Scientific American.

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THE
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Preserving Stone Work.

There are various kinds of stone which do not stand exposure to the weather, and this is the case with some of the dark brown freestones employed for building purposes. It absorbs moisture, expands with frost, and then scales off with rains. Any cheap means to prevent the crumbling away of such stones should meet with attention. Linseed oil applied to such stones will protect them, but it imparts to them a dark and somber appearance. A method of protecting stone with a solution of silicate of potash is now extensively carried out in Paris. It has been tested at the Louvre, Notre Dame, and other important works, and with success it is stated. This solution is mauufactured by fusing 2 1-4 parts of clean white sand with one part of potash by weight, then dissolving the product in about 8 times its weight of boiling water. The stone work of the buildings to which it is to be applied, are first cleaned, then troughs hugged with clay are placed against the part of the building intended to be silicated, so as to collect the solution, which is applied with a syringe at intervals of three or four hours for about four days, or till the stone (when dry) ceases to absorb.

It is considered desirable that this process should be repeated, but to a less extent, the following year. The color of the stone is not materially changed, provided the absorption is tolerably equal and the silicalization effected by a sufficient number of applications of weak solutions, both of which conditions are necessary to success.

The phenomena of induration is thus explained:—The carbonic acid of the atmosphere separates the silica from the potash, leaving it deposited in the pores of the stone, when, should the carbonate of lime be present (as in limestone), it combines with it, and forms the silicate of lime, while the soluble salt—viz., the potash—is removed by the rain or other means.

This solution, we understand, was tried on the new Houses of Parliament, in London, but without that success, it is stated, which has attended the French artists.

Improved Wiring Machine.

The accompanying engraving illustrates a new Wiring Machine, by Shepherd and Stowe, which is now on exhibition at the great American Institute Fair, Crystal Palace, N. Y.

A is the frame of the machine, which carries the lower roller, and to which the frame that holds the upper roller, C, is hinged at D, allowing the frame, with its roller, C, to turn on the pin, D, in order to put in and take out the work. G is a crank screw, by which the roller, C, is depressed; the spring on top of the machine raises said roller. H is a forming gauge, and is set to form any circle, by means of the screw and gear, seen at E.—B is an adjustable gauge, fitted to the lower roller, J, and its shaft, and revolving with them. This gauge is set to take in wire of any required size, by means of the nut, F.

In wiring any vessel the work is placed between the rollers, C and J, fig. 2, and the gauge, B, moved up to press the work tightly between the surfaces of the rollers, C and J, and the gauge, B; the machine is then set in motion, when all these surfaces help feed the work through the machine.

By this improvement the friction on the fixed gauge, found in the old machines, is entirely removed, and work is fed through the rollers by all the surfaces on which it rests. So perfectly is this done that the work needs no aid from the operator in forcing it through the rollers in wiring even coal hods or the heaviest brass kettles. By hinging the frame of the roller C at D, a most desirable result is obtained for the durability of the machine, viz., that of keeping the boxes closely fitted to the journals of the upper roller while it is raised to put in and take out the work.

Different sizes of these machines are made at prices ranging from $14, worked by hand, to those fitted up with pulley and clutch, costing $50. For further information apply at the Palace, or address the Stowe Manufacturing Co., Plantsville, Conn.

IMPROVED WIRING MACHINE FOR TINSMITHS.

