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Plaster and Ammonia.

A correspondent of the *Genesee Farmer* says: "You have lately proved that gypsum, in its ordinary condition of dry powder, will not combine with carbonate of lime and sulphate of ammonia. I know it is a practical fact, from trial on a large scale. I also thought it would in some cases expel ammonia, because I had injured an experimental plat of turnips by mixing gypsum with guano. With no more chemistry than a gentleman obtains at college and retains scantily amid the varied duties and pursuits of life, I have a very high respect for the results that induction, like yours in the case above, will give us, but no confidence in the dicta of men like Liebig, whose genius (and I think he has a great deal of it,) is occasionally prostituted to fame."

[We recommend this paragraph to the attention of our farmers. The lesson to be derived from it is, that gypsum should be moistened, when mixed with guano.

Falling Bodies.

The following table, giving the height and the time of bodies falling, will be found very useful to millwrights in calculating the velocity of water, especially on falls under sixteen feet:—

Height of the fall in feet.	Time of falling in sec's.	Height of the fall in feet.	Time of falling in sec's.
1	.25	14	.935
2	.352	16	1.
3	.432	20	1.117
4	.5	24	1.22
5	.557	25	1.25
6	.612	30	1.37
7	.666	36	1.5
8	.706	40	1.58
9	.75	45	1.67
10	.79	50	1.76
12	.864		

Improvement in Scales for Weighing.

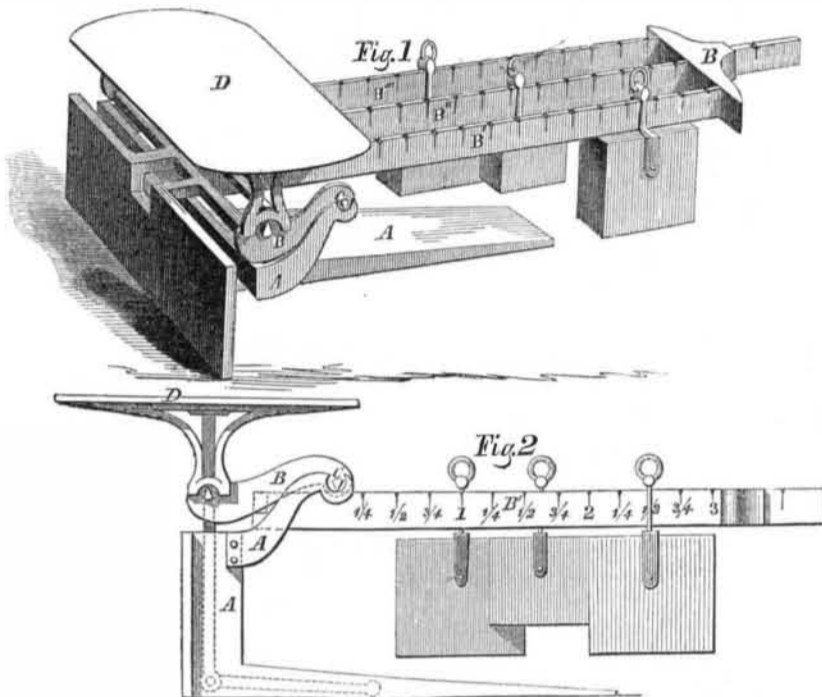
The invention illustrated in the accompanying engravings differs from the common scales in having the after part of the weighing lever composed of three or more arms—an arrangement which permits the apparatus to be condensed into a small space, while its capacity is very great; the construction also does away with the necessity of removing the weights from the scale beams, and thus saves much inconvenience.

In our engraving, fig. 1 is a perspective and fig. 2 a sectional view. The apparatus is supported on a standard, A, and the weighing lever, B, which operates in the common manner, but is made with three arms, B' B'' B''', has its fulcrum at C. The articles to be weighed are placed on the platform, D, which rests upon a knife edge on the lever, B.

The weights upon the arms, B' and B''', it will be noticed, are both of the same size; if they were both moved out on the arms, double the quantity of material could be weighed than if only one arm and one weight of the same dimensions were employed.

The tare may be indicated with great facility by using one of the weights for that purpose. The smaller weight is intended for use

IMPROVEMENT IN WEIGHING SCALES.



