Oct. 31, 1950 C. J. WINTERGREEN 2,527,869

GARMENT HANGER

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Fig. 1.

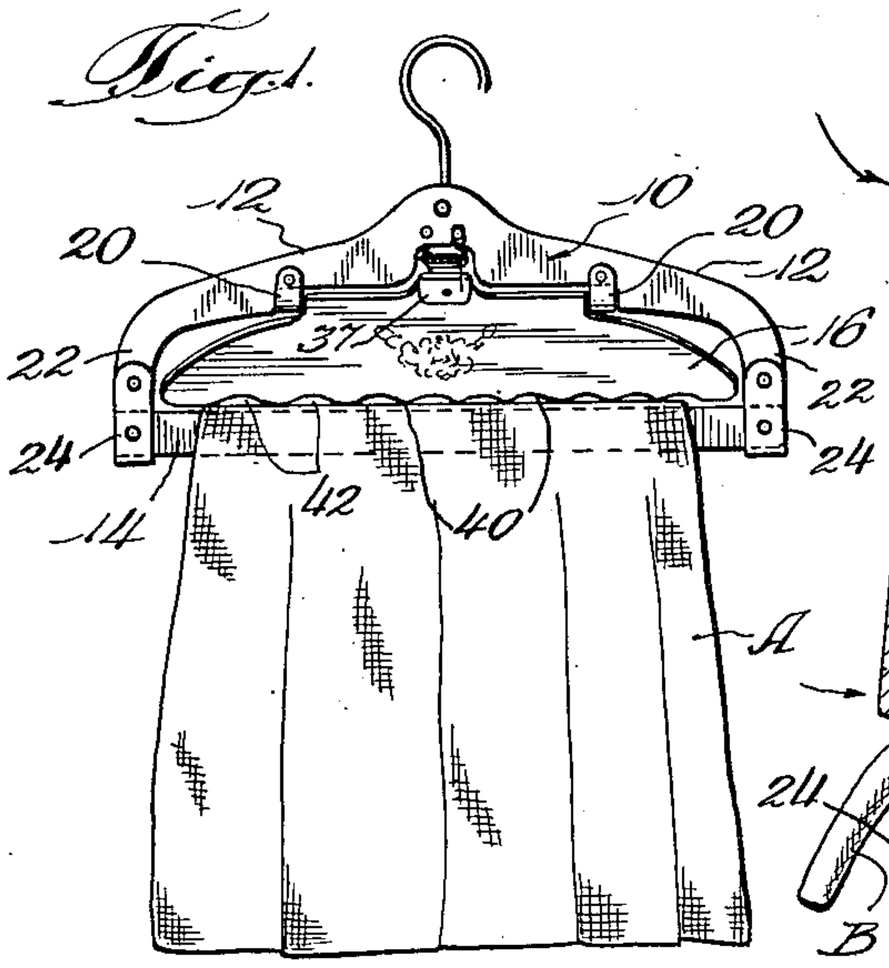


Fig. 6.

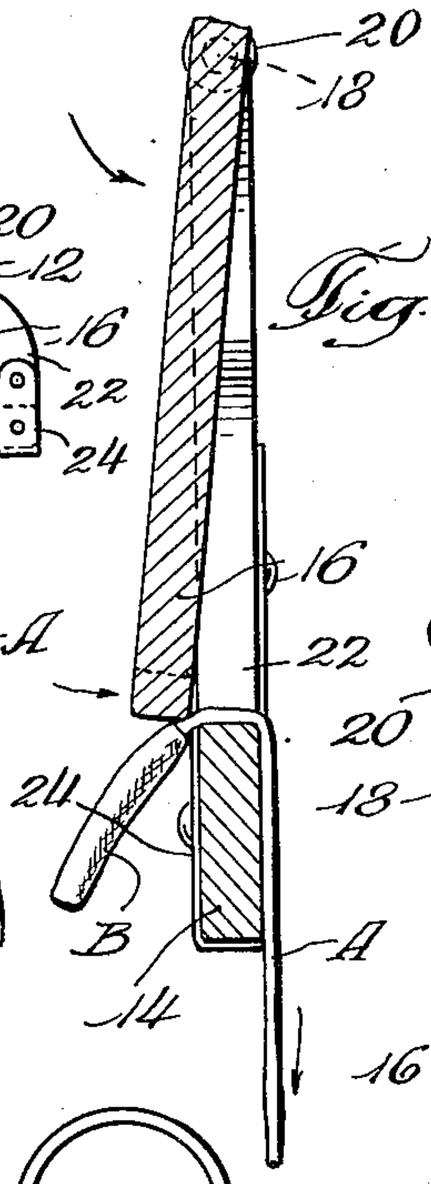


Fig. 3.

