

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:—

Brick Machine—This invention consists in the use of a cylindrical mold provided with sliding plungers and fitted in a mounted frame on which a mixing or tempering device, scraper, sand-box and frame-elevating device are placed; the several parts being arranged in such a manner that the machine may be used either stationary for mixing or tempering and pulverizing the clay and molding the same into bricks, or be drawn along and operated by traction so that the work referred to may be performed and the molded bricks also properly distributed or laid upon the yard. J. N. Newell, of St. Louis, Mo., is the inventor of this brick machine.

Shingle Machine—This invention relates to an improved shingle machine of that class in which a circular saw is employed for cutting the shingles from the bolt; and it consists in the employment of a horizontal circular saw in connection with a sliding frame provided with clamps or dogs, arranged in such a manner that the latter may be conveniently manipulated in connection with the frame and the bolt from which the shingles are cut, and fed with the greatest facility to the saw and withdrawn therefrom. The invention also consists in the employment of supporting bars so arranged relatively with the saw and the bed on which the bolt is moved and adjusted, that the shingle, while being cut from the bolt, will be fastened or held in proper position and a clean smooth cut obtained the whole width of the bolt. The invention further consists in using, in connection with the saw, supporting bars, and the clamps or dogs, a bed arranged in such a manner as to admit of the bolt being very readily adjusted to have the saw cut the shingle in proper taper form. Simeon Heywood, of Claremont, N. H., is the inventor of this improvement.

Weapon of War—This invention consists, first, in the combination with a lance of a revolving many-chambered cylinder of similar character to that commonly used in revolving fire-arms arranged to rotate upon the pole or shaft of the lance, by having the said pole or shaft passed directly through it. It also consists in furnishing the so-called many-chambered cylinder at its rear end, with a circular series of ratchet-like teeth, corresponding in number with its chambers, and in fitting the lance pole or stock with a sliding hammer so formed and arranged that by turning the cylinder upon the said pole or shaft, the said teeth may be made to force back the said hammer in such a manner as to permit it to be driven forward again by a suitably applied spring, and thereby caused to strike upon percussion caps or their equivalents applied in rear of the several chambers, for the purpose of firing the charges of the said chambers one at a time and in regular succession all round the cylinder. It also consists in fitting the butt of the pole or shaft with a spike which can be sheathed by being packed into the pole or shaft when the weapon is to be carried or used, and protruded from the butt to enable it to be driven into the ground to hold the weapon in an upright position ready to be quickly laid hold of when required for use. This weapon is suitable for arming either infantry or cavalry but especially for infantry. J. C. Campbell, of New York, is the inventor of this weapon.

Reclaiming Exhaust Steam—This invention consists in a certain arrangement of a rotary fan in combination with a box or chamber containing a series of parallel radiators into which the exhaust steam from an engine is delivered, whereby air is drawn copiously and directly through the intervening spaces between the said radiators for the purpose of carrying off the heat from and effecting the condensation of the steam, and the said air heated by the heat abstracted from the steam is conveyed to the boiler furnace or other apparatus where such heat may be utilized. A. C. Fletcher, of New York, is the inventor of this improvement.

Cutting out Bayonet Scabbards—The object of this invention is to cut up a piece of leather or other material in pieces suitable to make scabbards for bayonets. The invention consists in the arrange-

ment of two sets of knives secured in oblique directions in the surfaces of two rotary cylinders, at such distances apart that the spaces between the knives on each cylinder correspond in shape and size to the blank required for a scabbard, the two sets of knives being inclined in opposite directions, those in one cylinder toward one and those in the other toward the opposite direction, in such a manner and in such relation toward each other that by the action of the two sets of knives, the blanks are cut out with both edges beveled off toward the same, say the flesh side of the skin, where leather is used and that the same can be bent up and the edges secured together, producing a flat seam. Henry D. Smith, of New York, is the inventor of this improvement.

