June 19, 1923.

1,459,458

R. WOJAN

APPARATUS FOR REPAIRING SHOES

Filed Jan. 19, 1922

Fig. 1.

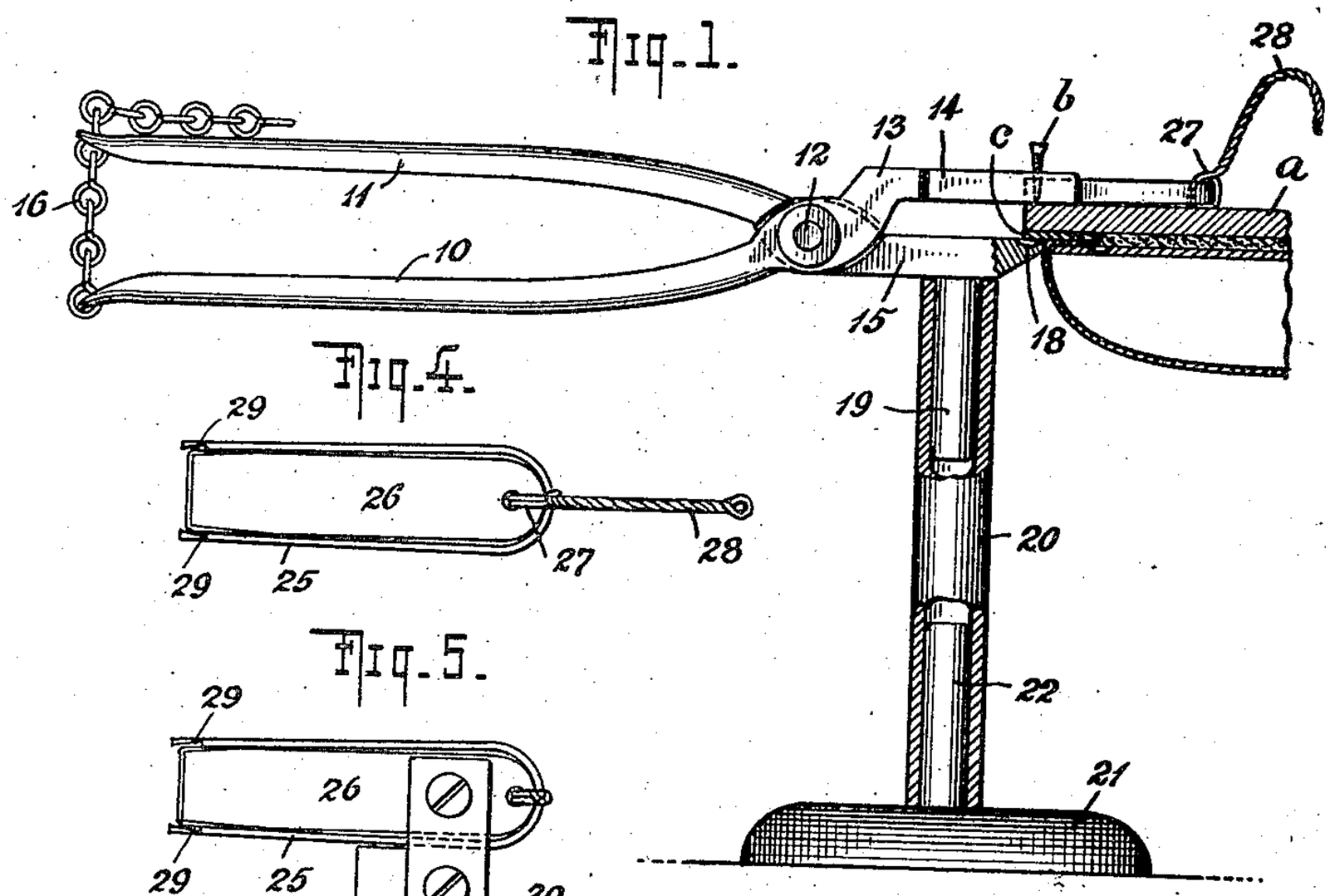

Fig. 4.

Fig. 5.

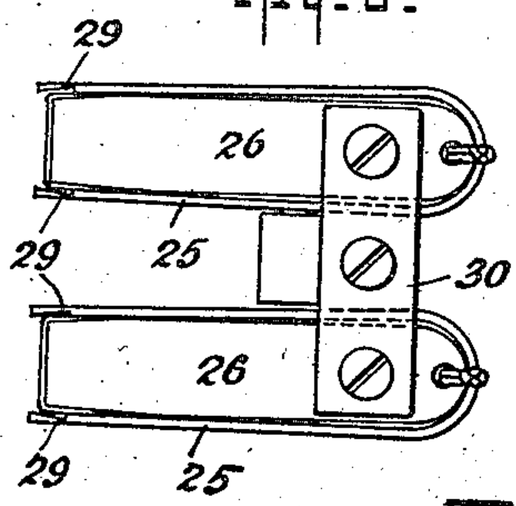

Fig. 2.

