

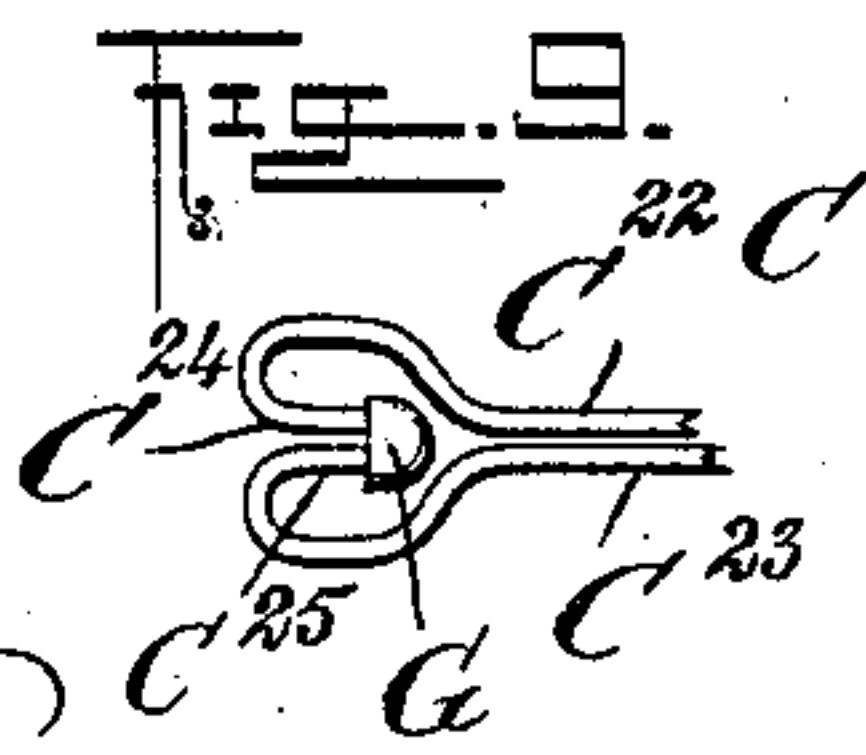
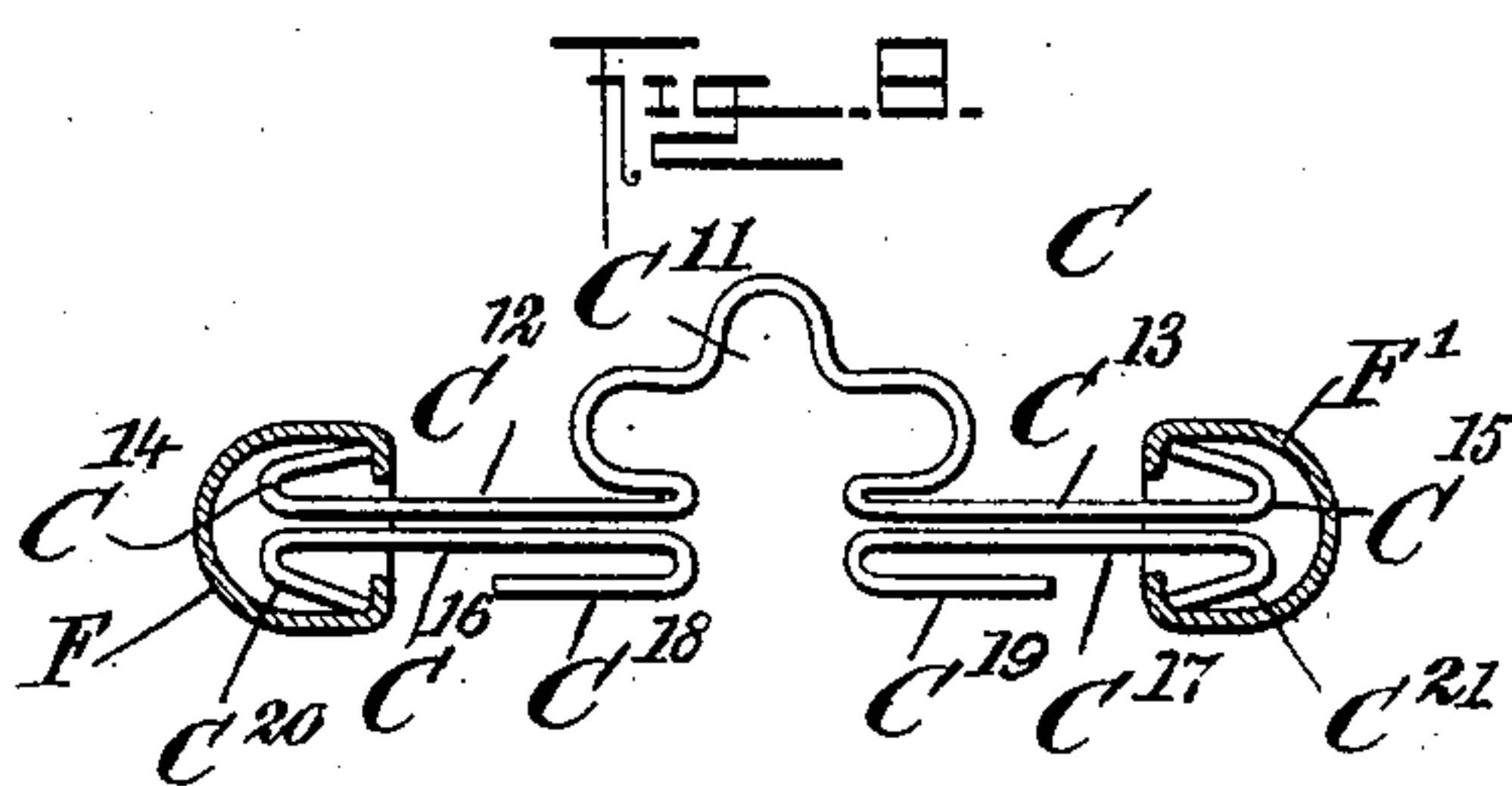
