

No. 665,688.

Patented Jan. 8, 1901.

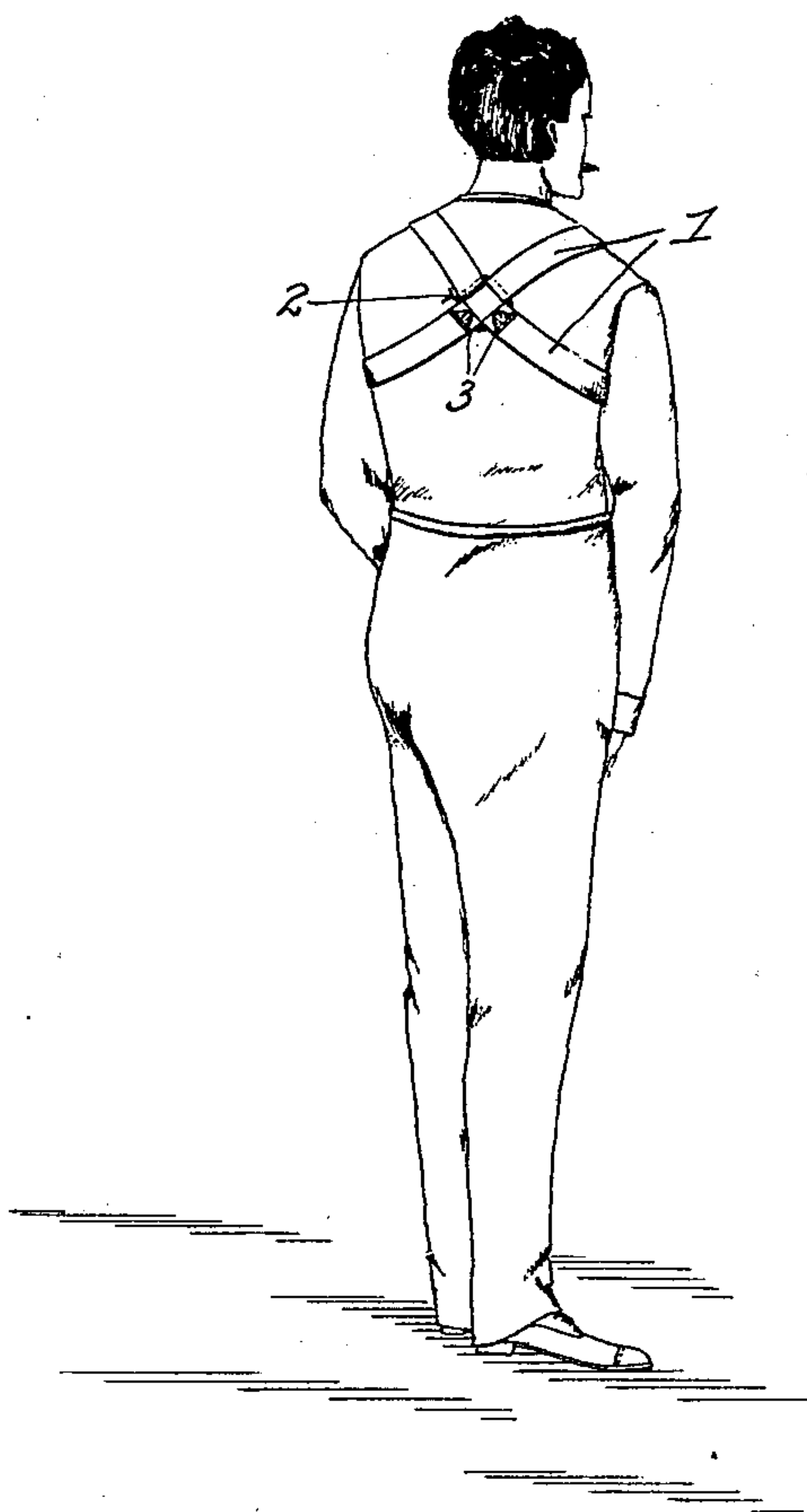
R. HOLLEM.
SHOULDER BRACE.

