

### EXTRAORDINARY PROGRESS OF AMERICAN INVENTIONS IN EUROPE.

Patents for the following inventions have recently been secured in England, through the Scientific American Patent Agency, further showing the great and daily increasing progress which American inventions are making in Europe:—

**Molding Candles.**—Patentees, Henry Ryder and Horatio Leonard, of New Bedford, Mass. This is an improvement in the apparatus for manufacturing candles, especially those made of paraffine or other substances liable to adhere to, and to be broken in the operation of drawing from the molds. It consists in the employment of a trough at the top of the molds, of sufficient strength to bear the strain requisite to draw all the candles from the set of molds at once, and in the adjustment of springs for closing the lower ends of the molds for forming the tips.

**Folding Frames for Umbrellas, Tents, &c.**—Patentee, L. K. Selden, of Haddam, Conn. This umbrella frame is made with joints in the ribs, the inner ends of the ribs being fastened to a ring which slides on the central stick, so that by drawing down this ring, the ribs fold inward upon each other, occupying but half the space in length of the ordinary umbrella. The central stick also has a joint in the middle, so that it may be folded. When extended, suitable braces, coming nearly in line with their joints, hold the frame in position. The same device is applicable to tents and awnings.

**Printing Addresses on Newspapers.**—Patentees, Robert W. and Daniel Davis, of Elmira, N. Y. This is one of the best of the numerous plans which have been devised for printing addresses on newspapers. Each address is cut on a small wooden block, and the blocks are fastened on belts which are slipped upon rollers, so that by the rotation of these rollers, the blocks are brought in succession above the paper to be printed. The patent also covers an invention of a very simple machine for punching or forming the letters in the wooden blocks.

**Machinery for Cutting Dovetails.**—Patentees, Thomas H. Burley, Charles H. Phelps and William J. Lowerra, all of New York City. This valuable invention was fully illustrated and described on page 193, Vol. II. (new series), of the SCIENTIFIC AMERICAN. The dovetail grooves are cut in the ends of the boards or planks by means of swiftly revolving cutters; the board being tipped at an angle, first in one direction and then in the opposite direction, to give the proper taper to the grooves.

**Packing for Pistons.**—Patentees, Charles Lowery, of Brooklyn, and Horace A. Miller, of New York City. This improvement relates to that class of piston packing known as "metallic ring packing." It consists in producing the expansion of the packing ring or rings to make it or them fit the cylinder in which the piston works, by means of two levers which are fitted to the central hub or boss of the piston head, and are made to act on a cut metal ring fitted to the interior of the packing ring or rings.

**Ships' Stoves.**—Patentee, George A. New, of New York City. This is Slaton's ship stove, described and illustrated on page 288, Vol. II. (new series), of the SCIENTIFIC AMERICAN. The stove is hung in gimbals, like a ship's compass, so as to keep its top level notwithstanding the rolling of the ship; and the invention relates to the mode of leading the pipes out of the joints or journals by which the stove is suspended.

**Sun Shades or Roller Blinds.**—Patentee, Valorus Drew, of New York City. This patent covers several improvements in the mode of hanging window curtains. 1st. For regulating the strain of the cord for rolling the blind up or down; the cord is passed round a groove made at one end of the roller, and it also passes through a ring below, the latter being drawn by another cord fixed at one end to the window frame and provided at the other end with a friction bar or ring, whereby it may be retained at any given point. 2d. To secure the roller in the window frame, one end is provided with a fixed spindle, as usual, and the other end with a movable spindle, which is placed in a recess made in the roller, so that it may be pushed in or out as may be required. 3d. The shade is attached to the roller by means of an elastic rod which is passed through a hem in one end of the blind, and fits snugly in a longitudi-

nal groove made in the roller, in which it is held by staples, and also by being tied or secured at the middle. Messrs. Sullivan & Hyatt, 34 Beekman-street, this city, are the full assignees of the patent.

[To be continued.]

### RECENT AMERICAN INVENTIONS.

The following inventions are among the most useful improvements lately patented:—

#### FIRE-ESCAPE.

Hugh Morohan, of Brooklyn, N. Y., is the patentee of an improved fire-escape, and his invention consists in arranging a sofa or other piece of furniture by means of suitable braces and sections, and by a chain or chain-work in its interior, in such a manner that the same can be fastened economically, and with little loss of time, to the sill of an ordinary window, so as to form the means to pass out of the window and down to the ground by the aid of the chain.

