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Advantages of Trees.

We do not know the author of the following beautiful and comprehensive notice of trees, but we think its perusal will cause many of our readers to involuntarily and heartily respond to the familiar and popular language of the song "Woodman spare that tree" :—

How beautiful, most beautiful of earth's ornaments, are trees! Waving out on the hills and down in the valleys, in wild wood or orchard, or singly by the wayside, God's spirit and benizon seem to us ever present in trees. For their shade and shelter to man and brute; for the music the winds make among their leaves, and the birds in their branches; for the fruits and flowers they bear to delight the palate and the eye, and the fragrance that goes out and upward from them forever, we are worshipful of trees.

"Under his own vine and fig tree"—what more expressive of rest, independence and lordship in the earth! Well may the Arab reverence in the date-palm a God-given source of sustenance. Dear to the Spaniard is the olive, and to the Hindoo his banyan, wherein dwell the families of man, and the birds of heaven build their nests. Without trees what a desert place would be our earth—naked, parched, and hateful to the eye! Yet how many are thoughtless of the use and beauty of trees. How many strike the ax idly or wantonly at their roots. Above all other things in the landscape we would deal gently with trees. Most beautiful where and as God plants them, but beautiful even as planted by the poorest art of man, trees should be protected and preserved.

If he is a benefactor who causes two blades of grass to grow where one grew before, how much greater his beneficence who plants a tree in some waste place, to shelter and shade, to draw thither song birds, and to bear fruit for man. Plant trees, O man, that hast waste land, and be careful of those that are planted.

Castor Oil Electuary.

Many processes have been devised for disguising the taste and appearance of castor oil. Valuable as this medicine is, many persons' stomachs revolt at taking it in an undisguised form. To overcome this repugnance, to give a concentrated form, and diminish as much as possible the quantity of the medicine, the following excellent formula has been devised by Mr. Septimus Piesse:—Take castor oil, three ounces; Castile soap, one drachm; simple sirup, one drachm; oil of cinnamon, or ottar of rose, six drops. Rub the soap with the sirup in a mortar; when perfectly blended and smooth add very gradually, and with constant trituration, the above ingredients. By these means a gelatinous electuary will be formed, rather palatable than otherwise, and nearly equal, bulk for bulk, to castor oil in strength.

SCOTT'S IMPROVED LOOM.

Fig. 1

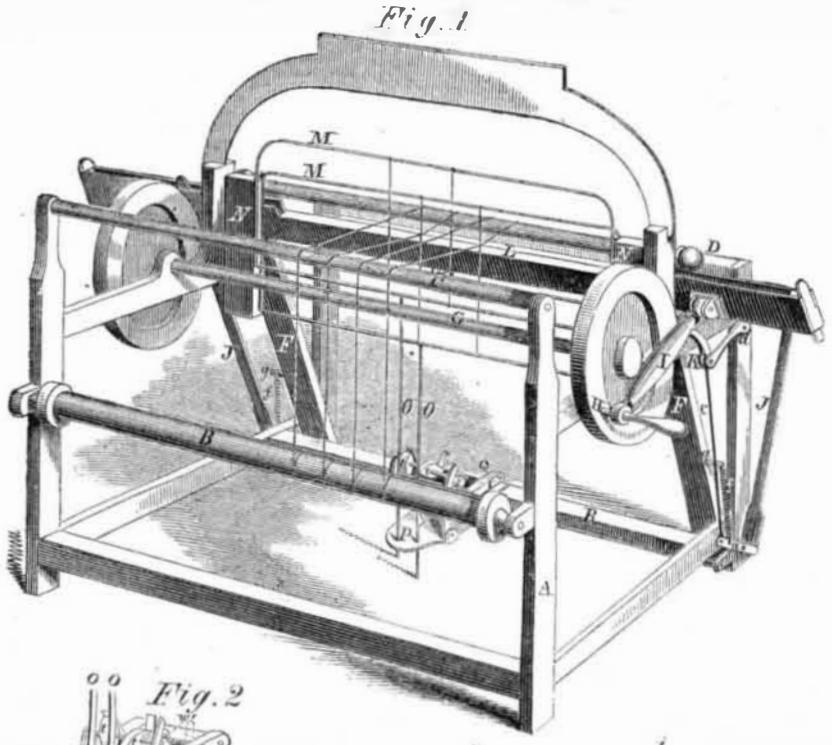
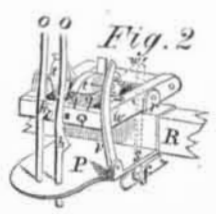


Fig. 2



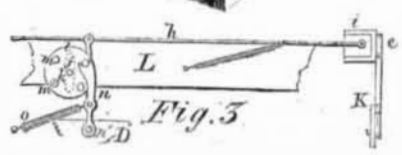


Fig. 3

The loom is about one of the oldest of machines, and to develop the simple framing depicted on Egyptian tombs to the power loom of to-day, has called forth much inventive genius and constructive skill. Still the loom is not perfect, and is yet capable of many improvements, the last, and a valuable one, being the subject of our illustration. It is the invention of E. M. Scott, of Auburn, N. Y., and was patented this week. It provides for the operation of the shuttle motion and harness motion by the movements of the lay, thus dispensing with the cam shaft and treadles, and simplifying the construction of the loom.

Fig. 1 is a perspective view of the improvements, in which A is the frame, B the yarn beam, C the whip roll, D the breast beam, and F L the lay. G is the main shaft, H the cranks for moving the lay, and I the connecting rods, connecting the cranks with the lay, all these parts being exactly the same as in an ordinary power loom. J J are the picker staves, working on pins, *a a*, secured in arms attached to the lower part of D. These staves have arms at their lower ends, connected by rods, *c*, with two levers, K, which work one on each side of the loom on pins, *d d*, secured in the framing, the levers being so situated as to be operated, as the lay swings back, by two rollers, *e e* (seen in Fig. 3), attached to the sole piece. The action of these rollers is to depress the arms of the picker staves, and move the upper ends of the same towards the center of the loom, for the purpose of throwing the shuttles. The picker staves are returned to the outer ends of the shuttle boxes as the lay moves forward, by means of spring, *f* (Fig. 1), connecting their arms with fixed pins, *g*, secured in the framing.

To cause J to be operated only one at a time, the two rollers, *e*, are fitted to a shaft, *h*, which does not rotate, but is fitted to slide horizontally in guides, *i i*, secured to the lay, and these rollers are such a distance apart that when one ranges with its respective lever, K, the other is nearer the center of the loom, and out of the range of its lever; this is effected by the double cam, *j* (Fig. 3), which shows a portion of the lay detached. *j* turns on a pin, *k*, in the sole piece, L, and has fitted to it a plate, *l*, provided with four pins, *m*, one of which, as the lay completes its forward movement, strikes a dog, *n*, and thus causes the cam to be turned one-fourth of a revolution. The dog, *n*, works on a pin, *n'*, in the breast beam, D, and is prevented getting out of an operative position by means of a spring, *o*, also attached to D. M M are the heddle frames working in guides, N N. Each of these heddles has attached to its lower rail a lifting rod, O, which works in guides in a stationary plate, P, attached to a rail, R.