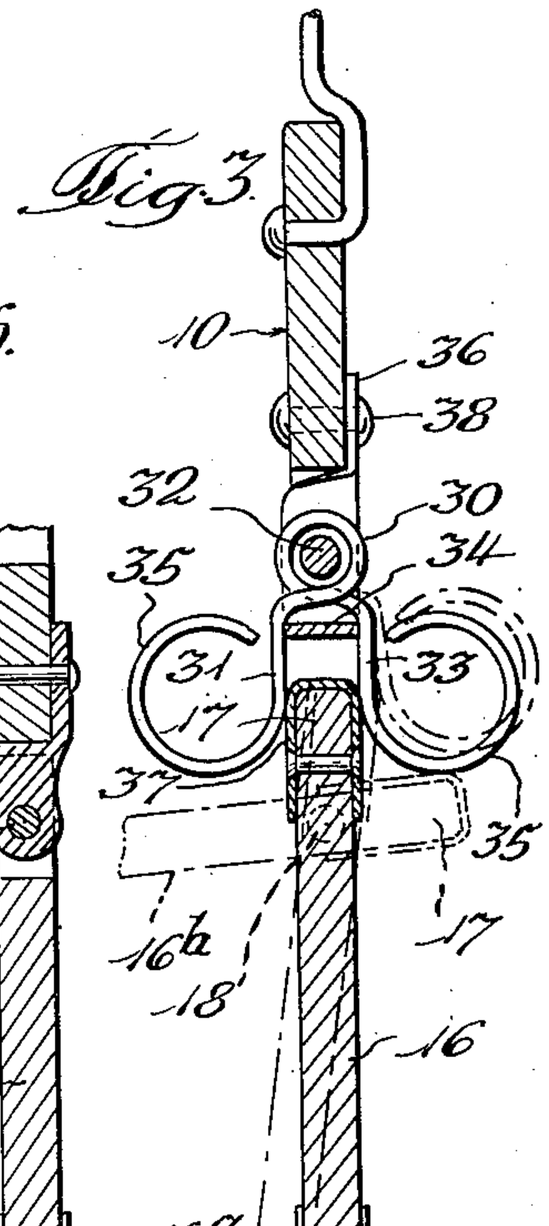


Fig. 5.

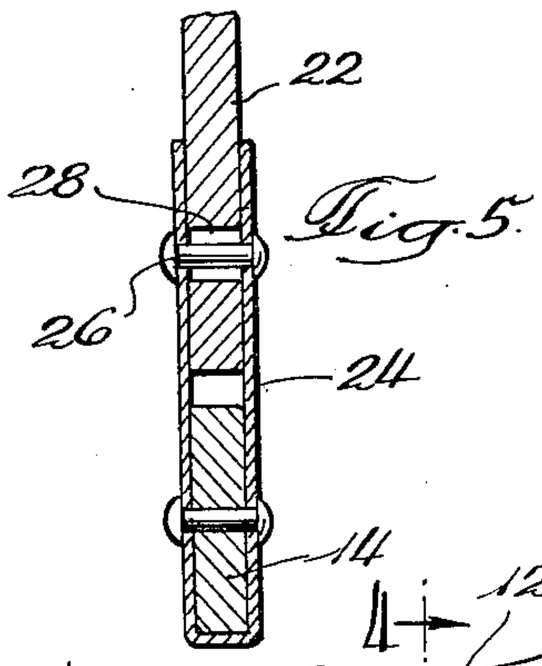


Fig. 4.

