

L. D. MINOR & C. E. GRANNISS.

BUCKLES.

No. 177,538.

Patented May 16, 1876.

fig. 1

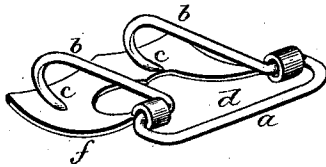
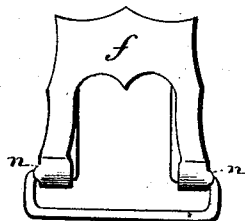


fig. 2



Witnesses.

W. H. Conway

Clara Broughton.

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Inventors

By Atty.

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UNITED STATES PATENT OFFICE.

LYMAN D. MINOR AND CHARLES E. GRANNISS, OF NEW HAVEN, CONN.

IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. **177,538**, dated May 16, 1876; application filed March 27, 1876.

To all whom it may concern:

Be it known that we, LYMAN D. MINOR and CHAS. E. GRANNISS, both of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Buckles; and we do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, perspective view; Fig. 2, top or plan view.

This invention relates to an improvement in that class of buckles designed for stocking-suspenders; and it consists in a pair of tongues and loop formed in one and the same piece of wire, the two ends of the tongue bent into hooked form, combined with a plate hinged to the loop to cover and protect the points of the hook, and a spring device for locking the hooked ends, as more fully hereinafter described.

A piece of wire, of the length and size required, is bent to form one bar, *a*, of the loop *d*, and the ends turned at right angles to the other bar to form tongues *b* terminating in hooks *c*. To the second bar of the loop and at the angle of the tongues a plate, *f*, is hinged, extending from the loop so as to lie upon, cover, and protect the hooks, as shown in Fig. 1.

The buckles are attached by the bar *a* to the suspender, and hanging in a vertical posi-

tion, the plate downward, it will naturally retain that position over the hooks; but in order to insure its remaining in that position one of the hinged ends of the tongue is constructed with a slight outward projection, *n*, (see Fig. 2,) in such relative position to the hinge that when the plate is down upon the hooks this projection will lie close against the inner end of the loop. Hence, the plate cannot be raised without the spreading of the loop to some extent; but the elasticity of the loop allows such spreading. Hence, this projection acts as a cam, and the wire of the loop as a spring, and combined, the spring of the loop tends to force and hold the plate down upon the tongue, but yet allow of its being raised therefrom.

We do not wish to be understood as broadly claiming a buckle in which the loop and tongues are formed in one part, and the second loop hinged thereto, as such, we are aware, is found in the patent of Hartshorn, July 10, 1855.

We claim—

The combination of the loop *d*, terminating in the hooked ends *c*, the plate *f*, hinged to the said loop, and constructed with the projection *n*, substantially as and for the purpose described.

LYMAN D. MINOR.
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Witnesses:

JOHN E. EARLE,
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