(No Model.)

H. C. WHITMARSH.

BUCKLE.

No. 378,991. Patented Mar. 6, 1888.

Fig. 1.

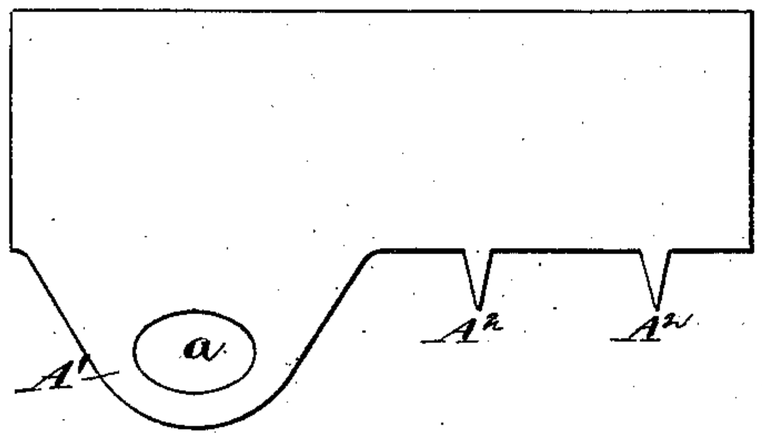


Fig. 2.

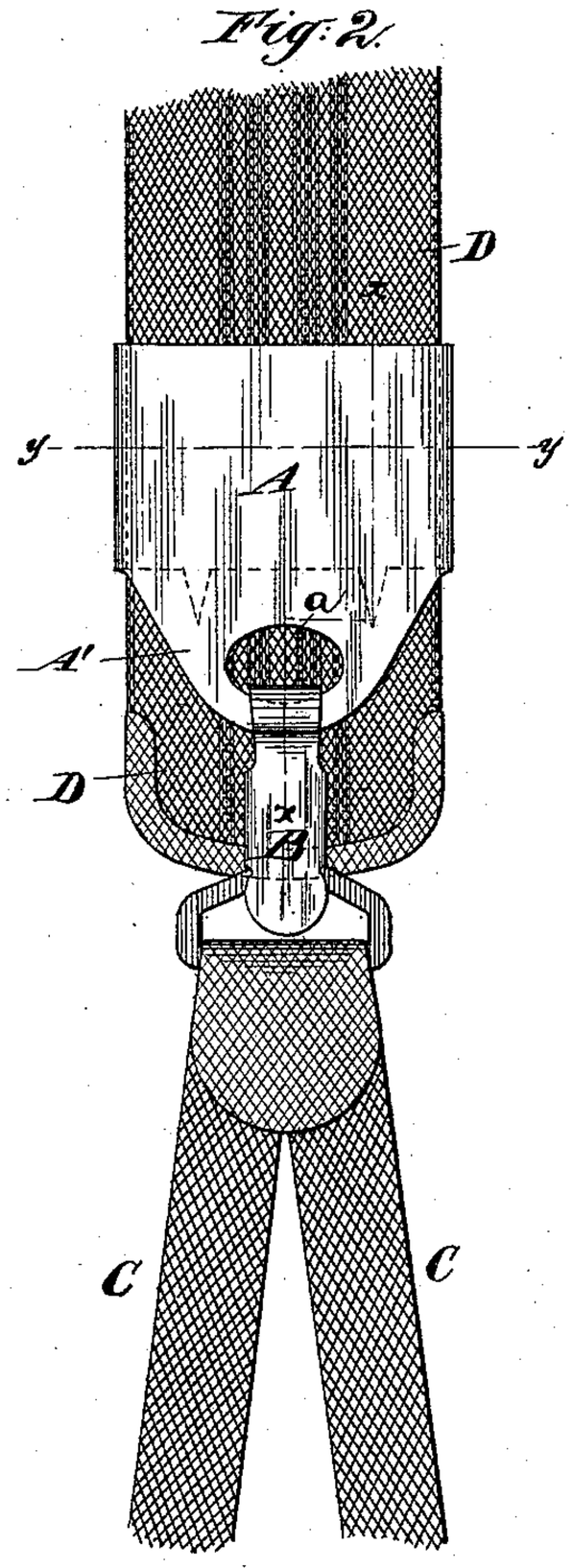


Fig. 5.

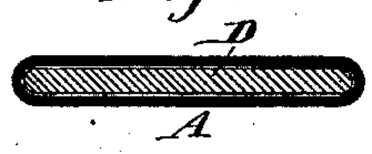


Fig. 3.

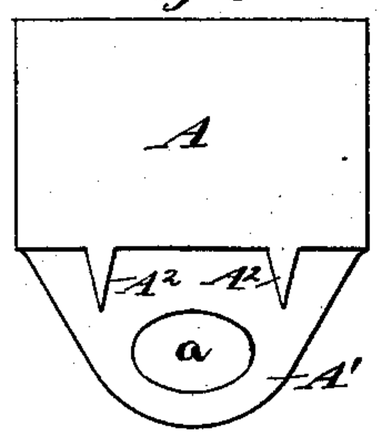
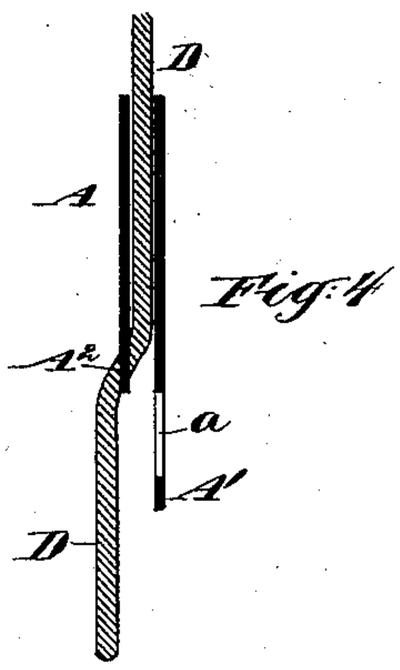


Fig. 4.



