E. L. PITTS.
ATTACHMENT FOR GARMENT SUPPORTERS.
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ATTACHMENT FOR GARMENT-SUPPORTERS.


To all whom it may concern:

Be it known that I, EDWARD LINCOLN PITTS, of Jerome, in the county of Yavapai, Territory of Arizona, have invented a new and useful Improvement in Attachments for Garment-Supporters, of which the following is a specification.

My invention relates to garment-supporters, the object being to provide simple and effective means for attaching a garment to the supporter without the intervention of buttons or the like, and while my invention is designed to be used as an attachment for all kinds of garment-supporters, being made in different sizes to suit the requirements of each particular case, yet it is specially adapted to be used as an attachment for suspenders, and when so used takes the place of the ordinary straps with which suspenders are provided for immediate connection at the front of the trousers and dispenses with the necessity of buttons upon the trousers to be used therewith.

A further object of my invention is to provide means whereby the weight of the garment supported shall act automatically upon the attachment to secure the same to the garment, so that the greater the weight imposed upon the supporter the more firmly will the garment be grasped and held.

The further objects of my invention, together with its construction, arrangement of parts, and operation, will be set forth in detail in the appended specification, and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed, reference being had to the accompanying drawings, which form a part of this application, and in which—

Figure 1 is a perspective view of my invention complete ready to be attached to a suspender or other garment-supporter. Fig. 2 is an elevation of the outer side of the attachment. Fig. 3 is a vertical longitudinal section of Fig. 2. Fig. 4 is a vertical transverse section taken on the line 4-4 of Fig. 5, with the gripping-lever omitted for clearance. Fig. 5 is a perspective view of the fulcrum-hook, Fig. 6 of the clamping-lever, Fig. 7 of the auxiliary lever, Fig. 8 of the gripping-jaws, Fig. 9 of the operating-slide, and Fig. 10 of the main frame. Figs. 5 to 10 show my invention as illustrated in Fig. 1, with its parts occupying different planes separated vertically from each other.

For convenience of reference the different parts of my device will be designated by numerals, the same numerals indicating the same parts throughout the various figures of the drawings.

Referring to the drawings, the numeral 1 indicates the body portion of my device, which consists of the base-plate 1°, the side plates 1°, bent upwardly at right angles to the base-plate and parallel with each other and forming guides for the operating-slide, and the keeper 1" at the rear end of said base member.

The operating-slide 2 is provided at its upper end with the slot 2°, which furnishes means for securing the attachment to the supporter with which it is to be used, and at its lower end said slide is provided with the upwardly-bent ears 2′, which carry the friction-rollers 2″ and 2‴. The said member 2 is adapted to be snugly received between the two upturned portions 1° of the base member, with its central or body portion 2° fitted and sliding in the keeper 1″ thereof the said side plates 1° and keeper 1″ forming 80 guides for the said operating-slide, which is designed to have free longitudinal movement within said body portion. Located at the lower end of the body 1 is the pair of gripping-jaws 3, the inner one of which is pivotally secured to said body in such a manner as to permit free oscillating movement of the pair of jaws upon said body. These jaws consist of two similar sections 3° and 3‴, each having a rearwardly-extending integral or rigidly-attached shank 3‴ united together by the hinge 3‴. The sections 3° and 3‴ of these jaws are cup-shaped and have their hollow portions facing each other. Secured within these hollow portions in any suitable manner are rubber blocks 5, preferably provided with cooperating teeth to increase their gripping capacity.

To the top side of the member 3° of the gripping-jaws is pivotally secured at 4° the 100
The gripping-lever 4. This lever is a stout steel spring and if desired may be made somewhat thick at its lower end, as shown in Fig. 3. This lever is secured to the jaw 3 in the same manner that the base member 1 is secured to the other jaw 3 and for the same reason—namely, that a free oscillating movement of the parts upon each other will always be permitted when occasion requires.

Operating substantially in the same plane with the gripping-jaws is the auxiliary lever 5, having the downwardly-extending ears 5, adapted to overlap the upwardly-extending side plates 1 of the body 1 and to be pivotally connected to said plates at 6. The said auxiliary lever 5 is of a convex shape and gradually increases in thickness toward its upper end, which gives it increasing rigidity toward such end. Its lower end has a sharp downwardly-extending curved portion 5, the object of which will presently appear.

Carried by the pivot 6 is the fulcrum-hook 7, the outer wing 7 of which extends over the auxiliary lever 5 and is elevated above the same sufficiently to provide a space into which the gripping-lever is received when in operative position. A projection or prominence 7 is provided on the gripping-lever 4 and is designed when said lever is swung in its operative position to rest against the upper edge of the section 7 of the fulcrum-hook 7, whereby a pull upon the gripping-jaws is prevented from imparting longitudinal movement to the gripping-lever and in consequence thereof imposing undue strain upon the pivots connecting the jaws with the parts which they embrace, especially upon the inner one of said pivots, which connects the inner jaw with the main frame.

