



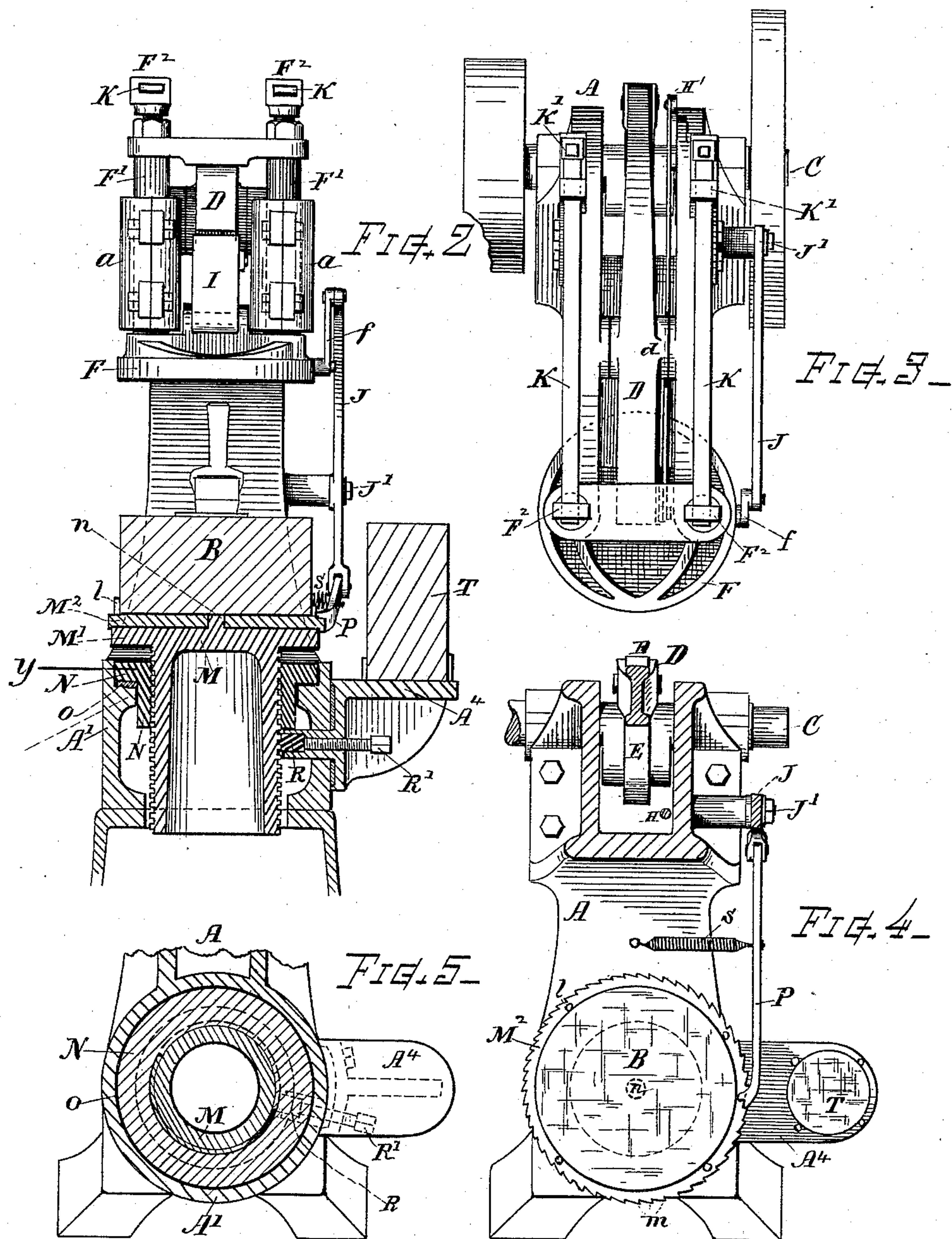
(No Model.)

2 Sheets—Sheet 2.

H. C. PEASE.  
LEATHER CUTTING MACHINE.

No. 445,588.

Patented Feb. 3, 1891.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## LEATHER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 445,588, dated February 3, 1891.

