

Dec. 13, 1966

T. B. MAXWELL ETAL

3,290,745

SHOE LACE CLASP

Filed Aug. 17, 1965

2 Sheets-Sheet 1

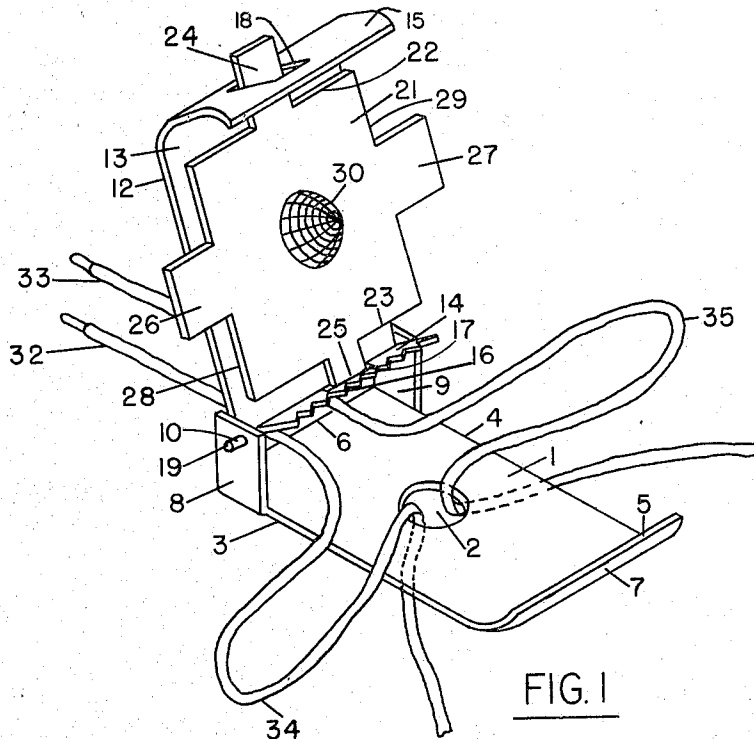


FIG. 1

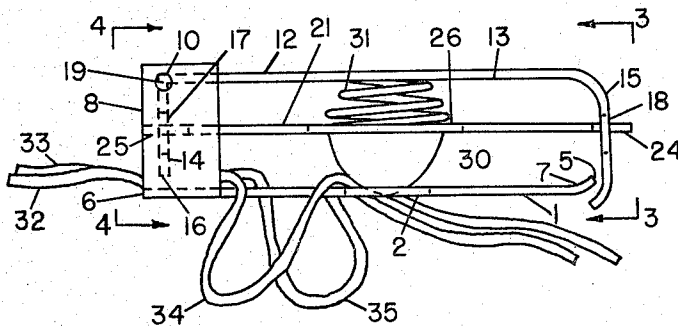


FIG. 2

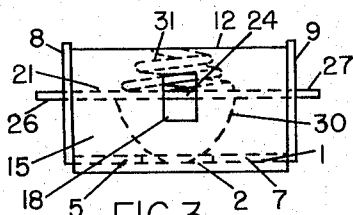


FIG. 3

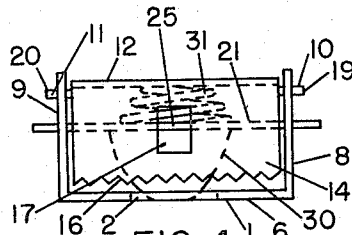


FIG. 4

INVENTORS

Theodore B. Maxwell
Sol Sabel

ATTORNEY

AGENT

John G. Kovach

Dec. 13, 1966

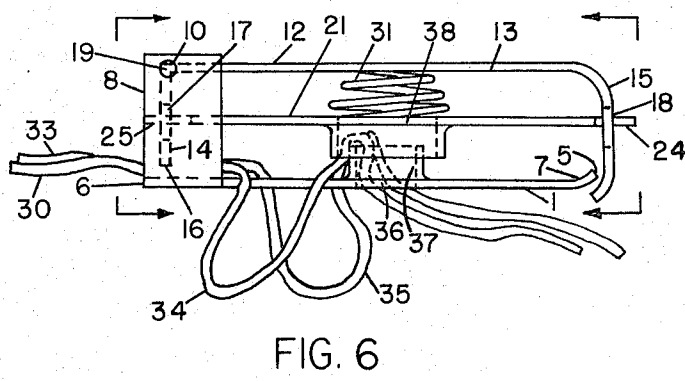
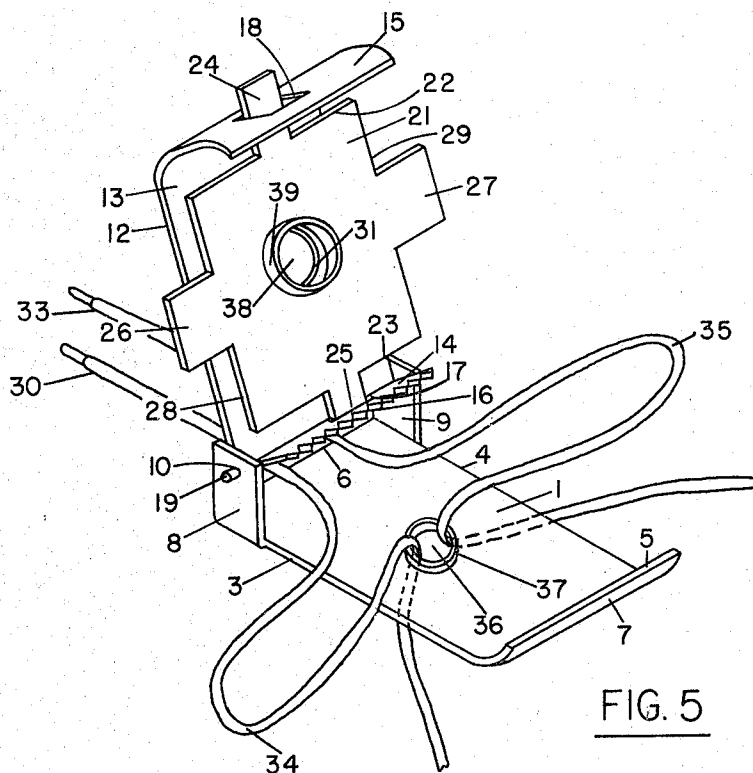
T. B. MAXWELL ET AL

3,290,745

SHOE LACE CLASP

Filed Aug. 17, 1965

2 Sheets-Sheet 2



INVENTORS

Theodore B. Maxwell
Sol Sobel

ATTORNEY

AGENT John S. Kovalich

1

3,290,745

SHOE LACE CLASP

Theodore B. Maxwell, Potter Hollow, N.Y., and Sol
Sobel, 1356 Martine Ave., Plainfield, N.J.

Filed Aug. 17, 1965, Ser. No. 480,348

10 Claims. (Cl. 24-120)

The present invention deals with a shoe lace clasp and more particularly with a shoe lace clasp of the type adapted to secure portions of a shoe lace extending from the top shoe eyelets against lacing slippage and the resultant lace loosening.

Shoe lace 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 shoe laces without resorting to the inconvenience of bow tying each and every time the shoes are put on, which is especially difficult for the younger children. The clasps of the invention 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 automatically adjustable tightening of the laces. A simple releasing of the secured ends permits loosening of the laces for removal of the shoes.

It is an object of the invention to provide a shoe lace clasp of simple construction and which is easily applicable to shoe laces.

It is another object of the invention to provide a shoe lace clasp having a simple and rugged but effective positive locking action against shoe lace slippage.

Other objects and advantages of the invention will become apparent from the description hereinafter following and the drawings forming a part thereof, in which;

FIGURE 1 illustrates an isometric view of a shoe lace clasp of the invention in open position with lace applied,

FIGURE 2 illustrates an elevational side view of the clasp of FIGURE 1 in closed position with lace applied,

FIGURE 3 illustrates a front view along lines 3-3 of FIGURE 2 with lace removed,

FIGURE 4 illustrates a rear view along lines 4-4 of FIGURE 2 with lace removed,

FIGURE 5 illustrates an isometric view of a modified shoe clasp in open position with lace applied, and

FIGURE 6 illustrates an elevational side view of the clasp of FIGURE 5 in closed position.

