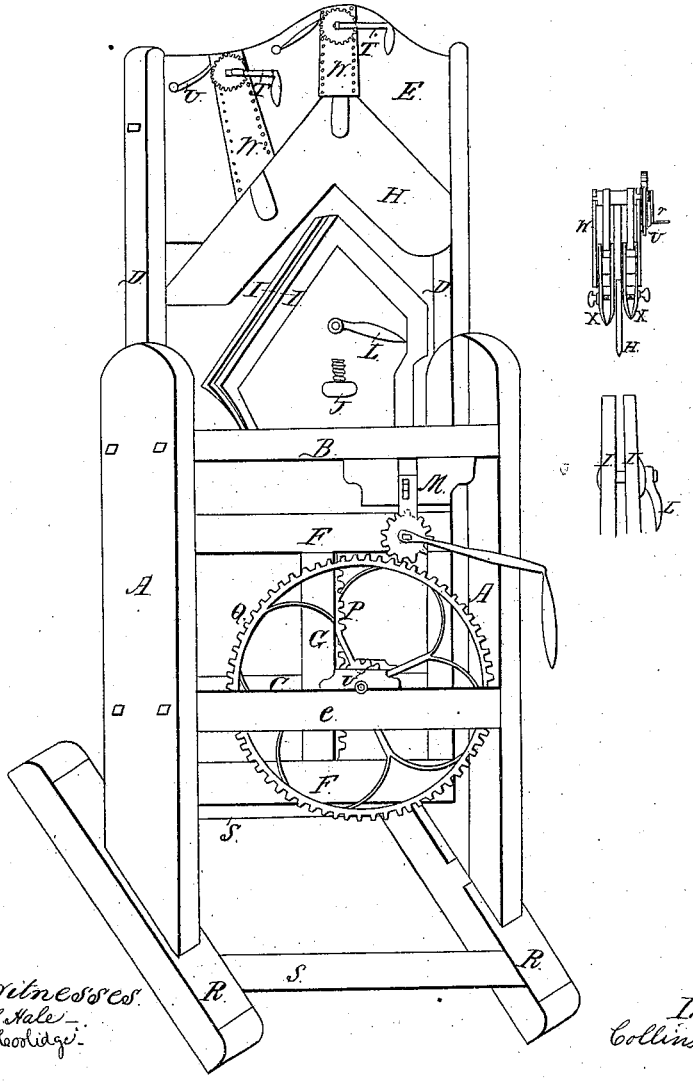
C. H. Jaquith,

Crimping Leather,

No. 642. Patented Mar. 21, 1838.



Witnesses.
S. Hale
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UNITED STATES PATENT OFFICE.

COLLINS H. JAQUITH, OF KEENE, NEW HAMPSHIRE.

MACHINE FOR CRIMPING LEATHER FOR BOOTS, &c.

Specification of Letters Patent No. 642, dated March 21, 1838.

To all whom it may concern:

Be it known that I, COLLINS H. JAQUITH, of Keene, in the county of Cheshire and State of New Hampshire, have invented a new and Improved Machine for Crimping Boots, of which I declare the following to be a full and exact description.

The principal parts of this machine that are made of wood are two frames called the outside frame and the sliding frame. The outside frame stands on two feet, being timbers three inches square, and about two and a half feet long, connected by two cross timbers or ties frame into the other timbers near the ends, the foot timbers being one foot ten inches apart from inside to inside. Into the middle of these timbers, two upright posts, which may be made of plank, are framed about three and a half feet high, two inches thick and eleven inches wide at the bottom, which width continues upward but six inches and is then narrowed an inch on each side. These posts are two feet apart from inside to inside. One foot above the foot timbers, two girts, three by two inches are framed into the posts, the front girt being flush or even with the front sides of the posts. And the interval between the girts being three and a half inches. Seventeen and a half inches above these girts, another of the same width as the posts at that place, and about three inches thick is framed into the posts by two tenons at each end, the frame being made strong and firm by the joint screws at all the principal joints. Through the middle of this girt at each end close to the posts are holes for the side pieces of the sliding frame hereafter mentioned to move in. This sliding frame moves up and down within the other. The side pieces are four feet eight inches long or high, two inches wide and one and a half thick. They are connected at the bottom by a cross timber, two by three inches, and one foot four inches above, by another cross timber of the same size. These two cross timbers are connected by an upright post, two and a half by two inches, on the right hand side of which is a cast iron rack, and which side is twelve and a half inches from the inside of the right hand outside post. And the side pieces are connected at top by a two inch plank fourten or fifteen inches wire at the left side, and ten inches at the right side, and of the shape represented in the drawing annexed marked (E). This connection is by mortises and joint screws. Four pincers two on a side adapted and used to take hold of the corners and sides of the leather and stretch it, are attached to, or connected with, this plank in this way. Two square grooves about an inch wide and three fourths of an inch deep are cut on each side, opposite each other, starting from the angle and running to the top. These grooves are covered with thin plates of iron fastened on the outside of the plank with screws. At about half an inch from the top an iron arbor nearly an inch in diameter passes through these plates and through the wood between the grooves at the center of the grooves. In front this arbor has upon it a bur wheel two and a half inches in diameter and a small crank, and at the left hand is fixed a dog for the bur wheel. The pincers pass up and down these grooves. They are made of two pieces of iron kept a short distance apart by a piece of metal between them near the upper end; there is a rivet through the upper end of the pieces of iron, and a thumb screw at the lower end. One end of a strip of leather is fastened around the rivets and the other to the arbor by passing through a mortise in it. By turning the crank the strips of leather are wound around the arbor and the pincers are raised, and by turning the crank the other way they are let down. About three and a half inches from these grooves at the left hand are two more, with pincers &c., similar to the others in all respects except that the grooves decline from a perpendicular toward the left, and are wider at the lower than at the upper end. Into a groove half an inch deep made into the under side of the aforesaid plank is inserted a plate made of metal, but zinc is preferable, called a form, three sixteenths of an inch thick, and of the shape represented in the drawing (H), the ends of the form being also inserted into the side timbers of the sliding frame and the lower edge being finished round. The width of the form varies. On the left it is from four and a half to six inches, at the top about eight inches, on the right form five and a half to six and a half inches. The sliding frame just fills the interval between the upright posts above mentioned, is placed between the lower girts and close to the back one, and the side pieces move in the aforesaid holes through the upper girt, and square gains are cut in the feet to permit the side pieces to descend to the floor. To keep it steady cleats may be nailed to the upright posts. To the outside of the left

