Sept. 29, 1925. 1,555,021

E. R. POPE

HEELING MACHINE

Filed Aug. 3, 1923

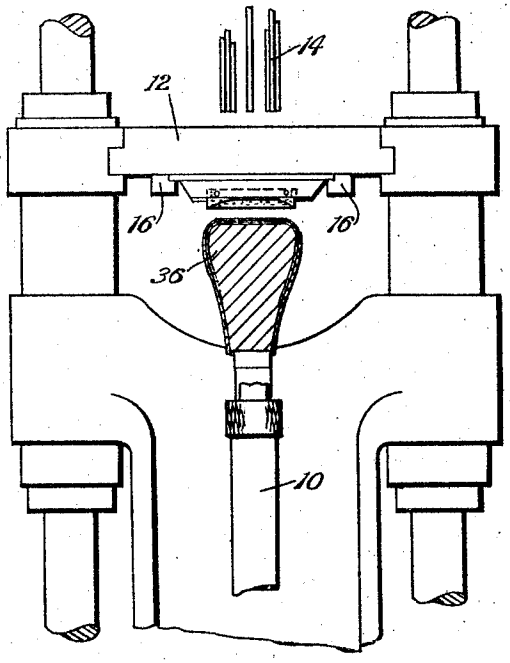


Fig. 1.

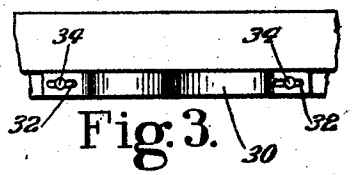


Fig. 3.

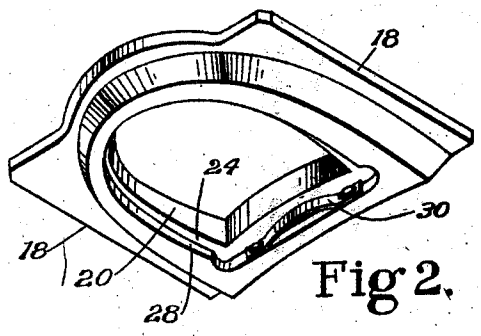


Fig. 2.

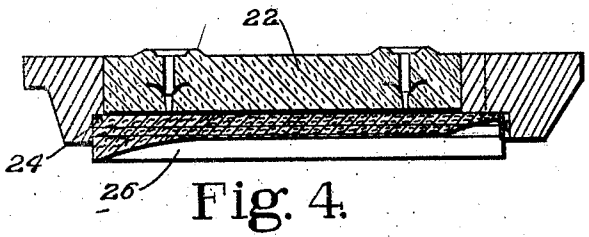


Fig. 4.

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By his Attorney,

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UNITED STATES PATENT OFFICE.

ELMER R. POPE, OF HAMILTON, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY CORPORATION, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

HEELING MACHINE.

Application filed August 3, 1923. Serial No. 655,517.

To all whom it may concern:

Be it known that I, ELMER R. POPE, a citizen of the United States, residing at Hamilton, in the county of Essex and State of Massachusetts, have invented certain Improvements in Heeling Machines, 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 heeling machines and has particular reference to means for locating and holding the parts of the work in proper relation to each other for the action of the heel attaching mechanism of the machine. It is especially useful in that type of machine in which the shoe is presented bottom upward to the action of the nailing mechanism.

In attaching multi-section heels, one common example of which is a rubber heel combined with a leather or leatherboard base, it has been a common practice either to attach the base section to the heel seat of a shoe by one nailing, and then to attach the rubber top section to the base and shoe by cement and another nailing operation, or to secure the base and rubber heel to each other preliminarily with cement and then to attach the assembled heel to the shoe at a single nailing. Rubber heels have now been produced which may be attached satisfactorily without cementing them to the bases and, when it is desired to attach such a heel and a base by the single nailing method, it is necessary to locate accurately and hold the separate, unattached sections of the heel in proper register with each other and the shoe. It is the object of the present invention to provide means for quickly and accurately securing and maintaining the correct relation of these work parts until they are permanently secured together by the action of the heeling machine.