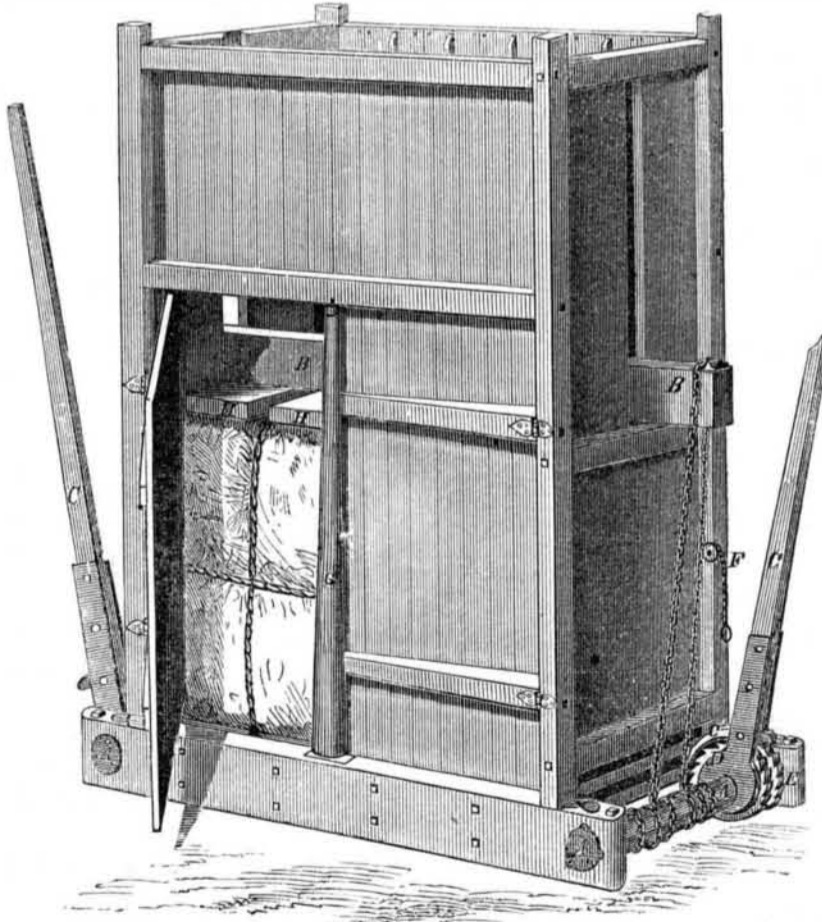
in indicating the fractional parts. If all of the weights are not wanted for immediate use, they may be shoved up under the fulcrum, out of the way, but still remaining in a convenient position. An additional or extra weight may be hung upon the extreme end of lever B, when necessary.

The simplicity, compactness, and accuracy of these scales must be apparent to every one.

The field for their introduction is large. The improvement may be attached readily to the ordinary platform scales; indeed, the variety of form in which the principles of the patent can be presented, is endless.

The inventors, Messrs. S. S. Mills and M. Bissell, of Charleston, S. C., will be happy to give any further information. The patent bears date Feb. 5, 1856.

IMPROVED HAY PRESS.



Press for Hay, Cotton, &c.

In this apparatus there is a strong shaft, A, placed at each of the lower ends of the frame. The compression is effected by means of chains extending from the shafts to the ends of the follower beam, B, the chains being wound up on the shafts; the latter are rotated by means of the levers, C C, the hooked

pawls of which, C', catch in the teeth of the ratchet wheel, D. The force with which the compression is effected is limited only by the length of the levers, and as these may be easily extended, the effective power of the machine is truly enormous.

E is a secondary ratchet wheel, having a spring pawl, not here shown, which holds the

purchase on shafts, A A, during the back strokes of the levers, C C. F is a cord for releasing, at pleasure, the pawl of the secondary ratchet wheel, E. The levers, C C, are not permanently attached to shafts, A A, and may therefore be removed out of the way when not wanted for use.

The ends of bar G, which hold the doors together, fit into mortises in the frame-work of the machine, and thus relieve the doors from strain; the hinges being placed on the outer surfaces of the cross-pieces, the door will not fly violently open when the bar, G, is released and damage is thus prevented. The platform, H, is composed of separate pieces of plank, and is thus easily handled; the pieces are kept slightly apart by means of guide posts.

This press is strikingly simple in all its parts, strong, portable, and cheap in construction. The invention is highly spoken of by all who have had it in use.

For further information address the inventor, C. J. Fay, North Lincoln, Me. Patented July 11, 1855.

A Great Artesian Well.

