(No Model.)

O. A. WEBBER.

SEAM TURNING MACHINE.

No. 509,983. Patented Dec. 5, 1893.

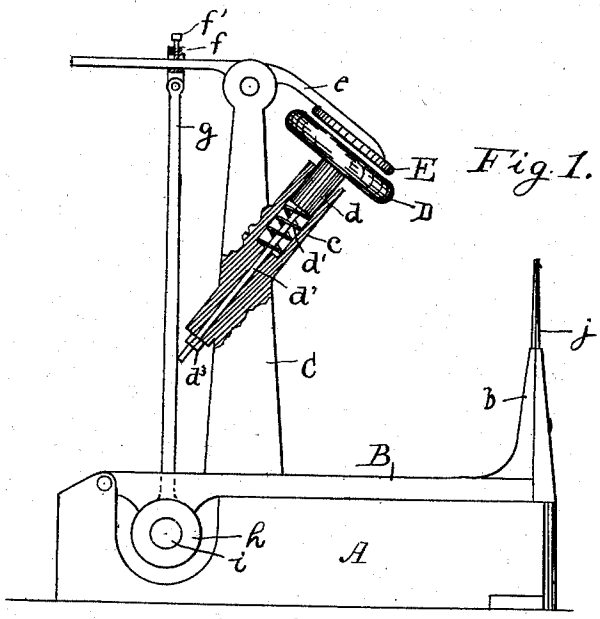

Fig. 1.

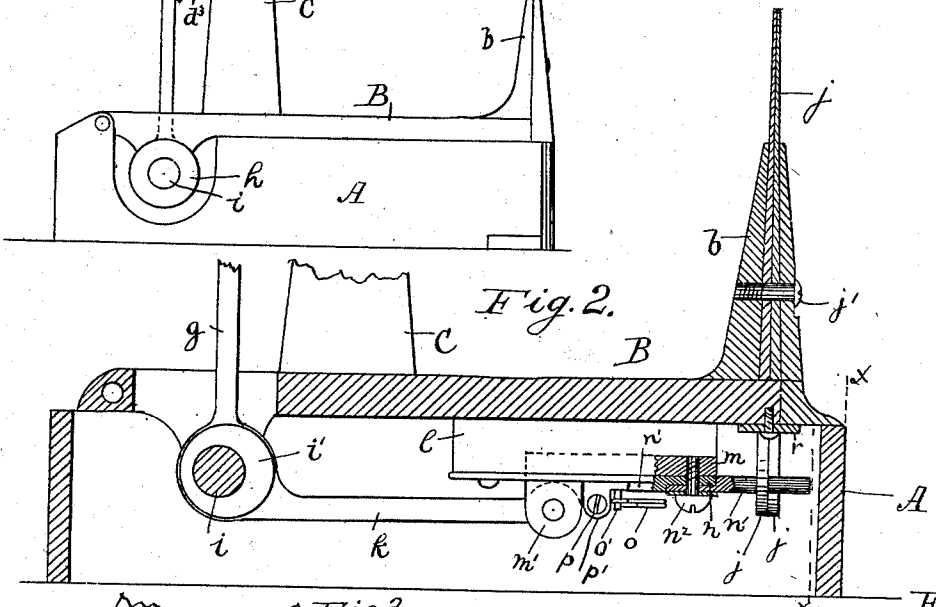

Fig. 2.

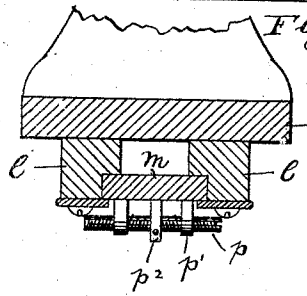

Fig. 3.

