

(No Model.)

E. CONVERSE.
PINLESS CLOTHES LINE.

No. 440,915.

Patented Nov. 18, 1890.

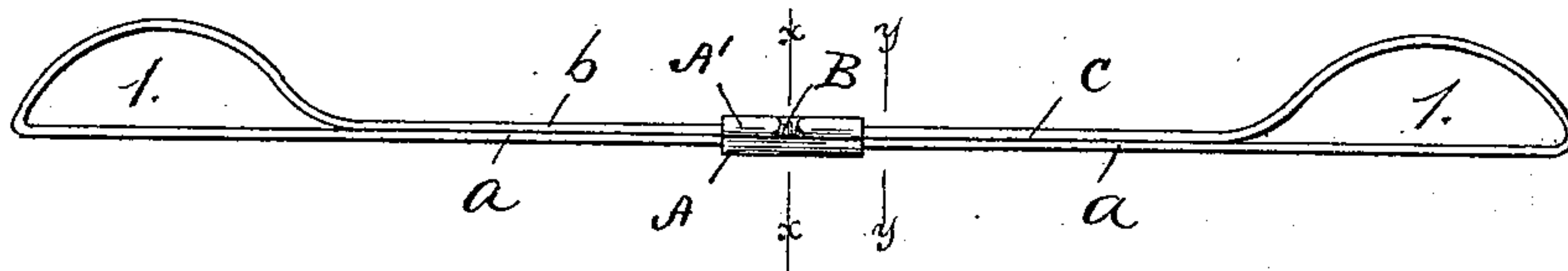


Fig. 1.

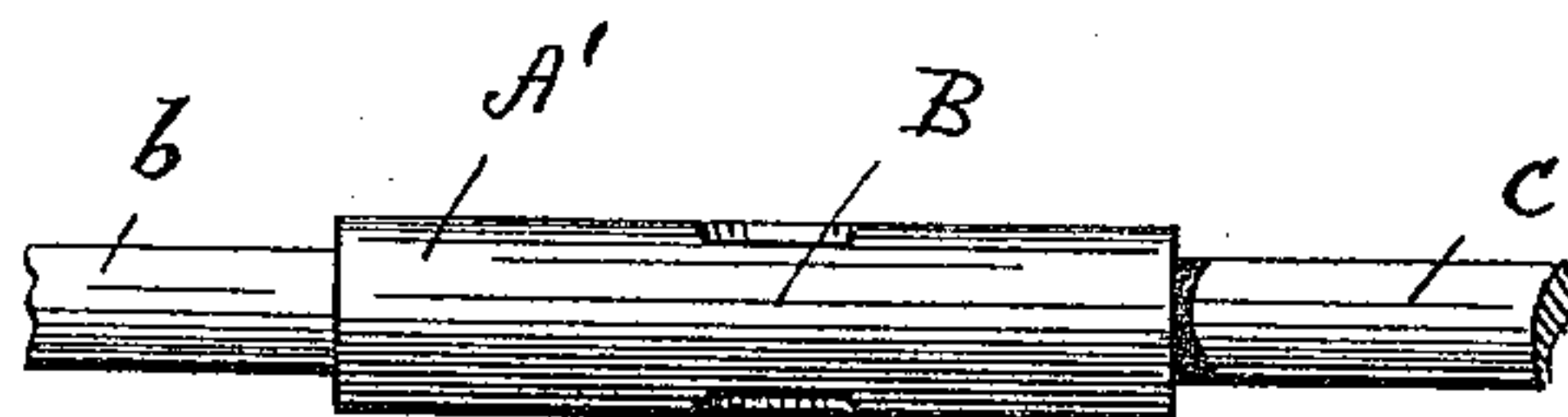


Fig. 2.