The parts about to be described are separated, and better seen in Fig. 2. Each rod, O, has a notch, *h*, on its front side, and the rods are so bent and formed that the notches are side by side, so that they can be operated by two sliding dogs, *q q*, arranged in a frame, Q, that swings vertically on bearings, *r*, on the rail, R. The swinging motion of the frame, Q, which raises and lowers the heddles is effected by means of a rod, *s*, with an arm, *f*, rigidly secured to the bottom piece of the lay. This connection causes the rear end of the frame which is next the lifting rods, O O, to rise as the lay swings back, and fall as the lay beats up. The dogs, *q q*, are brought into position to operate on the teeth of the rods by the two double cams, *t t*, on a shaft that is fitted to bearings in the rear end of the frame, and which receives a quarter revolution every time that part of the frame descends by the action of a dog, *v*, attached to P, upon one of the pins, *w*, on a plate, *w'*, on the end of the shaft.

The dogs, *q q*, are thrown out to elevate the rods, O, by springs, and are drawn back when it is proper that they should be inoperative by the cams, *t t*. The dogs not only raise the heddles, but also control their lowering, the notch resting on *q* until the heddle arrives at its proper lowest point, where it is retained by stops in N. The dog, *n*, is kept in operation by a spring.

It will be seen from the above description that the invention is also applicable to hand looms, as all the motions are derived from the lay. The invention is valuable, and every weaver will at once appreciate its advantages. The claim will be found on another page.

Any further information can be obtained by addressing A. W. Johnson & Co., of Auburn, N. Y., or W. H. Halladay, their general agent.

The Wonders of Light.

Not only does light fly from the grand "ruler of the day," with a velocity which is a million and a half times greater than the speed of a cannon ball, but it darts from every reflecting surface with a like velocity, and reaches the tender structure of the eye so gently, that, as it falls upon the little curtain of nerves which is there spread to receive it, it imparts the most pleasing sensations, and tells its story of the outer world with a minuteness of detail and a holiness of truth. Philosophers once sought to weigh the sunbeam. They constructed a most delicate balance, and suddenly let in upon it a beam of light: the lever of the balance was so delicately hung that the fluttering of a fly would have disturbed it. Everything prepared, the grave men took their places, and with keen eyes watched the result. The sunbeam that was to decide the experiment had left the sun eight minutes prior, to pass the ordeal. It had flown through ninety-five millions of miles of space in that short measure of time, and it shot upon the balance with unabated velocity. But the lever moved not; and the philosophers were mute.

Arsenic in Cigars.

The *Eclectic Medical Journal*, of Cincinnati, states that Professor Bunsen, of Heidelberg, has had a series of experiments performed in his laboratory by Dr. Reiseg, to demonstrate the possibility of poisoning by introducing arsenic into cigars. It appears from these experiments that about a grain and a half of arsenic may enter the mouth when the cigar has been steeped into a solution of that metal, and the quantity is about one-eighth of a grain when the arsenic is introduced into the cigar in the solid form. That these may be the results of actual experiments, we do not doubt, but as there can be no possible use for introducing arsenic into cigars, either for the purposes of adulteration or improved appearance, we think that the Professor has been dealing with an entirely imaginary evil. Should this be intended as an argument against smoking, it would be better to use only those which are correct, without having recourse to conjuring up fallacious ones wherewith to frighten the innocent smoker.

The Comet.

The long-expected comet of Charles V is beginning to enter an appearance at last. It has been detected in a faint and dim, but this time unmistakable, presence below the horizon, at the Paris Observatory. Professor Donati, of Florence, on the 2d of June last, first discovered it, and prophesied the point from which it will emerge. A deputation of scientific men have been sent by this country, Great Britain and France, to South America; they will meet at the Isthmus, and fix on some point in the Andes from which to make their observations.

Issued from the United States Patent Office

FOR THE WEEK ENDING SEPTEMBER 7, 1858.

[*Reported officially for the Scientific American.*]

*** Circulars 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.

REVOLVING FIREARM—Ethan Allan, of Worcester, Mass.: I do not mean to be understood as confining myself to any particular angle on that part of the pin, or to the precise form of the guards given.

But first, I claim constructing that part of the pin, C, that projects in front of the cylinder, so as to produce a projecting angle toward the junction of the barrel and chamber that is being discharged, for the purpose set forth.

Second, I claim the guards, D and E, when constructed and operating as described.

HARVESTERS—R. L. Allen, of New York City: I claim, elevating the cutting apparatus and balancing the machine in going over stones, stumps, and other obstructions, and traversing hill sides by means of the long raker and drivers' seat, in combination with lever p, as set forth.

I also claim constructing the spring axle of three several pieces, clamped and riveted in the manner set forth and for the purpose set forth.

I also claim the position of said axle, F, the same being at right angles with the line of draught, and performing the office of spring and axle, and fastened by bolt, x, as described.

I also claim the form of the socket piece for receiving the ends of the spring standard, to support the rakers' and drivers' seat, Q'.

I also claim the construction of the double shoe and standard, adaptable to the cutting of grain or grass, as set forth, the same being in three pieces, the pieces being put together in a particular way.

I also claim making the shoe under the mortise thick at edge, a, and thinner at a, in order to give greater thickness and strength to the finger board along a a, as set forth.

SEWING MACHINES—B. Atwater, of Berlin, Conn.: I do not claim an arrangement of the guide plates together, and with respect to the bed plate, whereby the loop is bent over a rest or plate, so as to cause its bow to spring upward into a position to receive the needle, as described, such being incident to my machine, as heretofore patented.

But I claim the improved arrangement of the guide plates, J J, with respect to one another, the needle, a, and the bed plate, B, viz., so that there may be a space b, between the bed plate and the upper end or notch of the guide plate, J, and the two guide plates be placed so close together as to hold the middle of the bow of the loop in position, and bridged across the recess of the plate, J, substantially in manner for the reception of the needle by the loop, and to effect advantages as set forth.

HARROWS—David C. Ayres, of Lumberland, N. Y.: I am aware of the use of tubular framework, and therefore do not claim it.

But I claim the combination of tubular piece, B, globular projections, a, cutters, c, and teeth, T, constructed, arranged and operating together as described.

CORN PLANTERS—A. G. Babcock, of Galesburg, Ill.: I claim the arrangement and combination of the entire machine, for the purpose of planting corn.

COAL OR ASHES SIFTERS—Louis D. Bartlett, of Boston, Mass.: I do not claim using a circular sieve on top, and fitting into the vessel to be rotated back and forth, for that is old and well-known.

But I claim using the annular ring and the cover, in combination with the sieve, substantially as described.

JOINTS FOR RAILROAD TRACKS—E. U. Benedict, of Horicon, Wis.: I do not claim, broadly, the placing of a vertical pin or projection upon the bottom of railroad chairs.

