

(No Model.)

L. CLAS.
BUCKLE.

No. 545,054.

Patented Aug. 27, 1895.

Fig. 1.

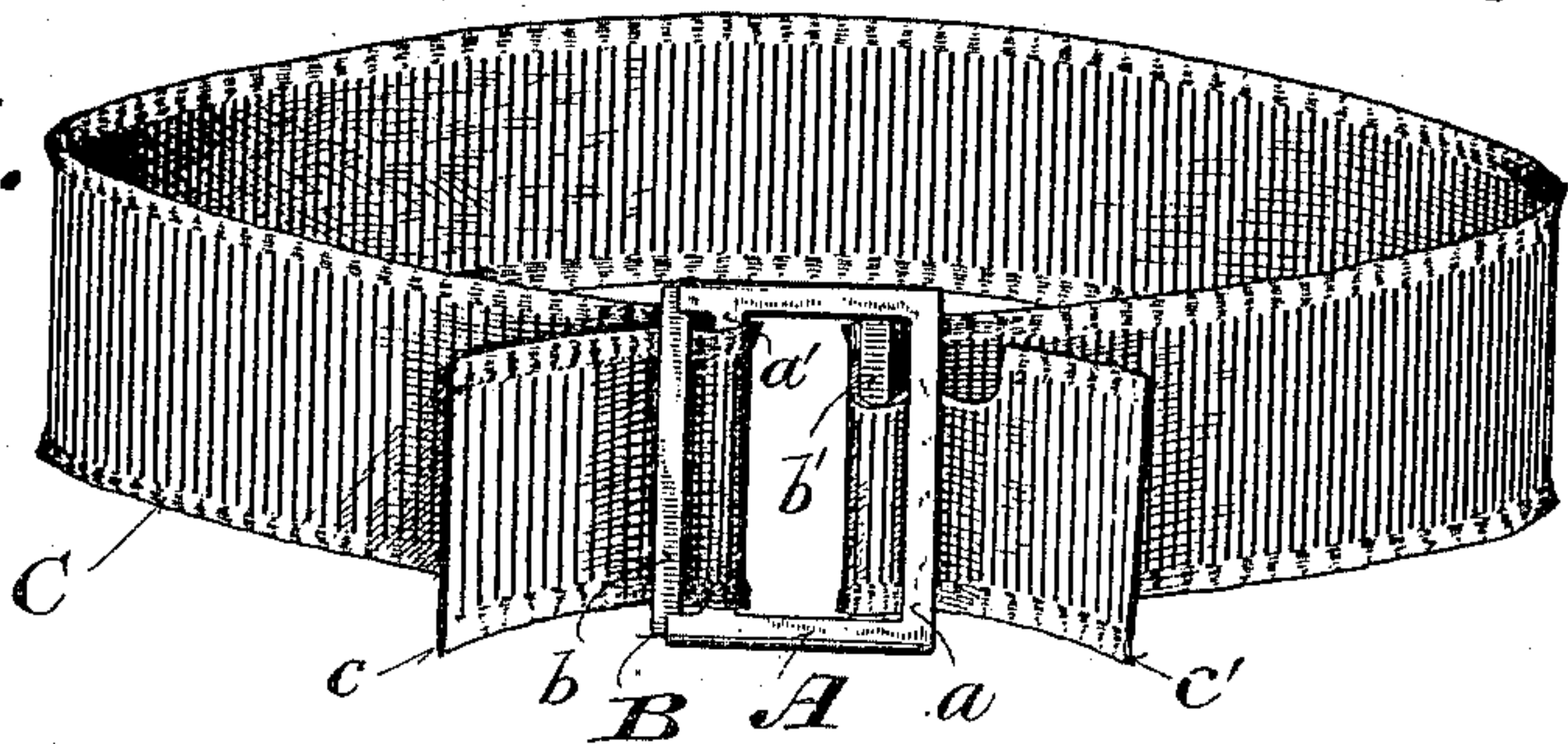


Fig. 5.