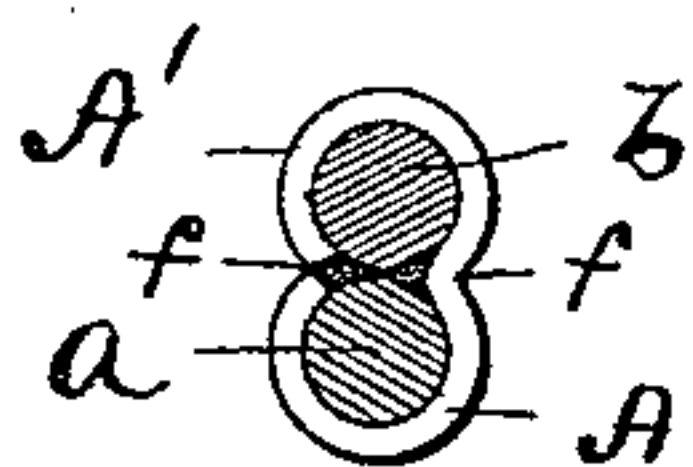
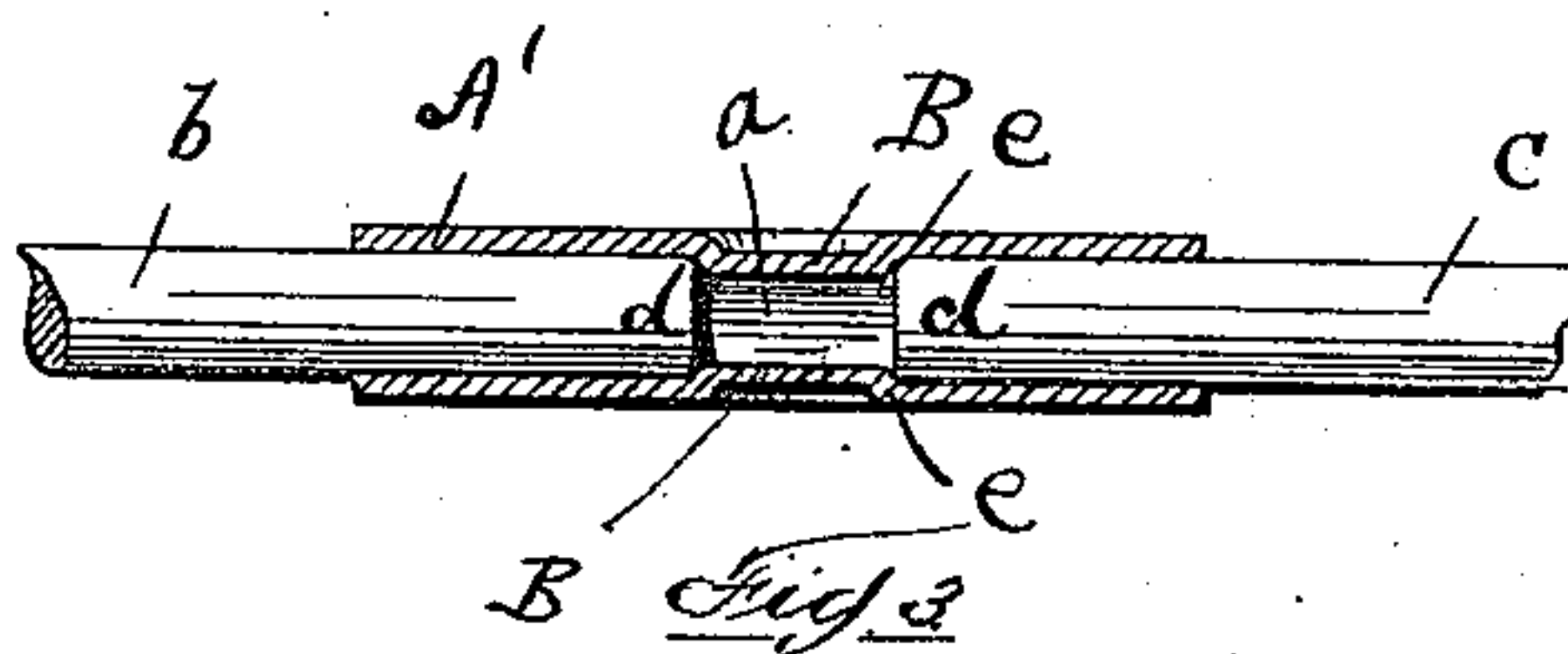


Fig. 4.

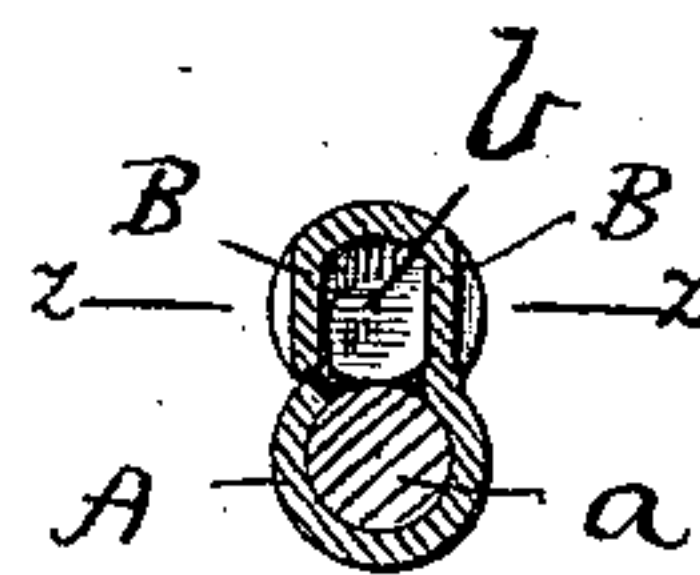


Fig. 5.