But I claim the combination of the ends of the rail, A, with the peculiarly constructed wrought iron T-shaped joint plate, B, by means of the stirrup bolts, c, which pass from the upper surface of the base, b, of the rail, through the said base, and through the lips, a, of the plate, B, and around the lower edge or pan of said plate, substantially as and for the purposes set forth.

[The object of this invention is to prevent the depression of the rails at the junction of the bars, and consequent battering and lamination of the ends of the bars, by the passage of trains over them. The invention consists in a joint plate constructed, applied, and secured to the ends of the bars in a novel mannner.]

WATER CLOSET—George Blanchard, of New York City: I claim the arrangement of the swinging frame, C C, the pedals, A A, the bolt, B B, the seat, J, the two bars, E and F, the platform, D, substantially as described, and for the purpose specified.

HANGING BELLS—George R. Meneely, of West Troy, N. Y.: I claim uniting a bell furnished with horns to a yoke, through the intervention of a cap and clevis bolts, as that said bell may be turned in its yoke, in the manner and for the purpose specified.

OPERATING WINDOW BLINDS—Theodore Christian, of New York City: I claim the coupling the slats together, as described, and connecting a whole panel by means of a rod in the manner and for the purpose set forth, grooving the rod in a straight line.

I also claim taking the bearings of the tenons upon the inside of the channel therein, and beyond the pulley, as and for the purpose specified.

CANE SEAT FOR CHAIRS—John R. Cannon, of New Albany, Ind.: I claim the manufacture of chair bottoms, substantially in the manner and for the purpose specified.

GRATES FOR COAL STOVES—James Easterly, of Albany, N. Y.: I claim the combination of the grate, B, the bar, D, and the clasp, H, or its equivalent, when used and operating in the manner and for the purposes substantially as set forth and made known.

MACHINE FOR RULING PAPER—J. C. Forman, of Cleveland, Ohio: I claim the movable bed, F, operated through the medium of the rack, D, and grooved plate, E, in connection with the gearing, c d C, or its equivalent, as and for the purpose set forth.

I also claim the frisket, G, when arranged as shown, to wit, the frisket being attached to the bar, k, provided with bar, q, and used in connection with the bar, J, on the pen beam, I, for the purpose specified.

[A notice of this improvement will be found on another page.]

PRINTING AND NUMBERING PRESS—George J. Hill, of Buffalo, N. Y.: I claim the combination of a numbering machine, B, and pawl, F, or its equivalent, with a printing press, for the purposes and substantially as set forth.

I also claim the adjustable plate, E, in combination with the numbering machine, B, for the purposes and substantially as described.

CAR SEATS AND COUCHES—R. E. Fowler, of Clayton, N. Y.: I claim, first, Having a shaft, c, extended from one end of the seat to the other, when said shaft is furnished at one end with a crank, E, and at each end with a pinion or friction roller, D, and said pinion or friction rollers work in connection with large spur wheels or large friction rollers, F F, which have the arms, G G, of the back, d, or the arms, H H, of the foot board, c, pivoted eccentrically to them substantially as and for the purposes set forth.

Second, Attaching the arms of the foot board, c, to the lower spur wheel or friction rollers, F F, by means of turning pivots and hinge joints, i and k, in combination with attaching the suspension rods of the foot boards by loose eyes, h, to long staples or brackets, g g, substantially as and for the purposes set forth.

[By this invention one of the occupants of the seat is enabled, by turning a crank at one end of the car seat, to adjust both arms, and consequently the back and foot-boards to any position desired or necessary to form a comfortable sleeping or reclining couch. The adjustment of the seat for sitting and sleeping purposes is accomplished in a few seconds, and with ease and convenience.]

MACHINES FOR DIGGING POTATOES—Nathaniel Gear, of Zanesville, Ohio: I claim in combination with the scoop for digging, the skeleton wheel, K, for gathering, carrying, sifting, and delivering the potatoes into the box or receiver, substantially as described and represented.

CUTTING DEVICE FOR HARVESTERS—C. P. Gronberg, of Montgomery, Ill.: I am aware that concave fingers have been previously used, and also perforated fingers; and I am also aware that various forms of curved metal finger bars have been employed in order to unrite or combine strength and lightness.

I therefore do not claim broadly and separately any of the parts, irrespective of the construction and arrangement shown and described.

I claim the semi-cylindrical finger bar, A, concave and perforated fingers, B, and the sickle formed of the bar, C, and teeth, D, when the above-named parts are constructed, combined and arranged for joint operation substantially as and for the purpose set forth.

[By a peculiar construction of the finger bar and fingers, these parts may be constructed wholly of metal, and still be extremely light and durable, and the sickle prevented from clogging.]

FRUIT BOX—Nicholas Hallock, of Flushing, N. Y.: I claim constructing a fruit box consisting of two sheets of material, one of which forms the body of the box, the other, the bottom, being ventilated as described, and combining therewith the folding handle, substantially as set forth and for the purposes specified.

COFFEE ROASTERS—Theodore Heerman, of Mitchellville, Tenn.: I claim the employment of two reversely inclined concentrating plates, which have a space existing between their approximating ends on the inner circumference of a revolving coffee-roasting cylinder, substantially as and for the purposes set forth.

[With this invention the coffee, as fast as it naturally collects in piles at the heads of the cylinders, is picked up by the radial rib, and dropped upon the angles of the inclined rib, and thereby thrown to the center of the cylinder's length. Thus picking up the coffee at intervals and inducing it to pass to the center of the cylinder, keeps it constantly in motion, both in the path of a vertical circle and in an oblique direction, and every grain is consequently brought in contact with the roasting surface, and a more uniform, effectual and expeditious roasting accomplished.]

WINDOW BLINDS—A. Herder, of New York City: I claim the wire cloth strips, E, attached to the window blind, to form a combined blind and insect bar or net, substantially as set forth.

[A notice of this improvement will be found in an other column.]

MACHINES FOR MOLDING CLAY—Thomas Hoadley, of Cleveland, Ohio: I do not claim broadly the employment or use of rammers operated by wipers or lappets, for such device is well-known and in common use.

But I claim the rotating mold, D, and rods or rammers, O, in connection with the rammer elevating plate, Q, arranged for joint operation as and for the purpose set forth.

I also claim the guides, P P, one or more attached to the shaft, F, and used in connection with the elastic bands, m, on the rammers, for the purpose set forth.

[A notice of this improvement is given in another column.]

CONVERTIBLE CARRIAGE SHAFTS—Amos K. Hoffmeier, of Lancaster, Pa.: I claim first, The combination of the pole hook with its eyes, Q, and points, R, as they fit into the front ends of the shafts which form the pole.

I also claim the arrangement and combination of the shafts, operating on joints, that when closed together form the pole, substantially as described.

MEAT CUTTER—Jacob R. Hoyer, of Reading, Pa.: I am aware that screw knives setting in a spiral position on the periphery of the revolving cylinder, and forming a screw feed, have been heretofore used. I therefore do not claim that part.

But I claim the arrangement of the knives in pairs on the periphery of the revolving cylinder, with their edges radiating from the center of the cylinder, so as to operate the same as shears in passing between the knives of the hollow cylinder, when constructed as and for the purpose set forth.

