

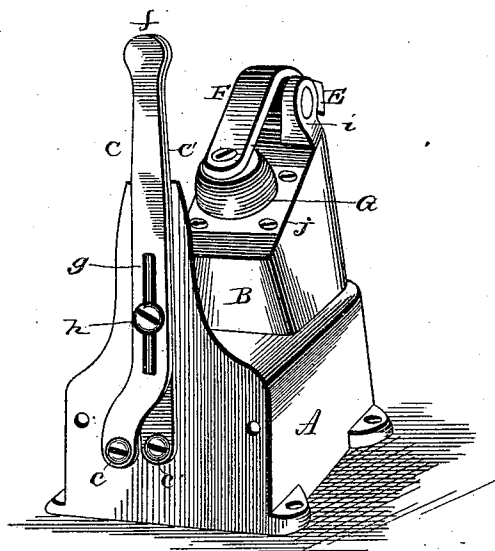
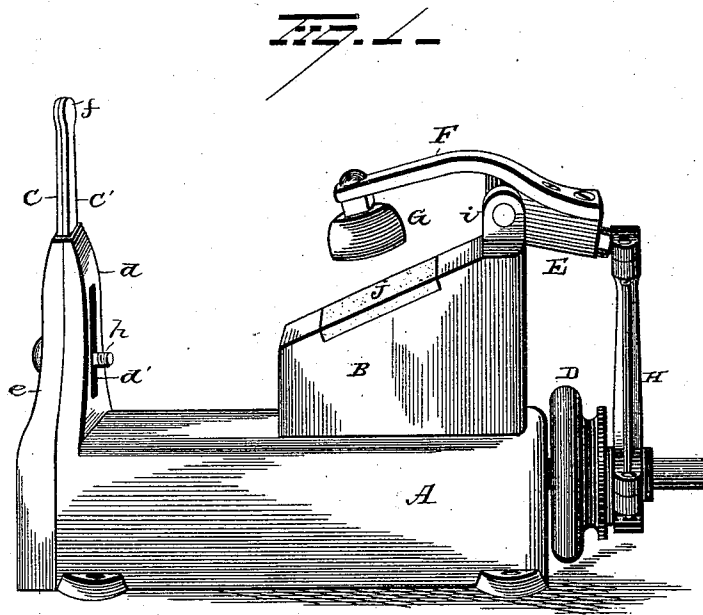
(No Model.)

2 Sheets—Sheet 1.

P. W. MINOR.
BEADING MACHINE.

No. 552,193.

Patented Dec. 31, 1895.



Witnesses
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

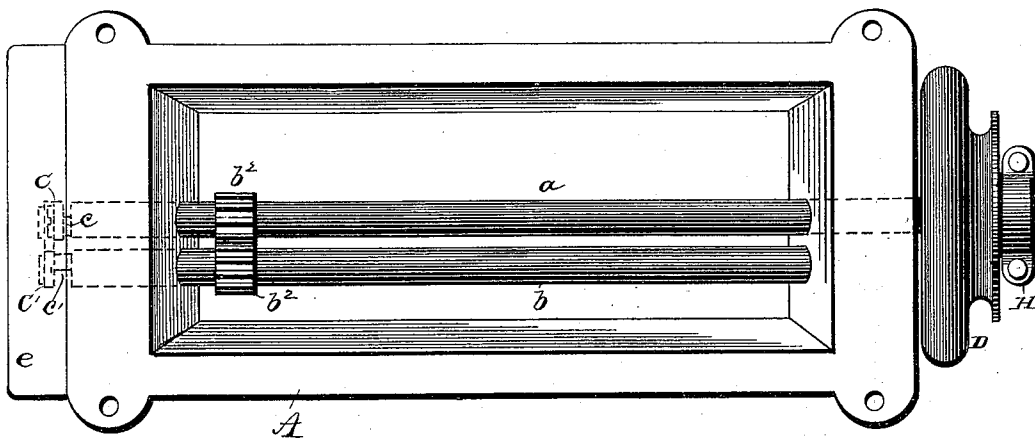
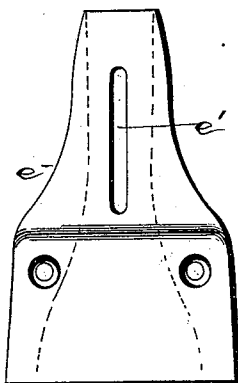


Fig. 4.



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UNITED STATES PATENT OFFICE.

PETER W. MINOR, OF SPRINGVILLE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
QUENTIN W. BOOTH AND IRVING E. BOOTH, OF ROCHESTER, N. Y.

BEADING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 552,193, dated December 31, 1895.

Application filed February 27, 1891. Serial No. 383,032. (No model.)

To all whom it may concern:

Be it known that I, PETER W. MINOR, a citizen of the United States, residing at Springville, in the county of Erie and State of New York, have invented certain new and useful Improvements in Machines for Beading and Hammering Leather; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in machines for beading, and more particularly to devices for turning and beading shoe-uppers which are cut with scalloped button-flies and made by stitching the lining and leather together wrong side out and then turning the same so as to make a beaded edge.

With existing machines for the purpose above stated it is difficult and in many cases impossible to turn out scallops rapidly, uniformly and without stretching the fly when the leather is of fine, soft texture, it requiring (with such existing machines) hard and continuous pulling on the part of the operator.

