June 12, 1934. R. MATTHEWS 1,962,453

TROUSER HANGER

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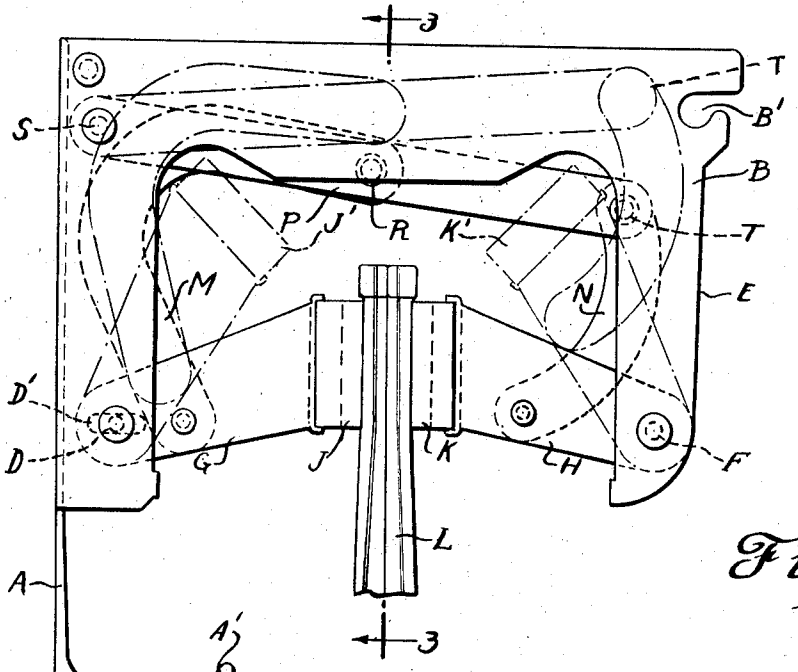


