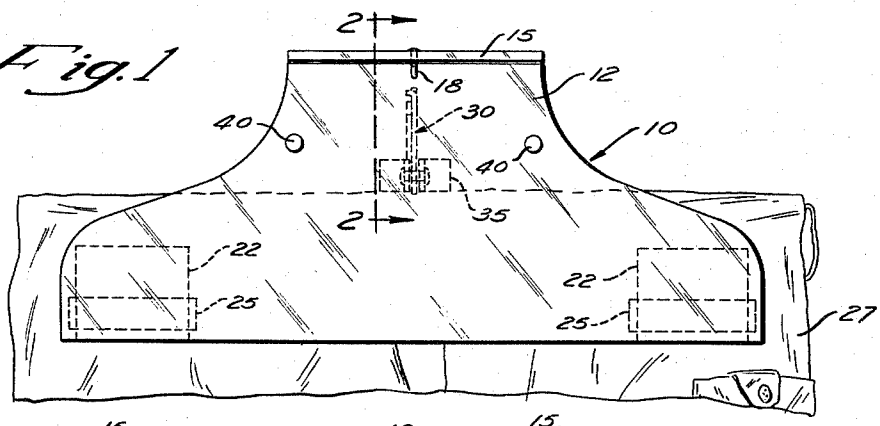
June 2, 1959 W. N. VIGOR 2,889,094

PANTS HANGER

Filed Dec. 30, 1957

Fig. 1



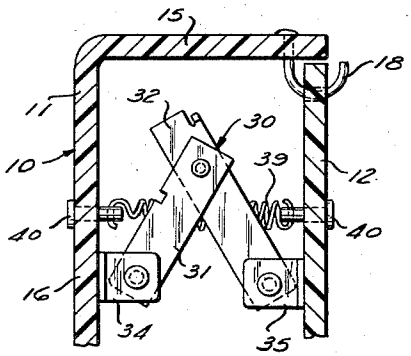


Fig. 2

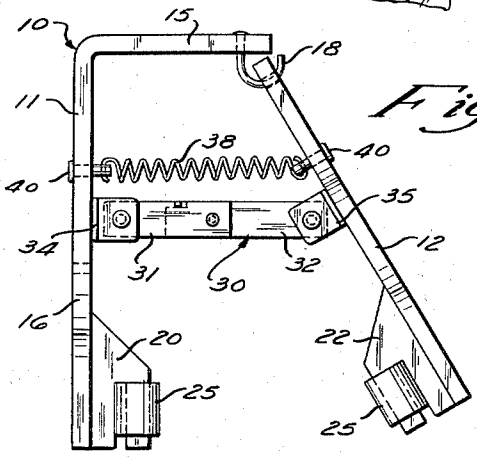


Fig. 3

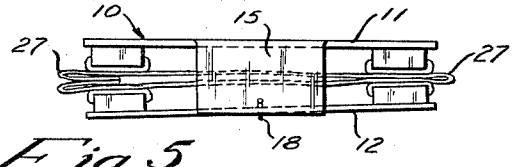


Fig. 5

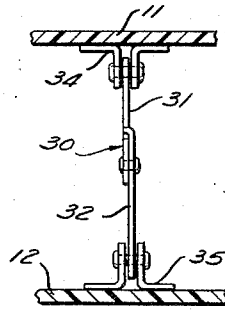


Fig. 4

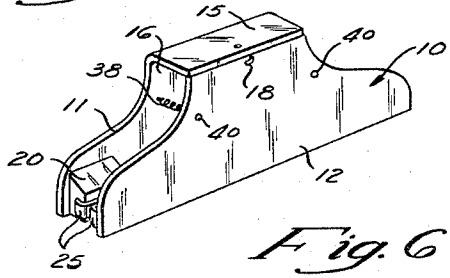


Fig. 6

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PANTS HANGER

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3 Claims. (Cl. 223—96)

The present invention relates generally to hangers for garments and is more particularly concerned with a novel, uniquely adaptable and dependable pants hanger which is economical to make and easy to use.

