No. 722,891. PATENTED MAR. 17, 1903.

A. P. PITMAN.

SHOESTRING FASTENER.

APPLICATION FILED OCT. 17, 1902.

NO MODEL.

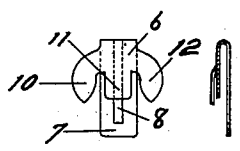


Fig. V.

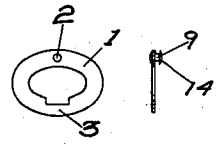


Fig. VI.

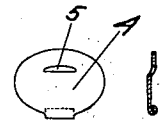


Fig. VII.

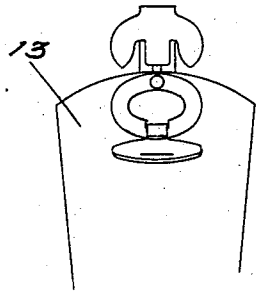


Fig. II.

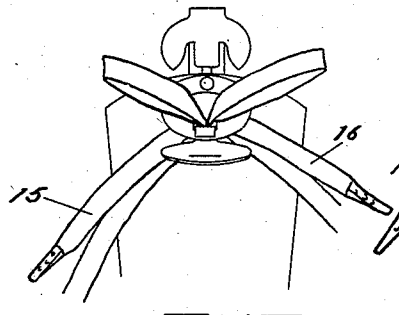


Fig. III.

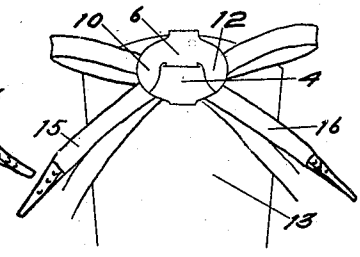


Fig. IV.

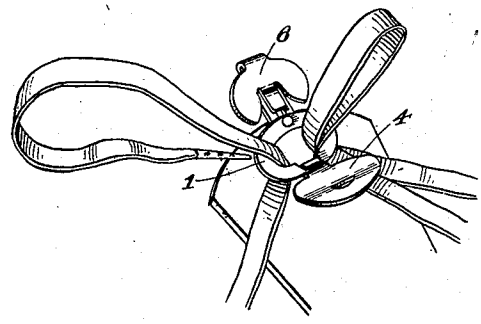


Fig. I.

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UNITED STATES PATENT OFFICE.

ANNIE P. PITMAN, OF MELROSE HIGHLANDS, MASSACHUSETTS.

SHOESTRING-FASTENER.

SPECIFICATION forming part of Letters Patent No. 722,891, dated March 17, 1903.

Application filed October 17, 1902. Serial No. 127,705. (No model.)

To all whom it may concern.

Be it known that I, ANNIE P. PITMAN, a citizen of the United States, residing in Melrose Highlands, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Shoestring-Fasteners, of which the following is a full and accurate description.

The object of my invention is to do away with the annoyance of having one's shoestrings constantly untying. It is well known that unless the string ends are tied in a very firm manner (which makes untying difficult and annoying) they will constantly come untied, owing to the friction of the wearing-apparel or from the constant working of the instep in walking. To obviate this, I have devised a fastener which is easily and quickly operated, simple and cheap in construction, and which holds the string ends firmly, thus preventing any danger of loosening and untying.

In the drawings, Figure I shows a perspective view of the fastener opened up with one string end looped into position and the other in the act of being looped into the fastener. Fig. II shows a plan view of the fastener opened up without the string ends. Fig. III is the same view as Fig. II with the string ends looped into position ready for the fastener to be closed. Fig. IV shows the fastener closed upon the string ends, securely holding them. Figs. V, VI, and VII show details of the three essential parts of the fastener in plan and in section.

In the drawings like characters of reference designate similar parts in the various figures.

