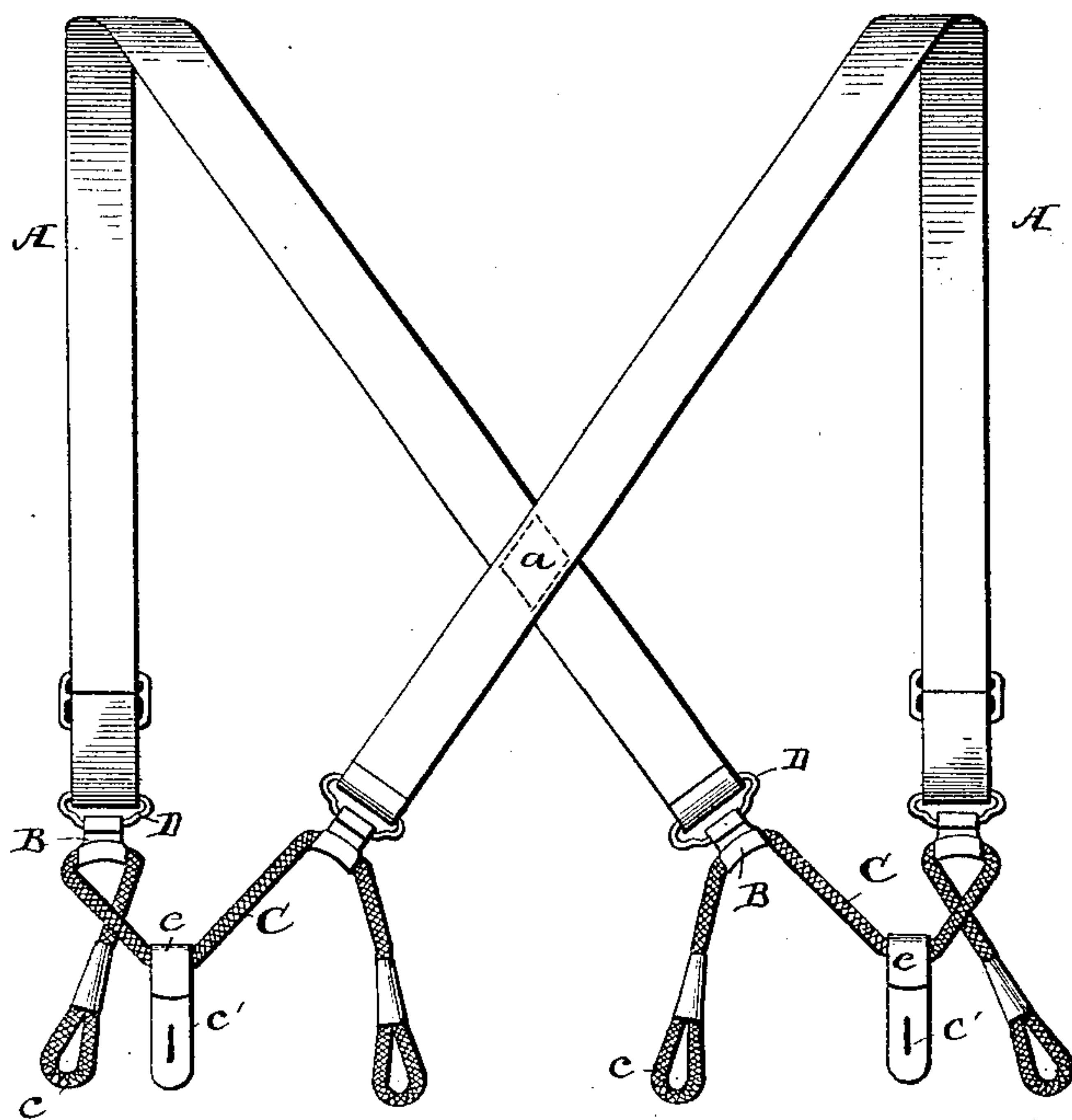


(No Model.)

A. A. MANDELL.  
SUSPENDERS.

No. 386,482.

Patented July 24, 1888.