It is a primary object of this invention to provide a hanger which can be used to support pants from their tops rather than from their cuffs or their intermediate portions.

It is a further object of this invention to make a hanger which is free from the shortcomings of hangers of this general type heretofore known.

It is still another object of this invention to make the foregoing hanger light and durable and easy to assemble and install.

Another important object of my invention is to make this new hanger fast acting and automatic in its closing motion.

To the best of my knowledge, despite many prior efforts of others there has never heretofore been a hanger device which would afford the combination of advantages of the hangers of this invention. The field is an old and crowded one, but the hangers available on the market today which represent the best designs in the art leave much to be desired in respect to their use in supports for trousers. In many cases the garment must be inverted at least in part in using these conventional devices. In addition, the hanger must be taken down from its usual place and even then special care is required, particularly where the pants are doubled over the hanger, in order to avoid undesirable wrinkling or creasing of the garment. Prior hangers designed to support pants from their upper portions have, to the best of my knowledge, never been satisfactory for various reasons. One of the principal difficulties has been the fact that these hangers would not at the same time grip and hold both thin and thick portions of a pair of pants. Also in many cases they were awkward and difficult to use because of the force required to open them either to release or to introduce a pair of pants into them.

In addition to eliminating the foregoing shortcomings and derelictions and attaining the objectives stated above, my invention affords automatic and fast-acting features. My novel hangers are automatic in the sense that they are self-closing and they have a snap action about the closing operation which not only saves time but also makes it easier to mount the garment properly on the hanger.

Described in general terms, the present novel pants hanger comprises a first jaw plate, a second jaw plate, a pair of spaced tension springs connected to said jaw plates and constantly resiliently urging the plates into position to grip and hold pants disposed in the hanger, and means pivotally securing the upper end of the second jaw plate to the upper part of the first jaw plate. This securing means consists of a link attached to the first jaw plate and engaging the second jaw plate and located between points of attachment of the second jaw plate to the tension springs.

Those skilled in the art will gain a further and better understanding of this invention from the detailed description set forth below, reference being had to the drawings accompanying and forming a part of the specification in which:

Fig. 1 is a front elevational view of a pants hanger embodying the present invention, the hanger being illustrated in normal use;

Fig. 2 is an enlarged, fragmentary, sectional view taken in line 2—2 of Fig. 1;

Fig. 3 is an end elevational view of the hanger of Fig. 1, showing the hanger in open position preparatory to the introduction of a garment into the hanger;

Fig. 4 is a fragmentary view of the Fig. 1 hanger, showing the lock means in locking or open position;

Fig. 5 is a top plan view of the Fig. 1 hanger illustrating how different thickness of a garment are accommodated and securely held; and,

Fig. 6 is a perspective view of the hanger of Fig. 1, showing the hanger unloaded and closed.

Hanger **10** illustrated in the drawings comprises a first jaw plate **11** and a second jaw plate **12**, both of which in this embodiment are composed of clear, rigid, plastic material such as certain commercially-available methyl methacrylate polymers. Those skilled in the art will understand, however, that these jaw plates may be made of thin sheet metal. These parts are molded and dimensioned with respect to each other to provide a generally channel shaped hanger body of over-all length at its lower end greater than half the length of the top of a pair of trousers to be supported by the hanger, as illustrated in Fig. 1. Jaw plate **11** is designed to serve as a stationary element to be secured, for example, to a closet door or wall by suitable means such as an adhesive or wood screws (not shown). Jaw **11** has a centrally disposed portion **15** extending at substantially right angles to the main vertically disposed part **16** of this member and constituting the top of the hanger. Thus in end view jaw plate **11** appears generally in inverted L-shaped body, as indicated in Figs. 2 and 3. Top portion **16** is centered longitudinally with respect to part **16** but is only about one-third as long as the lower edge of that element of jaw **11**.