#### POWER LOOMS.

The object of this invention is to prevent, as far as practicable, the loss of time which occurs in the operation of power looms for weaving hair cloth, when the attendant, whose duty it is to "serve" the hair to the contrivance which places it in the shed, fails to serve it at the proper time, or in case of any failure of the operation of said contrivance. Hair cloth is commonly woven with five sheds, which are opened in regular succession, and in operating a loom of the usual construction, it is necessary, in case of any such failure as is above mentioned, when any one of the sheds is open, to wait till the same shed is again opened before attempting to serve, or the cloth will be made uneven; and thus the time occupied by the opening and closing of the whole number of sheds is lost. A stop motion has been used for the purpose of stopping the harness motion of the loom instantly when the hair is, from any cause, not placed in the shed that is opened to receive it; but this is liable to some serious objections. This invention consists in the use of automatic mechanism which so controls the operation of the harness motion that the opening of the same shed is repeated during the following movement of the lay whenever a shed fails to have the hair placed within it; and such repetition is continued with each beat of the lay until the shed receives the hair, when the operation of the harness proceeds as if no interruption had taken place. Isaac Angell, of Pawtucket, R. I., is the inventor.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING NOVEMBER 13, 1860.

[Reported Officially for the SCIENTIFIC AMERICAN.]

\* Pamphlets giving full particulars of the mode of applying for patents, 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.

30,608.—Elliet Andrus, of Geneva, N. Y., for an Improvement in Apparatus for Drawing Water from Wells:

I claim the arrangement and combination of the several parts, for the purpose and to accomplish the result, as above specified, of emptying a bucket.

30,609.—S. P. Atherton, of Fitchburg, Mass., for an Improvement in Hoop Machines:

I claim, first, The combination of a gage cutter with a center head, constructed substantially as described, and having continuous rests, a and b, for the support of the hoop upon a side of the finishing cutter, as set forth.

Second, I claim the crimping roll, L, for giving form to the hoop, as described.

30,610.—A. J. Bartlett of Romulus, N. Y., for an Improvement in Excavators:

I claim the arrangement and combination of the hollow scoop or shovel, D, endless apron or elevator, I, and trough, N, when hinged or joined together, so as to allow the required adjustments of the said scoop, and operating together substantially in the manner and for the purposes specified.

30,611.—R. C. Bristol, of Chicago, Ill., for an Improvement in Slide Valves:

I claim, first, In combination with a valve carried upon rolling supports the use of bearing pieces of metal above and below such supports capable of being detached from the valve and cylinder face, in order that such bearing pieces may be made of a more durable material or be taken out and replaced when worn or injured.

Second, In valves mounted as above described, the wedge form of the bearing piece, E, in combination with the corresponding incline, C, upon the valve or cylinder face, for the purpose of adjusting the valve to its seat, or to the diameter of the rolling supports, G, substantially as described.

30,612.—B. F. Chappell, of Norwich, Conn., for an Improved Plumb-bob:

I claim, as an improved article of manufacture, a plumb bob, provided with a train of wheels, spring and stop, and otherwise made as shown and described.

[This invention consists in introducing within a hollow plumb bob a flanged drum or reel around which the string by which the bob is suspended is wound by a spring and train of wheelwork, and it consists further in applying a pinch-screw to the top of the bob by which the string may be stopped when entirely or partially unwound from the drum; so that a short or long string may be used as occasion demands.]

30,613.—A. F. Cobb, of Chapel Hill, Mo., for an Improvement in Fire Alarms:

I claim the arrangement of a crank shaft, A, alarm bell, H, ratchet, C, D, lever, L, gage, O, and cord, J, in combination with independent crank shafts, L, W, dogs, M, Y, and cords, P, T, leading to various parts of a building, substantially as and for the purpose set forth.

30,614.—L. A. Colbert, of Baltimore, Md., for an Improvement in Warming Apparatus:

I claim the adaptation and arrangement of a warm air reservoir or receiver, A, of box or niche form, and furnished with a door, B, a bottom passage, C, a side dampered passage, E, and a top dampered passage, F, all for use in combination with the ordinary furnace, hot air fine, draught or chimney fine, and fine leading into elevated chambers, substantially in the manner and for the purposes set forth.

30,615.—L. P. Collias, of Sacramento, Cal., for an Improvement in Loop Catches for Sewing Machines:

I claim a metallic or other hard loop catcher for sewing machines composed of a hub or main nut, a, in Figs. 1 and 2, also an adjusting screw, e, also, check nut, f, also, rib or latch, z, so that the catch being hard and unyielding, against which the loop comes in contact, can be so adjusted by the screw, e, and firmly held by means of check nut, f, that the suture thread cannot pass between said catch and the rotary hook until the proper time for its release, the whole being constructed, arranged, and operating as set forth and explained.

