

Jan. 3d an important event occurred—Marcus Julius Cicero was born; for business, and even so far as the entertainment of the general reader is involved, the advent of Marcus might have been supplanted by some event a little nearer the present day. The calendar is a very useful one and will doubtless be extremely popular.

**RECENT AMERICAN PATENTS.**

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week : the claims may be found in the official list:—

**Saw-mill Carriage.**—This invention relates, first, to the employment of a dog constructed in a novel way, and connected with a lever or handle in such a manner that by a very simple adjustment of said lever or handle the log may be set to the saw, and the log-supports also gigger back when necessary to receive a fresh log to be sawed. The invention relates, secondly, to a simple and novel means for adjusting the log, so that the same may be sawed in taper form when required, and also to an improved means for holding the racks of a sliding bar, to which the log-supports are attached, in proper position and in gear with the pinions which operate them. Dennis Lane, of Springfield, Vt., is the inventor of this improvement.

**Improvement in Ordnance.**—This invention relates to the manufacture of ordnance of a central core or barrel containing the bore and a system of bands, hoops or rings of wrought-iron, surrounding the said core from the breech to within any desirable distance of the muzzle; and it consists in a certain novel construction of and mode of combining the several parts, whereby the fibrous character of the wrought-iron is preserved and the union of the several parts is rendered such that their proper relation will not be disturbed by the firing of the piece, or by the heating and cooling to which it is subject in use, and, in short, to so construct ordnance as to obtain the necessary strength with the least weight of metal. John Ericsson, of New York city, is the inventor of this improvement.

**Ash-ejector for Steam Vessels.**—The object of this invention is to obtain a simple and efficient means for discharging ashes and other refuse matter from steam vessels, whereby the labor of elevating and discharging the same overboard as now practiced, will be avoided. The invention consists in the employment of a receiver provided with a valve, so arranged as to admit of a communication being formed between the receiver and the water at the exterior of the vessel, and to admit of said communication being cut off when desired; a pump or steam pressure, one or both, being used in connection with the receiver, and all arranged in such a manner as to effect the desired end. Jefferson Brown, of No. 14 Elizabeth street, New York city, and S. R. Brooks, of St. Louis, Mo., are the inventors of this improvement.

**Electro-magnetic Pendulum.**—The principal object of this invention is to apply to the pendulum power obtained from an electro-magnet, to maintain and also, if desired, to initiate its motion without subjecting it to the direct attraction of the magnet, or in any way attaching to it an armature or fixed magnet, or any piece of metal subject to the attraction of a magnet. The invention consists chiefly in the employment of wedge-shaped pallets in combination with the armature of the electro-magnet, and with one or more impulse bars and springs, whereby the above result is obtained. It also consists in so applying the said pallets in the circuit in which the electro-magnet is placed, that the opening of the circuit to produce the necessary intermissions of the current takes place between the said pallets. James Hamblet, Jr., and B. F. Edwards, of Boston, Mass., are the inventors of this improvement.

**Surfacing Fibrous Materials.**—This invention relates to the applying of a glazing or size to fibrous substances, such as cotton wadding, &c., in such a manner that a quite thin sizing may be used and applied to the material to be sized, glazed or surfaced, as it is technically termed, and said material dried at the same operation. To this end the invention consists in the use of a smooth or polished metal cylinder, heated by steam or otherwise, over a portion of which the web to be surfaced passes and has a heated pressure roller bearing against it; the metal cylinder

having the glazing or size distributed over its exterior by means of a revolving brush or its equivalent, and at a point sufficiently distant from that where the belt comes in contact with the cylinder, that the glazing may become partially dry before being brought in contact with and applied to the web. The above parts are used in connection with a roller for cleaning the cylinder. William Fuzzard, of Chelsea, Mass., is the inventor of this improvement.

