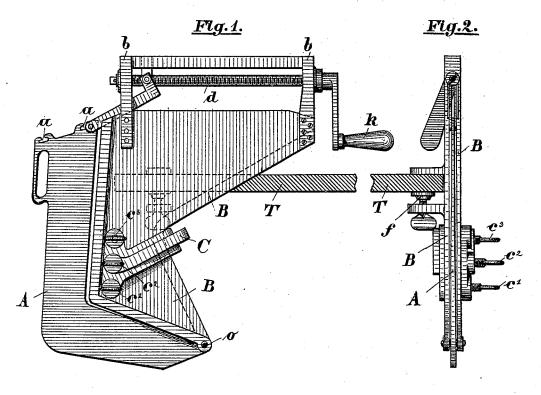
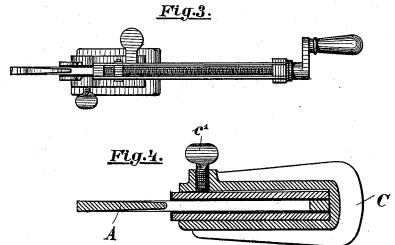
(No Model.)

## J. ZEH. CRIMPING MACHINE.

No. 491,913.

Patented Feb. 14, 1893.





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## UNITED STATES PATENT OFFICE.

JAKOB ZEH, OF EGLOSHEIM, GERMANY.

## CRIMPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 491,913, dated February 14, 1893.

Application filed October 10, 1892. Serial No. 448,365. (No model.)

To all whom it may concern:

Be it known that I, JAKOB ZEH, a citizen of the Kingdom of Würtemberg, residing at Eglosheim, in Würtemberg, Empire of Germany, 5 have invented a new and useful Leather-Crimping Device, of which the following is a

specification.

The object of the invention hereinafter described, is to provide a crimping or leather-10 working device, whose price places it within the reach of every mechanic, and by means of which the uppers for boots and shoes, and the like, may be crimped, especially where it comes in contact with the heel-bend, on the 15 upper side of the said heel-bend and along the entire extent of the same toward the heel.

In the accompanying drawings—Figure 1 represents a front elevation of an apparatus embodying my invention. Fig. 2 a side ele-20 vation, and Fig. 3 a plan view of the same, while Fig. 4 represents a transverse section on an enlarged scale through the part of the

device which acts on the leather.

The angular crimping or fulling-stirrup, A, 25 is hinged on the pivot, O, which is secured to the table T'. The crimping frame, B, is provided with bearings, b, in which is journaled the screw spindle, d, which actuates the crimping-frame by means of the link or lever, e, by 30 being first hooked into the foremost of the two  $\perp$  shaped notches, a and a', whereupon the screw-spindle, d, is turned by means of crank, k, whereby the stirrup A, and with it the leather is drawn into the frame B. If required the link or lever e, may also be hooked into the remote notch, a', the spindle, d, having first been turned back the required extent, whereupon the crimping may be further

continued. The crimping proper is carried out at the angle of the crimping frame, B, where three set-screws c',  $c^2$ ,  $c^3$ , are arranged in the clamp, C, by whose adjustment the crimping operation may be accomplished to a greater or less 45 extent. It is to be observed that the crimping-frame, B, consists of two spring-halves or sections, which are lined on their inner faces with sheet-zinc or metal, and which may be caused to approach or recede from each other

50 by means of the three set-screws, c',  $c^2$ ,  $c^3$ , whereby the crimping or pressing operation

may be increased or diminished. In order that a rigorous crimping be applied not only to the upper parts of the heel-bend, but also toward and along the heel, the crimping-stir- 55 rup, A, is made tapering in form, (see Fig. 4) and about one and one-half to two millimeters thicker at its outer edge, whereby the parts of the leather which are more remote from the apex are also caused to be rigorously pressed 60 and pulled through.

The position of the set-screws, c',  $c^2$ ,  $c^3$ , is so selected that the upper is not crimped along the entire apex, but only on or near the heelbend, and remains unaffected at the other 65 points, and it is hence not unnecessarily injured at those parts, as in other crimping de-

By employing the screw-spindle, d, connected with the crimping-stirrup by means of 70 link, e, an exceedingly powerful crimping of the leather is attained by a very small expenditure of labor at the crank, k.

By reason of its simplicity, the crimpingdevice may be very cheaply produced and is 75 not even approximately equaled by any of the erimping-devices hitherto employed, for ef-

fectiveness of operation.

I claim-

1. In a leather-crimping device, the combi- 85 nation of a crimping frame with a crimpingstirrup pivoted thereto, a screw-spindle journaled in the crimping frame, and a link, connecting the screw-spindle with the crimpingstirrup, substantially as set forth.

2. In a leather-crimping device, the combination of a crimping-frame comprising two spring-sections with an angular crimping-stirrup wedge-shaped in cross-section, a screwspindle, and a coupling-link connecting the 90 screw-spindle with the crimping stirrup, sub-

stantially as set forth.

3. In a leather-crimping device, the combination of a crimping-frame, comprising two spring-sections, with a clamp, as C, embracing 95 the two spring-sections and provided on one side with a number of set-screws, adapted to force the two sections together more or less, for the purpose of regulating the power of the crimping operation at the desired points, sub- 100 stantially as set forth.

4. In a leather crimping device, the combi-

stirrup provided thereon, with a screw-spindle and a link threaded thereinto, the free end of the crimping-stirrup being provided with a series of 1 shaped notches to be engaged by the link, substantially as set forth.

In testimony whereof I have signed this

nation of a crimping-frame, and a crimping- | specification in the presence of two subscrib-

JAKOB ZEH.

AUGUST B. DRANTZ, LEOP. WEIL.