

RECENT AMERICAN INVENTIONS.

Breech-Loading Cannon.—This invention relates to the employment, for opening and closing the breech of a piece of ordnance, of a sliding breech-block, having a movement perpendicular to the bore of the piece, and it consists in an improved mode of producing the movement of the said breech-block, whereby it is effected with very great facility. Invented by L. W. Broadwell, of St. Petersburg, Russia.

Steam Plow.—This invention, patented by J. W. Fawkes, of Decatur, Ill., consists in combining a stationary and a traction engine with plows or excavators in such a manner that the plows are drawn along through the soil when the engine is stationary, the power being applied direct to the plows, and the plows drawn up to the machine or engine, the latter being then converted into a traction engine, and propelled along, while the plows are stationary, in order that the plows may be again drawn forward by the engine, after the same is converted into a stationary one. The invention is more especially designed for performing heavy work, such as ditching and plowing with heavy gang plows, &c.

Cloak and Mattress Combined.—The object of this invention is to combine a cloak or overcoat and mattress or bed in such a manner that the device when used as a cloak or coat may be used as usual and possess all the advantages of the ordinary military cloak or coat, and be capable, when required, of being readily converted into a mattress or bed with suitable covers for the occupant, enabling him to sleep in the open air without a tent. It is designed also that the invention be capable of being used as floats in the construction of temporary or flying bridges, and also to serve, where necessary, as floats to enable the soldiers individually to pass over the moats of fortifications, and like places, in perfect safety. Each cloak or coat when inflated forming a float for its wearer or owner. The invention consists in having a cloak or coat constructed of india rubber cloth or other suitable fabric, in the usual or other proper form, the cloak or coat being provided with an air bag or compartment in its back, which is inflated when the device is used as a mattress or float, the air being allowed to escape when the device is to be used as a cloak or coat. Patented by F. W. Weiss, of Mount Vernon, N. Y.

Gas Regulators.—This invention, the merits of which are due to Levi Abbott, of Boston, Mass., consists in making the regulating valve and valve seat of a gas regulator of vulcanized india rubber, upon which, owing to its being a poor conductor of heat, the vapors contained in the gas are less likely to condense than they are upon a metal valve and seat, and by which, therefore, the liability to the choking of the passage between the valve and seat is in a great measure obviated. It also consists in forming a guide for the valve stem, by providing a suitable hole for the reception of the lower part thereof in the center of the screw which is applied at the bottom of the stem to regulate the greatest width of opening of the valve, thereby dispensing with the necessity of a guide across or above the valve seat, and obviating the obstruction which is offered to the passage of the gas by the cross bar which supports or contains such guide.

Car and School Seat.—The object of this invention is to obtain an adjustable seat with a reversible back, the parts being so arranged that the seat will be adjusted and inclined at the proper angle by the movement of the back to either side of the seat. The invention also has for its object an independent adjustable rest or back support, so arranged as to admit of the back of the occupant of the seat being properly supported irrespective of the position of the side pieces of the back, thereby enabling the latter to be connected to the framing and supports of the seats at the most convenient point to effect the desired end. Invented and patented by W. H. Joeckel, of New York city.

Gas Retort.—This invention relates to upright retorts for the manufacture of gas from oils or other liquid substances, or substances which are rendered liquid by heat. In such retorts it has been customary, and is generally very desirable to use a quantity of coke or other substance in lumps for the two purposes of presenting a large heating surface for the decomposition of the liquid and of collecting the residuary carbon and impurities which would otherwise cake and col-

lect upon the bottom of the retort. This substance requires to be changed from time to time to remove the residuum of the liquid, and has, heretofore, generally, if not always, been removed piece by piece or by shovelfuls at some inconvenience. The object of this invention is to remove the whole of the said substance at once, and to this end it consists in what may be called a coke box or coke basket attached to the cover of the retort for containing the said substance, the whole of which is thereby enabled to be removed at once by the simple act of taking off the cover of the retort. Invented and patented by A. K. Tupper, of Pontiac, Mich.

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, exception 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.

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 DECEMBER 10, 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.

