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FASTENING DEVICE FOR OVERSHOES

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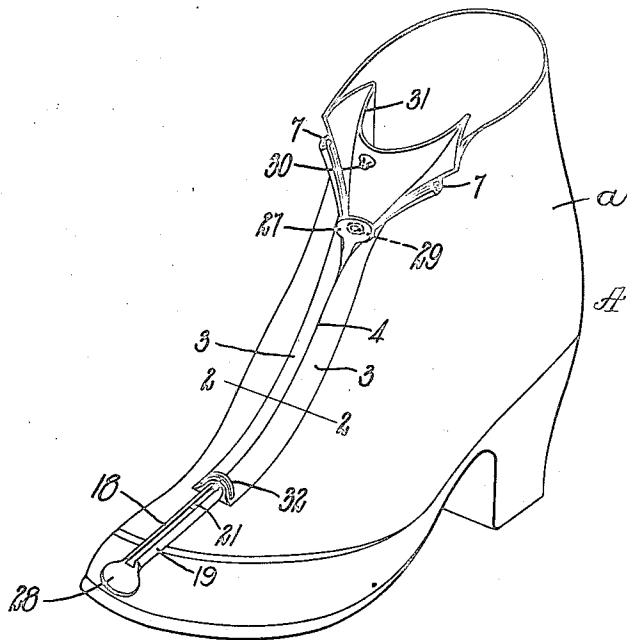


Fig. 1.

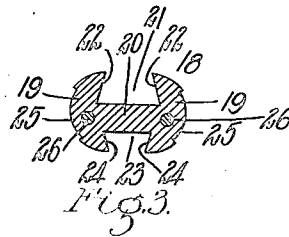


Fig. 3.

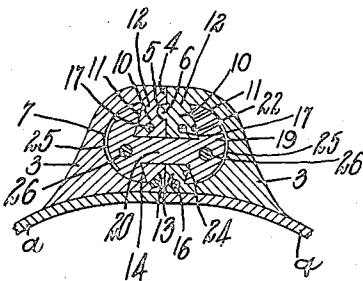
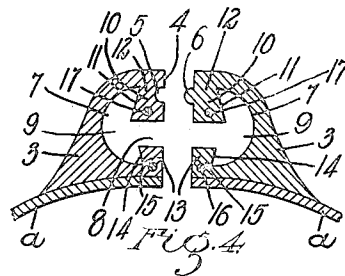


Fig. 2.



UNITED STATES PATENT OFFICE

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FASTENING DEVICE FOR OVERSHOES

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This invention relates to a fastening device for overshoes, and has for its object to provide a device which may be utilized in place of the usual buttons and metal fasteners as a means for easily and quickly opening and closing the shoe, the device, furthermore, being constructed in such a manner that it will provide a tight closure for the shoe and at the same time be comfortable for the wearer.

The invention consists in a fastening device for shoes as set forth in the following specification and particularly as pointed out in the claims thereof.

Referring to the drawings:

Figure 1 shows a perspective view of an overshoe having a fastening device embodying my invention attached thereto.

Fig. 2 is an enlarged detail section taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged transverse section through the sliding tongue.

Fig. 4 is an enlarged transverse section through the fastening strips from which the tongue has been withdrawn, the strips being separated.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, A represents an overshoe and *a* represents the upper therefor. Fastened to the outer surface of the upper *a* upon both sides of the usual opening that is provided at the front of the shoe are strips 3 constructed of suitable flexible material, preferably rubber. The strips 3 are similar in construction, except that they are positioned right and left hand upon the shoe, and both of the strips are provided with a flat face 4 which contact with each other when the shoe is closed. The face 4 of one of the strips 3 is provided with a groove 5, while oppositely disposed thereto on the face 4 of the other flexible strip 3 is a bead 6 similar in form to the groove 5 and adapted to co-operate therewith when the shoe is closed to make a tight joint at the front of the shoe.

Also provided in each of the flexible strips 3 is a groove 7 having a narrow entrance slot 8 and enlarged curved inner portion 9.

The groove 7 extends for the entire length of the flexible strip and the entrance slots 8 of the grooves of each strip are located opposite each other in the flat edge 4 of the strips. Each strip 3 also embodies therein a flange 10. The flat edge 4 of the flexible strip comprises one side of the flange 10, while an opposite side 11 of said flange tapers from the slot 8 toward the front of the strip 3, thereby forming a narrow neck 12 where the flange joins the body portion of the strip.

When the flanges 12 of both strips are forced together in a manner hereinafter to be more fully explained, the bead 6 of one strip enters the groove 5 of the other strip and the adjacent flat edges 4 of the strips abut one against the other and the two flanges 10 co-operate to form a dove-tail shaped portion tapering from its inner edge toward the neck portions 12.

Also formed integral with the edge of the strips 3 and oppositely disposed to the flange 10 thereof is another flange 13 and an opposite side 14 of said flange tapers from the slot 8 toward the rear of the strip 3, thereby forming a narrow neck portion 15 where the flange joins the body portion of the strip.

The strips 3 are reinforced upon opposite sides of the slot 8 by pieces of wire 16 and 17 which extend for the entire length of the strips.

Located within both of the flexible strips 3 is a tongue 18 constructed of flexible material, preferably rubber. The tongue 18 is formed to fit the grooves 7 when the flat edges 4 of the strips are abutting against each other. The tongue, therefore, embodies therein a pair of curved side portions 19 formed to fit the inner portion 9 of the groove and said side portions 19 of the tongue are connected by a relatively narrow connecting strip 20 which corresponds with the width of the slot 8. A dove-tail shaped groove 21 is formed in the front of the tongue 15, said groove having oppositely tapering sides 22 which are adapted to fit the sides 11 of the flanges 10.

