Nov. 30, 1965 J. E. JOHNSON 3,220,018

CONCEALABLE TROUSER SUPPORT

Original Filed Dec. 20, 1962

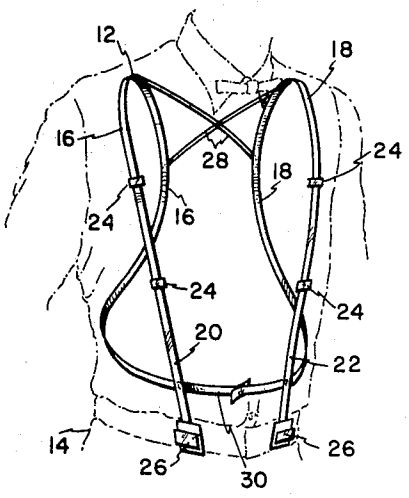


FIG. 1.

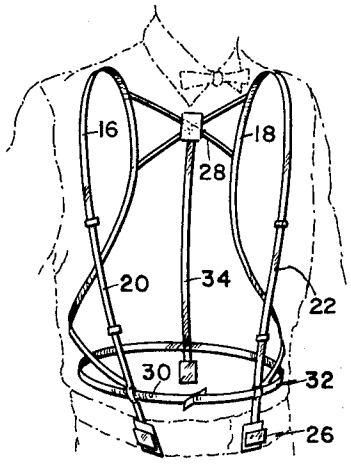


FIG. 2.

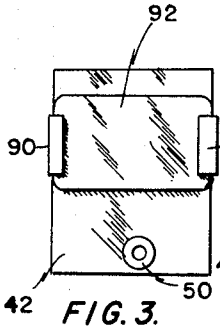


FIG. 3.

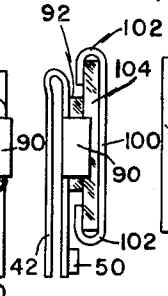


FIG. 4.

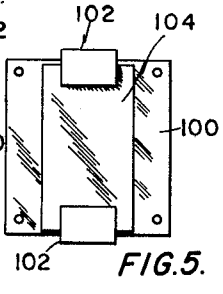


FIG. 5.

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United States Patent Office 3,220,018 Patented Nov. 30, 1965

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CONCEALABLE TROUSER SUPPORT

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Original application Dec. 20, 1962, Ser. No. 246,118, now Patent No. 3,167,786, dated Feb. 2, 1965. Divided and this application Nov. 9, 1964, Ser. No. 409,790
2 Claims. (Cl. 2—310)

My invention is directed toward trouser supports of the suspender type and, more particularly, relates to supports of this type adapted to be worn under the shirt of a wearer and thus concealed from external view.

This application is a division of my co-pending application Serial No. 246,118 filed Dec. 20, 1962, now Patent No. 3,167,786.

It is an object of my invention to provide a new and improved type of concealable trouser support utilizing at least two straps having clasps which are engageable with corresponding mating clasps secured to the top of the trouser, the clasps being so constructed as to permit the clasps to be readily engaged and disengaged during use without affecting the position of the shirt in any way.

Another object is to provide a new and improved concealable trouser support of the character indicated wherein the support and trouser clasps can be disengaged and re-engaged by the user without reaching inside the shirt and without producing any movement of the shirt itself.

Yet another object is to provide a new and improved type of concealable trouser support of the character indicated which can be manufactured easily and inexpensively.

These and other objects in my invention will either be explained or will become apparent hereinafter.

My concealable trouser support is adapted to be worn by a person wearing trousers and a shirt, the shirt having its bottom edges tucked within the waistband of the trousers. The support comprises a structure to be worn under the shirt and including first and second vertical loops, each loop being adapted to fit about the corresponding shoulder of the wearer. First and second vertical front straps extended downward from the first and second loops respectively and terminate at first and second rigid support clasps respectively.

First and second trouser clasps are temporarily or permanently secured to the inner front waistband of the trousers and are each engageable with and disengageable from the corresponding support clasp. Each of the support and trouser clasps include a magnet. The support and trouser clasps are engaged by magnetic force with a portion of the wearer's shirt held in position therebetween.

Each clasp pair can be readily disengaged by the wearer without producing any movement of the shirt out of desired position and without requiring any access to the interior of the shirt.

In order to provide greater wearing comfort and, at the same time, prevent the shirt from being damaged in any way, the trouser pull is exerted through the support to the shoulders of the wearer with substantially no pull being exerted on the shirt to cause any clamping or damage thereof. To this end, the top rear portions of each of the first and second loops can be joined together in two places by an X-shaped support member extending in a general horizontal direction therebetween. Depending upon the size of the wearer's shoulders and waist, it is sometimes advisable to provide a horizontal member extending between and secured to both of the first and second front straps.

In addition, trouser and support clasps for supporting

the trousers at the rear can be incorporated into my invention and used, for example, when the wearer wears extremely loose trousers.

Illustrative emboriments of my invention will now be described in more detail with reference to the accompanying drawings wherein:

FIG. 1 is a perspective view of my concealable trouser support;

FIG. 2 is a perspective view of my trouser support in form somewhat modified from the form shown in FIG. 1;

FIG. 3 is a plan view of a trouser support clasp in accordance with my invention;

FIG. 4 is a side view showing trouser and support clasps in accordance with my invention in mating engagement and;

FIG. 5 is a plan view of a support clasp in accordance with my invention.