Fig. 6.

Witnesses
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EDMUND CONVERSE, OF WORCESTER, MASSACHUSETTS.

PINLESS CLOTHES-LINE.

SPECIFICATION forming part of Letters Patent No. 440,915, dated November 18, 1890.

Application filed September 29, 1890. Serial No. 366,572. (No model.)

To all whom it may concern:

Be it known that I, EDMUND CONVERSE, a citizen of the United States, and a resident of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Pinless Clothes-Lines, of which the following is a specification, reference being had to the accompanying drawings, in which—

10 Figure 1 represents one of the links forming a part of a clothes-line embodying my invention. Fig. 2 is an enlarged view of a portion of the link shown in full view in Fig. 1, and showing the central section of the link. 15 Fig. 3 is a similar view of the central section, but showing a sectional view of the inclosing-clasp on line Z Z, Fig. 5, and parts of the wires of which the link is composed inclosed in said clasp. Fig. 4 represents a cross-sectional view on line Y Y, Fig. 1. Fig. 5 is a cross-sectional view on line X X, Fig. 1, and Fig. 6 represents a section of a clothes-line formed by the interlinking of several of the links represented in Fig. 1.

25 Similar letters refer to similar parts in the several figures.

My invention relates to that class of clothes-lines which consist of a chain composed of wire links, each of the links comprising parallel wires between which the clothing is drawn and by which the clothing is held by the tension of the wires. In Fig. 6 I have shown a short piece of a clothes-line composed of such links, and as the links in the line are duplicates of each other I have shown one such link in Fig. 1. The link is made of wire, open at each end, as at 1 1, but throughout the central section of the link the wires are parallel. The two ends of the wire, after 40 being bent in proper form to make the openings 1 1, are brought parallel with the central section, bringing the wires *b* and *c* parallel with the wire *a* and uniting the wires *a*, *b*, and *c* at the center of the link by means of a metal clasp, consisting of a piece of sheet metal bent over the wire *a* at A and over the wires *b* and *c* at A', the sheet-metal clasp being pressed together between the wires, as represented at *f f*, Fig. 4. The ends 50 of wires *b c* are not brought together, but are left apart a short distance, usually from one-eighth to one-quarter of an inch, and the portion of the sheet metal forming the clasp and extending over the space between the 55 ends of the wires *b c* is pressed inwardly, as

represented at B, thus forming a socket for the ends of the wires *b* and *c*, the ends of the wires *b* and *c* abutting against the shoulders *e*, formed by the compression of the sheet-metal clasp into the space between the wires. 60 The parallel wires *a*, *b*, and *c* form the jaws between which the clothing is drawn after having been passed through the openings 1 1 at the ends of the links, and it is important that the wires be held firmly together at the 65 center of the link, also that there be no longitudinal movement of the wires within the clasp which unites the wires, and this is effectually accomplished by separating the ends of the wires *b* and *c* and compressing the 70 portion of the clasp at B into the space between the wires, and also by compressing the clasp at *f f* between the wires *a* and the wires *b c*. The clasp is also held from any longitudinal movement upon the wires. 75

Various methods have been tried to so unite the wires at the center of the link which would afford a secure union and hold the wires rigidly, so as to secure the elastic action of the wires acting as jaws in pinching 80 the clothing drawn between them; but the above-described method has been found the most desirable in accomplishing all the objects sought for.

What I claim as my invention, and desire 85 to secure by Letters Patent, is—

1. In a pinless clothes-line comprising links provided with parallel wires forming jaws between which the clothing is drawn, the combination of the wire *a*, wires *b* and *c*, with 90 their ends separated, and a sheet-metal clasp inclosing the wires *a*, *b*, and *c*, said metal clasp being compressed between the parallel wires at *f f* and also between the ends of the wires *b* and *c* at B, substantially as set forth. 95

2. The combination, with the wire *a* and the separated ends of the parallel wires *b* and *c*, of a sheet-metal clasp inclosing said wires, said clasp being compressed between the ends of the wires *b* and *c*, whereby the longitudinal 100 movement of the clasp on said wires is prevented, substantially as described.

Dated at Worcester, in the county of Worcester and State of Massachusetts, this 26th day of September, 1890.

EDMUND CONVERSE.

Witnesses:

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