Fig. 1

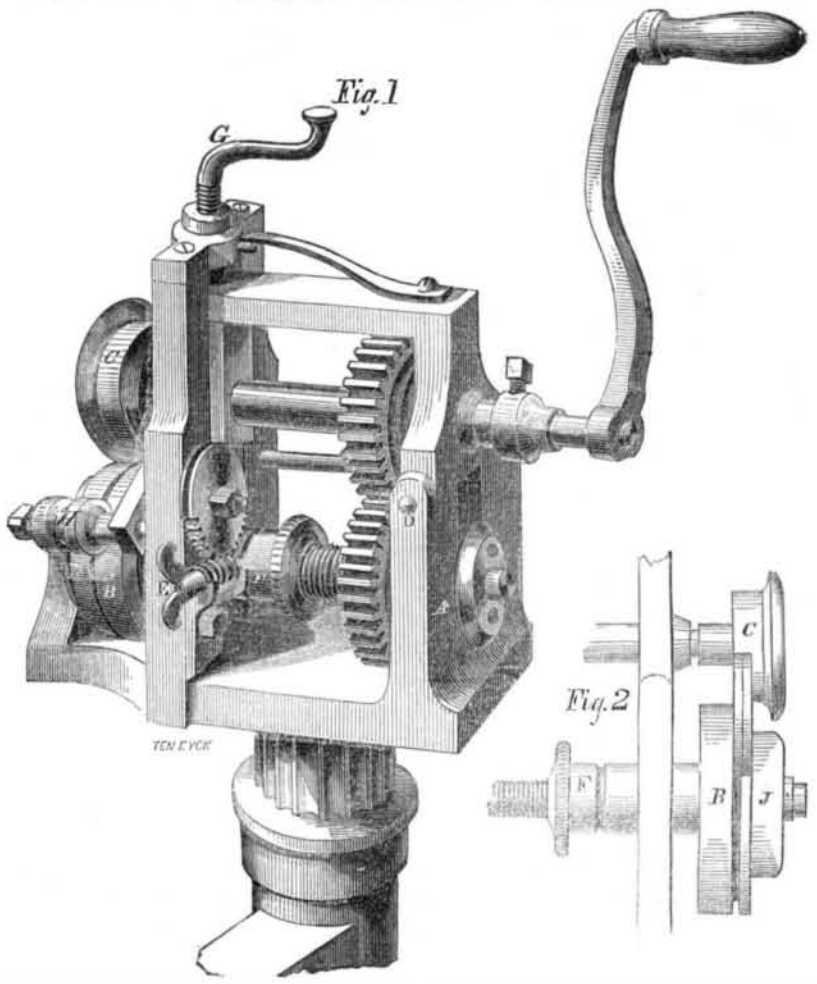
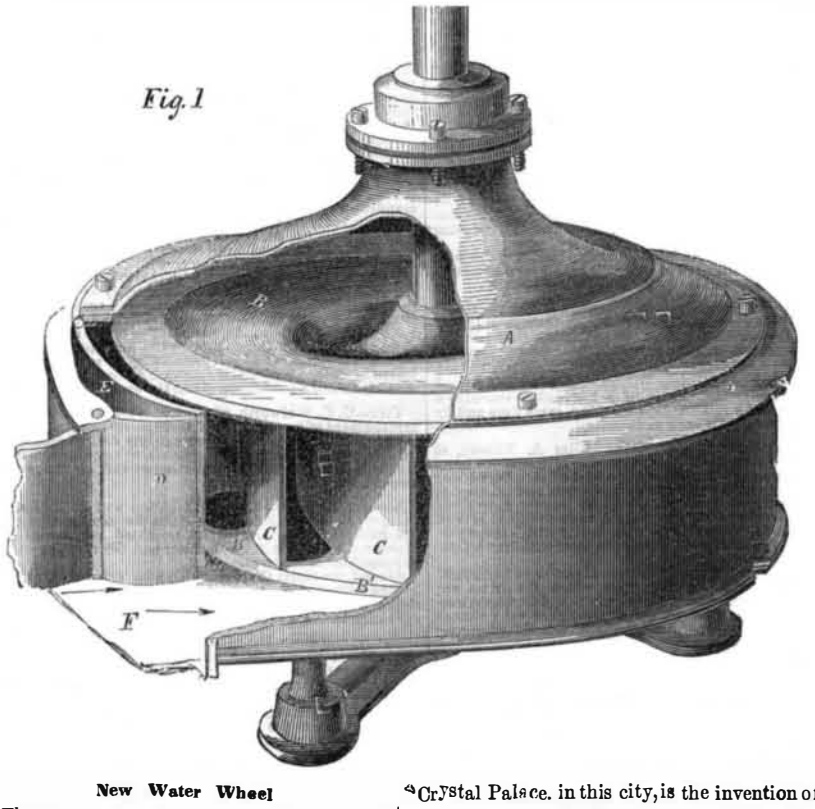


Fig. 2

NEW WATER WHEEL.

