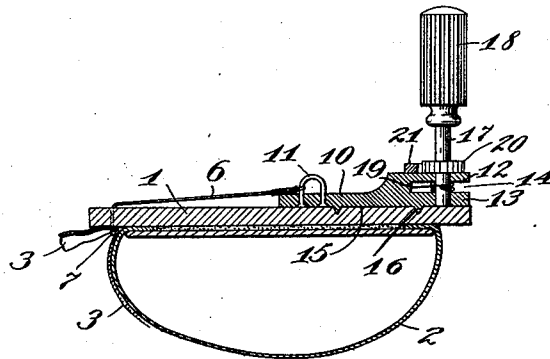
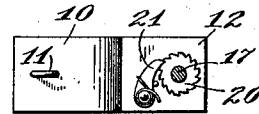
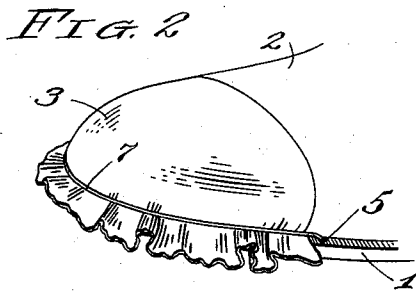
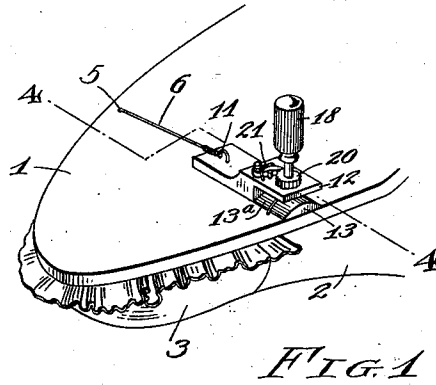


J. KIEFER.
 DEVICE FOR MENDING SHOES.
 APPLICATION FILED APR. 21, 1911.

1,023,155.

Patented Apr. 16, 1912.



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UNITED STATES PATENT OFFICE.

JACOB KIEFER, OF CLEVELAND, OHIO..

DEVICE FOR MENDING SHOES.

1,023,155.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JACOB KIEFER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Device for Mending Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to an appliance for shoe-maker's use to be employed for stretching and holding leather tips, patches, etc., upon the shoe until such time as the same can be permanently secured thereto by stitching, cementing, or in other suitable ways. The device was produced originally in order to facilitate the mending of the tips of children's shoes which is usually a very difficult matter owing to the small size of the shoe and the consequent difficulty of inserting either the hand or a suitable tool therein, although experience has demonstrated its value in mending shoes of larger size and for mending other parts than the toes. This difficulty is further aggravated by the fact that patent leather is always difficult to apply smoothly and to hold free from wrinkles during the insertion of the stitches.

The object of this invention is the production of a clamp by means of which a leather tip or patch can be gently but firmly held in position so that the wrinkles can be smoothed out and the correct position be found and by which the same may be held in such position until permanently secured.

One embodiment of my invention is illustrated in the drawings accompanying and forming a part of this application, wherein:

Figure 1 is a perspective view of a portion of a shoe illustrating my improved clamp in place thereon; Fig. 2 a perspective view showing a leather tip wired in position according to my invention preparatory to being sewed; Fig. 3 a plan view of the clamp; and Fig. 4 a transverse cross sectional view taken along the broken line 4-4 of Fig. 1.

Describing the parts by reference characters, 1 indicates the sole of a shoe, 2 the upper thereof, and 3 the leather tip or toe-cap which is being applied thereto. Through the edge of the sole at each side of the upper and slightly in the rear of the edge of this tip I form, by an awl or other convenient tool, a perforation 5 through which I pass the ends of a flexible wire 6 so as to leave

a loop or bight 7 surrounding the tip of the shoe in the groove between the upper and the welt, after which I constrict this loop or bight so as to draw the tip 3 firmly over the top of the shoe and down approximately to its fixed position. The means for drawing this wire into place consists preferably of a metallic base member 10 having at one end a staple 11 or other convenient fastening for securing one end of the wire, and having at the other end a pair of projecting arms 12 and 13 defining a groove 14. The lower surface of this member is preferably flat, as at 15, and provided with two or more short prongs 16 adapted to be forced into the leather of the sole and the upper surface of the lower arm is preferably rounded, as at 13^a, so that the end of the wire may be drawn freely thereover. The arms 12 and 13 are formed with registering perforations through which is passed a rotatable key 17 having at its outer end a milled head 18 by which it may be turned, and having opposite the groove or notch 14 a perforation 19 adapted to receive the other end of the wire 6. Rigidly secured to this key adjacent to the arm 12 is a ratchet wheel 20 adapted to be engaged by a spring-pressed pawl 21 carried by said arm by means of which its retrograde rotation may be prevented.

