knife at the heading end, and do not wish to be understood as claiming any such devices.

But I claim the application of the c tter, D, acting against the cutting edge, a, of the feed rest, D′, and the dies, S and S′, operating as set forth, in combination with the reciprocating carriage, C, vibrating lever, L, and header lever, G, with its header, F, the whole constructed and operating substantially as described.

SAW MILLS—Charles Strong, of Hartford, Vt. : I claim the arrangement shown and described of the working levers, A A, axis, B, oscillating pendants, D D′, bracket lever, E, hinged at b b′, to levers, A A, and at g g′, to braces, G G′, and stirrups, F F′, counter levers, k k, straining rods, o o, and rockers, p p′, the above parts being combined and operating substantially as and for the purposes set forth.

PLOWS—Turney Sanford, of Redding Ridge, Conn. : I claim the bars, D D, F F, in connection with the metallic rods, G H, and braces, I I, the whole being constructed and arranged relatively with each, and the standard, C, land side, A, and moldboard, B, as shown and for the purpose set forth.

[This plow has its beam rendered adjustable both vertically and laterally, and capable of being secured at any desired point for the purpose of regulating the depth and width of the furrows.]

SEED PLANTERS—D. L. Tilton, of Mount Carmel, Ill. : I claim the arrangement of the vibrating block, D, adjustable bracket, E, with or without the valve, H, in the described combination with the hopper, C, for the purposes set forth.

GARDEN TOOLS—H. Von Unwerth, of Salem, Mass. : I claim the combination of the weeder, trowel, and dibble, substantially as described and for the objects specified.

CORN HUSKERS—L. F. Ward, of Marathon, N. Y. : I claim the belt, k, armed with teeth, L L, in combination with the stationary prongs, N N, which catch and hold the husks and yield to let the ears of corn pass or be carried forward by the belt and teeth, so as to separate the corn from the husks.

And in combination with the belt, k, armed as above described, I claim the wires, M M, to clear the husks from the underside of the ears of corn.

I claim the wires or prongs, Q Q, or their equivalents, to clear the husks from the teeth, L L, on the belt, k, substantially as described.

I claim the arches, G G, constructed and arranged substantially as described in combination with the rotating knives for severing the butt-stalk from the ears of corn.

WHITE-WASH BRUSH BLOCKS—Charles Williams, of Philadelphia, Pa. : I claim, first, The permanent rests, or gages, C C, and in combination with the same, the slitted and serrated tongue, B, substantially as and for the purpose set forth.

Second, Covering the blade with serrated metal substantially as and for the purposes set forth.

Third, The slits, F, in the tongue forming part of and intersecting with each tie-hole, E, as and for the purposes set forth.

LIGHTING GAS BY ELECTRO-GALVANIC BATTERIES—Archelaus Wilson, of Boston, Mass. : I claim combining with a gas or other burner a vibrating electric conductor, substantially as and for the purpose specified, so that after producing ignition, the conductor shall be removed from the flame, substantially as described.

And I also claim the employment of the motive power of an electro-magnet with the combined vibrating electric conductor and burner substantially as described.

SHOE PEG MACHINE—Alijah Woodward, of Keene, N. H. : I do not claim a fluted feed roller and splitting knife combined irrespective of the manner in which the combining is effected.

Nor do I claim the arrangement of the roller in an adjustable frame which cannot be adjusted without injuriously affecting the feed movement of the roller.

But I claim giving an uniform and arbitrary intermittent rotary motion to the fluted feed roller, whatever may be its adjustment, by means of two bevel wheels, k l, peculiar screw cam, l, worm wheel, k, and pinions, i j, arranged as follows :—One of the bevel wheels being on the upper end of a vertical shaft, and the other which must always gear with the first, being on the end of the fluted roller, and both being adjustable so as to suit different thicknesses of peg blocks, without getting out of gear with one another, and with the driving shaft; the cam being so constructed, and its screw thread arranged in such relation to the eccentric pin, which moves the splitting knife, that the feed or movement of the block will always cease or be completed before the knife commences to descend and again commences just as the knife has completed its ascent, all substantially as and for the purpose set forth.

[See a description in another portion of this paper.]

STRAW CUTTERS—Thomas H. and Daniel T. Willson, of Harrisburg, Pa. : We clai , first, The arrangement of axis of the driving pinion to the yielding feed roller above the axis of said roller as describe , when said yielding feed roller vibrates in vertical guides for the purpose set forth.

