

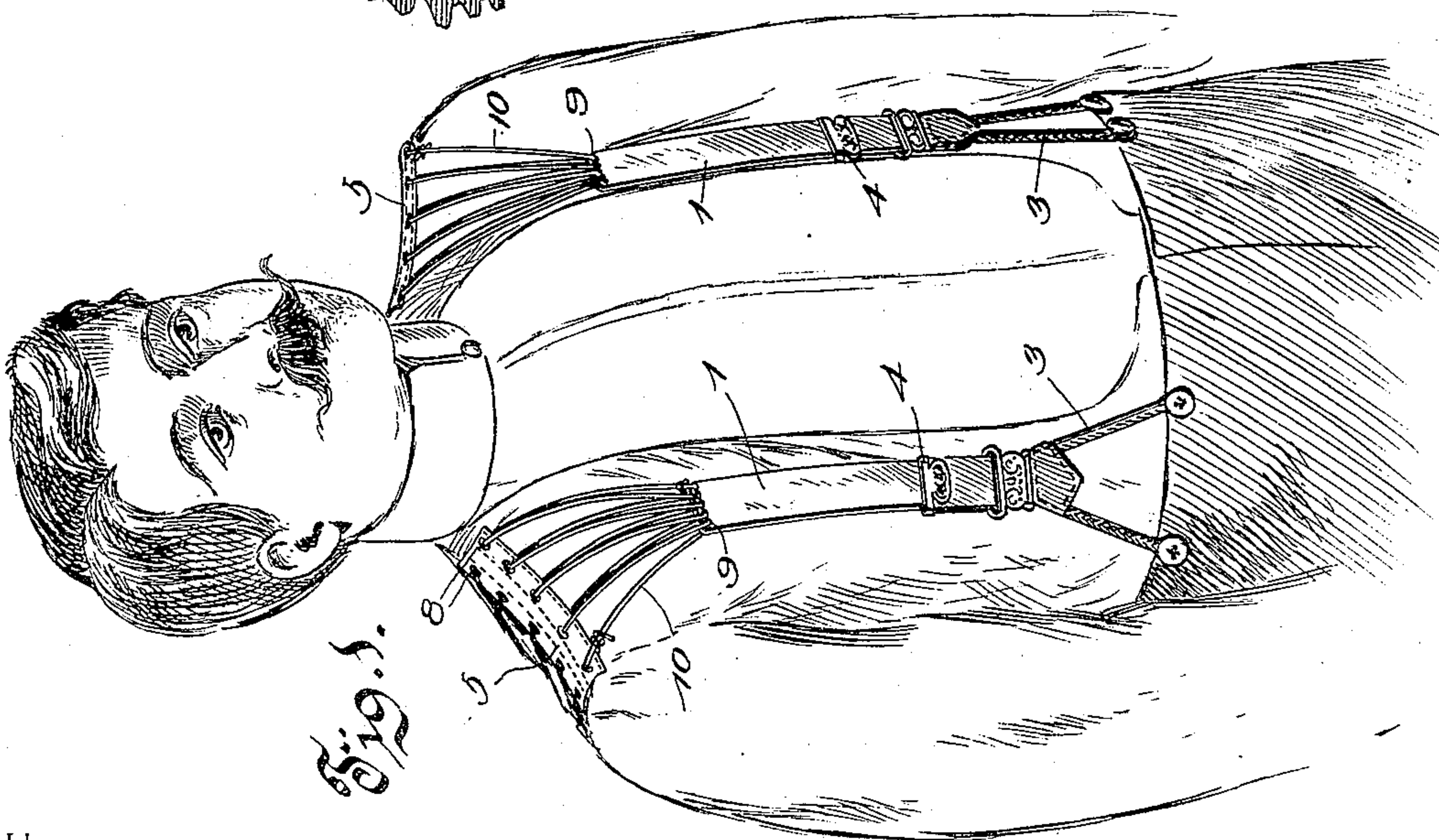