My fastener consists of three parts—namely, a flat ring or disk 1, a flap 4, hinged to said disk, and a three-tongued sliding piece or clasp 6. The flat ring or disk 1 may be stamped from sheet metal of any kind in the form shown in Fig. VI. A small hole 2 is stamped at the same time in the upper edge of the ring, and a section of the lower edge is also cut away, leaving a narrow portion of the ring, as shown at 3. The flap 4, which is hinged to the ring or disk 1 at the latter's narrow edge 3, as shown in Figs. I, II, and III, is adapted to be folded over onto the face of the ring 1 and is similarly shaped, so as to fit upon it accurately. In the central portion of this flap 4 an aperture or slot 5 is stamped out, and the flap is so bent that this aperture comes in the bent portion, as shown in Figs. I and VII—that is, the portion of the flap below the slot (referring to Fig. IV) is bent to come in front of the plane of the portion above the slot. As later described, this is to allow the middle tongue of the clasp to enter the slot. The three-tongued sliding piece or clasp 6 is best shown in Fig. V. The rear portion 7 of this clasp contains a long slot 8, in which a headed rivet 9 is adapted to slide, as hereinafter shown. The front or clasp portion consists of three tongues or prongs 10, 11, and 12, the middle tongue 11 being straight, while the two outer tongues 10 and 12 are bent so that they come in front of the plane of the middle tongue for the purpose hereinafter shown. This is clearly shown in the section of Fig. V. These three parts 1, 4, and 6 are shown in combination with the tongue of a shoe which is adapted to be laced, as this seems the most convenient part of the shoe to which to attach the fastener.

The parts are assembled in the following manner: The ring or disk 1 is placed on the front of the tongue 13 near the top, with the hole 2 on the upper edge and the flap 4 already hinged at its lower edge, as before described. A rivet 9 is inserted through the hole 2 of the ring or disk 1, punched through the shoe-tongue 13, and passed through the slot 8 of the rear portion of the clasp 6. The rivet 9 is then headed at either end, as shown in the section of Fig. VI, though not tight enough to prevent the clasp 6 from sliding up and down on the rivet, with the back head 14 as a guide to the slot 8.

Having thus described the construction and assembly of the fastener, the method of operating it is as follows: Referring to Figs. I and III, after the shoe has been laced the string ends 15 and 16 are inserted through the center of the ring 1 from the under side upward. They are then turned outward to the right and left, respectively, and looped back through the same hole in the ring 1 at its outer edges. In Fig. I the string 15 is shown in the act of being looped back into the ring 1 after having been passed through it. The string 16 in this figure is in position ready for the closing of the fastener. The loops thus made are pressed

aside, the flap 4 is folded over upon them, and the clasp 6 slid down upon the rivet 9, guided by the slot 8, as before described. The middle tongue 11 of the clasp is so bent that it naturally enters the aperture 5 in the flap 4, while the two tongues 10 and 12 slide by over the face of the flap 4, as shown in Fig. IV. The looped ends of the shoestring are thus firmly bound in position, as shown in this latter figure.

The shape of the parts of this fastener may of course be varied without changing the nature of my invention. Also the fastener may be used detached, if desired, instead of being fixed to the tongue or other part of a shoe. The preferred form, however, is to fix it to the top of the tongue of a shoe, as herein described. The number of tongues in the clasp may also be varied at will, though the form shown is the most simple.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the tongue of a shoe, of a ring-shaped disk fixed thereto, a perforated flap hinged to the lower edge of said disk, and adapted to fold thereupon, and a three-tongued sliding clasp attached to said ring, the middle tongue of said clasp adapted to engage or disengage said perforated flap when the latter is folded upon said disk.

2. In a shoestring-fastener, a ring-shaped disk adapted to receive the string ends, a perforated flap hinged to said disk and adapted to fold upon said strings, and a tongued sliding piece mounted on said disk and adapted to engage or disengage said perforated flap, in the manner and for the purpose hereinbefore specified.

3. In a shoestring-fastener, a ring-shaped disk, a slotted or perforated flap hinged thereto, and a tongued sliding piece, adapted to engage or disengage said flap in the manner and for the purpose hereinbefore specified.

4. In a fastener, a disk, a slotted or perforated flap hinged to said disk, and a three-tongued clasp slidingly mounted on said disk and adapted to engage or disengage said flap.

Signed this 6th day of October, 1902.

ANNIE P. PITMAN.

Witnesses:

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