Application filed September 3, 1890. Serial No. 363,822. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. PEASE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Leather-Cutting Machines, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

This invention relates to that class of leather-cutting machines wherein handled dies are employed for cutting the leather, which is laid upon a wooden block supported beneath an overhanging arm or head having mounted thereon an upwardly and downwardly movable plate or striker, the same being combined with means for imparting intermittent action thereto for successively delivering a single blow or stroke upon the die, as required, under control of a treadle and actuating mechanism. An example of this class of machines is described in Letters Patent No. 276,979, heretofore granted me, and reference may be had to such patent for a more full understanding of the construction and operation of such parts of the machine as do not come within the scope of my present improvement.

The object of my present invention is to afford an improved construction of the block-supporting base to facilitate adjustment and render the machine more efficient and convenient for manufacture and for use; also, to provide means for the automatic rotation of the cutter-bed block, and, further, to provide a leather-cutting machine with a supplemental or auxiliary block on which to chop out scraps, &c., as more fully hereinafter explained. These objects I attain by mechanism, the nature and operation of which are illustrated and described, the particular subject-matter claimed being hereinafter definitely specified.

In the drawings, Figure 1 is a side view of a leather-cutting machine embracing my improvements. Fig. 2 is a front view of the upper part of the machine with the block and block-supporting base shown in section. Fig.

3 is a plan view of the top of the machine. Fig. 4 is a horizontal section at line *x*. Fig. 5 is a horizontal section of the cutter-block standard at line *y*.

The main frame A is made substantially as heretofore, with the overhanging top portion having bearings *a*, in which the guiding-bars of the striker are supported, while its under portion is provided with a hollow body or rim A', wherein is arranged the adjustable supporting-base for the cutter-bed block B, the whole being mounted on a stand or suitable legs, as indicated.

The operating-shaft C, its crank connection E, and the lever D for working the striker F, together with its engaging chock or quoin I and the actuating-rods H, angle-lever H', and treadle G, can all be of well-known construction, or substantially the same as described in my previous Letters Patent above named. The striker-lever is fulcrumed at *d* and is operated by the continuous rotation of the crank-shaft C, so as to throw down the striker F when the quoin I is swung back beneath the end of said lever by the operator placing his foot upon the treadle G in the usual manner.

For elevating the striker-head I provide two lifting-springs K, one at each side, which springs are arranged as indicated. The flexible end of the spring is connected with an eye-piece F<sup>2</sup> at the top of the guide-bar F', while the foot or rear end of the spring is supported by a bracket or seat-piece K', that is bolted to and projects above the main frame, and which is constructed in a manner to facilitate the adjustment of the spring for giving the requisite degree of tension or lifting force. A separate seat-piece is employed for each of the springs.

The mechanism for supporting the cutter-bed block is of improved construction, and consists of the supporting-base M, having a cylindrical body of about eight inches (more or less) diameter, furnished at its top with a plate or flange M', upon which is supported a horizontal supplemental rotatable plate M<sup>2</sup>, provided on its periphery with ratchet-teeth *m*, and maintained in proper relation by a central gudgeon or axial stud *n*. The wooden cutter-bed block B rests upon the supple-



mental plate  $M^2$  and is rotatable therewith, it being retained in position thereon by suitable pins or projections  $l$ , or in other suitable manner. The cylindrical body of the supporting-base  $M$  is screw-threaded upon its exterior and is fitted to a correspondingly-screw-threaded ring  $N$ , which latter is supported upon the main frame  $A$  by a ledge or offset within the hollow or rim  $A'$ , as indicated.

In the construction of the machine the cylindrical body and screw-threaded ring  $N$  are first fitted together, and the parts are then adjusted in proper position within the main frame. When so adjusted, the space at  $d$ , between the ring  $N$  and the main frame, is made solid by pouring therein melted metal, which fills up the space regardless of the inequalities and irregularities between the flanges of the ring and the ledge of the frame, and forms a permanent connection between the ring and frame, thus readily fixing the supporting-base in such position that the cutter-block will stand level, and with the axis of the screw-threaded cylinder vertical.

The cutter-block can be raised or lowered by rotating the screw-threaded cylindrical body within the ring  $N$ . This can be readily effected by placing the end of a bar in one of the holes formed for the purpose in the periphery of the top flange  $M'$  and using the same as a lever for rotating the screw-threaded cylinder.

