

(No Model.)

M. E. THOMAS.
BACK SUPPORT AND SHOULDER BRACE.

No. 437,898.

Patented Oct. 7, 1890.

Fig. 1.

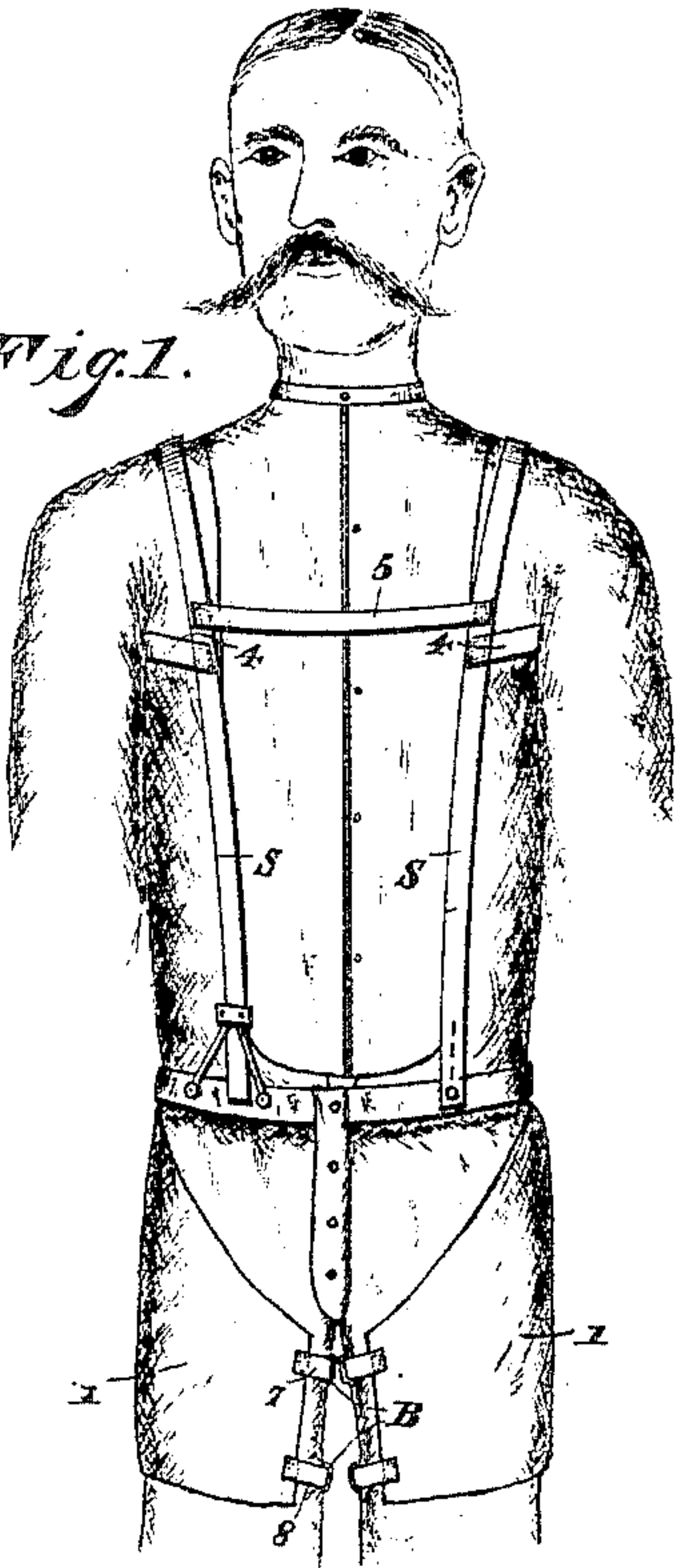


Fig. 2.