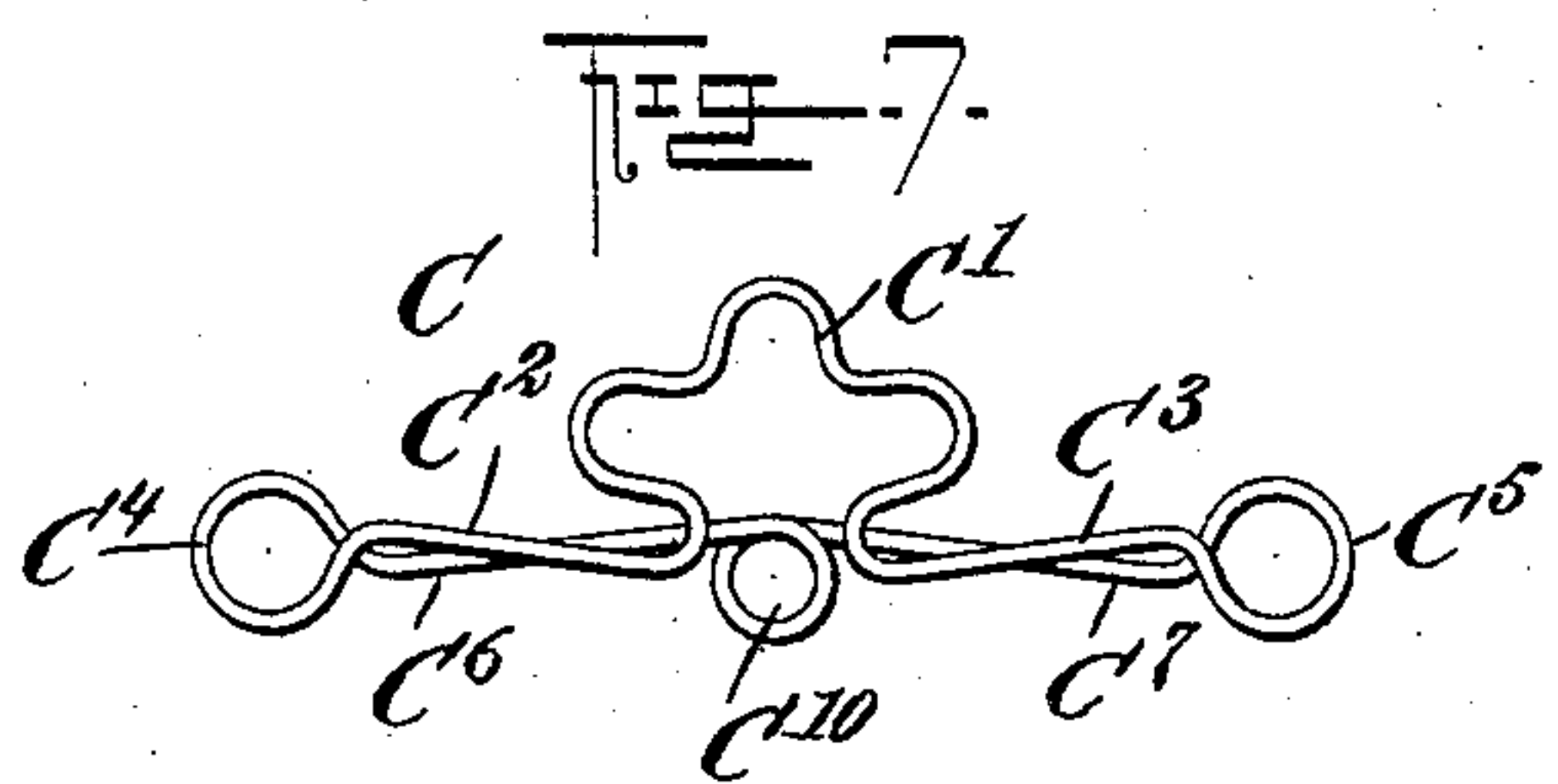