The operation of the device is as follows: The perforations 5 having been made in the sole of the shoe, the wire 6 is passed through and the base member 10 applied to the sole thereof, as shown in Fig. 1, with one side of the arm 13 adjacent one of the perforations. One end of the wire is secured to the staple 11, as shown, while the other end is passed through the perforation 19 in the key 17 which is afterward revolved so as to wind the wire thereon. As the loop or bight 7 is tightened up, the tip 3 is moved to position and the wrinkles smoothed out, after which the key 17 is still further tightened so as to bring the edges of this tip into the proper position for sewing. Inasmuch as small gage wire is usually employed, the sewing may be accomplished with very little hindrance therefrom. I prefer to employ copper wire of about twenty-six gage, inasmuch as this wire is very flexible and sufficiently strong for all ordinary purposes. Obviously, the same result would be attained by securing the fixed end of the wire in other modes than by fastening it to the

member 10, such as by knotting it to prevent it from passing through the perforation 5. I prefer to secure it to this member, however, as it then aids in securing the same to the sole of the shoe and renders unnecessary the use of screws, clamps, or other special fastenings. Furthermore, it is possible to employ thread or cord instead of wire although I prefer the wire for several reasons: The leather can be divided more uniformly since the friction is more uniform, there is no danger of sewing it into place when the stitches are put in, and it forms a guide for the knife in cutting away the superfluous leather.

While I have described my improved clamp as particularly adapted for use in mending children's shoes, I do not propose to be limited to such use as it is obvious that it could be employed with good results on other shoes as well; I conceive that its chief use will be in connection with children's shoes both because of the children's tendency to wear out the toes thereof and because of the great difficulty of mending the same with the devices heretofore known. Furthermore, it is possible to employ my device in mending other parts of the shoe than the toe, particularly the heel, and it is thought that the method of applying the same will be obvious to any shoe-maker. Furthermore, while I have described my invention in detail, I do not propose to be limited to such details except as the same may be positively recited in the claims hereto annexed or may be rendered necessary by the prior state of the art.

Having thus described my invention, what I claim is:

1. A device for mending shoes, comprising, in combination, a clamp comprising a base member adapted to be applied to the sole of a shoe, a rotatable key carried by said member and having a ratchet device associated therewith, a pawl engaging said ratchet, means for securing a wire to said key so as to be tightened upon the rotation thereof, and means for securing the other end of said wire to said base member so as to form a patch-engaging loop or bight.

2. A device for attaching a tip to a shoe, comprising, in combination, a wire loop adapted to surround the toe of the shoe and lie in the space between the welt and upper and to hold the tip in place, said loop being adapted to have its ends project through perforations in the shoe sole, and a clamp member adapted to be applied to the sole and to receive said ends, said clamp being provided with means for constricting said loop.

3. A device for mending shoes, comprising, in combination, a clamp member adapted to be affixed to the sole of a shoe, a rotatable key carried by said clamp member

and having a ratchet device associated therewith, a pawl engaging said ratchet, and means for securing a wire to said key so as to be tightened upon the rotation thereof.

4. A device for mending shoes, comprising, in combination, a clamp comprising a base member adapted to be applied to the sole of a shoe and having a pair of arms defining a notch therebetween, a rotatable key journaled in said arms and traversing said notch, a wire adapted to be secured to said key opposite said notch, means for securing the other end of said wire to said base member so as to form a loop adapted to partially surround a patch, means for preventing the shifting of said base member as regards said sole, and means for preventing the retrograde rotation of said key as the same is turned to tighten said wire.

5. A device for mending shoes, comprising, in combination, a clamp member adapted to be affixed to the sole of a shoe and comprising a base member having a pair of arms defining a notch therebetween, a rotatable key journaled in said arms and traversing said notch, means for securing a wire to said key opposite said notch, and means for preventing the retrograde rotation of said key as the same is turned to tighten said wire.

6. A device for mending shoes comprising, in combination, a clamp device adapted to be applied to a shoe and comprising a base member having a rotatable key associated therewith, means for securing one end of a wire to said key, means for securing the other end of said wire to said base member, said key being so arranged as to effect the drawing in of said wire when rotated, and means for preventing the retrograde rotation of said key.

7. A device for mending shoes, comprising, in combination, a clamp device adapted to be affixed to a shoe and having a rotatable key associated therewith, means for securing one end of a wire to said key, means for securing the other end of said wire in fixed position as regards said shoe, said key being so arranged as to effect the drawing in of said wire when rotated, and means for preventing the retrograde rotation of said key.

8. A device for mending shoes, comprising, in combination, a clamp member having a flat base and having prongs thereon adapted to be pressed into the sole of a shoe, and adapted to receive the ends of a wire loop, and means carried by and forming a part of said clamp member for drawing up said wire loop so as to decrease the area defined by the same.

9. A device for mending shoes, comprising, in combination, a clamp device adapted to be secured to the sole of a shoe, tension

means secured to said clamp device and adapted to project through perforations in the edges of the sole and to partly surround a patch of leather or other suitable material, and means carried by and forming a part of said clamp device for exerting tension upon said tension member to draw said patch securely into place, and simultaneously to hold said clamp device in position against the sole.

10 10. A device for mending shoes, comprising, in combination, a clamp device adapted to be secured to the sole of a shoe, tension means secured to said clamp device and

adapted to partly surround a patch of leather or other suitable material, and means carried by and forming a part of said clamp device for exerting tension upon said tension member to draw said patch securely into place.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

JACOB KIEFER.

Witnesses:

HAROLD E. SMITH,
BRENNAN B. WEST.

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