In order that the projection 4 may the more readily pass the corner of the member 7, as hereinafter described, the corner 7 of said member is rounded, as clearly shown in Fig. 3.

From Figs. 1 to 5 it will be seen that when the operating-slide 2 is moved upwardly with reference to the body 1 its roller 2 will engage the auxiliary lever and operate the same, thereby producing the effect just referred to. The other roller 2 facilitates the moving of the slide 2 upon the plate 1.

In use the slide 2 is attached to the garment-supporter, and the device hangs, preferably, in a dependent position therefrom. The gripping-lever 4 is swung to the right out of engagement with the fulcrum-hook 7, as in Fig. 5, and the jaws are opened and a portion of the garment to be supported inserted between them. The gripping-lever is then swung again into engagement with the member 7 and the auxiliary lever, which brings the jaws practically to a closed position, with a slight grip upon the garment inserted between them.

The pull of the garment upon the supporter will cause the body 1 and all the parts supported thereby to move from the operating-slide 2, which being attached to the supporter will of necessity remain stationary. This movement, as already stated, will through the roller 2 elevate the auxiliary lever, and thereby increase the grip of the device upon the garment supported. The greater the pull upon the garment the further movement of the auxiliary lever, as illustrated in Fig. 1 and indicated in dotted lines in Fig. 3, the ears 2 will come into engagement with the keeper 1 and its further movement be thereby prevented.

Since the opposing jaws are pivotally secured to the base member and the gripping-lever, it will be seen that whatever unusual positions the wearer may assume the jaws will adjust themselves to the position of the garment supported, and thereby all wrenching and oscillating and lateral movement will be prevented. It is further apparent that the area of cloth grasped by the jaws of my device is so great comparatively that a strain which would tear a button off may be safely imposed upon them.

When it is desired to release a garment from the grip of my device, the downward movement of the operating-slide 2 is suitably limited by the downwardly-extending portion 5 at the lower end of the auxiliary lever 5. The downward movement of the slide 2 being thus limited, the rollers 2 and 2 are prevented from ever coming in contact with the hinged jaws, and thereby interfering with their free movement upon their pivot. Furthermore, it should be borne in mind that the gripping-lever 4 and the body 1 each have a free and independent pivot movement upon their respective jaws of the gripping device, so that either one of them can be moved independently of the said jaws or of each other, and the jaws can move steadily, as partially illustrated by dotted lines in Fig. 2, when both of said members 4 and 1 are locked in operative relation to each other by means of the fulcrum-lever 7.

By my invention it will be seen that I provide a body or main frame 1, a pair of jaws 2 connected together, so that they will be preserved in proper relation to each other, one of the jaws being pivoted to the body or main frame and operating means being pivoted to the other jaw for operating the same, whereby the jaws will be preserved in proper relation to each other and can swing or oscillate laterally and can be operated to properly grip the garment.
Having thus fully set forth the principles of my invention and shown means whereby the same may be applied to use, I yet do not wish to be limited to the exact showing made, but desire protection upon all that comes clearly within the spirit and scope of my invention.

What I claim as new, and desire to procure Letters Patent upon, is—

1. An attachment for garment-supporters comprising an operating-slide, a body or main frame having a base-plate provided at its upper end with a keeper and at its side edges with projecting side plates, a pair of jaws having shanks hinged together and one of said jaws being pivoted to the body or main frame near the lower end of the latter, a gripping-lever pivoted to the other jaw and provided on its outer side with a stop projection, or protuberance, an auxiliary lever having inwardly-projecting ears pivoted to the side plates of the body and provided at its lower end with a stop portion to limit the downward movement of the operating-slide and having a rearwardly-inclined member arranged for engagement by one of the rollers of said operating-slide, said slide being movable longitudinally in the keeper of the body and between the side plates of the latter and having at its upper end means for connection with the supporting devices and at its lower end a roller to operate beneath the auxiliary lever, and a fulcrum-hook having a side wing whereby it is connected with the body and a main frame and a main wing extending over the auxiliary lever and spaced apart therefrom whereby to receive beneath it the gripping-lever, such wing being also arranged for engagement by the projection or protuberance of the gripping-lever substantially as and for the purposes set forth.

2. In attachments for garment-supporters, a pair of opposing jaws; suitable supports for the same, said jaws being pivotally mounted on their supports, means independent of said supports for holding said jaws in operative relation to each other; and means for utilizing the pull of the garment upon the attachment to increase the grip of the jaws as described and for the purposes set forth.

3. In attachments for garment-supporters gripping-jaws, a body or main frame and a gripping-lever supporting said jaws, said lever being pivotally connected to one of said jaws to permit it to have an oscillating movement thereupon, and means for increasing the grip of the jaws by the pull of the garment upon the device as specified and for the purpose set forth.

