

I. B. ROSS.
ADJUSTABLE TIP FOR CORSET AND SHOE LACES.
APPLICATION FILED NOV. 10, 1921.

1,420,219.

Patented June 20, 1922.

Fig. 1

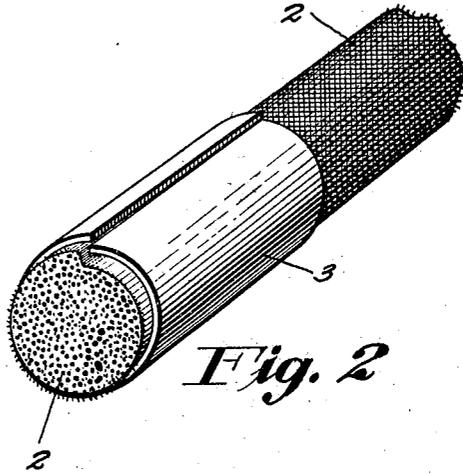
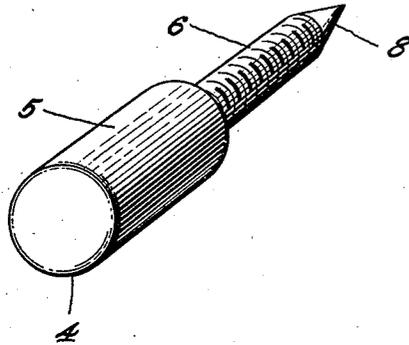
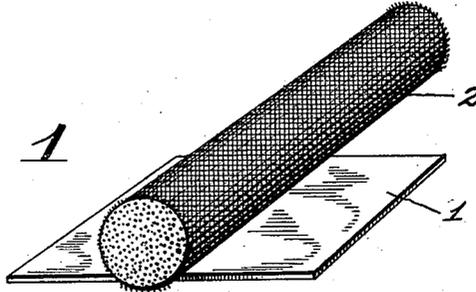


Fig. 2

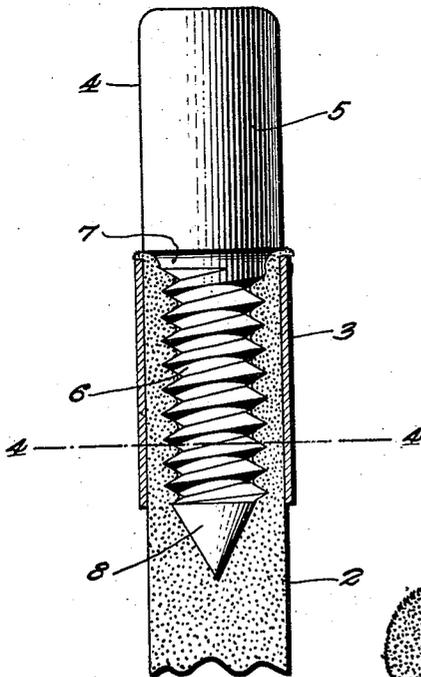


Fig. 3

Fig. 4

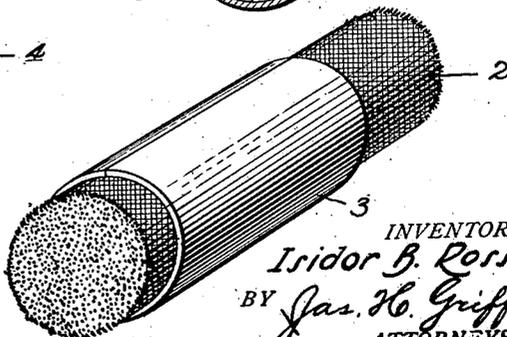
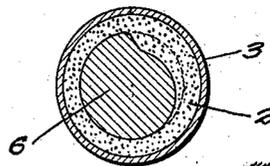


Fig. 5

INVENTOR.
Isidor B. Ross
BY *Jas. H. Griffin*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ISIDOR B. ROSS, OF NEW YORK, N. Y., ASSIGNOR TO ELIZABETH BERLSTON, OF NEW YORK, N. Y.

ADJUSTABLE TIP FOR CORSET AND SHOE LACES.

1,420,219.

Specification of Letters Patent. Patented June 20, 1922.

Application filed November 10, 1921. Serial No. 514,145.

To all whom it may concern:

Be it known that I, ISIDOR B. ROSS, a citizen of the United States, residing at New York city, borough of Manhattan, in the county and State of New York, have invented a certain new and useful Adjustable Tip for Corset and Shoe Laces, of which the following is a specification.

This invention is an adjustable tip adapted to be associated with corset laces and shoe laces and its function is to permit a variation of the length of the lace to best suit the specific environment in which such lace is to be used.