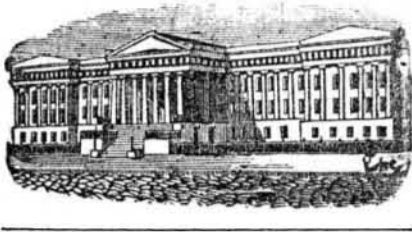
A new Artesian well is being bored in the Avenue Charles X., at the angle of the Avenue St. Cloud and Petit Pare, near Paris, for the purpose of supplying the ornamental lakes of the Bois de Boulogne. An interesting paper has been communicated to the Academy by M. Dumas on the subject, from which it appears that Mr. Kind, the engineer, has undertaken to bore a well 29 inches in diameter, and continue the sinking, if necessary, to the depth of 2500 feet, and thus obtain a daily supply of 10,000 cubic meters of water, being nearly equal to the volume of water delivered by the Seine through the Pont de la Tournelle, at Paris. The boring was commenced on August 2d last, with a diameter of about 41 in. For some time, when the operations were through marl and chalk, the average daily progress was 16 1-2 feet; then, through sand, it was reduced to 8 1-4 to 10 feet; and now, having reached another stratum of chalk, containing boulders, the speed is 5 feet, the depth being already upwards of 980 feet, and by May 1st it is expected that the enormous depth of about 2360 feet from the surface will be attained, being more than 490 feet deeper than the Artesian well at Grenelle. The motive power is a steam engine of 24-horse power.

Red Granite.

Lord Stanhope, in the course of his lecture before a scientific society in London, speaking of the fragments of marble found in the alluvial soil which covers to a considerable depth the site of the Forum of ancient Rome, says that among the various marbles thus discovered, were considerable portions of red granite, known to exist in upper Egypt; and then his Lordship adds, that all the red granite which now supplies the world, is derived either from the estate of the Earl of Aberdeen in Scotland, or else from the scattered fragments which the excavation of ancient cities yield. It is singular that the learned lecturer had never heard of the vast quarries of red granite in Finland, of different shades, and susceptible of a polish equal in beauty to the most compact marble. In the deep gorges of the White Mountains, in New Hampshire, a species of beautiful red granite is found.

Bituminous and Anthracite Coal for Boilers.

The ferry steamboats plying on the East and North rivers between this city and other places now use bituminous coal for fuel. Two years ago anthracite coal was exclusively used. We have been informed that the bituminous generates steam as rapidly as anthracite, is not so severe on the metal, and on the whole is cheaper.



[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS
Issued from the United States Patent Office
FOR THE WEEK ENDING APRIL 8, 1856.

DRYING WET GRAIN, &c.—Stephen W. Appleby of New York City: I claim the application of revolving cylinders situated in a heated flue, with their ends projecting into flues, into which cold air is forced and so arranged that grain or other similar substances put into the top cylinder, will slide through the same, and then fall into the next cylinder, and so on from one to the other, being in its passage alternately subjected to the action of heat while in the cylinder, and to the action of cold air while falling from one cylinder into the other, for the purpose specified.

PROPELLER SHAFTS IN KEELS—Aaron Arnold, of Troy, N. Y.: I claim the manner of inclosing propeller shafts in keels, B B, made of sheet iron or other material, fastened to the vessel's bottom, for the purposes and in the manner substantially as described.

LOOMS—E. B. Bigelow, of Boston, Mass.: I claim connecting the tension roller, or its equivalent, with the let-off motion to regulate the delivery of the warps by the arm or feeders, Z, substantially as specified.

I also claim the devices for holding the tension roller or its equivalent firmly at the beat of the lathe, substantially as described.

I also claim the mode of constructing the belt cam and combining it with the shipping lever, substantially in the manner and for the purposes specified.

I also claim the mode of connecting the friction brake with the shipper and stop motions of the loom, substantially in the manner and for the purposes specified.

Finally, I claim releasing the said friction brake to allow the loom to be turned by hand, substantially as specified.

COOKING RANGES—John Plant and C. G. Ball, of Washington, D. C.: We do not claim the alternate arrangement of a series of furnaces and ovens.

We claim the arrangement of the fire chambers, A, D, V, B, and front plate, d, in such relation to each other as to admit the products of combustion to pass through the flue, X, over the top plate of the oven, then down through the flue, P, in front of the fire chamber to the flue, G, beneath the oven, substantially as described and for the purposes specified.

HYDRANTS—E. J. Baker, of Baltimore, Md.: I claim the application to a hydrant of the receiving chamber and piston, constructed and operated in the manner and for the purpose substantially as described.

PRESSURE BELLS—Jason Barton, of Middle Haddam, Ct.: I claim so suspending the hammer by a point near the top of the bell, but out of a center thereof, as that the said hammer shall swing from a point near the edge of the bell into the top part of the interior of the bell, and vice versa, thus allowing it a downward velocity, and a very long movement, and at the same time allowing it to strike the bell near the edge, and at right angles, or nearly so, to its surface.

DOOR FASTENERS—G. H. Lindner, of Hoboken, N. J.: I claim the two catches, a and b, provided with hooks or curves, d, at their ends, which pass around the pin, D, attached to the still or lintel of the door or window frame, the catches being fitted within the case, B, which is attached to one of the doors or windows, the catch, b, being provided with projections, g, h, against which the bar, C, attached to the other door or window, acts substantially as shown, for the purpose specified.