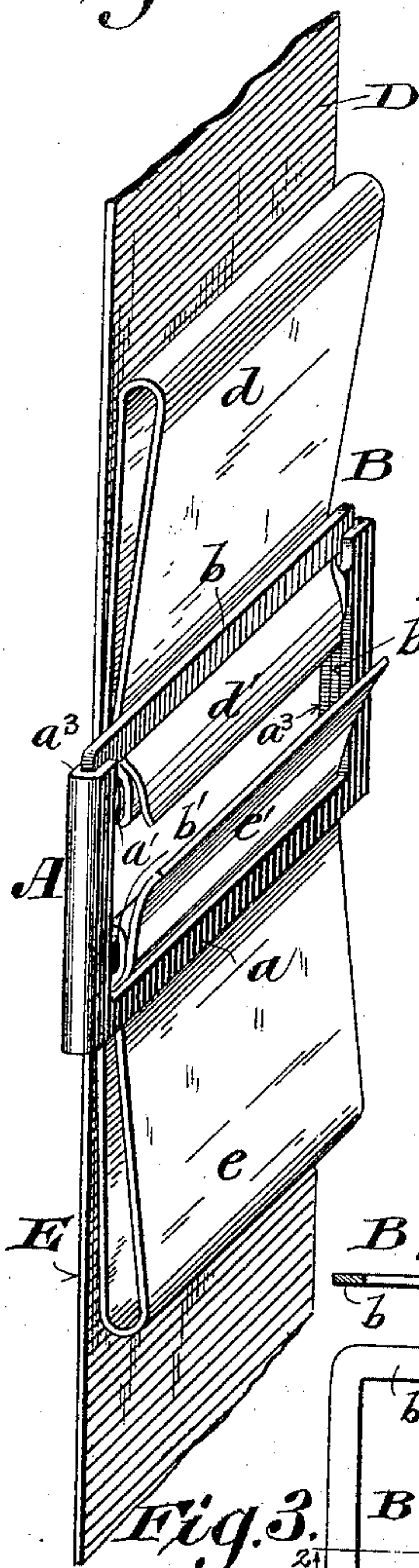


Fig. 6.

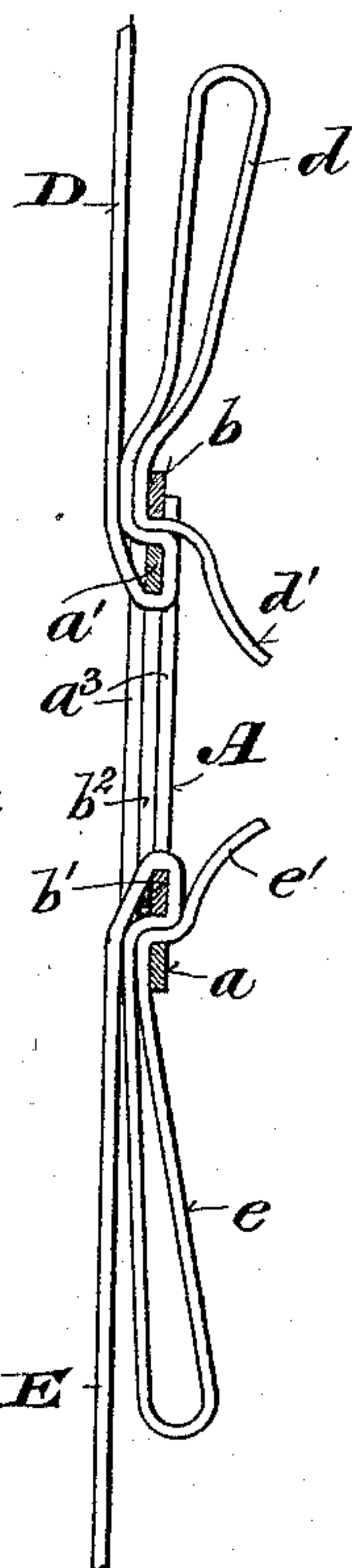


Fig. 8.

