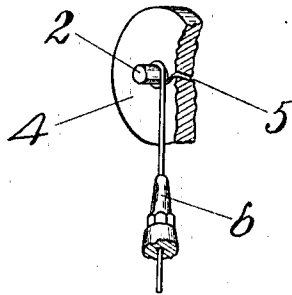


R. F. McFEELY.
TOE BINDER.

APPLICATION FILED OCT. 19, 1912.

1,059,309.

Patented Apr. 15, 1913.



WITNESSES:

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UNITED STATES PATENT OFFICE.

RONALD F. McFEELY, OF BEVERLY, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

TOE-BINDER.

1,059,309.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Original application filed July 20, 1912, Serial No. 710,670. Divided and this application filed October 19, 1912. Serial No. 726,747.

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 Norfolk and State of Massachusetts, have invented certain Improvements in Toe-Binders, 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 a rack 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 a novel binder substantially as hereinafter described and hav-

ing the characteristics pointed out in the claims.

The drawing shows a portion of the binder and illustrates how the eye is formed.

The eye forming device comprises a post or stud 2 which preferably projects horizontally from a support, which may conveniently be 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. The socket 5 forms a prong 3 on the under side of the eye which will engage the shoe upper and the socket is preferably inclined in such a direction that the prong will be inclined downwardly and backwardly toward the strand of the binder so that tension on the binder will cause the prong to be drawn slantingly into the shoe upper. 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.

This application is a division of application Ser. No. 710,670 filed July 20, 1912, in which the eye forming means is shown and claimed.

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

1. A toe binder having an anchor tack receiving eye in one end and an upper engaging prong bent from said eye downwardly and crossed by one side of the eye, said prong being located in position to be engaged with and held against the shoe upper by the binder when the latter is in place on a shoe.

2. A toe binder having an anchor tack receiving eye in one end and an upper en-

gaging prong bent downwardly and back-
wardly toward the strand of the binder and
crossed by one side of the eye whereby it is
held down by the eye and is drawn slant-
5 ingly into the shoe upper by the tension on
the binder.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

RONALD F. McFEELY.

Witnesses:

CHESTER E. ROGERS,
MABEL A. SWETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."