FASTENING DOOR KNOBS—Nathan Benham, of Hartford, Conn.: I claim, in securing the shafts to door knobs, the use of the slotted shaft, F, with the wedge-shaped hole, D, as described, said shaft being opened by a screw or its equivalent, in the manner substantially as set forth.

SEED OF BROOM CORN—G. E. Burt, of Harvard, Mass.: I do not claim the setting teeth spirally on cylinders, I am aware they have been used a long time. Neither do I claim an endless belt constructed of any proper material having lugs or spikes, as described, in combination with comb rollers set diagonally upon a frame, as employed by L. D. Grosvenor, patented Sept. 23, 1851.

But I claim the combination of the wheel, B, or its equivalent, such as a rim or a circle, having one or more rows of teeth in its periphery with one or more cylinders, C, placed parallel or nearly so, with the plane of the wheel, B.

I also claim the bar, D, arranged in the manner and for the purposes set forth.

I also claim the spur roller, K, in combination with the plate, L, substantially as described.

SHOT GUNS—Geo. Buckland Edward Dorsch, of Monroe, Mich.: We do not confine ourselves to any particular number of divisions of the bore.

But we claim giving the bore the undulating form substantially as described.

MAGNETO-ELECTRIC MACHINES—Calvin Carpenter, Jr., of Providence, R. I.: I claim, first, the cut-off, consisting of the geared segments and gear wheels or wheel, and thus serving the purpose of springs, and driving a revolving prism, or its equivalent, for rapidly breaking the currents, substantially in the manner and for the purposes set forth.

ROTARY PUMPS—Thos. Crane, of Fort Atkinson, Wis.: I claim connecting the shaft, C, to the hub, D, in such a manner that without opening the pump case, the periphery of the annular piston, E, can at any moment be forced outwards into close contact with the periphery of the pump chamber, substantially in the manner set forth.

SASH FASTENER—T. G. Crooke, of New York City: I claim combining with the bolt of a self-acting latch, an engaging and disengaging catch constructed and operated substantially as described.

TEMPERING FURNACE—R. B. Fellows, of Shelburne Falls, Mass.: I do not claim the hardening or the plate, P, for drawing, when accomplished or employed separately by separate fires.

Nor do I claim the use of the tubes or the plate before mentioned, except when combined and arranged as described.

But I claim the combination of the plate, P, and the tubes, T, or their equivalents, with a single fire in the manner and for the purposes substantially as set forth.

WIRE—O. V. Florey, of Yellow Springs, Ohio: I claim the use of the ratchet brace, G, operating in connection with the ratch, H, sliding beam, D, and movable jaw, C, substantially in the manner set forth.

PLANING FELLIES—A. W. Fox, of Athens, Pa.: I claim the arrangement of the movable pinions, f, g, gearing respectively into the series of cogs, h, i, on the crown wheel, M, in combination with the device for gearing and un-gearing said pinions at the proper moments, substantially as described, whereby the carriage is automatically fed along slowly, then returned at a more rapid rate, and finally stopped, while the cutters continue to revolve with uniform motion.

I also claim the combination of the clamping apparatus, arranged as described, with the lever arms, O, L, and spring, P, for the purpose of automatically releasing the fellies, substantially as set forth.

I also claim the device for throwing the fellies from the machine, arranged, and operating substantially as specified.

BOILER REGULATORS—Wm. S. Gale, of New York City: I claim the lip, e, of the piston cap, F, and the spring, d, arranged in relation to each other and to the piston body, for the purpose of clamping the packing, b, set forth.

FLOOD GATES—Geo. W. Flanders, of Lynn, Mass.: I claim constructing the gate of one part, and hanging or hinging its lower end to the apron or bottom of the flume, A, substantially as described.

POLISHING LEATHER—Wm. P. Gamble, of Philadelphia, Pa.: I claim effecting the rectilinear motion of the flint or glass, when in contact with the leather upon the strap, by means of the compensating devices set forth and described, the said devices being constructed and operating substantially in the manner described.

CARRIAGE COUPLING—Wm. Greenleaf, of Greenfield, Ohio: I claim the application of the moving rods E F G H, the circular, T, plate, C D S, and the half circle, A O B, as described, or any other apparatus substantially the same, and which will produce the same effects.

SUBMARINE LANTERNS—C. M. Gould and C. B. Lamb, of Worcester, Mass.: We claim, first, the two concentric glass cylinders having an air space between them, in the manner and for the purpose specified.

Second, the air chambers, J and Y, with the communicating perforations, I H, and spring valves, J J, in combination with the feed and escape pipes, K F, constructed substantially in the manner and for the purposes described.

