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SHOELACE CLASP

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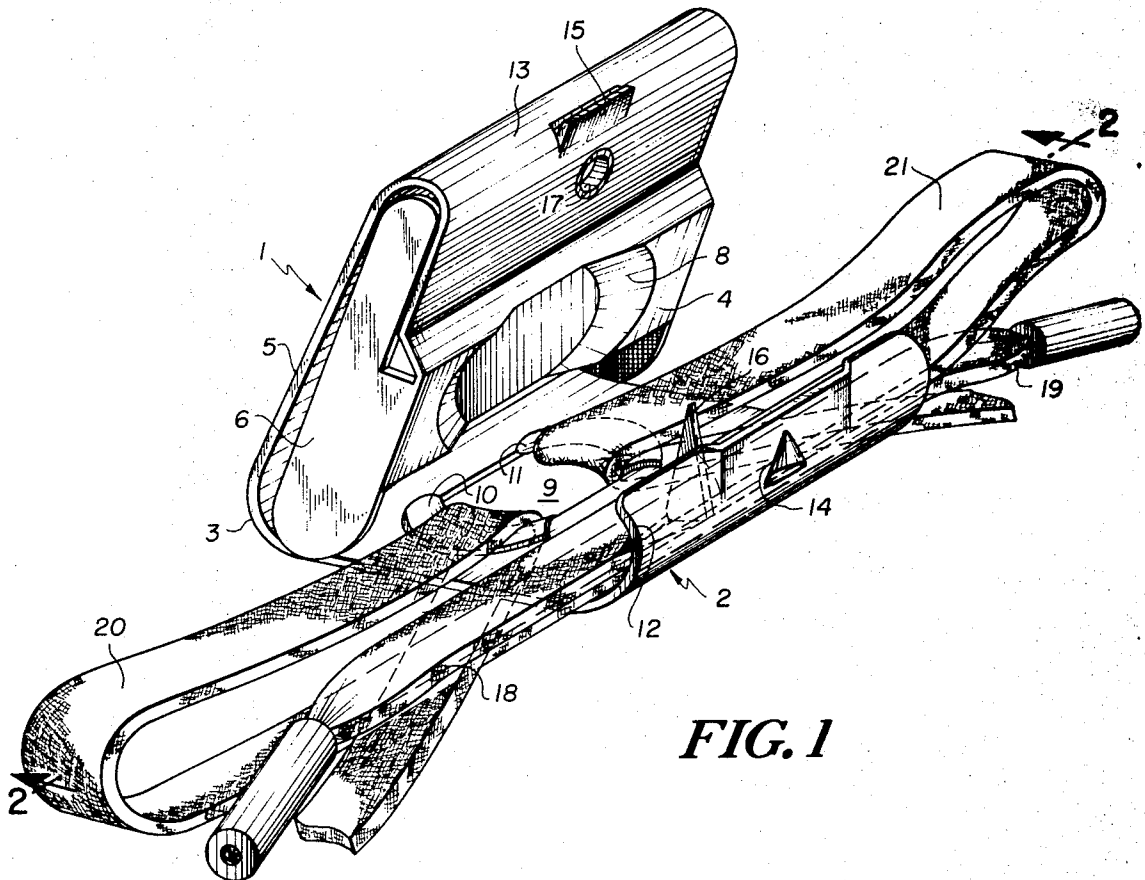


FIG. 1

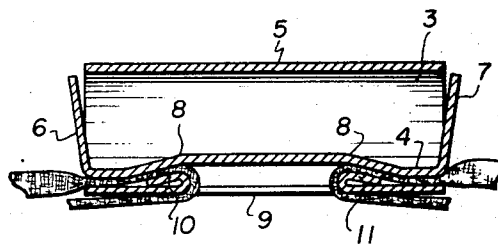


FIG. 2

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SHOELACE CLASP

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8 Claims

ABSTRACT OF THE DISCLOSURE

A shoelace clasp formed from sheet material into a substantially U-shape having substantially coextensive first and second legs spaced from each other and joined at a common base, the first leg comprising a portion thereof bent upon itself in spaced relationship and terminating substantially adjacent the base between the first and second legs, grip means on opposite sides of the bent portion, the bent portion having a substantially annular recess in a face thereof adjacent the second leg, the second leg having a substantially annular aperture therethrough, raised arcuate rim segments peripherally of or adjacent the aperture on the inner face of the second leg, the rim segments being registrable with the recess in the said bent portion, and the free end portion of the second leg being curved inwardly toward the first leg.