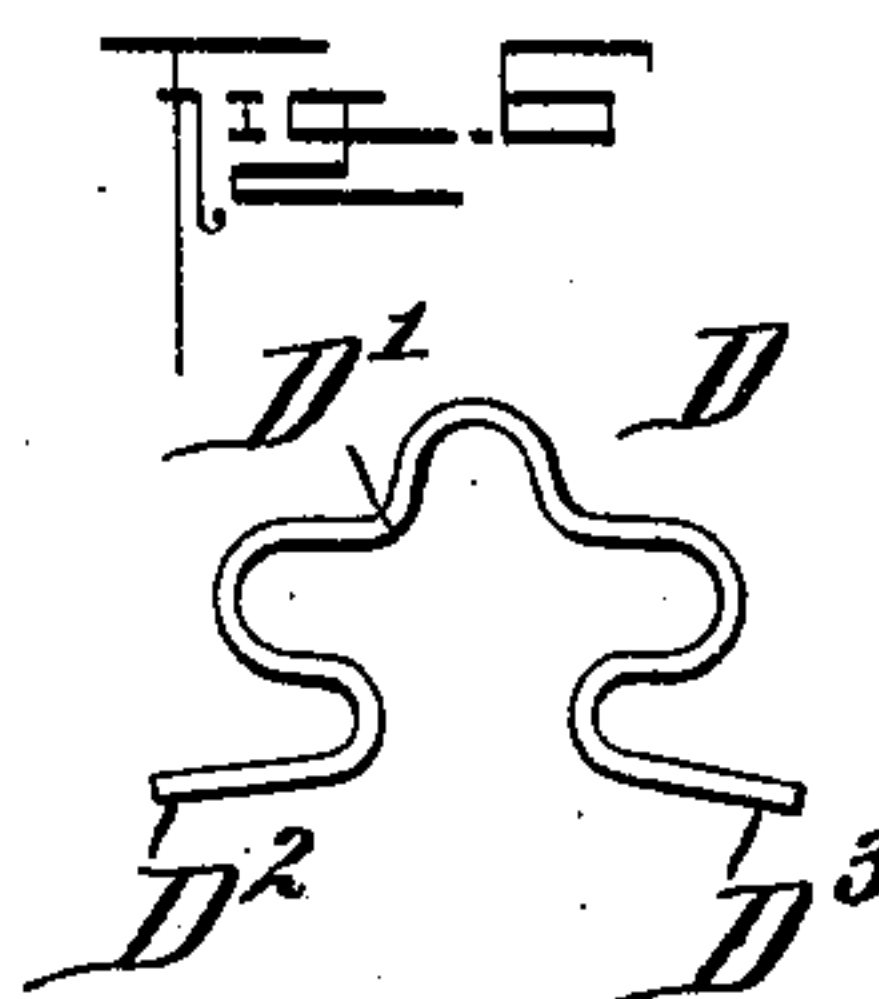
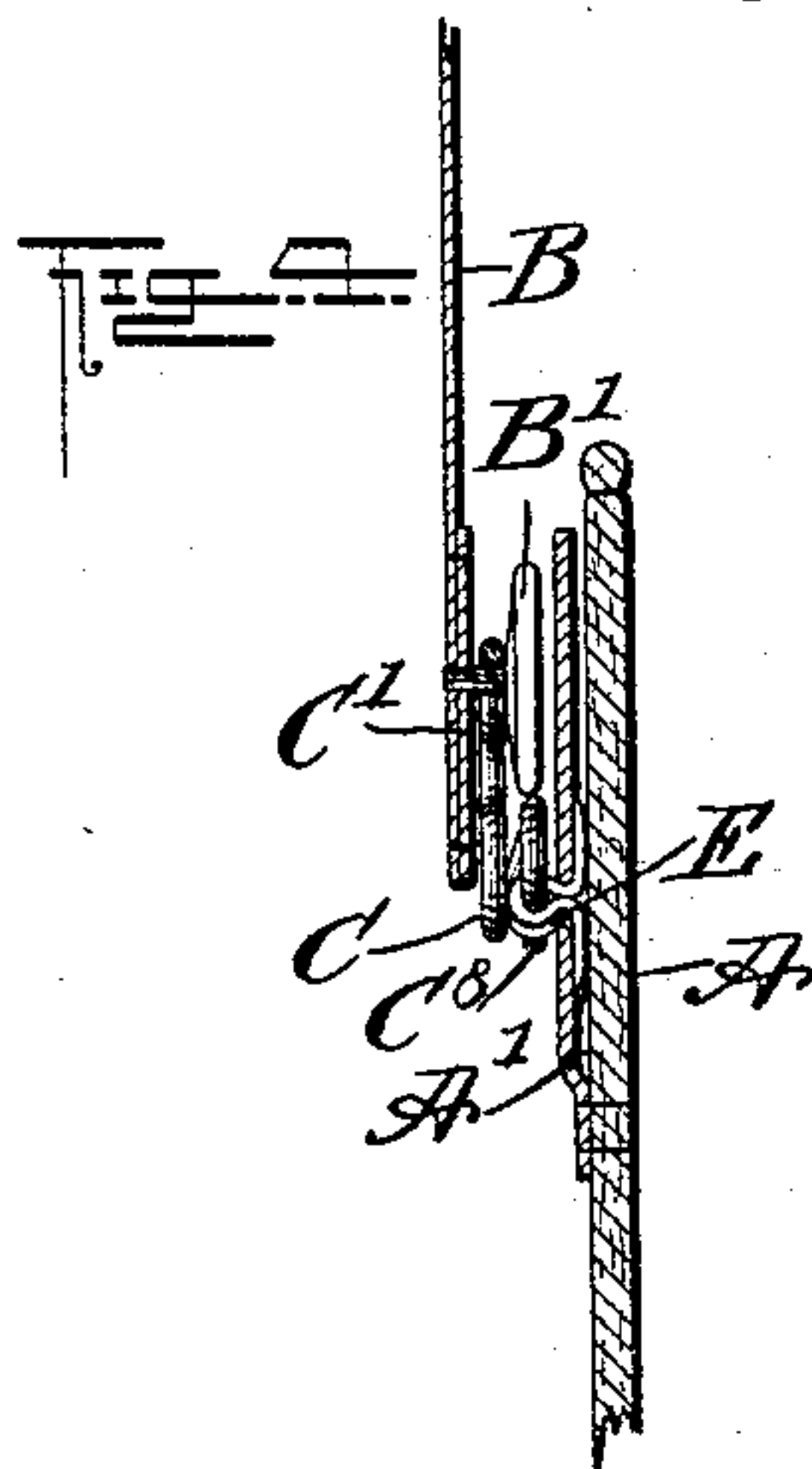