(Application filed Sept. 17, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses,
Harry Kilgord
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Inventor,
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By his Attorneys,
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2 Sheets—Sheet 2.

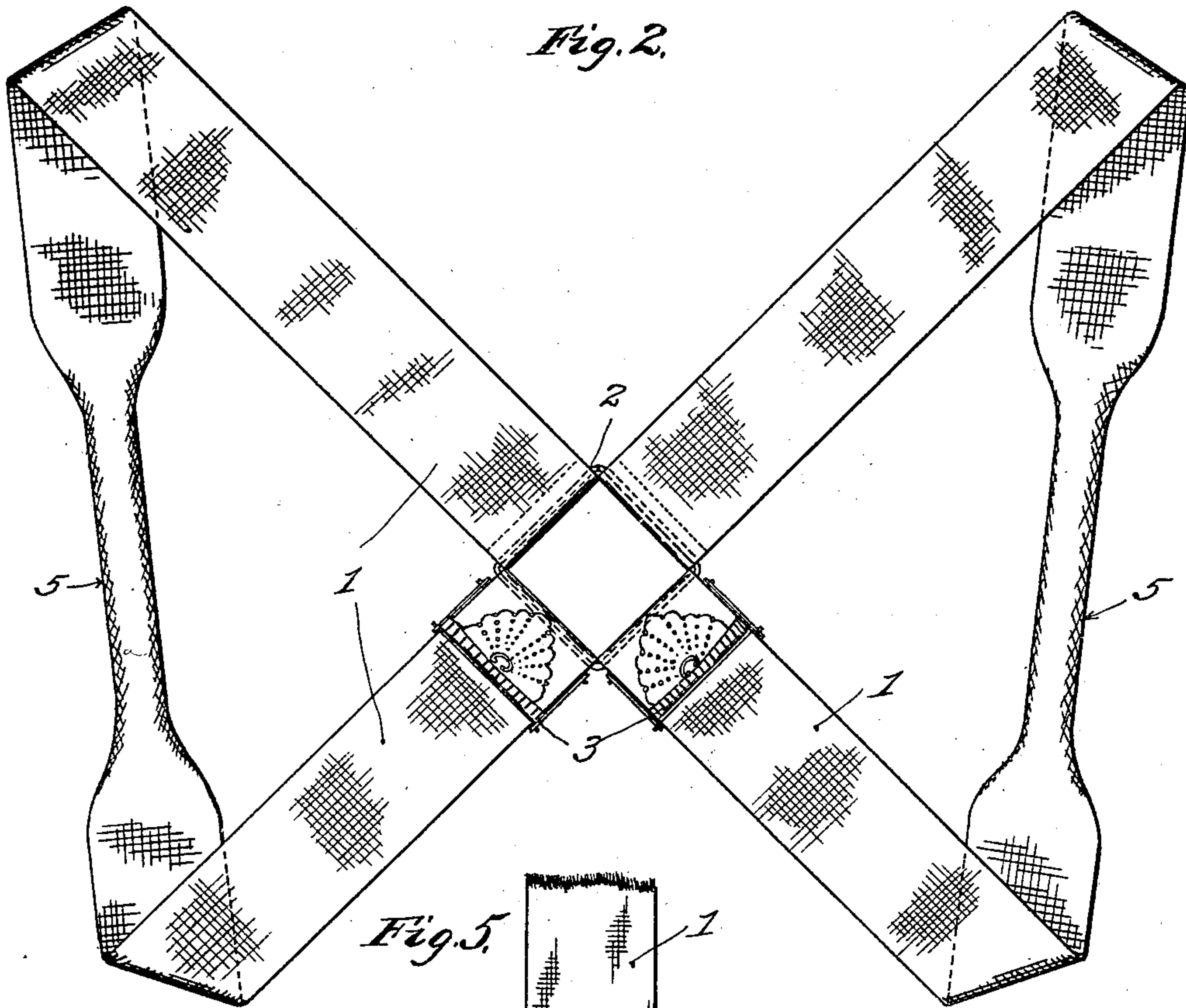


Fig. 5.

