

(No Model.)

F. CHASE.

NIPPER OR WIPER FOR LASTING MACHINES.

No. 337,924.

Patented Mar. 16, 1886.

Fig. 1.

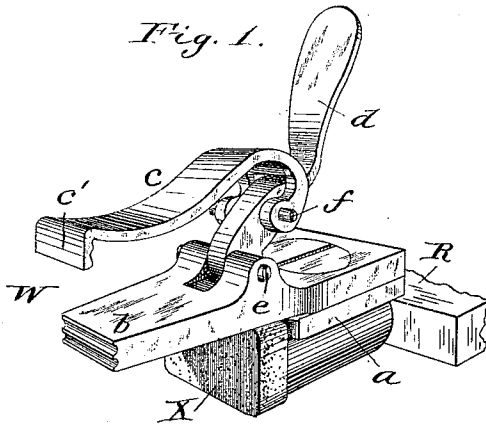


Fig. 2.

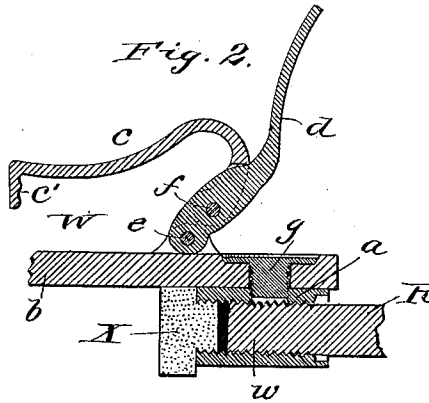


Fig. 5.

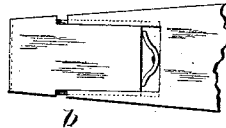


Fig. 3.

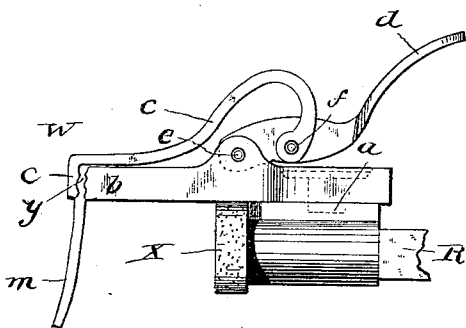


Fig. 4.

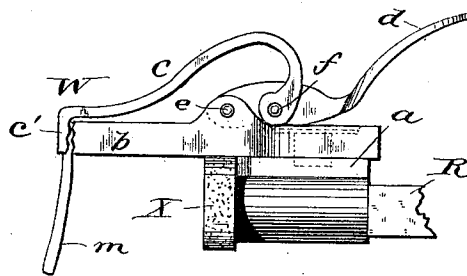


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK CHASE, OF BOSTON, MASSACHUSETTS.

NIPPER OR WIPER FOR LASTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 337,924, dated March 16, 1886.

Application filed October 26, 1885. Serial No. 180,925. (No model.)

To all whom it may concern:

Be it known that I, FRANK CHASE, of Boston, Massachusetts, have invented a certain new and useful Improvement in Nippers or Wipers for Use in Machinery for Lasting Boots and Shoes, of which the following is a specification.

The nipper or wiper in which my improvement is comprised is intended more particularly for use in the lasting-machine described and shown in my Letters Patent No. 319,784, dated June 9, 1885, and is designed to do the work of what is therein termed a "side-wiper."

My present device, while adapted, as just said, to do the work of a side-wiper, is rather in the nature of a nipper, in that it has jaws between which the projecting edge of the upper is clamped and held. It may, therefore, not improperly be termed a "nipper-wiper." It has been my purpose to so arrange the clamping-jaws of the device that they will hold any thickness of leather usually met with in the operation of lasting boots and shoes, and also that when closed upon said leather they will be locked securely in place thereupon.

It is in this feature that my improvement mainly is comprised. I have, however, improved the device in other respects—that is to say, in pivoting it to its supporting-slide so that it will swivel on a vertical pivot, thereby giving it capacity to turn toward one or the other end of the last, and in providing a rubber buffer which will prevent the device or the support for the same from indenting the leather when the nipper-wiper is moved forward in a direction across the last.

The nature of my improvement will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of one of my improved nipper-wipers, together with a portion of the slide or support to which the same is attached. In this figure the jaws are represented as open. Fig. 2 is a longitudinal central section of the parts in the position they occupy in Fig. 1. Fig. 3 is a side elevation of the device in the position it assumes when the leather has been placed between its jaws and the jaws have been closed and brought to the position they assume just before they are

locked into place. Fig. 4 is a like elevation of the same with the jaws in the position in which they are locked in place. Fig. 5 is a plan view of a portion of the stationary jaw, its acting end being made movable in its shank, and a spring being interposed between the parts. Fig. 6 is a similar view, in which the acting end of the stationary jaw is made yielding by being armed with a rubber or other elastic pad.