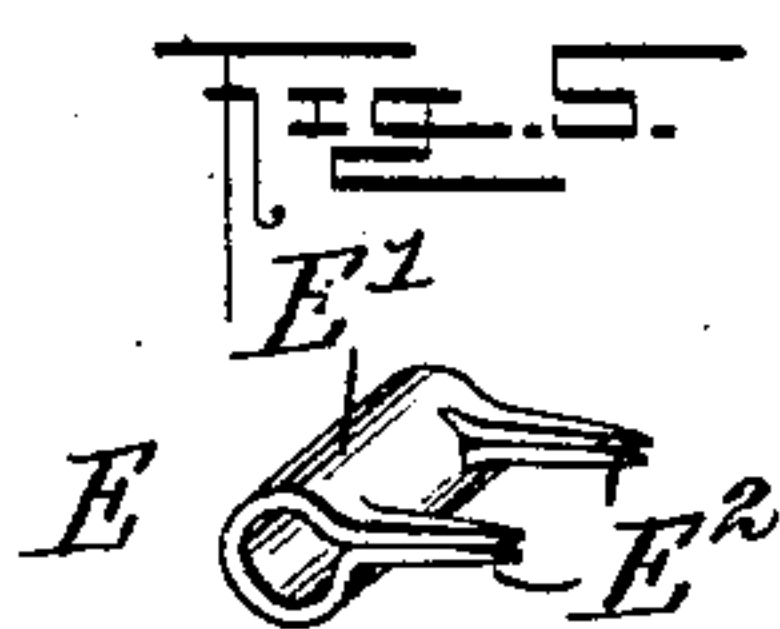
