S. HIMMEL.

EXTENSIBLE GARMENT SUPPORT.

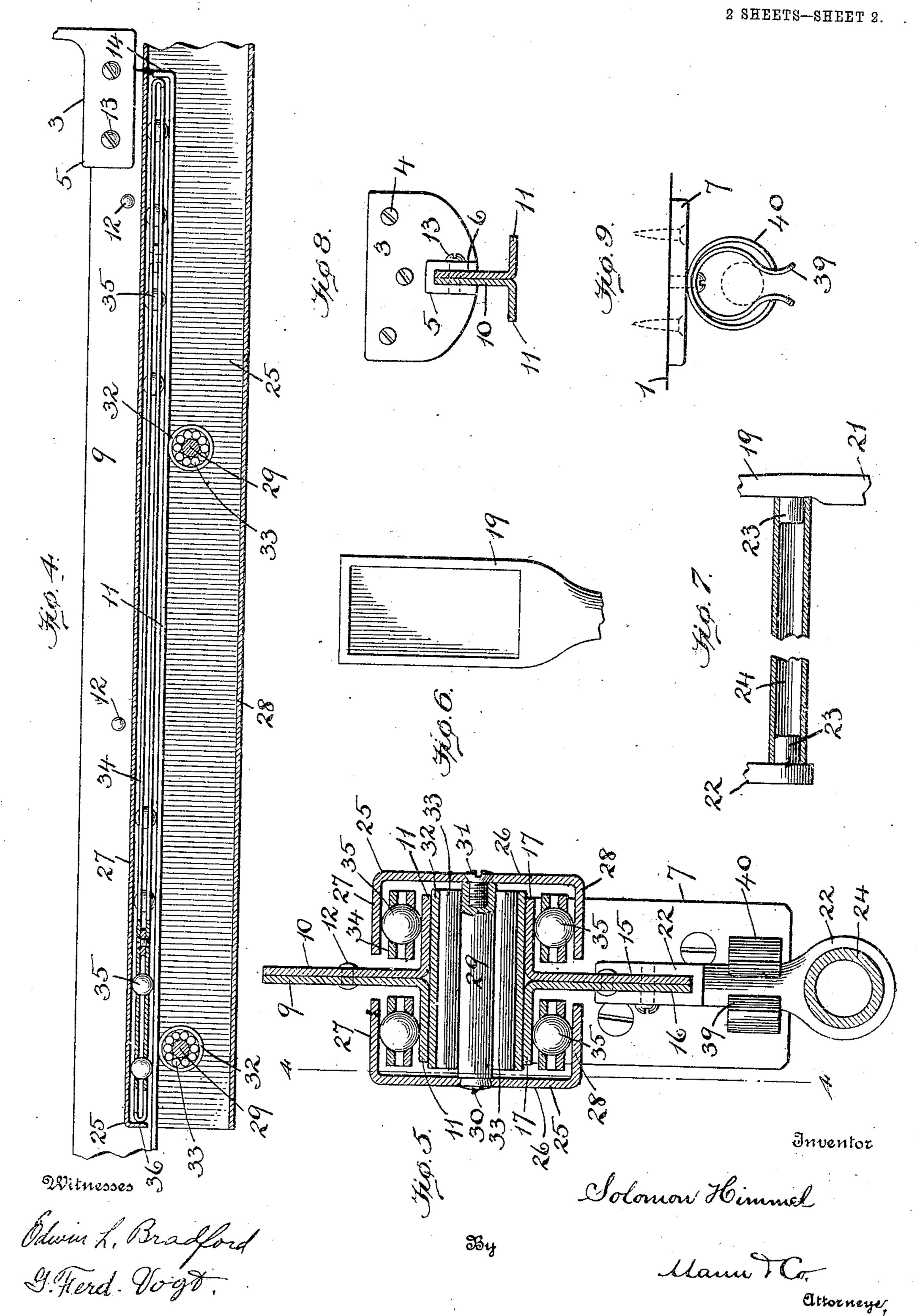
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UNITED STATES PATENT OFFICE.

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specification of Letters Patent. Patented June 28, 1910.

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To all whom it may concern:

Be it known that I, Solomon Himmel, a citizen of the United States, residing at Baltimore, in the State of Maryland, have 5 invented certain new and useful Improvements in Extensible Garment-Supports, of which the following is a specification.

This invention relates to improvements in garment supports and has particular refer-10 ence to that type of support which are designed to be used in clothes-cabinets for the support of individual garment-hangers and which may be projected more or less from the cabinet to permit access to the individual 15 hangers.

One object of the present invention is to improve the construction of supports of the class to which reference has been made whereby they may be operated with ease and 20 at the same time be sustained against sagging when sustaining a load and while projected.