Second, Constructing the feeding trough with inclined openings in its bottom, arranged as described, in order to facilitate the passage of the dirt, and prevent the short pieces of fodder from escaping.

Third, Constructing the lower feed roller with openings in its periphery for the escape of the dirt or other hard materials which collect upon it during the passage of the fodder between the rollers.

Fourth, The combination of the longitudinal ribs on the lower feed roller with the openings in its periphery for the purpose described.

HARVESTERS—Benjamin Zeakel, of Allentown, Pa. : I claim the combination of the finger, Q, cutters, R, and guard, S, arranged and constructed substantially as described.

OSCILLATING STEAM ENGINES—J. S. Barden, of New Haven, Conn., assignor to himself and Aaron W. Rockwood, of Boston, Mass. : I do not claim applying the cylinder and the steam chest of a steam engine together, in such manner that the cylinder may turn on the steam chest.

Nor do I claim confining them together under such circumstances by means of an arched bar or strap to extend or turn around or slide on a semi-cylindric surface of the same radius as that of the curved out r surface of the steam chest, such being shown in the drawings of Letters Patent granted to me by the government of the United States of America, and numbered 14,335 and 18,718,

But I claim combining with the semi-cylindrical steam chest, H, and the yoke or bar, I, substantially in manner as specified, a small rocker bearing p, socket, o, and spaces, q q, arranged between or with respect to the valve chest and bar essentially as set forth.

I also claim the above described arrangement of the induction and eduction chambers and their ports in the semi-cylindric steam chest.

I also claim the application and arrangement of the two separate rotary cut-offs, r r, within the induction chamber, d, and with respect to its two sub-ports, h i, as specified.

I also claim the combination of mechanism for operating the two cut-offs, the same consisting of the secondary crank, M, the slotted rocker lever, L, the cranks, S S, and the connection bar, K, or its mechanical equivalent

I also claim applying the wrist of the secondary crank, M, to the wrist of the Primary crank, so that the former may be adjustable with respect to the axis of the primary crank as and for the purpose specified.

CARPET BEATING MACHINES—Joseph Harris, Jr., of Roxbury, Mass., and Daniel Holmes, of Chelsea, Mass., assignors to said Holmes : We claim the use of the elastic whips, a, connected together at their ends by the cord, g, in the manner and for the purpose substantially as described.

Second, We claim placing an elastic cushion, L, in front of the carpet for the whips to strike on in the manner and for the purpose substantially as described.

Third, We claim the vibrating beaters, f, for beating the opposite surface of the carpet, arranged and operating substantially as specified.

CONSTRUCTION AND ARRANGEMENT OF THE WEIGHING MECHANISM APPLIED TO CARTS OF COAL DEALERS AND OTHERS—John Hartman, Jr., (assignor to John Hartman, Sr.,) of Philadelphia, Pa. : I claim, first, Supporting the platform lever, C and C′, directly upon the axle tree, E, and the cross-piece, F, which is fixed to the thill timbers, substantially in the manner and for purposes set forth and described.

Second, I claim the use of the friction rollers, l l, so that their axles shall serve as the weight points to the levers, C and C′, the same baing applied to the levers so as to operate substantially in the manner and for the purposes set forth and described.

Third, I also claim the combination of the vertically slotted plates, t f, rigidly fixed to the axle-tree, E, and the thill pieces, B B, as described, with the friction rollers, g g, working in the said slots and upon the journals, h h, fixed in the frame of the cart body as described, so as to operate together in the manner and for the purposes set forth and described.

SCISSORS SHARPENER—George Hinman (ssignor to himself and John H. Pardee), of New Haven, Conn. : I claim making or producing a scissors sharpener as a new article of manufacture, when constructed and made to operate substantially in either of the ways particularly described and set fort .

MANNER OF ATTACHING LEGS TO WALKING LOCOMOTIVES—S. G. Hoge (assignor to himself and R. H. St John, of same place, and J. E. Leas, of Dayton, Ohio), of Bellefontaine, Ohio : I am fully aware that machines or land conveyances have been moved or actuated by leg-like or perambulating devices, such, however, as an original principle of invention, I do not claim.

But I claim the construction and arrangement of the sliding bars, o o o o o, with pendent hinged legs or perambulating devices, P P P P, and the combination thereof, with the connecting rods. n n, and the wheels, I I I, J J J, when operated substantially in the manner described and set for h.