Fig. 1



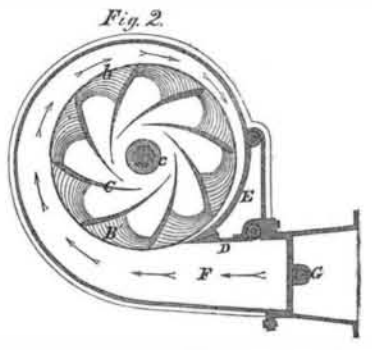
New Water Wheel

The only water wheel shown at the present great Exhibition of the American Institute Crystal Palace, in this city, is the invention of Mr. John Tyler, of West Lebanon, N. H. Our illustrations are taken from the operating machine at the Palace, where it attracts much observation from the large percentage of power which it affords, although the wheel is comparately small, being of two horse power.

Fig. 1 is a perspective view of the improvement, the shell, A, being partly broken away. Fig. 2 is a horizontal section of the wheel and shell, the upper portions being removed.

The wheel is enclosed by a scroll-shaped water-way, F, and is constructed in the following manner, to wit: draw a circle, *b*, corresponding with the periphery of the wheel to be constructed; then from the same center draw an inner circle, *c*, of only one-third the diameter of the said outer circle; then place the stationary leg of the compasses upon said outer circle, and so adjust the marking leg of the instrument that its point will form a tangential curve to the inner circle, *c*, which curve, when extended to the outer circle, *b*, will give the required shape of the convex surface of each of the buckets, C, and the relative position that each bucket should hold to the periphery and center of the wheel. The upper edger edges of the buckets, C, are cast in one piece with the head, B, whose under surface curves upwards and outwards, from the aperture in its center to its periphery, in lines whose radius corresponds with that of the periphery of said head. The lower edges of the buckets, C, are connected to each other by means of a rim, B′, whose inner edge is of scollop-shape. The said rim, B′, extends inwards, in contact with the convex surface of each bucket, a distance equal to about three-sevenths of the length of said surface, and from that point, curves outwards and downwards to a narrow connection between said rim, and the outer extremity of the concave surface of the next bucket in succession. The

Fig. 2.



object of giving the aforesaid shape to the rim, B′, is to conduct the water in a solid body from the water-way against the central portion of the convex surface of each bucket, and then as soon as it has performed its propelling function, allowing it freely to fall out of the wheel and not re-act upon the concave surfaces of the buckets.

The object of giving a curving or dish-shape, to the head, B, of the wheel, is to enable the water, as it enters the wheel, to exert an upwardly lifting action upon it, also cause the water to be kept in a compact mass, and to pass so rapidly and so cleanly through the wheel, that there can be no loss from the re-action of sluggish water between the buckets.

The lifting action of the water as it enters the wheel, will cause it to run more lightly, and consequently with a much less amount of friction.

In connection with this wheel there is an improvement in the water way, which consists in providing movable lips, D E, of such shape that their inner curved surface, E, brings the scroll to a point at the periphery of the wheel when the lips are closed, and whose straight surface, D, forms one side of the mouth, F, of the scroll water-way. The lips are both pivoted. It will be perceived that the pressure and friction of the water as it passes into the mouth of scroll water-way

will keep the lips closed. But should sticks or other obstructions be drawn into the wheel and be brought in contact with lip E, it will be thrown open and the obstruction will pass by, thus preventing injury to the curb or to the buckets of the wheel.

This improvement also enables the extremity of lip, D, to be brought much closer to the extremities of the buckets of the water wheel than it would be safe to do if it were a solid portion of the curb, which causes the water to act with greater efficiency upon the wheel.

We have seen testimonials from a number of persons who now have these wheels in use, and they all speak of the invention in the highest terms of commendation. Its extreme simplicity, portability, and ease of management will insure for it a very general use. It runs with great steadiness, is easily regulated, is adapted to high or low heads, runs in back water, is not liable to freeze up, has but little friction, only a short time and but little expense is requisite to put them in. Price $35 up, according to size. For further information apply at the Palace, or address the inventor as above. Patented July 8, 1856.