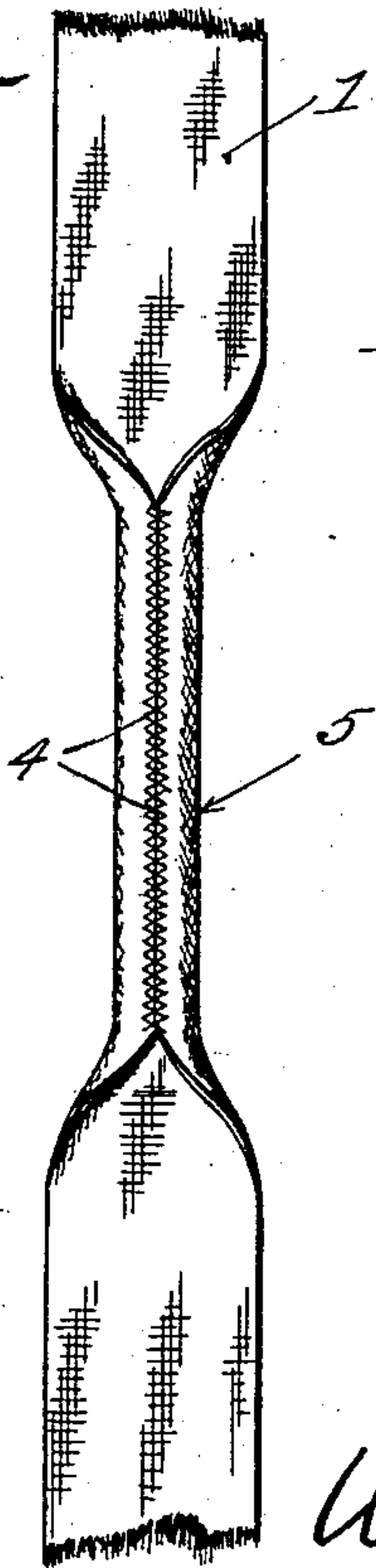


Fig. 3.

