2. Sheets, Sheet 1.

A. Eggleston,

Stitching Leather.

No. 113,863. Patented Apr. 18. 1871.

Fig. 1.

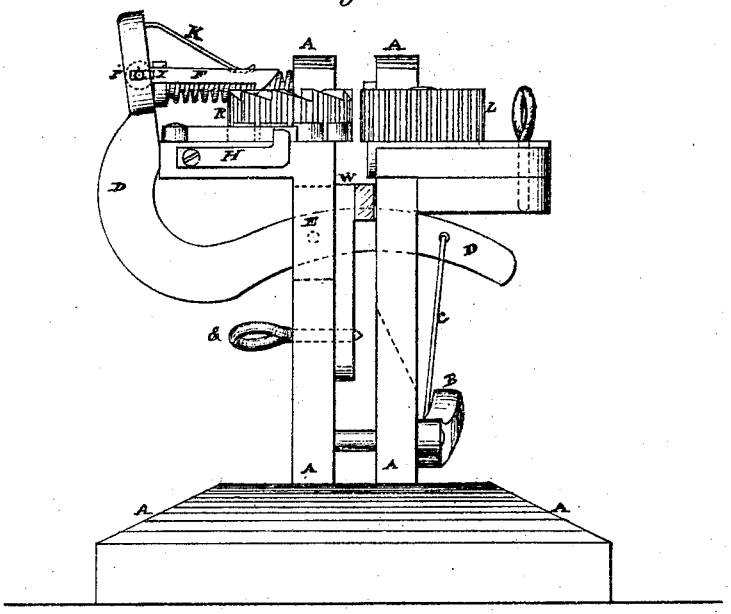
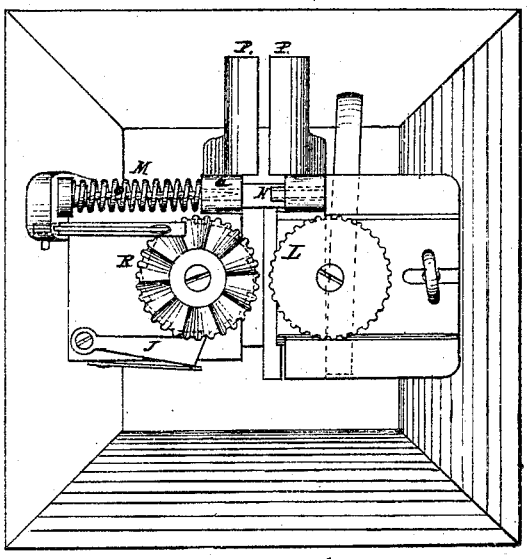


Fig. 2.



Witnesses:
Chas. E. Mills
James M. Morton Jr.

Asa Eggleston Inventor

2 Sheets Sheet 2

A. L. Eggleston,

Stitching Leather.

No. 113,863. Patented Apr. 18, 1871.

Fig. 3.

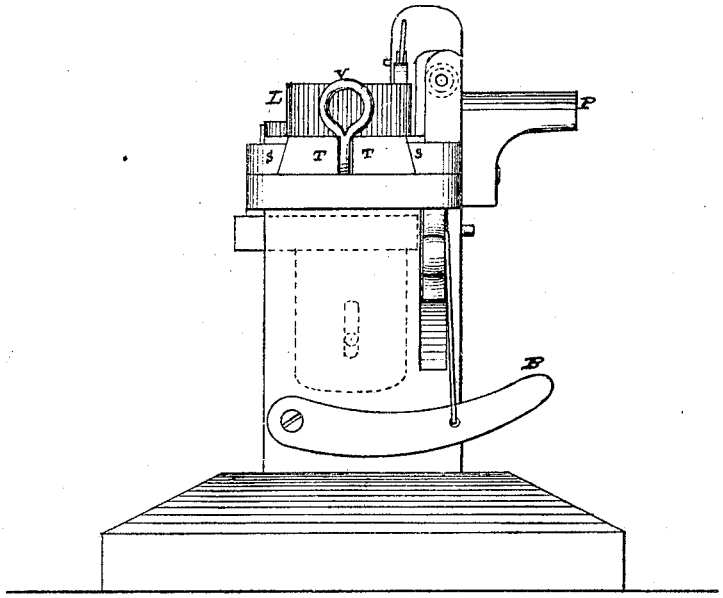
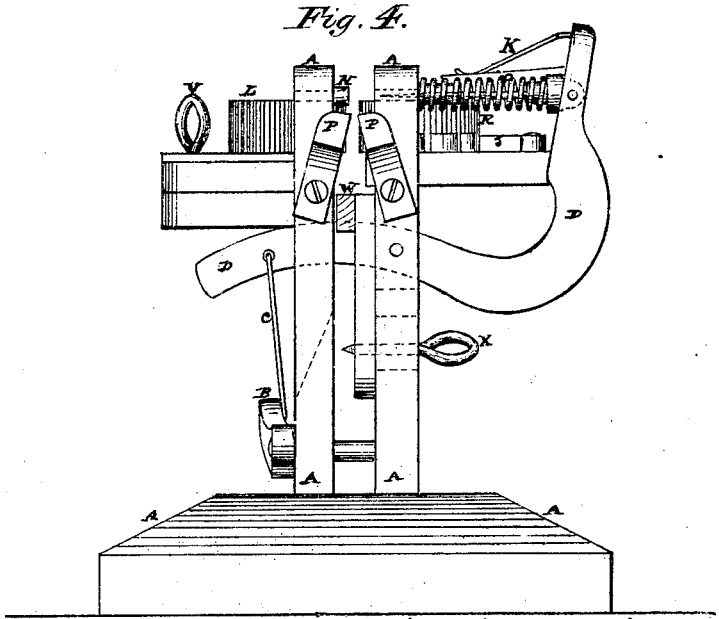


Fig. 4.