2,869.—Levi Abbot, of Boston, Mass., for Improvement in Gas Regulators :

I claim, first, The construction of the valve and valve seat of a gas regulator of vulcanized india rubber, substantially as and for the purpose specified.

Second, Forming a guide for the valve stem within the regulating screw, E, applied at the bottom of the stem, substantially as specified.

2,870.—J. R. Baylis, of Baltimore, Md., for Improved Double Cone Marine Propeller :

I claim the construction of a double cone propeller, having its oars or blades constructed, and when arranged relatively to the hub or axis, substantially as and for the purpose described.

2,871.—Edwin Bowen, of Meriden, Conn., for Improvement in Mode of Securing Chimneys to Lamps :

I claim the slide, D, fitted horizontally in the lamp top, A, provided with a hook, a, at one end, and having a spring, E, bearing or acting against it within the top, substantially as and for the purpose set forth.

[The object of this invention is to obtain a fastening or catch which will admit of the chimney being readily adjusted on the lamp top, and also readily detached therefrom, the fastening or catch at the same time being capable of firmly securing the chimney to the lamp top.]

2,872.—L. W. Broadwell, of St. Petersburg, Russia, for Improvement in Breech-Loading Ordnance :

I claim the employment for elevating and depressing the breech block, B, for opening and closing the breech of a shaft, g, arms, h, b, and links, i, i, the whole combined, arranged and operating substantially as specified.

2,873.—L. J. Chateau, of France, for Improved Machine for Breaking the Subsoil :

I claim, first, The breaking instrument constructed and arranged as specified.

I also claim connecting the breaking instrument with the carriage by means of a compound reach pole, as described.

I also claim, in combination therewith the regulation, i, in the manner and for the purposes set forth, and I further claim, in combination with the apparatus specified, the hoist for elevating the breaking apparatus, as described.

2,874.—John De Long, of Monroe, Wis., for Improved Washing Machine :

I claim the employment of the adjustable hinged frame, B, forming both a lever and rubber when constructed, and arranged to operate with the box, A, as and for the purpose specified.

2,875.—H. H. Dickinson, of Hartford, Conn., for Attachment to Kerosene Lamps :

I claim the adjustable tube or thimble, C, surrounding the round wick tube of an ordinary lamp, said thimble being of conical form at top, and having points, b, e, and interstices, a, a, at the top and bottom, operating in the manner described for the purpose set forth.

[The object of this invention is to obtain a simple and economical device, which can be applied to any lamp having a round wick tube to adapt it for burning coal oil, kerosene and other carbonaceous fluids, without a chimney, and the invention consists in a thimble attachment to the wick tube of a lamp adapted to deliver a current of heated air to the flame.]

2,876.—G. D. Dows, of Boston, Mass., for Improved Soda Apparatus Combined with an Ice Cutter :

I claim, first, The combination for cutting ice, of one or more cutters placed in a vertical cylinder, when the same are so arranged as to permit the passage downward of the ice, and are in combination with substantially the screw shafts, T and S, nuts, X X, and follower, Y Y.

Second, I claim the arrangement of the ice cutter, substantially as and for the purpose described, when the same is in combination with the enveloping chest, A A A A, sirup vessels, B B, and cream chest, H. Third, I claim the combination of the cream chest, H, the enveloping chest, A A A A, the ice chest, C C C C, and sirup vessels, B B, all arranged, substantially as and for the purpose described.

2,877.—Jacob Early and J. B. Parvin, of Hightstown, N. J., for Improvement in Seeding Machines :

I claim, first, The reciprocating slide, G, formed of the adjustable perforated plates, e, e, in combination with the stationary cut-off brush, F, and perforated bottom, c, of the seed box, E, all arranged as and for the purpose set forth.

Second, The combination and arrangement of the parallel adjustable

bara, K, oblique braces, L, plow standards, M, and levers, N, N, substantially as and for the purpose set forth.

[For illustration and description of this invention see page 328 of the present volume.]