Witnesses:
Charles R. Searle,
H. A. Johnstone.

Inventor:
Henry C. Whitmarsh
by his attorney
Thomas Drew Stetson

UNITED STATES PATENT OFFICE.

HENRY C. WHITMARSH, OF BROOKLYN, ASSIGNOR TO HIMSELF, AND CHARLES C. CARPENTER, OF NEW YORK, N. Y.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 378,991, dated March 6, 1888.

Application filed August 18, 1887. Serial No. 247,235. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. WHITMARSH, of Brooklyn, Kings county, in the State of New York, have invented a certain new and useful Improvement in Buckles, of which the following is a specification.

My improved buckle is intended more particularly for use in suspenders, and I will so describe it.

I have discovered that by simply providing in the frame of the buckle a flat casing or tube of moderate length adapted to apply closely to the web the web may, at a little distance from such tube, be engaged and disengaged at will with fixed teeth at the lower rear edge. The teeth will thus be surrounded and guarded by the other parts against injuring any part of the clothing in any contingency, and such buckle will hold the web reliably under all the shakings and distortions to which it is subjected by active movements of the wearer. The teeth are so guarded that they may be very sharp, like needle-points. I may refer to them as "needle-points."

The buckle may be made complete from a single piece of sheet metal cut and bent by suitable dies.

The accompanying drawings form a part of this specification and illustrate what I consider the best mode of carrying out my invention.

Figure 1 represents the blank before it is folded. Fig. 2 is a face view of the buckle in use. Fig. 3 is a back view of the same. Fig. 4 is a section on the line *x x* in Fig. 2. Fig. 5 is a horizontal section on the line *y y* in Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

In making this buckle a blank of the form shown in Fig. 1 is first formed by suitable dies or otherwise, which blank is afterward folded around a former of suitable thickness, (not represented,) and thus formed into a flat tube having an internal width and thickness corresponding to that of the web with which it is to be used. The edges of the blank are united by soldering. They may be chamfered by any suitable means while in the blank, so as to make a smooth joint. The parts may be so proportioned and the dies or other bending appliances so adjusted and operated as to form the joint at one edge of the tube, or at the middle of one of the flat faces, or at any intermediate point. It is only essential that the tube be so formed as to apply close to but easily against all the surfaces of the web which is thrust through it, and thereby maintained in a plane condition for a sufficient length to prevent any shaking or bending of the free portion of the web above the tube from being communicated through the tube to affect the portion below.

A is the flat tubular portion of the buckle; A′, an extension of the front face, and A^2 A^2 smaller and properly-pointed extensions at the lower edge of the other or back face. The extension A′ is provided with a hole, *a*, which receives the clasp B, which latter may be formed and applied in any ordinary or suitable manner. The clasp engages with cord-loops C. The drawings represent a convenient form of the clasp. The pointed extensions A^2 form the teeth or needle-points, which correspond in function to the tongue of an ordinary buckle.

D is the web of the suspender. It is inserted through the flat tubular portion A to the extent desired, and the free end below such tube is drawn rearward and engaged with the teeth A^2. Tension applied to the web D from above, drawing it upward, engages the teeth the more deeply, and slacking, shaking, or bending the web above the buckle is of no effect upon the web below said buckle, such motion being destroyed and its communication through the buckle prevented by the close-fitting tube A, which also prevents in anywise the engagement of the teeth below.

Modifications may be made without departing from the principle or sacrificing the advantages of the invention. The teeth A^2 may be deflected slightly forward. This will facilitate the adjustment of the web, especially its upward movement, when such becomes necessary. The needle-points or teeth may be bent slightly backward. This will facilitate their engagement with the web. I prefer, however, that the teeth form straight continuations of the flat tube A, as shown.

Parts of the invention may be used without the whole. I can dispense with the extension

or shield A′; but I prefer to retain it, as it guards effectually against the possibility of the needle-points A^2 inflicting any injury on the clothing in front.

The presence of the free end of the web below the teeth in the rear and of the extension A′ at the front together guard against any possibility that the teeth may, by any contortion or bending of the wearer, be brought into position to injure the clothing in any way whatever.

The material may be varied. I prefer to make the whole from one piece of metal with the edge bent and soldered, as described; but it can be made in two or more pieces. I propose in some cases to make the back face of the tube with the needle-points of metal in one piece, and to produce the remainder of the tube of leather, woven fabric, or any other desired material. It is only important that it shall inclose and fit closely to the web, so as to hold it in the manner of a tube, and prevent the slacking and contortions of the web above from affecting the hold on the needle-points A^2 below.

An important feature of the buckle is that it may be made perfectly smooth at the back and front, so that it cannot chafe the clothing at any point. Being all in one piece, or of more pieces rigidly united, there is no working mechanism to become deranged. The easy manner of adjustment is an important point of advantage as well.

I claim as my invention—

The buckle described, comprising the flat tubular portion A, the extension A′, and the teeth A^2, the latter being on the lower rear edge of the tubular portion A, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand, at New York city, New York, this 16th day of August, 1887, in the presence of two subscribing witnesses.

HENRY C. WHITMARSH.

Witnesses:
GEO. W. LOCKWOOD,
C. L. CARPENTER.