Dec. 19, 1922. 1,439,241

O. I. HOPPE.
CLASP.
FILED JAN. 11, 1922.

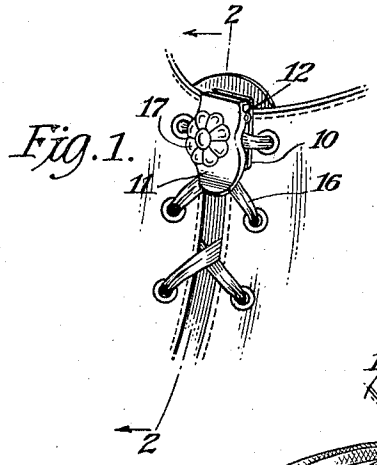


Fig. 1.

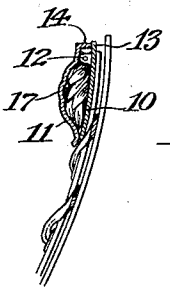


Fig. 2.

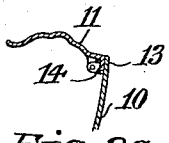


Fig. 2a

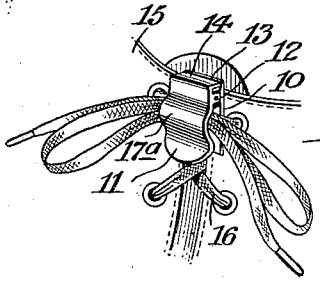


Fig. 3.

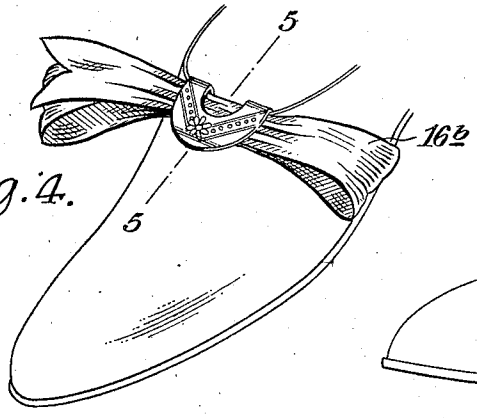


Fig. 4.

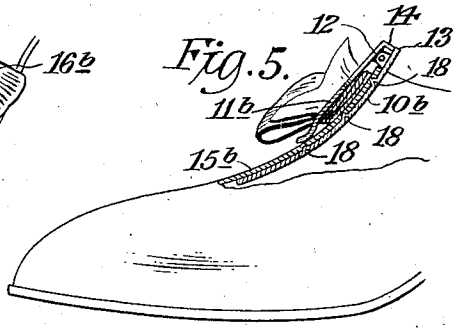


Fig. 5.

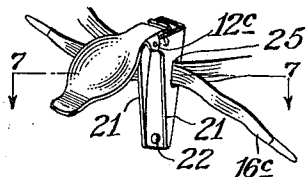


Fig. 6.

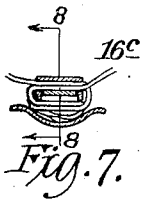


Fig. 7.



Fig. 8.

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UNITED STATES PATENT OFFICE.

OLGA I. HOPPE, OF KEW GARDENS, NEW YORK.

CLASP.

Application filed January 11, 1922. Serial No. 528,370.

To all whom it may concern:

Be it known that I, OLGA I. HOPPE, a citizen of Russia, residing at Kew Gardens, in the county of Queens and State of New York, have invented certain new and useful Improvements in Clasps, of which the following is a full, clear, and exact description.

This invention relates to clasps and has for one of its principal objects to provide a clasp which, though capable of other uses, is particularly designed for receiving and gripping a shoe-string. Other objects and advantages will appear as the invention is hereinafter disclosed.

Referring to the drawings which illustrate what I now consider preferred forms of the invention—

Fig. 1 is a perspective view of one form of clasp applied to a laced shoe and concealing the ends of the shoe-string.

Fig. 2 is a section taken substantially on the line 2—2 of Fig. 1.

Fig. 2ª is a detail sectional view showing the relative position of certain of the parts when the clasp is open.