PLOWS—Samuel Hulbert, of Ogdensburgh, N. Y.: I do not claim any of the parts separately considered.

But I claim the adjustable beam, F, slot, D, pivot C, spring clevis, E, and adjustable handle, G, combined, arranged and operating as set forth and described.

KNEADING MACHINE—William S. Reinert, of Philadelphia, Pa.: I do not claim broadly the employment of a traversing, rotating corrugated roller for kneading purposes.

But I claim the shaft, D, with its corrugated roller E, and pinions, d d, in combination with the guides, f, and pinions, when the whole of the above-named parts are so constructed and arranged in respect to the trough, that they may have an upward or downward movement controlled by the weight, I, or its equivalent, independently of the trough, substantially as and for the purpose set forth.

APPARATUS FOR APPLYING SOLES TO BOOTS AND SHOES—Jacob Jenkins, of Charlestown, Mass.: I claim the combination of the elastic bed, D, and the sole adjusting cavity or space, C, arranged in a press, and so as to operate together substantially as specified.

I also claim constructing such sole adjusting cavity, C, with adjustable sides, a a, or adjustable ends, b b, or both its sides and ends made adjustable, substantially as set forth.

I also claim the combination of the lever clamps, h h, with the adjusting cavity, C, and the elastic bed, and so as to operate therewith substantially as described.

I also claim the combination and arrangement of the tank, B, with the elastic bed, D, and the sole adjusting cavity, C.

ESCAPEMENT OF TIME-KEEPERS—Joseph Jennet, of Meadville, Pa.: I claim the first balance wheel, C, constructed with cogs on its periphery gearing into the pinion, E, and the second balance wheel, D, moved thereby in the manner described, the whole being arranged in the manner and for the purposes set forth.

IRON SAFE—Lewis Lillie, of Troy, N. Y.: I claim the mode of forming the corners of a safe with anchors h h h h, also the jamb, E, as and for the purposes described and set forth.

RAILROAD INDICATOR—Gardner R. Lillibridge, of Wayne co., Mich.: I do not claim the cylinders and scroll or the friction rollers, they being of ancient origin.

But I claim the trap or obscurer, in combination with my peculiar method of exhibiting the number of miles between stations.

I also claim a movable cradle, which contains and confines the cylinder's scroll and friction rollers in combination with the screw for regulating the tension of the scroll, for the purposes specifically set forth.

CULTIVATORS—Israel Long, of Terre Haute, Ind.: I claim the employment of two frames, A A, which are furnished with harrowed teeth, c, at their forward end, and cultivator teeth, B, at their rear ends, and connected by arch braces, D D, in combination with the propelling wheels, E, arranged on short crank axles, c, the tongue, G, arranged on top of the arch braces, and with the adjusting arrangements, substantially as and for the purposes set forth.

MACHINE FOR PRINTING ADDRESSES ON NEWSPAPERS, &c.—James Lord, of Pawtucket, Mass.: I claim, first, Imprinting the name and addresses of subscribers and others on newspapers, envelopes, &c., by inserting type expressing such name and address in boxes secured spirally on the periphery of a revolving cylinder, and causing the said newspapers or envelopes to be successively pressed against the type in the boxes by means of a platen or follower, x, which is made to act in concert with the cylinder, in the manner described.

Second, I claim the combination and arrangement of the connecting rod, z, vibrating lever, p', pawl, r, ratchet, s, and screw shaft, M, for giving the required revolving motion to the printing cylinder, B, and longitudinal motion to the platen, x, and receiving, conducting, and distributing rollers, b h i, in the manner and for the purpose described.

Third, I claim the combination and arrangement of the eccentric cams, u, longitudinal shaft, Y, and upright rod, m, for raising the platen or follower, x, to produce the required impression upon the paper, as described.

Fourth, I claim the combination and arrangement of the cima reversa formed slots, n', in the ears, n, and ends of the branch rods, k', of the curved bars, k, with the distributing and conducting ink rollers, h i, in the manner and for the purpose set forth.

Fifth, I claim the combination of the adjustable plate, d, oscillating bar, c', and plate between which it is secured, and graduating thumb screws, f, with the ink receiving roller, b, as described.

[A notice of this improvement is given in another column.]

APPARATUS FOR PREPARING ELLIPTICAL FRAMES FOR GILDING—Robert J. Marcher, of New York City: I am aware that a bar provided with pins, and fitted in slots or recesses crossing each other at right angles, forms an old and well-known implement termed a "trammel," for drawing ovals, and such implement has been arranged and adapted in various ways for various purposes. But I am not aware that the implement above-named has been arranged as shown, and used in connection with a foot piece or rest.

I do not claim therefore, broadly, and irrespective of construction and arrangement, a trammel, that is to say, a bar provided with pins, which are fitted in cross slots or grooves.

But I claim providing the bar, D, with a foot or support, E, and sliding plate or tool, F, when the bar, D, is arranged relatively with its upright grooved or slotted bar, C, and the frame, B, substantially as and for the purpose shown and described.

[For more information regarding this invention, see another column.]

HOISTING AND DUMPING APPARATUS—George Martz, of Pottsville, Pa.: I claim the combination of the car, hung and controlled in its up and down movements in the peculiar manner specified, with a sliding gate and stationary frame, which are constructed and arranged in the peculiar manner specified, substantially as and for the purposes set forth.

[This invention consists in a car closed in at top and back, pivoted to a sliding gate, and governed in such a manner that its tail-board lies horizontal while the car is being loaded, and its bottom horizontal while the car is being dumped, said car and sliding frame being arranged within a stationary frame, which is furnished with suitable guides for governing its movements and allowing the car to dump, and with a suitable shute, which compels it to tilt and dump a load, and which also holds it in such a condition that while being lowered, its bottom is compelled to stand vertical, and its back lie horizontal when down, and being loaded. By this invention Mr. Martz is enabled to provide a very simple, cheap and compact machine, which is adapted for hoisting dirt out of deep ravines.]

BUTTER WORKER—Ziba Williams, of Ithaca, N. Y.: I claim the combination of a trough and a laddle having parallelism to the axis thereof for the purpose of working butter, when the same are constructed and arranged in the manner described

PADDLE WHEEL PROPELLERS—John May, of Columbus, Ga.: I do not claim to be the original inventor of the propeller or paddle wheel, as described.

But I claim the arrangement of the buckets or floats, B B, with the guides, E E, with the center, F I K, and the frame, C, arranged in the manner substantially and for the purpose as described.

GOVERNOR VALVE FOR STEAM ENGINES—Stuart B. McCray, of Grand Rapids, Mich.: I claim, first, Having a hollow cylindrical valve, B, constructed and arranged to work in suspension over a vertical piston, D, so that it does not come in contact with any horizontal surface, nor has any point of binding contact against said vertical piston, D, substantially as and for the purposes set forth.

