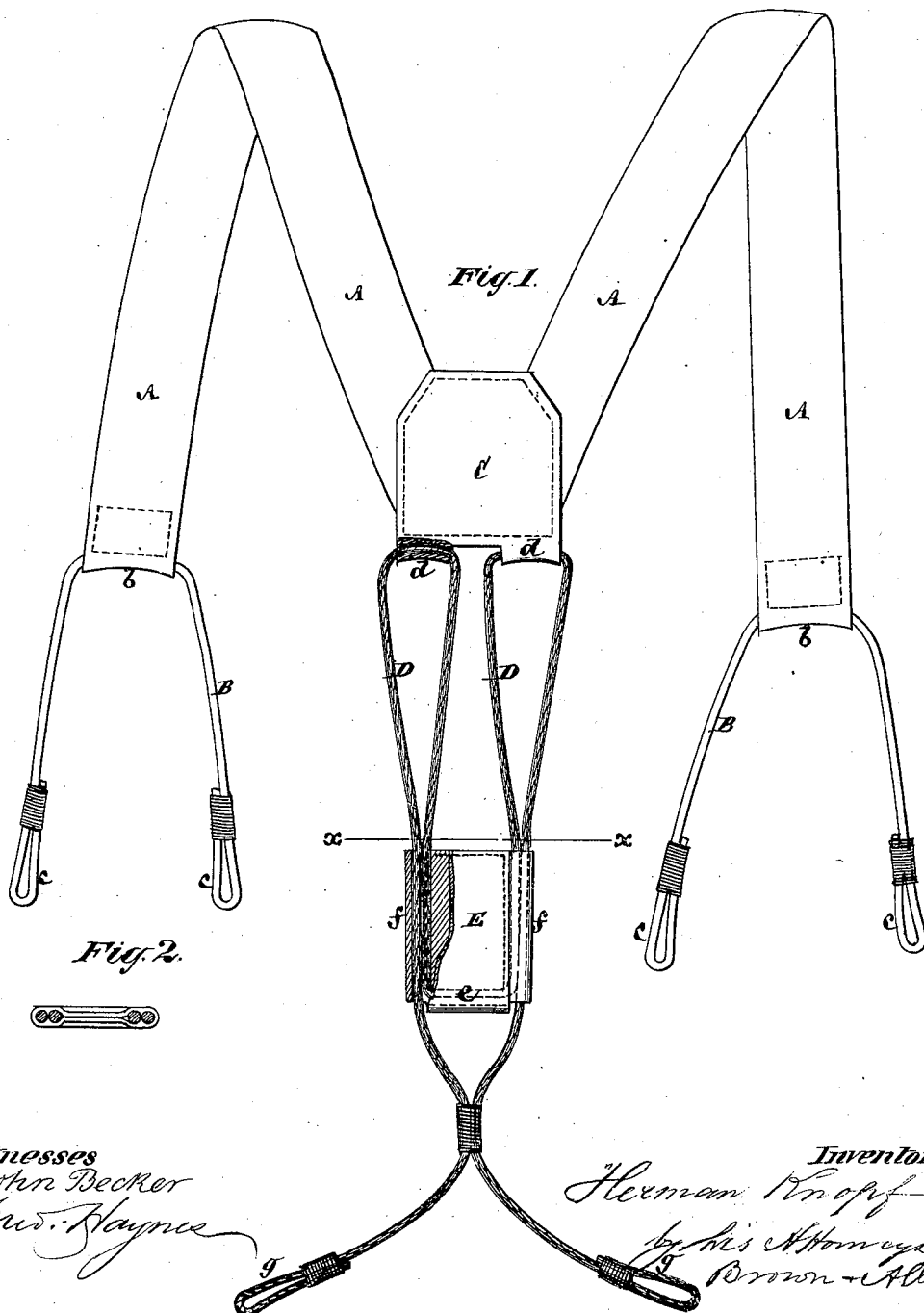


H. KNOPF.
Suspenders.

No. 207,531.

Patented Aug. 27, 1878.