Fig. 3 is a view similar to Fig. 1 but showing a slightly modified form of device.

Fig. 4 is a perspective view illustrating a slightly modified form of device.

Fig. 5 is a section taken substantially on the line 5—5 of Fig. 4.

Fig. 6 is a perspective view illustrating a further modification.

Fig. 7 is a section taken on the line 7—7 of Fig. 6.

Fig. 8 is a section taken on the line 8—8 of Fig. 7.

Referring to Figs. 1, 2 and 2ª it will be seen that the clasp there illustrated comprises a base member 10 and an upper member 11 pivotally connected thereto at 12 for movement from closed position shown in Figs. 1 and 2 to open position shown in Fig. 2ª, and vice versa. Means are provided for holding said members in either of these two positions. One form of such means, as shown in the drawings, comprises the extension or portion 13, of the base member 12, and a coacting angle or flange portion 14 of the upper member 11. Either or both of these members 13, 14 are constructed of resilient material and are so constructed and designed that when the members 10, 11 are in closed position (Figs. 1 or 2) they will be so held yieldingly; and when the said members 10, 11 are in open position (Fig. 2ª) they will be so held yieldingly. By virtue of the means 13, 14, when the upper member 11 is moved from either of the positions shown in Figs. 1 and 2ª to the other of said positions the resiliency of said portions 13, 14 will oppose such movement during the first part thereof but, as soon as the dead center is passed, the members 10 and 11 will be snapped automatically to the desired open or closed position.

If it be desired to employ the clasp for gripping a shoe-lace, it may be applied as follows. With the parts in open position, the base member 10 is placed on the shoe 15 in the position shown in Figs. 1 and 2. The shoe-string or lace 16 is then tied in the usual manner but over the base 10. The ends of the shoe-string may then be folded, rolled or twisted into a compact or condensed form above the base member 10 and the upper member 11 snapped to the closed position (Fig. 1) in the manner above described. It will be noted that, in the form of device shown in Figs. 1, 2 and 2ª the upper member is bulged or provided with a convex portion 17 to receive and conceal the compacted ends of the shoe-string. The operation in removing the clasp is substantially the reverse of the above described operation.

If it is desired to permit the ends of the shoe-string to project in the form of a bow, the clasp shown in Fig. 3 may be adopted. The latter is shown provided with a bulged or convexed portion 17ª in the form of a portion of a cylinder instead of a dome-shaped bulge such as that shown at 17 in Figs. 1 and 2. With this exception the clasps shown in Figs. 1 and 3 are structurally the same as the reference numerals indicate. The device shown in Fig. 3 is applied and removed, generally in the same way as that shown in Fig. 1 except that when using the former (Fig. 3), the ends of the shoe-string bow are permitted to project from the clasp as shown. In either device, the clasp, when closed, grips the tied shoe-string and prevents it from undesired loosening, slipping, or inadvertent untying.

In Figs. 4 and 5 I have shown a form of clasp especially adapted to be used in connection with pumps. Except for the following differences the clasp shown in Figs. 4 and 5 is the same as that shown in Figs. 1 and 2. The upper member 11ᵇ is shown in the general form of a U, although other

ornamental forms may be adopted, and is not bulged as the devices shown in the preceding figures are. The base member 10^b, in this form of clasp, is preferably provided with a plurality of struck-up portions or prongs 18 adapted to enter the shoe 15^b to hold the clasp securely in its applied position. The shoe-string is shown in the form of a ribbon 16^b folded to simulate a bow and held firmly between the shoe and upper member 11^b when the clasp is applied to the shoe. The operation of this form of clasp will now be understood in view of the foregoing description.