Located at the rear of the strip 18 behind the dove-tail shaped groove 21 is another

dove-tail shaped groove 23 having oppositely disposed tapering sides 24 which are adapted to fit the sides 14 of the flanges 13.

The sides of the tongue 18 may be recessed slightly at 25 in order to eliminate friction between the tongue and the strips 3.

Reinforcing members 26, preferably in the form of wires, are imbedded in the tongue 18 and extend longitudinally therethrough. Tabs 27 and 28 are located at the top and bottom ends respectively of the tongue 18, the former being utilized to pull the tongue upwardly within the strips 3 in closing the same, and the latter to pull the tongue downwardly in opening said strips.

Clasp members 29 and 30 of well known construction are fastened to the tab 27 and flap portion 31 respectively, and when the tongue 18 is located in its uppermost position and the front of the shoe is closed, the clasp member 29 is snapped upon the clasp member 30 and the tongue is thereby held in its uppermost position.

The tongue 18 is prevented from being pulled out of the strips 3 by securing a staple 32 therethrough adjacent to their lower extremities, the opposite extremities of the staple being clinched upon the inside of the shoe.

The device of this invention is utilized to close the opening at the front of the shoe to fasten the latter to the wearer by grasping the tab 27 and pulling the tongue 18 upwardly. During this upward movement, the side portions 19 of the tongue sliding in the grooves 7 with the opposite tapered portions 22 of the tongue gripping tightly against the sides 11 of the flanges 10, will cause the strips 3 to be pulled toward each other, forcing the flat edges thereof together and causing the bead 6 of one strip to enter the groove 5 of the opposite strip. At the same time the opposite tapered sides 24 of the tongue 18 will grip tightly against the sides 14 of the flanges 13 causing the inner portion of the strips 3 to be pulled toward each other.

The formation of the tongue 18 and the grooves in which it slides is such that the flexible strips 3 will be prevented from opening or spreading when the shoe is closed, and the action of the tapering sides 22 of the dove-tail shaped groove 21 of the tongue is to grip the correspondingly tapered sides 11 of the flanges 10 in a manner to prevent the strips 3 from opening. The co-operating groove 5 and bead 6, furthermore, tend to prevent the strips 3 from opening at the front thereof, and they furthermore co-operate to provide a tight joint when the shoe is closed.

In opening the shoe, in order that the same may be removed from the foot of the wearer, the tongue 18 is pulled downwardly by grasping the tab 28, thereby allowing the flexible strips 3 to open from the top as the tongue moves downwardly.

I claim:

1. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, one of said strips having a groove in the edge thereof and the other of said strips having a bead upon its edge oppositely disposed to said groove, and a tongue slidable within both of said strips and adapted to force the edges thereof together and cause the bead to enter the groove.

2. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, both of said strips having a groove in their adjacent edges oppositely disposed to each other, flanges integral with said strips, and a tongue slidable within both of said grooves and adapted to force the edges thereof together, said tongue gripping said flanges and preventing the strips from spreading.

3. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, both of said strips having a groove in their adjacent edges oppositely disposed to each other, flanges upon said strips, and a tongue slidable within both of said grooves and adapted to force the edges thereof together, said tongue having a dove-tail shaped groove extending longitudinally thereof in which said flanges are located, the tongue gripping said flanges and preventing the strips from spreading.

4. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, one of said strips having a groove in the edge thereof, and the other of said strips having a bead upon its edge oppositely disposed to said groove, said strips also having a groove in their adjacent edges oppositely disposed to each other, flanges upon said strips, and a tongue slidable within both of said last-named grooves and adapted to force the edges thereof together, said tongue gripping said flanges and preventing the strips from spreading and also causing the bead to enter its co-operating groove.

5. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, one of said strips having a groove in the edge thereof and the other of said strips having a bead upon its edge oppositely disposed to said groove, reinforcing members imbedded within said strips and extending longitudinally thereof, a tongue slidable within both of said strips and adapted to force the edges thereof together and cause the bead to enter the groove, and reinforcing members imbedded within and extending longitudinally through said tongue.

6. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, both of said strips having a groove in their adjacent edges op-

positely disposed to each other, a pair of oppositely disposed tapered flanges upon each of said strips, and a tongue slidable within both of said grooves and interlocking with both flanges of each strip whereby the edges of the latter are forced together.

7. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, both of said strips having a groove in their adjacent edges oppositely disposed to each other, a pair of oppositely disposed tapered flanges upon each of said strips, and a tongue slidable within both of said grooves, said tongue having a pair of oppositely disposed dove-tail shaped grooves extending longitudinally thereof in which said flanges have a sliding fit, said tongue interlocking with said flanges and preventing the strips from spreading.

8. A fastening device for shoes comprising, in combination, a pair of flexible strips attached to the shoe upper, one of said strips having a groove in the edge thereof, and the other of said strips having a bead upon its edge oppositely disposed to said groove, said strips also having a groove in their adjacent edges oppositely disposed to each other, flanges upon said strips, a tongue slidable within both of said last-named grooves and adapted to force the edges thereof together, said tongue gripping said flanges and preventing the strips from spreading and also causing the bead to enter its co-operating groove, a tab at the upper and lower extremities of the tongue, and co-operating clasp members fast to the upper tab and flap of the shoe upper respectively whereby the tongue is held in its closed position.

In testimony whereof I have hereunto set my hand.

ROBERT M. GLIDDEN.

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