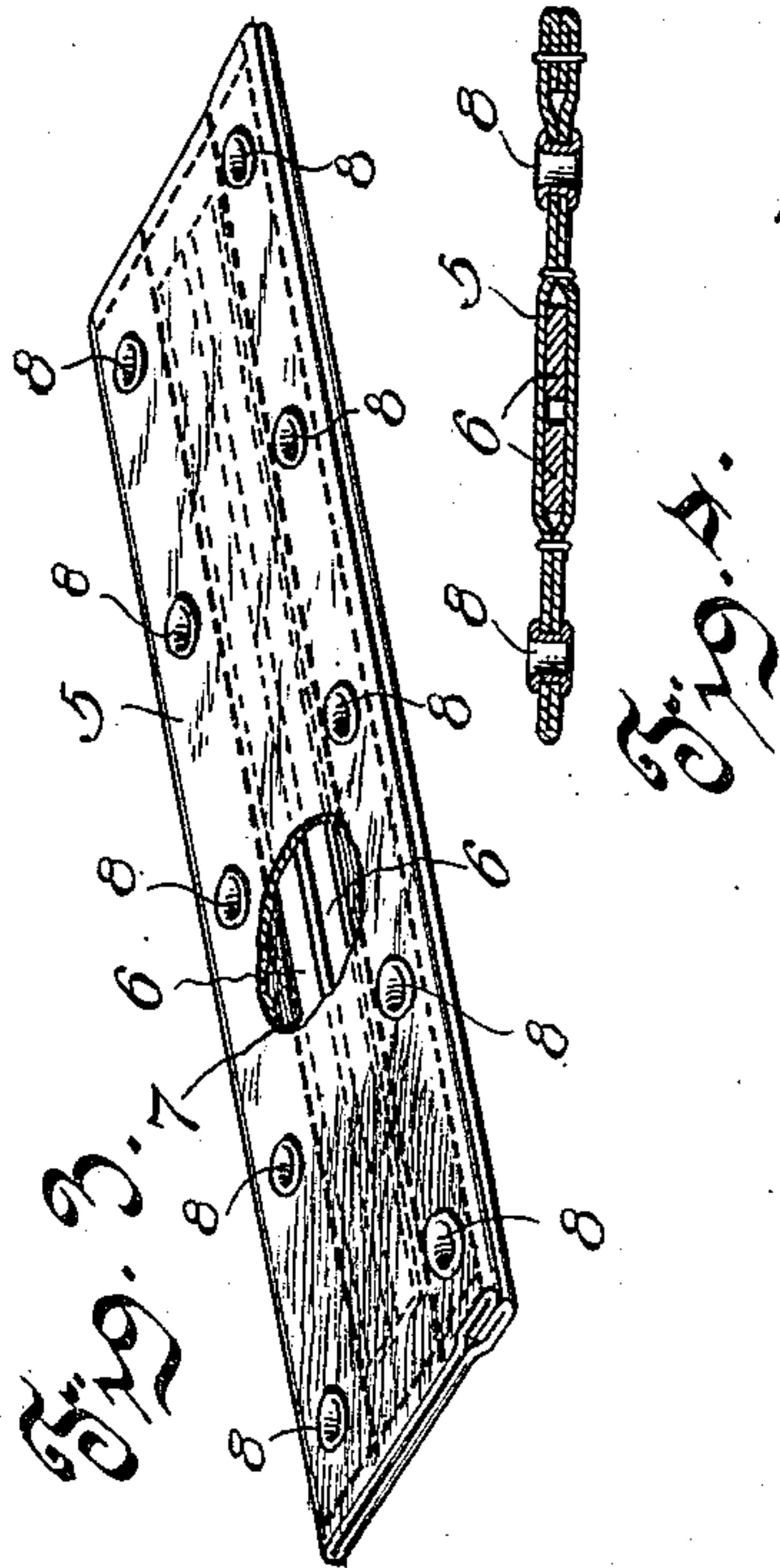