Referring now to FIG. 1, a person is shown wearing a shirt **12** and a pair of trousers **14**. My concealable trouser support is worn underneath the shirt. This support includes a first vertical loop **16** fitting about the left shoulder of the wearer and a second vertical member **18** fitting around the right side of the wearer.

A first vertical front strap **20** extends downward behind the front of the shirt and is secured to the bottom of loop **16**. Similarly, a second vertical front strap **22** extends downward behind the front of the shirt and is secured to the bottom of loop **18**. Conventional buckles or other similar means **24**, carried by each of the straps **20** and **22**, permit the length of each of these straps to be individually adjusted as required.

An X-shaped strap member **28** extends between vertical loops **16** and **18** and is secured thereto in the top rear regions thereof whereby this member **28** rests on the rear top portion of the shoulders of the wearer.

Front straps **20** and **22** can be joined adjacent these support clasps by horizontal strap **30** formed from two joinable half straps.

When the user wears extremely loose trousers, the support can be modified as shown in FIGURE 2. The support so modified uses a horizontal band **32**, which completely encircles the waist in place of the member **30** in FIGURE 31 and, in addition, is provided with a third vertical rear strap **34**, which extends downward toward the trousers from the mid-point of the X-shaped strap member **18**.

As shown in FIGURES 1 and 2, each of the vertical front and rear straps **20**, **22** and **34** terminates in a rigid support clasp **26** (shown in block form in FIGURES 1 and 2), which is engageable with and disengageable from a corresponding trouser clasp secured to the inside of the trousers.

Referring now to FIGURES 3 and 5, the trouser clasp can comprise a U-shaped element **42** having two oppositely disposed vertical brackets **90**, which together hold in place a magnet plate **92** (formed, for example, of Alnico). By means of this U-shape, each clasp **42** can fit over the top of the trouser waistband whereby each clasp can be easily secured to or removed from the trousers by tightening or loosening the screw **50** shown in block form in FIGURES 3 and 4. Alternatively each trouser clasp **42** can take the form of a flat plate having perforations through which threads can be sewn to permanently secure the clasp to the trousers.

The support clasp **26** can take the form of a plate **100** having two oppositely disposed horizontal brackets **102**, which together hold in place a second magnet plate **104**.

By placing the trouser and support clasps together with the shirt sub-intended therebetween, the magnet plates **90** and **104** will be engaged by magnetic force. When the clasps are so engaged, the brackets **102** on the sup-

port clasp extend horizontally and prevent the magnet plate **92** of the trouser clasp from shifting in the horizontal direction; similarly the brackets **90** on the trouser clasp extend vertically and prevent the magnet plate **104** of the support clasp from shifting in the vertical direction. Consequently, relative sliding movements of the trouser and support clasps are prevented when the clasps are engaged.

In the absence of the brackets, the movements of the wearer, while using my concealable trouser support could cause accidental disengagement of the engaged clasps.

The wearer, at any time, can disengage the engaged clasps by pushing outward on the inside of the trouser band adjacent the appropriate trouser clasp. The shirt can be adjusted thereafter if and as necessary and the clasps can then be re-engaged merely by moving the appropriate trouser clasp into position adjacent the corresponding support clasp.

When desired, my concealable trouser support instead of being a separate unit, can be secured to or embodied in either a shirt or vest. Similarly, the trouser clasps can, if necessary, be incorporated into the trouser band.

While I have shown and pointed out and described my invention with particular reference to the drawings, it will be apparent to those skilled in the art that many modifications can be made within the scope and sphere of my invention as defined in the claims that follow.

What is claimed is:

1. A concealable trouser support adapted to be worn by a person wearing trousers and a shirt, the shirt having its bottom edges tucked within the waistband of the trousers, said support comprising a structure to be worn underneath the shirt and including first and second vertical loops, each loop being adapted to fit about a corresponding shoulder of the wearer, first and second vertical straps, each strap depending downward from a corresponding one of said loops toward said waistband, and first and second support clasps, each support clasp being respectively secured to the bottom end of the corresponding strap and including a first plate-like element having two spaced-apart parallel brackets extending upward therefrom and a flat magnet resting on said element in such manner as to be disposed between said brackets and secured in position thereby, and first and second trouser clasps, each trouser clasp being adapted to be secured to the trouserwaist and including a second plate-like element having two spaced-apart brackets extending upward therefrom and a flat magnet resting on said element in such manner as to be disposed between said brackets and secured in position thereby, each trouser clasp being engageable with a corresponding support clasp through the appropriate portion of the shirt in a position at which the magnet of the first element magnetically engages the magnet of the second element and the brackets of the first element are oriented at right angle engagement with respect to the brackets of the second element to lock the shirt in position between the engaged clasps and to prevent the engaged magnets of the first and second elements from slipping relative to each other upon movement of the shirt.

2. In combination, a first clasp being adapted to be removably secured to a first article of clothing and having a first plate-like element with a first flat magnet secured thereto and resting thereon and first and second brackets extending perpendicularly upward from the first element at opposite ends of the first magnet, and a second clasp being adapted to be removably secured to a second article of clothing and having a second plate-like element with a second flat magnet secured thereto and resting thereon and third and fourth brackets extending perpendicularly upward from the second element at opposite ends of the second magnet, the first and second magnets magnetically engaging each other in a position at which the third and fourth brackets prevent side slippage of the first magnet with respect to the second magnet and the first and second brackets prevent side slippage of the second magnet with respect to the first magnet when a third article of clothing is interposed therebetween, the first and second brackets being oriented at right angle engagement with respect to the third and fourth brackets.

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