No. 641,087. Patented Jan. 9, 1900.

M. M. DOOLEY.

DEVICE FOR FASTENING SHOES.

(Application filed Feb. 10, 1899.)

(No Model.)

Fig. 1.

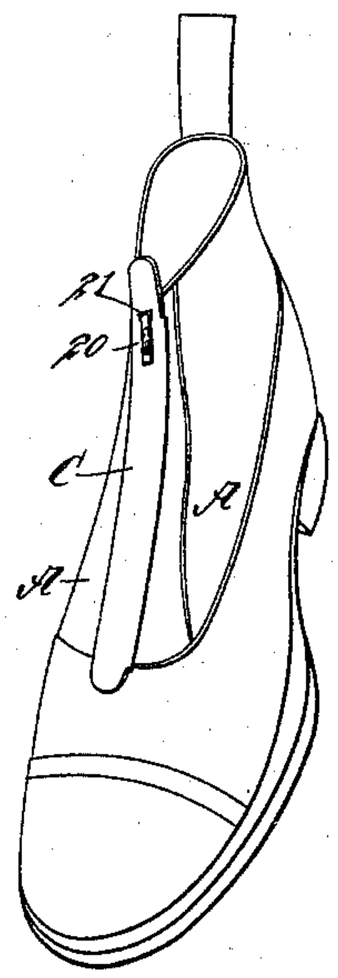


Fig. 6.

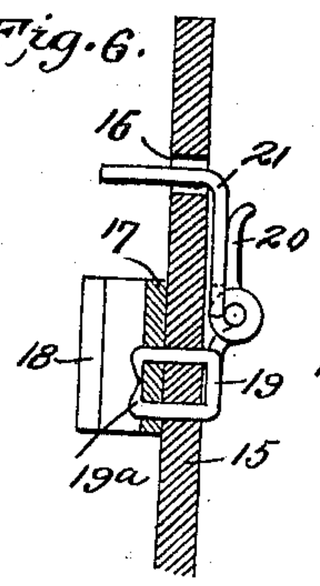


Fig. 7

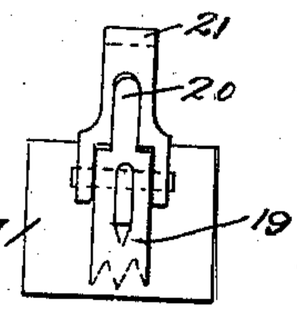


Fig. 2.

