

J. W. BARNA & V. HOFFMAN.
SHOE FASTENER.
APPLICATION FILED MAY 19, 1905.

931,836.

Patented Aug. 24, 1909.

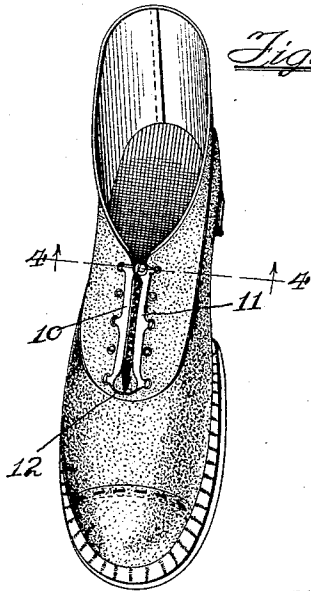


Fig. 1.

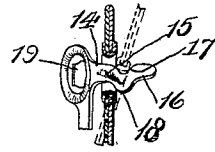


Fig. 3.

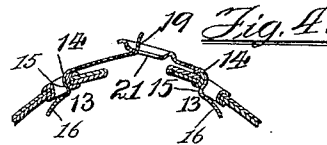


Fig. 4.

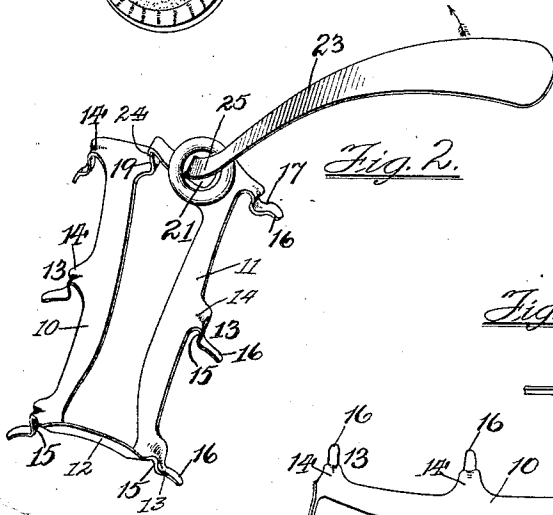


Fig. 2.

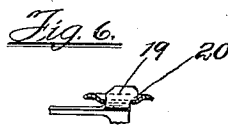


Fig. 6.

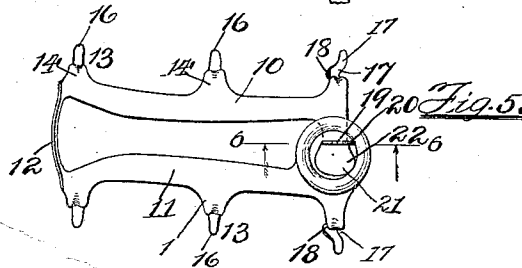


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOSEPH. W. BARN A AND VALENTINE HOFFMAN, OF CHICAGO, ILLINOIS.

SHOE-FASTENER.

931,836.

Specification of Letters Patent.

Patented Aug. 24, 1909.

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To all whom it may concern:

Be it known that we, JOSEPH W. BARN A and VALENTINE HOFFMAN, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shoe-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to that class of shoe fasteners designed to be used to secure the edges of the shoe upper during the process of manufacture of the shoe, and has particular reference to certain improvements in the shoe fastener described and claimed in Patent No. 785,789, granted to us March 28, 1905.

The objects of the invention are to provide means associated with the eyelet engaging hooks for furnishing greater security against accidental detachment of the fastener, and also improved means for securing the free ends of the side members of the fastener together.

A further object of the invention is to provide a tool for coupling or hooking the side members together.

The invention consists of the arrangement and construction of parts hereinafter particularly described and then pointed out in the appended claims.

In order to more fully disclose the nature of the invention reference is made to the accompanying sheet of drawings in which—

Figure 1 is a perspective view of a shoe showing the fastener in position to hold or tie the edges of the upper together; Fig. 2 is a perspective view of the fastener showing the side members unhooked and the tool for coupling the side members; Fig. 3 is a fragmentary detail side elevation on an enlarged scale, the shoe upper and eyelet being in section; Fig. 4 is a section on the line 4—4 of Fig. 1; Fig. 5 is a plan view of the fastener; and Fig. 6 is a section on the line 6—6 of Fig. 5.

The fastener is made of sheet metal, preferably of a resilient character, and comprises a pair of side members 10 and 11 permanently connected at one end by a web 12. The side members and the web are of any suitable widths and being made of resilient metal readily adapt themselves to the shoe upper when attached thereto. As shown in Fig. 2 the web 12 is bent up so that the central or body portion thereof stands in a

plane substantially at a right angle to the side members. As thus arranged the web provides a resilient connection between the side members, normally maintaining the free ends of the same separated and exerting a tendency, when the fastener is in its closed position, to separate the side members.

The side members are provided with suitable eyelet engaging tongues 13, in the present instance three being associated with each side member and arranged in opposite pairs. Each tongue 13 extends outwardly, as at 14, a short distance from its associated side member and is then bent downwardly and curved inwardly to provide a hook 15, and finally extends outwardly again as at 16 substantially at a right angle to the hook 15. The second and third pair of hooks are constructed substantially in the same manner as the hooks shown in the patent hereinbefore referred to.