SIFTING COAL, &c.—Saml. Harris, of Springfield, Mass.: I claim providing the pins, a, a, on the underside of the cover, A, of the sifting box, B, in such relation to the bottom of the vibrating sieve, C, that when the top of the box is closed, and the sieve vibrated back and forth, they shall separate, the material being sifted, and thus improve and facilitate the sifting operation, and when the top of the box is opened they shall be out of the way, and thus allow for the convenient removal and replacement of the sieve, substantially as set forth.

OIL FROM COTTON SEED—A. A. Noyes, of Boston, Mass. (assignor to George Ashman and Chas. Phelps, of Springfield, Mass.): I do not claim any mode of crushing the matured seed or expressing the oil from the kernels.

I claim the manner of crushing cotton seed, after it has been separated from the cotton by the machinery usually employed so as to render the husk brittle and easily separable from the kernel.

SLIDE VALVES—Wm. M. Henderson, of Baltimore, Md.: I claim the arrangement of the valves and the means for operating them, as set forth, by which the entire exhaust is controlled by a non-pressure valve enclosed and working within the balanced cut-off induction slide valve, and worked by separate mechanism in the same plane. The time of cut-off and exhaust being variable at pleasure, and in no way connected or affected by the movements or operations of each other.

TAPERING WHALEBONE FOR WHIP HANDLES—Livers Hull, of Charlestown, Mass.: I claim combining with the cutter cylinder and the bed plate of the machine mechanism, substantially as described, to operate against and be operated by the sides of a stick of whalebone, and so as to control or regulate the vertical movements of the rotary cutter cylinder, substantially as specified.

I also claim constructing the cutter cylinder and combining it with the plate, C, as described, or by such devices as will enable it to be moved endwise, for the purpose specified.

MORTAR—H. W. Hunt, of Peekskill, N. Y.: and John Sands, of Greenwich, Conn.: We claim the combination of the annular bed, A, wheel, D, attached to the rotating C, and drag, E, these parts being constructed and arranged, substantially as shown for the purpose specified.

ENVELOPES—R. T. Knight, of Philadelphia, Pa.: I claim the lapping and interlacing of the ends and the full width of the back being the full width and length, turning over the enclosed letter, so that when the clasps are in, it is impossible to open it without detection.

Also the application of the metal clasps to the envelope and letter, or both together, making it one and the same parcel, and the better security of the letter, and also to fix the date of mailing the enclosed letter, which is highly important in many legal and public documents.

LOCKS—Wm. Maurer, of New York City: I claim the tumblers, B, having slots, e, made in them, as shown, in combination with the pins, A, of the bolt, and the lever, F, and bit, C, the above parts being arranged as shown and described for the purpose specified.

AUTOMATIC VALVE—Earl Parker and Wm. Reynolds, of East Hartford, Conn.: We claim the employment, when combined substantially as specified, of oil and water, or their equivalents, for the automatic closing or moving of the valve by expansion of the said fluids in their liquid state, essentially as set forth.

And we further claim the arrangement, essentially as specified, of the inner and outer bells, e, B, tubes, perforations or passages, c, d, h, and interior piston or valve, g, for operation, in the manner as set forth.

DOOR LOCKS—Andrew Patterson, of Pittsburg, Pa.: I claim the use and employment of a vibrating bolt which shall act as a brace between the seat in or the shaft on which it vibrates, and the jamb plate or keeper, into which it falls without any other lever, or any other point, and this I claim without reference to the manner in which, or the machinery by which the said brace bolt is operated.

CHARRING WOOD—S. S. Perry, of Charles City Co., Va.: I claim the process or mode of charring wood, or as it is commonly called burning charcoal, by the application of hot or heated air to the wood to be charred, as described.

GOVERNOR VALVE FOR STEAM ENGINES—H. H. Smith, of Cincinnati, O.: I claim the self-adjusting rings, combined with the eccentric, 5 and 6, or their equivalent, operating substantially as and for the purposes set forth.

FELT GUIDE OF PAPER MACHINES—P. H. Wait, of Sandy Hill, N. Y.: I do not claim the roll, D, nor the use of a roll to guide the felt, for this has been previously used in various ways.

But I claim the employment and use of two crooked levers, E E, hung upon pivots, L L, and operated by connecting rod, G, and guide pins or friction rollers, F F, against which the felt bears working the rod, G, and levers, E E, changing the position of the roll carrier and of the felt, substantially as shown, for the purposes set forth.

BOILER FOR COOKING BY STEAM—Edward Whiteley, of Boston, Mass.: I claim the trap, G, and cap, I, as arranged and applied to the vessel, B, whereby the latter may be employed either as a boiler or steamer, as set forth.

