

*J. S. Shattuck,
Shoe-Sole Machine,*

No. 24, 141,

Patented May 24, 1859.

Fig. 3.

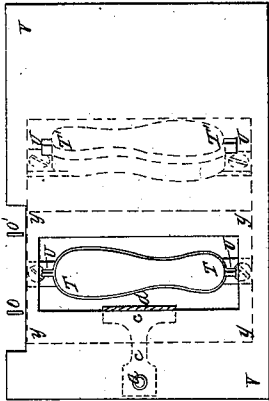


Fig. 2.

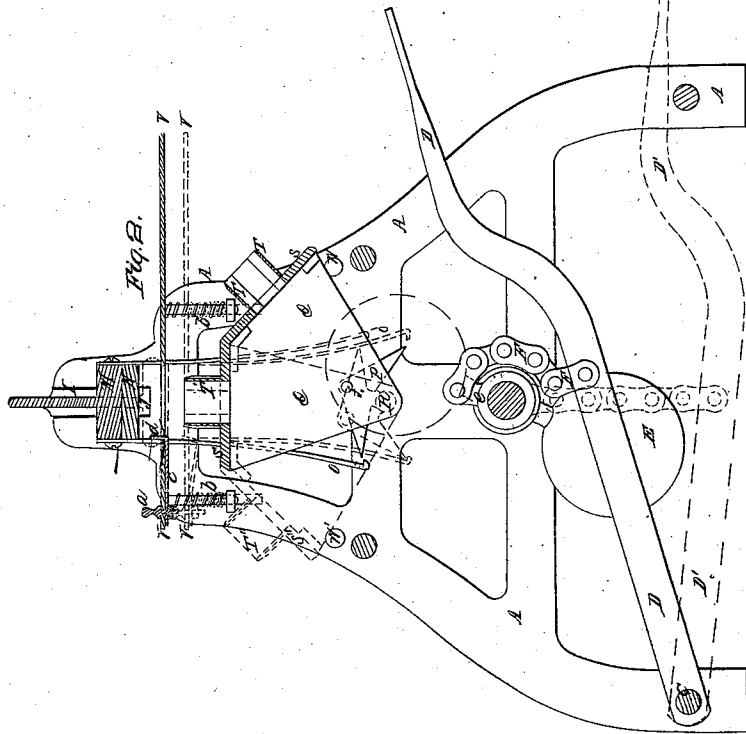
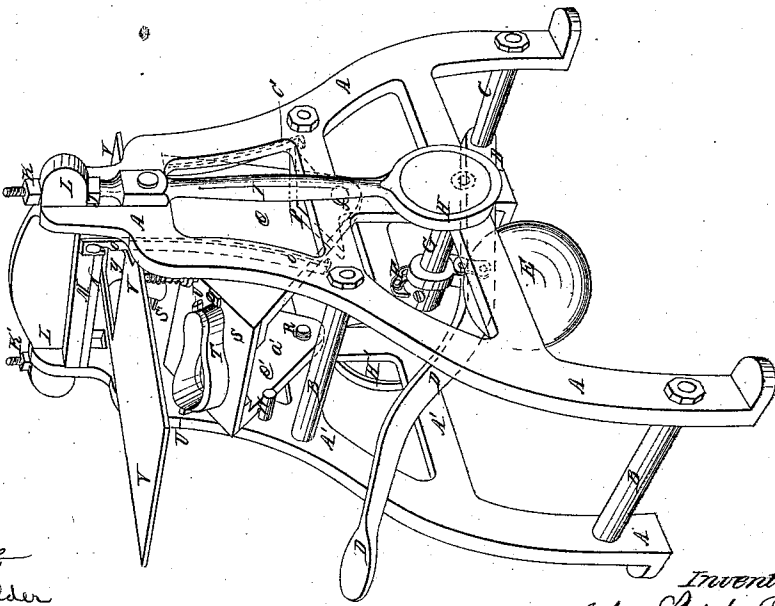


Fig. 1.



*Witness:
Saml. Batchelder
John M. Batchelder*

*Inventor:
John Smith Shattuck*

UNITED STATES PATENT OFFICE.

JNO. SMITH SHATTUCK, OF MALDEN, MASSACHUSETTS.

MACHINE FOR CUTTING SOLES.

Specification of Letters Patent No. 24,141, dated May 24, 1859.

To all whom it may concern:

Be it known that I, JOHN SMITH SHATTUCK, of Malden, in the county of Middlesex and State of Massachusetts, have invented
5 an Improvement in Machines for Cutting Soles; 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 and figures
10 marked thereon.

Figure I, is a perspective view of the machine. Fig. II is a side elevation. Fig. III is a plan of the yielding table and cutters.