side piece of the sliding frame is attached an iron plate an eighth of an inch thick (the wood being cut away to that depth) and extending upward from the bottom three feet and five or six thin iron cross plates an inch wide and about two inches long, are at proper distances bedded into the outside frame, for the first mentioned plate to run against to obviate friction. Or instead of these small plates, a single iron plate of the same size as the other, may be bedded into the post.

The jaws shown in the drawings (I) are of cast iron. Their width at the bottom is about twelve and a half inches; their height from the bottom to the point is about one foot six inches; the length of the left hand slope (the jaws being placed together) is about seventeen and a half inches, and of the right hand slope about ten inches. A perpendicular line being dropped from the point one foot, the distance thence horizontally to the left edge is about nine inches. The slope on the other side is not quite so steep. At the point the edges which should be smooth are an inch and an eighth thick and diminish gradually in thickness to the bottom of the slopes, the thickness at the bottom of the longest slope being half an inch. The jaws may be cast with a rim along the slopes on the outside from an inch to half an inch wide, widest at top, and with a perpendicular strip three inches wide and an inch and a half thick extending from the point downward to the ledge hereafter mentioned, and the remainder three eighths and an inch and a half thick extending from the bottom a ledge projecting outward three fourths of an inch and square at the bottom crosses the jaws horizontally. Two grooves or mortises are sunk into the top of the upper girt, in which the bottoms of the jaws are inserted up to the ledge. These grooves are a little wider than the jaws are thick, and are separated by a partition half an inch thick, which must be exactly under the edge of the form. The inside of the jaws are polished as far down as the leather comes in contact with them, and to facilitate the polishing so much of them is a little raised when cast. The two jaws must be cast in different molds. As the smooth sides are placed together, one jaw is the reverse or counterpart of the other.

Through the thick perpendicular strip in the jaws about eight and a quarter inches below the point passes a bolt on the back end of which is a head and on the front end is a hand nut, the use of which is to open and shut the jaws, and to set them at any desired distance from each other. Through the thick part of the back or front jaw, near the bottom passes a thumb screw, by which the distance apart of the bottom of the jaws may be regulated.

The angle formed by the lower edge of the form, and the upper edge of the jaws, should not be the same. When the form is brought down, so that its edge but just enters between the points of the jaws, the lower end of the form on the left is about two and a quarter inches from the edge of the jaw, the two edges on this side diverging in straight lines. On the other side the edge of the form has a slight curve as represented in the drawings annexed. About ten inches from the inside of the upright post first above mentioned on the right hand a transverse groove is made in both lower girts, to receive the arbor or axle of a cast iron wheel shown in the drawing (Q). Small blocks of wood are fastened by screws over this axle to keep it in place. This wheel is twenty inches in diameter and is placed between the two girts, and in front of the sliding frame (G). Back of this wheel connected with it and turning on the same axle is a pinion the cogs of which mesh with those of a cast iron rack (P) attached to the upright post in the sliding frame.

To the underside of the upper girt (B) is firmly fastened by screws, a wooden block (M) seven inches long, and three and a half wide, by three and a half thick. Through the middle of this, about seven inches from the inside of the right hand post, a square bolt passes, from each end of which hangs an iron plate about six inches long, an inch and a half wide, and half an inch thick.

Through the lower ends of these plates passes an axle or arbor upon which is fastened a cast iron pinion about three inches in diameter, the cogs of which mesh with those of the large wheel below. On the front end of the axle is placed an eleven inch crank, by turning which the sliding frame is raised or lowered according to the way it is turned. The sliding frame being raised, the jaws being set at a proper distance from each other by means of the thumb screw and hand nut, and the leather being properly placed on the jaws the form, by turning the crank is brought down, pressing the leather between the jaws, as far as may be necessary to complete the crimping.

I claim as my invention—

The use of the thumb screw, at the bottom to regulate the jaws for the introduction of thick or thin leather and the mode of using the pincers by means of the strap running over the arbor all as above described.

COLLINS H. JAQUITH.

Witnesses:

S. HALE,

G. A. FOSTER.