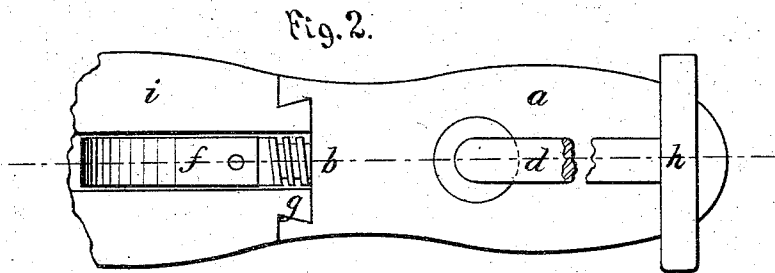
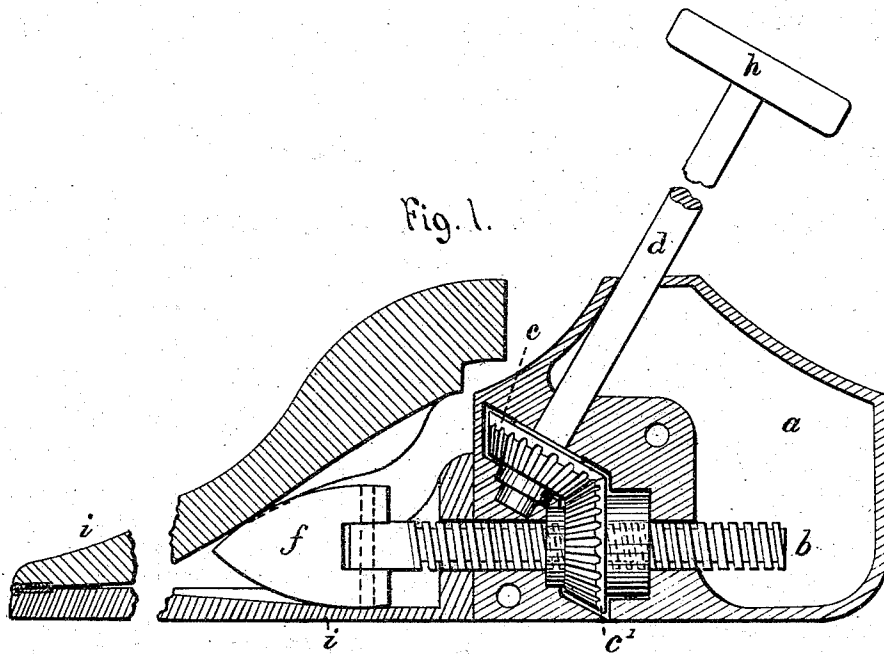


T. WINSHIP.
Boot and Shoe Stretchers.

No. 152,785.

Patented July 7, 1874.



Witnesses

J. F. Carpenter.
Jeremy W. Bliss

Inventor

Thomas Winship.

UNITED STATES PATENT OFFICE.

THOMAS WINSHIP, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN BOOT AND SHOE STRETCHERS.

Specification forming part of Letters Patent No. **152,785**, dated July 7, 1874; application filed November 3, 1873.

To all whom it may concern:

Be it known that I, THOMAS WINSHIP, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in the Manufacture of Boot and Shoe Stretchers; and to enable others skilled in the art to make and use the same, I will proceed to describe, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of this invention consists in arranging two spur-gears and distender-screw within a two-part shell, representing the heel and instep of a foot, having a cam or wedge formed or secured on the front end, so that, by turning the gears, the screw, which is fitted into one of said gears, will operate to extend or retract the wedge or cam, which distends the parts of the front portion of the former in the usual way.

In the accompanying drawings, Figure 1 is a side sectional elevation. Fig. 2 is a top view.

a is a half of the heel-section of the shell in which the mechanism is arranged. Each half of this shell has bearings formed therein to receive the body surface of the screw *b* and the journals of the gear *c* or its spindle *d*. Gear *c* is provided with a screw-threaded socket, and is fitted closely and works freely on the screw *b*, and between the shoulders of the bearings, so as to prevent end play of the

gear and allow it to play or revolve freely upon the screw. The gear *c* is secured onto and near the end of the operating-spindle *d*. The screw *b* is arranged in about a horizontal position near the bottom of the shell, and the gear *c* and spindle *d* in about an angle of forty-five degrees therewith, and so that the gears shall fit closely and play freely one with the other. On the front end of this shell is formed a dovetail, *g*, for connecting the different sizes, styles, and shaped formers or stretchers. *f* is a cam or wedge, made or secured onto the end of the screw *b*. By turning the spindle by the handle *h* the nut-gear *c'* will actuate the screw with its cam or wedge *f* forward to distend the former *i*, and thus stretch the boot or shoe as desirable.

I believe I have thus shown the nature, construction, and operation of this invention, so as to enable others skilled in the art to make and use the same therefrom.

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

The nut-gear *c'*, running on a screw, *b*, and provided with cam *f* on its forward end, in combination with gear *c* and spindle *d*, all arranged within a case, *a*, substantially as and for the purpose described.

THOMAS WINSHIP. [L. S.]

Witnesses:

J. F. CARPENTER,
JEREMY W. BLISS.