Fig. 1

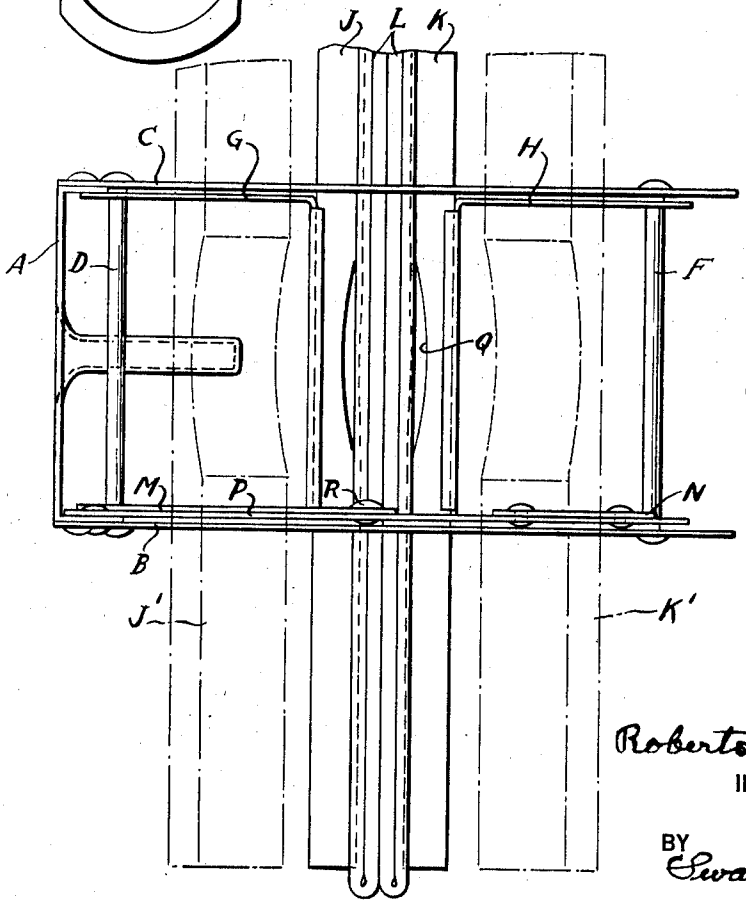


Fig. 2

Robertson Matthews
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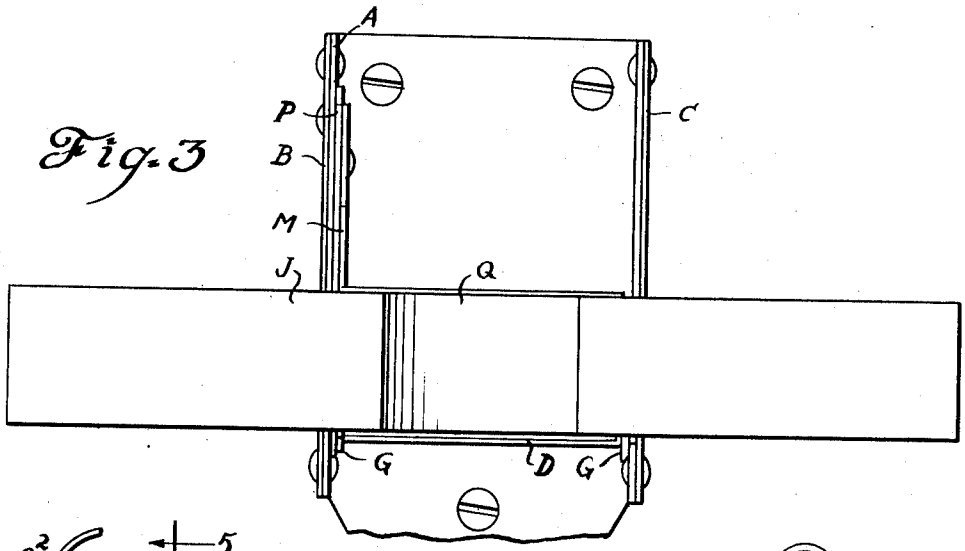
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Fig. 3



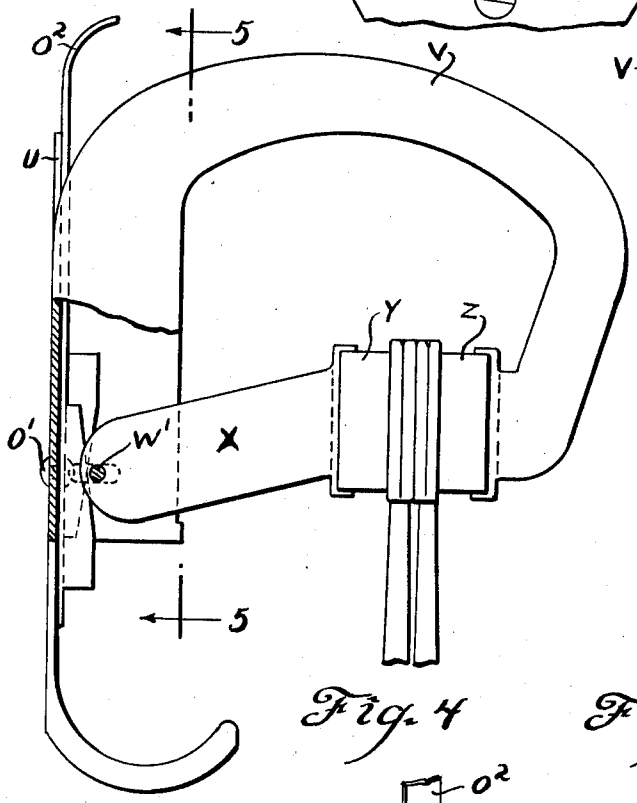


Fig. 4

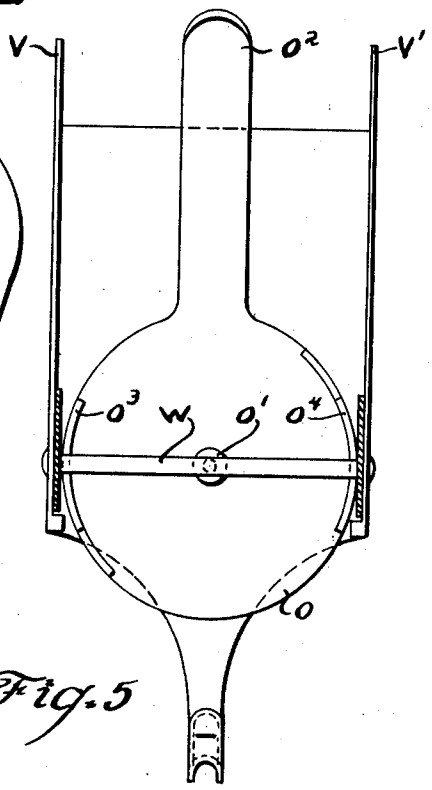


Fig. 5

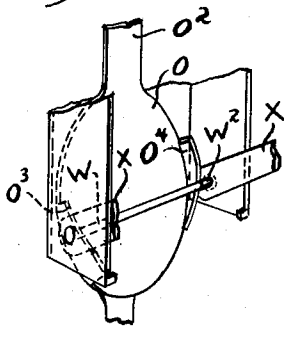


Fig. 6

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UNITED STATES PATENT OFFICE

1,962,453

TROUSER HANGER

Robertson Matthews, Detroit, Mich.