Siphon Filter—The usual mode of emptying a blow-up pan is to melt the sugar in the pan and draw the sirup or liquor at or near the bottom through a strainer, thus first drawing off the dirt. The object of this invention is to draw off the sirup from the surface where it is clear, and allow the dirt to settle at the bottom of the pan, to be shoveled out after the sirup has been all discharged, and to this end it consists in a flexible pipe or a pipe with flexible or folding joints, with an outlet through the bottom of the pan and with a float and strainer at the top, the float remaining at the top of the sirup or liquor and keeping the strainer just below the surface thereof and the pipe connecting with the strainer in such a manner that the sirup or liquor passes through the strainer before entering the pipe. C. N. Brock, of Philadelphia, Pa., is the inventor of this improvement.

Nail Plate-feeder—J. S. Fisk, of Youngstown, Mahoning county, Ohio, has recently invented an automatic nail plate-feeder, which is highly spoken of by those who have witnessed its operations as a machine of great merit. The mechanical construction of the machine is of the first class and gives evidence of inventive talent of a high order. Letters Patent for this invention were granted through the Scientific American Patent Agency on June 30, 1863, and an engraving will appear in this paper so soon as it can be prepared.

An Immense Breech-loading Gun.

Our readers will recollect that some months ago we noticed the construction here of a steel breech-loading gun, the invention of Mr. Mann, capable of being discharged with the most extraordinary rapidity. The gun was taken to Washington and gave such satisfaction in its trial there, that Mr. Mann was commissioned to make one of the largest size on the same principle. He has been at work on the new piece for several weeks, and it is now so near completion that in a very short time it will be ready for service. The new gun will throw a ball of the elongated pattern, weighing one hundred and fifty pounds, and will, it is stated, have a range of some four miles! It can be fired with ease, and without the slightest danger, one hundred times in as many minutes, and is so simple in all its parts that it will be almost impossible for it to get out of order. It is the largest breech loading gun ever made in America, and its trial will be looked for with more than ordinary interest.—*Pittsburgh Chronicle*.

Chemical Dangers.

M. Rouelle, an eminent chemist, was not the most cautious of operators. One day, while performing some experiments, he observed to his auditors, "Gentlemen, you see this cauldron upon the brasier; well, if I were to cease stirring a single moment, an explosion would ensue which would blow us all in the air." The company had scarcely time to reflect upon this comfortable piece of intelligence before he did forget to stir it, and his prediction was accomplished. The explosion took place with a horrible crash; all the windows of the laboratory were smashed to pieces, and two hundred auditors whirled away into the garden. Fortunately none received any very serious injury, the greatest violence of the explosion having been in the direction of the chimney. The demonstrator escaped without further injury than the loss of his wig.

The continent of Africa contains over 11,000,000 square miles—being three millions more than the whole of North America.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING JUNE 30, 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.

39,024.—Rifling Fire-arms.—E. G. Allen, Boston, Mass.: I claim the method of rifling or grooving the barrels of fire-arms by combining the irregular gain twist, as hereinbefore described, with the shallow curved depression, substantially as herein shown and set forth.

39,025.—Machine for breaking and dressing Flax, &c.—S. M. Allen, Woburn, Mass.: I claim, first, In combination with a series of fluted rollers covered by a revolving fluted drum, two fluted rollers so arranged to engage with and be geared by respectively the first and last drum-gear roller, substantially as and for the purpose herein set forth. Second, The combination of a series of fluted rollers arranged about a central fluted drum with one or more pairs of clusters of revolving stripping or scutching blades, arranged for operation substantially as herein described.

Third, The combination of two or more pairs of revolving scutching blades, with intermediate check rollers, arranged and operating substantially as herein described.

39,026.—Nursery Chair.—A. B. Anderson, Jr., Brooklyn, N. Y.:

I claim, first, The use or employment of the secondary frame-work, B, in combination with the frame-work, A, when arranged and operated as herein shown, for the purpose specified.

Second, Folding the frame-work, B, in position, when the same shall be elevated in the manner and by the means herein fully described.