Second, The suspending and working of a hollow cylindrical valve, B, by means of an eccentric or other analogous device, L, which said eccentric is so arranged on the shaft of the slotted rocking link that its longest radius is at right angles, or nearly so, with the valve stem, H, when the valve is closed, and its shortest radius parallel, or nearly so, with the link, J, of the governor, substantially as and for the purposes set forth.

[For more information about this invention see another page.]

BINDING ATTACHMENT TO REAPING MACHINES—James Mitchell, of Oceola, Iowa: I claim, first, The combination of the jaws, o o r r, arranged as shown, and attached respectively to the slider, m m, and springs p p, whereby they are made to receive and grasp the ends of the band, as described.

Second, The clamp, J, constructed of two parts, i' j', attached to the rotating wheel, h', and used in connection with the slide bar, K, and ledge, l', for the purpose of twisting the ends of the band, substantially as described.

Third, The jaws, o o r r, clamp, I, band twisting device, J, tucking rod, K, and discharge rod, G, combined arranged to operate substantially as and for the purpose set forth.

[This invention consists in the employment of clamps or band carriers, band twisting device, tacking rod, and discharging device, arranged relatively with each other, and operated so that the grain is bound into sheaves and discharged upon the ground, the whole working automatically as the machine moves along.]

COUCHES FOR RAILROAD CARS—F. R. Myers and F. H. Furniss, of Cleveland, Ohio: We claim the couch, P, with the rods, L W N O, and the collars, L' M', or the adjustable collars and springs, R R' S S', as an arrangement of means for providing such number of couches, as in connection with such as may be made of the car seats will accommodate a complement of passengers, substantially as set forth.

CALIPERS AND DIVIDERS—Joseph D. Moon, of Chelsea, Mass.: I claim having the parts, a, of the legs made of circular form, geared or toothed as shown, and the screw, C, placed between them and gearing therein, the above parts being fitted within the socket, B, and the screw provided with nuts, E G, when arranged as described, and for the purpose set forth.

[By this invention the legs of calipers and dividers can be adjusted and secured at any desired point. It consists in having the ends of the legs which surround the pivots made circular and concentric with the pivots, and having said circular portions, together with a screw, fitted between them, by turning which the legs are operated or moved. The above parts are placed within a suitable socket, and the screw provided with a jam nut, to prevent the casual movement of the same.]

RAKING ATTACHMENT TO HARVESTERS—John Nelson, of Rockford, Ill.; I claim the arrangement of the arm, I, and rake connected by an articulating joint at J, the spring, O, and cord, N, in combination with the guide, Q, operating conjointly in the manner and for the purpose set forth.

SCYTHE BLADES—Samuel D. Nelson, of Pittsburgh, Pa.: I claim constructing grass and cradle scythes by starting the web of the scythe from one edge of the back, making the back concave on the upper, and convexed on the lower side, leaving the heaviest and thickest part of back on the center, and to the outside of the convexed side of the back, thereby making the scythe stiffer and stronger, as described and represented.

HARROWS—Samuel J. Orange and George Bridelman, of Grayville, Ill.: We claim the combination of the handles, or their equivalent, with the transverse beams, D D, and rollers, E E, and the circular frame, A, substantially as described, by which we are enabled, by regulating the pressure on the handles, to guide the harrow in the line of the draft or deflect it, at pleasure.

SEED PLANTERS—Benjamin Owen, of Dayton, Ohio: I am aware that covering hoes, T, have been previously used, and arranged to rise and fall as shown, and I therefore do not claim broadly such device, irrespective of the particular means employed for operating it.

Neither do I claim separately and irrespective of the means of operation, a reciprocating seed slide.

I claim operating the arms, S, and hoe, T, by means of the disks, N R Q, provided with teeth or spurs, and arranged as and for the purpose set forth.

[This invention consists in a peculiar seed-distributing device and a covering device, whereby the seed may be diffused in hills at equal distances apart, and covered with a proper quantity of earth by a very simple arrangement of means. The device is more especially adapted for planting maize or Indian corn, but it may be used for planting other kinds of seed in hills.]

OPERATING VALVES OF STEAM ENGINES—H. Uhey and H. A. Luttgens, of Paterson, N. J.: We do not claim the connection of the differential rocker, G, with the link motion or substitute, as this device is secured by us in a patent dated March 20, 1855.

But we claim the cam, B4, or equivalent, in combination with the valve gear, adapted to operate a single slide valve, substantially as described.

PORTABLE COPYING APPARATUS—Wm. Van Anden, of Poughkeepsie, N. Y.: I claim the improved method of uniting a cylindrical removable back or holder with a copying book by means of a concave or tubular channel cut longitudinally with the face of the cylindrical back or holder, for the purposes and substantially in the manner set forth.

MACHINE FOR TURNING HUBS—Alexander Rickart, of Schoharie, N. Y.: I claim rotating the mandrel, R, of the carriage, D, from the cutter shaft, B, through the medium of the worm wheel and screw gearing, f h i n, as described, it being understood that I do not claim broadly, and in the abstract the well-known mechanical device of a worm wheel and screw gearing, but the parts above-named, when arranged with the cutter shaft, B, and mandrel, K, of the carriage, D, so that the mandrel, K, will be connected with the shaft, B, and disconnected therefrom at the proper time, by the movement of the carriage, D, for the purpose described,

[A full description of this invention will be found on another page.]

BILLIARD BALLS—Calvin B., John, and William C. Rogers, of Deep River, Conn.: We do not claim simply the cementing of a series of pieces of ivory together, and turning the same to form a billiard ball, irrespective of the disposition and arrangement of said pieces in respect to each other, as described, for various articles are formed in sections, or of a series of pieces joined together, and turned or otherwise formed into proper shape.

But we claim constructing billiard balls of a series of pieces, a a b, three or more cemented, or otherwise secured together, when said pieces are disposed or arranged in relation to each other in respect to their ber or grain, as set forth.

[These billiard balls are constructed in sections, or of a series of pieces, cemented or otherwise secured together, and disposed or arranged relatively with each other in a novel way, in respect to their fiber, whereby several important advantages are obtained.]

COAL STOVES—Silas T. Savage, of Albany, N. Y.: I do not claim a magazine or feeder, nor radiator, nor the introduction of air to complete the combustion of the fuel.

But I claim the combination of the magazine, radiators, and the air chamber at the base of the radiators, as arranged in reference to and with each other, substantially as set forth and described in the specification.

COAL STOVES—S. T. Savage, of Albany, N. Y.: I claim the combination of an open cylindrical or basket grate, with a dome, or a cone-shaped cover placed within an outer chamber, having a register for the admission and regulation of a current of air between the grate and the walls of said chamber, arranged near the bottom of the chamber, substantially as the same is described and for the purposes set forth in the specification.

CONSTRUCTION OF COAL STOVE LINING—S. T. Savage, of Albany, N. Y.: I claim the employment of metallic framing to contain fire-clay or other lining for coal stoves, for the purpose of preserving it from injury by adhesion of clinkers, constructed substantially as described in the specification.

LOOMS—E. M. Scott, of Auburn, N. Y.: I claim first, Operating the shuttle motion by means of the lay, in the manner and for the purpose described.

