(No Model.)

J. F. MILES.

SUSPENDERS OR BRACES.

No. 363,532. Patented May 24, 1887.

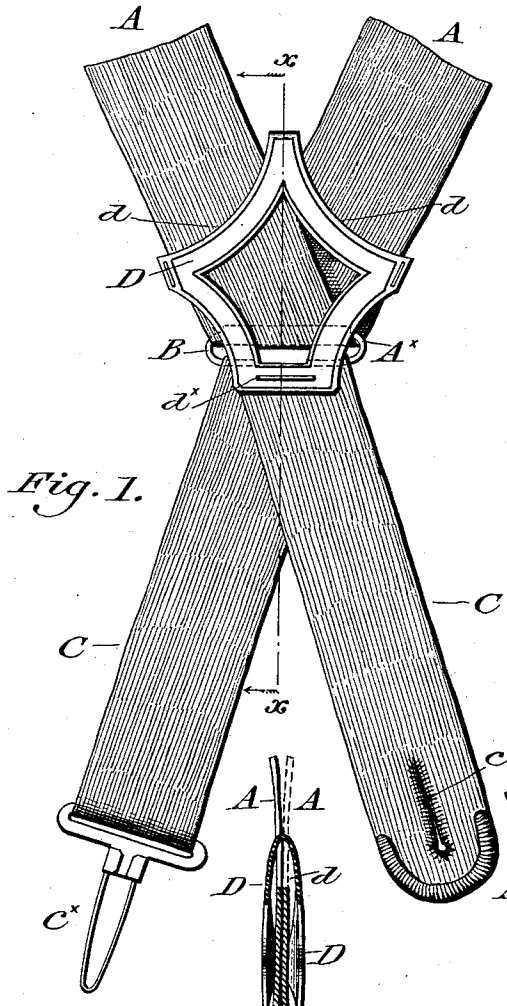


Fig. 1.

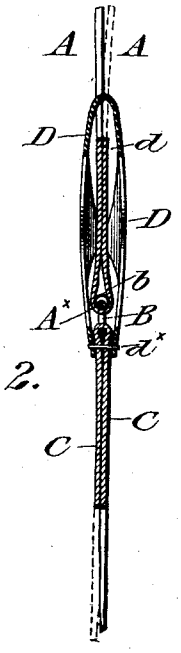


Fig. 2.

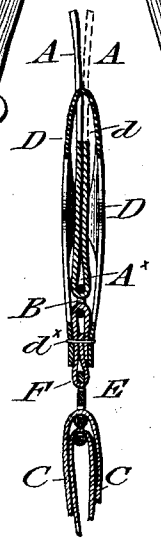


Fig. 4.

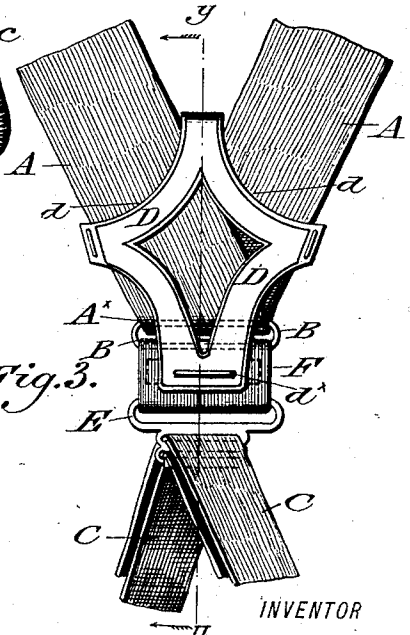


Fig. 3.

WITNESSES:

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SUSPENDERS OR BRACES.

SPECIFICATION forming part of Letters Patent No. 363,532, dated May 24, 1887.

Application filed November 30, 1886. Serial No. 220,232. (No model.)

To all whom it may concern:

Be it known that I, JACOB F. MILES, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Suspenders or Braces, of which the following is a specification.

My invention relates to a well-known class of contrivances which, when worn by men, are known as "suspenders," "gallowses," or "braces," and employed to support knee-breeches, trousers, drawers, or pantaloons, and which, when worn by women, are known as "skirt-supporters," and employed to support petticoats and the skirts of frocks or dresses.

My improvements relate to that class of suspenders or skirt-supporters in which attachment is made to the waistband of the garment to be supported both at the front and back thereof, the straps or webs of material constituting the suspenders or supporters proper passing over the shoulders of the wearer and being connected directly or indirectly with said waistband.

The object of my improvement is a construction of suspenders in which perfect freedom of movement is secured to the wearer, it being possible to bend the body in any direction, and to raise, lower, or throw forward or back the shoulders without occasioning any binding of the body by the suspenders or any part of them.

The foregoing objects I secure by a construction a good form of a convenient embodiment of which is represented in the accompanying drawings and described in this specification, the particular subject-matter claimed as novel being hereinafter definitely specified.

"Suspenders"—and by this term I include skirt-supporters—as a general rule consist of two independent straps which pass, respectively, over the shoulders of the wearer, and are termed the "shoulder-straps," and which are secured, either directly or indirectly, to the waistband of the garment to be supported, both at the front and at the back thereof, there being usually two points of attachment at the back and four in the front.

