(No Model.)

J. S. HENDERSON.

WORK GUIDING AND GROOVING ATTACHMENT FOR SEWING MACHINES.

No. 477,896. Patented June 28, 1892.

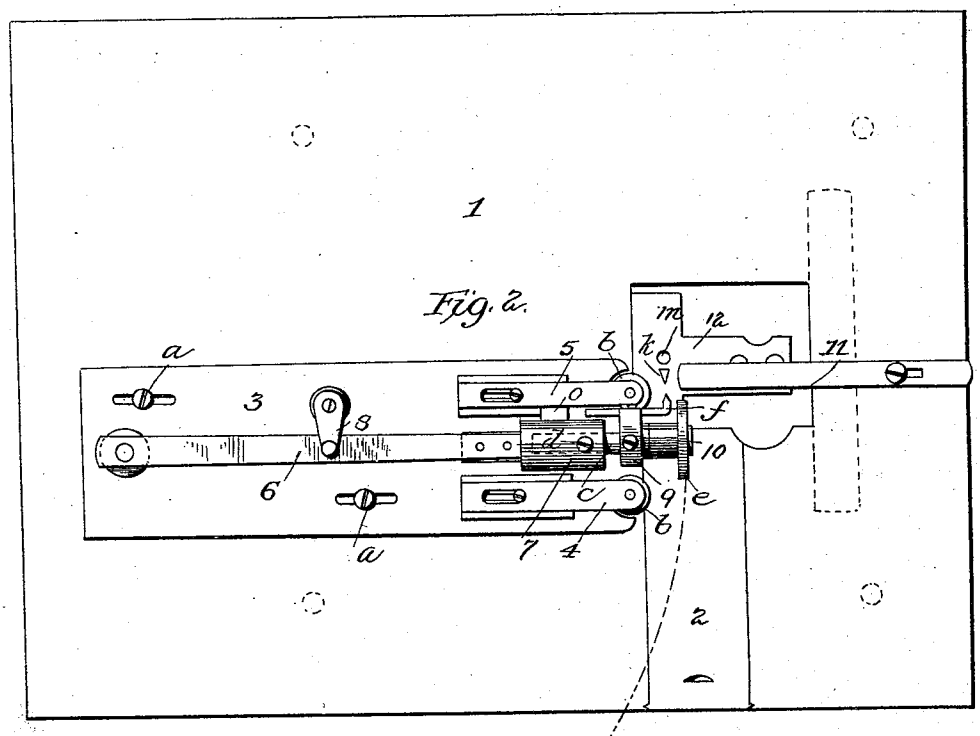

Fig. 2.

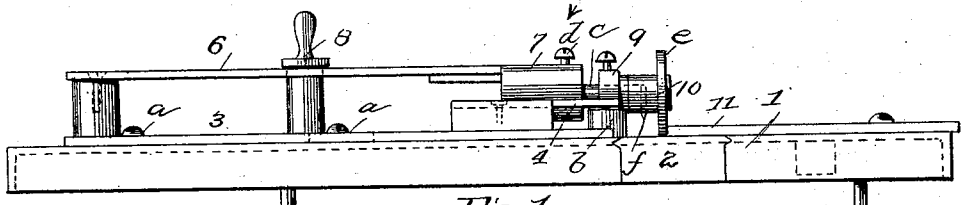

Fig. 1.

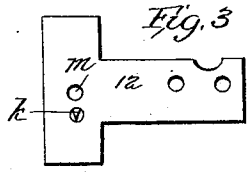

Fig. 3.

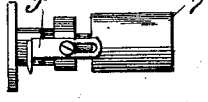

Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN S. HENDERSON, OF MACON, GEORGIA.

WORK GUIDING AND GROOVING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 477,896, dated June 28, 1892.

Application filed November 16, 1891. Serial No. 412,074. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. HENDERSON, a citizen of the United States of America, residing at Macon, in the county of Bibb and State of Georgia, have invented certain new and useful Improvements in Sewing-Machine Attachments, of which the following is a specification.

My said invention is an attachment for sewing-machines, particularly such as the "Bosworth lock-stitch wax-thread sewing-machine;" and it is designed as a guiding and grooving mechanism for such articles of leather as what is technically called the "round," used in leather working, and particularly in the making of leather harnesses.

In the accompanying drawings, which illustrate the invention, Figure 1 represents the apparatus in side elevation. Fig. 2 shows a plan view, and Figs. 3 and 4 are views of details.

