

No. 688,297.

Patented Dec. 10, 1901.

W. E. ELLIS.
FASTENING FOR SHOE UPPERS.
(Application filed Feb. 7, 1898.)

(No Model.)

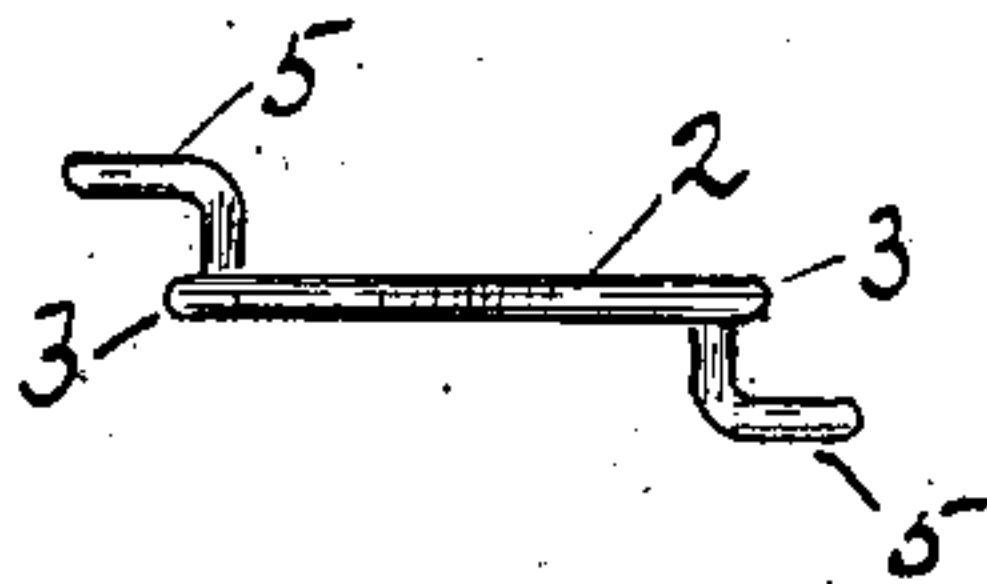


FIG. 1.

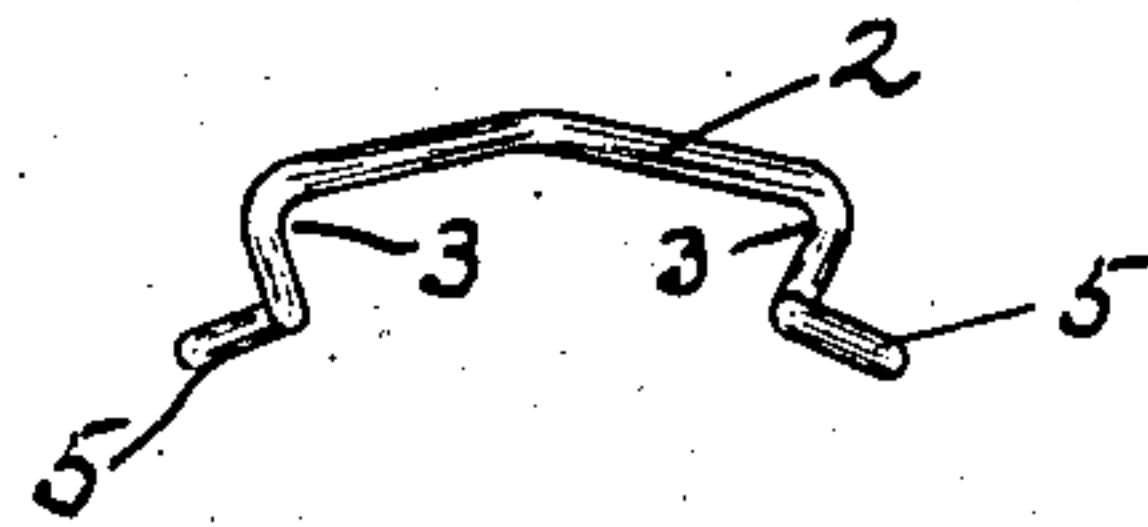


FIG. 2.