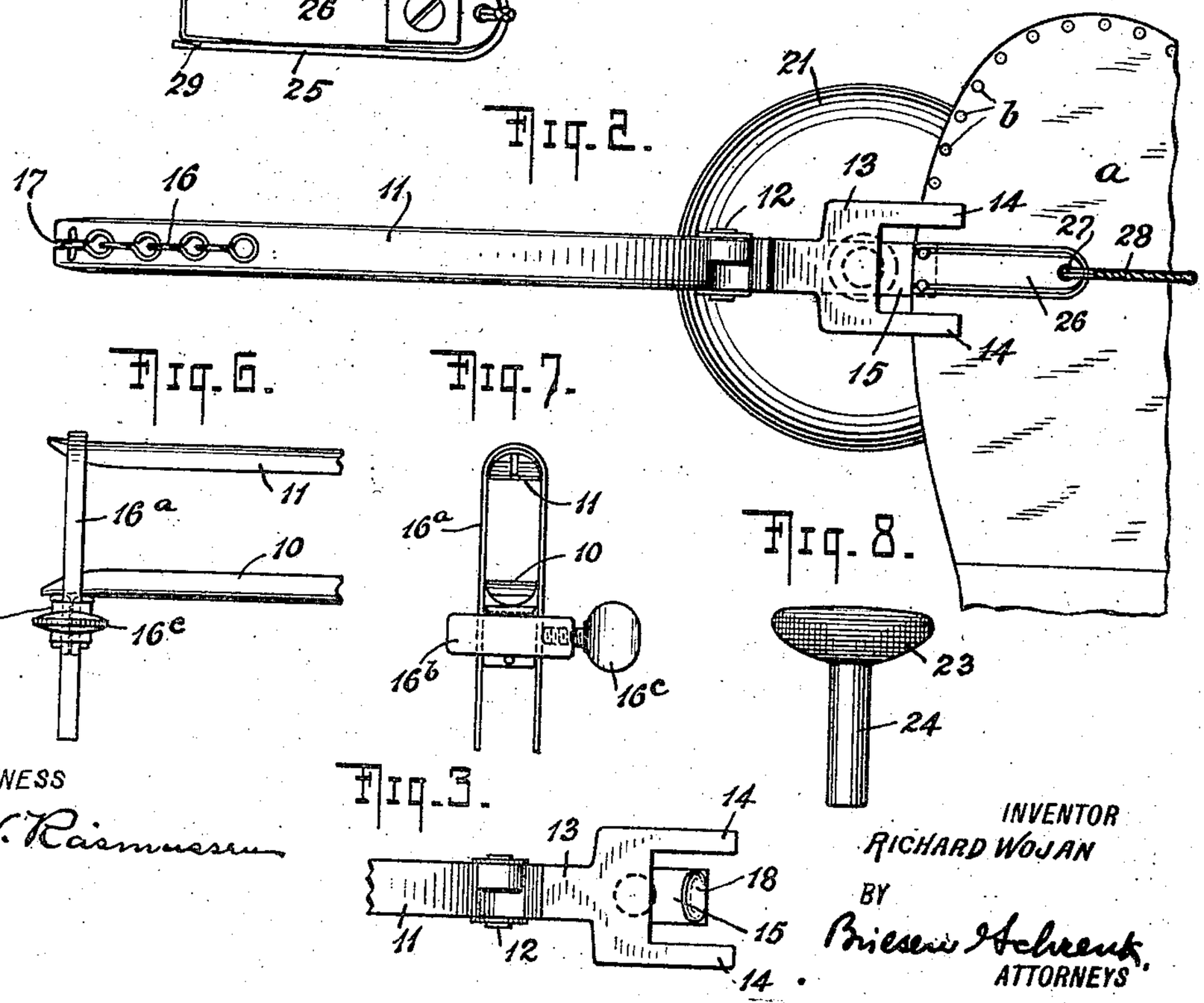

Fig. 6.

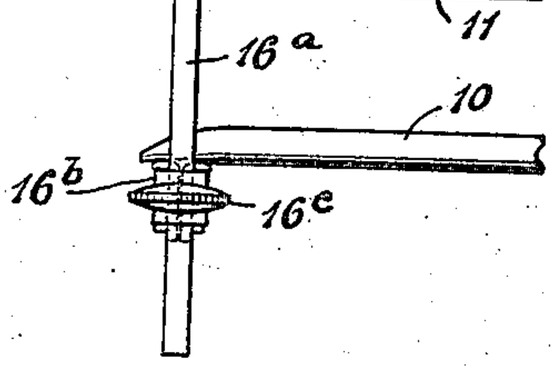

Fig. 7.