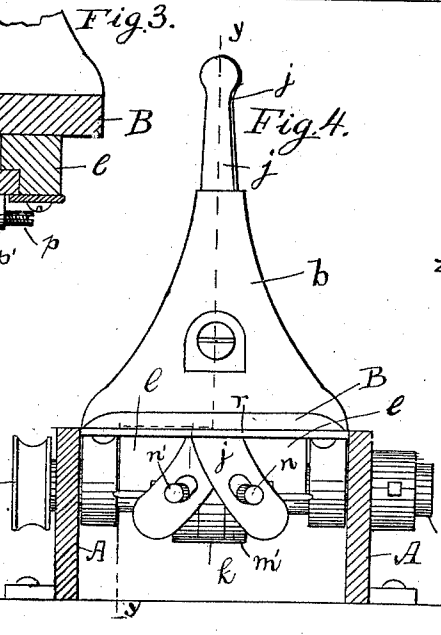

Fig. 4.

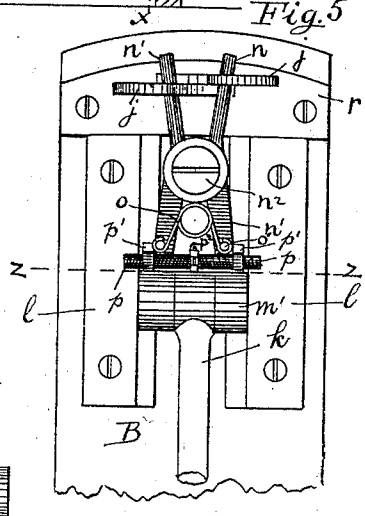

Fig. 5.

Witnesses:
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OAKMAND A. WEBBER, OF RICHMOND, MAINE, ASSIGNOR OF ONE-HALF TO GEORGE B. RANDLETTE, OF SAME PLACE.

SEAM-TURNING MACHINE.

SPECIFICATION forming part of Letters Patent No. 509,983, dated December 5, 1893.

Application filed January 23, 1893. Serial No. 459,410. (No model.)

To all whom it may concern:

Be it known that I, OAKMAND A. WEBBER, a citizen of the United States, residing at Richmond, in the county of Sagadahoc and State of Maine, have invented certain new and useful Improvements in Machines for Turning Seams, Boot or Shoe Uppers, &c.; 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 a machine for turning seams and particularly to turning seams on the button pieces of boots and shoes. These button pieces are stitched with a scalloped edge and hitherto they have ordinarily been turned by means of a turning iron operated by hand. In my improved machine for doing this work I make use of a pair of flat turning irons with rounded ends which enable them to fit readily into the scallops of the button piece. These turning irons are pivoted together face to face and mounted on a suitable standard and they are given a rapid oscillating motion with relation to each other the effect of which is to press and extend the seam after it has been turned. This with other features of my invention will be particularly pointed out and claimed in the following specification.

In the accompanying drawings I have illustrated a machine constructed according to my invention, although I do not wish to limit myself to the exact mechanism here shown.

In the drawings Figure 1 is a side view of my machine with a portion in section. Fig. 2 is a section on *y y* of Fig. 4. Fig. 3 is a section on *z z* of Fig. 5, looking toward the rear of the machine. Fig. 4 is a section on *x x* of Fig. 2. Fig. 5 is a view of the under side of the bed piece showing the mechanism by which the turning irons are oscillated.