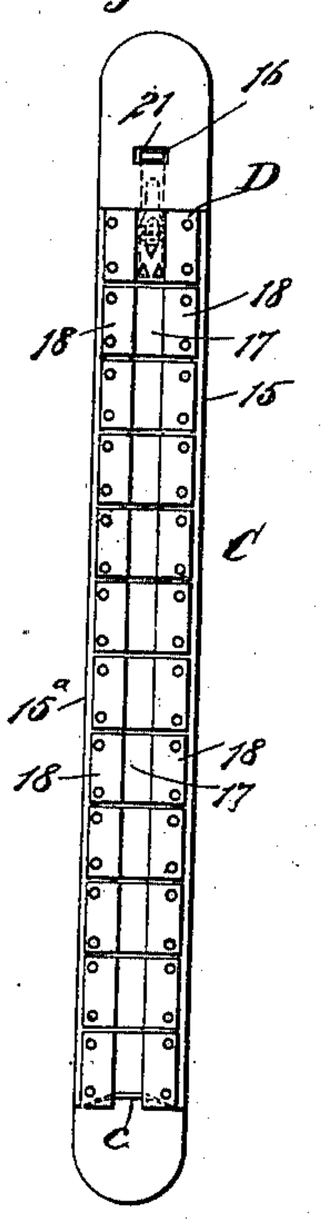
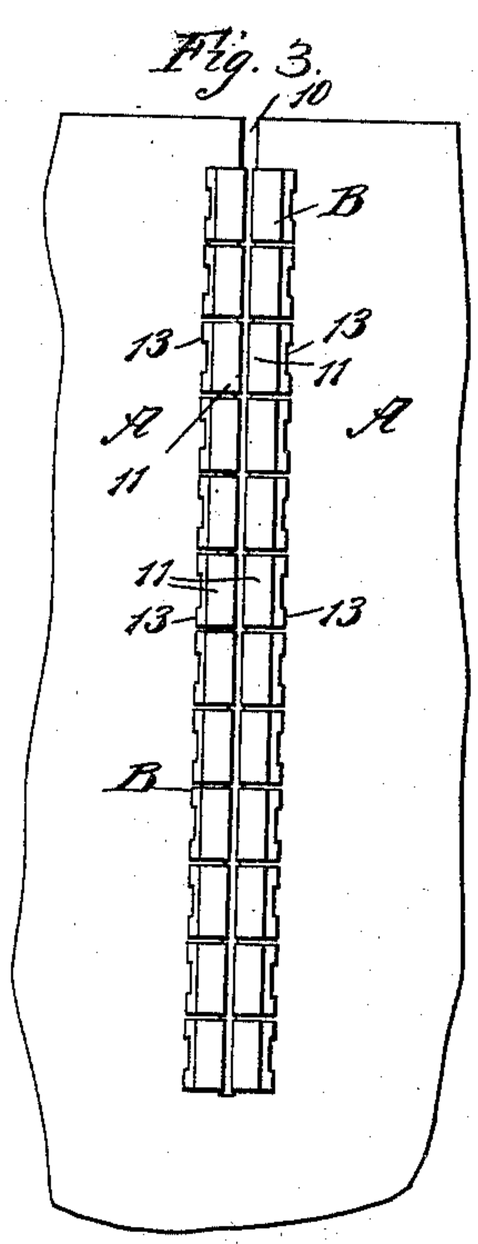


Fig. 3.



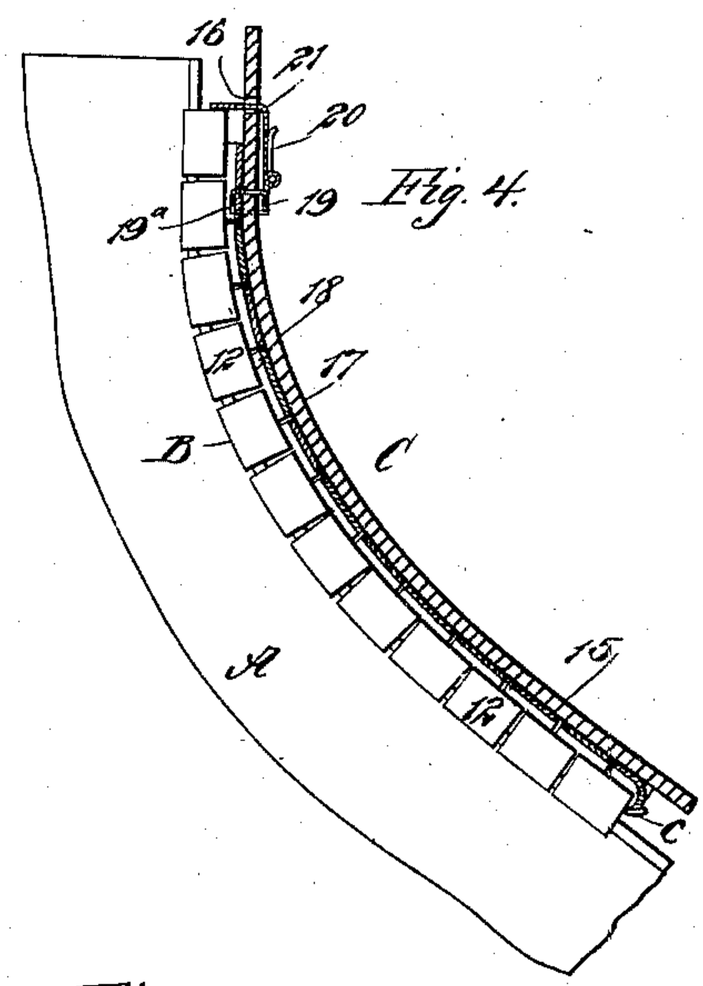
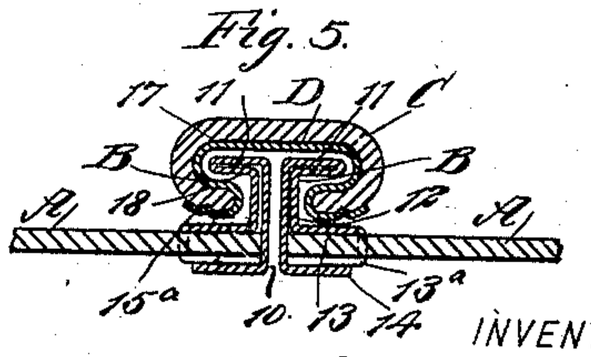