CARRYING OFF SMOKE FROM LOCOMOTIVES IN ENGINE HOUSES—J. O. D. Lilly, J. L. Vauclain, and J. W. Lilly, of Lafayette, Ind. : We do not intend to claim the movable hood as new in itself.

Neither do we claim, broadly, the idea of conducting smoke from a movable furnace into a stationary flue.

But we claim the described construction and arrangement of the movable hood, F, or its equivalent, adopted to fit closely over the top of a locomotive funnel, when used in combination with conducting flues, D E, stationary furnace, B, and stack, C, for the purposes specified.

BRICK MACHINES—Daniel Lombard (assignor to himself and G. F. Richardson), of Boston, Mass. : I claim combining with the brick-making machinery a means of heating the condensory roller, F, as described.

I also claim the combination of the gage E, constructed as described, the scraper, G, and the condensing roller, F, with the hopper, B, the molding wheel, C, and mixers, D D, the whole being arranged as and for the purpose specified.

OMNIBUS FARE BOX—I. S. Reeves (assignor to himself and J. B. Slawson), of New Orleans, La. : I claim the glass plates, i and f, as arranged in connection with the sliding table, m, the whole being operated in the manner substantially as and for the purpose set forth.

LATHE FOR CUTTING TENONS FOR CLOCK MOVEMENTS—Russel Peck, of Bristol, Conn., assignor to himself and G. H. Wooster, of New York City : I do not claim any of the described parts separately or irrespective of the arrangement as shown, for they or their equivalents, when separately considered, have been used for analogous purposes.

But I claim the clamp formed of the bars, J K, when arranged and combined with the mandrels, C C, and gage, I, substantially as and for the purposes set forth.

[The inventor employs two cutter heads attached to vibrating mandrels, so arranged that both operate or move simultaneously, and uses in connection with them a clamp peculiarly constructed, and a gage, the whole being arranged to cut tenons in metal bars with ease and perfection.]

SPRING-BED BOTTOMS—Chas. Schroeder, (assignor to himself and P. H. Tuska), of New York City : I am well aware that helical springs coiled upon rods have been employed in bed bottoms, &c., and, of course, I make no claim broadly to that device.

But I claim the spring bottom constructed as described.

WASHING MACHINES—Benjamin R. Smith, of East Whiteland, Pa., assignor to John Hellings, of West Whiteland, Pa. : I claim the combination of the guides and bearers, with the seat of the queen post, and the lever hook, F, as before set forth, for the shifting of the movable worker from its concave bed.

RE-ISSUES.

MOLDS FOR CASTING PENCIL SHARPENERS—W. K. Foster, of Bangor, Me. Patented April 17, 1855 : I claim, in combination with the matrix for casting or forming the hollow conical or bell-shaped body of a pencil sharpener, essentially as described, a device or mechanism for holding the blade in the matrix, and one for forming the chip throat of such blade and body during the process of casting or founding the said body on the blade as specified.

And in combination with a device or mechanism for holding the blade in the matrix,

I claim a slider or device for supporting its back while such blade is in contact with the core and the throat slide or former.

I also claim making the core, d, with a groove, b′, arranged in its outer surface in manner and for the purpose as set forth; or in other words, combining with the said core and the mechanism for holding the blade, a groove arranged in the core, substantially in the manner and for the purpose specified.

I also claim the mode of making the throat slide or chip mouth former, A, viz., in two parts or plates, j, p, applied respectively to the two parts, i l, of the mold, essentially in manner and for the purpose as described.

I also claim combining with the base, a, its core, d, and the parts, i l, of the mold, when applied to each other substantially as described, and adjustable gage or stop, k, arranged on the base plate or in other respects so as to operate essentially as set farth.

PRINTING PRESS—George P. Gordon, of New York City. Patented Aug. 31, 1852 : I wish it to be distinctly understood that I do not claim the periphery of a cylinder, as a necessary form for a distributing surface for the ink, nor the segment of a cylinder to form a place for the impression works, bed, and forth of types, so arranged as to be held by catches or stops in a proper position to receive the impression, or to be turned over any required distance to receive the form, as in the Voorhees press.

But I claim, first, The arrangement of a distributing cylinder or segment of a cylinder, or other suitable form of distributing surface which shall always be held or fixed in the desired position, without resort to stops, latches, or other secondary and movable attachments, and at the same time allow the rollers, or sets of rollers, to move unimpeded in an onward direction around or over it, for the purpose of distributing the ink evenly, and meeting and inking the form of the types in their transit, one set after the other, at each succeeding passing over the distributing surface and form of types performing its proper duties, the whole being one continuous operation.