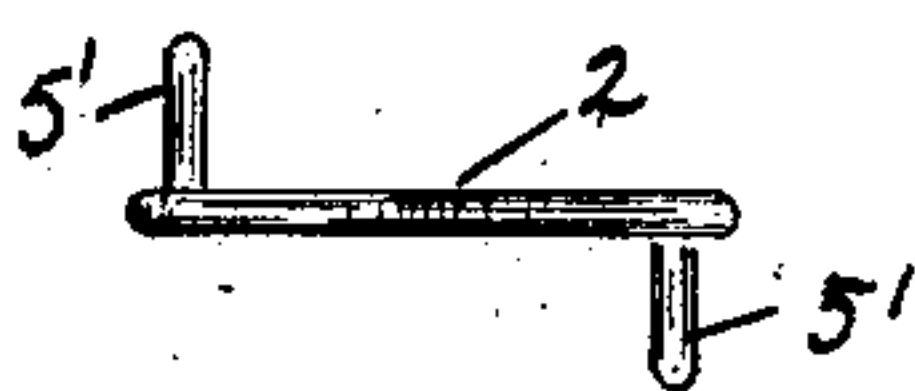


FIG. 4.

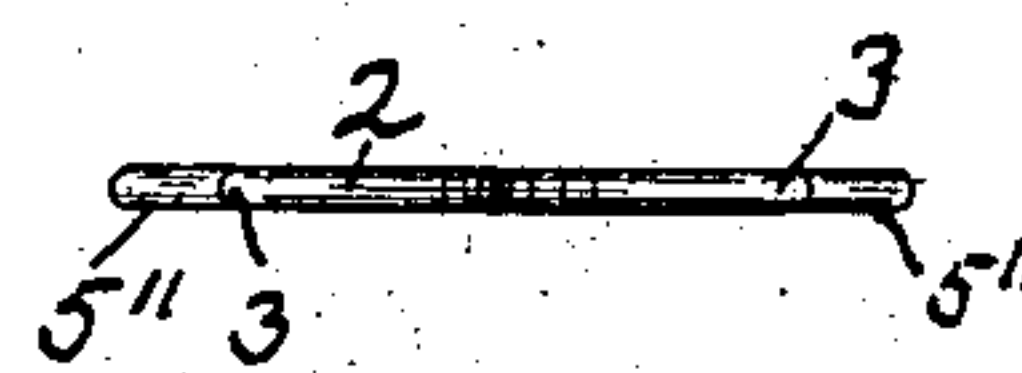


FIG. 5.