2,878.—J. W. Fawkes, Decatur, Ill., for Improvement in Steam Plows:

I claim, first, The combination for the purpose of plowing, ditching, &c., by steam, of a stationary and traction engine, windlass attachment and plow frames, substantially as set forth.

Second, The peculiar arrangement of the geared drum, B, shifting wheels, R, R, and geared rollers, Z, Z', which form a windlass, substantially as shown and described, for the purpose of readily changing the engine from a traction to a stationary one, and vice versa, when said windlass and engine are used in combination with plows, for the purpose specified.

Third, The adjustable draught bar, C', of the frame, B', arranged substantially as shown, to admit of the adjusting of the frame, B', for the purpose specified.

2,879.—C. J. Glenn, C. Ball and U. S. Hackett, of Unadilla, Mich., for Improvement in Stump Extractors:

I claim the employment of the levers, C and D, the cords, E and F, the block, G, and the pulleys, a, a', constructed and arranged for extracting grubs and stumps, substantially as specified.

2,880.—W. H. Guyne, of Brooklyn, N. Y., for Improvement in Machinery for Rifling Guns:

I claim, first, The direct application of hydraulic pressure for the purpose of rifling guns.

Second, The combination of the hollow shaft, F, expanding rod, E, cutters, D, D, piston, C, the whole operating substantially as described and shown.

2,881.—Thomas Holmes, of Williamsburgh, N. Y., for Improvement in Embalming:

I claim the combination of the chamber, B, inclosed pump, C, and regulating stop cock H, in the manner and for the purpose stated.

2,882.—Benjamin Hoyle, of Martin's Ferry, Ohio, for Improvement in Thrashing Machines:

I claim, in combination with a thrashing machine, the combination and arrangement of the shoe, J, screen, g, and fan, K, over the straw carrier, to rescreen and refan the grain and deliver the taling to the thrashing cylinder, substantially as described.

2,883.—W. H. Joekel, of New York City, for Improved Seat for Railroad Cars and Schools:

I claim, first, The reversible side pieces, b, b, attached to the seat supports, A, A, at the points specified, in connection with the independent adjustable rest or back support, D, arranged substantially as and for the purpose set forth.

Second, The combination of the side pieces, b, b, and adjustable seat, B, attached to the support, A, A, and arranged to operate as and for the purpose set forth.

2,884.—H. W. Johnson, of Athens, Pa., for Improved Washing Machine:

I claim, first, The inclined ways, b, b, and friction rollers, a, in combination with the bearing strips, e, e, and springs, f, f, as and for the purpose specified.

Second, The clamping and stationary-holding bars, i, j and m, in combination with the intervening corrugated or fluted sections, h, h, as and for the purpose set forth.

Third, The clamping and stationary-holding bars, i, j and m, in combination with the opening, n, in the cylinder, as described.

Fourth, The hollow cylinder, with its opening, n, in combination with the external corrugations, h, and the concave corrugated or fluted bottom, B, of box, A, as and for the purpose described.

2,885.—W. C. Kneeland, of Brooklyn, N. Y., for Improvement in Cigars:

I claim, as a new article of manufacture, a smoking cigar, produced from fine cut tobacco, inclosed first within a tube of silk or other tasteless and inodorous materials, and afterward covered with a wrapper of tobacco in the manner described.

2,886.—Edward Kirk, of New York City, for Improvement in Cook Stoves:

I claim having the flanch, E, which receives the smoke pipe formed on one of the lids or covers, D, of the pot holes, and arranging the dampers and flues of the stove, substantially as shown, or in an equivalent way, to admit of a direct draught or a circuitous one around the oven, C, in either positions of the lid or cover, B, for the purpose set forth.

[The object of this invention is to obtain, by a very simple means, a cook stove, which may, in a short time, be converted from a winter to a summer stove, and vice versa.]

2,887.—P. F. Jones, of New York City, for Improvement in Operating Heavy Guns:

I claim the cog circle, B, in combination with the pinions, L and N, or either of them, when constructed as described, and used in connection with the traverse circle, A.

I also claim the cogged semicircle, C, attached to the chase or neck, and to the case as described, in combination with the worm, A, as and for the purpose set forth.

