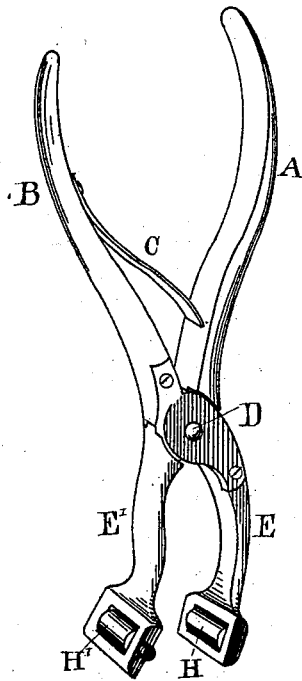


G. W. COPELAND.
Lasting-Apparatus.

No. 197,610.

Patented Nov. 27, 1877.



WITNESSES

Matthias Broyer
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GEORGE W. COPELAND, OF MALDEN, ASSIGNOR TO THE COPELAND LASTING MACHINE COMPANY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LASTING APPARATUS.

Specification forming part of Letters Patent No. **197,610**, dated November 27, 1877; application filed November 1, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. COPELAND, of Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Lasting Appliances, of which the following is a specification:

The nature of my invention consists in combining with each jaw of a pair of pliers a roller, which bears upon the vamp to which it is applied. These rollers may be so hung as to revolve with perfect freedom, or may have friction-bearings, so that it may require some force to turn them, the object being to exert a smoothing action as well as a strain upon the vamp to be lasted, it being particularly adapted to use in connection with lasting-machines, and to apply to that part of the vamp that is between the instep and toe, where it is most liable to wrinkle, especially in uncrimped work.

The drawing represents a perspective view of my invention.

A B E E' represent the two handles and jaws which form the instrument. These parts are jointed together in the usual manner, and held by a pin, D. C is a spring for throwing the jaws apart.

The jaws E E' are made long and curved, so that in use the bearing ends may reach well onto the vamp, so as to seize well down toward the middle, and, in drawing the vamp over the last, exert a smoothing as well as a stretching effect.

To allow the vamp to glide through the jaws of the pliers, I place the rollers H H', as shown, at the ends of the jaws. These rollers may turn easily or very hard, or not at all, as may be desired. When not turning at all, they simply become stationary smoothing-bosses.

I claim as my invention—

1. The lasting-pliers made with long jaws E E', provided with smoothing-rollers H H', substantially as described, and for the purpose set forth.

2. The lasting-pliers made with long jaws E E', provided with smoothing-rollers adapted to be held rigidly in place, so as to serve as bosses.

GEO. W. COPELAND.

Witnesses:

MATTHIAS BROCK,
FRANK G. PARKER.