15 The letters refer to the same parts in all of the figures.

The main features of my improvement herein described are the yielding gage,—the yielding table,—the double cutters placed on
20 a segment having the heel and toe in opposite directions,—and the elastic arms and dog for turning the segment.

The frame of the machine is shown at A A' the sides being connected by the cross ties B B'. The rocker-bar *c* extends from side to
25 side of the frame near to the bottom, and supports the end of the curved treadle D, the other end being in a suitable position to be operated by the foot. A short chain F, is fastened near the middle of the treadle D,
30 its opposite end being attached to a collar and short arm E:—the collar is secured to the main shaft G by a set screw. Upon the opposite end of the same collar a fly wheel or heavy weight E is attached, so balanced
35 and adjusted as to act as a counter-weight and give proper momentum to the cutter block M, N.

To each end of the main shaft G outside of the frame, the eccentrics H H' are secured and by means of the connecting rods I,
40 give a vertical reciprocating motion to the head-block L M, the position of which is regulated by the nuts and screws K K'. A cutting board N is fastened to the lower side
45 of the head-block and affords a suitable surface to receive the edge of the cutters or knives T T'. These knives are made of steel and have a beveled edge at the top, made to the required curvature of the sole, and have
50 a projecting cutting edge *v v'* at the heel and toe for the purpose of separating the leather from the strip from which the sole is cut, at every stroke of the cutter; the extreme length of the cutters from heel to toe
55 including the projections *v v'* being a little

greater than the breadth of the strip of leather as prepared for cutting. This strip of leather is laid upon the horizontal table V, in which there is an aperture *y* of sufficient size to allow the cutter to work
60 through it. The table is supported upon spiral springs *b b'* working on upright guides,—on the side opposite the feed a spring gage *c, d*, is attached as shown in Fig. II, the steel spring *c* being fastened
65 by one end, to the lower side of the table V by means of the set-screw *a*; the opposite or free end is of about the length of the sole and is turned upward at right angles so as to project about half an inch above the level
70 of the table. This spring-gage rises and falls with the table V, while its free end *d* can be depressed by the action of the head-block L, M, without moving the table, its upper edge being thus brought to the level
75 of the table, so as not to interfere with the action of the cutters against the board N, of the head-block.

At about the middle of the frame A, and above the shafts G, are placed the centers
80 R R' supporting the segments Q Q' which are connected by two plane faces or tables S S', extending across the machine and forming an angle of about one hundred and forty degrees. These two faces S S' form the
85 support or bearing of the two cutters T T' which are screwed firmly to the plate.

The stops *w w'* are affixed to the frame for the purpose of stopping the segment Q when it moves back and forth from falling
90 too far, their place upon each side being such as to hold the edge of the cutter that is uppermost, in a horizontal position parallel with the face of the cutting-block. The elastic steel arms O O' are fastened at their
95 upper ends to opposite sides of the head-block M, and rise and fall with it; a hook or catch is formed at their lower ends by turning them inward the hooks being so placed that they will take hold alternately
100 of the dog P which is held by a pin at its center *f*, to the sides of the segment Q. The dog P, has a slight motion upon the pin *f*; when the arm O takes hold of one end of the dog the farther end is depressed. When
105 the arm O' takes hold the opposite end is lowered, the circle described by the ends being such as to form an escapement and prevent interference with the non-working arm. The strip of leather from which the soles
110

are to be cut is laid upon the table one side being brought up to a guide, so that it may be moved forward to the cutters in a direct line; the farther end of the strip is brought
 5 in contact with the vertical end *d* of the yielding gage *c, d*; then, (by the action of the foot upon the treadle), the eccentric and connecting rods bring down the head-block which depresses the end *d* of the gage and
 10 forces the leather in contact with the cutters, the spring-table moving downward at the same time its upper surface falls below the level of the top of the cutters leaving them free to act upon the leather. One sole is cut
 15 at each stroke and as the pressure is removed from the treadle the counter-weight falls; the cutting-block, table, and gage rise; the arm takes hold of the dog and turns the segment, which rests upon the stops *W W'* and
 20 brings the other cutter into an upright posi-

tion below the cutting-block, ready for the next stroke.

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

1. The alternating or vibrating segment 25 carrying the two cutters having the toe and heel in opposite direction.

2. I claim the yielding table which supports the leather as it is fed forward; and the yielding gage by which the leather is 30 brought to the right position to be operated upon by the cutters.

3. I also claim the projecting knife-edges at the heel and toe of the cutter by which the scraps are detached from the strip of 35 leather.

JOHN SMITH SHATTUCK. [L. s.]

In presence of—

J. M. BATCHELDER,

SAML. BATCHELDER, Jr.