I also claim the fixed circular, slotted scale or gage, D, when constructed and arranged substantially as specified.

I further claim the cogged semicircle, C', and worm, A', in combination with the fixed circular slotted scale or gage, as described.

And, lastly, I claim the cogged circle, B, with its pinion or pinions, in combination with the cogged semicircle, C', and worm, A', as and for the purpose indicated.

2,888.—Henry Killam, of New Haven, Conn., for Improved Stop for Coach Doors:

I claim the curved bar, F, slide, G, and guide rod, H, arranged as shown, and applied respectively to the door, A, and seat rail, E, as and for the purpose set forth.

[This invention is designed to prevent coach doors opening beyond a certain limit, the same being a plane at right angles with the side of the body, whereby the door is prevented from coming in contact with the back wheel of the vehicle, and the stop so arranged as not to interfere with glass windows, when the same are made to extend quite low in the sides of the body, as is frequently the case.]

2,889.—Eugene Lacroix, Jr., of Rouen, France, for Improved Marine Propeller:

I claim the combination of a propeller, mounted on a sliding frame, as set forth, so as to be raised and lowered within a recess in the stern of the vessel, so that said sliding frame shall receive its support from the sides of the recess, to strengthen and brace the frame and protect the propeller, as and for the purpose as described.

2,890.—C. W. Lord, of New York City, for a Pen and Pencil Case:

I claim, as a new article of manufacture, a pen holder and pencil case, having metallic conical thimbles, b, arranged in the bottom of each of its several compartments when constructed, combined and operating in the manner and for the purpose set forth.

[The object of this invention is to obtain a case for pen holders, pencils and similar articles, of such dimensions that it may be carried in any pocket of a garment without inconvenience to the wearer, and without liability of injury to the points of the pens or pencils.]

2,891.—Lewis Miller, of Canton, Ohio, for Improvement in Grain and Grass Harvesters:

I claim, first, In combination with the main frame, having drooping ends, a tie rod, that may serve as a hinge for the coupling arm and brace, substantially as described and for the purpose set forth.

I also claim, in combination with the widening out of the rear portion of the main frame end of the finger bar, a, brace, m, for the purpose of making a long hinge and strong connection between the finger bar and coupling arm, without the use of an intermediate shoe, substantially as described.

I also claim, in combination with a finger bar that is made in two sections longitudinally, a cutter and cutter bar, also made in sections, so that the finger bar and cutters may be shortened or lengthened, for cutting grass or grain, as described and represented.

I also claim, in combination with a pivoted or hinged track clearer, the set screw and shoulder, or their equivalent, for the purpose of controlling the descent of the track clearer while it is in operation, and for allowing it to be swung up and held up, out of the way, when the machine is being transported from place to place, substantially as described.

2,892.—H. W. Miskinien, of Kingston Mines, Ill., for Improved Automatic Gate:

In combination with the gates, I claim the mechanism described for opening and closing them, consisting of the rock shafts, arms, links and weight, constructed and arranged as set forth.

I claim the hinged vibrating plank at the end of the platform, in combination with the levers, e, e, and locking lever, a, constructed to operate as described, for the purpose set forth.

2,893.—Charles Montague, of Hartford, Conn., for Printing Press:

I claim, first, the combination of two cylinders for letter-press printing in different colors, whereby a sheet once fed to the small cylinder is printed with various colors before leaving the press, for the purpose and substantially in the manner described.

Second, Interchangeable ink rollers in combination with the cylinders, A, B, to ink the different forms with different colors, for the purpose and substantially in the manner described.

2,894.—D. A. Moore, of Syracuse, N. Y., for Improvement in Lamps:

I claim the entire arrangement for raising and lowering the sliding tube, B, and wick, for the purpose of regulating the flame. In this arrangement I include the slit, C, in the internal tube, B, the wire or metallic strip, G, the attachment of this wire to the sliding tube, D, the concave plate, I, the funnel, K, for guiding the wire or strip through the aperture in the plate.