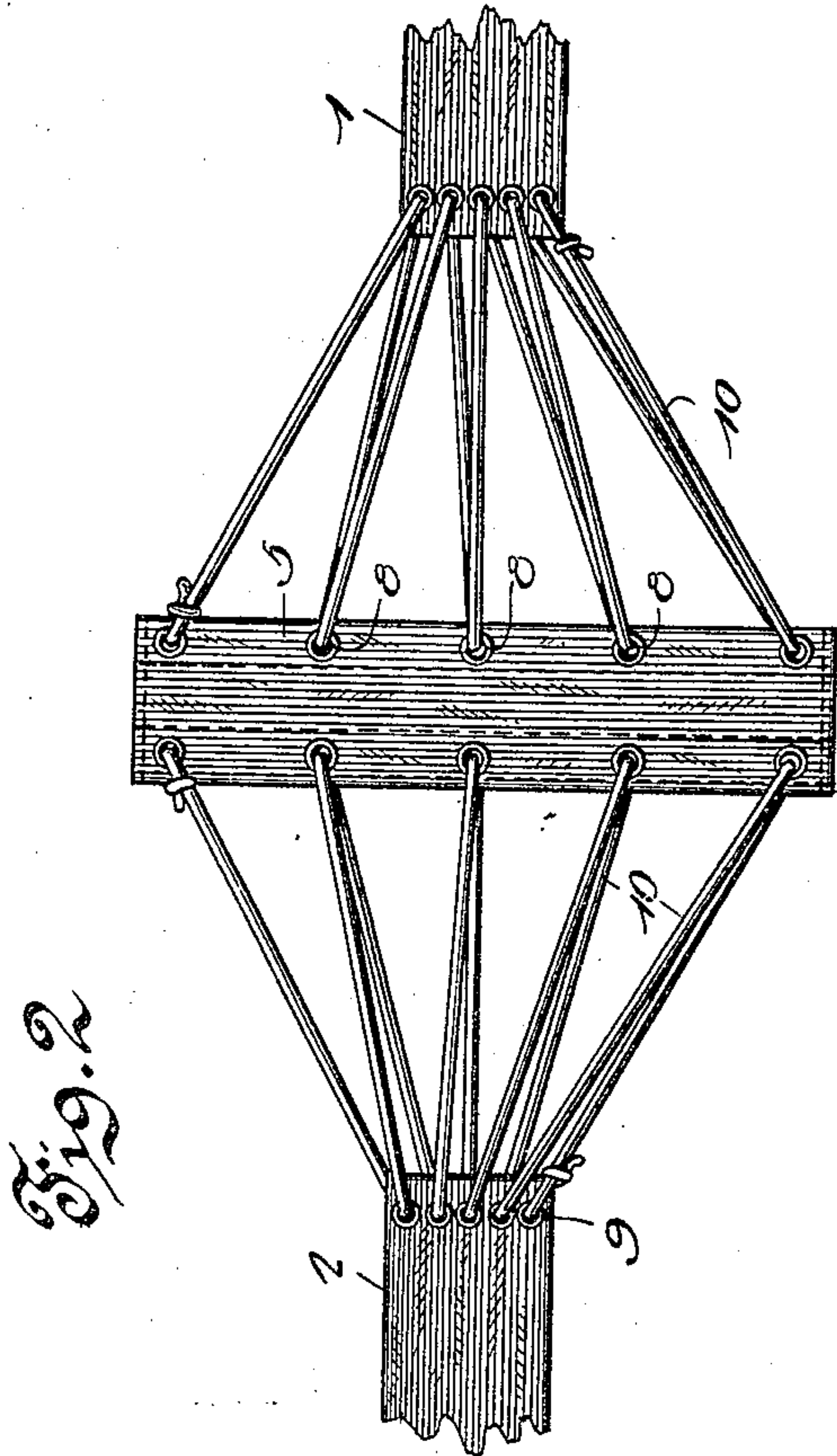
No. 641,590.