Second, The combination of the sliding shaft, h, attached to the lay, the rollers, e e, or their equivalents, on said shaft, the cam, l, and its appendages attached to the lay for giving longitudinal motion to the shaft, and the dog, n, attached to the breast beam to operate the cam, the whole applied and operating substantially as described, to actuate the shuttle motion at one side of the loom only at a time by the movement of the lay.

Third, Operating the harness motion by means of the lay in the manner and for the purpose specified.

Fourth, The combination of the swinging frame, Q, and its dogs, q q, cams, t t, and turning plate, w', with the lifting rods, o o, below the headle frames, the dog, v, and the lay, the whole operating substantially as set forth to cause the headles to be operated alternately or in proper order of succession.

[A full description and engraving of this invention appears on another page.]

HOSE CARRIAGE—I. S. Schuyler and L. A. Rockwell, of New York City: We claim, first, The arrangement

and combination of two separate and independent rope reels respectively and separately with the bearing wheels rotating on the axle tree to which the reels are secured. substantially as described and for the purposes as set forth.

Second, The described method of connecting and disconnecting the rope reels, with the bearing wheels of a fire engine, hose cart, or other fire apparatus, for the purpose of taking in the drag rope while the apparatus is drawn by it.

MACHINE FOR IRONING CLOTHES—John Shaefer, of Lancaster, Pa. : I claim the combination and arrangement of the hollow cylinder, G. with the rollers. J J, the screws and caps, 1 2 and 3. the spigot, 4, the screw plug, g ; the screw, E, the tables, K, all secured in the frame. A and B, and operated by the crank and gear wheels, substantially as and for the purposes specified.

CARPET SWEEPER—Reuben Shaler, of Madison, Ct. : I claim, first, The combination in a machine for sweeping carpets of a brush, the bristles of which are set at angle of about forty-five degrees from a radial line passing directly outward from axis constructed substantially as described with a traction roller, substantially as and for the purposes set forth.

Second, The construction of the traction roller of a sweeping machine in the manner described, that is to say. by winding a spiral flange of india rubber or other flexible and adhesive substance around a cylinder as set forth, by which a very powerful adhesive traction of said roller is insured, and the roller is much more cheaply manufactured than an equally efficient one could otherwise be.

SEEDING MACHINES—Samuel Stanbro. of Salem, Mich : I claim the application of a twisted cord, in combination with measuring tubes, arranged substantially as described, for the purpose of measuring and delivering the seed.

METHOD OF MANUFACTURING SHINGLES FROM THE LOG—C. L. Story, of Owensboro, Ky. : I am aware that circular saws, rotary cutters, and traveling carriages have been used and arranged in many ways for sawing various articles, and I do not claim, broadly, the use of such parts irrespective of their arrangement as shown.

I claim the circular saw, C, rotary and laterally moving cutters, h h i, the rotary cutters, a a, and traveling carriage, I, arranged and combined as shown, whereby the shingles are cut from the bolt, tapered and jointed at one operation.

I also claim the particular means described for rotating the bolt, M, at each termination of the movement of carriage, I, and thereby setting the bolt to the saw, to wit, the screw, n', worm-wheel, m', actuated through the medium of the arm, o', rod, p', bar, q', rod r', and guide ledge, P.

[This is an improvement in that class of shingle machines in which circular saws are employed for cutting the shingles from the bolt or log. The invention consists in the employment of a circular saw and rotary cutters, arranged and used in connection with a traveling carriage, whereby shingles may be sawed directly from bolts cut from the log ; the shingles being properly tapered and adjusted, while being sawed from the bolt, so as to leave the machine in a finished state.]

TRAP FOR ANIMALS—R. M. Turner, of Woodland, Mich. : I am aware that tilting platforms have been previously used and arranged in various ways to form self-acting traps ; I therefore do not claim separately and broadly such device,

But I claim the tilting platform, B, and treadle, C, connected with the spring catch, g, the platform being placed within the base, A, and the platform and treadle, arranged in relation with the box, E, and bait chamber, j', substantially as and for the purpose set forth.

[This invention consists in the use of a pivoted or swinging platform, with spring treadle attached, to which a catch or fastening is connected that sustains the platform in a proper horizontal position, these parts being placed in a suitable case and arranged in such relation to a bait-box, that a rat in attempting to reach the bait will depress the treadle and catch, the platform consequently tilting by the rat's own weight, and turning the animal into a tub or butt of water over which the trap is placed.

ALARM LOCKS—J. W. Wells, of Pittsburg, Pa. : I claim the use and combination of a bell catch, in the keeper of a lock and a spring catch in the locking bolt, so arranged, as before described, to set the alarm by simply locking the door, and to spring the alarm, and ring a bell whenever the door is unlocked, substantially in the manner set forth.

BRICK MACHINES—Henry White, of Cleveland, Ohio: I claim, first, The beveled joints of the mold, as arranged and for the purpose specified.

I also claim the mechanism as described when relatively arranged and combined in its several parts as set forth and for the purposes specified.

METHOD OF ALLOWING FOR EXPANSION AND CONTRACTION OF FENCES—Olly Williams, of St. Louis, Mo.: I do not claim, broadly, the tightening of the wires by means of a weight.

But I claim the combination of the shaft, B, with the post, A, and the application of the wires to the said shaft, whereby all the wires are tightened at one and the same time, by one and the same weight, substantially in the manner set forth.

SEWING MACHINES—J. B. Woodruff, of Washington, D. C.: I claim, first, the double corrugated yielding spring, between which the thread is guided, the same being regulated by a thumbscrew, or any equivalent device, to bear upon the thread in the manner described to produce any degree of tension required.

Second, I claim making the bowl or shuttle carrier, and attaching it to the slotted driver, as described, in combination with the circular shuttle race.

Third, I claim the application of extension rods for pitmans to sewing machines, when used in combination with a hinged foot piece to be placed upon the floor, and the machine upon a table, in the manner and for the purpose specified.

LIFEBOAT CONSTRUCTED OF MATTRESSES—Jabez M. Woodward, of New York City: I claim, first, Constructing the mattresses with the strong canvas or duck attached to them with the eyelet holes, so that they can be united at their edges by lashing for the purpose of making a boat or life raft, as described.

Second, I claim the manner of constructing the berth bottoms or supports into frames in the shape of or similar to right-angled triangles in combination with the mattresses, constructed as described.

Third, The combination of the mattresses, canvas and eyelets, with the lashings, diaphragm frames and spar, arranged into the form of a boat, or life raft, as described.

STAMPING MILK CANS—Wm. Mt. Storm (assignor to Allan Cummings), of New York City: I claim the press with the counterpart die-bearers, forming segments of two concentric circles to fit the exterior and interior of the "breast" of a narrow mouthed can, and having the movable S-shaped head block carrying the follower by guide rods, as shown, on the one part of a die-bearer, while the counterpart die-bearer is provided with rods with hands that pass through holes provided in the can to catch upon the head block, the whole being so constructed that two parts of the press may be combined and operated through the thickness of the can to perform its office, and thereafter be readily separated and removed, substantially as described, the purpose being to facilite the marking of such cans after construction is completed.

