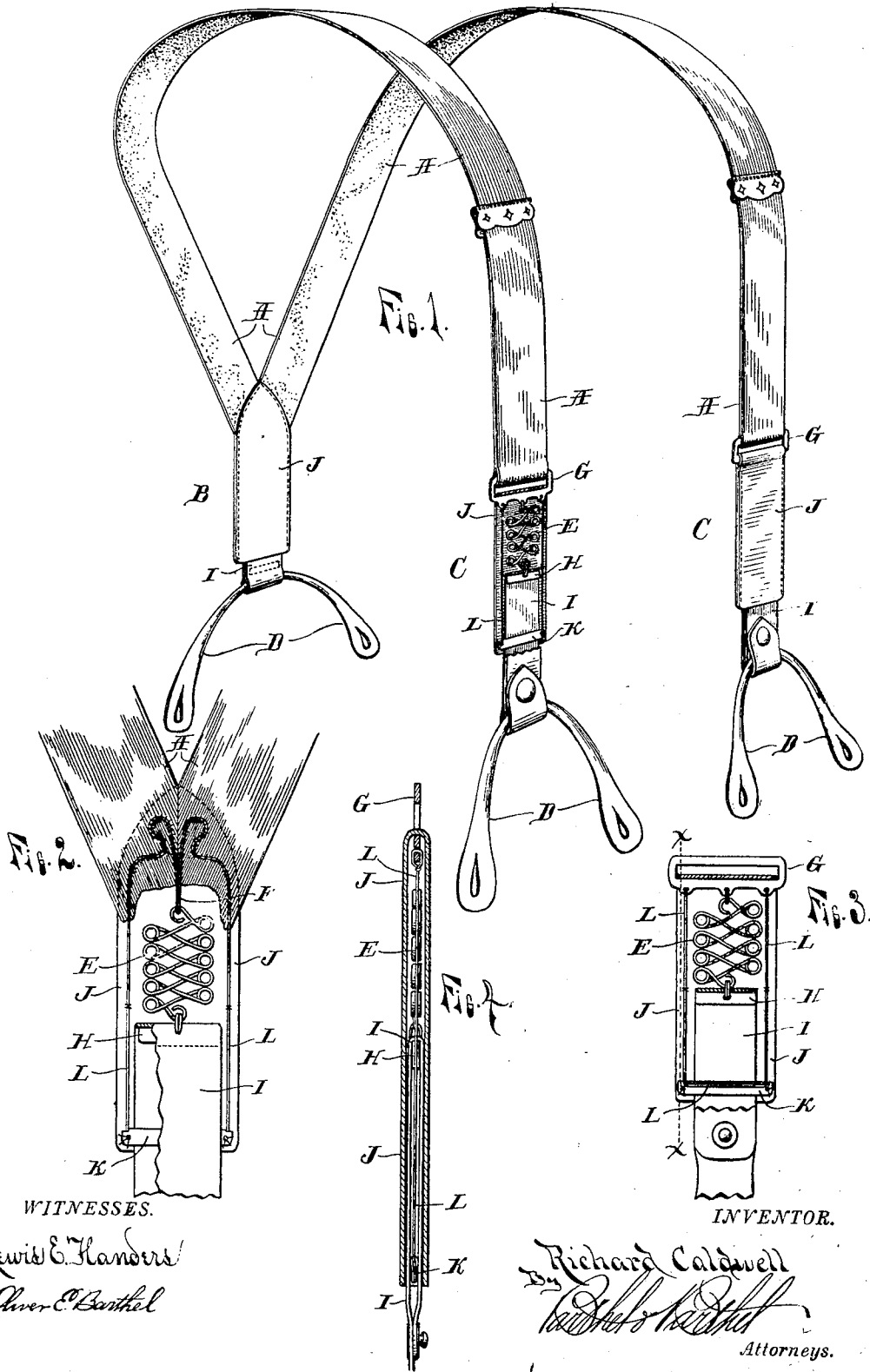


No. 795,339.

PATENTED JULY 25, 1905.

R. CALDWELL.
GARMENT SUPPORTER.
APPLICATION FILED JUNE 22, 1904.



UNITED STATES PATENT OFFICE.

RICHARD CALDWELL, OF TECUMSEH, MICHIGAN.

GARMENT-SUPPORTER.

No. 795,339.

Specification of Letters Patent.

Patented July 25, 1905.

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To all whom it may concern:

Be it known that I, RICHARD CALDWELL, a citizen of the United States of America, residing at Tecumseh, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Garment-Supporters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in garment-supporters, and especially in belts, garters, suspenders, and similar articles which are made elastic to freely yield to the movements of the body of the wearer; and its object is to provide such an article with an elastic section consisting of a spring so arranged that when tension is put upon it it will be elongated or "opened" instead of compressed, thus preventing the same from kinking or buckling, and also to provide a stop to limit the amount which said spring may be drawn out, thus preventing the spring from losing its resiliency by being overtaxed.