4. In attachments for garment-supporters, a pair of gripping-jaws; a body or main frame and a gripping-lever supporting said jaws; a fulcrum for said lever; and means for utilizing the pull of the garment to operate the gripping-lever and impart a grip to the jaws of the device, said pair of jaws being pivotally connected to the parts supporting them, and being held together in operative position to each other by means independent of said supports, whereby to render said pair of jaws capable of oscillating movement between the main frame and the gripping-lever and also to permit either one of said parts, independently of the other, to have oscillating movement upon said jaws.

5. In attachments for garment-supporters the combination of a pair of gripping-jaws, a body or main frame and a gripping-lever carrying said jaws, a fulcrum on the main frame for said lever, an auxiliary lever operating upon said gripping-lever, and means for utilizing the weight of the garment supported to operate said levers and thereby increase the grip of the jaws as set forth.

6. An attachment for garment-supporters, comprising a pair of gripping-jaws connected together, a body or main frame supporting said pair of jaws, a gripping-lever carried upon one of said jaws, an auxiliary lever operating upon the gripping-lever, and an operating-slide between the main frame and the auxiliary lever for operating upon the latter as specified and for the purpose set forth.

7. In attachments for garment-supporters, a pair of connected gripping-jaws; supports for said jaws; pivotal connections between said jaws and supports; means independent of said supports for connecting said jaws to each other and means for utilizing the pull of the garment supported to increase the grip of the jaws thereupon as specified and shown.

8. In attachments for garment-supporters, a main frame, gripping-lever; a pair of jaws hinged together and pivotally connected to said frame and lever; an auxiliary lever; and a fulcrum-hook, carried by the main frame, and an operating-slide, having a roller adapted to cooperate with the auxiliary lever to increase the grip of the jaws, as specified, and for the purpose set forth.

9. An attachment for garment-supporters consisting of a pair of opposing jaws; supports therefor including a gripping-lever; a fulcrum for said lever; means for preventing longitudinal movement of said lever in the direction of the jaws; an auxiliary lever pivotally connected to one of the supports of the jaws; and an operating-slide cooperating with said auxiliary lever to increase the grasp of the jaws upon the garment supported.

10. In attachments for garment-supporters, a pair of jaws; rubber blocks with registering teeth carried by said jaws; a body or main frame; and a gripping-lever pivotally secured to said jaws; a fulcrum-hook carried by the body and forming a fulcrum for the gripping-lever; an auxiliary lever also carried by the body; an operating-slide; a roller carried thereby and cooperating with the auxiliary lever to increase the grip of the jaws; and guides and stops for said operating-slide, as set forth.
11. In attachments for garment-supporters, a pair of opposing jaws; a body portion and a gripping-lever pivotally supporting said jaws; an operating-slide; guides and stops carried by the body for controlling the movement of the operating-slide; a fulcrum for the gripping-lever; and an auxiliary lever for communicating the motion of the operating-slide, through the gripping-lever, to the jaws, all arranged as described and shown.

12. In attachments for garment-supporters, the combination with a base-plate, an auxiliary lever and clamping devices of an operating-slide provided with roller-bearings resting against the auxiliary lever and the base-plate, as specified and for the purpose set forth.

13. An attachment for garment-supporters including a pair of gripping-jaws, a gripping-lever pivoted to one of said jaws, a body or main frame supporting said jaws and lever, a fulcrum for the gripping-lever carried by the main frame, an auxiliary lever operating upon the gripping-lever, and an operating-slide for operating upon said levers; and guides and stops for said slide as described and shown.

14. In attachments for garment-supporters, a body or main frame, a pair of jaws held in proper relation to each other, one of said jaws being pivoted to the body or main frame; and operating means pivoted to the other jaw, whereby the jaws will be preserved in proper relation to each other and can swing or oscillate laterally, and can be operated to properly grip the garment.

15. A garment-supporting attachment comprising a body or main frame; a pair of jaws one of which is connected with the body or main frame; lever devices operating upon the other jaw; and an operating-slide arranged and operating between said lever devices and the body or main frame substantially as set forth.

16. In attachments for garment-supporters, a body or main frame having side plates; a pair of jaws, one of which is pivotally connected to the base-plate of said frame; a gripping-lever pivotally connected with the other jaw; an auxiliary lever having inwardly-extending ears pivotally connected to the side plates of the main frame on the outer sides of said plates; an operating-slide having ears between said plates; a fulcrum-hook secured to one of the side plates of the main frame and having a portion extending over the auxiliary lever, parallel therewith and separated therefrom sufficiently to form a space into which the gripping-lever is received; said parallel wing forming a fulcrum through which the motion of the operating-slide is communicated to the jaws as specified and shown.

EDWARD LINCOLN PITTS.

Witnesses:

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GEO. W. AVERY.