Fig. 4.

Fig. 5.



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MICHAEL M. DOOLEY, OF LOOGOOTEE, INDIANA.

DEVICE FOR FASTENING SHOES.

SPECIFICATION forming part of Letters Patent No. 641,087, dated January 9, 1900.

Application filed February 10, 1899. Serial No. 705,180. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL M. DOOLEY, of Loogootee, in the county of Martin and State of Indiana, have invented a new and Improved Device for Fastening Shoes, of which the following is a full, clear, and exact description.

The object of the invention is to provide a means for fastening shoes or for uniting the front sections of the uppers without using a lace or other medium liable to break quickly under hard conditions of wear or when subjected to unusual or sudden tension.

Another object of the invention is to construct a fastening device for shoes whereby the shoes may be secured upon the feet quicker than by ordinary means and the front opening be better protected than heretofore.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is perspective view of a shoe having the improved fastening device applied. Fig. 2 is a bottom plan view of a locking-tongue forming a portion of the device. Fig. 3 is a front elevation of the guides attached to the upper of the shoe and adapted to receive the locking-tongue. Fig. 4 is a longitudinal section through the locking-tongue and an inner side elevation of one set of guides over which the locking-tongue is carried. Fig. 5 is a transverse section through the front portion of the upper of a shoe and the improved lacing device applied thereto, and Figs. 6 and 7 are detail views illustrating the latch device.

A represents the upper of a shoe, divided at the front in the ordinary manner by a vertical space 10, forming thereby the front flaps of said upper. At each side of the opening 10 in the upper, at the inner edge of the front flaps produced by the said opening, a series of guides B is located. Each guide is constructed of metal, which is doubled upon itself, and the doubled metal of each guide is bent to form an outwardly-extending head 11, the heads being parallel, or practically so, with the outer face of the flaps of the shoe, and a shank 12, which extends in its doubled form to the outer surface of the flap, to which the guide is attached. The double shank of a guide, however, where it connects with a flap of the shoe, is divided to form an upper part 13, that extends transversely along the upper face of the flap, being provided with one or more spurs 13^a, that are carried through the flap and bent upon the under face thereof, as shown in Fig. 5, while the other or inner part of the double shank is made to extend down through the opening 10 in engagement with the inner edge of the flap and is then bent outward to an engagement with the spurs 13^a, as shown at 14 in Fig. 5. In this manner the guides are secured to the flaps, and the said guides are placed quite close together. Sufficient space, however, is allowed between the guides to admit of freedom of movement of the foot when the shoe is worn.

The guides of each flap are in transverse alinement, and each transverse pair of guides forms a slideway. In connection with the guides B a locking-tongue C is employed. This locking-tongue consists of a body 15, of leather or other flexible material, of sufficient length to extend beyond the ends of the series of guides B when said tongue is placed in engagement with the guides. The body 15 of the locking-tongue is curved inward at each longitudinal edge, as shown at 15^a, and a series of plates D is secured to the under face of the body of the tongue, the said plates comprising an upper section 17 (shown particularly in Fig. 5) and side sections 18. The upper sections of the plates D, which may be termed "locking-plates," engage closely with the under face of the tongue, and the side sections 18 of the locking-plates closely follow the contour of the side portions of the tongue and extend outwardly to an engagement with the outer under faces of the sides of the tongue, as is also shown in Fig. 5. The locking-plates are secured to the tongue at their outer ends in any suitable or approved manner.

