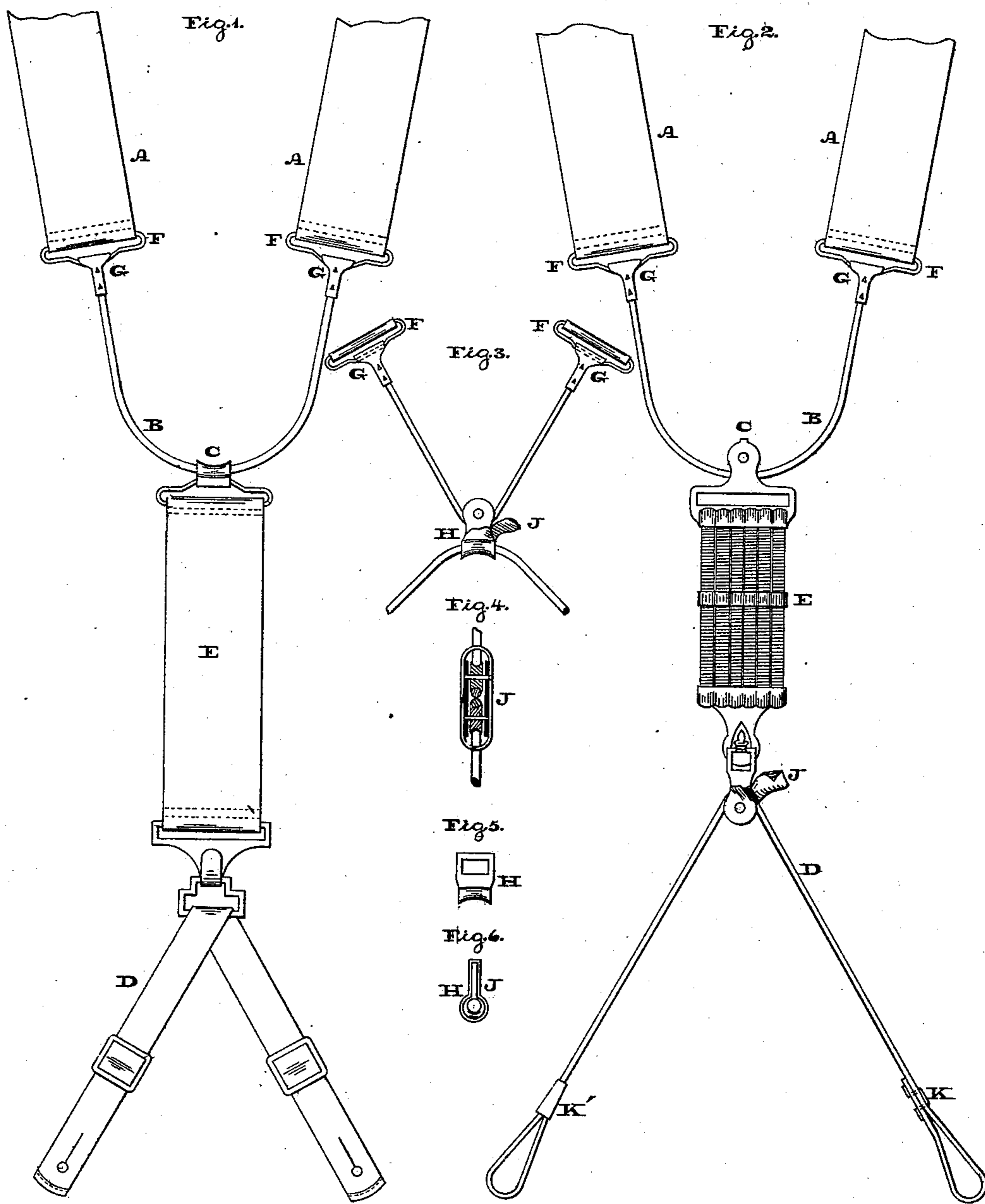


H. ANDRES.
Suspenders.

No. 226,952.

Patented April 27, 1880.



Witnesses:

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UNITED STATES PATENT OFFICE.

HIRAM ANDRES, OF PHILADELPHIA, PENNSYLVANIA.

SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 226,952, dated April 27, 1880.

Application filed August 9, 1879.

To all whom it may concern:

Be it known that I, HIRAM ANDRES, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Suspenders, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 are views of portions of suspenders embodying my invention. Figs. 3, 4, and 5 are views of detached parts thereof. Fig. 6 is an end view of Fig. 5.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A represents the main strap or straps; B, the connecting-web thereof; C, the sheave or pulley moving on the web, and D the buttoning straps or tabs. Intermediate of the sheave C and straps or tabs is an elastic strap or piece, E, which is secured to the connections of said parts, and may be made of woven elastic fabric, coiled springs, strips of rubber, or other elastic material.

It will be seen that, owing to the sheave or pulley C, there is a movable connection between the straps A and buttoning-tabs D, whereby the suspender at said connection conforms to the lateral movement of the body of the wearer, thus vastly easing the wear of the suspender.

The elastic piece or pieces E yield as the body moves, and, while it eases the play of the suspender during lateral motions of the body, it especially yields vertically as the body moves forward and backward, and with the general swaying of the body it provides a gentle and easy connection between the movable connection or sheave of the main straps and the garment to which the suspenders are buttoned.

F represents metallic loops, which are connected to the straps A, and to each loop is attached, or with it is formed, a clasp, G, which consists of a single piece of metal having teeth α punched in therefrom, so that when the buttoning strap or tab is fitted within said clasp and the latter pressed tightly thereagainst the teeth enter the fabric of the tab, and the latter is thus firmly held to the loop, whereby a reliable connection of the strap and tab is provided.

The buttoning strap or tab passes through a sheave, H, which is in the form of a segmental eye, so that it conforms to the curvature which the tab assumes either when buttoned to the garment or first applied to the sheave.

The tab may move freely through the sheave or be fixed thereto; and it will be seen that during the usage of the suspender the sheave presents no cutting-edge or sharp corners or angles to the tab, and thus the wear of the latter is increased.

The frames or housings of the sheaves and segmental eyes are covered with kid or other suitable material, as at J, whereby metallic surfaces are prevented coming in contact with the clothes, thus avoiding soiling the same.

When double rollers are employed, as in Fig. 4, the leather covering is continuous, so as to sheathe the rollers and the side frame thereof, thus serving to prevent contact of the clothes with said frame and rollers, and prevent wearing or tearing or soiling of the clothes by the movement of the frame and rollers.

In order to secure the buttoning-loop of the tab, which is formed by turning up a portion of the tab on itself, which is an old feature, I pass through the contiguous portion of the tab a wire staple, K, whose head or crown rests on one portion, while its ends are clinched on the other portion, thus firmly securing the buttoning-loop.

The clinched staples are covered, as at K', to protect the garments from the points thereof and finish the suspender at the places in question.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the main straps A and connecting-web B thereof, the sheave C, and the buttoning straps or tabs D, of the elastic strap or piece E, intermediate of said sheave and buttoning-tabs, substantially as and for the purpose set forth.

2. The buttoning-tabs with staples K, in combination with the covering K' therefor, substantially as and for the purpose set forth.

HIRAM ANDRES.

Witnesses:

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