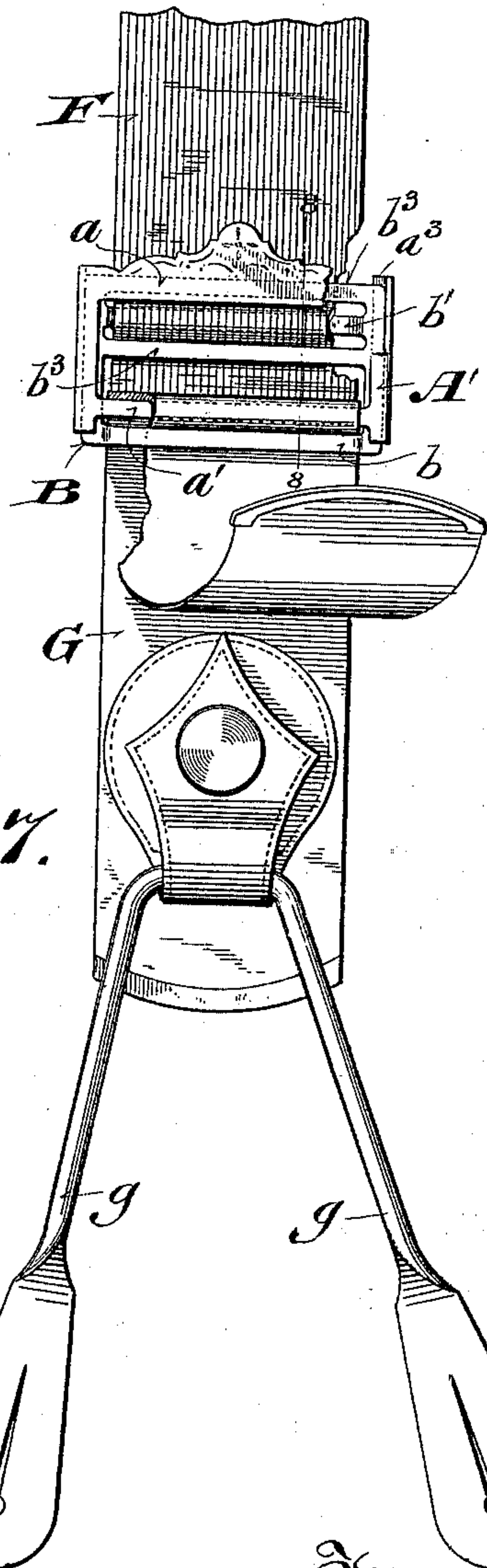
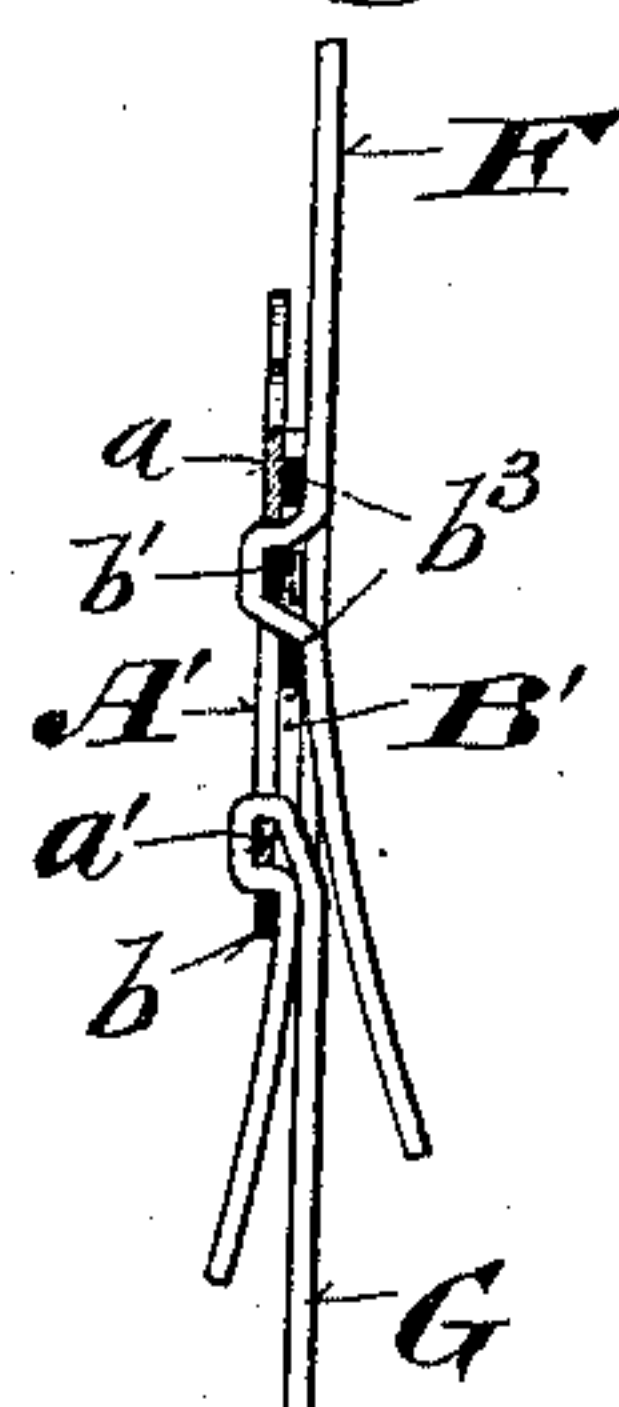


