

R. F. McFEELY.
TOE BINDING APPARATUS.
APPLICATION FILED JULY 20, 1912.

1,059,310.

Patented Apr. 15, 1913.

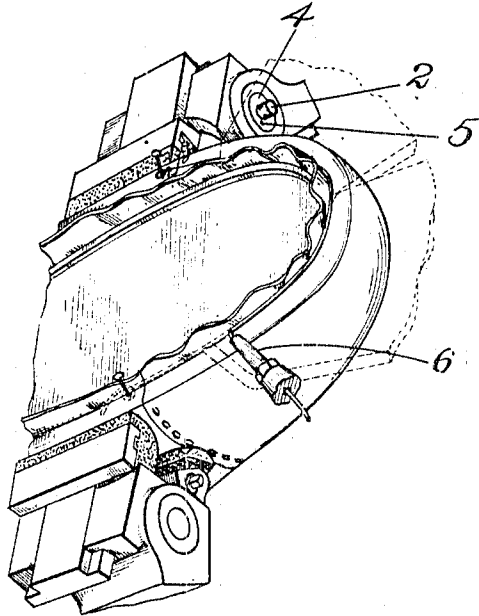


Fig. 1.

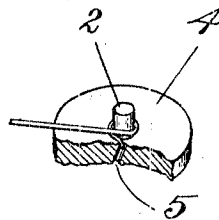


Fig. 2.

WITNESSES.

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TOE-BINDING APPARATUS.

1,059,310.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed July 20, 1912. Serial No. 710,670.

To all whom it may concern:

Be it known that I, RONALD F. McFEELY, a citizen of the United States, residing at Beverly, in the county of Essex and State of Massachusetts, have invented certain Improvements in Toe-Binding Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to shoe manufacturing apparatus and particularly to means for use in connection with the toe binding operation by which the toe portions of uppers on welt shoes, and sometimes other kinds of shoes, are secured in lasted position preparatory to permanently sewing the upper to the innersole.

The toe binding material most generally used is soft wire which is usually anchored to a tack on one side of the toe and then pulled tightly around the toe and secured under tension by wrapping it around a tack on the other side of the shoe. In order to anchor the wire to the first tack the workman either holds the end of the wire with the fingers of one hand while twisting it a number of times around the tack and then drives the tack down firmly, or else he forms a loop or eye in the end of the wire with his fingers, aided sometimes by the handle of his lasting pincers, and then tightens the loop around the tack and hammers the tack down to make it secure. Either of these procedures requires some expenditure of time which it is one object of this invention to reduce, and in both cases the wire and the tack are made so fast to the shoe that it is rather difficult to remove them after the upper has been sewn to the innersole and it is an object of this invention to reduce this work. The short end of the binding wire, after it has been anchored as aforesaid, frequently projects where it is liable to engage and scratch or mar another shoe as the shoe is being handled and placed on the racks with other shoes and it is a further object of this invention to eliminate this danger of injury from this end of the binder.

With these and other objects in view the invention comprises the features of the binder-eye forming means hereinafter described and pointed out in the claims.

The drawing shows in Figure 1 a per-

spective view representing a preferred embodiment of the eye-forming means upon the machine for which it was originally designed. Fig. 2 is a perspective view, partly in section, of a part shown in Fig. 1.

The device comprises a post or stud 2 which preferably projects horizontally from a support, which is shown as the side clamp arm of the machine of my earlier application, Ser. No. 372,055, filed May 6, 1907, said support having a base or plate 4 in which is formed adjacent to the post a socket 5 to take the end of the binder wire thrust therein, and to hold the binder end while the strand is given a turn about the post to form the eye in the end of the binder. If a stringing tool 6 is used the weight of the tool and of the strand will hold the binder eye on the post ready for use and the tool will be conveniently suspended thereby. The socket 5 forms a prong on the under side of the eye which will engage the shoe upper and the socket is preferably inclined so that the prong will be inclined downwardly and backwardly toward the body of the binder. The socket is so located that the main strand of the binder crosses over the pronged end in position to press and bind the prong in holding engagement with the shoe upper. The wire holder 6 may conveniently be used for manipulating the wire to form the eye by inserting the end of the binder strand into the downwardly inclined socket 5 to form the prong, then bending the wire first downwardly and then upwardly around the post 2 and downwardly again across the portion of the strand that is adjacent to the prong.

The novel binder herein disclosed is not claimed in this application but is made the subject-matter of a divisional application Ser. No. 726,747, filed Oct. 19, 1912.

Having fully described my invention, I claim as new and desire to secure by Letters Patent of the United States:—

1. A toe-binder eye-forming device comprising a horizontally projecting post 2, a base plate 4 with a vertical face having a socket 5 located near and at one lateral side of the post and inclined downwardly to receive and form an inclined prong on the lower side of the binder eye when the strand is carried downwardly and around the post, substantially as described.

2. A toe-binder eye-forming device comprising a base plate, an eye-forming post

projecting perpendicularly therefrom, and a prong-forming socket formed in the base plate near the post in position to receive the end of the strand and bend thereon a downwardly projecting prong to be overlaid by the eye which is formed by bending the strand around the post.

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

RONALD F. McFEELY.

Witnesses:

BARTHOLOMEW T. McDONOUGH,
CHARLES H. HOYT.