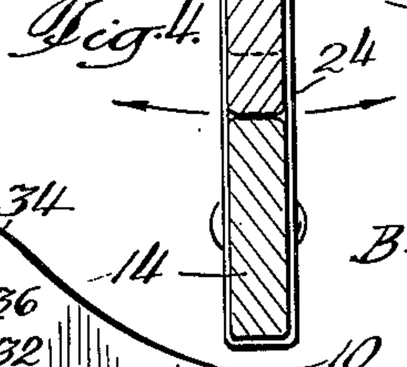
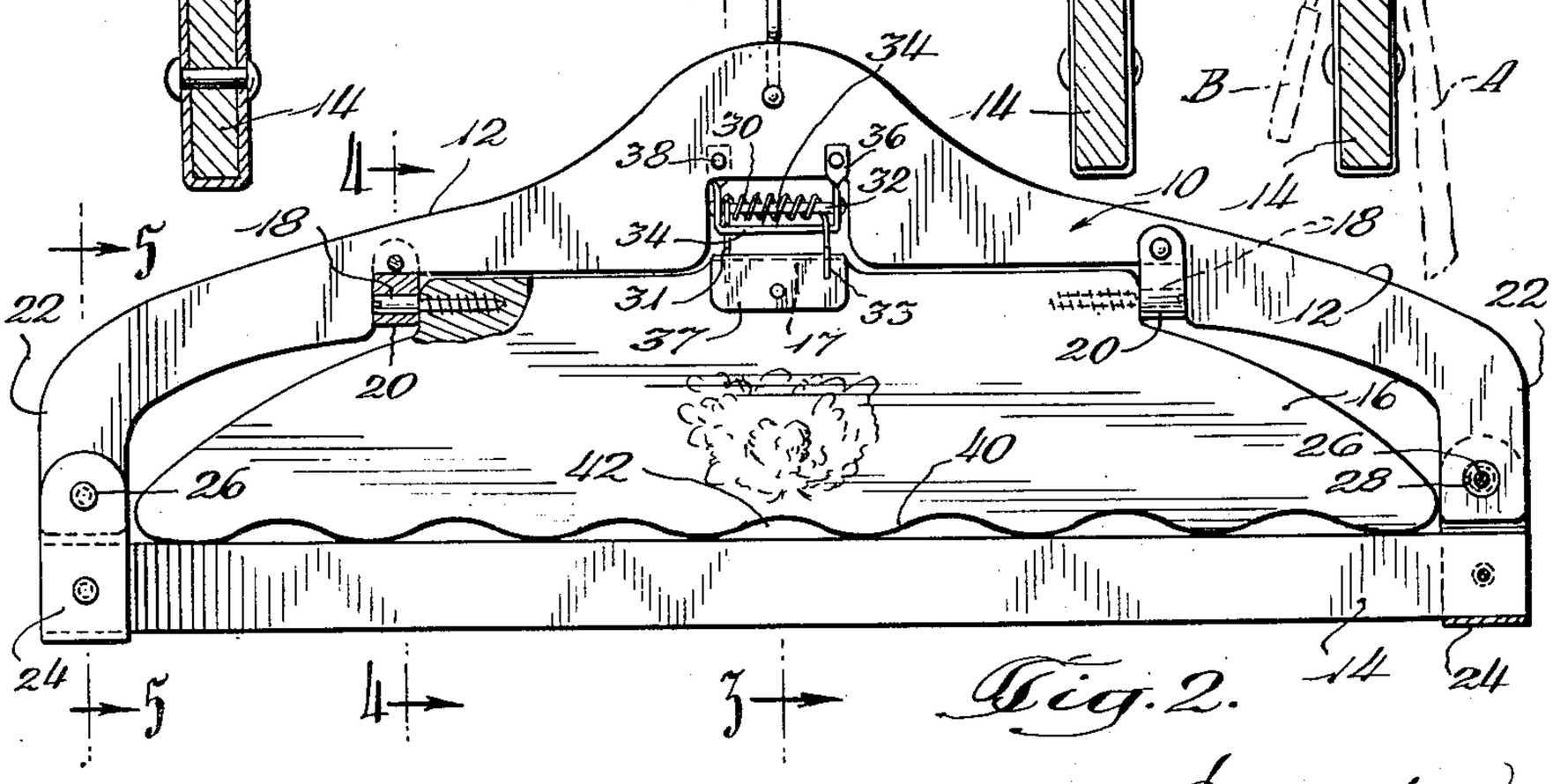


Fig. 2.



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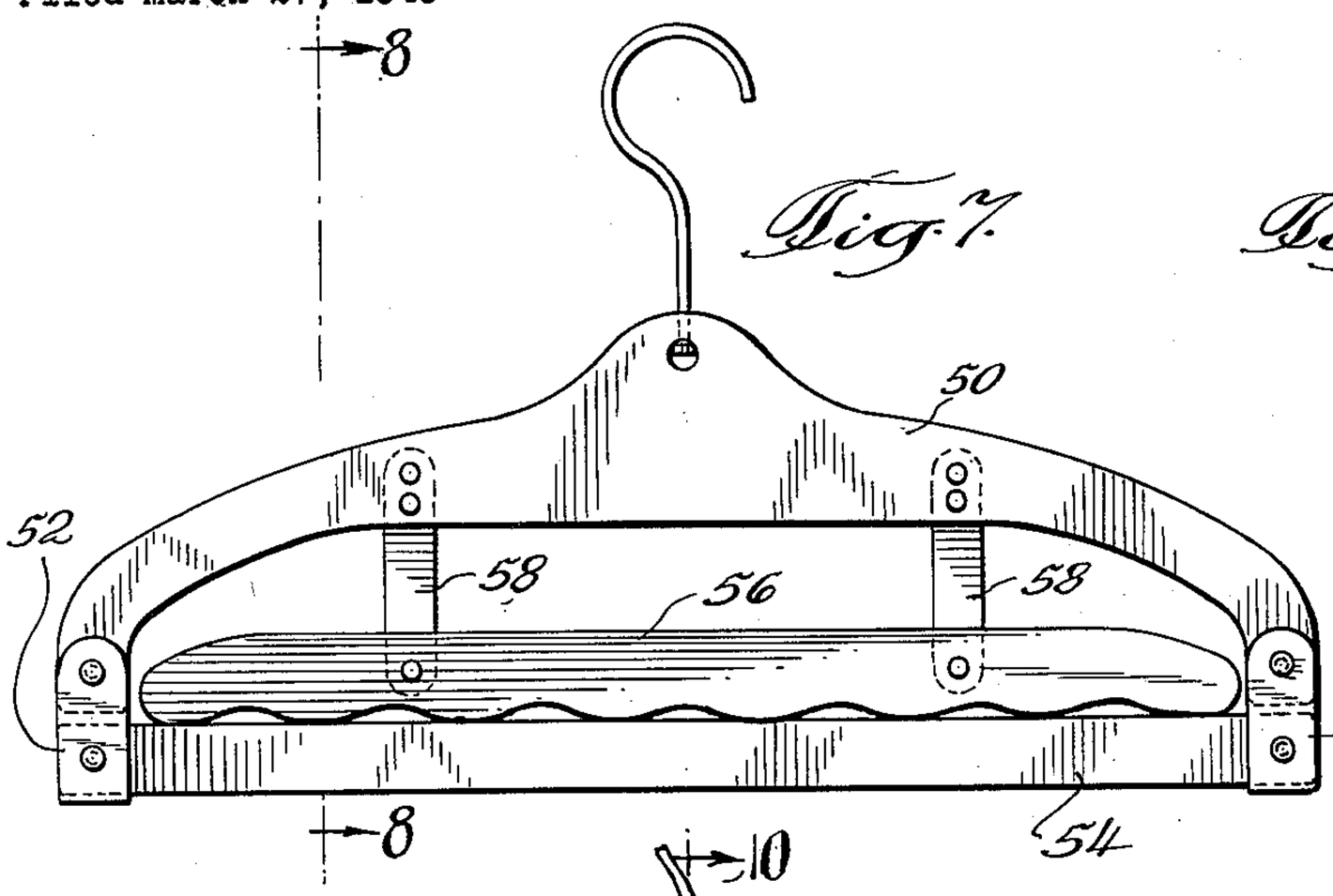