In the present embodiment of the invention the first pair of hooks, or that pair adjacent the free ends of the side members, are provided with additional retaining means whereby the fastener may be held more securely in position to prevent the accidental detachment of the fastener from the shoe upper. To this end each of the said first pair of hooks is provided at its edge adjacent the end of the fastener with a recess which forms a lateral abutment or shoulder 17. As shown in Figs. 3 and 5, the hook is curved as at 18 to correspond with the contour of the recess forming the shoulder 17. This curvature is not material, however, but is merely to provide suitable stock to avoid weakening the material due to the forming of the recess.

In the present instance one of the members, as 10, is provided with a catch in the form of an upstanding lug 19. This lug is shown as a flat portion of the associated side member bent upwardly, and as clearly illustrated in Fig. 6 has a shoulder 20 extending laterally therefrom or beyond the end of the fastener. The member 11 is provided with an eye or opening 21 which at the side adjacent the member 10 is somewhat less than the width of the shoulder 20. This opening is enlarged, as at 22, Fig. 5, to a width at least as great as the width of the shoulder 20. In hooking together or coupling the fastening the side members are pressed toward each other until the lug 19 is brought under and opposite the enlarged portion 22

of the opening 21 when the said lug with its shoulder will readily slip therethrough. The side members then being released they are spread, owing to the resiliency of the web 12, moving the lug into the narrow or reduced inner end of the opening. The shoulder 20 then overhangs the edge of the opening so that there is no liability of the side members becoming unfastened until they are pressed toward each other so as to bring the lug opposite the enlarged portion of the opening.

The object of the shoulder 17 on the upper hooks 15 is to insure the retention of the fastener on the upper during the rough handling to which the latter is ordinarily subjected during the manufacture of the shoe. When the fastener is in position the opposite pairs of hooks engage the first, third and fifth pairs of eyelets from the bottom of the shoe upper. In position the hooks 15 engage the eyelets and the end portions 16 extend beyond the eyelets of the shoe upper as shown in Figs. 3 and 4. The fastener is by this arrangement and under ordinary circumstances maintained securely in place. Frequently, however, during the manufacture of the shoe the ends of the edges of the upper are grasped in such manner as tends to strip the upper from the fastener. This accidental detachment of the fastener is avoided by the shoulders 17 which when the upper at the upper end of the edge thereof at either side is pressed or forced inwardly throws the eyelet into the recess of the hook so that it comes into engagement with the shoulder 17, as shown in dotted lines in Fig. 3. While these shoulders 17 prevent accidental detachment of the fastener they do not interfere with the removal of the fastener in the ordinary manner.

As difficulty is experienced in coupling the fastener while the last is in the shoe we provide for this purpose a coupling tool by means of which the free ends of the fastener may be readily coupled or hooked. This tool, designated 23, Fig. 2, is preferably of the shape shown. At one end it is adapted to pass through the opening 21 and is provided with a lip 24, from which the body of the tool is bowed or concaved as at 25. In coupling the side members together the end of the tool provided with the lip 24 is passed through the eye 21 and its lip engaged with the lug 19. By moving the handle of the tool in the direction of the arrow of Fig. 2 the end of the member 11 is drawn toward the lug 15 so that its opening 21 slips over such lug. By means of the

tool 22, the side members may be readily hooked together or coupled even when the last is in the shoe.

While in the present embodiment of the invention the upper pair of hooks are provided with the shoulders 17, we do not limit ourselves in this particular as it is obvious that such shoulders may be formed on either or both of the other opposite pairs of hooks. Preferably, however, only the upper pair of hooks are provided with such shoulders. Having described our invention what we claim is—

1. A shoe-fastener comprising a pair of connected members having eyelet engaging hooks, certain of such hooks having a recess extending laterally of the direction of length of the hook and providing a shoulder adapted by its engagement with an associated eyelet to prevent accidental detachment of the fastener.

2. A shoe-fastener comprising a pair of connected members provided at their edges with curved eyelet engaging hooks arranged in opposite pairs and having extended ends to engage the inner face of the shoe upper, each of the hooks adjacent the free ends of the members being provided with a recess extending laterally of the direction of length of the hook and adapted by its engagement with an associated eyelet to prevent accidental detachment of the fastener.

3. A shoe-fastener comprising a pair of side members provided with means for engagement with the eyelets of a shoe upper, one of such members having an opening, and a lug on the other member adapted to the opening, said lug extending in a single plane and having a shoulder at one edge adapted to overhang the side of the opening when the members are in hooked relation.

4. A shoe-fastener comprising a pair of side members having a resilient connection at one end and provided with eyelet engaging hooks, an upstanding lug on the free end of one member provided with a shoulder, the other member having an opening through which the lug and shoulder are adapted to pass and which is reduced at its inner end so that the shoulder overhangs the edge of the opening when the side members are coupled together.

In testimony whereof we affix our signatures in presence of two witnesses.

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Witnesses:

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