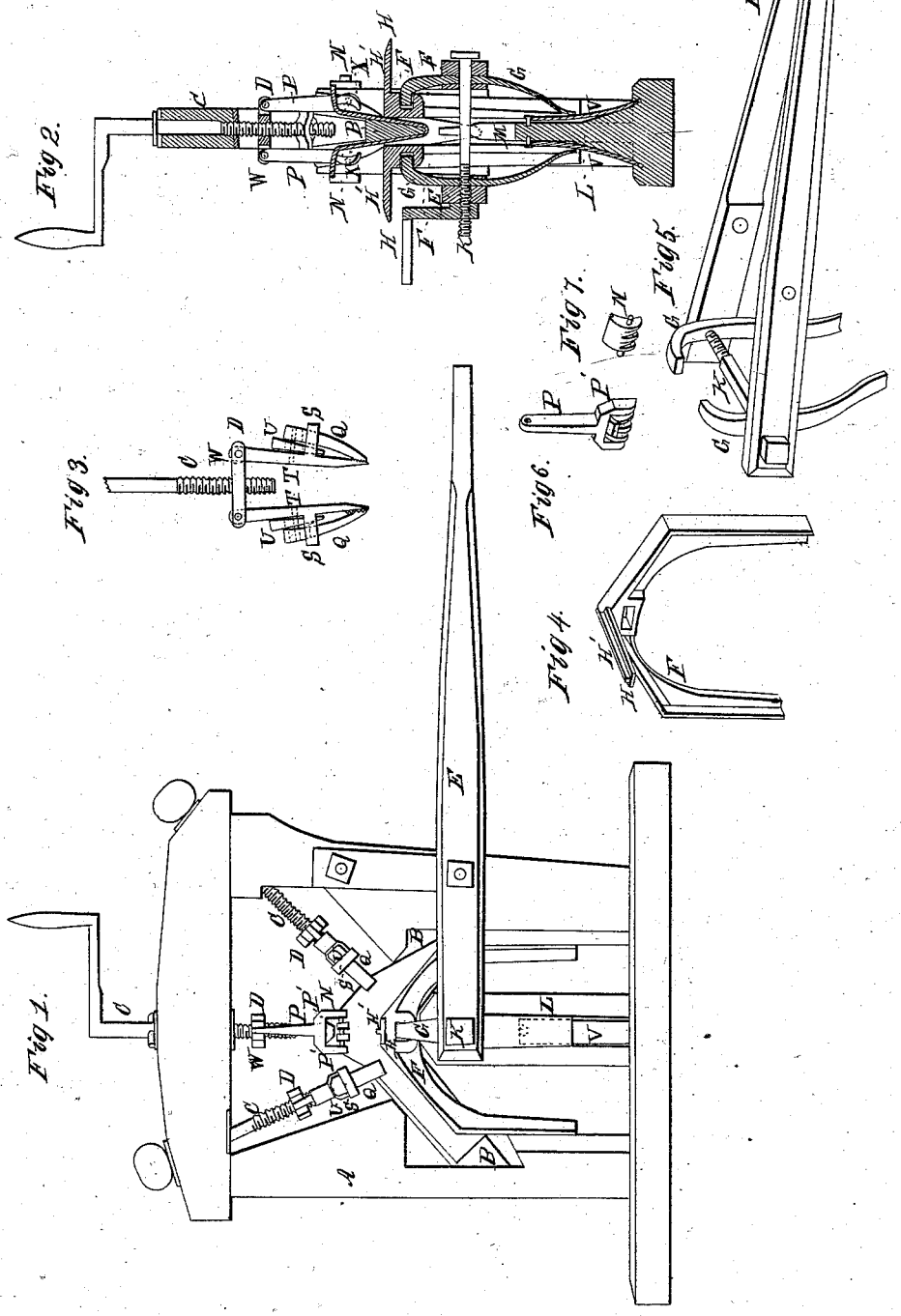
J. Young

Crimping Leather,

No. 4,165. Patented Aug. 26, 1845.



UNITED STATES PATENT OFFICE.

JOHN YOUNG, OF PERTH, NEW YORK.

BOOT-CRIMP.

Specification of Letters Patent No. 4,165, dated August 26, 1845.