Witnesses:
Chas. E. Mills
James M. Morton Jr.

Asa Eggleston Inventor

United States Patent Office.

ASA EGGLESTON, OF FALL RIVER, MASSACHUSETTS.

Letters Patent No. 113,863, dated April 18, 1871.

IMPROVEMENT IN MACHINES FOR PIERCING LEATHER.

The Schedule referred to in these Letters Patent and making part of the same.

I, ASA EGGLESTON, of Fall River, in the county of Bristol and State of Massachusetts, have invented a certain Machine for Stitching Leather and heavy fabrics, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to the combination of a lever, punch, or awl, springs, rollers, catches, and gauges in such a way that when the work is properly adjusted in the machine and the lever is brought down, the punch or awl is forced through the leather or material and when the force is removed from the lever the spring, by means of a slot in a catch, clears the punch or awl from the leather or material before the rollers move the work forward for another perforation by the punch or awl, this forward movement being a part of the effect caused by removing the force from the lever.

Description of the Accompanying Drawing.

Figure 1 is a side elevation of the machine as invented by me, the side represented being that opposite which the operator stands.

Figure 2 represents the machine as it appears looking directly down upon it.

Figure 3 represents an elevation showing that end or side of the machine which is at the right hand in fig. 1.

Figure 4 represents an elevation of the machine showing the front of the same where the operator stands, and opposite that shown in fig. 1.

General Description.

A A A A A A represent the frame of the machine, which should be substantially constructed, and may be of wood, or iron, or both.

O represents a punch or awl, round or otherwise, as may be required, with a shoulder at one end which rests in a socket in the lever D D, but is not fastened to it.

The other end of the punch or awl rests in a bushing in part of the frame, viz., A, which is fitted to the punch or awl.

Between the shoulder of the punch or awl and the frame A, and around said punch or awl, is a spring, *m*, which serves, among other purposes, to keep the shoulder of the punch or awl in the socket aforesaid. By this manner of adjusting the punch or awl the proper direction is given to it.

When the treadle B is brought down it brings with it, by means of the rod or strap C, the lever D D, which turns on the pivot E, and compresses the spring *m* and forces the punch or awl aforesaid through the material, which has been previously adjusted and held in its place by the clamps P P, and the gauge W into a hollow receiver, N, so placed as to receive said punch or awl and permit it to pass entirely through the material into the cavity in said N.

When the punch or awl has perforated the material as aforesaid the force on the treadle B is relaxed and the spring *m* forces back the lever D D, and with it the punch or awl aforesaid, out of the work or material.

As the spring forces back the punch or awl the catch F, which is held in its place by the spring K, catches upon the teeth of the wheel R, which teeth are the length of the required stitch, and causes it to revolve the distance of one tooth, which is equivalent to the distance of one stitch.

The vertical surface of this wheel is covered with small horizontal grooves, as indicated in the drawing. Opposite to it is the wheel L, the vertical surface of which is also covered with horizontal grooves. Both these wheels turn easily on pivots.

The wheel L is attached to a slide, T T, moving out or in between the pieces S S, and held in its place by the set-screw V.

The wheel L is set according to the thickness of the material, so that when the catch F aforesaid turns the wheel R the pressure of that upon the material causes it to move forward the length of a stitch, or one tooth on the wheel R. Before, however, the catch F takes hold of the wheel R, the punch or awl has a chance to clear itself from the work or material, owing to the slot in said catch at I I, which is sufficiently long for the spring *m* to force back the punch or awl far enough to take it clear from the work or material before the catch begins to operate on the wheel R.

This slot is cut in said catch where the catch is joined to the lever D D, and the pivot on which said catch is hung to said lever plays in said slot back and forth.

J indicates a catch operating upon teeth in the lower part of the wheel R, as shown in the figures accompanying this, and held in its place by the spring H, the purpose of the same being to prevent the wheel R from turning back.

W indicates a sliding gauge, by which the work may be raised or lowered, as necessary, and which is held in the required position by the set-screw &.

Different lengths of stitch may be obtained by removing the wheel R and substituting other wheels on which the teeth may be the length of the required stitch, the fineness or coarseness of the stitch depending on the greater or lesser number of the teeth in the wheel at R.

Claim.

I claim as my invention—

In a machine for piercing leather the catches F and T, wheels R and L, spring *m*, gauge W, and clamp P, all arranged as described, for the purpose set forth.

ASA EGGLESTON.

Witnesses:

J. M. MORTON, Jr.

L. N. SLADE.