2,895.—Charles Morrill, of New York City, for Improvement in Bit Braces:

I claim the bit brace head, A, and cam, B, in combination with the spring, D, as described for the purpose specified.

2,896.—C. L. Pascal, of Philadelphia, Pa., for Improvement in Military Hats:

I claim a military hat having the reversible flap, H, secured and arranged substantially as described, when the ends of the said flap are constructed for attachment to and detachment from the peak or shade, C, in the manner and for the purpose specified.

2,897.—Alfred Pohms, of France, for Improved Camp Bedstead, Patented in France, April 23, 1861:

I claim the X-shaped supports provided with the metallic dowels or tenons, e, e', entering the ends of the metallic tubes, B, C, D, B', C', D', in the manner and for the purposes specified.

2,898.—David Pollock, of Lancaster, Pa., for Improvement in Connecting Rods for Locomotives:

I claim, first, A metal rod when made flexible and combined with a yoke or stops for the purpose of regulating it to any degree of flexibility or tension, substantially as and for the purpose set forth.

Second, A strap with adjustable or movable inner projecting plate, when combined with a metallic rod and boxes, as and for the purpose specified.

Third, The raised or widened outer edges, or sides of the strap in combination with the metal rod and boxes, in the manner shown and described.

Fourth, Corresponding projections on the sides at the end of the rod, in combination with a strap, as shown.

Fifth, The reversed keys, when combined with the metal rod, strap and boxes, as set forth.

Sixth, The adjusting conical-pointed set screws and cup, for the purpose set forth.

2,899.—J. H. Pomeroy, of Jordan, N. Y., for Improved Steam Engine Governor:

I claim, first, In such governor the combination of the wings, K, K, with the inclines, H, H, arranged and operating substantially as described.

Second, I claim the combination of the wings, K, K, with the inclines, H, H, and the wheels or rollers, f, f, arranged substantially in the manner and for the purpose described.

Third, I claim the combination of the wings, K, K, the inclines, H, H, the wheels, f, f, and the rod, J, the whole operating for the purpose and substantially in the manner described.

2,900.—R. D. Porter, of Zanesville, Ohio, for Improvement in Curry Combs:

I claim the mode of fastening the teeth and other parts of the comb together in a compact and substantial manner, substantially the same, and for the purpose set forth.

2,901.—G. T. Sawyer, W. Howland, Jr. and T. C. Hatch, of New Bedford, Mass., for Improvement in Setting Stills:

We claim the arrangement of the equal drop flues, D, with the vessel A, connecting flue, E, and chimney, G, as shown and described.

2,902.—L. W. Shaffar, of Shelbyville, Ky., for Improvement in Plows:

I claim the combination of the steel mold board when made as described, the cast-iron standard provided with the flanges on its top, the recess for the point, the projection for holding the brace, the recess on the land side and removable plate, H, to fit the same, with the reversible point, when the whole are constructed and arranged as and for the purposes described.

2,903.—W. H. Smith, of Birmingham, Conn., for Improvement in Breech-Loading Firearms:

I claim the combination with the lever, E, sliding and swinging breech, B, and hammer, F, of the tooth, i, cam, j, horn, k, hooked tongue, g, and projecting plate, l, m, all constructed and arranged as specified and operating in the manner explained to impart a simultaneous movement to the breech and hammer.

[This invention consists in a certain mode of applying a movable breech, either chambered or otherwise to open and close by a movement parallel with the axis of the bore and a swinging movement lateral thereto. Also in certain means of imparting the said longitudinal movement to the breech serving also as a means of cocking the hammer.]

2,904.—John Tilley, of West Troy, N. Y., for Improvement in Machines for Chamfering Barrels:

I claim the rotary truss rings, B, B', when constructed and arranged with the end stock, C, C', mounted together and one or both made movable, all substantially as and for the purpose set forth.

And I also claim the arrangement of the two groove-cutting chamfering knives, J, J', and the two score cutting leveling knives, P, P', in combination with the apparatus for holding the revolving cylinder of staves with both ends of the staves exposed, as and for the purpose set forth.