I make my shoulder-straps of a single continuous flat web, strip, or strap of canvas, webbing, ribbon, tape, leather, kid, or any other preferred elastic or inelastic material of suitable breadth, which I double back or fold upon itself into a flat fold near its central portion and at the back near its point of attachment to the back tabs or band-straps of the suspenders, passing the said continuous web at its fold through an eye or keeper, to which, directly or indirectly, are secured the back-band straps, and protecting the said flat folded web, which above said fold passes up over the shoulders of the wearer as the shoulder-straps, by a guard, which retains each member, so to speak, of the folded web independent of the other and prevents any possible displacement, all substantially in the manner represented in the accompanying drawings and herein described.

In the drawings, Figure 1 is a rear elevational view of so much of a pair of suspenders embodying my invention as is necessary to illustrate my improvements. Fig. 2 is a central vertical side sectional elevation through the suspenders of Fig. 1, section being supposed in the plane of the dotted line *x x* upon said figure, and sight being taken in the direction of the arrows upon said line. Fig. 3 is a view similar to Fig. 1, showing a pair of suspenders which differ only from those of Fig. 1 in the mode of attachment of the back-band straps. Fig. 4 is a central vertical side sectional elevation through the suspenders represented in Fig. 3, in the plane of the dotted line *y y* upon said figure, and sight being taken in the direction of the arrows upon said line.

Similar letters of reference indicate corresponding parts.

Referring now to the first two figures of the drawings, A A are the shoulder-straps, being members of a single continuous web, band, or strap of any preferred material, folded upon itself at or near its central portion to form the flat fold $A^{\times}$, for the purpose of the formation of which fold the web forming the shoulder-straps is passed through an elongated loop of metal or other preferred rigid material, which I term the "keeper," B.

C C are the back-band straps, the same being cords, webs, or straps, of any preferred material, firmly secured to the keeper B below the line of attachment of the shoulder-straps

and independent thereof. One of these back-band straps is shown provided with a button-hole, *c*, for attachment to a button of a waist-band, while the other is shown provided with a safety-pin, $c^{\times}$, to be pinned through the waist-band.

D is a guard, preferably formed of leather or other suitable material, which, being double, incloses or enfolds the flat fold of the shoulder-straps, and which is provided with two preferably independent and unconnected throats or openings, *d d*, through which the respective shoulder-straps freely pass. The guard is shown secured to the back-band straps by a rivet, $d^{\times}$, or other suitable fastening, the point of attachment being below the keeper.

b, Fig. 2, is a friction roll or cylinder, applied to the keeper to facilitate the travel of the folded web A about the keeper.

In the construction represented in Figs. 3 and 4 my improvements, as above described, are shown in connection with back-band straps made movable with respect to a supplemental keeper, E, either formed as a part of the keeper B or else connected conveniently by a uniting-web, F, with said keeper B, through which the shoulder-strap A is looped and free to travel. The back-band straps in this construction are shown as double, although of course they may be single.

Such being a construction of a good form of suspenders embodying my improvements, it is obvious that the essential features of the said improvements are the provision of a continuous web forming the shoulder-straps, which is folded through a keeper, eye, or loop connected with the back-band straps in a flat fold, which fold, while always formed of the web itself, is yet in the movement of the wearer's body formed in or of different parts of said web, the fold proper always forming itself over the keeper, and the further provision, in connection with such flat fold over the keeper, of a guard to preserve the fold and prevent the twisting of the web in the region of said fold. The form and construction of the keeper are not important, it being well made when of a continuous loop of metal. The form of the guard also is immaterial, that form which is represented in the drawings being a good one. It is important, however, that the guard should extend at its sides a sufficient distance above the keeper to insure the maintenance of the flat fold about said keeper.

It is not vital that the guard should be provided with independent throats, as it is operative with the throats formed as a single continuous throat extending from side to side of the guard. The mode of attachment of the guard is also manifestly inconsequential, it being possible to form it as a part of the keeper, or to apply it thereto, or to apply it either to the back-band straps or to a uniting web, as shown.

The shoulder-straps may in front be each provided with a single or with double band-straps equipped with either button-holes, safety-pins, or other devices for attachment; or they may themselves be directly provided with button-holes, safety-pins, or other devices for attachment direct to the waistband.

Having thus described my invention, I claim—

1. In a pair of suspenders, shoulder-straps formed of a continuous web or strap folded upon itself at the back in a flat running fold, a keeper about which the web forming the shoulder-straps is folded and runs, which is secured to back-band straps or kindred contrivances for connecting it with the garment to be supported, and a guard adapted to inclose the web of the shoulder-straps in the region of its fold in order to maintain said fold, substantially as and for the purposes specified.

2. The combination, to form suspenders or skirt-supporters, of shoulder-straps formed of a continuous web or strap folded at or near its central portion in a flat fold adapted to run through a keeper, a keeper connected with back-band straps, a guard to maintain the flat fold in the shoulder-straps, and back-band straps, substantially as set forth.

In testimony whereof I have hereunto signed my name this 29th day of November, A. D. 1886.

JACOB F. MILES.

In presence of—
R. B. PATON,
S. SPENCER CHAPMAN.