TREATING SURFACE SPRINGS—Anson Wolcott, of East Bloomfield, N. Y.: I am aware that placing an open barrel or box, so as to surround a spring, is not new, but in that case it does not admit of covering the same with earth, nor remedy the evil of soft earth or miry margins to springs, nor do they prevent surface water with impurities, nor insects from entering, nor prevent changes of temperature consequent to said open springs. I am also aware that closed cisterns for retaining water introduced into them, are not new, therefore I do not claim any of these methods.

But I claim the use of an inverted vessel, constructed with an edge susceptible of being forced into the clay pan through which the spring issues, said vessel provided with a discharge pipe, for the purpose of capping springs so as to admit of surrounding and covering the inverted vessel with clay, substantially as described.

BAZIN COCKS—Charles Harrison, of New York City: I do not claim either a screw valve or a basin cock operated by the pipe that passes the water, as these separate articles are well known. But I am not aware that the screw valve and bent pipe have ever before been combined with the stop, 6, that insures the said pipe being turned off from the basin in that direction which is necessary to screw the valve down on to its seat instead of further opening it as described.

I claim the screw plug, e, and its valve, 3, actuated by the bent pipe, f, when combined with the stop, 6, in the manner and for the purposes substantially as specified.

SOWING SEED BROADCAST—Jesse Lincoln, of Uniontown, Pa.: I claim the combination with the hopper, G, the seeding roller, H, provided with open cells, c, passing through it, and rocked through the hopper to receive and discharge the grain broadcast, substantially as described.

CORN PLANTERS—Edward P. Lacy, of Rochester, N. Y.: I claim in combination of the seat, S, with the treadle or foot lever, r, rod, r, bar, m, and racks and pinions, P P, the whole operating in the manner and for the purpose set forth.

SLATE FRAME—Edwin Young, of Philadelphia, Pa.: I claim a slate frame made of a single piece of wood provided with a groove to receive the edge of the slate, and bent so as to fit it, with the ends fastened together.

POLISHING BRUCKELS—Robert G. Pine, of Sing Sing, N. Y.: I claim the combination of the polishing and guide wheels, C D D, with the rotating and longitudinal moving shafts, E E, provided with clamps, F, the shafts, E E, working in yielding or elastic bearings, substantially as shown for the purpose specified.

SPOKE SHAVE—Martin Snow, of North Bridgewater, Mass.: I claim my improved manufacture of a heel or spoke shave knife, made of one piece of steel and with both of its starts bent or formed in the shape of springs in manner as specified.

MAKING ENVELOPES—W. W. Cotton, of New York City: I claim, first, operating the feeding, gumming, partial, and complete folding, pasting, and delivering devices from two shafts, so united that the rotary motion of one shall give a rocking motion to the other, substantially in the manner described.

I also claim the feeding up of the blanks by the two feeding plates, each one carrying it up a portion of the distance and delivering it against the stops or guides from whence it is carried through the machine and completed.

I also claim the combined operation of the paste box and pasters, the former operated from the rock shaft, and the latter from the revolving one, through the intervention of devices substantially such as set forth.

I also claim in combination with the block, P, the folders, 1 2 3 4, the hinged points of which are covered and the swell of the hinges facing each other for the purpose and substantially in the manner set forth.

I also claim in combination with the holders, 1 2 3 4, the sliding cam plates, C', with their several connections for operating the folders in the manner and order substantially as described.

REGULATING PUMPS BY WIND WHEELS—Jacob W. Goodwin and Moses C. Hawkins, of Edenborough, Pa.: We claim, first, the construction of a wind wheel with the said shafts like a funnel and always presenting the open ends of those on one side of the wheel to the blast.

Second, we claim the construction of the float, M, and the lever, O, with the elevating rod, P, in combination with the wheel, H, so constructed in the manner described as to be raised and lowered by the rising and falling of the float, M, or of the intermediate or by any other construction substantially the same and which will produce the same results.

VALVES FOR HYDRAULIC ENGINES—John D. Heaton, of Dixon, Ill.: I claim the construction, use and application of the cutting or vibrating band valve devices, T C C C, hung on or attached to an axle or shaft, e, e, and operated by the slotted connection rod, J W, and wrist pin, S, as set forth.

I also claim in combination with the said valves the construction and arrangement of the water chests or the chambers, C C D D, the compartments, F C E H, with the pipe, J, K, substantially as described.

CHUCK FOR LATHES—Michael Neckerman, of Pittsburg, Pa.: I do not claim the beveled toothed rim, F, nor the pinions, f, on the screws, D, by which the jaws, B, are operated, for this device has been previously used.

But I claim the annular rim, E, having inclined projections, i, attached to it, the projections, j, fitting or working over projections, i, on the back of the groove, h, the toothed rim, F, being placed over the rim, E, the above parts being arranged substantially as shown for the purpose set forth.