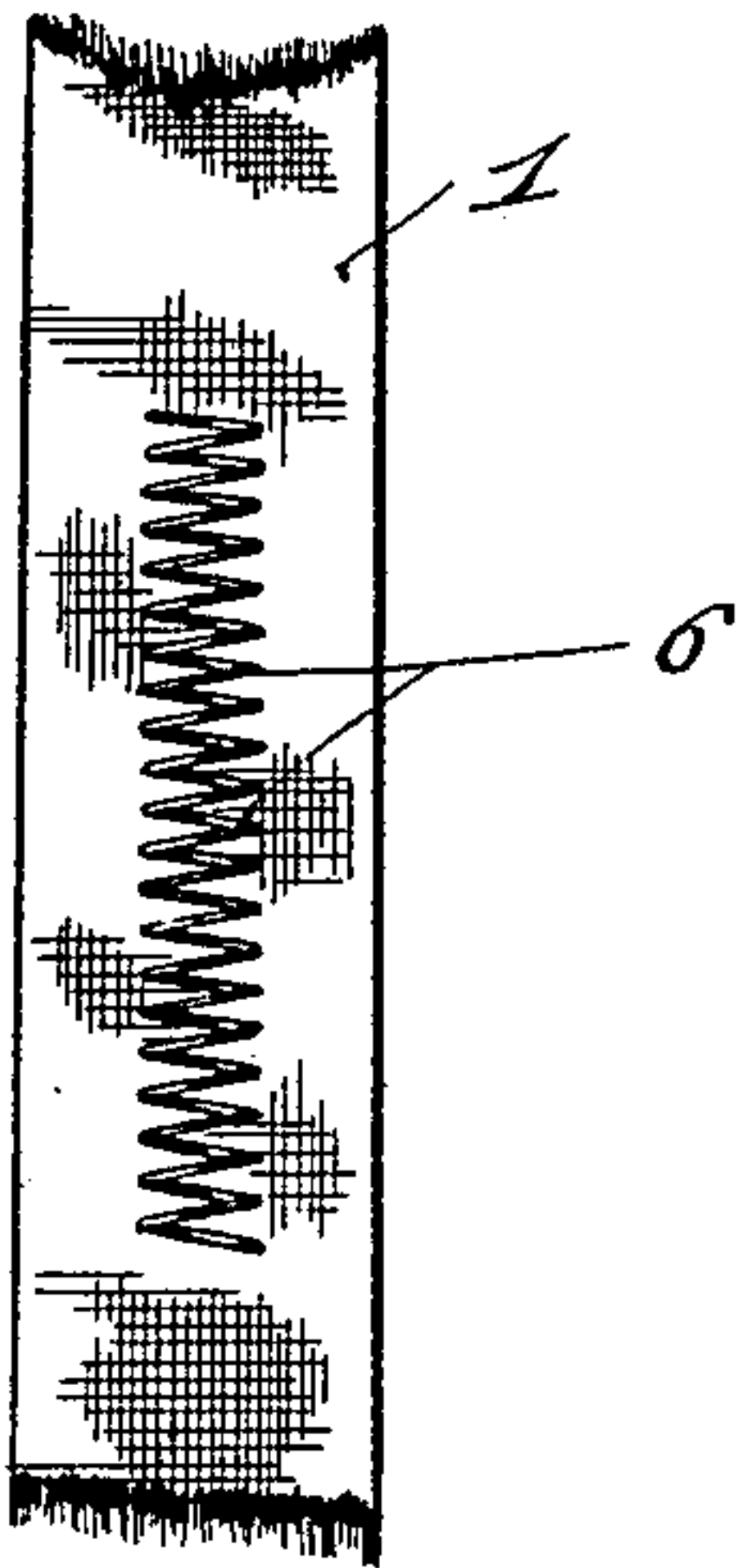
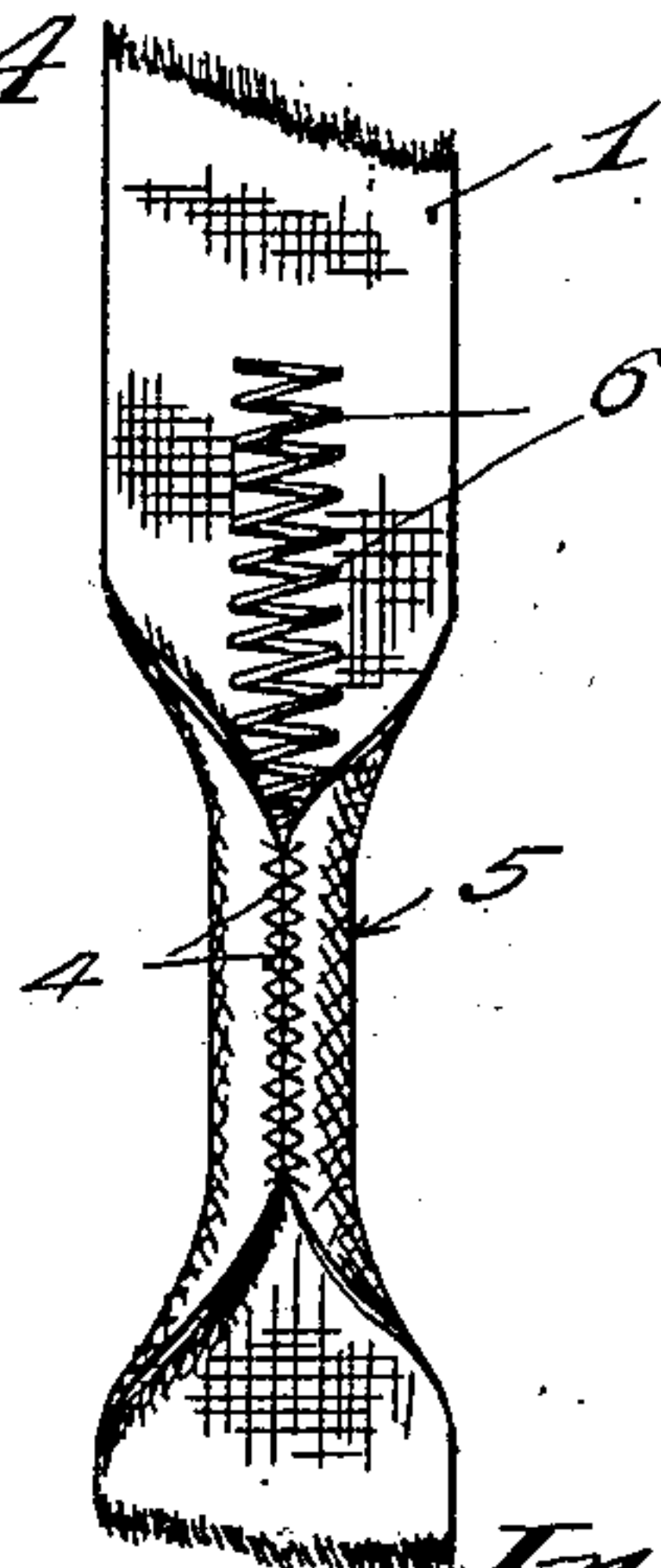