The object of the invention is accomplished by the provision of means for supporting in proper relation to each other the separate sections of a multi-section heel above the heel seat of the shoe, which has been jacked and presented in working position. In the illustrated embodiment of the invention, which is adapted for operation upon a rubber heel and a base, a holder is provided having a cavity, defined by a wall engaging the entire periphery of the rubber heel, in which the rubber heel fits with sufficient friction to support its weight, and a co-operating cavity for the base section, provided with means for holding the base against one side thereof in correct register with the rubber heel. The means referred to may conveniently comprise a resilient member arranged to engage the breast edge of the base and press the base against the opposite wall of the base cavity with sufficient force to locate the base and support it until the shoe is jacked up against it.

The invention and its advantages will best be understood and appreciated from reading the following detailed description of one satisfactory embodiment thereof, in connection with the accompanying drawings in which

Fig. 1 is a front elevation of a portion of a heeling machine embodying the invention;

Fig. 2 is a perspective view of the improved heel holder;

Fig. 3 is a detail of the heel base holding device; and

Fig. 4 is a longitudinal central section of the holder with the sections of a heel therein.

In the drawings, 10 indicates the shoe supporting jack, 12 the nailing die, and 14 the nail drivers of a well-known type of commercial heeling machine. To the under side of the nailing die 12 are secured guides 16 into which slide the edges 18 of the heel holder.

The heel holder, as illustrated, is provided with a cavity 20 into which the rubber heel 22 fits sufficiently closely to prevent it from dropping out. The depth of the cavity 20 is approximately equal to the thickness of the rubber heel, and a shoulder 24, surrounding said cavity, is utilized to apply pressure to the marginal portion of the heel base 26 which is located and held in a cavity 28 formed in the holder. The cavity 28 is preferably of such shape and dimensions that the base 26 fits it approximately around the sides and curved rear end but is substantially longer than the base at the breast end. To the breast wall of the cavity 28 is secured a resilient base holding member 30 which is provided with slots 32 co-operating with pins 34 to maintain the said member in position while permitting it to flatten under pressure.

In the use of the machine the rubber heel 22 is inserted in the cavity 20, and the breast edge of the base 26 is pressed against the resilient member 30 until the base enters the cavity 28, whereupon, the pressure against the member 30 being released, the base is pressed against the rear wall of its cavity, being thus properly located with respect to the rubber section 22 and prevented from falling out. The shoe 36 is jacked and moved into the machine, being stopped in correct vertical alinement with the registered sections of the heel. The shoe now being jacked up against the heel base, the attaching operation proceeds in the usual manner, a gang of nails being driven at a single operation through the rubber heel, the heel base and the heel seat of the shoe thus simultaneously attaching both sections of the heel to the shoe.

Having described the invention, what is claimed as new and desired to be secured by Letters Patent is:—

1. In a heeling machine, the combination of means for supporting a shoe with its bottom facing upwardly, means for holding above the heel seat of the shoe, in proper register with the shoe and with each other, a plurality of separate and unattached sections of a heel and means for simultaneously attaching all of said sections to the shoe while so held.

2. In a heeling machine, the combination of means for supporting a shoe with its bottom facing upwardly, a holder above the shoe having a cavity in which a rubber heel will fit with sufficient friction to support its weight and a co-operating cavity for a heel base provided with means for holding the base against one side thereof in register with the rubber heel and means for simultaneously attaching the rubber heel and the base to the shoe while so held.

3. A holder for a rubber heel and an unattached heel base, having a fixed member engaging the entire periphery of the rubber heel, a device located in predetermined relation to said fixed member and constructed and arranged to engage the side and rear edges of a heel base, and means for pressing a heel base against the rear portion of said device with sufficient force to sustain the base therein.

4. A holder for a rubber heel and an unattached heel base, having a fixed member engaging the entire periphery of the rubber heel, a device located in predetermined relation to said fixed member and constructed and arranged to engage the side edges and one end of a heel base, and means for engaging one end of a heel base to press its opposite end into engagement with an end portion of said device with sufficient force to sustain the base therein.

5. A holder for a rubber heel and a heel base, having a fixed cavity of the same size and shape as the rubber heel, a base receiving cavity in fixed relation to said fixed cavity and larger than the base, and means for holding the base against one side of the base cavity.

In testimony whereof I have signed my name to this specification.

ELMER R. POPE.