the head piece, A, cone piece, B, screw rods, C, and nuts, D, substantially as described.

35,016.—William Ellmaker and C. Hurst, of Earl Township, Pa., for Improvement in Carriage Brake:

We claim the arrangement of the jointed lever, A, B, the step staple, a, b, and the jointed rod, F, combined and operated substantially as set forth for the purpose specified.

35,017.—J. O'Farrell, of New York City, for Improvement in Wheel Vehicles:

I claim the connecting of front axle, F, to the perch or reach, B, by means of the two slides, E, G, placed respectively on the shafts, D, H, and connected with the axle, F, substantially as shown, for the purpose set forth.

[This invention relates to an improvement in the manner of attaching the front axle of the vehicle to the perch, or the fixtures connected to the body, as fully shown and described, whereby the vehicle may be turned within a small compass, the front wheels admitting of being so cramped or turned as to ensure the result stated, and still allow a requisite space between the front and back wheels for the attachment of proper steps to the body of the vehicle, and also admit of the front and back wheels being placed nearer together than usual without coming in contact when the front wheels are turned or cramped.]

35,018.—Howard Gill, of Dedham, Mass., for Improved Folding Bedstead:

I claim the bedstead, A, formed of two parts, B, C, connected by hinges, and provided respectively with an adjustable headboard, e, and a fixed footboard, h, in connection with the folding or hinged leaves, i, j, attached to the bottom, d, of the part, C, of the bedstead, as and for the purpose set forth.

I further claim the combination of the folding bedstead, A, leaves, i, j, and trundle bed, D, arranged as set forth.

[This invention consists in constructing a bedstead, table and trundle bed, in such a manner that the device may be used in any of the above-named capacities, and still be capable of being compactly folded when not in use, and forming, while in use or otherwise, an ornamental piece of furniture.]

35,019.—W. W. Gould, of Skowhegan, Maine, for Improvement in the Vent Holes of Ordnance:

I claim the combination of the two obliquely arranged flanged tubes, B, B', having their flanges beveled as shown at a, and the covering plate, D, having an aperture, i, the whole arranged and operating substantially as and for the purpose set forth.

35,020.—Jeremiah Hall, of Granville, Ohio, for Improvement in Reaction Car Brakes:

I claim, first, The combination with a railroad car axle of the sleeve, E, the ratchet wheels, D D', and the drum wheels, F F', and pawls, I I', substantially as described.

Second, The combination of the springs, R, with the drum wheels, F F', the pulleys, W W', and chains, H H' H'', substantially as described.

Third, The combination of the treadle or foot lever, M M, levers, X X', and their connecting chain and rod, in combination with the stop, S S', and for the purpose, as substantially described.

Fourth, The combination of the reaction car brake, as claimed, with the friction car brake, P, and chain, O, as described.

35,021.—N. D. Hartley and M. S. Morehouse, of Quincy, Ill., for Improvement in Coffee Pots:

We claim, as an improved article of manufacture, a coffee pot provided with pipes, J, H, chamber, G, vessel, D, strainer, E, and box, F, and otherwise made as shown and described.

[The object of this invention is to prevent the escape of the steam and aroma during the process of making the coffee, and by a very simple arrangement of means, which also ensures a perfect separation of the liquid from the grounds, or, in other words, ensures the coffee being made or produced clear, and in a very short period. An engraving of this coffee pot will appear in our columns soon.]

35,022.—J. H. Hascall, of Corunna, Mich., for Improved Medicine for Miasmatic Diseases:

I claim the composition made of the material, substantially as described and for the purpose set forth.

35,023.—A. C. Hoag, of Clinton, Ill., for Improved Broom:

I claim the method of fastening brooms to the handles thereof, by means of the plates, C and D, connected by the rivets, b, c, and the screw bolts, a, constructed and operating substantially as set forth.

35,024.—Jasper Hoopes, of Philadelphia, Pa., for Improved Car Trucks:

I claim the combination of the plates, E E, semicircular projections, F F, frame, G, bands, f, bar, H, and guides, g, with the axles, B C G, in the manner and for the purpose shown and described.

35,025.—Shelden Hull, of Oxford, Conn., for Improved Washing Machine:

I claim the V-shaped box, A, in combination with the swinging bar, E, and the plungers, G G', attached thereto and working on the inclined ends, f, of the box, substantially as and for the purpose set forth.