A suspension bridge is to be built from Cinnati to Covington, sixty feet in hight.

No less than 836,850 pounds of quicksilver were exported from California during the last six months ending July 1st.

[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING OCTOBER 30, 1856.

Ring Bolt for Ship's and Boat's Tackle—Hubbard Bigelow and Mortimer M. Camp, of New Haven, Conn.: We do not claim an eye or ring bolt made in parts, that can be secured to or released from each other.

But we claim the tongue, C, the holdfast, D, and the levers, E E', as arranged in relation to the body, A, in the manner and for the purposes set forth.

Soda Fountains—J. F. Boynton, of Syracuse, N. Y.: I claim first, the described arrangement of the plunger, E, and vessel, D, or any other arrangement substantially equivalent thereto, whereby the acid may be measured and delivered to the other ingredients in determinate quantities, as set forth.

Second, the spring drip valve, b, or its equivalent, whereby the vessel, D, is entirely emptied of acid after a charge is worked off, as set forth.

Uncoupling R. R. Cars—Wm. O. George, of Richmond, Va.: I claim the arrangement of sliding rods running longitudinally beneath the platforms of railroad cars, so connected with the coupling pins of the different cars that they may be simultaneously detached from each other by simple contact of the sliding rods at the same time that the engineer or conductor is enabled to disconnect one or more of the cars, if desired, substantially in the manner set forth.

Vegetable Cutters—George W. Childs, of Liberty, Pa.: I claim the vibrating cross knives, h h, operating in the manner set forth.

Smut Mills—Joel W. Cormack, of Quincy, Ill.: I do not claim creepers, or flanges, or cones, in themselves, as new.

But I claim the combination of the cones, E, and creepers, c c, arranged and operating in connection with the flanged rims, J J J J, attached to the cones, H and M, in the manner and for the purpose set forth and described.

Folding Paper—Cyrus Chambers, Jr., of Kennett Square, Pa.: I claim, first, causing a folding machine to make the crease for the fold in paper, or other substances, so that any number of sheets fed successively to the said machine may be folded to correspond to the printing or other impressions made thereon by means of the points or register pins, I I, or other equivalents, and the holes by which the sheet was registered upon the press, or the holes or marks made in the sheet for any other purpose, the said pins being adapted to the said holes or marks, and the sheet or substance to be folded placed upon the said pins by using the said holes or marks for that purpose.

Second, I claim the manner of adjusting the register pins, I I, and their peculiar movement, as described, for the purposes specified.

Third, I claim supplying the straight edge or blade, or its equivalent (which forces the paper into recesses or between converging surfaces or their equivalents) with fine points, as and for the purpose specified.

Fourth, I claim the bars, Q Q', and the stops, S, independent of and in combination with each other, as well as the bars, Q Q', or the stops, S, separately or combined as described, in combination with the endless belts T T.

Fifth, I claim arranging the rollers, B B', which make the second fold below the rollers, A A', which make the first fold and the rollers, C C, which make the third fold below B B, and in like manner any number of rollers, so that the substance to be folded may be forced downwards between each pair, thereby enabling a single series of endless belts or their equivalents, to conduct it from one pair of rollers and present it for the action of the next.

Sixth, I claim the fly, U, in combination with the endless belts, 2 2, and the mode of making the support of the said fly adjustable; also the manner of moving the said endless belt, substantially as described.

Seventh, I am well aware that endless belts have long been used for conducting paper in folding and other machines. Therefore I do not claim them as my invention.

But I claim arranging a single series of endless belts, substantially as described, so that paper or other substances may be conducted by them horizontally from a pair of rollers when passing downwards between them.

Eighth, I claim gearing the rollers in such manner as to decrease the speed of the periphery of each successive pair, in the proportion and for the purpose specified.

Ninth, I claim controlling the first blade or plate of folding machines by a treddle or other means, for the purpose specified.

Hose Coupling—Lewis M. Ferry, (assignor to J. T. Ames,) of Chicopee, Mass.: I do not claim any of the parts separately.

But I claim the combination and the application of the various devices described, for the purpose of coupling firemen's hose.