BENDING WOOD—Edward J. Udeggraf, of York, Pa.: I claim the method of operating the form upon which the wood is bent by bringing it hard down upon the platform by means of the screw, v, and giving it motion by means of the platform beneath it, whether endless chain or otherwise, as above described, separately and in connection with the arrangement of the wheels, F and I, the screw, o, the spring, u, the frame, K, and the slide, H, substantially as set forth.

PIPE MOLDING—John Demarest, (assignor to the J. L. Mott and Wm. W. Demarest, of New York City): I claim bars have been made with wings between which to pack the sand, and which have effect to bind and hold the sand forming the core, this I do not claim.

And I am also aware that core bars have been made with branches connected therewith by dovetail joints, so that the branches of the core bar can be separated in the pipe after the pipe has been cast, as heretofore made, and required to be sustained centrally in the mold by inside bearers, which injure the castings. I do not, therefore, claim the connecting of the branches with the main core bar by dovetail joints irrespective of side wings or plates which rest on the surface of the flask to sustain the branches in a true central position without bearers.

I claim making core bars for molding curved elbow or other pipes, and other such like pipes, with sustaining plates or wings at the ends, substantially as and for the purpose specified.

WASHBOARD—Royal Hatch, (assignor to Henry C. Hatch, of Stafford, Va.): I do not claim the beaded rounds, E, of the board, as shown, v, if secured in the frame of the board, as shown, viz., by having tenons on the ends of the rounds fitted in the grooved rails, B B, and the beads, e, of every alternate round fitted in the cavities, d, of the intermediate rounds as shown and described for the purpose specified.

BOXES FOR AXLES—Julius Bevin, (assignor to himself and Sam. N. Stillman), of Unadilla Forks, N. Y.: I am aware that hub boxes with a flange to partially close the hub at the end of the axle without a score behind it have long been in common use, therefore I do not claim a box with a flange without a score behind it.

But I claim the new manufacture of the hub box described for wheels which turn upon their axles, to wit, a hub box with a score or groove behind a flange which partially closes the end of the box, said score affording room for the washer to play within the flange and it also receives a packing to prevent more effectually the escape of the lubricating matter and to exclude the dirt from the box and axle, substantially as described.

R. R. CAR BRAKES—R. M. Evans, (assignor to R. M. Evans and Chas. S. Gale), of Leconia, N. H.: I claim the arrangement and combination of slots, a, a, of the brake rod, D, with the chains, f, g, and brake levers, b, c, in such a manner that one of each pair of levers will be operated immediately by the brake rod at the end of its respective slot, while the other lever of each pair will be moved in the other direction by the action of said chains in which ever direction the cars may be moving, substantially as described.

OIL CANS—Thomas Priestly, (assignor to Daniel Holden, of Saxonville, Mass.): I claim combining with the oil vessel, A, and arranging with respect to the discharging tube, B, thereof, substantially as described, a weight, C, whereby when said oil vessel is over set, the gravitating power of the weight may move the discharge tube into a position from whence no fluid or oil may escape from it.

I also claim arranging the air inlet tube, so that its opening into the air vessel and its opening for the reception of air shall be on opposite sides of the axis of the vessel or with respect to the weight and oil discharge tube, essentially as specified.

MAKING ENVELOPES—Wm. H. Lowe, of Albany, N. Y.: I am aware that atmospheric pressure has been employed in envelope machinery simply for the purpose of feeding the blanks to the folding apparatus. I therefore do not claim its use for that purpose.

I claim, first, the cutting out of the blank by a shearing cut, substantially as described, and for the purpose of making a smooth cut.

Second, I claim the position of the knife to economize the waste of paper, substantially as described.

Third, I claim drawing the blank through the hole in the face plate, B, thereby giving to the flaps a preliminary fold.

Fourth, I claim holding the blank by means of atmospheric pressure while the folders are operating.

Fifth, I claim the adjustable blocks, j j j j, substantially as described.

Sixth, I claim drying the gum for the sealing flap by means of a current of heated air.

Seventh, I claim the use of paper to the knife by means of the feeding rollers, o o.

Eighth, I claim the c m movement, substantially as described, in combination with the hollow slide, D, and for the purposes set forth.

Ninth, I claim the mode of folding the finger, R, substantially as described and for the purposes set forth.

HEATING AND VENTILATING BUILDINGS—John Sawyer, (assignor to himself and Thos. Hale), of Pittsburgh, Mass.: I am aware that a smoke pipe has been enclosed in a casing so as to leave a space around the said pipe for the reception and heating of external air, and carrying the same into one or more apartments of a building. Therefore I do not claim such, but a peculiar combination and arrangement of the smoke pipe, air heating chamber, hot air flue, and ventilating chamber.

