

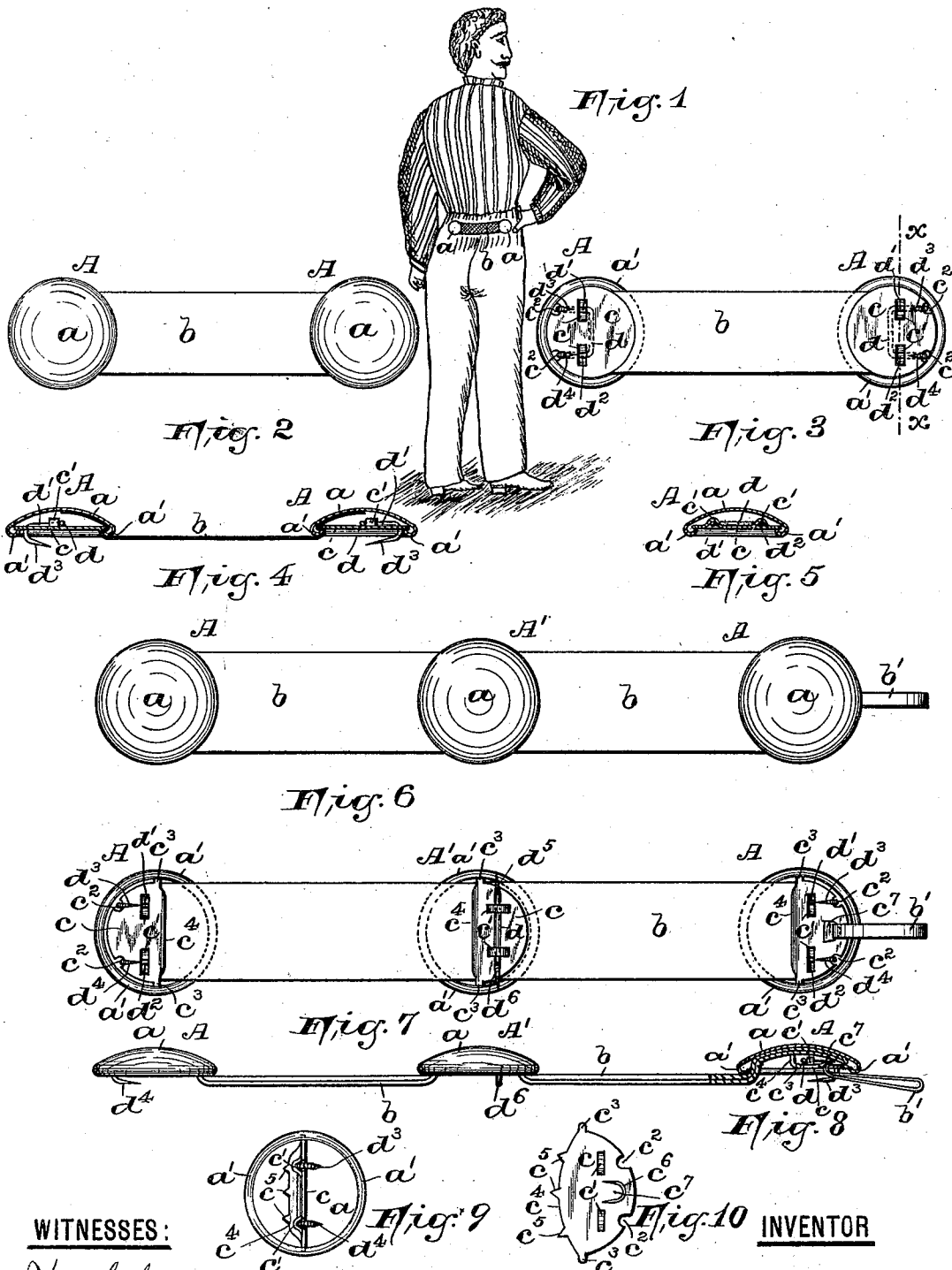
(No Model.)

2 Sheets—Sheet 1.

G. B. ADAMS.
TROUSERS STRAP.

No. 510,875.

Patented Dec. 19, 1893.



WITNESSES:

Wm. H. Banfield, Jr.
John A. Dunsen

INVENTOR

George B. Adams,
BY Fred C. Fraentzel, ATT'Y.