Fig. 4.



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UNITED STATES PATENT OFFICE.

RUDOLPH HOLLEM, OF SIOUX CITY, IOWA.

SHOULDER-BRACE.

SPECIFICATION forming part of Letters Patent No. 665,688, dated January 8, 1901.

Application filed September 17, 1900. Serial No. 30,214. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH HOLLEM, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Shoulder-Braces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention has for its object to provide an improved shoulder-brace of small cost and which while efficient for the purposes had in view will be agreeable to the wearer.

To the above ends my invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a perspective view showing my improved shoulder-brace applied in working position on the body of a man. Fig. 2 is a plan view, on an enlarged scale, showing the complete shoulder-brace removed from working position; and Figs. 3, 4, and 5 are detailed views in plan, showing a portion of the shoulder-brace and illustrating different stages in its manufacture.

The numeral 1 indicates the shoulder-straps, the ends of which are secured to a rectangular coupling 2, one end of each strap being doubled over the same and adjustably securable to the body of the strap by buckles or fastenings 3. Each strap thus forms an adjustable loop through which the arms of the wearer are passed. At points where the straps 1 come under the armpits they are sewed together, as indicated at 4, to form tubular sections 5. To maintain the tubular form of the sections 5 and at the same time to leave them flexible, light coiled springs 6 are sewed or otherwise secured within the

said tubular sections 5. Other forms of spring-spacers or spacing devices may be substituted for the coil-spring 6. For instance, instead of the coiled spring a flexible woven-wire tube might be employed. They must be flexible and elastic in order to permit the section 5 to adjust itself to the wearer's arm. They must be self-sustaining, so that they will prevent the sections 5 from becoming flattened or from losing their approximately round cross-section, and they should have end and lateral openings, so as to afford good ventilation.

When the device is properly applied, as shown in Fig. 1, the entire draw against the arms comes against the rounded or tubular sections 5 of the straps 1 and cutting, such as might be occasioned by an edge or sharper part, is prevented:

Another very important function performed by the tubular strap-sections 5 and spacing device for retaining in form is that of ventilators. The said tubular sections permit of the free circulation of air, thus preventing excessive perspiration, with the result that the device is agreeable and cool to wear.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. In a shoulder-brace, the combination with shoulder-straps having tubular arm-engaging sections with open ends, of flexible tubular wire spacers having also open ends, which spacers are secured within the tubular sections of said straps, substantially as described.

2. In a shoulder-brace, the combination with the straps 1 sewed together at 4, to form the open-ended tubular sections 5, of the coiled springs 6 placed within said tubular sections 5, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

RUDOLPH HOLLEM.

Witnesses:

JOSEPH L. KITER,
DANA MONROE.