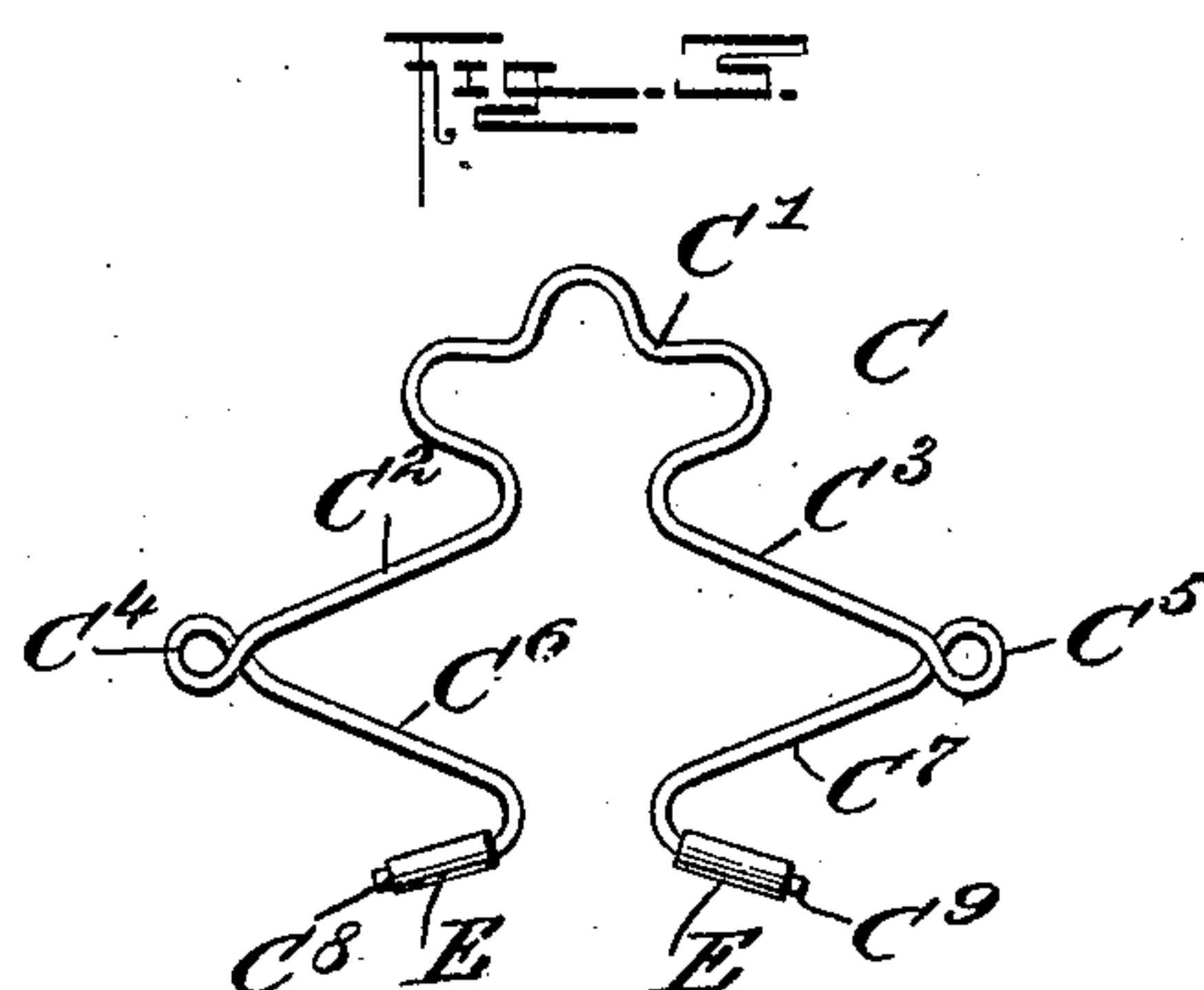
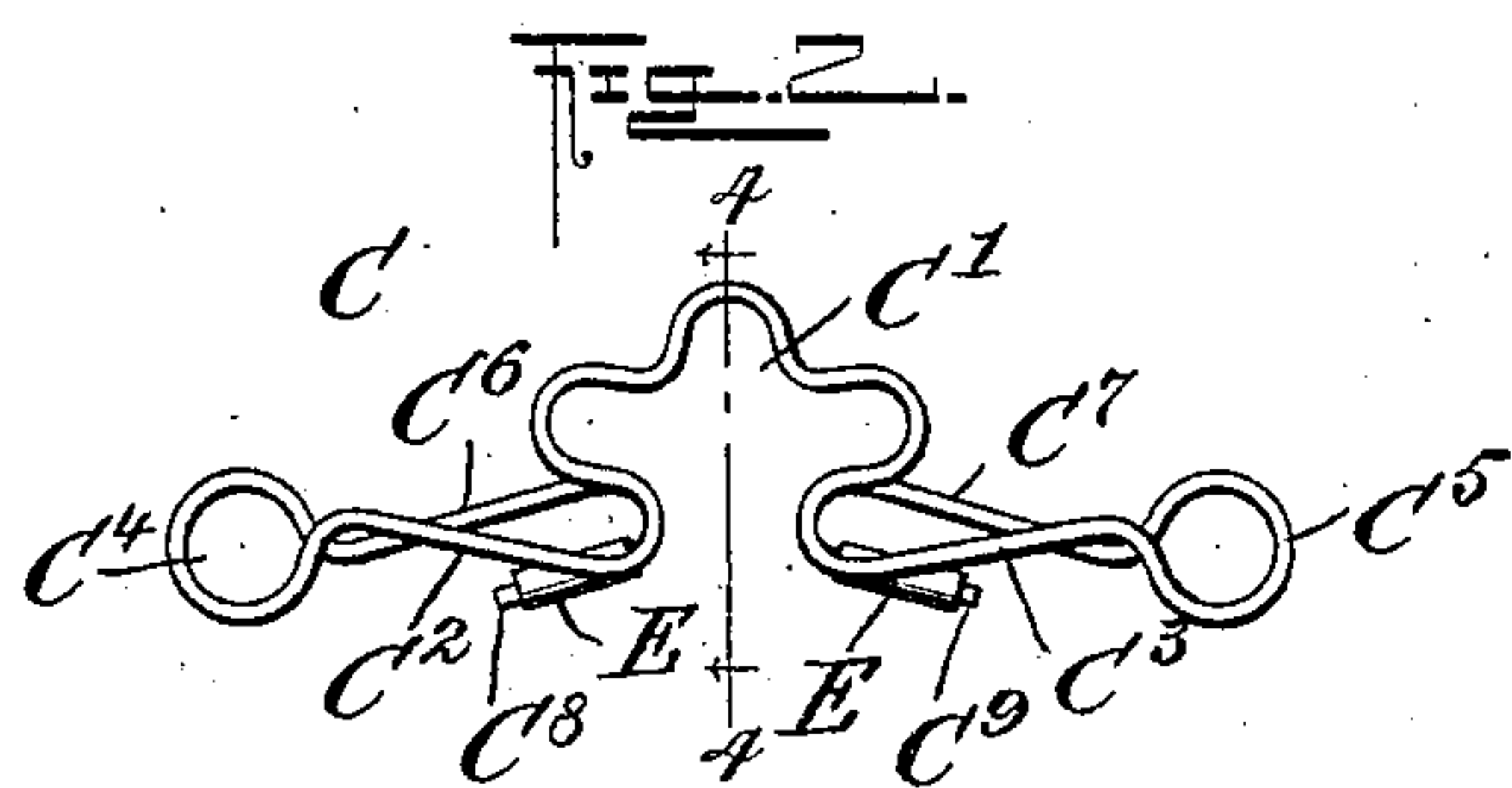