Third, In combination with the cam-shaped pieces provided with the pins, I claim the sockets provided with the openings, for the purpose fully set forth.

Fourth, In combination with the frame-work, Q, I claim the use or employment of the slotted center pieces, K, and side arms, N, for the purpose shown.

Fifth, In combination with the same, I claim the frame-work, Q, operated as shown for the purpose specified.

39,027.—Fruit or Preserve Jar.—J. S. & T. B. Atterbury, Pittsburgh, Pa.:

We claim, first, The combination metallic and rubber annular band, d, e, constructed in the manner and for the purpose described.

Second, The combination metallic and rubber band, d, e, in connection with the beveled-edge jar cover, B, d, and jar, A, in the manner and for the purpose described.

39,028.—Drag Saw.—James Bailey, Prairie Township, Ind.:

I claim, first, The arrangement of the inclined frame pieces, A, A, in combination with the upright stand, B, front and back sills, C and D, and braces, F, F, in the manner described and for the purpose herein specified.

Second, I claim the truck wheels, S, S, and handles, T, T, in combination with the arrangement of the guide, F, and braces, G and H, and saw-blade attachment, substantially in the manner and for the purpose herein specified.

Third, I claim the connecting link, C, Figs. 2 and 3, in combination with the primam strap, A, and saw-blade strap, B, in the manner and for the purpose herein specified.

39,029.—Washing Machine.—S. M. Barnett, New York City:

I claim, first, The arrangement of the reciprocating cross-head, E, provided with rubbing rollers, d, and swinging soap-box, G, and moving in the slotted hinged frame, C, which is adjustable by a treadle, D, in the manner and for the purpose substantially as shown and described.

Second, The adjustable spring, f, in combination with the soap-box, G, as and for the purpose set forth.

Third, The feed arms, H, in combination with the reciprocating rubber head, E, and soap-box, G, substantially as and for the purpose herein specified.

Fourth, The arrangement of the swivel arm, M, with the furnace, R, in combination with the frame, A, which carries the wash-board, B, as and for the purpose described.

[The object of this invention is to imitate by machinery the action of hand-washing, spreading the clothes to be washed, one after the other, on a corrugated or fluted wash-board on which the soap is applied and the rubbing performed, while, at the same time, the piece to be washed is fed along, causing the soap and rubbers to pass gradually over its entire surface.]

39,030.—Granary.—A. C. L. Devaux, King William-street, London, England:

I claim the grain receptacle, A, when made with perforated walls and an air space between the receptacles, in combination with the central perforated air tubes, B, as herein shown and described.

The lateral air-pipes, C, in combination with the central tubes, B, and receptacles, A, as herein shown and described.

[This invention relates to a novel construction of granaries by which perfect preservation of the grain placed therein may be insured by means of natural aeration combined with artificial ventilation. The operations of natural aeration and artificial ventilation may be employed, either separately or in combination, according to the requirements of the case.]

39,031.—Siphon Filter for drawing Sirups, &c.—C. N. Brock, Philadelphia, Pa.:

I claim having the filter or filtering drawer, C, constructed with the float, D, immediately above it, in combination with the jointed pipe, B, all in the manner herein shown and described.

39,032.—Combined Pike and Revolving Fire-arm.—J. C. Campbell, New York City:

I claim, first, The combination with a lance of a many-chambered cylinder of similar character to that of a revolving fire-arm, fitted to rotate upon the pole or shaft of the lance, substantially as herein described.

Second, The combination of the series of ratchet-like teeth on the rear of the so-called many-chambered cylinder, the sliding hammer and the spring, substantially as and for the purpose herein specified.

Third, The movable spike fitted and secured in the butt of the lance, pole or shaft, substantially as and for the purpose herein specified.

39,033.—Tape Fuse.—J. E. Chase and Joseph Toy, Simsbury, Conn.:

We claim the employment, as a covering for fuse, of tape composed