Fig. 7.

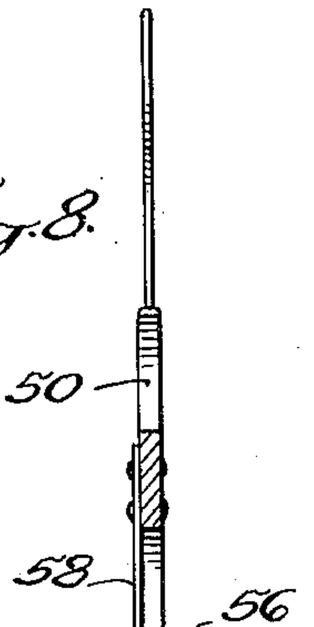

Fig. 8.

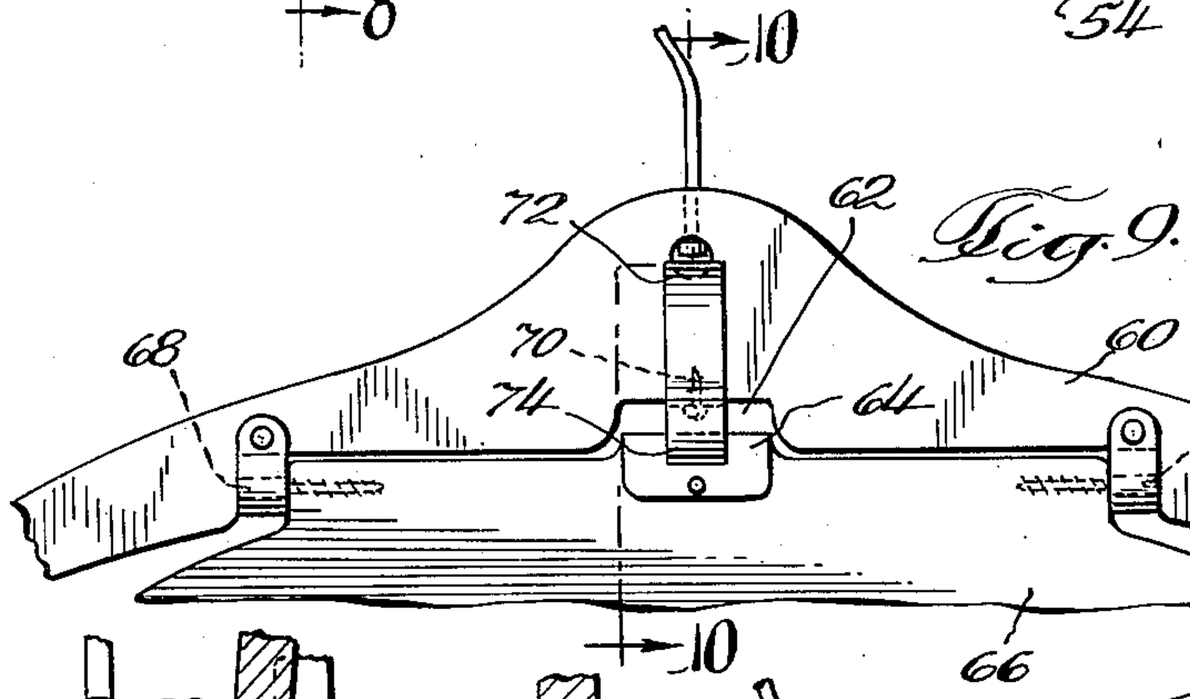

Fig. 9.