The device is susceptible to further modification and in Figs. 6, 7 and 8 I have illustrated a form of clasp which possesses many desirable features. This clasp embodies generally a base member 10^c, an intermediate member 20 and an upper member 11^c. The base member is shown provided with side walls 21, 21, generally triangular in shape and to which is pivotally connected at 12^c the upper member 11^c. The intermediate member 20 is a leaf spring secured at one end to the base member 10^c by any suitable fastening means such as a rivet 22. The opposite end of the spring 20 is slightly curved at 23 and is designed to cooperate with the flange or angled portion 24 of the upper member 11^c in the manner hereinafter explained. It will be noted that the upper member 11^c is shown provided with a bulged or convex, or dome-shaped portion 17^c for a purpose which will presently appear. The side walls 21 are each provided with an opening 25. The clasp shown in Figs. 6 to 8 is constructed and designed to be employed and to operate substantially as follows.

The shoe is laced and the base member 10^c of the wide open clasp is placed against the upper outer part of the shoe, as indicated generally in Fig. 1. The two ends of the shoe string 16^c are then passed through the openings 25, 25. The upper member 11^c is then partially closed on the base member (see Fig. 6) and in this position the flange or angle 24 so engages the end 23 of the spring 20 as to press the latter down upon the crossed ends of the shoe-string to prevent the latter from slipping with respect to each other and with respect to the base 10^c. The ends of the shoe string 16^c may then be doubled up (first tying them if desired) and placed between the side walls 21. The upper member 11^c may then be closed upon the base member 10^c as shown in Figs. 7 and 8. In this position of parts the pressure of the spring 20 on the inner crossed portions of the shoe-strings, due to the coaction of the elements 23 and 24, and the clasping action of the upper member upon the doubled up or folded up ends of the string, prevent any slipping, loosening or inadvertent untying of the shoe-string. The ends of the shoe-string 16^c are also effectively concealed under the dome 17^c of the clasp. It will be noted that when the parts are in closed position the spring 20 yieldingly holds the upper member 11^c in the position shown in Fig. 8. When the clasp is in wide open position (generally that indicated in Fig. 2^a if it be assumed that the parts 10, 11, 13 and 14, there shown, are the parts 20, 11^c, 23 and 24 shown in Figs. 6 to 8) the spring 20 yieldingly holds the upper member 11^c in such wide open position. And, as in the case of the devices shown in Figs. 1 to 5, when the member 11^c is moved from closed position to wide open position, the first part of such movement is resisted by the spring 20 until the dead center (Fig. 6) is passed when the upper member is automatically snapped by the spring into desired position.

In accordance with the provisions of the patent statutes, I have herein described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiments thereof, but I desire to have it understood that the apparatus disclosed is only illustrative and that the invention can be carried out by other means. Also, while it is designed to use the various features and elements in the combinations and relations described, some of these may be altered and others omitted and some of the features of each modification may be embodied in the others without interfering with the more general results outlined, and the invention extends to such use.

What I claim is—

1. A clasp for shoe strings comprising in combination, a base member, an intermediate member secured adjacent one end to said base member whereby the ends of a shoe string may be entered between said members, at least one of said members being resilient, a third member pivotally connected to said base member, and means actuated by closing movement of said third member upon said base member for moving said two first named members relatively toward each other to grip the ends of the shoe string between said two first named members.

2. A clasp for shoe strings comprising in combination, a channel-shaped base member, a resilient member secured at one end to said base member and extending in the channel of the latter, the flanges of said base member having openings whereby the ends of a shoe string may be inserted between said members, a third member pivotally connected with said base member and adapted to close the open side thereof, and means actuated by closing movement of said third member for moving said two first named members relatively toward each

other to grip the ends of the shoe string between said two first named members.

3. A clasp for shoe strings comprising in combination, a base member, an outer member connected to said base member adjacent one edge thereof for movement toward and away from said base member, said outer member being provided with an outwardly bulged convex portion to accommodate the knot of a shoe string when the clasp is closed, and manually releasable means for causing said clasp to grip a shoe string.

4. A clasp for shoe strings comprising in combination, a base member, an intermediate member secured adjacent one end to said base member whereby the ends of a shoe string may be entered between said members, at least one of said members being resilient, a third member pivotally connected to said base member and provided with an outwardly bulged knot-receiving convex portion, and means actuated by closing movement of said third member upon said base member for moving said two first named members relatively toward each other to grip the ends of the shoe string between said two first named members.

In testimony whereof I hereto affix my signature.

OLGA I. HOPPE.