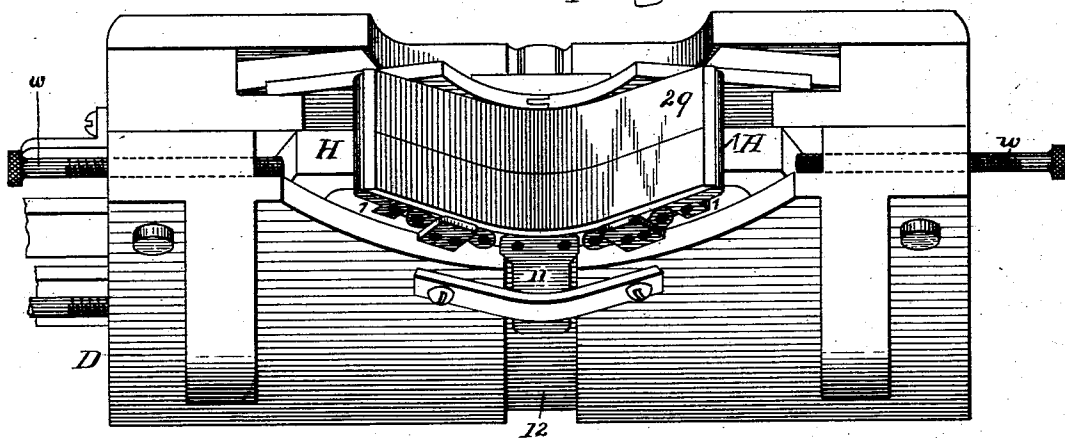
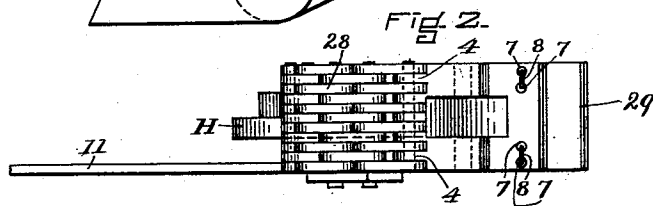
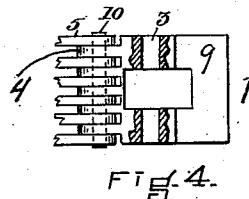
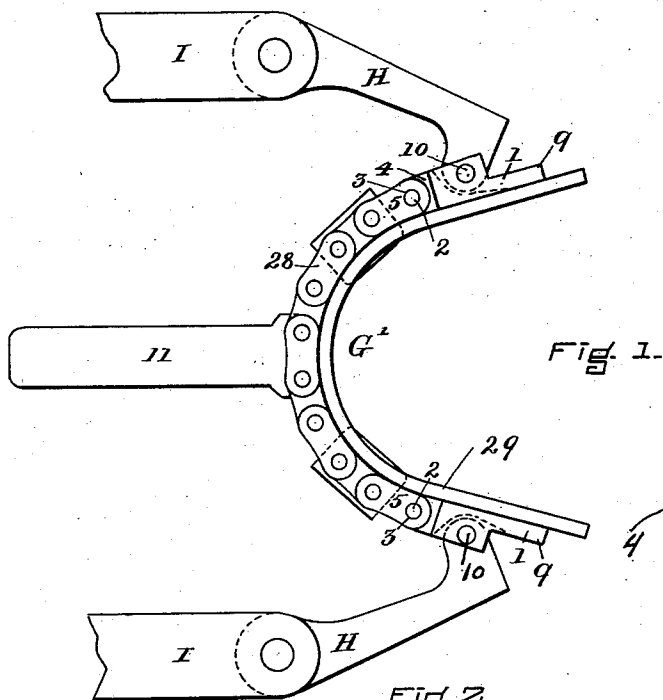


(No Model.)

J. A. DUNPHY.
LAST CLASP FOR LASTING MACHINES.

No. 569,182.

Patented Oct. 13, 1896.



WITNESSES.

William A. Copeland
John W. Saxe.

Fig. 3.

INVENTOR.

James A. Dunphy
by his attorney
Edward S. Beach.

UNITED STATES PATENT OFFICE.

JAMES A. DUNPHY, OF GROTON, MASSACHUSETTS, ASSIGNOR TO THE CHASE LASTING MACHINE COMPANY, OF PORTLAND, MAINE, AND BOSTON, MASSACHUSETTS.

LAST-CLASP FOR LASTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 569,182, dated October 13, 1896.

Application filed March 29, 1895. Serial No. 543,779. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. DUNPHY, of Groton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Toe Last-Clasps for Lasting-Machines, of which the following is a specification.

Referring to the accompanying drawings, Figure 1 is a top plan view of my improved toe last-clasp detached. Fig. 2 is an elevation in perspective of the detached toe last-clasp, one of the clasp-supports being removed for greater clearness. Fig. 3 is a view showing my improved clasp in connection with the related parts of a lasting-machine, so much only of the old structure being shown as will suffice to show the connection of the invention therewith. Fig. 4 shows an end pressure-block removed.

My new last-clasp is an improvement on the last-clasp or device used in the so-called "Chase lasting-machine" for the heel or toe of the lasted shoe, and described in Letters Patent No. 364,088, granted May 31, 1887, and No. 376,368, granted January 10, 1888, to Frank Chase, assignor to the Chase Lasting Machine Company. The last-clasp therein described is for either the heel or toe, as desired; but my present invention relates to last-clasps especially adapted and intended for operation on the toe and to overcome certain grave difficulties hitherto encountered in all lasting-machines known to me.

