

(No Model.)

J. LAWRENCE.
SUSPENDERS.

No. 305,606.

Patented Sept. 23, 1884.

Fig 3.

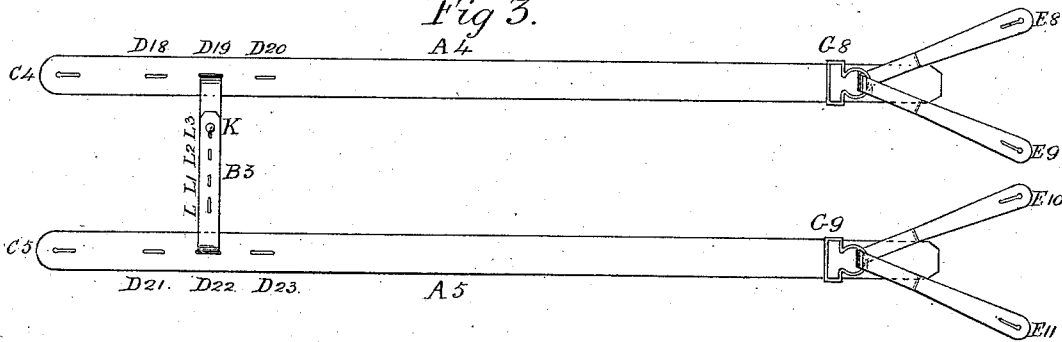


Fig 2.

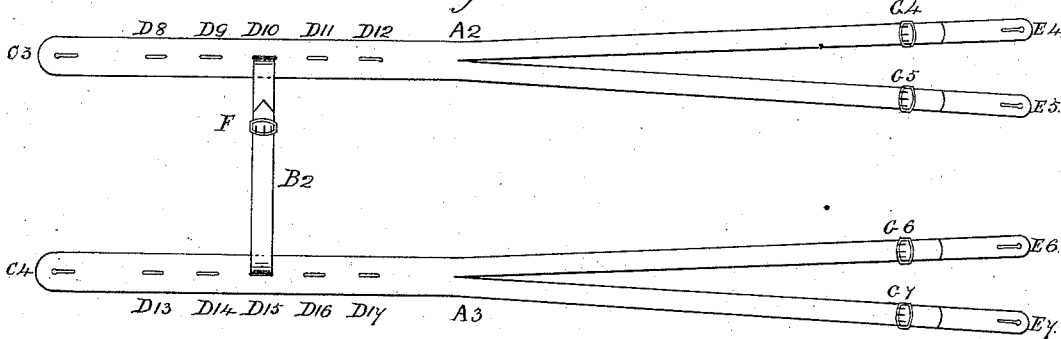
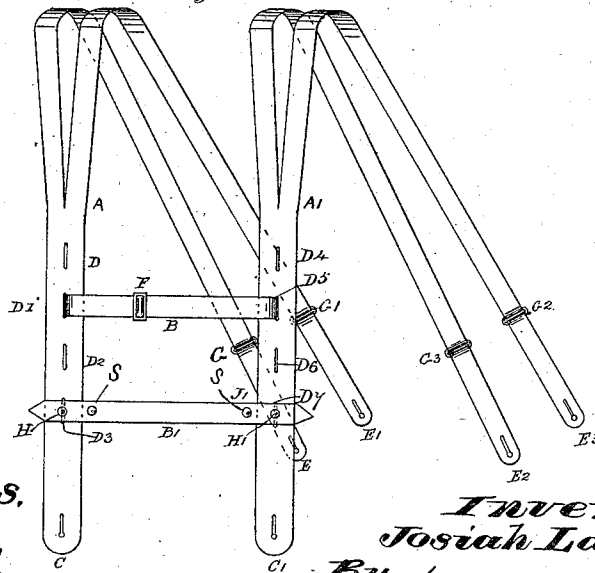


Fig 1.



Witnesses,

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By James L. Norris,
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UNITED STATES PATENT OFFICE.

JOSIAH LAWRENCE, OF BIRMINGHAM, ENGLAND.

SUSPENDER.

SPECIFICATION forming part of Letters Patent No. 305,606, dated September 23, 1884.

Application filed May 19, 1884. (No model.) Patented in England March 27, 1884, No. 5,530.

To all whom it may concern:

Be it known that I, JOSIAH LAWRENCE, of Birmingham, England, button-manufacturer, a subject of the Queen of Great Britain, have invented new and useful Improvements in Braces or Trouser - Suspenders, for which I have obtained a patent in Great Britain, No. 5,530, bearing date March 27, 1884, of which the following is a specification, reference being had to the accompanying drawings.

This invention consists of an improved method of making braces or trouser - suspenders in such a manner that they can be adjusted to suit persons of any stature.