I therefore claim the described arrangement of the ventilating chamber, G, with the main hot air flue, F, the smoke flue, B, and air heating chamber, A, the ventilating chamber and hot air flue, having valves applied to them, as specified, the whole being capable of being used in heating and ventilating the apartments or stories of a building.

PRINTING PRESSES—George P. Gordon, of New York City. Patent dated Aug. 5, 1854: I claim, first, a rotating reciprocating platen, operating substantially as described for the purpose specified.

Second, the arrangement of two slide arms so combined as to form a frame to carry the inking rollers both forward and backward over the form for each impression.

Third, throwing a vibrating bed from the point of its receiving the inking rollers, as described, directly to the impression, by means of toggles arranged as shown, or in an equivalent way, so that said bed after receiving the impression will be allowed to receive or fall back to its original position by its own gravity.

Fourth, the combination of the vibrating bed with the roller frame, composed substantially as set forth.

Fifth, the grooved cam shaped guides or their equivalents for throwing the frisket or its equivalent in the proper direction and holding it in the desired positions during the intervals of rest given to the platen for the purpose specified.

ADDITIONAL IMPROVEMENTS.
VENTILATING R. R. CARS—George F. Foote, of Buffalo, N. Y. Patented July 11, 1854: I claim a small door that may be opened or shut in connection with and as part of a car window, that may be raised or opened in the usual way, as described.

GRAIN BINDERS FOR HARVESTERS—George W. N. Yost, of Pittsburg, Pa. Patent dated Jan. 1st, 1856: I claim, first, the long lever, m, operated by projections, b, 2, 3, and spring, p, for the purposes set forth.

Second, I claim the arrangement and combination with the cams for operating the compressor, the lever, d, bevel gearing, j i i, and pulley wheel, e, on the pinion shaft, all arranged and operating for the purpose set forth.

Third, I claim the guards, t, t, for the purposes substantially as set forth.

CONSTRUCTING WALLS AND FLOORS OF CELLARS—A. R. Moen, of New York City. Patent dated Feb. 26th, 1856: I claim the mode described of forming walls and floors by combining into one mass the water cement and asphaltum or its equivalent by means of the solid building materials as fully set forth, by which the asphaltum or its equivalent is caused perfectly to adhere to the bricks or stone of the wall built with a water cement, which also adheres to the same stone or brick as described.

CHANDLERS—Samuel B. H. Vance, of New York City, assignor to Mitchell, Bailey & Co., of Connecticut. Two patents.

PARLOR STOVES—N. S. Vedder & Wm. L. Sanderson, (assignors to Sanders, Wolfe, & Warren), of Troy, N. Y.

NOTE—Never were the inventors of our country more numerous and active than at the present time, as the above long list of patents issued last week evinces. The acting Commissioner, the Examiners, and in fact all the employees in the various departments of the Patent Office have, we apprehend, but little time unoccupied these days.

To forcibly illustrate the activity existing among our inventors at the present time we would state that during the month of March, just ended, the specifications and drawings of no less than one hundred and thirty-four applications were prepared at this office alone for American and European patents!—a larger number, we presume, than ever passed through a single Agency since the existence of a patent system in any country.

In the above list we recognize the names of FIFTEEN patentees whose papers were prepared at this office—being about one-third the whole number—our usual average.

Extension of a Patent.

A petition has been presented to the Commissioner of Patents by J. N. and S. W. Lesh, Z. Beeson, and D. Bowman, administrators of J. Deardorff, deceased, of Wayne Co., Ind., praying for the extension of a patent granted them on June 27th, 1842, for a "Steam Generator." The petition will be heard at the Patent Office on Monday the 16th of June next, at noon, and persons who have any objections to the extension are notified to appear there and show cause why it should not be granted. Those opposing the extension are required to file their objections in the Patent Office twenty days before the day of hearing, and all testimony taken must be closed on the 6th of June and transmitted to the Commissioner.

Dressing Saws.

A correspondent informs us that the method pursued by him in dressing saws is to use an iron disk running at the rate of 2500 revolutions per minute for cutting the teeth, and then a small grindstone afterwards to dress and reduce them to the proper shape.

The wreck of the iron steamer *Curlew* on the rocks off Bermuda, as noticed by us last week, was due to the bad conduct of the Mate. Recent news from that place state that he kept no look-out. The water-tight compartment of the bow kept that part of the steamer above water until all got off the wreck.

Dangerous Hair Dyes.

Dr. Taylor states that oxyd of lead is extensively used for coloring the hair, which, combining with the sulphur in the hair, produces a dark color; and he had known a case where partial paralysis was caused, owing to the absorption of the oxyd of lead by the skin. When the hair dye was discontinued the effect ceased.

Vertical steam engine for sale; see advertising columns.