The invention embodies improvements in the adjustable tip for shoe and corset laces forming the subject matter of my allowed application, Serial No. 450,181, filed March 7, 1921, and is directed more particularly not only to the manner or method of assembling the parts of the tip on a lace, but also to the mechanical construction of these parts.

In the said allowed application, tip construction is shown, wherein the tip embodies two parts, one of which is in the form of a tubular sleeve adapted to be slipped over the lace and provided on its interior with dome-shaped projections. With this tubular member, which may be termed the female member, is associated the male member provided with a threaded shank which, after the tubular member is slipped over the lace, is adapted to be screwed into the center of the lace so as to expand the lace into tight, frictional and interlocking engagement with the interior surface of the female member. This construction is highly meritorious and is so constituted that the tip cannot possibly become inadvertently disengaged from the lace. However, experience in the manufacture of this tip has developed that considerable time is expended in the inserting of the ends of the lace into the female member of the tip for, since said female member is of rigid tubular form this is the only manner in which the lace may be practically applied thereto.

The object of the present invention is to provide a tip which may be applied to a lace in a simple and expeditious manner and without necessitating the tedious operation of threading the lace through the female member of the tip in which one end of the lace is normally used.

Another object of the invention is to pro-

vide a tip wherein holding of the tip upon the lace is not dependent upon projections on the interior of the female member, but rather upon the inherent resiliency of the female member combined with the action of the male member in placing the female member under tension.

In its preferred practical form, the tip of the present invention embodies a split sleeve which is adapted to be formed into a shape to embrace the lace by bending said sleeve from a flat rectangular piece of sheet metal in such manner that it is wrapped about the lace. Thereafter, a male member is adapted to be brought into position to expand the split sleeve and by so doing place the same under tension. The male member preferably embodies a threaded shank which, when screwed into the center of the lace, serves to expand the lace within the split sleeve, so that the lace is placed under radial compression and by this operation places the split sleeve under tension, so that the two associated parts of the tip are tightly secured upon the lace by virtue of the tension of the split sleeve acting in conjunction with the threaded engagement between the threaded shank of the male member and the lace.

Features of the invention, other than those adverted to, will be apparent from the hereinafter detailed description and claims, when read in conjunction with the accompanying drawings.

The accompanying drawings illustrate different practical embodiments of the invention, but the constructions therein shown, are to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a perspective view of the parts of the tip in this invention, showing them associated with one end of the lace and before assembling.

Figure 2 is a perspective view showing the split sleeve positioned on the lace and in the condition which it assumes prior to the introduction of the male member of the tip.

Figure 3 shows the tip parts assembled upon the lace with the lace and split sleeve in central section, and

Figure 4 is a section on the line 4-4 of Figure 3.

Figure 5 shows a slight modification.

In the drawings, 1 designates a blank of sheet metal which is preferably cut rec-

60

65

70

75

80

85

90

95

100

105

110

tangular in shape, as shown in Figure 1 and of the desired dimensions and proportions to render it capable of being formed into a split sleeve adapted to embrace a lace 2.

5 In manufacturing the tip, the lace is laid upon the blank 1, after the manner shown in Figure 1 and thereafter the blank is bent, curled or otherwise formed by suitable machinery, dies or by hand, into the shape 10 shown in Figure 2, wherein it will be noted that the sleeve 3, which prior to this operation constituted the blank 1, has been bent so as to embrace the lace 2. In practice this operation is preferably so carried out that 15 the sleeve will not be circular in cross-section but rather substantially spiral or volute. This operation having been accomplished, a male member 4 is brought into cooperative relation with the lace and sleeve to firmly 20 secure the parts together.

The male member 4 embodies a head 5 provided with a threaded shank 6 which preferably joins the head in a tapering portion 7 while the end of the threaded stem is 25 preferably pointed as shown at 8. After the sleeve 3 has been formed upon the lace 2 after the manner shown in Figure 2, the threaded shank 6 of the male member is screwed into the center of the lace and par- 30 takes of the position shown in Figure 3. The threaded shank however, is of such diameter, that when screwed into the lace in manner described, it will form the end of the lace into which it is screwed, into a sub- 35 stantially tubular portion, the walls of which are distended and compressed within the split sleeve 3. This operation of compressing the lace within the sleeve results in placing the sleeve under tension with the result 40 that it is slightly sprung into a true circular cross-section, whereby the edges of the slit in the sleeve are brought into the contiguous abutting relation shown in Figure 4. The sleeve is preferably so positioned on the lace 45 that the end of the lace will project a slight distance beyond the end of the sleeve and when this is done the screwing of the male member into the female member will cause the extreme end of the lace to be rigidly 50 clamped between the outer end of the sleeve and the tapering portion 7 of the male member as shown in Figure 3.

