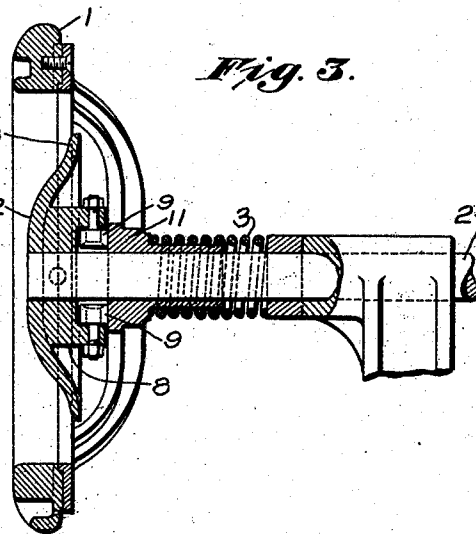
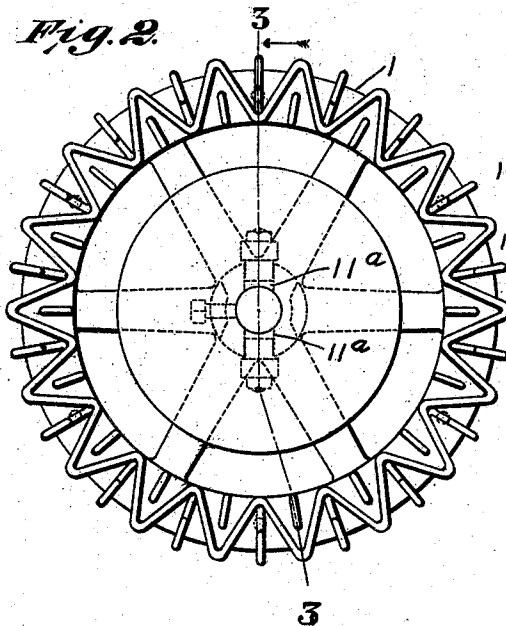
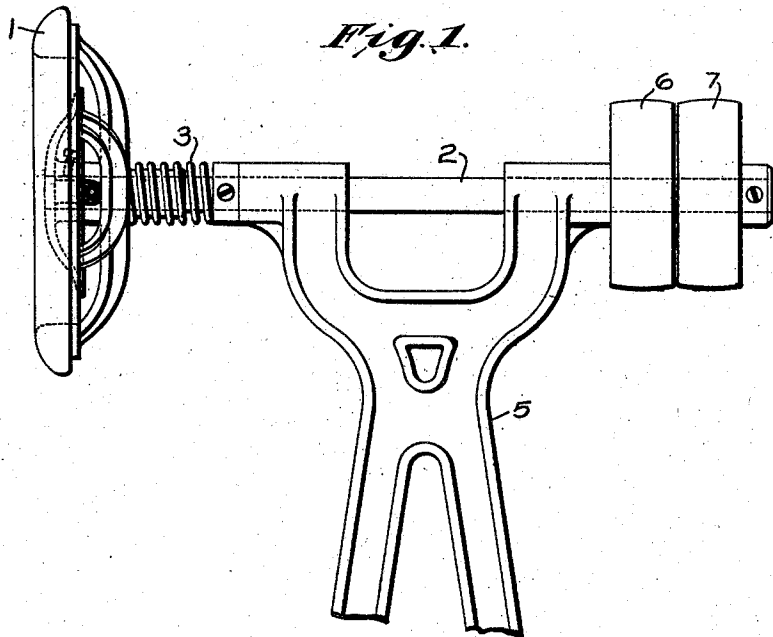


J. B. HADAWAY.
CHANNEL FLAP LAYING MACHINE.
APPLICATION FILED MAY 13, 1910.

981,190.

Patented Jan. 10, 1911.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN B. HADAWAY, OF DUXBURY, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CHANNEL-FLAP-LAYING MACHINE.

981,190.

Specification of Letters Patent.

Patented Jan. 10, 1911.

Application filed May 13, 1910. Serial No. 561,052.

To all whom it may concern:

Be it known that I, JOHN B. HADAWAY, a citizen of the United States, residing at Duxbury, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Channel-Flap-Laying Machines; 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.

This invention relates to certain new and useful improvements in channel flap laying machines for operating on boots and shoes. In machines of this type, as heretofore constructed, it has been found that as the sole is pressed against the flap laying tool there is a liability of scratching or otherwise marring the face of the sole by contact with the angular edges of the clutch dog which connects the tool to the end of the driving shaft of the machine.