To all whom it may concern:

Be it known that I, JOHN YOUNG, of the town of Perth, in the county of Fulton and State of New York, have invented a new and useful Improvement in Machines for Crimping the Fronts of Boots, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification, of which—

Figure 1, is a front elevation; Fig. 2, is a vertical cross section; Fig. 3, is a cross section of the pincers. Fig. 4 is a perspective view of one of the arched jaws. Fig. 5 is a perspective view of the forked lever and spring connecting bars. Fig. 6 is a perspective view of one of the grippers P. Fig. 7, a perspective view of one of the grooved eccentrics.

The frame A— the crimping board B— the screw-rods C— the jointed nuts D W— the lever E, being made and arranged in the usual manner, need not, therefore, be particularly described.

My improvement consists in arranging at the middle of the frame longitudinally, below the crimping board, two similarly constructed arched jaws F, suspended in a vertical position to the ends of the forked lever E, by two curved spring connecting bars G, for raising said jaws, for pressing and smoothing the leather upon the crimping board, and removing the wrinkles therefrom, said arched jaws having horizontal ribbed horns H, or arms, extending outwardly on the side, one from the top of each arch for the purpose of supporting the ends of the boot front in a horizontal position, when spread out thereon, to make it ready for crimping, and also for guiding the hinged grippers P in a straight line toward the center of the machine, in a transverse direction, for straining the leather. The aforesaid connecting bars G, resemble each, a semi-elliptic spring, except its upper end, which is made thick and strong, and turned at right angles, where it enters a mortise or cavity in the arched jaws F, near the top thereof, by which, and the addition of a screw bolt K, the connection between the arched jaws F, and the lever E is effected, the said screw bolt K, being passed horizontally through said connecting bars and the lever. The outer sides of said arches are made vertical, and straight, and slide up and down against the inner sides of the posts of the frame.

In the center of the frame, and immediately below the crimping board, there is mortised and tenoned, or otherwise secured, a strong wedge shaped post L, having a transverse slit or opening M, at the middle for the screw rod K to play up and down therein, as the jaws are raised and lowered. This post forms two inclined planes, inclining upwardly and toward the center, and shod or covered with thin curved metallic plates V over which the lower or thin ends of the connecting spring bars G slide, as the jaws are raised and lowered; said lower ends of the spring bars approaching each other as they rise with the jaws over the crimping board, and receding from each other as the jaws and bars descend—the jaws being opened and closed by being forced up and down over the crimping board, which is made thicker on the upper than on the lower edge, and by causing the lower detached ends of the spring bars, to slide over the inclined sides of the posts, by their being connected together, by the screw rod K as aforesaid, allowing them to open and close in the manner of tongs or pincers. To prevent the lower ends of the spring bars wearing, the inclined sides of the post they are covered or shod with the metallic plates Y aforesaid or other hard smooth substance, over which the spring bars slide.

The grippers P for laying hold of the ends of the leather, when spread out upon the horns, H, and guiding it centrally as the jaws close, and spread them over the crimping board, are made with grooved eccentrics N, which turn on pivots X in the forks P′ of the jointed arms P, of the rising and falling nuts. The ends of the leather to be crimped, are gripped between the grooved eccentrics N and forks P′ so that the more the leather is strained the more closely the eccentrics grip the leather. The grooves in the eccentrics correspond with the ribs H′ on the horns H over which they slide for guiding the grippers, and causing them to move in a straight transverse horizontal line, toward the center of the machine, as the nuts and jaws are raised and the leather is spread over the crimping board, which operation is essential to a correct and even straining and crimping the boot front. The other grippers or pincers are made with segment grippers or claws Q, which are passed through staples S inserted into the hinged arms T of the nut W between which arms and the

segment grippers the edges of the leather are inserted, the lower ends being pressed down upon the leather by wedges V inserted between the upper ends of the segment grippers or claws and the hinged arms, by which construction the leather is easily and expeditiously removed from the grippers. The arms are hinged to the nuts in the usual manner. The screws for moving the nuts are passed obliquely through the upper angles of the frame, inclining in contrary directions and pointing toward the middle of the crimping board. They strain the leather obliquely outward and upward in the manner of other crimping machines in use.

The lever E is made with two arms embracing the post in which its fulcrum is inserted, and united outside the post where they are formed into a handle for operating the same.

What I claim as my invention and desire to secure by Letters Patent, is—

The combination of the arched jaws F, and curved spring connecting bars G screw rod K and lever E, arranged and operated in the manner and for the purpose set forth.

JOHN YOUNG.

Witnesses:
EDMUND MAHER,
CLARK WHEELER.