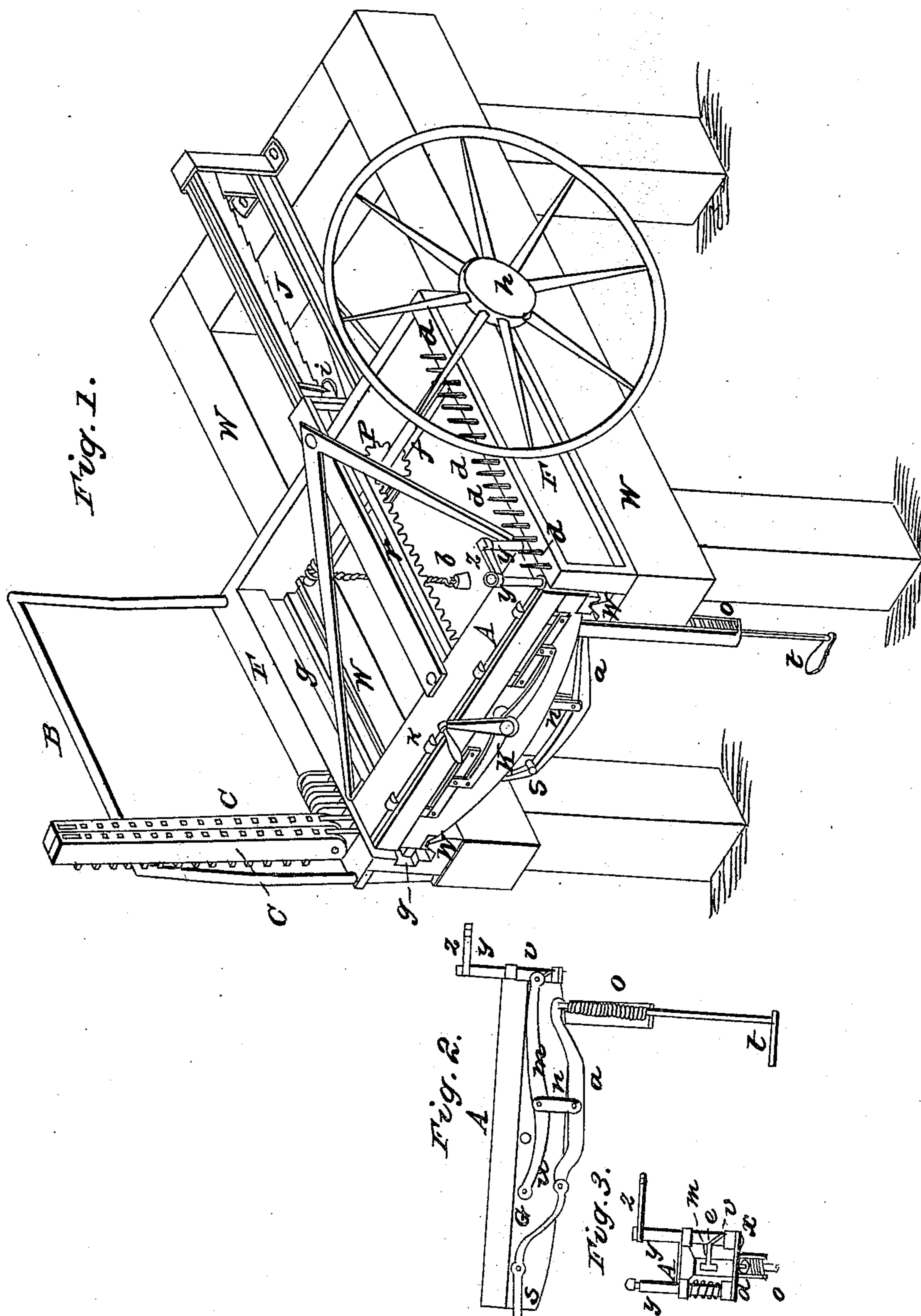


H. WHIPPLE. Dividing Engine.

No. 16,817.

Patented March 10, 1857.



UNITED STATES PATENT OFFICE.

HEMAN WHIPPLE, OF SHAFTSBURY, VERMONT.

MACHINE FOR STAMPING FIGURES ON CARPENTERS' SQUARES.

Specification of Letters Patent No. 16,817, dated March 10, 1857.