Mixing Mortar—Benj. F. Field, of Beloit, Wis.: I claim the of a revolving box of a cylindrical or other form made to rotate upon the ground, for the purposes of mixing mortar by the action of the cross rods, substantially as described, whilst at the same time it serves to carry the material from place to place, in combination with the method substantially as described, for discharging the mortar from the revolving box.

Fly Trap—George Gilbert, of Westville, Conn.: I disclaim the use of floats, ledges, or any other projections on the surface of the cylinder.

I also disclaim the use of a movable cleaner or wiper of any description whatever to remove the flies from the surface of the cylinder, or to force them into the box or any other receptacle, as neither projections nor cleaners are needed or used in my manner of constructing and using the fly trap

I claim the combination of the revolving cylinder with the screens or wire work, when the whole is constructed, arranged, and combined substantially as described.

Attaching Scythes to Snaths—David A. Goodnow, of Baldwinville, Mass.: I claim the screw, D, and dog, E, in combination with the projection, C, the whole being arranged in the manner and for the purpose described.

Harvesters—William Dripps, of Coatesville, Pa.: I claim giving to the cutters of a harvesting machine a traveling and a rotating motion, at the same time and by means substantially such as described.

Hide Frames in Tan Vats—Elias A. Eliason, of Georgetown, D. C.: I am well aware that hides have been immersed in quantities attached to frames, or wheels, or cords, in a horizontal position, and kept out of contact with each other, but in no instance have those several devices been connected to each other, in such manner as to form a frame or false vat by which the whole could be simultaneously immersed in or withdrawn from the liquor vat.

I claim, first, arranging a series of ranges of horizontal slats in a false vat or frame upon which the hides are placed one upon every range, whereby the whole may be simultaneously raised out of the liquor vat (without pumping off the liquor,) substantially as and for the purposes described.

Second, I claim the axial cross ties, D D, when connected with the frame, C, in combination with the hookedrods, F F, and shaft, e, whereby the frame or false vat may be revolved or reversed for the purposes described.

Buoys—William M. Ellis, of Washington, D. C.: I claim, first, the method described of moving buoys, beacons, and floating bodies, by having their cables attached to said bodies in the line of their calculated center of tidal pressure.

Second, the method of connecting the forked or V link or shackle to the said buoy or floating body by means of a trunnion bolt passing through a metallic tube or pipe properly set and secured within the said body.

Elastic Plate Paddles for Steam Vessels—Auguste Jouan, of San Francisco, Cal.: I claim the series of vertically divided elastic plate paddles, arranged as set forth.

Bending Wood—Edwin, Artemas, and Cheney Kilburn, of Burlington, Vt.: We claim the bending of wood by forcing it endwise of its fibers into a mold, which is closed on all its sides, but has an open end, is curved longitudinally in the required form, and has the dimensions of its internal transverse section of the piece of wood, thus causing the wood to be confined in a lateral direction during the bending process, for the purpose of preventing the separation of the fibers, as described.

Feeding Pulp to Paper Making Machines—Israel Kinsey, of Hohokus, N. J.: I claim regulating the flow of pulp for making paper upon the web or cylinder of the paper machine by the pressure of the pulp in a box, A, receiving its supply of pulp from the stuff chest, E, through the aperture, f, in the trunk, R, and discharging it through an adjustable aperture, p, below the surface of the pulp in the box, A, the pressure being regulated and kept uniform by the hight of the pulp, h, in the box, A, which is adjusted and maintained by means of a valve, e, fitting the aperture, f, operated by a float, B, substantially as described, the combination of the several parts forming a self-acting regulator, for the purpose of making paper of equal thickness.

Measuring Fluids while Drawing—Saml. Krauser, of Reading, Pa.: I claim severing or separating a given quantity of liquid from a mass or column by a traveling tube and plunger, operating together substantially as set forth.

I also claim the gauge plates, N N N, in combination with the valve seat, or packing of the plunger fitting thereto for adjusting the measuring apparatus to the exact quantity to be drawn, substantially as specified.