$J$  indicates a lever fulcrumed on the side of the frame at  $J'$ , and having its top end connected with the striker by a link  $f$ , while its lower end carries a pawl  $P$ , that engages with the ratchet-teeth  $m$  on the supplemental base-plate  $M^2$ , upon which the cutter-bed block rests. When the striker descends, the pawl  $P$  is drawn back, and when the striker rises the pawl is forced forward, moving the plate, thus causing the intermittent revolution of the block  $B$  by short step-by-step movements as the machine is operated. A spring  $S$  serves to hold the pawl against the side of the ratchet, while a small finger or lug formed on the pawl rests upon the top surface of the plate and prevents the pawl from dropping down and escaping from the ratchet-teeth.

On the side of the main frame adjacent to the cutter-block  $I$  provide a projecting bracket or ledge  $A^4$ , whereon is supported a supplemental wooden block  $T$  about six inches in diameter, more or less, which serves as a hatchet-block or auxiliary attachment whereon the operator can conveniently chop out scraps or cut off such portions of leather as it is desired to save from the waste, using for such purpose the die or a hatchet ready at hand as a cutter, this supplemental block  $T$  permitting operation to be done quicker and with greater facility and convenience than can be done upon the main block  $B$  with the striker above it. The bracket  $A^4$ , that supports the supplemental hatchet-block, can be made integral with the main frame,

or be attached thereto by bolts, or connected in other efficient manner, and can be located in such relation to the main block as will be most handy and accessible for the attendant.

To prevent rotation of the supporting-base, I provide a stop device that in the present instance consists of a small bearing-block  $R$ , confined within an opening in the casting and combined with a set-screw  $R'$ , fitted in the casting with its end pressing against the bearing-block so as to force it against the surface of the screw-threaded cylinder, in the manner indicated in Fig. 2, and thereby hold said cylindrical body from rotating within the ring so long as the set-screw is turned in tightly; but the parts can readily be released when it is desired to adjust the height of the block by loosening the set-screw  $R'$ .

I claim as my invention to be herein secured by Letters Patent—

1. The adjustable block-supporting base having the cylindrical externally-screw-threaded body, the non-rotatable internally-screw-threaded ring surrounding the same, and the main frame having the hollow rim with an inwardly-projecting ledge for supporting said ring, in combination with the cutter-bed block and striking mechanism, substantially as set forth.

2. The block-supporting base having the screw-threaded cylindrical body, the non-rotatable internally-screw-threaded bearing supported in the main frame, wherein said base is adjustable up or down by bodily rotation, as described, and the supplemental plate  $M^2$ , provided with a notched periphery, mounted upon and rotatable on said base, in combination with the cutter-bed block supported on said plate, and means, substantially as described, for intermittently imparting movement to said supplemental plate, for the purpose set forth.

3. The combination, in a leather-cutting machine, of the cutter-bed block, a rotatable block-supporter having ratchet-teeth thereon, a pawl that engages said ratchet-teeth, the vertically-reciprocating striker-plate mounted in guides on the head-frame above the cutter-bed block, and connections from said striker to said pawl, whereby said block-supporter and cutter-bed block are given slight rotative movement, substantially as described, for the purposes set forth.

4. The combination, with the block-supporting base, the rotatable supplemental plate pivoted thereon and having a series of ratchet-teeth, the cutter-bed block mounted on said plate, the striker, and striker-operating mechanism, of the swinging lever  $J$ , the pawl  $P$ , pivoted to one arm of said lever, the spring  $S$ , and the link  $f$ , connecting the other arm of the lever with the striker, for operation substantially as set forth.

5. The combination, with the striker  $F$ , having two guiding-bars that work up and down through bearings  $a$  on the head of the



frame, of the two lifting-springs K, having  
their front ends respectively linked to said  
guiding-bars, and the spring supporting-seats  
K', bolted to the main frame and having the  
5 rear ends of the springs attached thereto, sub-  
stantially as set forth, whereby the adjust-  
ment of the springs is facilitated.

Witness my hand this 1st day of Septem-  
ber, A. D. 1890.

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Witnesses:

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ELLA P. BLENUS.