The locking-plates are arranged quite close together, being separated a sufficient distance only to admit of flexibility of the tongue, and the locking-plates on the tongue are so located that when the tongue is placed upon the body

of the shoe in lacing position the locking-plates on the tongue will break joints with the guide-plates on the flaps of the shoe, as shown in Fig. 4. The locking-plates on the tongue are of sufficient size to receive the guide-plates on the flaps of the shoe when said flaps are brought quite close together, as is also shown in Fig. 5. The upward movement of the locking-tongue is limited when placed upon the upper by reason of the lowermost locking-plate D being bent downward to form a stop *c*. (Shown in Fig. 4.)

A tab is provided at each end of the locking-tongue, and in the upper tab an opening 16 is made a suitable distance above the uppermost locking-plate. A clamp 19 is secured to the tongue, preferably where the uppermost locking-plate is located, the outer face of the clamp extending over the outer face of the tongue, as shown in Fig. 4. An upwardly-extending spring 20 is secured to the clamp 19, and a hook 21 is pivotally connected with said spring, said hook being adapted to extend through the upper opening 16 in the tongue and engage with the uppermost guide-plates B when the tongue is in locking position, as shown in Fig. 4, the spring 20 serving to force the said hook in engagement with said upper guide-plates.

In operation after the shoe has been placed upon the foot and the flaps are drawn together it is simply necessary to enter the locking-tongue in the guides B at their lower portions and slide the locking-tongue upward until the stop *c* engages with the lowermost guide-plates, and the hook 21 engages with the uppermost guide-plates. In this manner the locking-tongue is brought in connection with the guides, and the flaps of the upper are drawn close together and the space between them protected from the weather by the tongue. In order to remove the tongue, it is simply necessary to draw the hook 21 outward and slide the tongue downward until it is entirely or partially withdrawn from engagement with the guides.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a device for fastening shoes a series of guide-plates attached to the inner edges of the flaps of a shoe, a locking-tongue having its under surface arranged to receive the said guide-plates, means for limiting the upward movement of the locking-tongue, and a latch device carried at the upper end of the locking-tongue and comprising a spring-pressed hook adapted to extend through an opening in the tongue and engage the uppermost guide-plate, substantially as described.

2. In a device for fastening shoes, a guide-plate adapted for attachment to the flap of a shoe-upper at its inner edge, said guide-plate consisting of a metal strip doubled upon itself and having a shank portion, a base having means for attachment to a shoe, and consisting of the two ends of the strip bent at right angles to the shank and extending respectively along the upper and under face of the flap, and a head extending at an angle from the shank, substantially as described.

3. In a fastening device for shoes the combination with a series of guide-plates attached to the inner edges of the flaps of a shoe, of a locking-tongue arranged for engagement with the guide-plates and consisting of a body of flexible material curved inward at each longitudinal edge, and a series of plates secured to the under face of the flexible body of the tongue, the said plates comprising an upper section and side sections following the contour of the side portions of the tongue, the ends of the plates extending outwardly to an engagement with the outer under faces of the sides of the flexible body of the tongue, whereby when the locking-tongue is placed in position, the plates of the tongue engage directly with the guide-plates, substantially as shown and described.

4. In a fastening device for shoes, the combination with the guide-plates, of a locking-tongue consisting of a flexible body having its longitudinal edges inwardly curved, and a latch device at one end of the tongue and comprising a clamp secured to the tongue, a spring secured to the clamp, and a pivoted hook engaged by the spring and adapted to extend through an opening in the tongue, substantially as specified.

5. In a fastening device for shoes, a series of guide-plates secured to the inner edges of the flaps of a shoe, a locking-tongue consisting of a flexible body having its longitudinal edges arranged to engage the guide-plates and a latch device at one end of the tongue and comprising a clamp secured to the tongue, a spring secured to the clamp, and a pivoted hook engaged by the spring and adapted to extend through an opening in the tongue and engage one of said guide-plates, substantially as described.

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