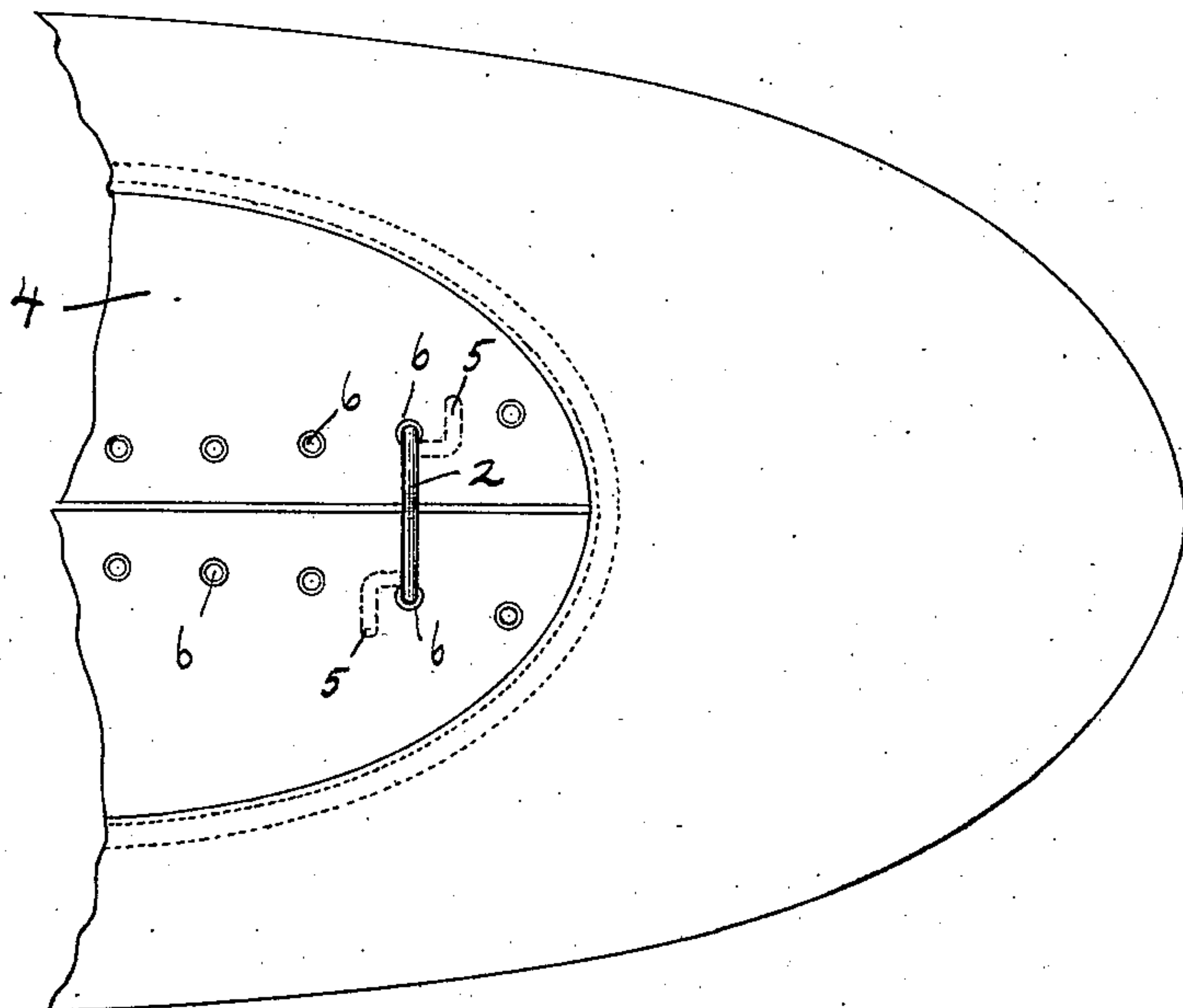


FIG. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

WARREN EUGENE ELLIS, OF HAVERHILL, MASSACHUSETTS.

FASTENING FOR SHOE-UPPERS.

SPECIFICATION forming part of Letters Patent No. 688,297, dated December 10, 1901.

Application filed February 7, 1898. Serial No. 669,322. (No model.)

To all whom it may concern:

Be it known that I, WARREN EUGENE ELLIS, a citizen of the United States, residing at Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Fastenings for Shoe-Uppers While Being Lasted, of which the following is a specification.

My invention relates to devices for temporarily securing together the eyeleted edges of the uppers of lace-shoes while they are being lasted. This has commonly been done hitherto in practice by tying together said edges with a piece of twine passed through one or more pairs of opposite eyelets; but this method is objectionable in that it requires a considerable amount of time and also involves a waste of the pieces of twine employed, which are never used but once. In order to be practically useful for this purpose, a fastening device must be strong enough to withstand the considerable tension which is put upon the upper during the process of lasting, it must not project so far below the under surface of the upper as to interfere with the stretching of the upper over the top of the last, and it must be readily insertible and detachable and yet not liable to be accidentally dislodged from the eyelets by the handling of the upper while it is being placed upon the last.

My invention is intended to provide a device which will fulfil all the above conditions and will also be capable of use an indefinite number of times and with greater celerity than the means hitherto used for the purpose.