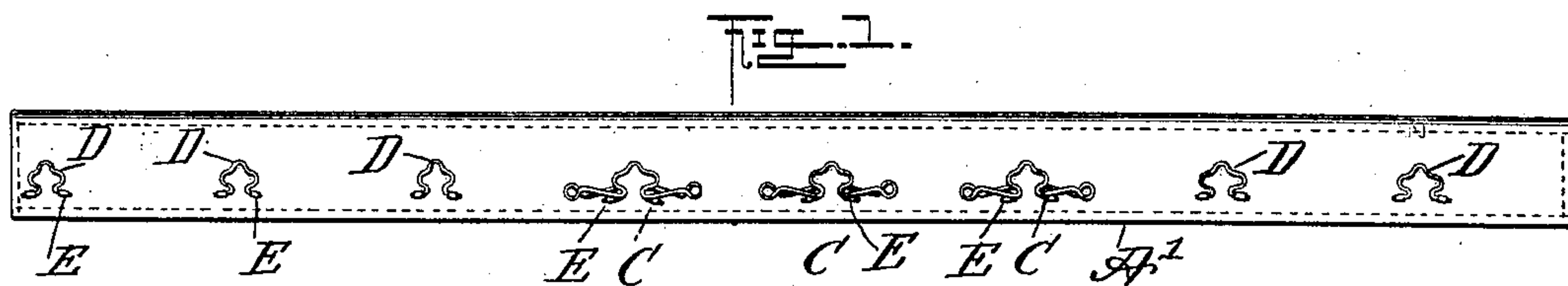
No. 773,982.