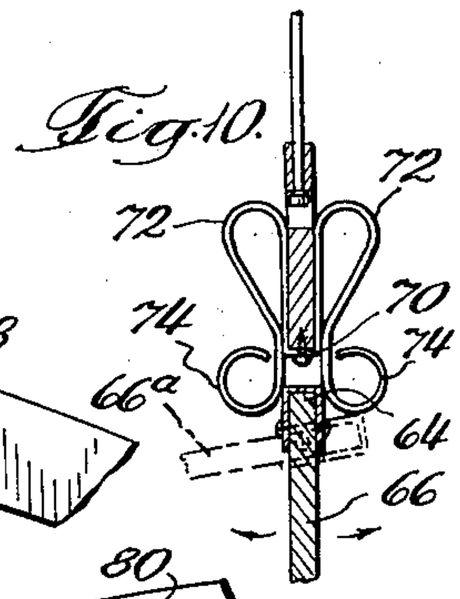

Fig. 10.

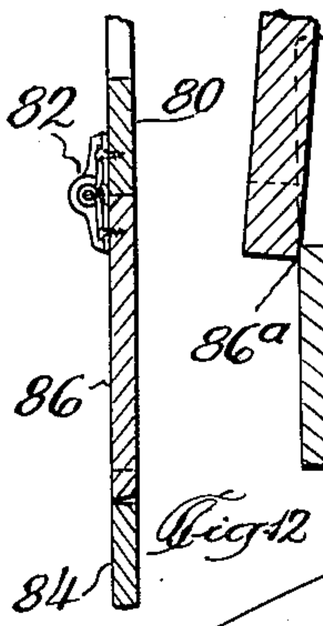

Fig. 12

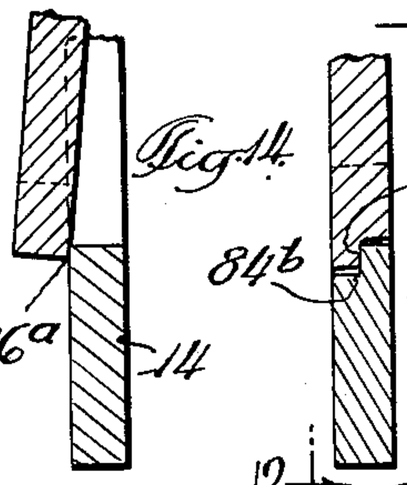

Fig. 14.

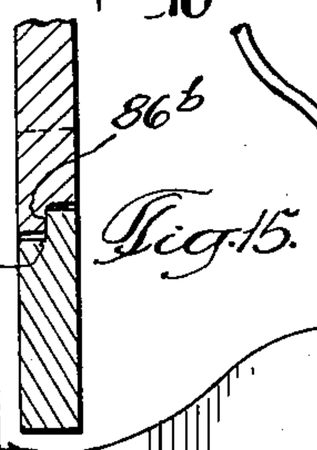

Fig. 15.

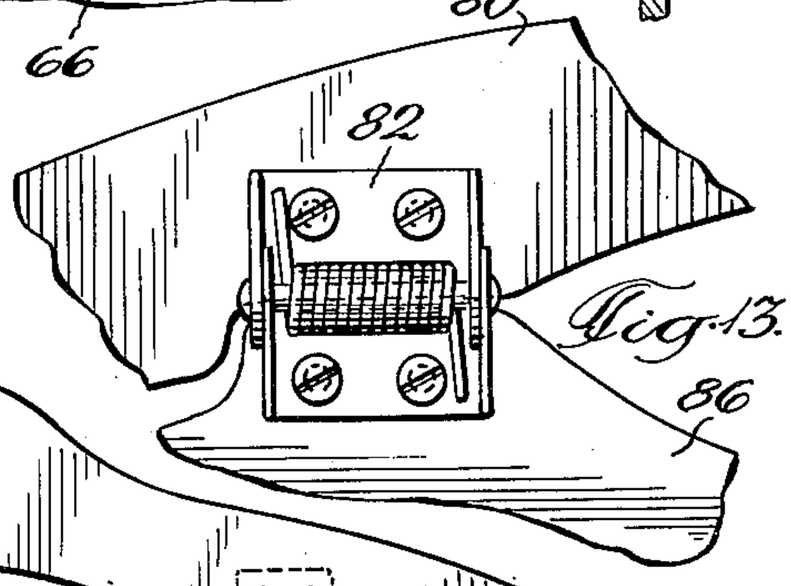

Fig. 13.