A further object of the invention is to provide a suitable sheathing for the spring and suitable means for strengthening the sheath and fastening the spring and also to provide the device with the advantages of the particular arrangement, construction, and combination of parts, all as hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a pair of suspenders embodying the invention, with parts broken away to show the construction; Fig. 2, an elevation of the elastic section used at the rear end of the suspenders, with one side of the sheath removed and parts broken away to show the construction. Fig. 3 is a similar view of the sections used in the forward ends of the suspenders; and Fig. 4 is an enlarged longitudinal section of the same on the line *aa* of Fig. 3.

For the purpose of illustration I have shown the invention applied to a pair of suspenders of the ordinary form, non-elastic webbing A, which is much stronger and more durable, being substituted for the elastic webbing ordinarily used, and the elasticity is supplied by the section B at the back and the sections C at the forward ends, the difference between said sections being only in their size, strength of spring, and manner of attaching the webbing and tabs D thereto to adapt them to the particular place in which they are used.

The elasticity of each section is secured by

providing a spring E, which is bent to form a zigzag spring having a series of coils of one or more turns at each edge. This form of spring has great resiliency and strength, and at the same time is light and takes up but little room in thickness. The upper end of the spring may be attached to the webbing in any desired manner, as by a wire F secured thereto, as shown in Fig. 2, or by securing the end of the spring to a metal loop G, as shown in Fig. 3, and the tabs D are connected to the opposite end of said spring by securing said end to a metal bar H, over which is passed a strip of leather or other suitable material, forming a loop I, to the lower end of which loop the tabs are attached in any desired manner.

To cover the spring, a sheath J, of leather or other suitable material, is provided, said sheath consisting of two strips sewed together at their edges and to the inner and outer sides of the webbing at their upper ends, thus covering the wire F and inclosing the springs, the lower end of the sheath being left open to allow the loop I to project out. Where the metal loop G is used the sheath may be formed of one piece, as shown in Figs. 3 and 4, by passing the strip through said loop and sewing its edges together. To form a stop for the spring, so that it cannot be drawn from the sheath, and thus put under such a strain as to destroy its resiliency, a cross-bar K is secured at its ends to the sheath within the lower end thereof by sewing through openings in its ends or otherwise and extends through the loop I, so that when the spring is drawn out by said loop the upper end of the loop will engage said bar and limit the movement. The sheath is strengthened and stiffened and the cross-bar K further held by a wire L, secured at its ends to the webbing or to the loop G and extended downward within the sheath at each side and across through the loop I, the bar K being formed of sheet metal, which is folded over that portion of the wire which extends across through the loop.

In this construction the spring is elongated or opened when put under tension, and therefore all tendency to kink or buckle is obviated, and the sheath prevents the clothing from catching upon or contacting the spring.

Having thus fully described my invention, what I claim is—

1. In a garment-supporter, the combination with a non-elastic element, of an elongated

loop, a spring interposed between the element and loop and secured at one end to said element and at its opposite end to the end of the loop, and a stop attached to the non-elastic element and extending through said loop to engage the end thereof to which the spring is secured when said spring is elongated by tension put upon the supporter.

2. In a garment-supporter, the combination with non-elastic elements, of a spring interposed between the opposing ends of said elements and attached at one end to one of the elements and at its opposite end to the other element, a sheath secured at one end to the end of one element to inclose the spring and provided with an open end into which the opposing end of the other element projects, and a stop secured to the sheath near its open end to limit the elongation of said spring when the supporter is put under tension.

3. In a garment-supporter, the combination with a non-elastic element, of a spring attached at one end to the non-elastic element, a loop secured to the opposite end of said spring, and a wire attached to the non-elastic element and extended along at each side of the spring and through the loop.

4. In a garment-supporter, the combination with a non-elastic element, of a spring attached at one end to the non-elastic element,

a loop attached to the opposite end of said spring, a wire attached at its ends to the non-elastic element and extended along each side of the spring and through the loop, and a stop-bar formed of sheet metal folded over that portion of the wire which extends through the loop.

5. In a garment-supporter, the combination with a non-elastic element, of an elastic section comprising a spring attached at one end to the non-elastic element of the supporter, a loop provided with a bar in its upper end to which the opposite end of the spring is attached, a sheath secured at its upper end to the non-elastic element inclosing the spring and upper end of the loop and open at its lower end for the passage of the loop, a stop-bar extending through said loop and secured at its ends to the sheath within the lower end thereof, and wires attached to the non-elastic element and extending at each side of the spring within the sheath and engaging the stop-bar to hold the bar and strengthen and stiffen the sheath.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD CALDWELL.

Witnesses:

J. H. SMITH,
J. Q. LOOK.