In the accompanying drawings, Figure 1 is a plan or top view of a preferred form of fastener embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of a portion of a shoe-upper with a fastener such as shown in Figs. 1 and 2 applied thereto ready for the operation of lasting, and Figs. 4 and 5 are plan views showing slightly-modified forms of my fastener.

My fastener is preferably made of wire. As shown in Figs. 1, 2, and 3, it comprises a connecting portion 2, slightly bent, as shown, to conform to the top of the last and also bent near each end to form a shallow hook 3, adapted to engage an eyelet 6 when the fas-

tener is in position in the upper 4. The fastener is extended a short distance beyond each hook 3, forming free ends 5 5, which project first laterally in opposite directions and then forwardly with respect to the connecting portion 2. In the fastener shown in Fig. 4 the free ends are bent laterally only, as shown at 5' 5', and in the fastener shown in Fig. 5 said ends project forwardly only, as shown at 5'' 5'', these fasteners being in other respects like the fastener shown in Figs. 1, 2, and 3.

The free ends above described are alike in that they lie in proximity to the adjacent portions of the upper when their respective fasteners have been applied thereto and are joined to the hooks 3 by bends which are sufficiently abrupt to form a substantial angle between said ends and hooks, but are not abrupt enough to interfere with the ready insertibility and detachability of the fasteners. It is by virtue of these free ends having the characteristics just described that my fastener is rendered secure against being accidentally shaken out of the eyelets while the upper is being prepared for lasting, and this result is due to the fact that any movement of the whole or a considerable portion of the upper tending to remove an eyelet from its hook 3 will be resisted by the corresponding free end of the fastener, so that before an eyelet can be slipped off its hook 3 the upper must be flexed abruptly close to the eyelet sufficiently to permit the eyelet to pass around the abrupt bend at the end of the hook onto and off the free end of the fastener, and such a flexing of the upper is resisted by its natural stiffness to such an extent that it is practically impossible for it to occur accidentally.

My fastener is inserted by first hooking one end into the appropriate eyelet and then bending abruptly that portion of the upper which contains the opposite eyelet into such position that the other end of the fastener may be slipped through said eyelet into place, and in removing the fastener the order of the steps just described is reversed. I consider the form of fastener shown in Figs. 1, 2, and 3 to be rather more easily insertible than either of the forms shown in Figs. 4 and 5 and prefer it on that account. Since the free ends of these fasteners are adapted to lie close to the

adjacent portions of the upper in which they are inserted, it will be obvious that they will not interfere with the stretching of the upper tightly over the top of the last.

5 It will be apparent that the gist of my invention resides in the eyelet-engaging hooks extended to form free ends, bent substantially as described, and that such hooks and ends may be formed on or connected to any desired
10 form of connecting or body portion without departing from my invention.

I claim as my invention—

1. A detachable fastener for shoe-uppers comprising an eyelet-connecting portion provided at one end with eyelet engaging and retaining means, and provided near its other
15 end with an eyelet-engaging hook, said hook being extended to form a short free end and united thereto by an abrupt bend, whereby
20 said free end is adapted to lie in proximity to the adjacent portion of an upper when inserted through an eyelet thereof, and to engage the same and prevent its accidental removal when not under tension.

2. A detachable fastener for shoe-uppers 25 comprising an eyelet-connecting portion provided with eyelet-engaging hooks, each hook being extended to form a short free end and united thereto by an abrupt bend, whereby each end is adapted to lie in proximity to the
30 adjacent portion of an upper when inserted through an eyelet thereof, and to engage the same and prevent its accidental removal when not under tension.

3. A detachable fastener for shoe-uppers 35 comprising an eyelet-connecting portion provided with hooks adapted to engage opposite eyelets, each hook having its free end bent laterally and then forwardly, for the purpose
40 set forth.

In testimony whereof I have hereunto subscribed my name this 5th day of February, A. D. 1898.

WARREN EUGENE ELLIS.

Witnesses:

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