(No Model.)

2 Sheets—Sheet 2.

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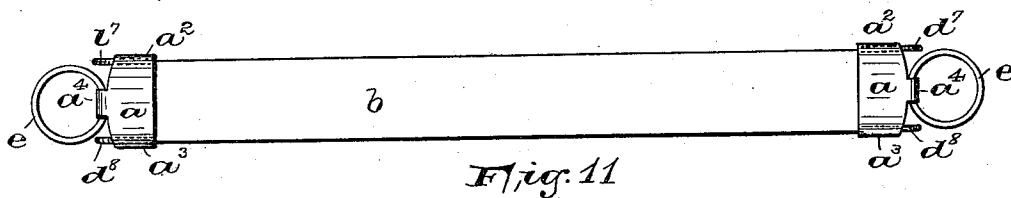


Fig. 11

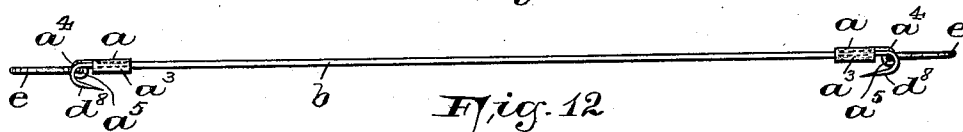


Fig. 12

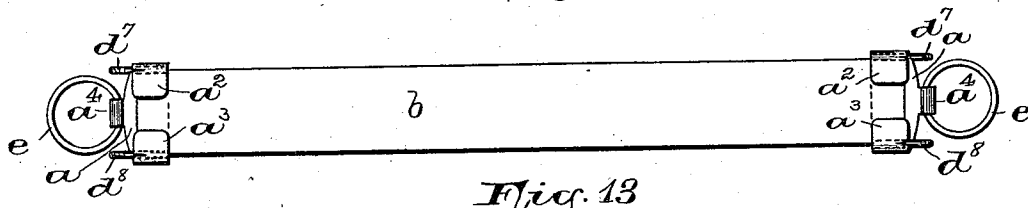


Fig. 13

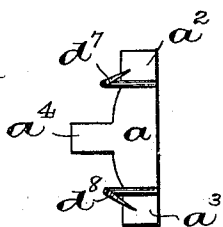


Fig. 14

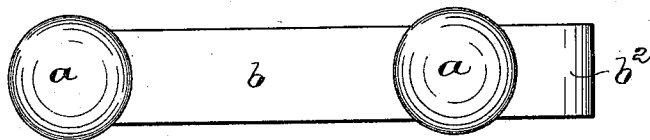


Fig. 15

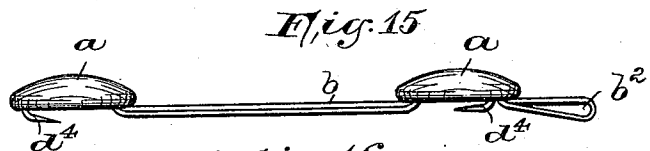


Fig. 16

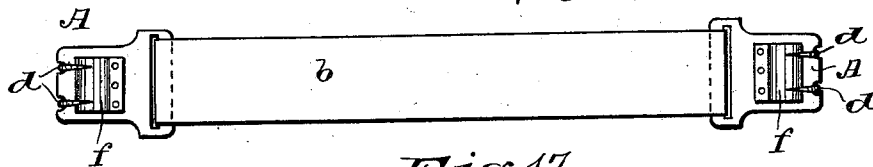


Fig. 17

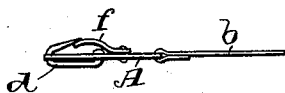


Fig. 18

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UNITED STATES PATENT OFFICE.

GEORGE B. ADAMS, OF IRVINGTON, NEW JERSEY.

TROUSERS-STRAP.

SPECIFICATION forming part of Letters Patent No. 510,875, dated December 19, 1893.

Application filed January 9, 1893. Serial No. 457,734. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. ADAMS, a citizen of the United States, residing at Irvington, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Trousers Supports or Straps; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of the invention is to provide a trousers strap or supporter, which can be readily attached to the trousers with the least difficulty, and which adapts itself and conforms to any position of the body, being especially adapted to all athletic positions, and allowing the greatest freedom of ease and motion, being instantly adjusted to any degree of tightness, whereby a supporting or holding device is the result, which is far superior to the old style of belts or suspenders.