2,905.—John and William Toothill, of Wallingford, Conn., for Improvement in Portable Cooking Apparatus:

I claim the two pans, A, B, provided respectively with the false bottoms, b, g, draught openings, f, k, lamp and false side, i, and with or without the lid or cover, E, all arranged as and for the purpose set forth.

[The object of this invention is to obtain a very portable and simple cooking device which may be carried without inconvenience by a soldier, and be capable of ready adjustment for cooking, so that every soldier may be provided with the means of cooking his own rations.]

2,906.—F. W. Weiss, of Mount Vernon, N. Y., for Improvement in Military Cloaks:

I claim the construction of a military cloak or a military coat in the manner described, so as to be capable of conversion at will into an air bed or mattress, substantially as set forth.

2,907.—Henry Weissenborn, of Newark, N. J., for Apparatus for Collecting Zinc from Waste Gases of Furnaces:

I claim separating zinc, through an apparatus, from the waste gases while conducted from the top of a blast furnace to steam boilers or hot-blast oven, in the manner substantially as set forth.

2,908.—J. V. Welling, of Cedar Falls, Iowa, for Improved Device for Weaning Calves:

I claim the jointed curved piece, F, provided with prongs, B, balls, a, spring, d, and standards, e, the whole constructed and operating substantially as and for the purpose set forth.

2,909.—A. H. Wellington, of Woodstock, Vt., for Improvement in Saw Gummers:

I claim the carriage, C, laterally sliding shafts, B, D, curve, A, screw

J, and spiral spring, f, with the clamps, I, and pivot screw, e, when combined, arranged and operating in the manner described.

[This invention is designed for gumming muley, sash and circular saws, particularly large circular saws, such as are used for sawing lumber, and consists in a simple construction and arrangement of parts whereby the labor heretofore required for the same is greatly reduced and the gumming effected in an easy and expeditious manner.]

2,910.—F. J. Willett, of Nunda, N. Y., for Improvement in Pumps:

I claim the combination of a hand lever, O, and platform, M, oscillating together, when connected with the piston rod, K, of a pump, substantially as described, so that the combined exertions of the muscular power of the arms and the weight of the body, may be employed for working the pump.

I also claim the employment of the disks, m, m, in combination with the packing, f, rod, k, and piston cylinder, B', arranged and operating substantially in the manner and for the purposes set forth.

I also claim the combination of the cylinder, A, and pipe or pipes, C, D, thimbles, e, e, bands, g, g, and wedges, h, h, substantially as shown and described.

2,911.—U. B. Winchell, of Oak-hill, N. Y., for Improvement in Hold-Back Hooks:

I claim the combination of the cam, projection, or button on the cock-eye or loop, and the recess or notch, in the hook and plate, when operated in the manner and for the purpose, substantially as described and represented.

2,912.—Peter Wright, of Dudley, England, for Improvement in Wheels. Patented in England May 22, 1861:

I claim, first, The formation of the bosses or naves of wheels, in the manner described.

Second, The mode of combining or connecting together, as described, the several parts of wheels with the exception of that portion of the single disk wheel alluded to.

Third, The manufacture of wheels with cast-iron bosses or naves formed and secured as described.

2,913.—Alfred Delestadius (assignor to Andrew Rankin), of Philadelphia, Pa., for Improvement in Manacles:

I claim the portion, A, of the ring with its rounded projection, f, in combination with the portion, A', of the ring and its projection, e, the whole being constructed and arranged substantially as set forth, so that on closing or opening the ring the two parts will yield slightly and allow the projection, e, to pass over the projection, f.

Second, The spring bolt, B, constructed and arranged within the chamber, c, in relation to the projection, e, substantially as and for the purpose set forth.

Third, The ferrule, q, and its flange, t, arranged in respect to the chamber, c, the entrance, d, to the same, the stem of the bolt, D, and the spring, m, substantially as described for the purpose specified.

2,914.—D. E. Emerson (assignor to Mary Manny), of Rockford, Ill., for Improvement in Harvesters:

I claim the combination of a wheel with the body of a divider for a harvesting machine, in such manner that the wheel forms the front end of the divider, substantially as described.

