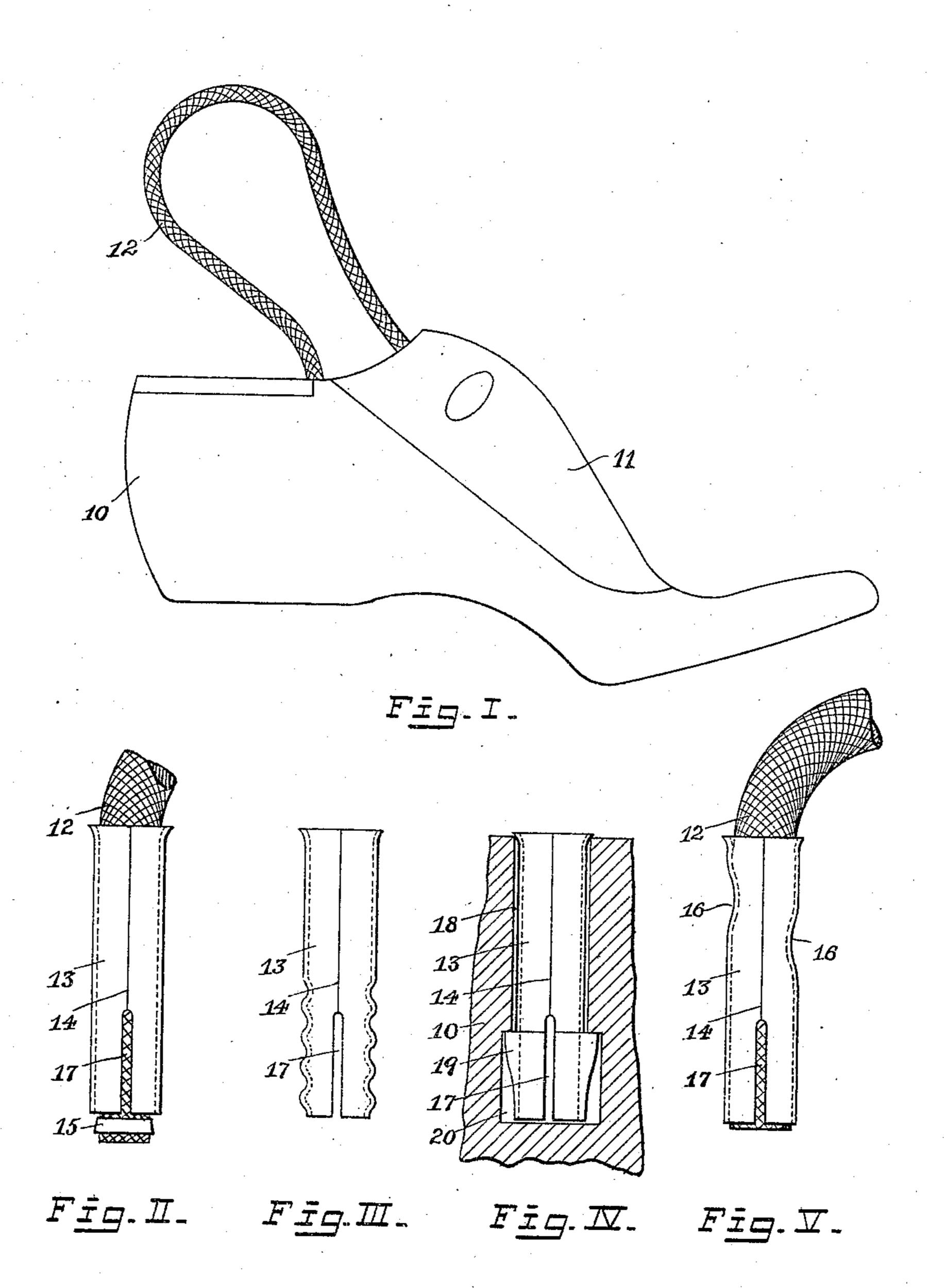
## P. H. & T. A. HICKMAN & J. F. PELL.

LAST CORD FASTENER.

APPLICATION FILED MAY 4, 1908.

928,605.

Patented July 20, 1909.



Mitnesses: A Faber du Taux C.J. Phatcher. Patrick H. Hickman
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## UNITED STATES PATENT OFFICE.

PATRICK H. HICKMAN, OF NEWARK, NEW JERSEY, THOMAS A. HICKMAN, OF BROOKLYN, NEW YORK, AND JOHN F. PELL, OF NEWARK, NEW JERSEY.

## LAST-CORD FASTENER.

No. 928,605.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed May 4, 1908. Serial No. 430,690.