Application July 27, 1932, Serial No. 625,141

6 Claims. (Cl. 223—68)

This invention relates to garment hangers, and has for its object an improved organization of parts particularly adapted for the efficient and non-wrinkling storage of trousers, which, with the hanger, are designed to be supported either from a hook or bar or attached to a wall, with the lower edge of the trouser legs seized by the device of this invention, while the normally upper portion of the trousers hangs downwardly at the bottom.

Unlike some garment hangers of which I am aware, the improved combination of parts herein disclosed is particularly designed for permanent installation, as for example, in the closet of a hotel room, the trousers being placed in supportable relation thereto while held in the hands of the user, as contrasted with the initial attachment of some sort of supporting device to the garment, while the latter is temporarily rested upon a table, bed, or similar convenient support out in the room, and thereafter moved with its then attached hanger to a designed storage place within the closet.

By the use of my improved device I am enabled to entirely do without springs or similar resilient component parts of the hanger, which may be used indefinitely accordingly without wear; and its permanent attachment within a closet or similar storage place prevents the intentional or unintentional carrying away of the hanger by the user when his occupancy of the room is at an end.

In the drawings:

Figure 1 is a side elevational view of my improved device with selected portions of the shell or frame thereof removed to permit clearer illustration of the working parts supported therewithin.

Figure 2 is a plan view of my device from above.

Figure 3 is an elevational view partly in section, taken along the line 3—3 of Figure 1, and looking in the direction of the arrows there shown.

Figure 4 is an elevational view of a slightly modified form of my improved device.

Figure 5 is a partly sectional view, taken along the line 5—5 of Figure 4 and looking in the direction of the arrows there shown.

Figure 6 is a fragmentary perspective illustrating in further detail my preferred means for effecting the operative action of the swinging arm portion of the construction shown in Figures 4 and 5.

A indicates a supporting frame work or bracket designed for attachment at a selected point upon the wall of a closet or room in any suitable manner, as, for example, by screws or even nails, and A' indicates a depending integral hook portion thereof which may be made to serve for any purpose which an ordinarily independent hook in a room may be called upon for. That portion of the frame which projects outwardly from the wall when the device is installed may be looked upon as comprising two arms or branches, as B and C, which are held in desired spaced relation by the pivot bolts or stem pieces D and F. The outer end of either or both arms may if desired be indented or cut away as shown at B' for the pendent support of a coat hanger or similar article or even a coat, in front of the trouser-supporting frame.

Each of the bracket pieces B and C has a depending portion, which in elevational Figure 1 I have designated by the character E, between which these bolts or stems D and F extend for the pivoted or hinged support of a pair of U-shaped arms, as G and H, the free or end portions of each arm rotatably engaging about their respective supporting stems D and F. As brought out particularly in Figures 1 and 2, these arms, while reaching toward one another, do not themselves terminally meet, each being provided with an attached bar or straightening face, as J and K, which extend substantially the width of the space comprised between brackets B and C or even beyond, depending on the width of the trouser legs which are to be supported, but ordinarily they should not in themselves more than lightly touch when the device is not in use, since there is designed to be interposed between them the fabric layers L comprising the lower edge of the trouser legs. It will be noted that the elevation of these bars J and K, when the swinging arms B and C are in the position shown in Figure 1, is generally above the level of the points of pivoting afforded by the stems D and F, so that even without the trouser legs being placed between them, they can never fall below the level illustrated in Figure 1, and as to the meeting surfaces of the bars J and K it is preferable, though not essential, that each be slightly hollowed out, as indicated at Q in Figure 2, to allow for the increased thickness of the fabric at the point of location of the seams in the trouser legs.

When it is desired to position the lower edges of the legs of a pair of trousers between the bars J and K, it is merely necessary to exert a lifting influence upon their lower faces which may, if desired, be done with the hand wherein the trousers are held, until these members swing to the position indicated at J' and K' in Figure 1, and after the installation of the fabric trouser legs between them, to allow them to fall by gravity until they frictionally engage the outer surface of the trouser legs to the point of adequate support. Incident to the raising of these pivoted arms, however, link members respectively connected with them serve to additionally set up the cooperating action described as to the arms G and H. The members connected with these latter at their lower ends comprise the elbowed or curved link members M and N, and these are in turn pivotally

connected at their upper ends with the lever P which latter is pivotally supported at one end by the frame through the medium of the stud S, while the points of attachment of the upper ends of the levers M and N thereto are shown at the points R, near its center, and the point T near its free-swinging end respectively. The action of these link and lever members upon their respective pivot arms B and C is that of slight resistance to the manually-induced rise thereof, and of accelerated return thereof to their full line position shown in the bottom portion of Figure 1, thus imparting a fabric-engaging movement to each arm cooperatively with the other due to their weight and that of the lever P, which results in a very firm seizure of the trouser leg or similar fabric interposed between the bars J and K. Of course to release the trousers from this seizure by the bars J and K, their manual lifting is first indulged in, so as to space the bars J and K the desired distances from one another, before the withdrawal of the fabric from between them is attempted.

