B. J. GREELY.
Suspender-Ends.

No. 209,559. Patented Nov. 5, 1878.

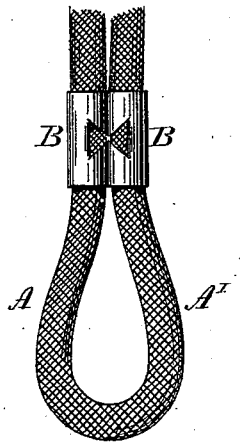

Fig. 1.

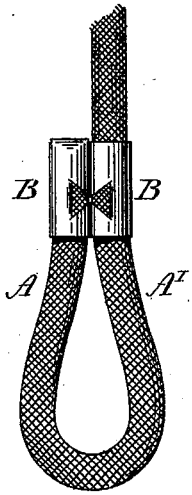

Fig. 2.

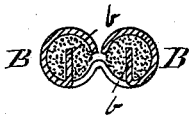

Fig. 3.

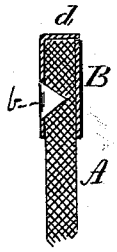

Fig. 4.

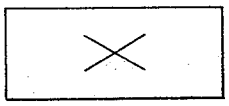

Fig. 5.

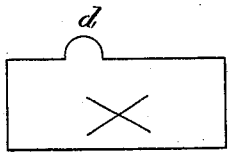

Fig. 6.

Witnesses:
G. B. Maynadier
C. H. Slade

Inventor
Benjamin J. Greely
by Maynadier & Coale
his Attys.

UNITED STATES PATENT OFFICE.

BENJAMIN J. GREELY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SUSPENDER-ENDS.

Specification forming part of Letters Patent No. **209,559**, dated November 5, 1878; application filed October 5, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN J. GREELY, of Boston, county of Suffolk, and State of Massachusetts, have invented a certain new and useful Improvement in Suspender-Ends, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, making a part hereof.

Cord suspender-ends are well known, in which the two parts of the cord are bound together to form the loop by a device made from metal, sometimes corrugated, one part of which is bent around one part of the cord, and the other part of which is bent around the other part of the cord, the two parts of the cord being held in place more or less securely by the fastening device.

My improvement consists in a suspender-end in which the loop is secured by a device formed of two cylinders, joined side by side, and each having a radial projection, one cylinder surrounding each cord, and the projections passing into the cord between the threads from which it is woven, and being held in place by the cylindrical part of the device which surrounds the cord.

In the drawings, Figure 1 shows a suspender-end the loop of which is formed from the middle of a cord, and Fig. 2 shows a suspender-end made from a loop formed at the end of a cord.

The fastening device shown in Fig. 1 is made from a blank of the form shown in Fig. 5, and that shown in Fig. 2 from a blank of the form shown in Fig. 6. Before the device is applied, two angular pieces, *b b*, are cut and bent at right angles to the rest of the blank, so that when the device is applied the projections are forced into the two parts of the cord A A′, and the blank is bent, as shown, to form two cylinders, B B, (see Figs. 3 and 4,) each of which surrounds one of the parts A A′ of the cord, and serves to keep its projection *b* in place in the cord. The ear *d* is used to form a finish when the loop is made near the end of the cord.

The projections *b b* are made so that their flat sides are lengthwise of the device, instead of crosswise, in order that they may enter the cord between the threads—that is, so as to separate the threads, and not cut, or chafe them, as they would do if the projection were forced into the cord across the threads.

The device above described is applied, by means of proper dies, in a way well known to those skilled in the art.

The suspender-end above described is much stronger than any now known to me, from the fact that the cord is not only held by the parts B B of the device, but also by the projections *b b*, the function of the parts B B being to hold the projections *b b* in place, and also to hold the cord and make a neat and desirable finish.

I do not claim, broadly, a suspender-end formed of a loop and a metallic device for holding the parts together, as I am aware that that is old; but

What I claim as my invention is—

The suspender-end above described, having the loop A A′ secured by a device formed of two cylinders, B B, joined together, each cylinder having the radial projection *b*, with its flat sides lengthwise of the cylinder and of the cord, and inserted in the cord, as described.

B. J. GREELY.

Witnesses:
GEORGE O. G. COALE,
G. B. MAYNADIER.