To all whom it may concern:

Be it known that I, HEMAN WHIPPLE, of Shaftsbury, in the county of Bennington and State of Vermont, have invented a new and Improved Method of Stamping the Figures onto Carpenters' Squares, Rules, etc.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in providing a strong rectangular frame of iron, the right and left sides, and the rear end consisting of a single piece (or being firmly attached at the corners,) and the front end, or space being filled with an anvil, on the face of which the square is confined for stamping, and which slides laterally on ways on the inside of the frame. A row of chases, set with the proper lines of figures to be stamped on all the different parts of the squares stand in nearly a vertical position, on the left side of the frame, so that any line on the square, may, by a lateral movement of the anvil, be brought directly opposite to the proper chase, which being attached to the frame by joints, or hinges is brought down, and confined to the face of the square by a clamp, when the left end of the anvil is raised and pressed against the chase, and the right end of the chase is pressed down onto the face of the anvil, both at the same time, by the action of levers moved by a treadle, and the figures, standing on the face of the square, are struck in quick succession with a hammer, and with sufficient force to give the desired impression on the square.

To enable others skilled in the art to make and use my said invention, I will proceed to give a more particular description of its construction and operation; and shall have occasion to refer to the accompanying drawings and to the letters of reference marked thereon, viz: Figure 1, an isometrical perspective of the whole stamper; Fig. 2, a vertical section showing the interior of the anvil; Fig. 3, a transverse section of the anvil.

W, the wooden frame to which the metallic frame is attached. F, a strong rectangular iron frame, the right and left hand sides and the rear end, being in one piece or firmly connected, and the front end, being filled by the anvil A, which moves laterally on ways on the inside of the frame. w, the way on the inside, of the side of the frame, on

which the anvil is moved back and forth, laterally. A, the anvil—to the face of which the squares are confined for stamping— 60 having a deep groove on the bottom side, extending its whole length, in which are situated three levers, whose combined operation presses the right end of the chase on to the anvil, and raises the left end of 65 the anvil up to the chase. It is moved laterally on ways w, by the rack r, and pinion p, counterbalanced by the weight b, so that the end of the square may be brought directly opposite to the end of any one of the 70 chases, standing in a line on the side of the frame F. c, the chases equal in number to all the different lines of figures to be impressed on all the various kinds of squares. Standing on end in a line, on the left side 75 of the frame F, and having joints or hinges at the bottom end, they may be swung down onto the particular line, or space on the square, for which the figures were arranged. R, the rail on the back side of the frame, 80 against which the chases lean. r, the rack, attached to the back side of the anvil A, and extending back through the rear end of the frame, and is turned back by the hand wheel h, the hand wheel on the end of the shaft 85 f, by which the anvil is moved, by hand, back and forth, laterally, by the agency of the rack and pinion. p, the pinion on the shaft f, acting on the rack r. f, the shaft of the hand wheel h, and pinion p. b, the 90 counterbalance weight, pressing the anvil forward. d d, a row of guide pins equal in number to that of the chases and standing directly opposite to them on the other side of the frame F, a slot at the top of the chase 95 being brought down onto the pin to guide it to the proper position on the face of the square. G, a deep groove in the bottom of the anvil, in which the levers act. g, a 100 groove in the left side of the frame F, in which the end of the lever S, (by which the end of the anvil is raised) slides back and forth. S, the spring lever—being hung on a pin, or fulcrum in the groove G, in the anvil, from which the short end of the lever 105 projects across the way w, into the groove g, against the bottom edge of which the lever is pressed, to raise that end of the anvil up to the chase. The long end being a little curved and flatted, acts as a stiff spring to 110 sustain the anvil, while the square is being stamped; and is connected by a joint to the short end of the adjusting lever a. a, the adjusting lever—extending from the curved