Plate-Holder for Photographic Cameras—Wm. Lewis, and William H. Lewis, (assignors to Malonzo J. Drummond,) of New York City: We claim forming the glass or vitrified corners, h, with a flanch or rim in one solid piece, the said flanch or rim taking the edges of the photographic glass, or other plate, substantially as and for the purposed specified, and irrespective of the manner in which the said vitrified corners are attached to the frame.

We als claim the receptacle, d, below the glass or other plate to catch any drippings from said plate, substantially as specified.

Harvesters—Israel S. Love, of Beloit, Wis.: I claim the use of the movable rolling guides placed between the cutting blades, and the sill of the harvesters, whether they be used with a sill made entirely of metal or partly of wood, with more or less metal attached to the same.

Cleaning Wool—A. W. Putnam, of Brooklyn, N. Y. I claim the combination of the main picker cylinder, and the open and closed concave, in combination with the burring cylinder, arranged and operating substantially as described.

I also claim the burring cylinder in combination with the adjustable burring bar or bars, arranged and operating substantially as described, for stripping the burrs and other foreign substances on the fibers as described.

Sash Lock—Owen Redmond, of Rochester, N. Y.: I claim the swinging bolt, B, in combination with the slide, S, and case, O, constructed, arranged, and operating as described, so that the gravity of the slide, shall shoot the bolt, and maintain it in position.

Glass or Earthen Truss Pads—C. C. Reinhardt, of Baltimore Md.: I claim the attachment of metallic backs to the glass faces of truss pads by a flange around the edge of the back slipping within the rim, constituting the edge of the glass face piece, substantially as and for the purposes specified.

Cutting Irregular Forms—Charles Spofford, of Amesbury, Mass.: I do not claim the invention of a rotary cutter cylinder. Nor do I claim combining knives in any manner with a rotary cutter head or frame to hold said knives so that said head or any part of it may serve as a guide to the form or pattern carrying a material to be dressed.

I claim the combination of one rotary cutter, two guide heads, B and C, and two tables, G H, arranged as described.

I also claim the combination of a vibratory spring presser, I, with a rotary cutter stock, A, and two tables, G H, the said presser being made to operate with respect to the cutter stock and tables, and either guide, B C, as specified.

I also claim the combination of mechanism for moving the vibratory spring presser and its spring towards either of the tables, and locking the shaft to the spring, the same consisting of the arm, M, the two turning bearers, R S, and the treadle or lever, N, connected to the bearers by pitmans, O P, as described.

And in combination with the mechanism for moving the vibratory presser, and its spring towards either of the tables and locking the shaft to the spring, I claim the auxiliary treddle, T, applied to the main treddle, and supported by a swinging bar, substantially as explained.

Finishing Gas Pipe Fittings—C. C. Walworth, of Boston, Mass.: I claim the arrangement and combination of the machines operating substantially as described, in a plane around a common center, for the purpose of screwing or tapping different ends of gas pipe fittings at the same time when connected by means of a wrist plate and slotted connections, or their equivalents, for the purpose of bringing the taps to their work, and yet permit either of them to advance or recede without interfering with the others.

Nut Machines—W. E. Ward, of Port Chester, Y. Y. I do not wish to be understood as limiting my claim of invention to the special form, construction, or arrangement of the several parts, as the same mode of operation may be obtained by the substitution of equivalents.

I claim the two punches arranged side by side, and operated substantially as described, for punching the central hole, cutting off the blanks from the bar, and discharging the same, substantially as described, in combination with the two holes or two dies, so that a hole is punched in the bar for another nut, during the continued motion of the punch to discharge the nut which was cut off during previous part of the same motion.

I also claim, in combination with the punching and cutting operation or either, and with the mandrel, or its equivalent for entering the central hole of the nut blank, the employment of the spring jaws or the equivalents thereof, for transferring the nut blank from the die to the mandrel. and there holding it until the mandrel enters the hole, substantially as described.

I also claim the holding of the nut blanks on the mandrel, in combination with the swages for swaging the faces of the nuts, substantially as described.

I also claim in combination with the mandrel for holding and turning the nut blanks, substantially as described, the employment of the hammers for hammering or swaging the edges of the nuts, substantially as described.