Jaw plate **12** is the movable element of this jaw assembly and is hinged at its upper end to the free end of top **15** of plate **11** by means of hinge loop **18** which is disposed through and carried by the free end of portion **15** of plate **11**. Jaw plate **12** is a flat plate-like body of approximately the thickness of jaw plate **11** and it has in front elevational view the same contour as vertical portion **16** of plate **11**. The uppermost edge of plate **12** is of length the same as top portion **16** and likewise is centered and a flat lazy S-curve is described by the edge portions joining each end of jaw plate **12** to the respective ends of this uppermost part of said plate.

The trouser gripping and holding means of hanger **10** includes a pair of molded methyl methacrylate blocks **20** (one shown) bonded to plate **11** adjacent to the lower extremity and to the ends of portion **16** of jaw **11**. A similar pair of blocks **22** are secured to plate **12** adjacent to the lower extremity and to the ends of that plate in positions opposed to block **20**. These blocks may alternatively be made of sheet metal when the jaw plates are made of metal rather than plastic. In any case, blocks **20** and **22** are all provided with longitudinally extending recesses in their lower edges and replaceable rings or pads of rubber or rubber-like material are mounted on these blocks for engagement with trousers disposed between opposed blocks to provide good gripping engagement of the hanger with the garment. Thus as shown to best advantage in Fig. 3, pads or rings **25** are slipped on blocks **20** and **22** and into their recesses so that

when the hanger is in closed position, as shown in Fig. 5, these rubber members will engage each other and when the hanger is in use as indicated in Fig. 1 rings or pads 25 will bear securely against trousers 27 and hold them in position without cutting or otherwise damaging the garment. These pads are dimensioned so that in mounting them on blocks 20 and 22 they are stretched and thus will not tend to fall off the hanger when the hanger is open. When the hanger is in use there would be no tendency for these pads to pull off the blocks because of the pressure that is constantly applied to them by the tension springs.

A toggle 30 comprising two rings 31 and 32 is disposed within the hanger approximately midway between the ends of the hanger and slightly above its central portion. A pair of brackets 34 and 35 are fastened by means of rivets to jaw plates 11 and 12, respectively, and the remote ends of links 31 and 32 are pivotally attached to the respective brackets. Links 31 and 32 are pivotally connected together near their adjacent ends and link 31 has a notch provided at its upper edge portion to receive a lug formed in the end portion of the upper part of link 32. This lug serves as a locating and stop means and the toggle is maintained in extended relation, as illustrated in Fig. 3, by engagement of the lug with an opposed portion of link 31 when the said lug is received in the notch in link 31.

A pair of tension springs 38 and 39 are disposed just above toggle 30 and on opposite sides thereof and are connected by means of rivets 40 to jaw plates 11 and 12. Springs 38 and 39 serve to oppose resiliently motion of plate 12 to open the hanger and they constantly resiliently urge the hanger toward closed position. It is thus by means of these springs that a garment is securely held in desired position by the hanger for as long as desired. However, these springs are selected as to the force that they apply to maintain the hanger in closed position so that the hanger is easily operated to release a garment.

In the use of the hangers of this invention and particularly the hanger illustrated in the accompanying drawing, a pair of trousers to be hung is introduced into the lower end of the hanger disposed as illustrated in Fig. 3. The garment is brought smartly up against toggle 30, disengaging the lug of ring 32 from ring 31 so that springs 38 and 39 can pull jaw plate 12 into closed position. The action of closing the hanger is instantaneous but in no way hazardous to the user or to the garment. This operation, as those skilled in the art will understand, is easy to carry out since the trousers will be suspended from their top portion which will be disposed as illustrated in Fig. 1 in the lower portion of the hanger. The customary necessities of careful folding of the trousers and emptying of the pockets prior to hanging the garment up are eliminated through the use of the present device, and in fact it is not necessary even to bring a hand into contact with the hanger itself in performing this operation. When the garment is to be taken down from the hanger, it is only necessary to place the hand under the lower edge of plate 12 and draw the plate outwardly so that the toggle may assume the position illustrated in Fig. 3, locking the hanger in open position. The trousers will be released by the hanger before it is fully opened and if desired the hanger may be returned to closed position as illustrated in Fig. 6.