Fig. 7.

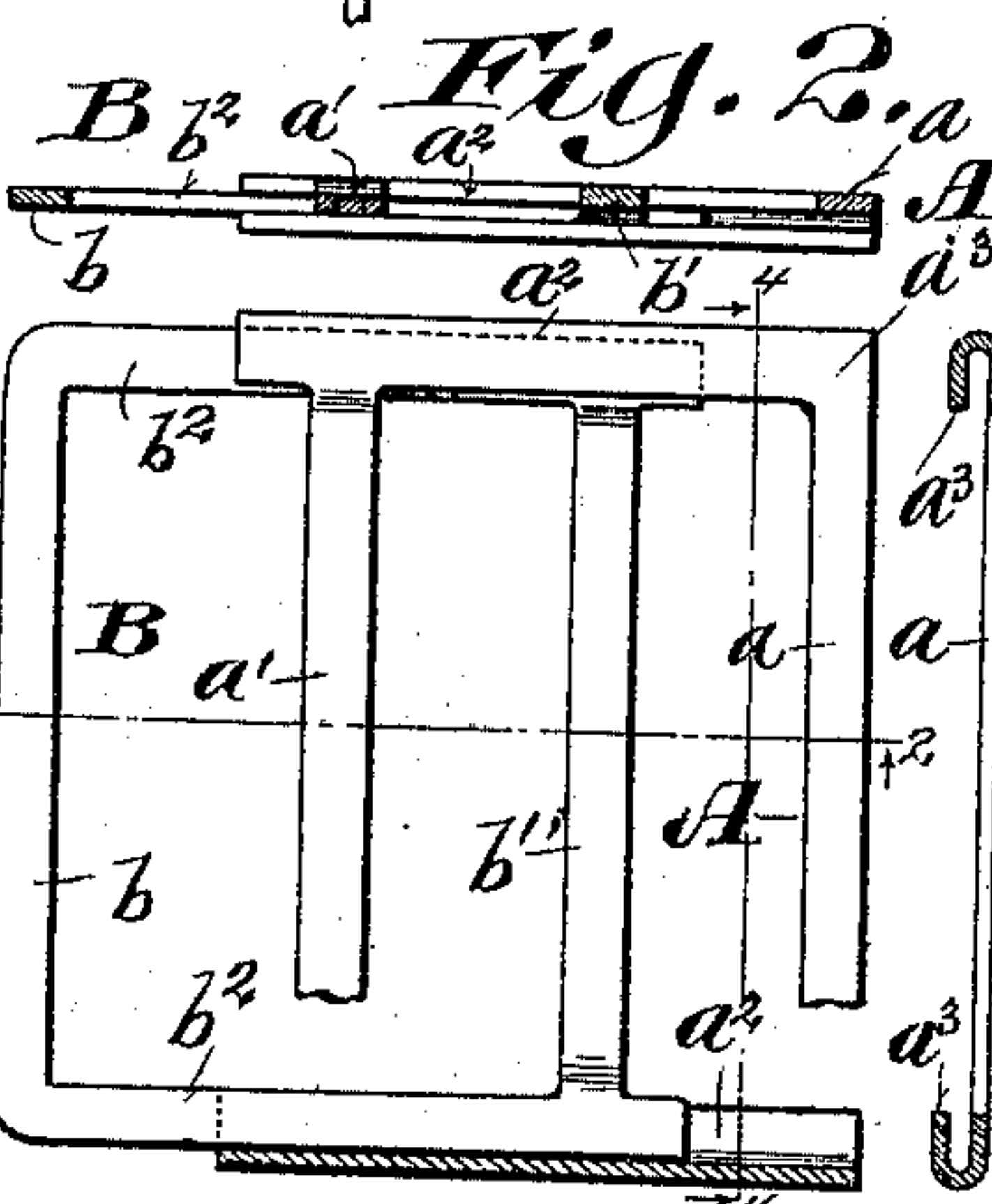


Fig. 2.

Fig. 3.

Witnesses:
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Fig. 4.

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UNITED STATES PATENT OFFICE.

LUCILE CLAS, OF MILWAUKEE, WISCONSIN.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 545,054, dated August 27, 1895.

Application filed June 25, 1894. Serial No. 515,632. (No model.)

To all whom it may concern:

Be it known that I, LUCILE CLAS, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Buckles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The main object of my invention is to produce a tongueless buckle for adjustably uniting the ends of the same or different straps or bands without other fastenings.

It consists, essentially, of a buckle composed of two like or similar sections each having two cross-bars, one of which is between the two cross-bars of the other section, one section being held at the sides and adapted to slide in the other section.

In the accompanying drawings, like letters designate the same parts in the several figures.

Figure 1 is a front view of one form of my improved buckle, suitable for use for arm-elastics, garters, &c. Fig. 2 is an enlarged longitudinal section thereof on the line 2 2 of Fig. 3. Fig. 3 is a plan view, a portion of one section being broken away. Fig. 4 is a cross-section on the line 4 4 of Fig. 3. Fig. 5 is a perspective view, on an enlarged scale, of the buckle, showing another way of attaching the ends of a strap or band thereto. Fig. 6 is a longitudinal section of the buckle shown in Fig. 5. Fig. 7 is a front view of a modified form of the buckle especially designed for use for suspenders, and Fig. 8 is a section thereof on the line 8 8 of Fig. 7.

Referring to Figs. 1 to 4, inclusive, showing a form of my improved buckle adapted to various purposes where the ends of the same or different straps or bands are to be adjustably connected without seams, rivets, or other fastenings, and the attachment of either end of the strap or band is to be adjustable, A designates one section of the buckle, which has two cross-bars a and a' , connected by side bars a^2 , which are bent in the present instance, as shown in Fig. 4, to form guides a^3