Another object is to provide an improved construction of support which may be 25 formed from rolled metal bars that can readily be obtained thereby reducing the cost of manufacture to a minimum.

With these and other objects in view the invention is illustrated in the accompanying

30 drawings, in which,— Figure 1, is a side elevation of the improved support in the collapsed or retracted condition and sustained between the front and rear walls of a cabinet. Figs. 2 and 3 35 together show a side elevation of the support in the projected position. Fig. 4, is a sectional elevation on a slightly enlarged scale of the outer end of the stationary member and the inner end of one of the movable 40 members, the latter being projected, and the section being taken on the line 4—4 of Fig. 5. Fig. 5, is a vertical cross-section on an enlarged scale through all of the members and also through the anti-friction devices,— 45 the section appearing as if taken through

the hand grasp. Fig. 7, shows the construction for sustaining the hanger bar. Fig. 8, 50 is a vertical cross-section through the stationary member adjacent and looking toward the front sustaining bracket and shows the latter in elevation, and Fig. 9, is a bottom plan view of the grip device for engag-55 ing and holding the movable members in the retracted position.

Referring to the drawings the numeral, 1, designates the vertical rear wall of the case and, 2, the vertical front wall of the same immediately over the opening which is to 60 be closed by a suitable door and which it is deemed unnecessary to illustrate. A bracket, 3, is secured to the inner vertical surface of the front wall, 2, by means of screws, 4, and said bracket has a horizontal extension, 5, 65 with a bottom groove, 6, for a purpose presently to be described. To the inner vertical surface of the rear wall, 1, of the case I secure another bracket which comprises a vertical plate, 7, having a horizontal flange, 8, 70 at its upper end.

The stationary member, 9, is to be sustained at its opposite ends by said brackets, and by reference to Figs. 2, 4 and 5 it will be seen that said member has a central ver- 75 tical wall or flange, 10, and laterally projecting horizontal bottom flanges, 11. In practice this member is formed by butting two angle bars and securing them rigidly by means of rivets, 12, or other fastenings. 80 At the forward or outer end, the vertical wall, 10, of the movable member projects upwardly into the bottom groove, 6, of the bracket, 3, and is held therein by means of suitable screws, 13. The rear end of the 85 movable member has its horizontal bottom flanges, 11, seated upon and rigidly secured to the upper side of the horizontal flange, 8, of the rear bracket. It will thus be seen that the stationary member is sustained at 90 one end by the vertical flange and at the other end by the bottom horizontal flanges. By reference to the drawings and particularly Fig. 4, thereof it will be seen that the forward end of the bottom flanges, 11, of 95 the stationary member are provided with an upturned flange, 14, which forms a stop, for a purpose presently to be described.

In addition to the stationary member the device employs a plurality of movable 100 members one of which will be termed the the device on the line 5-5 of Fig. 1. Fig. | intermediate clamping member and the other 6, is a front face view of the upper end of | the operating member. For convenience in explanation, the latter,—the operating member, will first be described, reference 105 being made to Figs. 1, 3 and 5. The operating member, 15, is composed of two angle bars so placed and secured together as to form a downwardly-projecting central wall, 110 16, and horizontal lateral flanges, 17, at the upper edge of said central wall. By reference to Figs. 1 and 3 it will be seen that the

rear end, of this operating member, 15, has a down-turned flange or stop, 18, adjacent its horizontal flanges, 17, the object of which will presently be explained. At the forward end, the operating member, 15, is provided with a hand grasp plate, 19, which is secured in a vertical position at the end thereof so as to have a portion thereof project above the said member to form a stop, 10 20. The depending portion of this plate is shaped so as to form a suitable hand grasp, 21, by which said member may be operated conveniently by hand. The rear end of the operating member, 15, carries a bracket, 22, which depends therefrom and this bracket and also the hand-grasp plate at the forward end of the member, 15, are both provided with laterally-projecting lugs, 23, which enter the opposite ends of a tubular bar, 24, and sustain the latter in a horizontal position below the said operating member. The tubular bar constitutes the hanger support proper, as the garment-hangers are to be engaged thereon.

From the foregoing explanation it will be seen that the upper stationary member has a central wall and horizontal bottom flanges while the operating member has a central wall and horizontal top flanges,—the flange portions of said members being parallel but

spaced from each other.