Fig. 8.

Fig. 3.

WITNESS

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UNITED STATES PATENT OFFICE.

RICHARD WOJAN, OF ELMONT, NEW YORK.

APPARATUS FOR REPAIRING SHOES.

Application filed January 19, 1922. Serial No. 530,314.

To all whom it may concern:

Be it known that I, RICHARD WOJAN, a citizen of the United States of America, and resident of Elmont, county of Nassau, and State of New York, have invented certain new and useful Improvements in Apparatus for Repairing Shoes, of which the following is a specification.

My invention relates to a device to be used in repairing shoes and more particularly to a device to be used in nailing new soles which re-place worn soles.

One of the objects of my invention is to provide a device adapted to be used in nailing the new sole to a shoe which will so hold the shoe and the new sole that the nails used in attaching the new sole may be so positioned as to provide a tight joint between the sole and the shoe.

Another object of my invention is to provide a device of the above character which will permit the positioning of the nails in such a manner as to prevent them from projecting into the interior of the shoe and causing discomfort to the wearer and which serves to automatically clinch the nails in position.

Other more specific objects of my invention will appear in the description hereinafter and the features of novelty will be pointed out in the appended claims.

In the accompanying drawings, which illustrate an example of my novel apparatus without defining the limits of the invention, Figure 1 is a side elevation; Fig. 2 is a plan view; Fig. 3 is a fragmentary plan view of the gripping end of the pliers; Figs. 4 and 5 are detail views illustrating novel shoe-nail holders comprising part of the apparatus; Figs. 6 and 7 are detail views of a variation of my invention, and Fig. 8 is a side view of a last which may be included as part of the apparatus.

As shown in the drawing the apparatus comprises a gripping implement or pliers constructed in a special manner and consisting of a pair of levers 10 and 11 pivoted together at 12 and shaped to constitute handles whereby said pliers may be readily manipulated. The lever 10 is continued beyond the pivot 12 in the form of a forked gripping member 13 terminating in jaws 14 spaced from each other, as shown in Fig. 2. The lever 11 is continued in the form of a gripping jaw 15 extending beyond the pivot 12 and beyond the gripping member 13 into registry with the space between the jaws 14. As will be seen by reference to Fig. 1, the gripping member 13 and its jaws 14 are off-set with respect to the lever 10 and are so constructed and arranged relative to the gripping jaw 15 as to remain in substantial parallelism therewith throughout the operative gripping range of the jaws which, it will be understood, represents a comparatively slight degree of movement. Suitable means may be provided whereby the jaws 14 and 15 are locked in their gripping positions. In the illustrated examples, shown in Figs. 1 and 2, this means is shown in the form of a chain 16 secured to one lever, for instance the lever 10, and adapted to be inserted into a notch 17 formed on the other lever, that is, in the present case, the lever 11. With this arrangement, by inserting one of the links of the chain 16 into the notch 17, the levers will be held against separation and the jaws 14 and 15 will consequently be maintained in their gripping positions. In the form shown in Figs. 6 and 7 the means in question is constructed in the form of a clamp 16^a adapted to be placed over the ends of said levers 10 and 11 to prevent unintentional separation thereof; for the purposes of adjustment the clamp may include a movable member 16^b arranged to be fixed in place by means of a set screw 16^c. In the preferred arrangement, the jaws 14 extend somewhat beyond the jaw 15 and the latter, near its free end, is preferably concaved, as indicated at 18, for the purposes to be more fully described hereinafter. The pliers are further preferably provided with an integral stem 19 of circular form and projecting perpendicularly from the jaw 15. The stem 19 is adapted to be inserted into the tubular support 20, which, in the preferred arrangement, is detachably mounted upon a base 21 through the medium of a stem 22, which projects upwardly from said base 21. The apparatus further includes an anvil or last 23 having a stem 24 adapted to fit the tubular support or pedestal 20 for the purpose which will appear more fully hereinafter. It will be understood that the stem 19 of the pliers and the stem 24 of the anvil or last 23 are adapted to be interchangeably inserted into the tubular support or pedestal 20.