PATENTED NOV. 1, 1904.

E. I. RAINS.
METALLIC BUTTONING DEVICE.

APPLICATION FILED AUG. 2, 1904.

NO MODEL.



WITNESSES:

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ATTORNEYS

UNITED STATES PATENT OFFICE.

ELEAZER I. RAINS, OF NEW YORK, N. Y.

METALLIC BUTTONING DEVICE.

SPECIFICATION forming part of Letters Patent No. 773,982, dated November 1, 1904.

Application filed August 2, 1904. Serial No. 219,223. (No model.)

To all whom it may concern:

Be it known that I, ELEAZER I. RAINS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Metallic Buttoning Device, of which the following is a full, clear, and exact description.

The invention relates to garment-supporters; and its object is to provide a new and improved metallic buttoning device more especially designed for yieldingly connecting boys' pants with the shirt-waist or blouse and arranged to readily compensate for strains, especially when the wearer bends over in a forward direction, the device yielding sufficiently to prevent breaking or tearing of the connected parts.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a face view of the inner side of a waistband provided with the improvement. Fig. 2 is an enlarged face view of the yielding buttoning device in a normal position. Fig. 3 is a like view of the same in an extended strained position. Fig. 4 is a transverse section of the improvement as applied, the section being on the line 4-4 of Fig. 2. Fig. 5 is a perspective view of one of the clips for fastening the buttonhole device in position on the waistband. Fig. 6 is a face view of one of the non-yielding buttonhole devices. Figs. 7 and 8 are face views of modified forms of yielding buttoning devices, and Fig. 9 is a face view of a modified form of one of the coils of the buttoning device.

As shown in Fig. 4, a pair of pants A is supported at its waistband A' by the improvement from the buttons B' of a shirt-waist or blouse B, and the said improvement consists of one or more yielding metallic buttoning devices C and non-yielding buttoning devices D,

each of the devices being secured by clips E to the waistband A'.

The yielding devices C are preferably three in number and are attached to the waistband A' at the back thereof, as plainly indicated in Fig. 1, and the non-yielding devices D are secured to the waistband at the sides or hip portions, it being understood that the devices are properly spaced apart and are preferably located in the manner described and shown, as the principal strain when the wearer bends forward is at the back portion of the connected garments, and hence the yielding devices C are located at this particular point.

Each yielding device C is made either from a single piece or a number of pieces of spring-wire. For instance, as shown in Figs. 2, 3, and 7 the device C is made from a single piece of spring-wire, and as shown in Figs. 8 and 9 the device C is formed of two main pieces of spring-wire and connecting-clips. In the device C shown in Figs. 2 and 3 the single piece of spring-wire is bent to form a buttonhole member C', open at the bottom and having the ends of its side arms terminating in side members C² and C³, extending in opposite directions approximately lengthwise of the waistband and terminating at their outer ends in spring-coils C⁴ and C⁵, from which extend integrally inwardly and toward each other attaching members C⁶ and C⁷, having their terminals C⁸ and C⁹ engaged by the clips E for securing the yielding device C to the waistband A', as plainly indicated in Figs. 1 and 4. The buttonhole member C' is open at the bottom to permit of readily passing the shank of the button into the buttonhole formed by the member, and the buttonhole is so arranged that the button B' lies on the outer face of the buttonhole member without danger of the button slipping through the buttonhole, as will be readily understood by reference to Fig. 4.

When the shirt-waist B is connected by its button B' with the buttonhole member C', attached to the waistband A' of the band A, and the wearer bends in a forward direction, then the strain exerted by the button B' on the buttonhole member C' stretches the but-

ton device C into the position shown in Fig. 3—that is, the members $C^2 C^3$ and $C^6 C^7$ are drawn into angular position relative one to the other—this movement being facilitated by the spring-coils $C^4 C^5$, connecting the members $C^2 C^6$ and $C^3 C^7$ with each other. As soon as the wearer straightens up or bends back to a normal position then the resiliency of the spring-wire of which the button device C is made causes an immediate return of the several parts for the same to assume their normal positions. (Shown in Fig. 2.) From the foregoing it will be seen that each yielding buttoning device C readily compensates for the strain to prevent tearing of the waistband A' or tearing off of the buttons B' on the supporting-garment.