It is the object therefore of my invention to overcome the objectionable features of existing machines and to provide an improved machine which shall, by the rapid and perfectly-adapted movements of its turning-irons, turn and rub out the scallops rapidly, uniformly and with the necessity of but little pulling by the operator to get the turning-irons in the scallops to turn them out, and consequently without stretching the fly out of shape in the softest material.

With these objects in view the invention consists in the combination, with two turning-irons adapted to lie parallel with each other, of mechanism connected with said irons and adapted to cause their free ends to rotate in opposite directions.

The invention further consists in the combination, with two turning-irons adapted to lie parallel with each other, mechanism connected with said irons for causing their free ends to have a rotary motion in reverse directions, and devices for regulating the extent of movement of said irons.

The invention further consists in the com-

bination, with a suitable casing and an anvil thereon, of turning-irons carried by said casing, mechanism for actuating said turning-irons, and a vibrating hammer connected with said actuating mechanism and adapted to project over the anvil; and the invention also consists in the novel construction and combination and arrangement of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a view in end elevation. Fig. 3 is a bottom plan view, and Fig. 4 is a detached view of the end plate or hollow cap.

A represents a hollow shell or base, on which a solid anvil B is located, said anvil preferably having an inclined upper face, as shown in Fig. 1. Mounted in the hollow base A are two shafts *a b*, both of which are extended somewhat beyond the shell or base at one end to receive short crank-arms *c c'*, said crank-arms or eccentrics being about one thirty-second of an inch out of center with the shafts *a b*. Projecting upwardly from the forward end of the base A is an arm *d*, having an elongated slot *d'*, and adapted to be secured to the end of the base and conform in shape to this arm *d* is a hollow cap or plate *e*, also having an elongated slot *e'*, adapted to align with the slot *d'* of the arm *d*. Within the hollow cap or plate *e* two turning-irons C C' are located and connected at their lower ends, respectively, to the crank-arms or eccentrics *c' c*. The irons C C' extend some distance above the arm *d* and plate *e*, and at their free upper ends are rounded or provided with rounded heads *f*, which lie parallel with each other. The irons C C' are also provided at points between their ends with aligned elongated slots *g*, which also align with the slots *d' e'*. A screw *h* is passed through these slots and secured at any desired position in the slots *d' e'* and constitutes a fulcrum for the irons C C'. The shafts *a b* are geared together by means of suitable pinions *b² b³*, and one of said shafts is extended beyond its bearing and provided with a pulley D, adapted to receive motion by means of a strap or belt from any convenient source of power.

Motion being imparted to the shafts *a b* the irons *C C'* will have a compound movement imparted to them—that is to say, the free upper ends of said irons will have a rotary motion in opposite directions—while said irons will also have a reciprocating motion. By means of the device thus constructed (the turning-irons running in opposite direction) the scallops of the fly will be very quickly turned out and without stretching said fly. It will also be seen that by means of the screw *h* in the slots *d' e'* the extent of vibration of the upper ends of the irons may be regulated so as to accommodate scallops of different sizes.

Projecting upwardly from one end of the anvil *B* are ears *i*, between which an arm *E* is pivoted and adapted to project rearwardly from said anvil. A steel spring arm or plate *F* is secured to the arm *E* and adapted to project over the anvil, and is provided at its free end with a hammer *G* of wood, rubber, or other suitable material, the anvil being provided with a pounding-surface *j* of leather, rubber, or other suitable material.

To the free end of the arm *E* a pitman *H* is connected by a ball-and-socket joint, said pitman being connected at its other end to a crank-arm or eccentric on the pulley *D*. By this means a hammering device will be produced by means of which the leather subjected to it will receive blows in quick succession, all of which blows will be uniform, and consequently the beaded leather being acted upon will be made uniform from end to end of the fly or other leather acted upon.

I make no claim to the portion of this machine which relates to the hammering of the leather, as this is embodied in a separate application concurrently pending.

It is evident that slight changes might be made in the details of construction without departing from the spirit of my invention or limiting its scope. For instance, both turning-irons might be connected to the same shaft; but in such case they would rotate in the same direction, and the work done by them would not be as effectual as when constructed and operated as above described. Hence I do not

wish to limit myself to the precise details of construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Two oppositely rotating shafts each having an eccentric or crank-arm, in combination with two oppositely moving turning irons connected to said eccentrics or crank arms respectively, substantially as set forth.

2. Two oppositely rotating shafts geared together each having an eccentric or crank-arm, in combination with two oppositely moving turning irons, their working ends being parallel to each other, said irons being connected with said eccentrics or crank-arms respectively, substantially as set forth.

3. The combination with a base, of shafts mounted therein and geared together to rotate in opposite directions, a crank arm or eccentric on one end of each shaft, a turning iron connected to each crank arm or eccentric and adapted to lie parallel with each other, and an adjustable fulcrum connecting said irons at points between their ends, substantially as set forth.

4. The combination with a base, of two shafts mounted therein, and geared together to rotate in reverse directions, an eccentric on one end of each shaft, a turning iron connected to each shaft and adapted to lie parallel with each other, an arm projecting from the base and provided with an elongated slot, a cap or plate adapted to lie parallel with said plate and having an elongated slot in alignment with the slot in said arm, and a pin or screw passing through said slots and similar slots in the irons, whereby said irons will be connected together at points between their ends and permitted to have a reciprocating and vibrating movement, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

P. W. MINOR.

Witnesses:

F. V. LELAND,
F. O. SMITH.