[See another column.]

SEWING MACHINES—M. L. Clinton (assignor to H. F. Hibbard), of Ithaca, N. Y. : I claim the cams, B and C, on shaft, A, in combination with spring hook, D, constructed and operated substantially in the manner and for the purpose described.

BULLET MACHINE—C. Young, of Auburn, N. Y. : I claim; first, The application of elastic rolls, for the purpose of feeding lead wire into the machine, substantially as described.

Second. The application of the arrangement or device for gaging, cutting and depositing the lead into the dies by the same instrument, and the manner of constructing and operating this portion of the machine, substantially as described.

Third, The application of the arrangement, or device of laterel punches, for removing the bullet from the dies, substantially as described.

The above is a full description of improvements in the mode of constructing machines for the manufacture of bullets from cold lead by pressure, in respect to which a caveat was filed, by said Calvin Young, in the month of April, 1857, in the secret archives of the Patent Office.

MANUFACTURE OF BRUSHES—Stephan Barnes (assignor to himself, Henry S. Parsons and Saml. Rowland), of New Haven : I do not claim to be the first to secure bristles in a clamp, or its equivalent, while their tops are cemented together, for this has already been done.

But I claim the securing of the bristles in separate tufts in the manner described, by the employment of the tubular block, A, or its equivalent, substantially as set forth.

SEWING MACHINES—S. C. Blodgett, (assignor to G. B. Sloat & Co.), of Philadelphia, Pa. : I lay no claim to a shuttle, a needle and mechanism for operating them in such manner and while they carry separate threads, as either to cause the shuttle carrying one thread to pass through a loop of thread, formed and held in cloth or other material by the needle, or to cause the loop of the needle thread to be seized by a hook, and cast around the shuttle in such manner as to carry the thread through the loop, as I am aware that such is not new.

Nor do I claim the application of the hook to the bobbin in such manner that such hook shall revolve in a circular path, concentric with the axis of the bobbin, and be turned over or reversed in position, so that it shall be caused to point upward and downward while making each entire revolution.

But I claim my improved mode of operating the hook about the bobbin, viz., with a compound motion produced by a crank, i, and an arm, p, or by two cranks, whereby the point of the hook is made to travel either in an elliptical or a circular path, without being reversed or made to point upward and downward during its rotation. Also, the particular mode above described of constructing the hook, viz., so that not only the heel part thereof shall lap over the edge of the bobbin, but the point of the said hook extend obliquely in manner as described, or toward the needle, and so as to operate therewith as explained, and making the said hook with an auxiliary hook or notch, z, the same being to operate together as specified.

FLUES OF ELEVATED OVEN COOKING STOVES—James Easterly (assignor to himself and D. G. Littlefield,) of Albany, N. Y. : I do not claim the dividing of the flue of the stove for conveying the products of combustion to separate flues placed at each end of an elevated oven or to the exit flue by a center passage : neither do I claim an elevated oven having a descending flue, with its flue space from end to end of the oven an open chamber.

But I claim combining with flues, D D, and a center passage arranged substantially as described within the stove an elevated oven, having its flue space, on its sides and top an open chamber, in connection with a descending flue, with its exit at the base, the whole arranged and operating substantially as described and made known.

STEAM PRESSURE AND WATER INDICATOR—Wm. C. Grimes (assignor to David Matthew), of Philadelphia, Pa. : I do not claim the mercury cup, containing mercury, nor the glass tube embodied in the leg of the siphon, and showing only the rise and fall of the mercury by single end of the mercury column in single tube, as this has been done before, and I do not wish to be understood as claiming any such device.

But I claim constructing and arranging the concentric glass tubes with the connecting pipes, as and for the purpose set forth. Also, the manner of constructing and arranging the connecting pipes with the boiler and the branch or equilibrium pipe between the concentric connecting pipes at the water line of the boiler, as and for the purpose set forth.

COUCH SEATS FOR RAILROAD CARS—John Hartman, Jr. (assignor to John Hartman, Sr.). of Philadelphia, Pa. : I am aware that car seats have been made before so as to be isolated from each other, and to swivel round upon their bases. I am also aware that the back has been made adjustable to various angles of inclination to a horizontally fixed seat, and also that an office couch chair has been made with a foot rest and back, so connected together and to a fixed horizontal seat as to move in unison to any required angle of inclination to the said horizontally fixed seat, by the occupant simply changing his position thereon, but neither of these have been constructed in such a manner as that the seat proper can be inclined into the same plane with an inclined foot-rest frame, so as to adapt them as couches to the requirements of a railroad car, as described. I therefore do not claim, broadly, a swiveling seat with an adjustable back and foot rest.

But what I claim in adjustable, backed, reversible couch seats is the combination and arrangement of devices, whereby the seat proper, B, can, at the pleasure of the operator, be arranged and securely maintained either in the horizontal position of a chair seat as shown in Fig 1, or in the same plane with the inclined position of the foot-rest frame, E, as a couch, or as shown in Fig. 2, the same consisting of a pedestal, A, seat, B, stem, f, brace, h and foot-rest frame, E, or their equivalents combined, and arranged so as to operate substantially in the manner described.

DIAPHRAGM FOR PHOTOGRAPHIC CAMERAS—C. C. Harson and J. Schnitzer (assignors to C. C. Harrison), of New York City ; We claim the adjustable diaphragm or stop described, composed of overlapping plates operated concentrically by the ring, D. or its equivalent, said ring being operated from the outside of the tube by means of the lever or arm, E, or other appropriate device, substantially as described for the purposes set forth.

RAILROAD CHAIRS—Adam Hay (assignor to himself, S. W. Miller, and L. B. Miller), of Newark, N. J. : I claim. first, The lip or projection, C, formed and adapted substantially as represented, to support the flange of the rail, and in turn to be supported by the upper portion of the wedge.

Second, I claim a chair having an aperture for the wedge substantially as described, which will in itself contain and secure the wedge, and yet leave it free to support the flange perpendicularly, and to bind the rail laterally, substantially as described.

Third, I claim the combination of the lip, C, with the flange of the rail, and the wedge, B ; in other words, I claim the support of the flange by the lip, and the supports of the lip by the wedge, affording a firm rest for the flange, at the same time preventing, by this combination of wood and iron, all vibration and jar.

Fourth, I claim the combination on the chair of the wooden plug, e, and the screw, D, in the manner and for the purpose described.

STEAM TRAP—J. W. Hoard (assignor to himself and G. B. Wiggin), of Providence, R. I. : I make no claim to any of the parts separately.

But I claim the combination with the outer case or chamber, A, of the valve, B, lever, O, diaphragm, F, mercury holder, G, and openings, I and C, constructed and operating as described for the purpose set forth.

JOURNAL BOXES—H. H. Thayer, of Sandwich, Mass., assignor to J. A. Woodbury and S. A. Woods, of Boston, Mass. : I claim the combination of two or any other suitable number of lubricating chambers, a a, and bearing surfaces, g g, with one trough or channel arranged below them as specified.