BACKGROUND OF THE INVENTION

Shoelace clasps herein contemplated avoid the necessity of tying the free ends of the laces after lacing to maintain the shoe lacing and provide the advantage of a simple and easy means for securing the shoelaces without resorting to the inconvenience of bow tying each and every time the shoes are put on. The shoelace clasps contemplated are, after application and securing to the free ends of the laces, releasably adjustably slidable along the lace portions from the secured ends toward the shoe eyelets and automatically maintain the adjusted position so that accidental loosening of the laces is prevented. In short, the clasp is adapted for the automatically adjustable tightening of the laces. A simple releasing of the secured ends permits loosening of the laces for removal of the shoes.

SUMMARY OF THE INVENTION

The invention deals with a shoelace formed from sheet material, preferably resilient sheet metal material, e.g., spring steel material, into a substantially U-shape having substantially coextensive first and second legs spaced from each other and joined at a common base. The first leg comprises a portion thereof bent upon itself in spaced relationship and terminating substantially adjacent the base between the first and second legs. The bent portion is provided with grip means on opposite sides thereof and also with an annular recess in a face thereof which is positioned adjacent to or facing the second leg. The second leg is provided with a substantially annular aperture therethrough and with raised arcuate rim segments located peripherally of the aperture on the inner face of the second leg. The rim segments are registrable with the recess in the bent portion upon opening and closing of the clasp, and the free end portion of the second leg is curved inwardly toward the first leg.

DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates an isometric view of the shoelace clasp of the invention in open position with lace applied, and

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FIG. 2 illustrates a cross-sectional view along lines 2—2 of FIG. 1 but with the clasp in closed position.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the figures, the clasp is formed from sheet material, e.g., spring steel sheet, into a substantially U-shape having substantially coextensive first and second legs 1 and 2 spaced from each other and joined at a common base 3. The first leg 1 is bent upon itself in spaced relationship thereby providing a bent portion 4 terminating substantially adjacent the base 3 between legs 1 and 2. Since the leg 1 is bent upon itself in spaced relationship, the bent portion 4 is spaced from the portion 5 which extends from the base 3 and is resiliently movable relative to the portion 5. The bent portion 4 is provided with grip means 6 and 7 on opposite sides thereof and with an annular recess 8 in a face thereof which is positioned adjacent to or facing the inner surface of the second leg 2. Preferably, the recess walls slope inwardly of the face of the bent portion 4 as illustrated by FIGS. 1 and 2. The second leg 2 is provided with a substantially annular aperture 9 therethrough and with raised lip means peripherally of the aperture 9 on the inner surface of the second leg. The raised lip means are illustrated in the form of raised rim segments 10 and 11 diametrically of aperture 9. The lip means, or rim segments, is registrable with the recess 8 in the bent portion 4 upon opening and closing of the clasp, and the free-end portion 12 of the second leg 2 is curved inwardly toward the curved end 13 of the portion 5 of the first leg 1 so that upon closing of the clasp the free-end portion 13 of leg 2 will overlay and embrace the end portion 13. With the material of the clasp being a resilient material, the curved end portion 12 is a snap catch component operable to snap catch over the curved end 13. However, as a supplementary snap catch means, the free-end portion 12 can be provided, as illustrated, with an inwardly directed tab 14 formed by an inwardly pertruded or protruded triangular portion of the material of the end 12, and the curved end portion 13 of leg portion 5 is provided with a complementary tab 15 extending outwardly therefrom and engageable with the tab 14 when the clasp is closed. For such an engagement of the tabs the tab 15 contacts and with application of pressure overrides the tab 14, which bends downwardly to permit the overriding and upon release of pressure the tab 15 contacts the undersurface of tab 14 to provide the supplementary snap catch function. The leg 2 is also provided on its inner surface with a pin 16 having its pointed end directed toward the bent portion 4, and preferably but not necessarily the bent portion 4 is provided with an aperture 17 engageable with the pointed end of the pin. The pin 16 is positioned on the leg 2 at a location between the aperture 9 and the free end 12.

