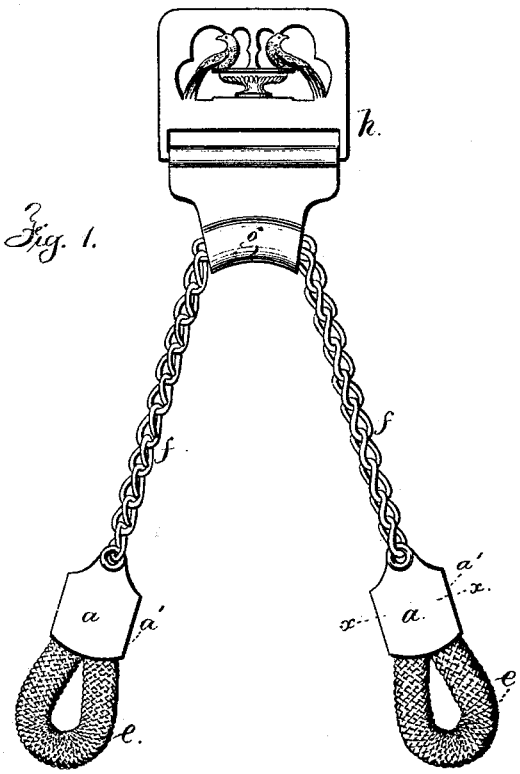
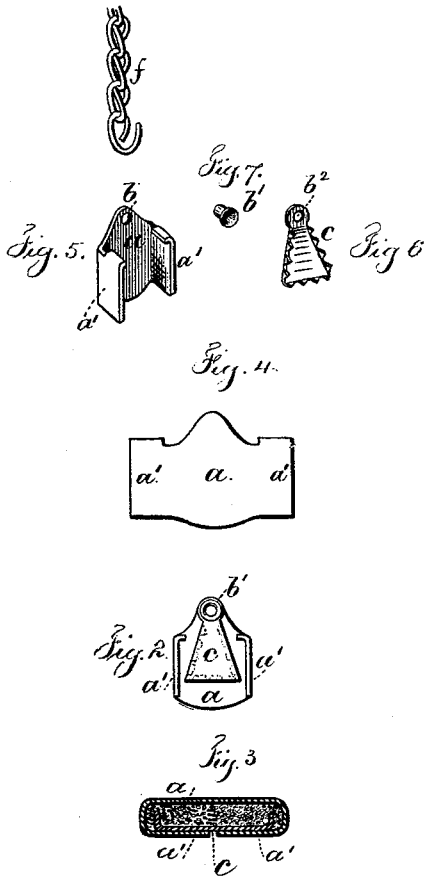
A. SHENFIELD.
Suspender-End.

No. 221,474. Patented Nov. 11, 1879.

Fig. 1.





Witnesses

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UNITED STATES PATENT OFFICE.

ABRAHAM SHENFIELD, OF NEW YORK, N. Y.

IMPROVEMENT IN SUSPENDER-ENDS.

Specification forming part of Letters Patent No. **221,474**, dated November 11, 1879; application filed August 18, 1879.

To all whom it may concern:

Be it known that I, ABRAHAM SHENFIELD, of the city and State of New York, have invented an Improvement in Suspender-Ends, of which the following is a correct description.

The button-hole at the suspender-end has been made of braided material bent around in the form of a loop, and the upper ends of the braid have been united, as will be seen by reference to Letters Patent No. 169,855, granted to me November 9, 1875.

The button-hole ends are very durable and lie flat against the fabric of the pantaloons, and do not injure the threads that unite the buttons.

My present invention is made for lessening the amount of braid employed in the suspender-ends, as the same is usually silk-covered and expensive, and allowing freedom of movement at the suspender-buckle, so that the suspender-ends will each take its proper proportion of strain according to the position of the buttons and the posture of the person.

I combine with the flexible button-hole loop a metallic clamp and toothed jaw-plate, that secure the ends of the braid in a very firm manner, and this metallic clamp and button-hole loop are applied at each end of a chain that passes through a curved tube upon the suspender-buckle.

In the drawings, Figure 1 represents the suspender ends and buckle. Fig. 2 is an elevation of the open clamp ready for receiving the ends of the braid. Fig. 3 is a section at *x x* of the clamp in larger size. Fig. 4 represents the blank of metal to form the clamp; and Figs. 5, 6, and 7 are perspective views of the clamp, jaw-plate, and eyelet, respectively.

The clamp is made of a piece of sheet metal, *a*, cut out in the form shown in Fig. 4, and then bent up with the wings *a'* at right angles to the body. The jaw-plate *c* is triangular, and of sheet metal, with teeth around its edges, bent up at right angles, or nearly so, to the body of the jaw, and at one end there is an eye, b^2, that corresponds with the eye *b*, upon the plate *a*, and these two eyes are united by an eyelet, *b'*, that is inserted into them.

The piece of flat braid is bent into the form of a loop, so as to compose the button-hole end *e*, and the ends of the braid are laid into the portion *a* of the clamp, between the wings *a'* and beneath the jaw-plate and teeth, and such jaw-plate *c* is pressed down upon the flexible button-hole end to retain the same, and then the wings *a'* are closed down upon the jaw-plate to force the teeth through the material of the flexible suspender-end, and clamp the same firmly, so that the parts cannot become separated in use.

It will be evident that this metallic clamp and jaw-plate may be used with a button-hole end of leather or other material, and that catgut or any suitable substance may be used for connecting the metal clamp to the suspender; but I prefer and use the chain *f* that passes loosely through the curved tube *g* on the suspender-buckle *h*, so as to be free to move endwise therein, according to the position of the buttons or the posture of the person, thereby rendering the strain on the buttons uniform.

The eyes $b\,b^2$ for the eyelets furnish the means for attaching the chain, as the wires of the end links pass through the same, the eyelet *b'* being used by preference; but it might be dispensed with.

I am aware that a suspender-buckle has been provided with a hook for a clamping-plate applied to the upper parts of the suspender-ends. The said clamping-plate is not adapted to the button-hole loop, and the teeth are on the edge of the metal and are liable to cut the material, because there is motion at the teeth. In my clamping device the teeth are on the separate jaw-plate, and the portion of the material that is in contact with the teeth is held rigidly, so as to prevent chafing or cutting against the teeth.

I am also aware that suspender-ends have been made with chains and with metal secured to the flexible ends by eyelets. Cords have also been secured between the two parts of a metal plate, folded to form an eye at the middle, one end of such plate having teeth, and the other end wings to fold over the toothed portion.

My combination of devices produces a very strong, cheap, and reliable suspender-end that is better adapted to general use than the ends heretofore made.

I claim as my invention—

1. The triangular jaw-plate *c*, having teeth on its edge and an eye at the upper end, in

combination with the plate *a*, having wings *a'*, and an eye, *b*, and the eyelet *b'*, for uniting the parts *c* and *a*, substantially as set forth.

2. The jaw-plate *c*, with teeth and an eye, and the plate *a*, with wings and an eye adapted to receive and clamp the flat button-hole end between the plates *a* and *c*, and to receive the chain through the eyes, substantially as specified.

Signed by me this 15th day of August, A. D. 1879.

ABRAHAM SHENFIELD.

Witnesses:
GEO. T. PINCKNEY,
WILLIAM G. MOTT.