Witnesses
John Becker
Geo. Haynes

Inventor
Herman Knopf
by his Attorney
F. Brown & Allen

UNITED STATES PATENT OFFICE.

HERMAN KNOFF, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SUSPENDERS.

Specification forming part of Letters Patent No. 207,531, dated August 27, 1878; application filed June 27, 1878.

To all whom it may concern:

Be it known that I, HERMAN KNOFF, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Suspenders, of which the following is a description, reference being had to the accompanying drawing, forming part of this specification.

The object of the invention is to construct a suspender which shall dispense with buckles and yet provide for a ready adjustment of the suspender to vary its length, and which shall allow freedom of motion to the wearer.

The invention consists in a combination of a slide having side eyes or tubes with one or more back cords attached to said slide and fitted to render through its side eyes, and tubular extremities or eyes on or connected with the rear ends of the main straps, whereby the suspender may be lengthened or shortened by pulling on the back cord or cords from reverse ends of the slide, substantially as hereinafter described.

Figure 1 is a partly-sectional rear view of a suspender constructed in accordance with my invention, and Fig. 2 is a transverse section on the line *x x*.

A A are the main straps, which may be formed of any suitable material, but preferably of an elastic woven one. *B B* are the front cords, which are fitted to render through eye-like ends or turned-over portions *b b* of the main straps, and *c c* are the button-holes or loops on the ends of the front cords.

C is a leather or other flexible yoke uniting the rear ends of the main straps, and constructed with tubular extremities *d d*, forming eyes at the rear ends of the main straps for the back cord or cords *D D* to render through.

For the convenience of description, two back cords will here be referred to, although they are preferably made of a single piece, as shown in the drawing, and securely attached intermediately of their length, at *e*, to the lower end of a slide, *E*; but independent cords may be used, and the action is that of independent cords, each one of which has its inner upper length permanently attached to the slide *E*, from whence said cords are loosely passed through the eyes *d d* at the back ends of the

main straps or yoke *C*, uniting said ends. From the eyes *d d* said cords are passed down and through eyes or tubes *f f*, on opposite sides or edges of the slide *E*, and may be whipped together below said slide at a suitable distance from their back or lower ends, which are constructed to form button-holes or loops *g g*, for attachment of the suspender to the back buttons of the pantaloons.

The slide *E*, with its side tubes or eyes *f f*, is also made of flexible material, preferably of woven material faced back and front with leather.

Thus all buckles and metallic fastenings of every kind are or may be dispensed with in the construction of the suspender, which may be cheaply made, and combines great flexibility with perfect freedom of motion to the wearer. Such suspender is lengthened or shortened, as required, by adjustment of its back cords *D D*. Thus, to shorten the suspender, it is only necessary to pull up the outer portion of each back cord above the slide *E* through its tube *f*, whereby, when the suspender is stretched, the distance is increased between said slide and the rear ends of the main straps, the cords *D D*, in such adjustment, freely rendering through the eyes *d d*. On the other hand, by pulling down on the cords *D D*, below the slide *E*, the latter is brought closer to the rear ends of the main straps, and the suspender is lengthened by the rendering of the cords in a reverse direction to the former adjustment through the eyes *d d* and passage of their outer portions in a downward direction through the tubes *f f* of the slide, which increases the distance of the loops *g g* from the rear ends of the main straps. Except when thus specially adjusted, however, the friction of the slide on the back cords prevents any accidental slip or shifting of the back cords and slide in relation with each other.

This mode of connecting the back straps or cords with the main straps essentially differs from others in which a metallic connecting device having a sheave in it is used to connect the main straps with two cords having three end loops or button-holes, as in certain shoulder-braces.

The loops *g g* need not necessarily be of the

same piece as the cords D D, but may be independent attachments thereto, and be made of leather or any other suitable material.

I claim—

The suspenders provided with the slide E, having side eyes or tubes *ff*, in combination with the back cord or cords D D, attached to said slide and fitted to render through its side

eyes or tubes, and the tubular extremities or eyes *d d* at the back ends of the main straps or yoke uniting said ends, substantially as specified.

HERMAN KNOPF.

Witnesses:

A. GREGORY,
T. J. KEANE.