In operation, while the clasp is in open position as illustrated by FIG. 1, the free ends 18 and 19 of a shoelace which is laced through the eyelets of a shoe are passed from below leg 2 through the aperture 9 over lip means 10 and 11 after which they are looped into two loops 20 and 21 extending oppositely of each other outwardly beyond opposite sides of leg 2 and in overlaying position one on the other, the lace end portions being pressed down on the pin 16 with the ends 18 and 19 extending outwardly of opposite sides of the leg 2. The distance that the ends 18 and 19 extend oppositely of each other outwardly of the sides of leg 2 is fixed by pin 16. Having so applied the laces, the leg 1 is pressed into engagement with leg 2 with the recess 8 of bent portion 4 engaging the lace portion passing over lip means 10 and 11 under resilient tension of the bent portion 4. The legs 1 and 2 are further pressed until the curved free end portion 12

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engages and clasps over the curved end 13 of leg portion 5. At the same time tabs 14 and 15 are engaged to snap catch, as above described, to maintain the clasp in closed position. At this stage the clasp is in a position at some distance from the top eyelets of shoes. Thereafter, the two loops are manually pulled in opposite directions whereby the clasp is caused to slide along the lace under resilient tension of the bent portion 4 into contact with the top of the shoe while the loops are enlarged. To remove the shoe by loosening the lace, the grip means 6 and 7 are manipulated to urge the portion 4 away from the lace portions overlying lip means 10 and 11 permitting sufficient loosening so that the clasp is now slidable along the lace away from the top of the shoe while the loops 20 and 21 are reduced to provide sufficient slack between the clasp and the shoe to permit loosening of the lace through the shoe eyelets whereupon the shoe can be removed.

What is claimed is:

1. A shoelace clasp formed from sheet material into a substantially U-shape having substantially coextensive first and second legs spaced from each other and joined at a common base, the first leg comprising a portion thereof bent upon itself in spaced relationship and terminating substantially adjacent the base between the first and second legs, grip means on opposite sides of the bent portion, the bent portion having a recess in a face thereof adjacent the second leg, the second leg having an aperture therethrough, raised lip means adjacent the aperture on the inner face of the second leg, the lip means being registrable with the recess in the said bent portion, and the free-end portion of the second leg curved inwardly toward the first leg.

2. A shoelace clasp according to claim 1 comprising a pin having a pointed end positioned on the inner surface of the second leg between the aperture and the free-end

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portion thereof with the pointed end of the pin being directed toward the said bent portion between the first and second legs.

3. A shoelace clasp according to claim 1 wherein the recess is the bent portion is a substantially annular recess.

4. A shoelace clasp according to claim 1, wherein the aperture in the second leg is a substantially annular aperture.

5. A shoelace clasp according to claim 4, wherein the raised lip means comprises raised annular rim segments peripherally of the aperture.

6. A shoelace clasp according to claim 1, wherein a portion of the first leg joining the bent portion and the other portion of the first leg is a curved portion, and the curved portion at the free end of the second leg being snap-claspable over the said bent portion of the first leg.

7. A shoelace clasp according to claim 1, wherein the curved free-end portion of the second leg portion carries an inwardly directed first tab, the said bent portion of the first leg having a second tab projecting therefrom and engageable with the first tab in snap catch relationship.

8. A shoelace clasp according to claim 2, wherein the bent portion of the first leg has an aperture therethrough engageable with the pointed end of the pin.

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BERNARD A. GELAK, primary examiner

U.S. Cl. X.R.

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