When the parts are assembled in the manner described, the male member will serve to 55 hold the portion of the lace into which it projects, under tension and in so doing will maintain the sleeve under tension, thereby causing the sleeve to frictionally grip the lace and hold the sleeve in position thereon. 60 Moreover, the threaded shank 6, is found, in practice, to form threads within the lace and further hold the lace against withdrawal from the sleeve. When the male member is permitted to grip the end of the lace in the 65 manner described, this gripping action will,

moreover, assist in the holding of the parts tightly upon the lace. If desired, projections may be provided on the interior of the split sleeve after the manner shown in my 70 copending application, but I have found in practice that such projections are unnecessary and that the integrity of the parts may be maintained without them. The blank 1 75 from which the sleeve is formed, may be made of any suitable metal, but I prefer to use resilient sheet metal so that when the resulting sleeve is formed it will tightly grip the lace for obvious reasons.

It will be apparent from the foregoing detailed description that the tip of the present 80 invention may be easily and expeditiously associated with the lace, thereby facilitating quantity manufacture. If the ultimate purchaser of the lace desires to shorten the same, he may do so by merely screwing out the 85 threaded male member and sliding the sleeve along the lace until it is in the desired position, whereupon, the lace may be cut off beyond the end of the sleeve and the male 90 member again screwed on the lace as before, to place the sleeve under tension and bind the parts together.

In Figure 5 a slight modification is shown. In this embodiment, instead of bending up 95 the blank 1 after the manner shown in Figure 2 so that one edge of the blank will be bent in further than the other edge thereof, both edges of the blank are bent into substantial abutting relation as shown in Figure 5. The screw tip is screwed into the lace 100 with the construction of Figure 5 but springs the edges of the sleeve 3 slightly apart and by so doing places the sleeve under sufficient tension to maintain it firmly on the lace. 105 The metal from which this sleeve is formed is quite rigid, so that when it is sprung in even the slightest degree, it has a pronounced gripping action. In practice, the construction of Figure 2 is preferred, though that of 110 Figure 5 may be employed if desired.

In the accompanying drawings and in the description, I have set forth the present invention in its preferred practical embodiment. I am aware however, that slight 115 changes in details of construction may be made such, for example, as by the substitution of equivalents, without departing from the spirit or scope of this invention which is to be considered as broadly novel as is com- 120 mensurate with the appended claims.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. A tip for laces embodying a split sleeve adapted to house one end of a lace, and a 125 threaded portion adapted to be screwed into the lace to form that portion of the lace within the split sleeve into a cylindrical section substantially coaxial with the threaded 130 portion and to place said cylindrical portion

under compression for the purpose of expanding and placing the split sleeve under tension, whereby the tip is firmly secured against inadvertent displacement from the
5 lace.

2. A tip for laces embodying a split sleeve adapted to embrace one end of a lace and a threaded portion adapted to be screwed into the end of the lace to expand the lace tightly
10 within the sleeve and to place the sleeve under tension, whereby it is frictionally maintained upon the lace.

3. A tip for laces embodying a split sleeve adapted to receive one end of a lace and a male member adapted to be forced into the interior of the lace to expand that portion of the lace within the sleeve for the purpose of expanding the sleeve and placing the sleeve under radial tension to cause the
20 sleeve to grip the lace.

4. A tip for laces embodying a split sleeve having a smooth interior adapted to embrace a lace, and a member adapted to be forced into the interior of the lace for the purpose of expanding the portion of the lace within the sleeve, whereby the sleeve is expanded and placed under radial tension and is frictionally held in place on the lace.

5. A tip for laces embodying a female tubular split sleeve having a smooth inner surface and adapted to receive and house the end of a lace which extends substantially through the entire length of the tubular member, in combination with a male member having an irregular exterior adapted to be forced centrally into the lace when housed as specified, whereby the lace is expanded

within the tubular sleeve and the sleeve placed under radial tension to hold the sleeve on the lace.

6. A tip for laces embodying a split sleeve into which one end of a lace is adapted to be introduced so that the lace will extend through substantially the entire length of the sleeve, and a male member provided with
45 a threaded shank of lesser diameter than the internal diameter of the split sleeve and adapted to be screwed into the center of that portion of the lace housed within the split sleeve for the purpose of forcing the
50 threaded shank longitudinally into the lace, whereby that portion of the lace which received the threaded shank is formed into a tubular conformation and expanded interiorly of the sleeve to place the sleeve under tension for the purpose of maintaining the sleeve on the lace.

7. A tip for laces embodying a split sleeve into which one end of a lace is adapted to be introduced, and a member provided with
60 a threaded shank adapted to be screwed into the end of the lace after it has been positioned in the sleeve for the purpose of expanding the lace within the sleeve to place the sleeve under tension, whereby it is maintained on the lace, said threaded shank being free from engagement with the lace and being held in position by the threads which it automatically forms in the interior of the
70 lace.

In testimony whereof I have signed the foregoing specification.

ISIDOR B. ROSS.