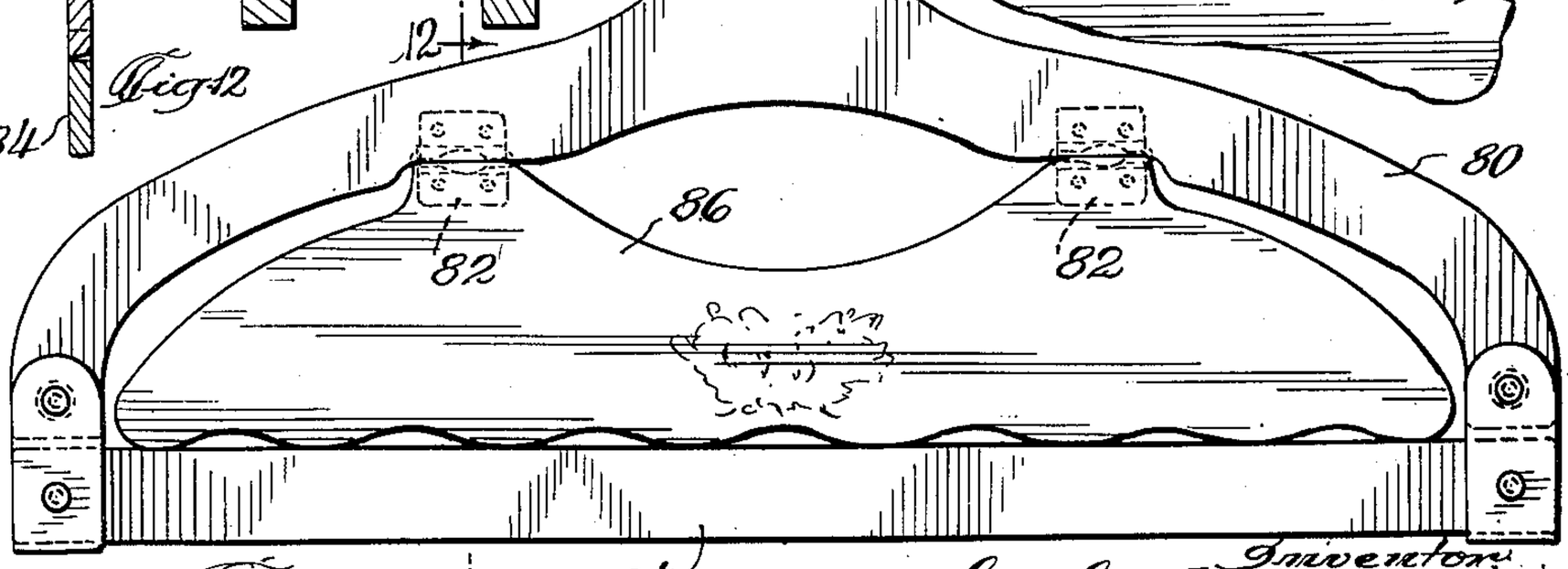

Fig. 11.

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Fig. 16.