The pivoting action of these new hangers which accounts for their unique utility described above is illustrated in Fig. 5. Jaw plate 12 is disposed at an angle to jaw plate 11 to afford the larger spacing between the set of blocks 20 and 22 gripping the four plies of the front portion of the trouser top. Since the pivoting action is not limited by pivot pin or loop 18, the hanger is not right- or left-handed but can be used either way. The gripping action applied to the trouser top disposed in the hanger is positive and adequate as to both thinner and thicker garments and garment parts and yet the springs are not so strong as to make use of the hanger at all difficult or awkward. Furthermore, no lock means is required to secure the hanger in closed position against a garment being supported by the hanger.

Having thus described this invention in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains to make and use the same, and having set forth the best mode contemplated of carrying out this invention, I state that the subject matter which I regard as being my invention is particularly pointed out and distinctly claimed in what is claimed, it being understood that equivalents or modifications of, or substitutions for, parts of the above specifically described embodiments of the invention may be made without departing from the scope of the invention as set forth in what is claimed.

What is claimed is:

1. A pants hanger uniquely combining ease of operation and dependable gripping and supporting of both thinner and thicker portions of a pair of pants regardless of the orientation of these portions in the hanger which comprises a first jaw plate, a second jaw plate, a pair of spaced tension springs connected to the jaw plates and constantly resiliently urging the said plates into position to grip portions of a pair of pants disposed in the hanger, and means pivotally securing the upper end of the second jaw plate to the upper part of the first jaw plate for substantial swinging movement of the second jaw plate relative to the first jaw plate and about a vertical axis, said securing means consisting of a hinge connected to the first jaw plate and loosely connected to the upper part of the second jaw plate and located between points of attachment of said second jaw plate to the tension spring, whereby a thick part of an article may be gripped between the jaws above the end of the hanger while a thin part of the article is gripped between the jaws at the other end of the hanger.

2. A pants hanger uniquely combining ease of operation and dependable gripping and supporting of both thinner and thicker portions of a pair of pants regardless of the orientation of these portions in the hanger which comprises a first elongated jaw plate, a second elongated jaw plate, trouser gripping pads carried by the jaw plates for engagement in pairs, a pair of spaced tension springs connected to the jaw plates and constantly resiliently urging the said plates into position to grip portions of a pair of pants disposed between opposed gripping pads, and vertical means pivotally securing the upper end of the second jaw plate to the upper part of the first jaw plate for substantial swinging movement of the second jaw plate relative to the first jaw plate and about a vertical axis, said securing means consisting of a hinge carried by the first jaw plate and loosely connected to the upper part of the second jaw plate at a location between points of attachment of said second jaw plate to the tension springs, whereby a thick part of an article may be gripped between the jaws at one end of the hanger while a thin part of the article is gripped between the jaws at the other end of the hanger.

3. A pants hanger uniquely combining ease of operation and dependable gripping and supporting of both thinner and thicker portions of a pair of pants regardless of the orientation of these portions in the hanger which comprises a first elongated jaw plate having a centrally-disposed portion extending at substantially right angles and constituting the top of the hanger, a second elongated jaw plate defining with the first said plate a channel shaped body to be disposed in use with its open end directed downwardly, trouser gripping pads carried by the jaw plates within the body and adjacent to its open lower end for engagement in pairs, a pair of spaced tension springs connected to the jaw plates above opposed engaging faces of the gripping pads and constantly resiliently urging the said plates into position to grip a pair

of pants disposed in the hanger, means depending vertically from the first jaw plate for pivotally securing the upper end of the second jaw plate to the upper part of the first jaw plate for swinging movement of the second jaw plate relative to the first jaw plate about a vertical axis, said securing means consisting of a hinge attached to the first jaw plate and loosely connected to the upper part of the second jaw plate at a location between points of attachment of said second jaw plate to the tension springs, and lock means connected to the jaw plates above the opposed engaging faces of said pads and between the tension springs for securing the hanger in open position with opposed pads of each pad pair in spaced relation to receive the top of a pair of trousers to be supported

by the hanger whereby a thick part of an article may be gripped between the jaws at one end of the hanger while a thin part of the article is gripped between the jaws at the other end of the hanger.

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