To all whom it may concern:

Be it known that we, Patrick H. Hickman, Thomas A. Hickman, and John F. Pell, citizens of the United States, and residents of Newark, Brooklyn, and Newark, in the counties of Essex, Kings, and Essex, and States of New Jersey, New York, and New Jersey, respectively, have invented certain new and useful Improvements in Last-Cord Fasteners, of which the following is a specification.

Our invention relates to lasts used in the manufacture of boots and shoes; and particularly to the cord connecting the last and instep block, its object being to provide means whereby the said cord may be readily and securely fastened to the last and block and in such a manner as to avoid possible injury thereto.

In the accompanying drawings which illustrate the invention—Figure 1 is a side elevation of a last. Figs. 2 and 3 are elevations on an enlarged scale of different forms of fasteners. Fig. 4 is an elevation on an enlarged scale of a modified form of fastener, and a section of part of the last showing the said fastener driven into place. Fig. 5 is an elevation on an enlarged scale of a fastener and contained cord.

Similar characters of reference designate corresponding parts throughout the several

views. In Fig. 1, I have shown the last as generally made, comprising the body 10 and in-35 step block 11 removably secured thereto, and a cord 12 attached to both. In the present method of fastening these cords, holes are first drilled into the top of the last 10 and block 11, and the glue covered ends of 40 the cord 12 then inserted into these holes, and the same further fastened by driving a nail through the side of the last and block and into said cord. It is, however, a difficult matter to always properly locate the cord after it is inserted; and thus the nail, when driven in, frequently does not properly find the said cord which is therefore not securely held. Also, in driving in the nails, the last often splits; and as this is done when the last is in finished condition, it becomes a very serious matter. The nails, also, work loose in many cases and cause injury to the lining of the shoe fitted to the last. The fastening device for attaching the cord 55 to last instep block herein set forth over-

comes these objections and securely holds the cord to the said last and block. These fastening devices 13 are shown in various forms in Figs. 2 and 5 and effectively prevent the last 10 and block 11 from becom- 60 ing separated; but the cord 12 is provided with sufficient slack to permit the said block to be slipped from off the said last when desired. This cord serves further as a means for pulling the last out of a shoe fitted about 65 it; and also as a handle by which the last may be grasped when stored among a number of lasts. It is preferably made of various colors, each color designating a particular width of last according to a prearranged 70 code. Where a large number of lasts are stored, the projecting cord or handle will thus readily serve to distinguish the various widths, so that the desired last may be readily and quickly selected.

The fastening device 13 for the cord is shown in detail in Figs. 2 to 5 and consists of a metallic tube split along one side throughout its length, being parted at 14, to permit the cord 12 to be readily inserted 80 therein. This cord passes substantially through the entire length of the tube, and is held therein by being secured to the ferrule 15, Fig. 2 or by pinching the said tube in several places as at 16, Fig. 5.

The lower portion of the tube is cut entirely through, leaving a space or cut 17 dividing the said portions into two vertical halves which possess sufficient elasticity to spring out and hold the tubes firmly against 90 the sides of the holes 18, previously drilled into the lasts 10 and block 11, and adapted to receive the said tubes. The tubes may be driven in in any convenient manner as by means of a suitable driver, and are flared 95 slightly at the top to avoid cutting of the cord. To more positively insure the said tube against withdrawal, I provide the ferrule 15, Fig. 2, which will spread the sides of the tube 13 outwardly when the cord is drawn 100 up; or I may corrugate or thread the lower portion of the tube as shown in Fig. 3; or, the said tube may be provided with a shoulder 19 adapted to lock the tube by springing out into the counterbored portion 20 of the 105 hole 18, Fig. 4.

The tube as well as the cord it contains will thus be securely held within the last and the block, and cannot be withdrawn under ordinary conditions, thus preventing the 110

separation of the instep block from its corresponding last. By providing cords of different colors, as set forth, a very convenient means is afforded for quickly and readily se-

ber of lasts. There is also no danger of splitting the lasts when they are in finished condition; as the cord may be fastened to the last before the same is finished and the fas-

tening devices are, further, not in a position such as would be likely to cause injury to the linings of the shoes fitted about the said lasts.

I claim:—

15 1. A cord holder for lasts, comprising a tubular body surrounding the end of said cord, and its lower portion being adapted to spring out to cause said device to be securely held within the last.

20 2. A cord holder for lasts, comprising a tubular body surrounding the end of said

cord, said body being split longitudinally along one side through its entire length and along the opposite side at the lower portion only.

3. A cord holder for lasts, comprising a tubular body surrounding the end of said cord, said body being split longitudinally along one side through its entire length and along the opposite side at the lower portion 30 only, and locking means at said lower portion.

Signed at Newark in the county of Essex and State of New Jersey this 23rd day of

Apr. A. D. 1908.

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Witnesses:

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