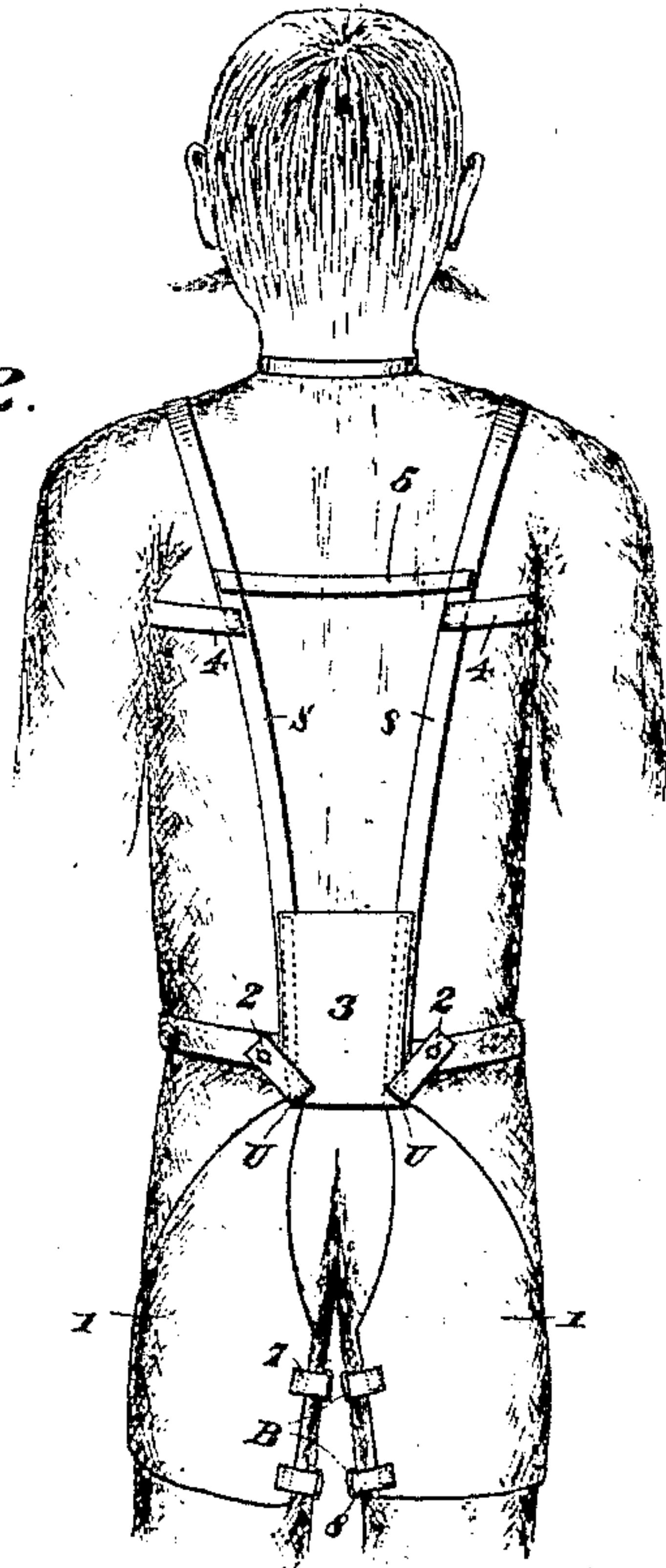
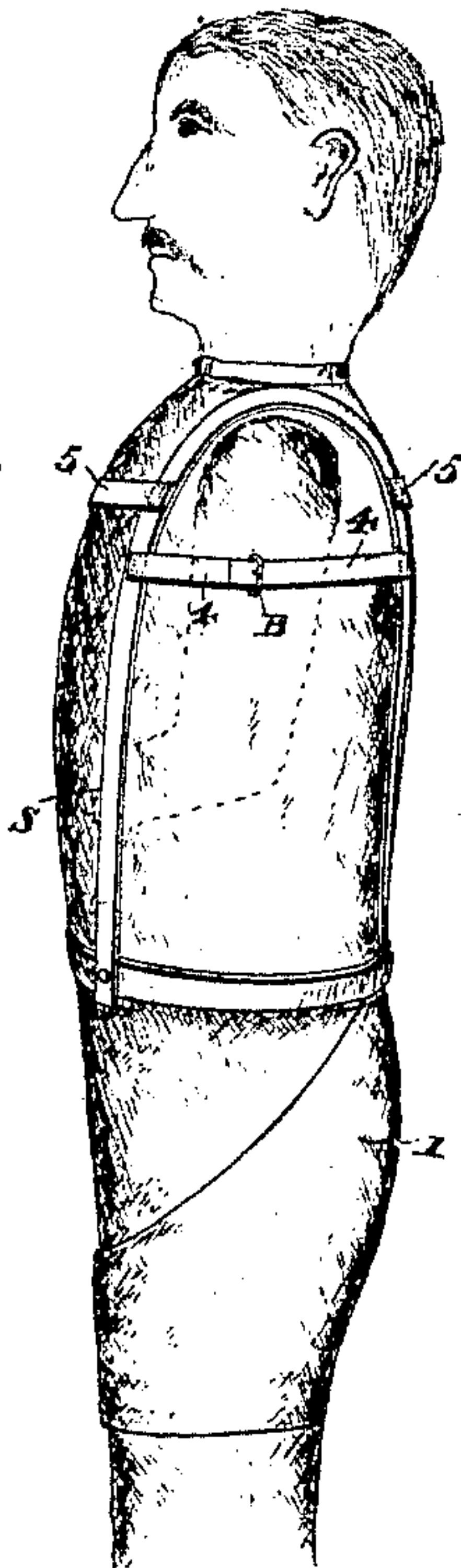


Fig. 3.



Witnesses,

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

MARTIN E. THOMAS, OF BATESVILLE, ARKANSAS.

BACK-SUPPORT AND SHOULDER-BRACE.

SPECIFICATION forming part of Letters Patent No. 437,898, dated October 7, 1890.

Application filed March 3, 1890. Serial No. 342,489. (No model.)

To all whom it may concern:

Be it known that I, MARTIN E. THOMAS, a citizen of the United States, residing at Batesville, in the county of Independence and State of Arkansas, have invented a new and useful Back-Support and Shoulder-Brace, of which the following is a specification.