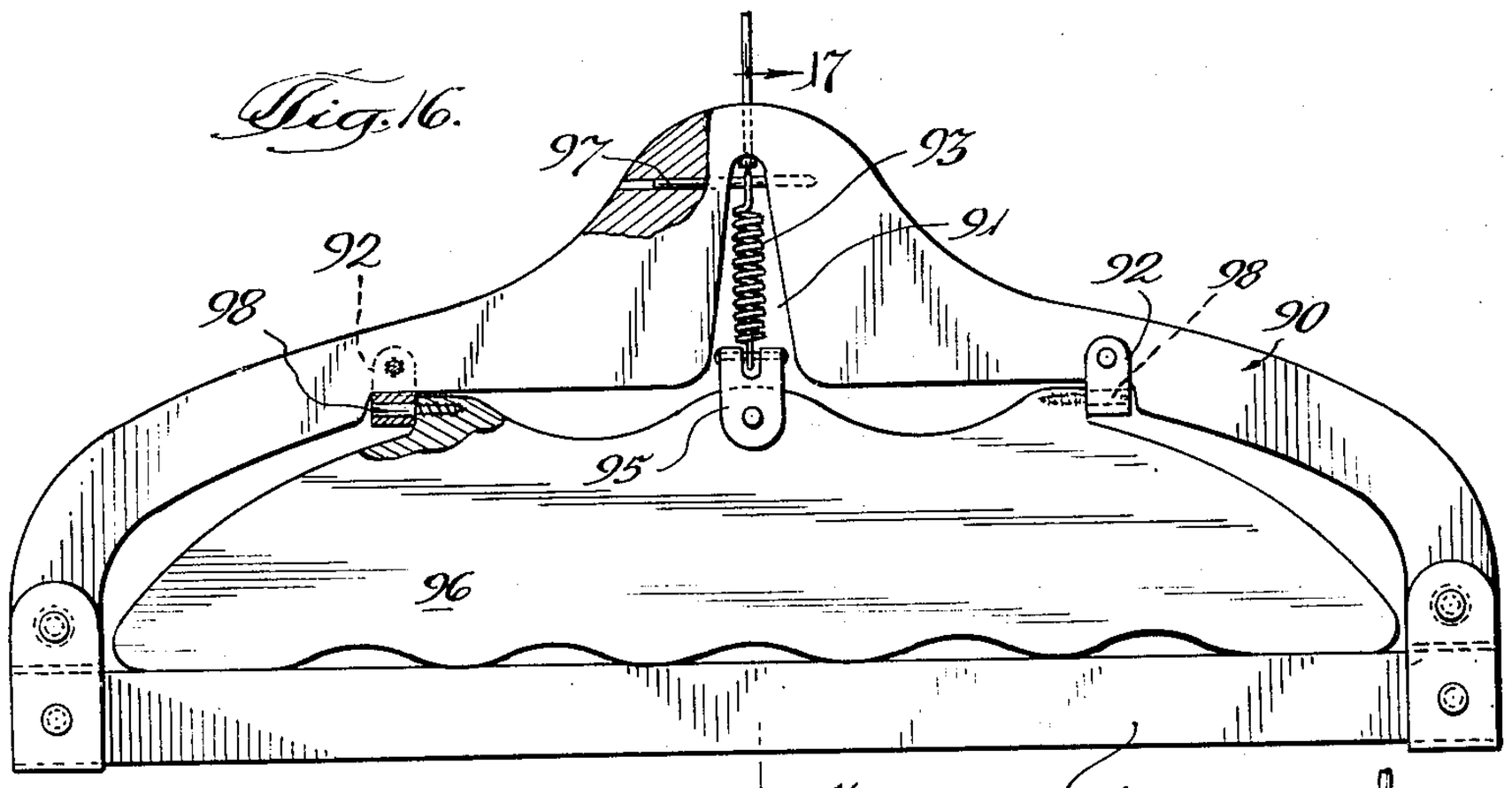

Fig. 18.