I further claim constructing the plungers, G G', of a series of parallel plates or strips, c, the plates or strips, c, of one plunger, G, having their lower edges at right angles, with the end, f, on the box on which their plunger works, and the plates or strips, c, of the other plunger, G', having their lower edges forming an acute angle with the end, f, on the box on which their plunger works, substantially as and for the purpose specified.

35,026.—Lucinda Humphrey, of Tipton, Iowa, for Improvement in Skirt Protectors:

I claim a skirt protector made substantially as described and of any water-proof material, in combination with the lower portion of the petticoat.

35,027.—M. J. Knox, of Knox Corners, N. Y., for Improved Clothes Frame:

I claim a clothes frame composed of the three conjoined, but independent and separable frames, A B F G, with arms, J, constructed, combined and operating as shown and described.

[The object of this invention is to obtain a clothes frame which can be used either in the house or out of doors for drying clothes, and which, when not in use, can be folded up into a convenient and compact form, so as to occupy but little room.]

35,028.—T. S. Lambert, of Peekskill, N. Y., for Improvement in Shirts:

I claim a shirt with the bosom detached from the body at both sides, a part of the length downward from the upper extremity of the bosom and opening and closing as a flap, the shirt body and band being open in front beneath the bosom, the band of the shirt and the band of the bosom either or both being kept in place by elastic bands or cords, the whole substantially as set forth.

35,029.—W. A. Lighthall, of New York City, for Improvement in Portable Water Condensers:

I claim the combination with the drip reservoir, A, and dip plate, E, of the series of cooling tubes, B, arranged and operated as and for the purpose set forth.

35,030.—J. W. Lyon, of Brooklyn, N. Y., for Improvement in Padlocks:

I claim, first, Combining with the shackle two separate and independent sets of tumbler catches, one set to lock the heel and the other set to lock the front of the shackle, when arranged so as to overlap each other in such a manner as that the key shall come in direct contact with each of them at a point intermediate between their respective fulcra or pivots, and by raising them up release them from the shackle, as described.

Second, I claim, in combination, the grooves, g, in the dogs, a, and the flanges or pins on the projecting part of the heel of the shackle, substantially as and for the purpose described.

Third, I claim, in combination, the projecting part of the heel of the shackle, and the tails or detectors of the dogs, e, which take into the staple, or front of the shackle, substantially as and for the purpose described.

35,031.—J. S. Marshall, of West Greenville, Pa., for Improvement in Bee Hives:

I claim the combination of the external and internal cases of the hive, when both are constructed and arranged as shown and described, so as to be capable of being spread open, as and for the purpose set forth.

[This invention consists in constructing a bee hive in such a manner that it may be unfolded, and the whole of its contents exposed and rendered accessible to the apiarian, for the purpose of transferring, dividing and feeding the bees, destroying drones, or old queens when unfertile, cleaning the hive, and giving the bees young queens, or combs with queen cells in them; also, for the purpose of renewing old combs, or changing the position of the same in the hive, all of which operations are performed by the successful apiarian.]

35,032.—G. W. Morgan, of Mount Vernon, Ohio, C. H. Tyler and John McClave, of New York City, for Improvement in Hammock Tents:

We claim, first, The combination of the upright side bars, A, A, canvas cover, D, portable restles or supports, F or G, transverse bars, B C, and the suspended adjustable sacking strips, E E, in the manner and for the purposes described.

Second, The combination with the suspended sacking strips, E, and the portable transverse bar, C, of trestles, F', constructed in the manner specified, for the purpose set forth.

35,033.—B. W. Nichols, of Fairhaven, Conn., for Improvement in Melodeons, &c.:

I claim, first, The combination of the spring clamps, b, with the projecting knob or catch, a, when constructed, arranged and fitted to produce the result, substantially as described.

Second, I claim the clamps, b, in combination with the triangular portion of the spring, k, when so fitted and arranged that the spring of the register, g, will force and hold back the jaws, substantially as described.

35,034.—W. T. Nichols, of Rutland, Vt., for Improved Ironing Machine:

First, I claim a smoothing iron, revolved horizontally by machinery, and capable of adjustment at pleasure upon any part of the ironing table, and also upon the top of the fire box, substantially as described.

Second, I claim heating rollers externally while they are revolved, for the purpose of ironing, substantially as set forth.

Third, I claim so applying a heated roller, for the purpose of ironing, that it shall prevent the two rapid forward movement of the garment, at the same time that it performs the act of ironing, substantially as described.

Fourth, I claim so applying heated rollers for the purpose of ironing that they shall revolve at varying rates of speed, for the purpose set forth, substantially as described.