for the sides of the other section, which is held and adapted to slide freely therein lengthwise of the buckle.

B designates the other component section of the buckle, formed with cross-bars b and b' , connected by side bars b^2b^3 , which are adapted to be loosely held and to slide in the guides a^3a^3 of section A. The distance between the cross-bars of both sections is approximately the same, and when the parts of the buckle are assembled the cross-bar a' of section A is between the cross-bars b and b' of section B, and the cross-bar b' of section B is between the cross-bars a and a' of section A. The inner cross-bar a' of section A is formed or bent so as to lie in approximately the same plane with the outer opposing cross-bar b of section B, and the inner cross-bar b' of section B is similarly formed or bent to lie approximately in the same plane with the outer opposing cross-bar a of section A.

One method of attaching the ends of a strap or band to the buckle—as, for instance, in arm-elastics, garters, vests, &c., where both ends are to be adjustable and a double grip is essential or desirable—is shown in Fig 1, in which C designates a strap or band, one end c of which is passed from the back side of the buckle around the cross-bar a' of section A, thence between said cross-bar and the cross-bar b of section B, and the other end c' is passed in like manner around the cross-bar b' , thence between it and the cross-bar a . The pull on the main portion of the strap or band in opposite directions tends to draw the opposing cross-bars a and b' and b and a' together and to grip the ends of the band tightly between them, the pull on the cross-bar b' tending not only to draw it toward the opposing bar a , against the interposed end c' of the band, but also to draw the bar b toward the bar a' against the interposed end c of the band, and the pull on the cross-bar a' operating in like manner in the opposite direction.