30,616.—G. D. Colton, of Galesburg, Ill., for an Improvement in Apparatus for Drawing Water from Wells:

I claim the employment of the shaft, D, the cylinder, E, the lever, F, the ratchet wheel, a, and ratchet, c, together with the stop, n, the several parts being constructed and arranged substantially as and for the purpose specified.

30,617.—J. W. Crawford, of Rockport, Ind., for an Improvement in Grafting Machines:

I claim, first, The knife, a, with its weight, C, and the device described for operating it, in combination with the slotted bed plate, E, stop, d, d, and gage, y, as and for the purposes set forth.

Second, In connection with the above, and on the pedestal, A, the sliding knife, g, its frame, F, and slide rests, G, G, with the adjustable inclined bed pieces, e, e, arranged and operating as and for the purposes set forth.

[This invention consists in arranging on the top of a suitable standard a weighted cutter which works between two perpendicular guide ways operated by a foot bearer for splitting the stock; and it so consists in arranging by the side of this stock splitter a reciprocating knife and inclined adjustable bed pieces for preparing the wedge on the side.]

30,618.—Perry Davis, of Providence, R. I., for an Improved Boat, Convertible into a Land Carriage:

I claim the combination of the clamps, C, D, and rubber springs, a, formed as shown, with the axle, B, and boat, A, in the manner and for the purposes set forth and described.

I also claim the combination of the peculiarly formed rubber spring clip, G, and plates, g, g', with the axle, H, hook, F, and bow of the boat, in the manner and for the purposes shown and described.

I also claim the arrangement of the wheels, B, with the clamps, C, as and for the purposes shown and described.

[This invention is an improvement in boats to be used on land and on the water, for pleasure purposes. The invention consists in mounting the boat at its bow on an India-rubber spring of peculiar construction when it is used on land, said spring being attached to a square axle or to a square enlargement of an axle, and connected to the bow of the boat in such a manner that the front wheels, or the axles of these wheels, will have a universal play, and so that the bow of the boat will not be subjected to any jar and concussion in passing over rough roads. It further consists in arranging in the stern of the boat, above the keel, two paddle wheels, a, d in using a center board or false keel arranged between the paddle wheels, which wheels have independent shafts, and are turned by pulleys, bands and cranks.]

30,619.—S. S. Day, of New York City, for an Improvement in Fly-traps:

I claim the use or employment of the shelf, F, in combination with the lever, H, catch, G, springs, I, and lifter, J, when the same shall be combined and operated in the precise manner specified or by means substantially the same or in an equivalent manner.

30,620.—John Dickinson, of Painesville, Ohio, for an Improved Last-holder. Ante-dated Aug. 14, 1860:

I claim the mode of securing immovable, or nearly so, the turntable in any position of its vertical axes, by means of the bolt, I, provided with reversed screws on its ends, and operating in combination with the apertures and the notches of the lower plate, Q, of said turntable, as described and for the purpose stated.

30,621.—H. Wm. Dopp, of Buffalo, N. Y., for an Improvement in Vapor Lamps:

I claim mingling the vapor formed with atmospheric air above the burner, as at a, a, Figs. 1 and 2, the vapor and the air descending through the pipe, A, to be burned at the burner, B, as and for the purpose specified.

30,622.—D. F. Dunham, of Brook, Ind., for an Improvement in Spelling Boxes:

I claim the spelling box with wheels having letters printed on them, as set forth, constructed as described for the purposes set forth.

This invention consists in enclosing within a suitable box having a small opening in one side of its top two or more wheels or cylinders, each of which has an independent rotary movement to the other, and in covering the peripheries of said wheels with the vowels and consonants, making a perfect word, and arranging on the next wheel t e alphabet of any language, so that by rotating one of the wheels the letters may be grouped together to form words or parts of words, or simple and compound words.]

30,623.—E. G. Dyer, of Hamilton, Ohio, for an Improved Feed Motion for Head Blocks of Saw-mills:

In combination with the ratchet wheels, F, F, by means of which the head blocks, B, R, are operated, I claim the described arrangement of the pulley, h, vibrating piece, H, E, connecting rod, I, hand lever, L, and pivoted bars, J, J, whereby the operator is enabled to move the log readily and with precision towards the saw, so as to produce either parallel or tapering cuts as the same may be desired, in the manner as and for the purposes specified.