In the modified form of construction shown in Figures 4, 5, and 6, that one of the fabric-engaging bars, as Z, which is located farthest out from the supporting wall surface, corresponding in location to the bar K of Figure 1 is supported directly from two over-engaging frame pieces as V and V', while the cooperating fabric-engaging bar as Y is supported, similarly to the bar J of Figure 1, from the central portion of a U-shaped, swingable lever X, through whose ends passes the pivot rod W. This latter might properly be spoken of as a floating pivot, since its ends engage in the slots W' and W^2 in the projecting ear or flange portions U' of the frame V. Between this pivot rod W and the adjacent face of the frame U there is positioned a cam-faced lever O, which is pivoted by the pin O' to the face of the frame U, with a handle portion as O^2 projecting upward for manual seizure and operation. From the sides of the generally circular body of this lever member O project outwardly a pair of reversely-directed cam faces as O^3 and O^4, whose variant frictional engagement against the floating pivot W, as determined by the degree and direction of manually-induced swing of the handle O^2, determines the position of the floating pivot's ends in the slots W' and W^2. Thus the ultimate operative propinquity of the fabric-engaging bars Y and Z may be regulated according to the expected thickness of the fabric mass constituted by the trouser legs which is to be frictionally held between them. The upward swing of the arm X results in the creation of a space between which the trouser legs are placed, and thereafter the drawing down of the pivoted arm X so that its bar Y engages against one face of the thus interposed mass of fabric effects the frictional support of the latter between the bars Y and Z in the same general manner as is effected by the mechanism first described.

This modification in the axial point of swing of the fabric bar lever might, under some circumstances, be found useful in connection with the form of device shown in Figure 1, and I have indicated this possibility by the dotted-in ellipse or slot D' in that figure. Thus the form of device illustrated in Figures 1 to 3 inclusive might be spoken of as embodying a double-lever action, while the modified form shown in Figures 4, 5 and 6 might be characterized as a single-lever mechanism; both, however, center their action about the frictional seizure of the interposed fabric mass between their bars, J and K in the one case, and Y and Z in the other.

What I claim is:

1. A hanger for trousers or similar garments, comprising, in combination with a supporting frame, a pair of alignedly pivoted arms terminally extending toward one another from opposite sides of the frame, a link member operatively connected with each of said arms and adapted to be lifted by the induced upward swing of its connected arm, and article-engaging cross bars carried on the outer ends of said arms in position to frictionally engage and hold an interposed article between them when the arms are in lowered position.

2. In a trousers hanger, in combination with a frame, a pair of arms pivotally supported from opposite sides of said frame in position for their free ends to approach one another when in lowered position, fabric-engaging pieces positioned transversely of the end of each arm, and link and lever members connected with each of said arms whereby their manually induced upward swing is opposed by the operative action of said link and lever members thereupon.

3. In combination with a frame, a plurality of series of opposedly positioned link and lever systems one of whose component members swings with its free end toward but not into contact with the corresponding part of the other system, and fabric-engaging bars carried on said free outer ends of said members whereby an interposed fabric mass is frictionally engaged and held between them in desired horizontally extended position.

4. In a trousers hanger, in combination with a frame and a pair of pivoted arm members supported thereby in terminally opposing relation to one another for the removable pendent suspension of the fabric article between their otherwise meeting ends, a weighting lever also pivotally supported by said frame, and link members operatively connecting each of said pivoted arm members with said weighting lever, whereby the tendency of said pivoted arm members toward movement to their lowermost position is aided.

5. A trousers hanger, having, in combination with a frame adapted to be supported from a wall surface, a pair of pivoted arm members supported by said frame in position of potential terminal swing toward and away from one another, link members connected at their lower ends with one or the other of said pivoted arm members, and a pivoted lever member supported by said frame and with which each of said links members is also operatively connected, whereby a downwardly directed influence is exerted upon said pivoted arm members.

6. In a garment hanger, a back plate, a lever hinged thereto for substantially vertical swinging movement, a transverse garment-clamping member carried by the free end of the lever, an over-engaging supporting arm also carried by the back plate on the same side as the lever, having a downward and inwardly extending terminal portion, a complementary garment-clamping member also carried by the inturned extremity of the overhanging arm adapted to cooperate with the first mentioned clamping member to secure a garment between them, said complementary garment clamping members being so arranged that the weight of a garment supported between them urges one toward the other.

ROBERTSON MATTHEWS.