The object of this invention is to protect the face of the sole from injury, by accidental contact with other portions of the machine, while being acted upon by the flap laying tool.

With the above object in view, the invention consists of a guard, carried by the outer face of the clutch dog, constructed and arranged to present a smooth, unbroken exterior. By virtue of this improvement if the shoe accidentally engages the guard, its smooth surface prevents any defacement.

The invention will be best understood from a description of the preferred embodiment thereof illustrated in the accompanying drawings, in which—

Figure 1 represents a view in elevation of a channel flap laying machine with the guard applied thereto; Fig. 2 represents a face view of the flap laying tool and guard; and Fig. 3 shows a longitudinal section taken through the flap laying tool, guard and driving shaft.

In the embodiment of the invention illustrated in the drawings the flap laying tool comprises an annulus 1 mounted upon a driving shaft 2 and adapted through a spring 3 to yield longitudinally of the shaft. The annulus is preferably connected to the shaft 2 by a plurality of radial arms forming what is termed a flap laying wheel. The shaft 2 is supported in a frame 5, its rotation being controlled by tight and loose pulleys 6 and 7. In order to provide for the yielding movement of the flap laying tool 1 along the shaft, while preventing rotation of the tool relatively to the shaft, the following means are employed. The hub 11 of the wheel is provided at its outer end with diametrically opposed recesses 11^a (dotted lines, Fig. 2). A clutch dog 8 is secured by a set screw to the end of the shaft, and is provided with a pair of anti-friction rolls 9 which are seated in the recesses 11^a. This construction is identical with that described in United States Letters Patent No. 759,273, granted to applicant, and is only briefly described herein in consequence thereof.

It has been found that in the use of the machine of the prior patent referred to, as the margin of the sole is pressed against the tool 1 to lay the channel flap, the portion of the sole opposite the face of the clutch dog frequently comes in contact with it, owing to the inward movement of the tool relative to the clutch dog. This causes a contact of the sole with the angular edges of the clutch dog which mars the surface of the sole. There is also liability of the sole slipping in between the annulus and the clutch dog and striking against the radial spokes of the annulus. This defacement of the sole is overcome by forming the outer face of the clutch dog as a convexly curved surface 12 which is preferably provided with a radially extending flange 13 forming, in conjunction with the surface 12, a smooth dome shaped exterior covering not only the clutch dog, but also partially covering the arms of the flap laying wheel. Such a construction eliminates any opportunity for a chance contact with an angular part of the tool or its support, as the shoe is wiped across the tool, and provides a guard which will not deface the sole if it is struck by the shoe.

While in the preferred form of the invention the guard is shown as formed integrally with the clutch dog, the invention, as defined by the claims, is not limited to this particular arrangement.

The nature and scope of the present invention having been indicated, and the preferred embodiment thereof having been specifically described, what is claimed as new, is:—

1. A channel flap laying machine, having,

in combination, a rotary shaft, a flap laying tool, and means at the axis of the tool, for connecting the tool to the shaft to be rotated thereby, provided with a smooth, unbroken exterior to prevent injury to the sole when engaged thereby.

2. A channel flap laying machine, having, in combination, a rotary shaft, a rotary flap laying tool comprising an annulus mounted on a hub carried by said shaft, and a shoe sole guard within and substantially filling the opening of the annulus.

3. A channel flap laying machine, having, in combination, a rotatable flap laying tool, a shaft upon which said tool is yieldably mounted, and a clutch dog upon the end of the shaft, the clutch dog being curved convexly upon its outer face to act as a guard whereby the work is protected from injury.

4. A channel flap laying machine, having, in combination, a rotatable flap laying tool, a shaft upon which said tool is yieldably

mounted, and a clutch dog upon the end of the shaft, the clutch dog being provided with a radially extending flange upon its outer face, whereby the work is protected from injury.

5. A channel flap laying machine, having, in combination, a rotatable flap laying tool comprising an annulus provided with radial arms, a shaft upon which said tool is yieldably mounted, and a clutch dog having a convexly curved outer surface and provided with a radial flange partially covering the arms of the annulus and forming in conjunction with the surface of the dog a smooth dome shaped exterior, the clutch dog being mounted upon one end of the shaft within the annulus.

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Witnesses:

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