In the drawings herewith accompanying, in which similar letters of reference are employed in each of the several views, to indicate correspondings parts;—Figure 1 is a view clearly illustrating the application of the trousers strap in connection with the trousers, when worn by a person. Fig. 2 is a front view of a band or strap provided at its ends with holding devices for attaching the strap to the garment. Fig. 3 is a back view of the same, illustrating one manner of securing the holding devices to the ends of the strap or band. Fig. 4 is a vertical longitudinal section of the same, to more clearly illustrate the manner of securing the ends of the strap or band between the plates secured together in such a manner as to form buttons, and Fig. 5 is a cross-section of one of said holding buttons, taken on line *x*, in Fig. 3. Fig. 6 is a view similar to that shown in Fig. 2, but illustrating the strap or band passed between the plates of a centrally arranged holding device. Fig. 7 is a back view of the same, the holding devices being constructed in the shape of buttons, each being provided with a pivoted back-plate having pins, between which and the face-plate of the button, the ends of the

strap are arranged. Fig. 8 is a side view of this form of strap, one end thereof being represented in vertical section. Fig. 9 is a back view of one of the holding devices or buttons detached from the band or strap, illustrating the pivoted back-plate in its raised position, ready for the insertion of the strap ends between the face-plate of the device and a holding jaw on said pivoted back-plate. Fig. 10 represents a blank struck up from sheet metal, from which said pivoted back-plate is made. Fig. 11 is a top view, Fig. 12 a side view, and Fig. 13 a back view of a trousers strap or band, provided at its ends with holding devices of a modified form of construction, the same being provided with holding rings. Fig. 14 is a plan view of a blank from which said holding devices are made, clearly illustrating the arrangement of the holding pins used in connection therewith. Fig. 15 is a front view of a trousers strap, similar to that illustrated in Fig. 1, in which the strap or band has been doubled, said doubled end extending from the opposite portion of one of said holding devices, thereby forming a grasping loop or pull; and Fig. 16 is a side view of the same. Fig. 17 is still another modified form of construction of trousers strap or band, in which the holding devices are a single plate provided with pin points, having arranged in connection therewith, a pressure spring. Fig. 18 is a side view of one of said holding devices.

In the drawings, *b* is a suitable strap or band, preferably of elastic material, to the ends of which are secured suitable holding devices *A*, of any suitable shape and ornamentation, and of any preferred design. The holding devices *A*, illustrated in Figs. 2, 3, 4 and 5, are button-shaped, and consist essentially of a shell *a* provided with an inwardly projecting marginal bead or rim *a'* between which and a back-plate *c*, the ends of the strap or band *b* are firmly secured, as will be evident. Each back-plate is provided with one or more holding pins *d*, which are secured to the back-plate in any convenient manner, but preferably in the manner illustrated in Figs. 3, 4 and 5, said pin *d* being formed from a wire strand, which is passed through and secured in loops or perforations *c'* in the back-plate. The wire is bent at right angles to

form the strands d' and d^2 which are bent around the edge of the back-plate c , forming the hook-shaped pin points d^3 and d^4 . In order to prevent a displacement of the pins to either side the strands may be arranged in cut-away portions c^2 in the edge of the back-plate c , substantially as illustrated. In lieu of this form of holding device, the back-plate c , may be of the shape illustrated more particularly in Figs. 7 and 10, being provided with small journal pins c^3 by means of which this form of back-plate can be pivotally arranged in connection with the face-plate a , the journal pins c^3 on the back-plate being arranged beneath the marginal rim or bead a' . Said back-plate c is also provided at or near its pivotal end with a holding jaw c^4 formed at right angles to said back-plate, which may be provided with the grasping teeth c^5 . The pin or pins d are secured to the back-plate c in any convenient manner, but preferably in the manner illustrated. In order to secure said holding devices, illustrated in said Figs. 6 and 7, to the ends of the strap or band b , the back-plate c is raised, as illustrated in Fig. 9, when the free ends of the strap or band can be placed between the inner surface of the face-plate a and the holding edge of the holding or grasping jaw c^4 on the back-plate, which when lowered, presses the band against the inner face of the face-plate and firmly secures the device in position on the end of the band. Said strap or band b may be provided with a centrally and adjustably arranged holding device or button A' , clamped or held in place on the strap b by means of the pivoted back-plate c . In this case the pin is provided with oppositely projecting pin points d^3 and d^4 , as will be evident from Fig. 7. As will be seen from said Fig. 7 and from Fig. 10, the back-plate c may be formed with an opening c^6 and a lip or tongue c^7 in which can be secured a suitable holding loop or pull b' , for adjusting the strap in its most desirable position on the pants.