I also claim the combination of the intercepting chamber, d, at each end of the box, with the oil trough, d, the lubricator chambers, a a, and the bearing surfaces, g g.

I also claim making the opening of the chamber, d, of greater diameter than the journal in manner and for the purpose as specified,

And in combination with the intercepting chamber, d, I claim the intercepting groove, f, arranged in the cap, B, in the manner and for the purpose specified.

RE-ISSUES.

SIDEWALK PAVEMENTS—John B. Cornell, of New York City. Dated April 28, 1857 : I claim giving such a shape to the described street gutter section, p, that its under surface will securely embrace the top of the wall, d, whilst its upper surface at the same time forms a portion of the street gutter, and also a firm supporting base for a section, c, of street curbing, or its equivalent, substantially as represented and set forth.

I also claim forming a sidewalk pavement of a series of metallic plates, a a, when the said plates are combined with or form portions of sections of metallic street-curbing substantially as set forth.

TRAP FOR CATCHING FLIES—Joel B. Fuller and George W. Pierce, of Worcester, Mass. : We claim the combination of the wheel or cylinder, having a rotatory motion with the box or case, for the purposes forth.

DESIGNS.

COOK'S OVEN STOVE—William W. Stevens, of Westbrook, Me., assignor to Nathaniel P. Richardson & Co., of Portland, Me.

STOVES—Nathaniel P. Richardson, of Portland, Me.

Recent Patented Improvements.

UPSETTING VISE.—With this invention, the anvil plates adjust themselves to the curvatures, whether great or slight, of the tire, the guide is adjustable to suit the different thicknesses and curvatures of the same and the clamps can be brought instantly into action and as quickly thrown automatically out of action. It is the invention of E. J. Dodge, of Port Washington, Wis., and was recently patented.

OSCILLATING STEAM ENGINES.—With this invention the valve is perfectly balanced and the necessity of using a set screw to keep the valve in proper position avoided ; the steam itself being made to perform both these functions, and thus the easy working of the valve secured, and freedom for expansion and contraction allowed. This invention also allows of the the engine being instantly and completely reversed by simply shifting the valve, the valve when shifted presenting a full, open port. The shifting of the valve is rendered very easy, owing to the valve being balanced, as before stated.

We regard this as an excellent arrangement and think it will go far towards rendering more perfect the operation of oscillating and other engines. It was invented and patented by G. Rieseck, of Pittsburgh, Pa.

WINDOW SASH BALANCE.—The window sash balance patented to Ross Johnson, Esq. of Frederick, Md., August 10, 1858, is a very simple and perfect arrangement, it avoiding the necestity of having the ordinary end boxes for the weights and cords, and being applicable to all old windows now in use. The invention consists in constructing narrow boxes on the jambs at right angles to, and forward of, the window sash and using flat weights with cords passing over pulleys which have their axes at right angles to the edges of the sash. The improvement is very simple and cheap and presents a very neat appearance when applied, and affords all the convenience of the most complete and expensive box frame balance sash.

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

MACHINE FOR ADDRESSING NEWSPAPERS. James Lord, of Pawtucket, Mass., has produced a most ingenious machine for the purpose of saving much labor in a newspaper office, by directing the wrappers in which the papers are mailed to subscribers. To the periphery of a cylinder a number of boxes are secured spirally, in which boxes are arranged types to print the subscribers' names. One subscriber's name and address is in each box and when combined with ink rollers and a proper bed, by moving certain mechanism, and supplying the wrappers as the cylinder is rotated, it prints the names upon the wrappers quickly and plainly, with much greater facility than by hand, as at present. Each cylinder can be made to contain ten thousand names, so that when this number has been printed from one cylinder, it will have to be replaced by a new one. This will be a very valuable machine for our daily papers, where many copies have to be mailed in a few hours.

METHOD OF MARKING MILK CANS.—Much of the milk used in cities is conveyed from the country producers to the city dealers, by railroad, and the empty cans are returned by the same conveyance, and as in every train or every car conveying milk, there will be cans belonging to several owners, it is necessary that each can be marked in a conspicuous manner, with the names or initials of the owner. The common method is to apply on the breast of the can, letters of sheet brass, which are attached by soldering ; but the cans are frequently stolen and their identification prevented by the removal of those letters. To prevent this and other frauds, William Montgomery Storm, of New York, has devised a small portable press which stamps the letters, by dies, in the breast of the can itself and he attaches the trade mark through a hole in the can, making it part of the can and extremely difficult to remove.

PAPER RULING MACHINE.—J. C. Foreman, of Cleveland, Ohio, has invented a new machine for ruling paper with variable lines, bounded by curved or semicircular ends, forming borders for cards, checks, bill heads and the like. The invention consists in giving to the bed on which the paper is placed, a movement below the press corresponding to the form of the borders to be ruled, so that the desired lines will be drawn upon the paper ; the bed having a frisket attached and so arranged that the paper may be readily shifted on the bed and the machine manipulated with facility.

GOVERNOR VALVE.—This invention allows of the piston valve being hung in suspension, and properly balanced, and thus worked without any loss of power and of being opened with a quick motion at the start, and with a gradually decreasing speed as the governor balls continue their descent. Having the valve open quickly at the start is essential in order to meet with nearly a full head of steam the check to the engine caused by the load brought to bear upon it. We regard this as a most excellent arrangement, as it is exceedingly simple and complete in its working. It is the invention of L. B. Mc.Cray, of Grand Rapids, Mich.

MACHINE FOR PREPARING PICTURE-FRAMES.—Robert J. Mascher, of New York, has invented a machine for this purpose which consists in a peculiar arrangement and adaptation of well-known trammels for the purpose of giving a positive or arbitrary eliptical movement to a tool, this movement corresponding with the shape of the frame to be operated upon, so that the tool may traverse over the frame and properly distribute the composition that receives the gold leaf, upon it.

BLIND AND INSECT NET.—This invention consists in attaching a series of wire cloth strips to the blind in such a manner as not to interfere in the least with the opening and closing of the slats, and at the same time effectually close the spaces between them so as to prevent insects from passing between the slats. The inventor is A. Herder, of New York City.

MACHINE FOR MOULDING CLAY RETORTS — The object of this invention is to so mold the clay that it will be of equal density throughout each part or portion of it, as the process of molding is carried on, being subjected to an equal ramming, so that when the articles are molded they will be perfectly free from air-cells, more compact than usual, and consequently more durable and less liable to break on account of porosity, and also less liable to fracture in baking, as the shrinkage will be nearly equal or uniform on account of equal or uniform density, and as there are no air cells, fracture cannot occur by the expansion of the same. The inventor is Thomas Hoadley, of Cleveland, Ohio.

HUB TURNING MACHINE.—This is an improvement in a hub-turning machine patented by the inventor, Alexander Rickart, of Schoharie, N. Y., July 1, 1857. The object of the invention is to obtain by far simpler means the same results that are obtained by the first patented machine, and also to add an automatical device for cutting off the ends or superfluous parts of the hub.