**Breech-loading Fire-arm.**—This invention consists in a certain novel construction and mode of applying the movable breech-block and certain means of operating the same, whereby the construction of the arm is much simplified and the use of a large number of small pieces, such as screws and pins, which are liable to be lost, is avoided, and the gun is enabled to be taken apart enough to clean all the working parts without the removal of a single screw. It also consists in certain means whereby provision is made for loading at the muzzle, when the supply of ammunition suitable for loading at the breech has been exhausted. And it further consists in certain improved means of withdrawing the discharged metallic shells of the ammunition used for breech loading. W. K. Stevens, of Worcester, Mass., is the inventor of this improvement.

**SPECIAL NOTICES.**

Joseph P. Pirsson, of New York City, has petitioned for the extension of a patent granted to him April 2, 1850, for an improved surface condenser for steam engines.

It is ordered that the said petition be heard at the Patent Office, Washington, on Monday, March 14, 1864.

Daniel Hicks, of Dimcansville, Pa., has petitioned for the extension of a patent granted to him on April 2, 1850, for an improved attachment of the forge hammer to its helve.

It is ordered that the said petition be heard at the Patent Office, Washington, on Monday, March 14, 1864.

Charles Perley, of New York City, has petitioned for the extension of a patent granted to him April 2, 1850, for improvements in cat head and shank painter stoppers.

It is ordered that the said petition be heard at the Patent Office, Washington, on Monday, March 14, 1864.

All persons interested are required to appear and show cause why said petitions should not be granted. Persons opposing the extensions are required to file their testimony in writing, at least twenty days before the final hearing.

**TO OUR READERS.**

**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 enclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

**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 patents, 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.

**Binding the "Scientific American."**

It is important that all works of reference should be well bound. The **SCIENTIFIC AMERICAN** being the only publication in the country which records the doings of the United States Patent Office, it is preserved by a large class of its patrons, lawyers and others, for reference. Some complaints have been made that our past mode of binding in cloth is not serviceable, and a wish has been expressed that we would adopt the style of binding used on the old series, *i. e.*, heavy board sides covered with marble paper, and morocco back and corners.

Believing that the latter style of binding will better please a large portion of our readers, we commenced on the expiration of Volume VII., to bind the sheets sent to us for the purpose in heavy board sides, covered with marble paper and leather backs and corners.

The price of binding in the above style is 75 cents. We shall be unable hereafter to furnish covers to the trade, but will be happy to receive orders for binding at the publication office, No. 37 Park Row New York.



ISSUED FROM THE UNITED STATES PATENT-OFFICE FOR THE WEEK ENDING JANUARY 12, 1863.

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.

**41,185.—Treating Flax, &c., to produce Short Fiber for Spinning.**—S. M. Allen., Woburn, Mass.:

I claim, first, The herein-described process of preparing vegetable long-stapled fiber to be reduced to suitable length for spinning and weaving on short-stapled machinery and for other purposes, by submitting the fiber to the different operations of fermentation, washing, pressing, beating, &c., before drying the same, substantially as herein more fully set forth.

Second, I claim the herein-described process of converting vegetable long-stapled fiber into fiber of suitable length for weaving and spinning on short-stapled machinery, by combining with fermentation, washing and other mechanical and chemical operations before drying, the stranding or reducing of the fiber mechanically after drying the same, substantially as herein set forth.

**41,186.—Pump.**—M. J. Althouse, Waupan, Wis.:

I claim the barrel, C, the screw bolt, G, and the pin, H, when constructed and applied to a pump stock, B, substantially as shown and described.

**41,187.—Horse-rake.**—D. W. Amos, Bedford, Pa.:

I claim the combination of the knee-lever or connecting-rod, K, and lifting lever, J, with wipers on one of the wheels, substantially as described, for the purpose of enabling the driver to elevate and hold up the rake teeth without using his hands, as set forth. I also claim the combination of the rake teeth with the bracket, I, when combined, arranged and operating as set forth.

**41,188.—Grain Separator.**—Myron J. Barcalo, Mount Morris, N. Y.:

I claim, first, The longitudinally and vertically-adjustable separator, C, constructed of wire gauze or partly of wire gauze and partly of a metallic plate, in combination with the sieve of a fanning mill, substantially as described.