Witnesses,

*Jno. G. Shinkel Jr.*  
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# UNITED STATES PATENT OFFICE.

ALBERT ALLEN MANDELL, OF HYDE PARK, MASSACHUSETTS.

## SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 386,482, dated July 24, 1888.

Application filed September 30, 1887. Serial No. 251,115. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT ALLEN MANDELL, a citizen of the United States, and a resident of Hyde Park, Norfolk county, Massachusetts, have invented certain new and useful Improvements in Suspenders, of which the following is a specification.

My invention relates to suspenders of that class in which the shoulder-straps are non-elastic, and are intended to rest upon the person of the wearer without tendency to slide or shift their position, all motion resulting from changes in the position of the wearer being taken up or compensated by the straps or cords connecting the shoulder-straps with the trousers. Heretofore this has been attempted to be accomplished in different ways—as by securing the rear ends of the shoulder-pieces to short separate elastic straps adapted to be attached to the trousers, or by means of an elastic section arranged at the junction of the two shoulder-straps at the back, or by providing the lower ends of the straps with pulleys over which pass two independent non-elastic cords provided at their ends with button-holes and carrying between their ends independent button-holes sliding freely on said cords. Such devices, however, fail to a greater or less extent either to relieve the shoulder-straps from all undue strain, to properly and easily support the trousers, or to freely yield to the motions of the body, whether voluntary or involuntary, as in the case of breathing. To overcome all these objections, and thus secure a suspender which shall set easily upon the person, support the trousers equally upon all sides, prevent unyielding strain upon the buttons and suspender, whatever be the movements of the body of the wearer, and avoid uncomfortable binding of the body, is the object of my invention, which consists of non-elastic shoulder-straps provided at their front and rear ends with loops or eyes, through which slide freely two elastic cords, each cord passing through the loop at the front end of one of the shoulder-straps, and also through the loop at the rear end of the shoulder-strap on the same side of the body, the elastic cords being provided at their ends with button-holes, and having sliding freely thereon between their ends a button-hole adapted to be secured

to the trousers at the side over the hips. This arrangement causes the elastic cords to pass around the sides of the body of the wearer from front to back, so that the trousers may be connected thereto and supported at six substantially equidistant points, thus causing them to sit more easily and perfectly upon the wearer. Besides insuring this proper and easy support and set of the trousers, which I am aware of itself is not new, I also, by the use of my invention, secure these additional advantages, which have not been heretofore attained: First, that whatever be the motion of the body, no direct unyielding strain shall be exerted upon the trousers by the suspenders, with the incident tendency to stretch them out of shape, tear off buttons, and the like, the freedom of the cords to slide in their loops and their elasticity coacting to effect this advantage; and, second, by making the cords which pass around the sides of the body—and thus practically encircle it at the waist—elastic, freedom is given for the expansion and contraction of this portion of the body produced by the act of breathing, without the disagreeable binding or dragging which occurs when these cords are inelastic.

My invention may be better understood, however, by reference to the accompanying drawing, which is a front view of a pair of suspenders embodying my invention, and wherein A A are the shoulder-straps united at the back at *a*. At their ends they are provided with bearings consisting of loops or eyes B, through which slide freely the elastic cords C, provided at their ends with button-holes or eyes *c*, by which they are secured to the trousers.

The independent button-hole or eye *c'* is mounted to slide freely upon the cord C, having at its upper end a bearing loop or eye, *e*, and to be attached to and support the trousers at the sides.

I wish to be understood as laying no claim to any earlier devices, such as have been referred to.

I am further aware that it is not new to connect a round elastic cord carrying button-holes to the ends of the shoulder-straps, such construction being shown in the patent to Good-year, dated October 16, 1849.



I claim—

The combination, with the straps A A, connected at the back and terminating in bearings B B for a sliding cord, of button-holes or eyes 5 c c c', the latter provided with a cord-bearing, e, and an elastic cord passing through said bearings B B e, and connected to the button-eyes c c', substantially as described.

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

ALBERT ALLEN MANDELL.

Witnesses:

JOHN B. BABCOCK,  
SAMUEL H. BABCOCK.