In the drawings the platform which fits over the throat of the machine is marked 1. It is designed for the aforesaid Bosworth lock-stitch machine, but of course may be varied in shape to suit other machines of the same class. In this platform is a slide 2, which may be drawn out to enable the operator to remove and replace the shuttle of the machine without removing the platform from the machine. The platform has a downwardly-depending flange about its edge. It is in part supported upon legs, as shown in Fig. 1, which may rest upon the machine. Upon the top of the platform is a frame 3. It is held to the platform by screws or bolts *a*, which pass through slots in the frame, the heads of the screws or bolts bearing upon the upper surface of the frame, so that the frame may be adjusted longitudinally toward or from the needle. Upon the forward end of this frame are set back and front guide-wheels *b b*, which are mounted upon sliding bars 4 5, these being held upon blocks on the frame by screws passing through slots in the bars, as shown in Fig. 1, so that the guide-wheels can be set forward or backward in order to adjust them to the round, against which they bear in the operation of the attachment.

On a stud on the rear of the frame is pivoted the rear end of the steel spring 6, the forward end of which carries the block 7, in which is set a spindle *c*, held adjustably by a set-screw *d*. On the front end of the spindle is a presser-wheel 10, which turns on the end of the spindle and bears down upon the side of the round. The wheel 10 is provided with a flange *e*, which bears against the margin of the round and serves as a guide on the side opposite to that of the guide-wheels heretofore described. The spring 6 holds the wheel down upon the round and adjusts it automatically to either a thinner or thicker round.

Upon the spindle, just back of the wheel 10, is a collar 9, held adjustably in position by means of the set-screw. This collar carries upon one side a steel channeler *f*, which is arranged to channel the top of the round as it passes over the top of the wheel. This upper channeler can be raised or lowered by loosening the set-screw and turning it upon the spindle. The set-screw in block 7 permits the spindle to be adjusted in or out in order to set the flange of the wheel for wider or narrower rounds. A guiding-arm 11 is adjustably fixed to the top of the platform, having its forward end arranged to bear against the edge of the round opposite the forward guiding-wheel. This arm serves to assist in holding the round in proper position for stitching when an unusual heavy or thick round would have the tendency to turn over or crowd out at the bottom.

In order to channel the round on the under side, I provide a throat-plate 12, which has a spur *k*, projecting upward, and the plate 12 is adapted to be fitted to the throat of the machine, or it can be attached to any similar machine. The spur is arranged in line with that of the upper channeler, so as to form the lower groove, these grooves, as is well understood, being the grooves in which the thread is buried and concealed. There is a hole *m* directly back of this spur, in which an awl and needle work. The channelers are adapted to form a V-shaped cut, in which the stitches are buried. The opening in the platform 1 fits over the throat of the machine, which is about six inches high, and is supported thereon in part, the other part being sustained by the legs screwed into the under side of the platform and resting upon the frame of the machine. A button 8 is set upon the stud on the frame and is adapted to turn, so as to bear

upon the upper side of the spring 6 and hold the pressure-wheel 10 down to its work. The block 7 rests between the blocks which support the guide-wheels, or it may be lifted out and swung to one side when the button is removed. A stud *o* limits the movement of the block 7 on the other side.

I claim as my invention—

1. In combination, the platform having an opening for the throat of the machine and adapted to be supported on the machine-frame, a frame on the platform adjustable toward and from the opening thereof, the adjustable guide-roller carried by the forward end of the frame adjacent to the opening in the platform, a pressure-roller, and a channeling-spur carried by a swinging support attached to the frame 3, said spur and roller being adjustable toward and from the opening in the platform, substantially as described.

2. In combination, the guide-rollers adjustably supported, the swinging support 6, and the spur and pressure-roller carried thereby and adjustable in relation to each other and in relation to the guide-rollers, substantially as described.

3. In combination, the frame carrying the guide-rollers, the spring-arm 6, the block 7, mounted on said spring-arm and carrying a spindle adjustable therein, and the collar 9, adjustably mounted on said spindle, and the channeling-spur carried thereby, substantially as described.

4. In combination, the frame carrying the spring-arm 6, pivoted at its rear end and provided with a block 7, arranged to swing into position between the blocks which carry the guide-rollers 4 and 5, said block 7 carrying, also, the flanged pressure-roller and the upper spur, the said spring-arm being provided, also, with a button 8, all substantially as described.

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

J. S. HENDERSON.

Witnesses:
A. CROMFET,
G. C. NAPIER,
W. C. DAVIS.