It has been found in some cases that the short end links of the sprocket-chains 28 (see Patent No. 376,368, or the parts near *d'* in Fig. 7 of Patent No. 523,402, dated July 24, 1894, as familiar examples) frequently leave a bunch or impression or crease or wrinkle on the upper near the inner edge of the toe-cap and a little above the sole. The nature of these imperfections has varied somewhat in different stocks and has been somewhat dependent upon the length of the toe-cap and construction of the toe; but the presence of such imperfections in the product of the machines is a serious matter, and the object of my invention is to overcome them.

My invention consists mainly in the combination of the usual flexible facing with a

flexible toe-clasp, the extremities of which are each formed by a rigid pivotally-connected pressure-block.

In the Letters Patent No. 364,088 the flexible or pliable clasp *G'*, Fig. 7, is shown as provided with pivoted end-forming pads 7, of limited surface area and only partially covered by the facing 29. The pads 7 were of leather and did not have the function of pressing the facing 29 against the upper to prevent the upper from bunching, as is the case with the pivoted rigid end blocks which constitute a novel element of my improved clasp. The pads 7 were "vertically swiveled" to the adjustable side clamps therein shown, and differed in construction, operation, and result from my rigid end or pressure blocks. I make this statement herein because of the apparent resemblance of my rigid end pressure-blocks to the pads 7 of Patent No. 364,088.

In the drawings, showing my invention in the best form now known to me, *G'* is a flexible or pliable clasp made up of chains 28 and a facing 29 of leather or the like. The chain is preferably built up as suggested in Patent No. 364,088 and as will be readily understood by all persons skilled in the art, to whom it will also be plain that the main or body portion of the clasp may be of any other suitable flexible construction to form the pad or facing support. The "sprocket-chain" construction is preferred because of its combined strength and flexibility. The ends of the metal portion of the chain 28 are provided with rigid pressure-blocks 1, each pivoted at 2 to an end of the chain, the block having a pintle-hole 3 at one end, this pintle-hole being in this instance through fingers 4, (see Fig. 4,) which extend from block 1 for connection with links 5 of chain 28. Each block 1 is also formed on its outer side 6 for pivotal connection with the movable clasp-support *H*, which is pivoted to ends of bars *I*, (see Fig. 2 of Patent No. 376,368,) which are seated and adapted to slide in guideways in a part of the lasting-carriage *D* and are operated by an adjusting device consisting in this instance of the slide-bar *J*; as fully explained in said Patent No. 376,368, which also describes the stops *w*, that keep the clasp

and its supports from wobbling. I herein designate these rigid pressure-blocks "toe-cap pressure-blocks," but I do not mean to be understood as thereby limiting myself to the blocks when they engage the toe-cap only, for the bunching referred to occurs at and contiguously to the juncture of the inner edge of the toe-cap with the upper, just above the sole, and the toe-cap pressure-blocks consequently contact with the shoe at and contiguously to the toe-cap seam, just above the sole. The term "toe-cap pressure-block," therefore, is used to indicate that the pressure is at or near the point referred to, where the bunch, impression, crease, or wrinkle of the upper has heretofore occurred. The pressure-blocks 1 are also formed with holes 7 for attachment of the facing 29, the facing being detachably connected with the chain, as by wires 8, because the facing has to be frequently replaced. Each support H is best pivotally connected with its pressure-block 1 between the inner end and middle thereof, so as to leave a considerable portion (indicated by 9) of the block projecting beyond the pivot 10, by which the block and its support H are secured together. The facing should extend slightly beyond the outer ends of the blocks 1, as shown in the drawings.

To support the clasp between its ends, I provide it with a guide extension or tailpiece 11, which enters a proper recess 12 in the wiper-carriage D, the under surface 13 of the tailpiece resting upon the upper surface 14 of the recess and thereby overcoming the tendency of the clasp to sag between its ends. Tailpiece 11 is free to move about in recess 12, so as not to interfere with the movement of the clasp and its attached parts; but the tailpiece also sustains the clasp in its operative position.

The ends of the clasp move inwardly to automatically conform to the shape of the toe and heel which it engages, as will be readily understood by all skilled in the art and as is fully set forth in Patent No. 376,368, and when the pressure comes on the middle portion of the flexible last-clasp the ends of the clasp move inwardly, so that the rigid end pressure-blocks 1 force the facing against the work

and prevent bunching, creasing, and the like of the upper, especially at the toe-cap.

I have shown and described the clasp as applied to the toe-wiper carriage. It can, however, be used in the same way with the heel-wiper carriage to clasp the heel of the last. I have also herein used the reference-letters employed in the patents referred to for designation of corresponding parts.

What I claim is—

1. In a lasting-machine, the combination of a toe-wiper carriage and toe-wiping instrumentalities with a flexible toe-clasp, having at its ends rigid, pivotally-connected toe-cap pressure-blocks, and between its ends a guide extension; and with a facing-pad mounted on the face of said flexible toe-clasp and of its rigid, pivotally-connected toe-cap pressure-blocks, substantially as and for the purpose set forth.

2. In a lasting-machine, the combination of a facing-pad and a flexible last-clasp having rigid end blocks each formed with a hinge-pin hole between its ends and on its outside, and with a perforation between the hinge-pin hole and its outer end for a fastening which secures a facing-pad end on the inner face of said block, substantially as and for the purpose set forth.

3. In a lasting-machine the combination of a flexible last-clasp comprising a chain and a detachable facing, of rigid end blocks formed with perforated end fingers intermeshing with chain-links and pivotally connected therewith; movable supports for the ends of the flexible last-clasp, the supports being pivotally connected with the rigid end blocks at a distance from the outer ends thereof; and the facing covering the inner surface of the chain and rigid end blocks, and means for pressing said blocks inwardly, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 26th day of March, A. D. 1895.

JAMES A. DUNPHY.

Witnesses:

WALTER SHAW,
L. W. HASKELL.