

(No Model.)

H. H. ABELL.
SHOESTRING FASTENER.

No. 561,550

Patented June 9, 1896.

Fig. 1.

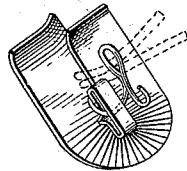


Fig. 2.

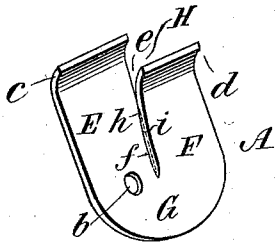


Fig. 3.

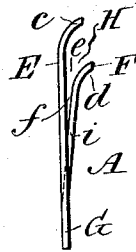


Fig. 4.

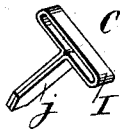


Fig. 5.

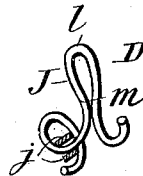
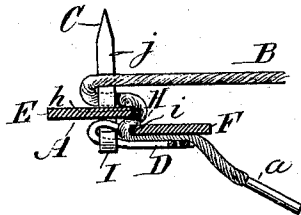


Fig. 6.



WITNESSES:

Fred White
Thomas F. Wallace

INVENTOR:

Harry Herbert Abell,
By his Attorneys,
William C. Fraser & Co.

UNITED STATES PATENT OFFICE.

HARRY HERBERT ABELL, OF PORT EWEN, NEW YORK.

SHOESTRING-FASTENER.

SPECIFICATION forming part of Letters Patent No. 561,550, dated June 9, 1896.

Application filed September 12, 1894. Serial No. 522,863. (No model.)

To all whom it may concern:

Be it known that I, HARRY HERBERT ABELL, a citizen of the United States, residing at Port Ewen, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Fasteners for Strings and the Like, of which the following is a specification.

This invention relates to string-fasteners and the like and aims to provide certain improvements, which will be hereinafter fully set forth with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the preferred form of fastener. Fig. 2 is a perspective view of the preferred form of the body of the fastener shown in Fig. 1 without the staple-attacher and the spring-presser shown in that view; and Fig. 3 is an edge view of the fastener as shown in Fig. 2, looking from the left. Fig. 4 is a perspective view of the staple-attacher shown in Fig. 1. Fig. 5 is a perspective view of the spring-presser shown in Fig. 1, the legs of the staple-fastener for holding it being shown in section in the positions they occupy when holding the presser on the fastener; and Fig. 6 is a transverse section across the fastener shown in Fig. 1, cut on the plane of the string when fastened to the latter, and showing one method of attaching the free end of the string thereto.

My present invention aims to provide a fastener which shall be simpler, cheaper, less bulky, and more effective than those heretofore employed.

In carrying out the invention in its preferred form I construct the fastener of two substantially parallel wings or arms connected at one end and slightly separated and thrown out of alinement between this connection and their free ends, so that a string can be forced into the slit between them and will be frictionally and elastically held therein, and I provide on one of the wings a suitable provision by which it can be attached to an object and on the other wing a presser beneath which the free end of the string can be held after it has left the slit. These arms are all preferably formed from a single piece of sheet metal, and the fastening for the free end of the string is effected by winding it at rear of both arms, then around the attaching

provision, then at rear of the arm carrying this provision and upwardly to the separated ends of the arm, then downwardly through the tapering slit between them, and then under the presser; and I also provide certain other features of improvement, which will be fully hereinafter set forth.

In the drawings, let A indicate the fastener and B the string, C the provision for attaching the fastener to an object, and D a holder for the free end *a* of the string.

Referring first to Figs. 1 to 6, inclusive, which show the preferred form of my invention, I will describe my improvements as therein illustrated.

According to my improvements the fastener A consists of two arms, wings, or members E and F, which are connected together at their lower ends and separated at their upper ends, or vice versa, as preferred, and one of which has an attaching provision C and the other a presser or holder D, by which provision the arms can be attached permanently to an object at one point and by which presser the fastener can be separably attached to an object at another point. The arms E and F at their connected ends are preferably united by a cross-piece G. At the other ends the end *c* of the arm E is preferably bent, beveled, or distorted forwardly, particularly at its edge adjacent to the other arm, and the free end *d* of the arm F is shorter and correspondingly bent, beveled, or distorted, so that between the arms there is a long, tapering, narrow string-slot H, the upper portion *e* of which is wide and flaring and the lower portion *f* of which is slender and narrow, which slot terminates at the point where the two arms are joined. The walls of this slot are formed by the adjacent edges *h* and *i* of the arms E and F, which edges are slightly bent or flared and preferably slightly overlapped, so that as the string is forced down in the slot it will gradually be bent and compressed therein, and when forced far enough to spring the wings apart it will be engaged elastically between these.