The stationary member, 9, and the movable operating member, 15, are sustained in spaced-apart positions by means of a movable connecting member, 25, which latter is composed of two parallel channel bars, 26, each having a horizontal inturned upper flange, 27, and a horizontal inturned lower flange, 28, which are formed integrally with a vertical wall. By reference to Fig. 4, it will be seen that the two channel bars, 26, are secured rigidly with respect to each other by means of suitable rods, 29, which are round in cross-section. These rods extend horizontally in a plane between the bottom flanges, 11, of the stationary member and the top flanges, 17, of the operating member, 15, and their ends may be connected to the vertical wall of the channel bars. In the present instance one end, 30, of these rods is riveted to one of the channel bars at one side, while the opposite end thereof is secured to the other channel bar by means of a suitable screw, 31. A sleeve or cylindrical tube, 32, encircles each rod, 29, and a series of rollers, 33, is interposed between said sleeve and rod whereby to form a roller bearing. The diameter and position of the sleeve or tube is such that its circumferential surface will be in rolling contact with the bottom flanges, 11, of the stationary member.

Between the upper inturned flanges, 27, of the connecting member and the out-turned bottom flanges, 11, of the stationary

member, 9, I provide an antifriction device which, in the present instance comprises spaced-apart horizontal plates, 34, forming a carriage and having recesses or pockets in which balls, 35, are carried. These balls rest 70 upon the out-turned flanges, 11, of the stationary member and form a support for the inturned flanges, 27, of the connecting member so that the latter may hang pendently therefrom. Antifriction devices are also in- 75 terposed between the inturned bottom flanges, 28, of connecting member and the out-turned top flanges, 17, of the operating member, 15. These devices are precisely like those that support the connecting member at 80 the upper side and a description of them is deemed unnecessary. It will thus be seen that when the anti-friction devices are in position as described they serve to prevent vertical movement of either movable mem- 85 ber and the sleeve or tube, 32, serves to keep said member spaced apart.

The rear end of the inturned top flanges, 27, of the connecting member are provided with a slight depending flange, 36, which 90 prevents the plates, 34, and balls, 35, from becoming displaced at the rear end while the flange, 14, at the forward end of the outturned bottom flanges, 11, of the stationary member prevent displacement of said plates 95 and balls at the forward end. In like manner the down-turned flange, 18, on the top flange, 17, of the operating member and an up-turned flange, 37, at the forward end of the connecting member flanges, 28, together 100 retain the lower plates and balls in position.

To prevent metallic noise when the stop, 20, of the hand grasp plate and the forward end of the connecting bars come together during the act of collapsing the members, I 105 provide a cushion or pad, 38, on the outer end of the connecting member against which the inner side of the hand grasp stop, 20, will strike. I also provide on the rear bracket, 7, a suitable clip device for engag- 110 ing the bracket, 22, on the inner end of the operating member, 15. This clip device in the present instance, comprises a U-shaped flexible plate, 39, around which a spring plate, 40, extends as clearly seen in Figs. 2, 115 5 and 9. The clip is attached to the said rear bracket so as to clip the bracket, 22, on the operating member when the latter has been moved back as far as it will go into the case or cabinet, and thus the support will be 120 held and prevented from creeping forward when the case is vibrated from any cause.

Having thus described my invention what I claim and desire to secure by Letters Patent is,—

1. In an extensible support the combination with a stationary supporting member having a continuous flange projecting outwardly from its bottom and at each side, of a movable operating member having a con-

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tinuous out-turned flange at each side of its top; a channel bar extending along the outturned flanges at one side of said two members and having an upper flange to project 5 over the bottom flange on the stationary member and a lower flange to project under the top flange of the movable member; another channel bar at the opposite side of the two members and also having a top and a 10 bottom flange turned inwardly around said bottom and top flanges of said two members and means extending from the inner side of one channel bar between its upper and lower flanges to the inner side of the opposite 15 channel bar between the upper and lower flanges of the latter to hold the two channel bars in alinement at opposite sides of the two members.

2. In an extensible support the combination with a stationary supporting member having horizontal bottom flanges, of a movable operating member having horizontal top flanges; a channel bar at one side of the said members having an upper horizontal flange projecting over the bottom flange at one side of the stationary member and a lower horizontal flange that projects under the top flange at one side of the movable member; another channel bar at the opposite side of said members and having its up-

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per flange projecting over the bottom flange of one member and its lower flange extending beneath the top flange of the other member; a rod extending horizontally between the flanges of the stationary and movable 35 members and the ends of said rod securing the two side channel plates together and antifriction devices between the flanges.

3. In an extensible support the combination with a stationary support having a central vertical wall and out-turned bottom flanges, of a movable operating member also having a central vertical wall and out-turned top flanges; a movable connecting member comprising spaced-apart channel bars,—said bars having inturned upper and lower flanges which lap the out-turned flanges on the stationary and operating members; a rod connecting the spaced-apart channel bars and a revoluble device carried by said rod,— 50 said revoluble device operating between the out-turned flanges of the stationary and operating members.

In testimony whereof I affix my signature

in presence of two witnesses.

SOLOMON HIMMEL.

Witnesses:

CHARLES B. MANN, Jr., G. FERDINAND VOGT.