end of the lever *S*, to the other end of the anvil, its fulcrum being the shackle bar *n*, by which it is connected to the long lever *m*, its long end being acted on by the treadle *t*, (which presses on the counteracting spiral spring *O*,) by which the end of the anvil is raised to the chase, and at the same time bringing down the long end of the long lever *m*, and in its way down, turning the bolt *y*; and clamp *Z*, one quarter around—and moving the cross bar *x*, to press the clamp *Z*, onto the top of the chase and confine it there. *O*, the spiral spring onto which the treadle *t*, presses. *t*, the treadle—acting directly, or indirectly on all the levers. *v*, a spiral groove in the bolt *y'*, in which the pin *e*, moves, to turn the bolt and clamp *Z*, at its top, one quarter around. *m*, the long lever—extending from its fulcrum *u*, in the groove in the anvil, to the cross bar *x*, the long end being pressed down by the treadle *t*, onto the cross bar *x*, the bolt *y'*, being turned one quarter around by the pin *e*, pressing down the clamp *Z*, onto the top of the chase, and confining it in the proper position for stamping. *X*, the cross bar, placed horizontally between the end of the anvil and side of the frame *F*, connecting the bottom ends of the bolts *y*, and *y'*, so that they are both pressed down by the end of the lever *m*. *y*, a round bolt—standing on, and attached to, the front end of the cross bar *X*, and held in its upright position by bands at the corners of the anvil; and kept up to its resting position by a spiral spring coiled around the bolt between the said bands, through which it is carried down by the pressure of the lever *m* on the cross bar *x*. *y'*, a bolt equal in dimensions to the bolt *y*, standing and turning in a hole at the rear end of the cross bar *X*, and having near the bottom a spiral groove of a steep pitch, extending one quarter around the bolt—in which the end of the pin *e*, moves, turning the bolt and clamp, attached to its top, one quarter around, bringing the clamp across the top of the chase and pressing it on to the square. *Z*, the clamp—attached to the top of, and at right angles with, the bolt *y'*, and when at rest, lies in a line with the anvil *A*, but when the bolt *y'*, is turned by the pressure of the pin in the spiral groove *v*, the clamp swings one quarter around, and takes hold of the top of the bolt *y*, above the chase, which by the action of the treadle is pressed onto the top of the square. *n*, the shackle bar—the fulcrum to the lever *a*, connecting it to the lever *m*. *e*, a pin at the end of the lever *m*, moving in the groove *v*, to turn the bolt and clamp *Z*. *u*, the fulcrum to the lever *m*. *h*, the clasp by which the square is confined to the anvil. *j*, the ratchet so graduated as to direct and stop the anvil. *i*, the catch acting on the ratchet.

Operation: The several parts of the stamper being constructed and arranged as herein specified, a square is confined to the face of the anvil by an eccentric clasp or otherwise; the hand wheel *h*, is turned to bring the end of the blank line on the square directly opposite the chase containing the figures to be impressed; the chase which stands on the side of the frame, is now turned down onto the face of the square the right place being directed by the slot at the top of the chase which is slipped onto the proper guide pin *d*. The treadle is then pressed down, which raises the long end of the lever *S*, bringing down the short end, and pressing it onto the lower edge of the groove *g*; by which that end of the anvil *A*, is raised and pressed against the chase, and the long lever *m*, being attached to the lever *a*, by the shackle bar *n*, the pin *e*, moving in the spiral groove *v*, turns the bolt *y'*, and also the clamp *Z*, which takes hold of the top of the bolt *y*, when the end of lever *m*, presses down the cross bar *X*, carrying with it the bolts *y*, and *y'*, pressing the clamp onto the top of the chase and confining it there for stamping—when each of the figures are struck with a hammer in quick succession, with sufficient force to make the desired impression. The pressure is now taken from the treadle, the pin *e*, in its way up, turns back the bolt *y'*, and clamp *Z*, and the chase is turned back against the rail *R*, and, when more than one line of figures is to be stamped upon the same side, the anvil is moved laterally by the hand wheel, till the end of the vacant line is opposite to the desired chase; which is turned down—the chase confined at both ends as before by the action of the treadle on the levers and the figures impressed with the hammer.

What I claim as my invention and desire to secure by Letters Patent is—

1. The arrangement of a series of chase bars jointed at one side of the machine, when combined with the anvil sustaining the square and with the hand wheel *h*, rack or racks *i* and pawl *i*, for regulating the relative positions of the anvil and chase bars substantially as and for the purposes specified.

2. I claim the arrangement of the levers *s*, *a*, and *m*, bolts *y*, and *y'*, bars *Z* and *X* and slot *v*, and pin *e*, for the purposes and substantially as specified, whereby the arc motion of the lever *a*, (by the treadle *t*) first turns the bar *Z*, around to confine the chase bar (*C*), and then gives the requisite compression of the chase bar at both ends onto the square or plate on the anvil to retain the same firmly while the chases are being separately struck into said square as specified.

HEMAN WHIPPLE.

Witnesses:

JOHN HASTINGS,
HORACE K. JONES.