One of the wings is provided with attaching provisions and a presser is opposite the other. The attaching provisions may be of any suitable character and are constructed to make a suitable connection with the object

to which the fastener is to be attached. I prefer to employ as the attaching provision an eye or hole *b*, formed in the arm E, beyond or at one side of the string-slot H, and to use a staple I, the shanks *j* of which are passed through the hole *b* and serve at rear thereof to engage the object to which the fastener is to be attached. Any other means may be employed for attaching the fastener to an object.

The presser D is opposite the other arm and is preferably an elastic presser extending substantially parallel with the arm and the slot H and adapted to receive the free end of the cord between itself and the outer face of the arm and press it against the latter. The presser is preferably formed of the bent spring-wire J, held in place by the rivet I. Preferably the presser is formed with an outwardly-bent nose *l* for facilitating passage of the cord back of it, and with an outward bend or pocket *m*, into which the cord can slip and by which it will be held against accidental escape.

The fastener-body is preferably all formed of the one piece of sheet metal, being cut and bent to the required shape. The fastening G then consists of the unsevered portion of the metal between the arms E and F beyond the slot H. All parts are preferably flat and in substantially the same plane.

In use the cord is fastened by passing its free end back of the fastener and preferably over, around, and then upwardly above the attaching provision, as the shank of the staple, as shown in Fig. 6, and downwardly through the slot H to the front and middle portion of the fastener opposite the presser, and then laterally downwardly behind the latter. The several bends in the cord give a sufficient resistance against slipping and the presser prevents accidental loosening. To unfasten the cord, it is first drawn out from under the presser, then withdrawn from the slot, and then unwound from the body.

It will be seen that my invention provides an improved fastener of simple and convenient construction which can be readily and advantageously used; and it will be understood that the invention is not limited to the particular details of construction and arrangement constituting the preferred form of the invention, nor to the particular use shown, since it can be availed of according to such modifications of construction and operation, and according to such uses, as circumstances or the judgment of those skilled in the art may dictate, without departing from the spirit of the invention.

What I claim is—

1. In fasteners for strings and the like, a body comprising two substantially parallel arms and a connection between them, means carried by one of said arms for attaching the fastener to an object, and a holder opposite the other of said arms for holding a string, and a slot between said arms open at one end

for the reception of the string, the adjacent edges of said arms overlapping disposed in proximity, and constituting at their adjacent faces the walls of said slot.

2. In fasteners for strings and the like, a fastener comprising two substantially parallel arms overlapping adjacent edges in close proximity, separated at one end and connected at another, whereby the space between them constitutes a slot, and means carried by one of said arms for attaching the fastener to an object.

3. In fasteners for cords and the like, a fastener adapted to be attached to a body and having two substantially parallel parts separated from each other at one end and connected to each other near their other ends, placed substantially side by side in different planes slightly overlapping at their adjacent edges, and disposed with their adjacent edges in part out of contact, whereby between said edges there exists a narrow string-slot, and attaching provisions on said fastener for attaching it to an object, whereby by passing the free end of a string into said slot it will be gripped by the adjacent edges of said parts.

4. In fasteners for cords and the like, a fastener having two substantially parallel parts having adjacent opposite overlapping edges, said parts connected rigidly together near one end, and projecting slightly apart and disconnected at their other ends, and there having between them a tapering string-slot into which a string can be passed for connecting it to the fastener, and means carried by the undermost of said parts for attaching it to an object.

5. In fasteners for cords and the like, a fastener having two parts disposed substantially side by side, the edge of one overlapping the adjacent edge of the other, connected rigidly together at one point, free at their other ends and there in close proximity and capable of slight relative movement, the one part of greater projection at its free end than the other, and said parts having between them a narrow string-slot, entrance to which is between their free ends, whereby a string can be passed in said slot to connect it to the fastener, and means for attaching the fastener to an object.

6. In fasteners for cords and the like, the fastener having two substantially parallel parts having their adjacent edges in close proximity and overlapping, said parts connected together near one end, and free at their other ends, there differently bent and having between their bent portions and adjacent edges a narrow string-slot into which a string can be passed for connection to the fastener, and attaching provisions carried by one part for attaching the fastener to an object.

HARRY HERBERT ABELL.

In presence of—

HENRY VAN AKEN,
C. A. ABELL.