Second, The separator, C, constructed with a flat or arched surface and having the edge, c', turned up as described, for the purpose of preventing the grain which is cast upon the separator from falling over that edge.

Third, The sieve, A, and the separator, C, in combination with an adjustable discharging screen, D, which is shorter than the gains in which it moves, or of the same length, constructed and operating in the manner and for the purpose described.

**41,189.—Adjusting Logs in Saw Mills.**—D. C. Banghman, Adams, Ohio:

I claim, first, The shaft, D, supported beneath the head and tail blocks, A, A', upon levers, e, e', and operating substantially as described. Second, The combination of pinions, f, f', shaft, D, spur wheels, c, c', and shaft-supporting levers, e, e', all operating substantially as described.

Third, The saw wheel, C, in combination with the shaft, D, and driving pinion, m, operating substantially as described.

Fourth, The combination of the two-pawl levers, g and d, applied and operating substantially as described, for adjusting both ends of the log at one end of the machine, obliquely to the plane of the saw.

Fifth, The vibrating, driving pinion shaft, h', and pinion, h, in combination with the lever, E, and spur wheel, C, for operating the traveling plates, B, B', substantially as described.

Sixth, The pivoted arm, h<sup>2</sup>, in combination with the rods, j, j, and levers, E, H, substantially as and for the purposes described.

Seventh, The combination of the trip-staff, p, catch, s, levers, t, and v, operating substantially as and for the purposes described.

Eighth, Applying a gage wheel, J, or its equivalent to operate in conjunction with a shifting pinion, h, and such mechanism as will throw this wheel, J, out of action automatically, when the log has been moved up to the saw the required distance, substantially as described.

**41,190.—Clothes-washing Machine.**—W. H. Blood, San Francisco, Cal.:

I claim the stationary concave of rollers, C, placed within the ends, box A, in combination with the oscillating rubber, K, attached to elastic plates, h, and connected by pendant bars, J, J, to a rock-shaft, F, the bearings of which rest on spiral springs, D, and the ends or journals of which are connected to a treadle, I, all arranged substantially as and for the purpose herein set forth.

[This invention consists in the employment of a stationary concave of rollers fitted within a proper suds-box and used in connection with an oscillating, yielding or elastic rubber, the same being attached to a rock-shaft, the bearings of which are fitted on springs and therock-shaft with a treadle attachment, all so arranged as to enable clothes to be washed in an expeditious and perfect manner, and without injuring the same by excessive or undue friction.]

**41,191.—Sleeve Button.**—Seba Bogert, New York City:

I claim the sliding catch, C, guide, D, and spring, h, combined with each other and with the head, A, and the hook, a, and notch, c, on and in the tongue of the button, substantially as herein specified.

[This invention consists in a novel mode of applying a sliding catch, a guide and a spring, in combination with the tongue or shank which passes through the holes in the garment and with the head of the button, whereby the fastening is made very secure strong, and easy of operation.]

**41,192.—Refuse Ejector for Steam Engines.**—Jefferson Brown, New York City, and Samuel R. Brooks, St. Louis, Mo.:

We claim ejecting or discharging ashes and other refuse matter from steam vessels by means of a receiver provided with a valve, and so arranged as to be capable of being used in connection with pressure exerted by a pump, steam or other suitable agency, as herein set forth.

**41,193.—Churn.**—Edgar Chipman, New York City:

I claim the agitators, D, one or more, constructed of chambers, f, attached to shafts, e, in combination with the oscillating or rocking cream box, A, substantially as herein specified.

[This invention consists in the employment of a rocking or oscillating cream box provided with weights or counterpoises, and also provided with rotating agitators having cells or chambers.]

**41,194.—Washing Machine.**—Edgar Chipman, New York City:

I claim the combination of the seat, C, with the rocking box, A, of a washing machine, arranged substantially as shown, to admit of the rocking or oscillating of the box by a slight exertion of the occupant of the seat, as set forth.