In accordance with FIGURES 1-4 of the drawings, the shoe lace clasp of the invention comprises a first clasp member or bottom plate 1 of substantially rectangular form having an aperture 2, e.g., a circular aperture, formed therethrough substantially centrally of the plate 1. The plate 1 is defined by sides 3 and 4 and front and rear ends 5 and 6, respectively. The front end 5 is turned upwardly to provide a snap catch abutment 7 hereinafter more particularly described. A pair of lugs 8 and 9 extend upwardly of the plate 1, one on each of the sides 3 and 4, from a location adjacent the end 6 in transverse alignment across the width of plate 1. Each lug 8 and 9 is provided with a bore 10 and 11, respectively, in axial alignment with each other.

In cooperative association with the first clasp member or bottom plate 1 there is provided a second clasp member 12 of substantially U-shape and substantially coextensive with the bottom plate 1. The second clasp member comprises a body portion 13 and legs 14 and 15 extending from opposite end portions thereof in a common direction to form said substantially U-shaped structure. The free end of leg 14 is provided with a serrated terminal edge 16. The free end portion of leg 15 is curved inwardly toward leg 14 to provide a snap catch component abuttable with

2

the catch abutment 7 of plate 1 as shown by FIGURE 2. Preferably, at least the leg 15 of clasp member 12 is formed of a resilient material, e.g., spring metal.

The legs 14 and 15 are provided with substantially centrally disposed slots 17 and 18 between the terminal edges of the legs and a location adjacent the body portion 13. Extending outwardly from opposite sides of the body portion 13 adjacent leg 14 are short journals 19 and 20 which engage bores 10 and 11, respectively, of lugs 8 and 9 and whereby the second clasp member 12 is pivoted for rotational movement relative to bottom plate 1.

In cooperation with the first and second clasp members 1 and 12 there is provided a third clasp member 21, for example, of rectangular plate-like form having front and rear ends 22 and 23, respectively, and with narrow tabs 24 and 25 extending from ends 22 and 23 in opposite directions relative to each other. The third clasp component is also provided with wings 26 and 27 extending outwardly of the sides 28 and 29 in opposite directions relative to each other. The member 21 is further provided with a boss or nipple 30 substantially centrally of the bottom face thereof, or the face adjacent the bottom plate 1, with the nipple being oriented for coaction with the aperture 2 in plate 1. A spring member 31, for example a compression spring, is secured at one end to the face of the member 21 which is adjacent the second clasp member 21, for example by soldering or otherwise, at a location opposite the nipple 30. The other end of the spring member is secured to the body portion 13 of clasp member 12 so that the spring member is positioned between the members 12 and 21. Also, the tabs 24 and 25 pass in opposite directions through the slots 17 and 18 wherein they are movable in the slots along the legs 8 and 9 whereby the member 21 is oriented for movement between clasp members 1 and 12 under the influence of spring 31.

In operation, while the clasp is open as illustrated by FIGURE 1, the free ends 32 and 33 of a shoe lace which is laced through the eyelets of a shoe are passed from below plate 1 through the aperture 2 and through the passage between the lugs 8 and 9 while portions of the lace are formed into two loops 34 and 35 extending oppositely of each other outwardly beyond the sides 3 and 4 of plate 1. Having so applied the lace, the second clasp member 12 is rotated on its journals 19 and 20 toward the first clasp member of plate 1 until the nipple engages the lace in aperture 2 and under spring tension at least partly enters aperture 2. The first and second clasp members are further manually pressed until the curved free end portion of leg 15 of the second clasp member is snapped into engagement with the catch abutment 7 of the first clasp member whereby the clasp is effectively locked while the serrated edge 16 of leg 14 grips the lace against the plate 1 at the location between the lugs 8 and 9. The clasp is now in a position at some distance from the top eyelets of a shoe. Thereafter, the two loops are manually pulled in opposite directions whereby the clasp slides along the lace into contact with the top of the shoe while the loops are enlarged. To remove the shoe by loosening the lace, the third clasp member, by means of wings 26 and 27 is raised upwardly toward the second clasp member 12 whereby the nipple 30 is caused to move away from the aperture 2 permitting sufficient looseness of the lace between the aperture 2 and nipple 30 so that the clasp is now slidable along the lace away from the top of the shoe while the loops 34 and 35 are reduced to provide sufficient slack between the clasp and the shoe to permit loosening of the lacing through the shoe eyelets whereupon the shoe can be removed.

FIGURES 5 and 6 illustrate a modification of the invention to the extent that the nipple 30 and aperture 2 of FIGURES 1-4 have been modified while all other com-

3

ponents remain identical with the components of FIGURES 1-4 and therefore bear identical reference numerals.