This invention relates to shoulder-braces, more especially of that class adapted for use by workingmen upon overalls and in other capacities where there is much stooping and some brace is required to sustain the body and prevent its growing tired at the small of the back.

The object of the present invention is to provide a device having these characteristics and which shall be comparatively cheap of manufacture, yet shall possess all the requirements of a more high-priced article. I attain these objects by the improved shoulder-brace hereinafter more fully described, whereof the essential features are a pair of thigh or hip braces entirely independent of each other, a piece for the small of the back, straps passing thence over the shoulders of the wearer, tie-straps connecting these suspender-straps at various points, and all adjustable in their length, and devices for securing and sustaining the trousers or overalls, together with certain specific details of construction and auxiliaries tending to enhance the value of the completed device.

In the accompanying drawings, forming a portion of this specification, Figure 1 is a front view, and Fig. 2 a rear view, showing my improved shoulder-braces applied to the body of a man. Fig. 3 is a side view of the brace.

Heretofore it has been customary to connect the waistband by straps leading thence upwardly over the shoulders, which straps were connected at various points across the back and under the arms with each other by tie-straps; but I am not aware that thigh-braces have been used which were independent of each other, and that also in a brace wherein no waistband whatever was used. Hence the structural differences of the present brace over those already on the market will be at once apparent.

Referring to the accompanying drawings, 1 represents a thigh-piece, of which there are two, one resting behind each thigh and con-

nected around the leg of the wearer by leg-tabs 7 and 8, having buckles B adjustably connecting their meeting ends. These thigh-braces are approximately triangular in shape, and their upper pointed ends are connected, as at U, to the lower corners of an approximately square piece 3, which rests upon the small of the back. Extending laterally from these points of connection are two rear waist-tabs 2, having button-holes, as shown, for the reception of the rear buttons of the trousers or overalls. Leading upwardly from the points U, along each side of the back-piece 3, over the shoulders of the wearer, and to points below the waistband of the trousers or overalls in front are two suspender-straps S, which serve in the direction of their lengths the ordinary functions of a pair of suspenders. At their free front ends they may be provided with a series of button-holes, as shown at the right of Fig. 1, or with an adjusting-buckle and a button or loop, as shown at the left of said figure. Their function is to connect the waistband of the trousers or overalls in front and rear and support the weight thereof upon the wearer's shoulders, as will be clearly understood.

Two cross-straps 5 are rigidly connected at their ends to the suspender-straps and lead across the wearer's body at points below the neck at both the front and back, whereby the suspender-straps are held at their proper distance apart; but these cross-straps may be made adjustable in length, if desired, although I prefer to make them of different lengths for different sizes of braces, manufacturing the latter in two or three sizes, for instance.

Projecting outwardly from each suspender-strap both in front and rear at points below the cross-straps 5 are side tabs 4, whose ends meet under the arms of the wearer at his sides, and are adjustably connected by buckles B, as will be understood. These side tabs are located not so far below the cross-straps 5 that their lateral tension will bend the suspender-straps from a true vertical line, or approximately so, and when they are tightened it will be understood that they form, with said cross-straps, a complete ring around the wearer's body, thus firmly securing the device in place and bracing and sustaining the body

against fatigue from working in a stooping posture.

The entire device is preferably made of canvas or stout webbing, and may be wholly or partly elastic, except the so-called "tabs," which are preferably inelastic. The side tabs may, however, be made of elastic material, if desired, and very good results will accrue therefrom, especially when the wearer must bend his body sidewise in his work. All the parts are sewed or riveted securely together at the points mentioned, except of course where the buckles are inserted; and no claim is made to the specific form of buckle used. Especial stress is laid upon the thigh-pieces 1, which give a large and strong bearing upon the thighs and tend greatly to relieve the strain upon the parts when the wearer is stooping forward. These thigh-pieces are, however, entirely independent of each other, being separately connected to the corners of the back-piece 3 at points U, as above described, and by this construction no impediment is produced to the act of walking or using the legs independently and in opposite directions.

What I claim as the salient points of my device is--

1. In a shoulder-brace, the combination, with the triangular thigh-pieces, of the back-piece, to the outer corners of which the points of said thigh-pieces are separately connected,

and independent suspender-straps leading from said points of connection alongside the back-piece, as described.

2. In a shoulder-brace, the combination, with the thigh-pieces, of the back-piece, to the outer corners of which said thigh-pieces are connected, the suspender-straps leading from said points of connection alongside of the back-piece and connected therewith, and the rear waist-tabs connected at said points and provided with button-holes, substantially as described.

3. In a shoulder-brace, the combination, with the approximately rectangular back-piece, and thigh-pieces leading downwardly therefrom, of the suspender-straps secured along the vertical sides of said back-piece, said suspender-straps being connected substantially in the manner described, and the laterally-extending rear waist-tabs connected to the lower corners of said back-piece and engaging the buttons on the waistband at that point, substantially as hereinbefore set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

MARTIN E. THOMAS.

Witnesses:

J. M. BROWN,
L. M. SAMMONS.