A represents a suitable frame work to support the machine and to the top of this frame is hinged a suitable bed piece B. On the forward end of the bed piece B is a standard *b* to which the two turning irons *j* are pivoted by means of the pivot *j'*. These turning irons consist of flat pieces of iron or steel having rounded ends. They are placed face to face and means are provided to impart to them a rapid oscillating or shearing motion with relation to each other through a limited space and of rendering this motion yielding or elastic so that if the tool is pressed into a limited space in turning a scallop, for instance, there will be a certain amount of "give" which will prevent the cutting of the stitches or the tearing of the leather or cloth. This mechanism is located beneath the bed of the machine and is operated by the main driving shaft *i* having a driving pulley *h*. On the shaft *i* is an eccentric *i'* which operates an eccentric rod *k* connecting with a slide *m* having ears *m'* to which the end of the eccentric rod connects. The slide *m* is adapted to move back and forth in suitable guides *l* and to the forward end of the slide *m* are pivoted two levers *n* and *n'* by means of a pivot n^2. These levers as herein shown, are pivoted centrally or nearly so and the forward ends which are here shown as round, extend through openings in the lower ends of the turning irons *j* which extend downward below the bed piece B. The levers *n n'* are set normally at an angle with each other so that as they move back and forth with the slide *m* they will impart a slight oscillating motion to the turning irons *j j*. The rear ends of the levers *n n'* are provided with means for regulating the distance apart of the ends of the levers and of securing a yielding motion between the levers so that they will not be held rigidly with relation to each other and will thus impart a yielding motion to the turning irons. The spring *o* connects the two pins *o'* one of which is set in the rear end of the lever *n* and the other in the lever *n'*. The tension of this spring tends to force the rear ends of the levers apart. They are prevented from separating more than the desired amount by the guides *p' p'* which are connected by a right and left handed screw *p* this screw being held in position by a yoke p^2 attached to the slide *m*. A plate *r* having suitable openings is fastened to the bed piece below the standard *b* and serves to steady the lower ends of the turning irons which pass through the openings in said plate.

It will be understood from the description given of my machine how it operates.

The motion of the slide *m* imparts an oscil-

lating motion to the turning irons and enables them to do the work described without danger to the fabric operated on. The distance apart of the levers n n' is regulated by the screw p and in this way the spread of the turning irons at the top is governed.

In addition to the mechanism for turning already described I provide an automatic hammer and anvil for pounding out the seams after they have been turned. The anvil is mounted on a standard C and is secured to the upper end of a plunger d working in a cylinder c. The plunger is supported on a spring d' which acts as a cushion and its upward motion is limited by means of a rod d which extends down through the standard and is provided with a nut on the end.

The hammer E is secured to the end of a lever e pivoted on the top of the standard C. An up and down motion is imparted to the hammer by means of a rod g which is attached to the eccentric i'. The upper end of the lever g is connected with the lever e by means of a clamp f having a set screw f' by which the position of the clamp can be adjusted on the lever.

The seam to be pressed is placed between the hammer and the anvil and the blows of the hammer rapidly flatten out the seam. The anvil being cushioned yields readily and regulates itself to any thickness of seam.

I claim—

1. In a machine for turning seams the combination of a pair of flat turning irons pivoted together and mounted on a suitable support and means for imparting to said turning irons a yielding reciprocating motion with relation to each other on said pivot as a center, substantially as described.

2. In a machine for turning seams the combination of a pair of flat turning irons pivoted together and mounted on a suitable standard a pair of levers held normally at an angle with each other and pivoted to a sliding plate adapted to reciprocate at right angles to said turning irons below the bed of the machine, the forward end of each of said levers being in sliding contact with the lower end of one of said turning irons and a spring for pressing the forward ends of said levers normally in one direction and a guard for limiting their motion in the same direction substantially as described.

3. In a machine for turning seams, the combination of a pair of flat turning irons pivoted together and mounted on a suitable standard, a pair of levers held normally at an angle with each other and pivoted centrally to a sliding plate adapted to reciprocate at right angles to said turning irons, below the bed of the machine the forward end of each of said levers being in sliding contact with the lower end of one of said turning irons, a spring for pressing the rear ends of said levers in one direction and guards for limiting their motion in the same direction, substantially as described.

4. In a machine for turning seams the combination of a pair of turning irons pivoted together and mounted on a suitable standard, a pair of levers held normally at an angle with each other and pivoted centrally to a sliding plate adapted to reciprocate at right angles to said turning irons below the bed of the machine, the forward end of each of said levers being in sliding contact with the lower end of one of said turning irons, a spring for pressing the rear ends of said levers in one direction and adjustable guards for limiting their motion in the same direction, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

OAKMAND A. WEBBER.

Witnesses:
J. M. ODIORNE,
C. H. T. J. SOUTHARD.