Patented Jan. 16, 1900.

A. S. GRIMM.
SUSPENDERS.

(Application filed Nov. 6, 1899.)

(No Model.)



Witnesses
J. Kaufmeyerwill.
Chas. S. Hoyer.

By his Attorneys. A. S. Grimm. Inventor.

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UNITED STATES PATENT OFFICE.

ALVA SILAS GRIMM, OF ST. MARY'S, WEST VIRGINIA.

SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 641,590, dated January 16, 1900.

Application filed November 6, 1899. Serial No. 735,999. (No model.)

To all whom it may concern:

Be it known that I, ALVA SILAS GRIMM, a citizen of the United States, residing at St. Mary's, in the county of Pleasant and State of West Virginia, have invented a new and useful Suspenders, of which the following is a specification.

This invention relates to suspenders; and the object of the same is to overcome the inconvenience and disadvantage of having the weight sustained by the suspenders brought to bear on a small shoulder expanse by providing elongated shoulder-supports which extend almost fully over the shoulder length and have the front and back suspender-webs on each side adjustably connected thereto by flexible means, and thereby diffuse the weight sustained by the suspenders over a greater shoulder area with comfort and healthful results.

With these and other objects in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the improved suspenders shown applied. Fig. 2 is a top plan view of portions of suspender-webs, showing the improved attachment in connection therewith. Fig. 3 is a detail perspective view of a shoulder-support forming part of the improvement and broken away to show the interior construction. Fig. 4 is a transverse vertical section through the device shown by Fig. 3.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates the front webs of a pair of suspenders, and 2 one of the back webs, as shown by Fig. 2. Both the front and back webs will be supplied with the usual or any preferred form of attaching ends 3, and the front webs 1 will have adjusting slides or buckles 4.

The ordinary continuity of the webs will be interrupted and broken by the interposition of the improved attachment, which comprises a shoulder-support 5, made up of flexible material, such as fabric, and held sufficiently rigid to preserve its shape by springs or analogous devices 6 inclosed therein and extending longitudinally thereof. This shoulder-support will be preferably made of a double piece of material of suitable texture, and the springs or analogous devices 6 are inclosed within a pocket 7, formed in the said support and extending longitudinally of the latter, whereby the said support is held in shape, though permitted to yield to conform to the shoulder contour. The length of the support is slightly less than that of the shoulder and has along opposite side edges thereof lines of eyelets 8. The upper terminals of the interrupted back and front webs on each side are also supplied with transverse lines of eyelets 9, which are preferably equal in number to those in the opposite side edges of the shoulder-supports and as clearly shown by Fig. 2. The eyelets 9 of the webs and 8 of the supports 5 are connected by yielding cords or laces of any preferred character, as at 10, the said laces being alternately threaded through the eyelets in the separate parts, and it will be observed that by this arrangement the weight sustained by the suspenders is diffused over a greater shoulder area, in view of the length of the said supports 5, and also by reason of the fact that the cords or laces 10 are diverged from the web terminals toward the eyelets of the supports, which are continued throughout the entire length of the latter. By this means the weight which is ordinarily concentrated by a narrow web on one small portion of the shoulder is extended over a greater surface with more ease to the wearer and with materially-increased healthful results. The supports 5 are caused to retain their shape by the means heretofore set forth, and, if desired, an adjustment of the webs could be obtained through the medium of the cords or laces 10, which of course will be changed with relation to the web terminals proportionately to the adjustment of the webs by the ordinary means, for the reason that the supports to be effective should always rest upon the top of the shoulder.

The improved attachment can be applied to suspenders with very little increase in the cost of manufacture of such devices, and the quality or structural character of the supports and cords or laces will of course depend upon the grade of suspenders. In some instances it may be preferred to make the cords

or laces elastic and employ them as the sole yielding means within the structural make-up of a pair of suspenders.

It is obviously apparent that changes in the proportions, form, and minor details of construction may be resorted to without in the least departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. The combination with a pair of suspenders, of supports to rest on the shoulders exclusively and arranged in planes at right angles to the direction of and interposed between the webs.

2. The combination with a pair of suspenders, of supports to bear exclusively on the shoulders and arranged in planes at right angles to the direction of and interposed between the webs, and adjustable connecting means between the opposite portions of the said supports and the ends of the webs.

3. A pair of suspenders having shoulder-supports to bear exclusively on the shoulders at an angle to the direction of the webs and provided with shaping devices.

4. A pair of suspenders having shoulder-supports to bear exclusively on the shoulders

and arranged in planes at angles to the direction of the web and flexibly and adjustably connected to the latter.

5. A pair of suspenders having shoulder-supports to bear exclusively on the shoulders with eyelets along the side edges of the same, the said supports being arranged at an angle to the direction of the webs, and cords threaded through the said eyelets and connected to the webs.

6. A pair of suspenders comprising webs intermediately interrupted and having the webs supplied with eyelets, shoulder-supports with eyelets along the opposite side edges at a greater distance apart than those in the webs, and a cord threaded through the eyelets of the supports and webs.

7. A pair of suspenders comprising webs and shoulder-supports flexibly connected thereto and having stiffening means therein.

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

ALVA SILAS GRIMM.

Witnesses:

E. E. FORBES,
W. H. REESE.