The application of my novel trousers strap will be clearly evident from Fig. 1. By means of the hook-shaped pin or pins on the fastening or holding devices A , one of said devices is hooked into the cloth of the trousers, near the waist-line, and by pulling on the other holding device, the elastic strap or band b can be instantly adjusted, when this second device or button is pressed down against the material and its holding teeth embed themselves in the material. It will thus be evident, that the strap answers the purpose of a belt, which conforms itself to any position of the body and allows of a very great freedom of ease and motion.

In some cases, I may use three or more holding devices or buttons and as illustrated in Figs. 6 and 7, the extra holding device is in that case provided with oppositely projecting pin points, which embed themselves in the material and securely hold the strap in position, thereby preventing the waist-band of

the trousers from slipping below the band b , as might be the case when the band is worn by athletes.

In lieu of making the holding devices A button-shape, they may be constructed, as in Figs. 11, 12, 13 and 14. Said holding devices, in that case, are made of flat sheet metal, as illustrated in Fig. 14, being provided with oppositely extending clamping portions a^2 and a^3 , having securely fastened thereto the hook-shaped pins d^7 and d^8 . Said portions a^2 and a^3 are bent over which forms a space between the main portion, constituting the face-plate, and the said portions a^2 and a^3 , between which the end of the strap or band b is placed and firmly clamped down as will be seen from Fig. 13. The body-portion of said holding device may be provided with a tongue a^4 which can be formed into an eye a^5 in which is secured a ring or pull-piece e . As will be seen from Figs. 15 and 16, the strap b may be doubled and its doubled end may extend from the opposite side of the face-plate a and the back-plate c , thereby forming a pull-loop b^2 for adjusting the pants strap to the pants, or for detaching the same, as might be the case.

In Figs. 17 and 18, I have illustrated a plain plate provided with a suitable pin or pins, and in connection with said pin or pins, I use a spring-plate f , the free end of which is in normal contact with the pin points, the pressure of the spring being such, to cause the said spring to act as a guide and to prevent the pin points from entering too deeply into the material.

Having thus described my invention, what I claim is—

1. As an improved article of manufacture, a trousers strap, comprising therein a band b , fastening devices at the ends of said band, a pin or pins secured on said fastening devices, and a spring on each fastening device in normal contact with said pin or pin-points, substantially as and for the purposes set forth.

2. As an improved article of manufacture, a trousers strap, comprising therein a band b , fastening devices at the ends of said band, each fastening device comprising therein a suitable holding plate, perforations in said plate, pin-pointed hooks secured in said perforations, said hooks being formed to extend around the edges of said plate, and a pull-piece or loop on each of said fastening devices, substantially as and for the purposes set forth.

3. As an improved article of manufacture, a trousers strap, comprising therein a band b , and fastening devices at the ends of said band, each fastening device consisting substantially of a face-plate and a back-plate, between which the ends of the strap are secured, and a pin or pins secured on said back-plates, substantially as and for the purposes set forth.

4. As an improved article of manufacture, a trousers strap, comprising therein a band b ,

fastening devices at the ends of said band, each fastening device comprising therein a suitable holding plate, perforations in said plate, and pin-pointed hooks secured in said
5 perforations, said hooks being formed to extend around the edge of said plate, substantially as and for the purposes set forth.

5. As an improved article of manufacture, a trousers strap, comprising therein a band b,
10 fastening devices at the ends of said band, said fastening devices being provided with perforations and pin-pointed hooks passed

through said perforations, and secured to said fastening devices, and a spring on each fastening device in normal contact with the pin- 15 pointed hooks on said fastening devices, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 8th day of September, 1882.

GEORGE B. ADAMS.

Witnesses:

FREDK. C. FRAENTZEL,
WM. H. CAMFIELD, Jr.