In the modified form of the invention, in lieu of the aperture 2 of FIGURE 1, there is provided an aperture 36 through plate 1 with the aperture being defined by a first collar 37 on the upper surface of plate 1 and extending in the direction of the third clasp component 21 as illustrated by FIGURE 6. In lieu of the nipple 30 of FIGURE 1, there is provided a centrally located second aperture 38 through the plate 21. The aperture 38 is defined by a second collar 39 extending from the surface of the plate 21 in the direction of the first collar 37. The second collar 39 is of larger diameter than first collar 37 and is adapted to circumscribe the first collar with a spacing therebetween as illustrated by FIGURE 6. The spacing is sufficient to permit the lacing to pass between the collars under gripping compression when the collars are telescoped together.

In operation, when the loops 34 and 35 are manually enlarged, the sliding of the clasp along the lace provides an upward force against the second collar 39 whereby the clasp is automatically slidable along the lace since the upward force against collar 39 compresses the spring 31 to permit sliding motion of the clasp. The clasp is not automatically slidable in the opposite direction on the lace since such motion only tends to pull the second collar into tighter compression engagement with the lace passing between the collars. To loosen the lace, the wings 26 and 27 are manipulated toward the second clasp member 12 whereby the third clasp member or plate 21 and the collar it carries is moved toward clasp member 12 and whereby the collars 37 and 39 are substantially disengaged. It is apparent that the operation of the clasp of FIGURES 6 and 7 is substantially identical with the operation of the clasp of FIGURES 1-4.

Various modifications of the invention are contemplated within the scope of the appended claims.

What is claimed is:

1. A shoe lace clasp comprising a first clasp member having an aperture formed therethrough and a pair of laterally spaced lugs extending upwardly thereof, a second clasp member comprising a body portion and a leg at two opposite ends thereof and extending in a common direction, an end portion of the second clasp member adjacent one of the legs being pivotally mounted for rotation between the lugs, a slot in each of the legs, a plate-like third clasp member having a body portion and a tab at two opposite ends thereof extending in opposite directions, the tabs each being movably mounted in one of the slots, spring means connected between the second and third clasp members, and a projection means on the body portion of the third clasp member, the projection means being engageable with the aperture through the first clasp member.

4

2. A shoe lace clasp according to claim 1, comprising a catch abutment means on an end portion of the first clasp member remote from the lugs, one of the legs having an end portion engageable with the catch abutment.

3. A shoe lace clasp according to claim 1, comprising gripping means at the end of the leg adjacent the pivoted end of the second clasp member.

4. A shoe lace clasp according to claim 1, wherein the projection means is a nipple member.

5. A shoe lace clasp according to claim 1, comprising a pair of wing members extending in opposite directions outwardly of opposite sides of the third clasp member.

6. A shoe lace clasp comprising a first plate-like clasp member having an aperture formed therethrough substantially centrally thereof and a pair of laterally spaced lugs extending upwardly thereof from one end portion of the first lace clasp member, a second clasp member comprising a body portion and a leg at two opposite ends thereof and extending in a common direction, an end portion of the second clasp member adjacent one of the legs being pivotally mounted on and between the lugs, a slot in each of the legs, a plate-like third clasp member having a body portion and a tab at two opposite ends thereof extending in opposite directions, the tabs each being movably mounted in one of the slots, spring means connected between the second and third clasp members, a first collar on the upper surface of the first clasp member circumscribing the aperture, a second collar on the body portion of the third clasp member, the second collar having a diameter greater than that of the first collar and positioned to receive the first collar when the clasp is in closed position.

7. A shoe lace clasp according to claim 6, comprising an aperture through the body portion of the third clasp member, and the second collar circumscribing the third clasp member aperture.

8. A shoe lace clasp according to claim 6, wherein an end portion of the first clasp member remote from the lugs is turned upwardly thereby providing a catch abutment means.

9. A shoe lace clasp according to claim 8, wherein one of the legs of the second clasp member remote from the lugs is turned inwardly and said inwardly turned end being engageable with said catch abutment means.

10. A shoe lace clasp according to claim 6, wherein the second clasp member has a U-shape.

References Cited by the Examiner

UNITED STATES PATENTS

736,742 8/1903 Knapp ----- 24-120

FOREIGN PATENTS

65,926 7/1914 Austria.

BERNARD A. GELAK, *Primary Examiner*.