And, finally, I claim the combination of the swages for swaging the faces of the nuts, with the hammers for forging the edges of the nuts, substantially as specified, by means of which the metal is thoroughly compacted in all directions, and a good finish given the entire blank.

Vise—C. C. Walworth, of Boston, Mass.: I claim the arrangement of two vises so as to revolve about a common center, and locking the same in any desired position by means of the lever, G, and notches, or any other suitable device, substantially in the manner and for the purpose set forth.

Brick Machines—G. J. Washburn and E. H. Bellows, of Worcester, Mass.—We claim the combination of the balanced arm, L, with the weighted reciprocating plunger, I, operating in the manner and for the purpose substantially as set forth.

Second, we claim the means by which the plunger is locked with, and disconnected from the cylinder, D, consisting essentially of the pins, f and g, and the arms, o, operating in the manner substantially as described.

Cutting Round Files—M. D. Whipple, of Charlestown, Mass., assignor to A. B. Ely, of Newton, Mass.: I claim operating upon the blank immediately beyond its point of support, in the manner and for the purpose substantially as described.

Second, I claim feeding the blank forward and rotating it upon its axis as the cutting proceeds, when it is operated upon by the vibrating cutters, in the manner substantially as set forth.

Third, I claim the method described, of operating the cutters by means of the wipers, b, and the springs, A2 and Z, whereby the force of the blow is diminished as the size of the blank decreases, as set forth.

Fourth, I claim forming the cutters of circular disks or of portions thereof, in the manner and for the purpose substantially as set forth.

Bracket for Door Springs—A. J. Walker, of New York City: I do not claim the application of steel rods to doors to act as springs.

I claim constructing one of brackets, used for attaching such rods, with an additional hole for receiving and holding them when in operation, said additional hole bearing such a relation to the first that by changing the spring from one to the other, greater nicety can be observed when applying it, in regulating the power with which it shall act, and of attaching to said bracket a lever to assist in twisting the spring when applying it.

I also claim securing said bracket in its place by means of a socket inserted in the door or casing, or any other means substantially the same, that will instantly secure it, after it has been applied to the spring, and the necessary power obtained, and will also allow of its being easily removed and re-attached when it is desirable.

Hoop Machine—W. B. Wood, of Fitchburgh, Mass.: I do not claim splitting hoop poles by forcing them against the edge of r stationary knife. Nor do I claim shaving them by means of revolving cutters. Neither do I claim any of the individual devices employed, nor their combinations.

But I claim the peculiar arrangement of the several parts of the described machine, operating in the manner specified, for the purpose of splitting the poles and shaving the hoops at one operation, as set forth.

Pincers for Lasting Boots and Shoes—Benj. F. Sturtevant of Skowhegan, Me., assignor to E. Townsend, of Boston, Mass.: I do not claim a lasting tool in which the two sets of jaws are brought together by means of a screw, as this is a well known method of constructing such tools.

I am also aware that the exterior jaws of such tools have been caused to close upon a central step or block, thus forming a species of compound pincers or lasting tool.

But I claim the described instrument for lasting boots constructed and operating in the manner substantially as set forth.

Mill Stone Dress—W. P. Coleman, of New Orleans, La.: I do not claim a circle dress or curved furrows, the radii of which are equal to the radius of the stone or thereabouts, nor yet the straight tangential furrows, of themselves or apart from their relative arrangement, combination, and operation together in the two stones.

Neither do I claim of itself the curved furrows arching in opposite directions in the two stones, and gathering in the grain towards the eye.

But I claim forming the master and subordinate furrows, C D, of the stones, substantially as described, viz., the straight portions of the furrows being tangential with the eye, and with circles concentric therewith, and the curved portion being segments of a circle of equal curvature, or thereabouts, so that of the outer peripheries of the stones for the purpose of rapidly throwing the grai outwards in the early action of the furrows, and retarding or gathering it in by the after or outer portions thereof, as set forth.

Coiled Spring for R.R. Cars—Carlos French, of Seymour, Conn.: I claim composing the coiled leaf of two or more leaves placed the one below the other, said component leaves being welded together at one or both ends thereof, substantially as set forth.

RE-ISSUES.