Second, I claim carrying two or more sets of rollers, in an onward direction around and over a distributing surface or surfaces and a type-bed, when such sets of rollers shall admit an impression to be taken immediately after the passage of each set of rollers consecutively, whether the rollers are carried in the precise manner set forth, or by some equivalent mechanical contrivance to produce a like result—that is to say, the allowing of several sets of rollers, alternately or consecutively to pass over or around the distributing surface and the form of types, and admit of an impression to be taken between the time one of the sets of rollers leaves the form and the next set arrives at it, for the purpose of giving a slow motion to the inking with rapid impressions upon the same form of type, thus effecting more speed as regards the number of impressions in a given time, as set forth.

Third, I claim the arrangement of a fixture to the frame and forming a part thereof, one on each side of the press extending inwards towards its longitudinal center of tubular projections or studs, or staves, or shoulders, or their equivalents, for the purpose of supporting both the bed and inking apparatus, or either of them, upon such tubes or projections while at the same time the frame or roller carriage may be snugly fitted to the outside of such tubes, so as to have its bearing and revolve upon it, and the projecting tubes form the journal boxes in which the main shaft rests and revolves, each of these by different gearing and at different speeds, if need be, so that by the use of such projecting studs may be effected change of speed between the inking rollers and the impression shaft, all working upon and from one general center.

Also the separate revolving of the rollers upon the outside of the same, regardless of where the main may be placed, studs forming supports for the inking and impression apparatus.

Fourth, I do not claim the continuous sheet, nor feeding a continuous sheet of paper to a printing press, but I do claim the arrangement of the gage, l, guides, 2, pawl b, cranks, S, and d′, rod, e′, pin, f, and wheels, a″, in combination with the shears for cutting off the sheet after it is printed, and the cam, y, from which it receives its motion, the whole of the parts operating as described, all of which is fully described and set forth.

SAFETY INDICATORS FOR STEAM BOILERS—Lucius J. Knowles, of Warren, Mass. Patented Feb. 10, 1857 : I do not claim a single expansion chamber or vessel connected with the steam space and also with the water in the boiler, for the purpose of either regulating the feed of the pumps or of sounding an alarm.

But I claim the described arrangement of the vessels, C and D, as applied and connected with the feed pumps and steam whistle, for the purpose of regulating the pump and sounding an alarm, as set forth.

Second, I also claim connecting the pipe, I, with the boiler, by means of the feed pipe, B, as set forth for the purpose described.

BILLIARD CUES—Conrad Leicht, of New York City. Patented May 27, 1856 : I claim my mode of providing said cue tops or the cues with screws, and adjusting them to each other in the manner as above substantially described.

CARDING MACHINES—S. R. Parkhurt, of New York City. Patented June 20, 1848 : I claim the application of the steel ring toothed cylinder, or cylinders, to act as combers, workers, or doffers, in combination with common wire tooth carding, for the purpose of quicker and more effectively opening wool and other fibrous materials, substantially in the manner described and shown.

ADDITIONAL IMPROVEMENTS.

LIME KILNS—Powell Griscom and Chas. S. Denn of Baltimore. Patented Nov. 17, 1857 : We claim the combination of the transverse partition, M, with the oblong inverted pyramidal basin, B, oblong stack, E, and enlarged draft flues, L, when said fluesare used as auxiliary furnace doors, the whole being arranged substantially as and for the purposes set forth.

[This is described on another page.]

EXTENSION.

STRAW CUTTERS—H. M. Smith, of Richmond, Va. Patent dated Feb. 20, 1844 : I claim the combination of the guard, H, with the curved knife, and arm constructed and operating for the purpose described and set forth.

DESIGNS.

COMPASS STANDS—E. A. Tuttle and Thomas Barry, of New York City.

TEA AND COFFEE POTS—Allen Leonard, of Hartford, Conn., assignor to Rogers Brothers Manufacturing Company of the same place.

STOVE PLATES—N. S. Vedder and Ezra Ripley (assignors to Louis Potter), of New York City.

Hellebore.

In pharmacy this name is given to the roots of both the black and white hellebore. The root of the black has a bitter acrid taste, and is a drastic purge and emetic; the white is more active in its operation. It was formerly used to cure gout, and was considered a specific for madness. For these purposes it has now fallen into disuse. A simple diet has replaced it in the one case, and attention and kindness in the other.