To take up or shorten the strap or band either or both ends $c c$ are drawn, which tends to loosen the grip of the buckle thereon and allows them to slip between the opposing cross-bars.

To extend or enlarge the strap or band it is grasped on one or both sides of the buckle,

opposite the ends $c c'$, and drawn in the reverse direction through the buckle by pulling the side of the strap to the opposite side of the buckle, in a direction opposite that of the ordinary or normal pull or strain upon the strap or band.

Referring to Figs. 5 and 6, showing a larger and heavier buckle embodying my invention and similar to that shown in Fig. 1, and illustrating another mode of attaching the ends of the same or different straps or bands thereto, suitable for sureingles, saddle-girths, ladies' belts, &c., the end of the band D is passed from behind the buckle, around the cross-bar a' , thence between it and bar b , formed into a loop d , and finally returned between said cross-bars, and the end of band E is in like manner passed from behind, around the cross-bar b' , thence between it and cross-bar a , thence back between said cross-bars, thus forming a loop e . By pulling on the loop d or e either of the bands D or E may be taken up or shortened, and by pulling on the end d' or e' either or both bands may be let out or lengthened, the pulling out toward the center of the buckle of the end d' or e' of either band operating to slip the opposite side of the loop d or e in the same direction between the opposing cross-bars of the buckle. In this way the strap or band may be readily taken up or let out while it is subjected to strain.

Referring to Figs. 7 and 8, showing a suspender-buckle constructed according to my invention, A' and B' designate the component sections. Section A' is formed or provided at the sides with guides a^3 , as hereinbefore explained, to receive the sides of the other section. It is formed in a like or similar manner with cross-bars a and a' , while section B', besides the corresponding cross-bars b and b' , is formed or provided on opposite sides of and close to the cross-bar b' with cross-bars b^3 , under or back of which the main suspender-web F is passed, as shown. The purpose of these additional cross-bars $b^3 b^3$ is to avoid the necessity of passing the end of the web F upwardly beyond the upper cross-bar a of the other section, and to produce a sharp bend in the web against which the cross-bar a may operate to prevent the web from slipping through the buckle.

G designates a short web or strap to which the front suspender tips $g g$ are detachably or otherwise secured in any suitable manner. Its upper end is passed from behind the buckle around the inner cross-bar b in precisely the same manner as either end of band C is attached to the buckle, as shown in Fig. 1. Any ordinary adjustment of the length of the suspender is effected by means of the short band

or strap G, which may be drawn through the buckle in either direction, as hereinbefore explained, although the direct pull downward through the tips g causes the opposing cross-bars a' and b to firmly grip the strap G, and the cross-bars a and b' to grip and hold the web F.

By grasping both ends of the band G together and pulling them upwardly, the opposing cross-bars of the buckle are separated, and the web F, being thus released, may be freely pulled through the buckle in either direction and adjusted as desired. The greater the pull outwardly on either strap the tighter will the opposing cross-bars grip both ends, without, however, mutilating or injuring them.

I prefer for ordinary purposes to make the buckle of sheet metal, as shown; but I do not wish to be understood as limiting myself to any specific material or mode of construction.

Various changes in the minor details of the buckle may be made within the spirit and intended scope of my invention.

I claim—

1. A double grip buckle composed of two sections each having two cross bars, one of which is located between the cross bars of the other section and has a gripping edge or face opposed to the gripping edge or face of the outer bar of that section, one section being formed or provided at the sides with parallel guides movable with the section of which they form part and in which the sides of the other section are held and adapted to slide, whereby the sections are held in parallel planes and the opposing cross bars are prevented from spreading transversely to the longitudinal movement of the sections, substantially as and for the purposes described.

2. A double grip buckle composed of two sections having opposing pairs of approximately equi-distant cross-bars arranged in approximately the same plane and serving as stops to prevent the separation of the sections, one cross bar of each section being located between the cross bars of the other section, and one section being formed or provided at the sides with parallel guides movable with the section of which they form part and in which the sides of the other section are held and adapted to slide, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

LUCILE CLAS.

Witnesses:

FRED J. WERGIN,
CHAS. L. GOSS.