The nipper-wiper I indicate by the letter W, so that the reference-letter may correspond to that used in my aforesaid Letters Patent to identify the several side-wipers; and for the same reason the slide or support is lettered R. The nipper-wiper, like the patented side-wiper, is screwed upon a pivot, *w*, (which is horizontal and transverse to the last,) so that it may oscillate thereon in the manner and for the purpose set forth in said Letters Patent. The part of the nipper-wiper which screws upon the pivot *w* is the base *a*. The grasping or holding portions of the device—consisting of the jaws *b c*—are pivoted to the base *a*, so that they may swivel or turn bodily upon a vertical pivot or axis, *g*. The advantage of this is that if, when the nipper-wiper is in operation, the fullness of the leather be taken up more quickly at one end or side of the device than at the other (as will frequently happen, owing to the irregular outline of the last) the jaws will turn bodily on the pivot *g* in the direction where there is the greatest resistance, equalizing in a measure the strain, and stretching the leather in a somewhat diagonal direction toward the one or the other end of the last, which is important, in order to properly and equally take up the fullness. I also apply to the nipper-wiper a rubber buffer, X, which in this instance is fastened to the front end of the base or support *a*, the object being to prevent the leather from being indented by contact with the base, which may take place when the wiper is advanced across the sole of the last.

The jaw *b* is what I term the "stationary" jaw. It is swiveled by pivot-pin *g* to the base *a*, and it carries both the jaw *c*, which I term the "movable" jaw, and the locking-lever *d*. The locking-lever is hung between ears on the stationary jaw, on a horizontal axis or pivot,

e, and the movable jaw *c* is jointed to the locking-lever by a horizontal pivot-pin, *f*. The movable jaw at its outer end is bent down, as at *c'*, so as to come opposite to the end of the stationary jaw, and the contiguous faces of the acting ends of the two jaws are horizontally ribbed or corrugated, as shown, so that they may nip the leather more firmly.

The arrangement of the pivots or axes *e f* is such that when the locking-lever is depressed to its lowest position the axis *f* will be not above, and preferably below, a straight line passing through the axis *e* and point where the jaws most forcibly nip the leather between them, (indicated at *y* in Fig. 3.)

With a view to enable the two jaws to better adapt themselves to varying thicknesses of leather, it is desirable to make the acting face or end of one slightly yielding with respect to the other. This result is attained in the present instance by giving the shank of the movable jaw a bowed form, so that when made (as I prefer) of steel it forms a stiff bow-spring, which, while holding up in place the movable jaw, at the same time allows the acting end of said jaw to yield whenever necessary. In this way, indeed, a spring action is provided, by which the lever, when depressed far enough to bring the point *f* below a line passing through the two points *e y*, is caused to snap down into place. The same effect might be produced by making the acting end of the stationary jaw yielding—that is to say, by making that end movable back and forth in or on its shank and interposing between it and its shank a stiff spring, which would hold it in its outermost position, as indicated in Fig. 5; or one or both of the jaws on contiguous faces might be armed with rubber or other yielding spring-acting pads, as indicated with reference to the stationary jaw *b* in Fig. 6. I prefer, however, the arrangement shown in the drawings.

The manner of applying the nipper-wiper is as follows: If the parts are in the position shown in Figs. 1 and 2, the movable jaw will be entirely free and can be lifted to any position desired. The leather to be grasped (indicated by the letter *m*) is inserted between the acting ends of the two jaws, and the locking-lever is then forcibly depressed. When it reaches the position shown in Fig. 3, in which the three points *y*, *e*, and *f* are in line, the pressure will be greatest. Then by depressing it still further, as it can be for a short distance, the point *f* is carried below the line of

the other two points, and the lever at once snaps down into place, thus locking the jaws securely and tightly. The parts will remain in this position with the leather firmly held until the locking-lever is lifted by hand.

Having now described my improvement and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the stationary jaw, the locking-lever pivoted thereto, and the movable jaw pivoted to the locking-lever, so that its acting end may, by the movement of the locking-lever, be caused to move to and from the acting end of the stationary jaw, the pivots or axes of the said movable jaw and locking-lever being arranged relatively to the point at which the jaws nip the leather between them, substantially as and for the purposes hereinbefore set forth.

2. The combination, substantially as hereinbefore set forth, of the stationary jaw, the locking-lever pivoted thereto, and the movable jaw pivoted to said lever, said jaws being constructed and arranged substantially as hereinbefore described, so that the acting end of the one may have a yielding spring action with reference to the other.

3. The combination of the stationary jaw, the locking-lever pivoted thereto, and the movable jaw provided with a bow-spring shank pivoted to said lever, these parts being arranged for joint operation substantially in the manner hereinbefore set forth.

4. The combination, with the jaw support or base, of the stationary and movable jaws and locking-lever swiveled thereto upon a vertical axis, substantially as and for the purposes hereinbefore set forth.

5. The combination, with the slide, of the nipper-wiper mounted thereon, substantially in the manner herein shown and described, so that its acting jaws may as a whole be capable of bodily oscillation in both a vertical and a horizontal plane, as and for the purposes hereinbefore set forth.

6. The combination of the nipper-wiper, its supporting-slide, and the buffer *X*, of rubber or equivalent material, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand.

FRANK CHASE.

Witnesses:

J. B. McCUNE,
J. E. ABBOTT.