The Sun's Distance.

It will be remembered that a United States Naval and Astronomical Expedition was fitted out with Professor J. M. Gillis at its head, to make observations in Chili in 1849, for determining the sun's distance accurately. The observations extended through parts of four years, at proper intervals from 1849 to 1852, and were very varied in their character. The data obtained for them have required an immense amount of calculations since the return of the expedition. This has, at last, been accomplished by Dr. B. A. Gould, Jr., of Cambridge, Mass., and his report will soon be published. The result obtained by him for the sun's equatorial horizontal parallax is 8″·4950 or 0″·0762 less than the value commonly adopted, corresponding to a distance from the sun of 96,160,000 statute miles. This information is of high interest to astronomers.

Recent Patented Improvements.

The following inventions have been patented this week, as will be found by referring to our List of Claims on another page :—

COTTON PRESS.—The object of this invention is to obtain, by the most simple means, a press that may be operated with the least possible degree of friction, and that will have a progressive or variable power, so that the power is increased and the speed correspondingly decreased, as power is required, and the speed increased and power decreased as less power is wanted. Provision is also made for the adjustment of the plungers or followers, so that the relative working distance between them may be increased or diminished as required. These objects are attained by the peculiar arrangement of a system of levers, which without diagrams we could not render intelligible. Suffice it to say that it is a simple and good press, and was invented by Eugene Duchamp, of St. Martinsville, La.

EXPANDING REAMER.—The reamer is a tool for enlarging a hole already made in metal or other material, and is in general use among mechanics. J. Greenhalgh, Jr., of Burville, R. I., has invented (and assigned to Joseph Greenhalgh, Sen., and D. T. Howard, of Blackstone, Mass.) a new expanding reamer, which consists of two cones so arranged that they will send out the strips, which work in slots, and carry the cutting edge, both at the top and bottom equally, or at an angle, the one to the other; another improvement is in combining a drill with the reamer.

MACHINE FOR SPLITTING BOOT AND SHOE PEGS.—Abijah Woodward, of Keene, N. H., has invented a machine for this purpose, the object of which is to give a positive feed motion to the block or bolt from which the pegs are split, so that the bolt may be moved precisely a certain distance at each upward stroke of the knife, and be in a proper position each time the knife descends upon the bolt to perform its work. The several parts comprising the feed movement are arranged so that the block cannot be moved accidentally or incidentally. The arrangement also allows the adjustment of the feed roller to suit bolts of varying thickness without at all affecting the proper feed motion.

COTTON BALE HOOP.—It has long been a desideratum with the cotton-planter and merchant to secure a hoop for baling cotton which would answer all the ends of the hemp cord, and yet be free from that destructible combustible nature possessed by hemp, and which, when the bale takes fire, facilitates its destruction instead of retarding it. Several plans of metal hoop have been patented and brought before the public of late; and while these go a great way towards answering the main end in view, and would, if adopted, retard the destruction of the cotton bale by fire, they for some reason have failed to warrant and induce a universal abandonment of the combustible hemp cord, and the substitution of the metal hoop therefor. The present improvement appears to be peculiarly adapted for the purpose intended, as it is simple, neat, cheap, and durable, and not at all liable to get loose at the lock-joint, there being no pin, loop, or other holdfast beside the lock formed on the ends of the metal hoop. It is the invention of John McMurtry, Lexington, Ky.

LIME KILNS.—This is an improvement on a lime kiln patented by Powell Griscom and Charles S. Denn, of Baltimore, Md., on Nov. 17, 1857. The present improvement consists in dividing the oblong stack and basin claimed in their former patent into two chambers, by means of a central partition, and furnishing the oblong furnaces with side feed doors, thus dividing the stack, and providing two draw pits through which to withdraw the lime after it has been burned. It also increases the draft, and allows a much larger kiln to be used without at all affecting the even settling of the lime. When but a small quantity of lime can be sold, only one chamber may be employed, and then when the sale is more brisk, both chambers may be used; and the quantity of lime burned and kept on hand thus regulated according to the demands of the market; and by making the side draft flues answer as auxiliary furnace doors, the fuel can be introduced in a manner to keep up a uniform heat from end to end of the furnace chamber. This is a good kiln, and may be seen in practical operation on a large scale in Baltimore, Md.