I also claim the combination of a reciprocating cutter of a harvesting machine with a stiff pitman, by means of a flexible connection at the end of the pitman that is nearer the cutter, substantially as described.

I also claim the combination of the shoe which forms the bearing of the cutter for a harvesting machine with an adjustable guide secured to said shoe, substantially as described.

2,915.—John Magee, of Boston, Mass., assignor to the Norton Furnace Company, of Norton, Mass., for Improvement in Stove Grates:

I claim combining and arranging together the rectangular grate, C, with guard plates, D, D', and the ways, b, so that the grate cannot only be moved on its posts, c, but be moved in the direction of its length, substantially as described.

2,916.—E. M. and J. E. Mix (assignors to themselves and John Gauntlett), of Ithaca, N. Y., for Improvement in Padlocks:

I claim the arrangement of the sector tumblers, D, guide pin, k, of the key, F, and the dog, C, substantially as shown and described, for the purpose of admitting the key, F, to be turned in either direction to unlock the lock, and also to prevent the internal parts of the lock being injured by the intersection of false keys, as set forth.

[The object of this invention is to obtain a padlock which may be opened or unlocked by turning the key in either direction, and one which will admit of a false key being turned entirely around within it in either direction without unlocking the lock or injuring the parts thereof.]

2,917.—A. K. Tupper (assignor to himself, J. E. Tupper and J. W. Green), of Pontiac, Mich., for Improvement in Gas Retorts:

I claim the coke box or basket, C, combined with the cover or cap, B, of the retort, substantially as and for the purposes specified.

2,918.—Jacob Widmer (assignor to H. B. Bigelow), of New Haven, Conn., for Improvement in Machines for Cutting Roots:

I claim the adjustable eccentric cylinder, C, in combination with the rotating heads of disks, F, G, knives, H, and hopper, B, arranged substantially as and for the purposes set forth.

[The object of this invention is to attain a root-cutting machine which will be simple in construction, economical to construct and to admit of being very expeditiously adjusted or graduated so as to cut the roots to any required degree of fitness.]

2,919.—G. B. Adams, of Cambridge, Mass., assignor to himself and James M. Stone, of Charlestown, Mass., for Improvement in Supporting Tents:

I claim supporting a tent cover on a center pole by means of detached braces whose inner ends are held and made by means of shouldered recesses on an aid center pole, and whose outer ends pass through the grummet holes in said cover, as represented and for the purpose set forth.

RE-ISSUES.

140.—C. Aultman and L. Miller, of Canton, Ohio, for Improvement in Mowing Machines. Patented July 17, 1856. Re-issued July 19, 1859:

We claim mounting the two driving wheels and one main gear wheel upon a common axle, in combination with a ratchet wheel for each driving wheel, each ratchet wheel fitted with a pawl that can be made to stand in or out of gear with the ratchet teeth at will, the whole arranged and operating substantially as described.

141.—C. Aultman and L. Miller, of Canton, Ohio, for Improvement in Mowing Machines. Patented July 17, 1856. Re-issued July 19, 1859:

We claim, in combination with a hinged finger bar and cutter, a stop which, when the finger bar is raised up will prevent the cutter from dropping out of its bearings, substantially as described.

138.—S. B. Sexton, of Baltimore, Md., for Improvement in Stoves. Patented April 19, 1859. Re-issued Dec. 3, 1861:

I claim a fuel supply chamber suspended within or above the fire box, with its lower end out of contact with the latter, by connections which shall be out of contact with the burning fuel, and shall permit the free circulation of gases around and above the supply chamber.

I also claim a cold-air chamber combined in any manner substantially as described, with a fuel-supply chamber so applied as to permit the passage of the products of combustion around and above it.

I also claim the combination of the main chamber, A, fuel chamber H, flues, C, B, E, D, and damper, b, arranged and operating substantially as explained.

NOTE.—The above list of patents, issued on the 10th inst, numbers fifty-three. This is the result of the business of the Patent Office for one week. Among the above we recognize the names of TWENTY patentees whose specifications and drawings were prepared at this office.

—Eds.