Each of the clips E above referred to is preferably of the construction shown in Figs. 4 and 5—that is, each clip has a tubular portion E', provided at the ends with sets of prongs E², adapted to be passed through the waistband A' and clenched at the outer face thereof, as plainly indicated in Fig. 4. The tubular portion E' is engaged with the corresponding terminal C^8 or C^9 , so as to securely fasten the buttoning device C to the waistband.

Different shapes may be given to the several parts of each yielding buttoning device. For instance, as shown in Fig. 7, the inwardly-extending attaching members C^6 and C^7 terminate in a coil C^{10} , fastened by sewing or otherwise to the waistband A'. As illustrated in Figs. 2 and 7, the members $C^2 C^6$ and $C^3 C^7$ lie one in front of the other; but this is not essential, as the members may be arranged one above the other, as plainly indicated in Fig. 8, and the spring-coils may be given different shapes, as shown in Figs. 8 and 9, without deviating from the spirit of my invention.

As illustrated in Fig. 8, the buttoning device C is formed of two pieces of spring-wire, one piece having the buttonhole member C^{11} , the side members $C^{12} C^{13}$, and spring portions $C^{14} C^{15}$, while the other piece has the attaching members $C^{16} C^{17}$, the terminals $C^{18} C^{19}$, and the spring portions C^{20} and C^{21} . The spring portions C^{14} and C^{20} are held in a hood or cap F, and the spring portions C^{15} and C^{21} are held in a similar hood F'. The use and operation of this device C is the same as above described in reference to that shown in Fig. 4.

In the modified form shown in Fig. 9 the side members $C^{22} C^{23}$ have their spring portions $C^{24} C^{25}$ rigidly connected with each other by a cap G instead of inclosing the spring portions loosely in the hoods F or F', as shown in Fig. 8. Each non-yielding device D is made of wire formed into a buttonhole member D', similar to the buttonhole member C' above referred to, and the side arms of this buttonhole member D' terminate in outwardly-ex-

tending members D² and D³, adapted to be engaged by clips E for securing the non-yielding buttoning device D to the waistband A', as shown in Fig. 1.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A buttoning device made of a spring-wire having a buttonhole member for engagement with a button, side members extending in opposite directions from the buttonhole member, attaching members for connection with a waistband, and coils connecting the side members with the said attaching members.

2. In a garment-supporter, the combination with the parts to be fastened together, of a buttoning device made of spring metal directly and rigidly secured to one of the said parts and bent to form a buttonhole member, for engagement with the other part, the said buttoning device having connected sets of relatively yieldable members, of which one set extends sidewise from the said secured portion and the other set extends sidewise from the said buttonhole member.

3. In a garment-supporter, the combination with the parts to be fastened together, of a buttoning device made of spring metal and directly and rigidly secured to one of the said parts and bent to form a buttonhole member, for engagement with the other part, the said buttoning device having connected sets of members, of which one set extends sidewise from the said fastened portion and the other set extends sidewise from the said buttonhole member, the members of one set being connected with the members of the other set by spring-coils.

4. A garment-supporter provided with a buttonhole member made of wire bent to form a buttonhole, open at one end, and attaching members extending integrally from the side arms of the buttonhole, and provided at their extremities with clips.

5. A garment-supporter provided with a buttonhole member made of wire bent to form a buttonhole, open at one end, and members extending integrally from the side arms of the buttonhole and in opposite directions, and provided with means for direct and rigid attachment of the device to a garment.

6. A buttoning device for yieldingly connecting two garments with each other and made of spring-wire bent to form a buttonhole member, open at the bottom, side members extending outwardly in opposite directions and integrally from the ends of the side arms of the said buttonhole member, spring-coils on the outer ends of the said side members, and attaching members extending inwardly toward each other from the said coils, and provided with means for direct and rigid attachment of the device to a garment.

7. A buttoning device for yieldingly connecting two garments with each other and

made of spring-wire bent to form a buttonhole member, open at the bottom, side members extending outwardly in opposite directions and integrally from the ends of the side arms of the said buttonhole member, spring-coils on the outer ends of the said side members, attaching members extending inwardly toward each other from the said coils, and means for securing the inner terminals of the said attaching members to the garment to be supported.

8. A waistband provided at the back with a plurality of yielding metallic buttonhole members, spaced apart, and a plurality of non-

yielding buttonhole members at the sides of the waistband and likewise spaced apart, the members first named each comprising lateral branches extending therefrom, in opposite directions, attaching branches for connection with the band, and coils connecting the two sets of said branches.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELEAZER I. RAINS.

Witnesses:

THEO. G. HOSTER,

EVERARD BOLTON MARSHALL.