In carrying out my invention I make each half or side of the complete pair of braces out of elastic or non-elastic webbing or other suitable substance, such parts to be provided with three or more slits or holes of suitable dimensions in the back part of the brace, the first one commencing at a distance of about four inches and a half from the back button-hole, (more or less.) The three or more adjusting holes or slits are formed in the webbing in the process of weaving with perfect selvages, which is entirely new as applied to the purpose of my invention. While preferring to form the adjusting holes or slits in the process of weaving, I can in some cases form them by slitting the webbing or other substance. A movable connector is provided, the dimensions of which will correspond with the dimensions of the slits or holes through which it is passed. The connector may be made of the same material as the sides, or it may be made of any other suitable material. To one end of the connector is fixed a buckle, a stud, a button, or other suitable fastener, or a strap may form the movable connector, the said strap being provided with buttons or studs at both ends, or it may be provided with slits or holes to fasten to studs or buttons fixed on the braces. I do not confine myself to using one connector only to one pair of braces. The back end or button-hole portion of each side which fastens to the back buttons of the trousers may be formed in the usual manner—viz., woven or with leather or other suitable attachments. The sides may be separated or cut, commencing at the front and continuing nearly to the adjusting slits or holes, any kind of ends be-

ing attached for the purpose of buttoning to the front of the trousers.

The advantages of my invention are that the braces can be adjusted by means of the movable connector to suit the back buttons of trousers with various girth (or waist) dimensions. The movable connector can be placed at a suitable position in either of the adjusting holes or on the studs and buttons for the purpose of accommodating the wearer.

I will now proceed to describe, with reference to the accompanying drawings, the manner in which the complete pair of braces are made and adjusted.

Figure 1 represents a pair of braces formed of elastic webbing with four adjusting-slits in each side and provided with two movable connectors. A A' are the sides, separated as represented. B B' are the movable connectors. C C' are the back button-holes. D D' D² D³ D⁴ D⁵ D⁶ D⁷ are the adjusting holes or slits. E E' E² E³ are the button-holes that connect to the front buttons of trousers.

Fig. 2 represents the same pair of braces in a horizontal position, (with five adjusting-slits,) only one adjustable connector being shown. A² A³ are the sides. B² is the movable connector. C² C³ are the back button-holes. D⁸ D⁹ D¹⁰ D¹¹ D¹² D¹³ D¹⁴ D¹⁵ D¹⁶ D¹⁷ are the adjusting holes or slits. E⁴ E⁵ E⁶ E⁷ are the button-holes that connect to the front buttons of the trousers.

Fig. 3 represents a pair of braces with the sides not divided, loose double ends being provided, as represented. A⁴ A⁵ are the sides. B³ is the movable connector. C C' are the back button-holes. D¹⁸ D¹⁹ D²⁰ D²¹ D²² D²³ are the adjusting holes or slits. E⁸ E⁹ E¹⁰ E¹¹ are the button-holes that connect to the front buttons of the trousers.

In using my improved braces the wearer would attach them to the back buttons of the trousers by means of the button-holes marked C C', Fig. 1, C² C³, Fig. 2, C⁴ C⁵, Fig. 3. The movable connector, Fig. 1, being passed through the woven slits D D⁵, is then shortened or lengthened, as may be required, by means of the buckle F in such a manner that the distance from the center of the button-hole C to the center of the button-hole C' corresponds with the distance from center to cen-

ter of the buttons on the back of the trousers. The movable connector B' is fixed in position by means of buttons or studs, instead of a buckle.

5 H H, Fig. 1, represent two studs passed through the movable connector and thence through the woven slits or holes D³ D'. When using buttons, the buttons would be sewed onto the movable connector and buttoned into
10 the adjusting-slits; or buttons may be placed on the braces and slits in the connector. S S represent two extra studs for the purpose of shortening the distance from C to C'.

15 B², Fig. 2, shows a movable connector similar to B, Fig. 1, with the exception of the buckle F.

20 B³, Fig. 3, shows a movable connector made to answer the same purpose as B' and B², but made to adjust the take-up by means of a button or stud, K, which can be passed into either of the slits L L' L² L³. The front ends of the braces E E' E² E³, Fig. 1, E⁴ E⁵ E⁶ E⁷, Fig. 2, and E⁸ E⁹ E¹⁰ E¹¹, Fig. 3, are then fastened to
25 the front buttons of the trousers. The trousers are then regulated for length to fit in a suitable manner over the boots of the wearer by means of the buckles G G' G² G³, Fig. 1, G⁴ G⁵ G⁶ G⁷, Fig. 2, and G⁸ G⁹, Fig. 3.

30 While preferring to form the adjusting slits or holes in the process of weaving, as repre-

sented on Figs. 1, 2, and 3, I can in some cases form them by making one long slit in the process of weaving, the adjusting-slits being then formed by sewing the parts together, leaving parts unsewed to form the adjusting-slits; or the
35 sides may be formed by sewing two strips of webbing or other material together to form the side, leaving the necessary spaces for adjusting-holes.

40 I am aware that it is old to connect the two shoulder-straps of suspenders by means of a cross-strap to prevent the shoulder-straps from slipping off the shoulders, and I lay no claim to such a structure, broadly.

What I claim is—

45 A pair of suspenders composed of two shoulder-straps, each formed lengthwise with a series of openings and joined together by a cross-strap passing through said openings, said cross-strap being provided with means, substantially as shown and described, for adjusting
50 the distance between the shoulder-straps, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing
55 witnesses.

JOSIAH LAWRENCE.

Witnesses:

ALFRED WM. TURNER,
JOHN WILLIAM MAHONY.