In utilizing the apparatus, the lower jaw

15 is inserted between the upper of the shoe and the welt of the same, and the upper jaws 14 are extended over the tap-sole *a* which is to be attached to the shoe. The levers 10 and 11 are then moved toward each other to cause said jaws 14 and 15 to firmly grip the welt and the tap-sole *a* and are secured in this position by passing a link of the chain 16 into the notch 17, or by the placing of the clamp 16ª in position over the ends of said levers 10 and 11. In this way, the tap-sole *a* which is to be attached to the sole is securely held in place and with the shoe in an inverted position, may be mounted upon the support or pedestal 20 by inserting the stem 19 into the latter. One or more nails *b* may now be driven through the tap-sole *a* and the welt *c*, which nails, by contacting with the concaved portion 18 of the jaw 15, will be turned over or clinched, thus firmly attaching the tap-sole *a* to the welt at this point. The pliers are now shifted to a new position on the shoe to again grip the tap-sole *a* and welt *c*, as previously described, whereupon additional nails *b* are driven into place in the previously indicated manner, this operation being continued until the entire periphery of the tap-sole *a* has been nailed in place. After the sole has thus been secured in position, the pliers may be removed from the pedestal 20 and the anvil or last 23 substituted therefor to permit those parts of the tap-sole which do not connect with the welt to be nailed to the shoe; that is to say, after the anvil or last 23 has been mounted upon the pedestal 20, the shoe may be placed upon said last, which provides the necessary support for the nailing operations. This last 23 may be used also for nailing the heel of the shoe in place.

For the purpose of spacing the nails at regular intervals to conveniently hold them in place for nailing, the devices illustrated in Figs. 4 and 5 may be utilized. As shown in Fig. 4, the devices in question comprise a U-shaped spring 25 which extends about a metallic filler piece 26 and is secured thereto in any convenient manner, as by means of a wire 27 which passes around the spring and through an aperture in the filler piece, as illustrated, and preferably terminates in a hook-shaped handle 28 whereby the device may be conveniently manipulated. The U-shaped spring 25, near the free ends of its legs, is formed with notches 29 in which the nails *b* are gripped. When using this device, it is laid upon the tap-sole *a* at a point between the jaws 14 and the nails *b* carried thereby are each tapped with a hammer to an extent sufficiently to firmly seat the points of the nails in the sole *a*. The device is then removed by means of the handle 28, it being understood that the spring 25 will yield sufficiently to permit the removal of the device from the nails without disturbing the latter. The nails may then be driven home in the manner previously described. In the form illustrated in Fig. 5, a multiple device is shown in which the springs 25 and filler pieces 26 with their cooperating elements are duplicated and connected in fixed relation by a cross-bar 30 so as to provide seats for at least four nails. This device is utilized in the same manner as previously described.

With the described apparatus set forth, the tap-sole may be easily and efficiently nailed in place in a manner to provide a firm connection with the welt of the shoe at points outside of the upper thereof, so that the shoe is rendered substantially water-proof and discomfort and possible injury to the wearer because of nails projecting into the interior of the shoe is avoided. By concaving the lower jaw in the manner described and illustrated, the work is more firmly gripped to prevent slipping and at the same time the nails are securely clinched in position. With the described apparatus, the shoes may be repaired by nailing in a manner to secure all of the advantages of the more expensive method of attaching tap-soles by sewing.

In the preferred form the tubular support 20 and the base 21 are detachably combined so as to be capable of being easily dismounted and thus compactly packed for storage or carrying purposes.

Various modifications in the specific form shown and described may be made within the scope of the claims without departing from the spirit of my invention.

I claim:

1. An apparatus for repairing shoes comprising gripping pliers having a forked upper jaw, a lower jaw adapted to project over a welt, an anvil on said lower jaw and the forks of said upper jaw being so constructed and arranged as to engage a tap sole at points so spaced along the edge of the tap sole as to permit the introduction between the forks of means for positioning nails in line with the anvil.

2. An apparatus for repairing shoes comprising gripping pliers consisting of pivotally connected levers, a single lower jaw forming a continuation of one of said levers and adapted to project over the welt of a shoe, an anvil on said lower jaw, a T-shaped member forming a continuation of the other lever and jaws projecting from said T-shaped member in spaced, parallel relation above and at opposite sides of said single jaw, said parallel jaws extending beyond the free ends of said single jaw and adapted to project over a tap sole and engage the same at points so spaced along the edge of the tap sole as to permit the introduction between said jaws of means for positioning nails in line with said anvil, and said single and

parallel jaws co-operating to grip the welt and tap sole to hold the same during the nail attaching operation.

3. An apparatus for repairing shoes comprising gripping pliers provided with a forked upper jaw and a lower jaw extending into registry with the space between the members of said forked upper jaw, a stem depending from said lower jaw, a tubular support adapted to receive said stem whereby said gripping pliers are supported in operative position, and a base upon which said tubular support is detachably mounted.

In testimony whereof I have hereunto set my hand.

RICHARD WOJAN.