

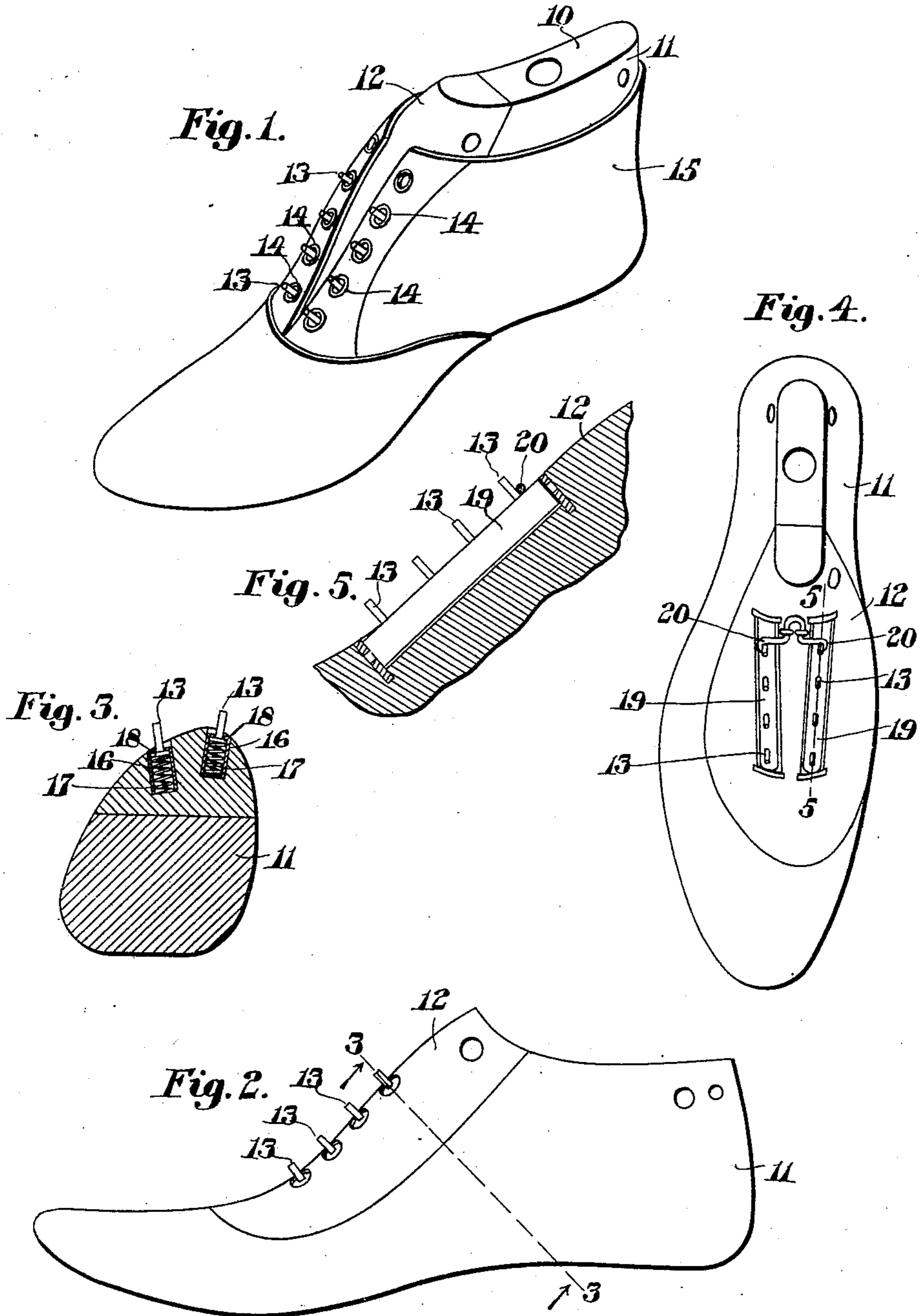
No. 715,472.

G. W. FRENCH.
LAST.

Patented Dec. 9, 1902.

(Application filed Jan. 7, 1902.)

(No Model.)



Witnesses:
Walter E. Lombard.
E. Batchelder

Inventor:
Geo W. French
by *Night Brown & Zimberly*
Attys.

UNITED STATES PATENT OFFICE.

GEORGE W. FRENCH, OF BOSTON, MASSACHUSETTS.

LAST.

SPECIFICATION forming part of Letters Patent No. 715,472, dated December 9, 1902.

Application filed January 7, 1902. Serial No. 88,755. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. FRENCH, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lasts, of which the following is a specification.

This invention has for its object to provide improved means on a last for engaging the flies of the boot or shoe upper, so as to prevent said flies from separating during the lasting operation; and it consists in the novel features of construction and arrangement of parts, which I will now proceed to describe and claim.

Of the accompanying drawings, Figure 1 represents a perspective view of a last constructed in accordance with my invention, showing a shoe in place thereon. Fig. 2 represents a side elevation of the last. Fig. 3 represents a section on the line 3 3 of Fig. 2. Fig. 4 represents a plan view showing a modification. Fig. 5 represents a section on the line 5 5 of Fig. 4.

The same reference characters indicate the same parts in all the figures.

In the drawings, 10 represents a last of the ordinary pattern, comprising a body 11 and a removable instep portion or last-block 12, although my invention is equally applicable to any other form of last. In the form shown in Figs. 1 to 3, inclusive, the instep portion is provided with two rows of pins 13 13, corresponding in position to any suitable number of the eyelets 14 14 on the flies of the shoe 15, said pins being adapted to penetrate the eyelets, so as to engage the flies, and thus prevent them from separating during the lasting operation. For the purpose of readily engaging the pins 13 with and disengaging them from the eyelets the pins are made yielding, being mounted to slide in sockets 16 16 and yieldingly projected by springs 17 17, said pins having heads 18 18 formed on their inner ends and adapted to engage the end walls of the sockets, whereby the outward movement of the pins is limited. The outer ends of the pins are therefore movable toward the

surface of the last to facilitate the removal of the eyelets from the pins after the lasting operation and outwardly from said surface to prevent disengagement of the eyelets from the pins prior to and during the lasting operation, the springs 17 constituting means for holding the pins in their normal operative or projected position.

Figs. 4 and 5 represent a modification in which each row of pins 13 13 is mounted upon a trunk or rod 19, journaled to rotate in suitable bearings, whereby the outer ends of the pins may be moved toward the surface of the last to facilitate the removal of the eyelets from the pins after the lasting operation and may be turned upwardly and moved outwardly from the surface of the last and prevent disengagement of the eyelets from the pins prior to and during the lasting operation. Two spring-catches 20 20, mounted on the last and engaging the uppermost pin in each row, serve to hold the two rows of pins in their normal operative or projected position.

Various other modifications may be made in the embodiment of my invention without departing from the spirit or nature thereof.

I claim—

1. A last provided with movable eyelet-engaging pins projecting in pairs from opposite sides of the median line of the instep portion; the movability of said pins being such that the outer ends of the pins are enabled to move toward the surface of the last to facilitate removal of the eyelets from the pins after the lasting operation, and to be projected from said surface to prevent disengagement of the eyelets from the pins prior to and during the lasting operation, and means for holding the pins in their projected positions.

2. A last provided with yielding pins projecting from its instep-surface.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEO. W. FRENCH.

Witnesses:

C. F. BROWN,

E. BATCHELDER.