Burning Wet Fuel—Moses Thompson, of New Orleans, La. Patented April 10, 1855: I do not claim the described arrangement of a series of fire chambers to communicate with one common flue irrespective of the purpose for which, and the manner in which I employ th said arrangement.

But I claim the combustion for the purposes of a high degree of heat of bagasse, refuse tan saw dust, and other wet refuse substance or very wet and green wood. by the employment of a series of fire chambers arranged in any manner substantially as described, to communicate with one common flue or mixing chamber, when any number of said chambers are nearly closed to the admission of air when first charged, as described, whilst the remaining chamber or chambers, is in full communication with the flue, and has a free supply of air admitted, and the ash pit of each chamber, in its turn, is nearly closed and then opened, and has air admitted, whereby the heat required is rendered continuous and comparatively uniform, while the fuel in some of the chambers is being heated and decomposed to a desirable degree, as set forth.

Buff for Polishing Spoons—Luther Boardman. of East Haddam, Conn. Patented Dec. 15, 1843: I claim a cylindrical buff composed of soft leather disks or rings, when the outer portions of said disks are left perfectly free from each other, so as to admit of the yielding necessary to their proper action, substantially as described.

Hat Bodies—Chas. St. John, H. A. Burr, Albert H Wright, and J. M. Riblet, of New York City, assignees of H. A. Wells, deceased. Patented April 25, 1846: We do not wish to be understood as limiting the claim to such mode of application, as other modes may be devised, operating on the same principle, or having the same mode of operation, and only differing therefrom in the substitution of equivalent means.

We claim forming the bat of fur fibers on a perforated cone or other form, substantially as described, in combination with the hardening of such bat, while on such cone or other form, to give it the required consistency to admit of taking it off in a suitable condition for sizing by the well known process of felting, substantially as described.

Door Locks—J. P. Sherwood, of Sandy Hill, N. Y., assignor to Calvin Adams, and re-issued to said Sherwood. Patented December 17, 1842, and re-issued to said Adams May 13th, 1851: I claim making the cases of door locks and latches doubled faced, or so finished that either side may be used for the outside, in order that the same lock or cased fastening may answer for a right or left hand door, substantially as described.

I also claim the peculiar construction and double action, upon an inclined and horizontal track or way, of the locking car, B, as described, and the combination of the locking car, B, and safety cars, G G2, with one another, and with the connecting or vibrating bar and bolt, A, as described, so as to fasten the bolt, c, securely, and prevent its being picked.

I also claim so constructing the bolt, as described, that by simply turning it over in the lock case, it is adapted to a right or left hand door.

DESIGNS.

Cooking Stoves—Daniel Wilson, of Nashua, N. H.

Cylindrical Coal Stoves—Russel Wheeler and S. A. Bailey, of Utica, N. Y.

Cooking Stoves—H. E. Bridge, of St. Louis, Mo.

Bust of J. C. Fremont—John Gott, of Albany, N. Y.

Stoves—N. S. Vedder and W. L. Sanderson, of Troy, N. Y., assignors to North, Chase, and North, of Philadelphia, Pa.

Stoves—S. W. Gibbs, of Albany, N. Y., assignor to North, Chase, and North, of Philadelphia, Pa.

Parlor Stoves—Jacob Beesley and E. J. Delaney, (assignors to Cresson, Stuart, and Peterson,) of Philadelphia, Pa.

Cooking Stoves—N. S. Vedder, of Troy, N. Y., assignor to Graff, Reisinger & Graff.

Cooking Stove Plates—N. S. Vedder (assignor to Mann, Torrance & Co.,) of Troy, N. Y.

Stoves—Garrettson Smith, Henry Brown, and J. A. Read, of Philadelphia, Pa., assignors to Hayward, Bartlett & Co.

Francis' Metallic Boats in England.

Renewed experiments—we learn by the London *Mechanic's Magazine*—have been made recently with the above-named boats at the Woolwich Arsenal. These were very satisactory, and the authorities, Sir G. Pollock Sir F. Abbott, Gen. Brooke, and Col. Tulloch, expressed their decision of urging the government to adopt them for every purpose to which they can be applied.