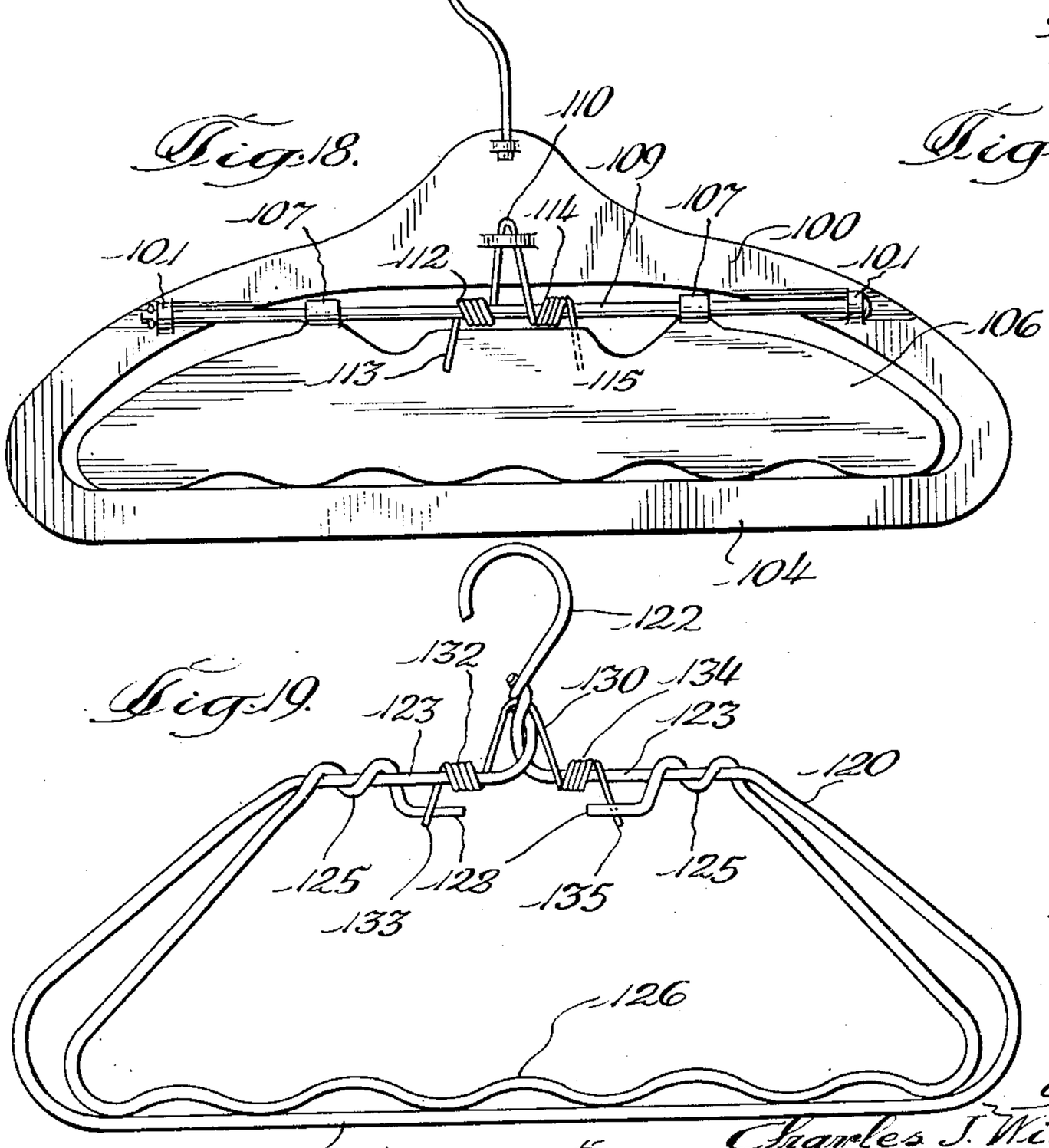

Fig. 17.

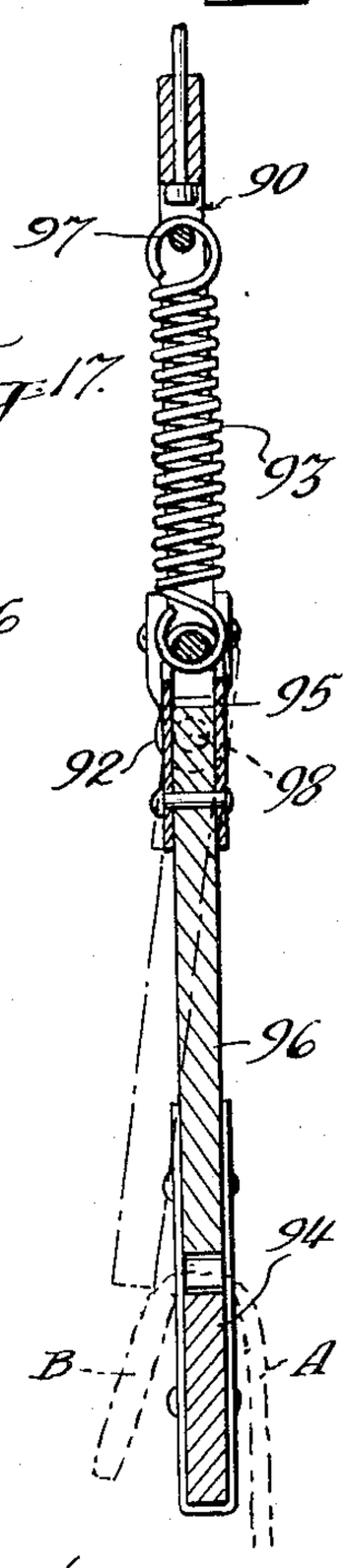

Fig. 19.

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UNITED STATES PATENT OFFICE

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GARMENT HANGER

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Application March 27, 1946, Serial No. 657,510

5 Claims. (Cl. 223—91)

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This invention relates to garment hangers of the type designed for supporting both a coat or jacket and a pair of trousers or a skirt.

One object of the invention is to provide a garment hanger having means for smoothly supporting a pair of trousers or a skirt and frictionally securing the same by readily releasable holding means.

Another object of the invention is to provide a garment hanger having a frictionally operable holding device or clutch for retaining an article of clothing, said device being movable at will to a position at which the garment is fully released for removal from the hanger.

It is a further object of the invention to provide a garment hanger having a substantially straight bar over which a garment may be supported in pendant position, together with a swingable holding member cooperating with the bar to grip the garment, and yielding means urging said member into gripping position.

An additional object of the invention is to provide a garment hanger having a supporting bar for a garment and a swingable gripping member arranged to cooperate therewith for frictionally holding the garment in place on the bar, said member being wholly disengageable from the garment at will, and being provided with yielding means for holding it releasably out of engaging position to expedite the placement of a garment on the bar or its removal therefrom.

More specifically, it is an object of the invention to provide a garment hanger having a portion contoured to support a coat or jacket and having a bar disposed below such portion to support a skirt or trousers, together with a swingable member carried by the first portion for cooperation with the bar to frictionally grip the garment thereon and spring means operative to urge the said member into gripping position or to hold it releasably at inoperative position, clear of the bar, when said member has been swung to such inoperative position.

Other objects and advantages of the invention will appear from the following description taken in connection with the drawings, in which:

Fig. 1 is a front elevation showing a hanger embodying this invention with a garment supported on the bar thereof.

Fig. 2 is a front elevation of the same hanger shown on a larger scale with certain details shown in section.

Fig. 3 is a vertical sectional view taken substantially as indicated at line 3—3 on Fig. 2.

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Fig. 4 is a section taken as indicated at line 4—4 on Fig. 2.

Fig. 5 is a detail section taken as indicated at line 5—5 on Fig. 2.

Fig. 6 is a fragmentary detail section taken at the same plane as Fig. 3, showing the swingable gripping member in garment holding position.

Fig. 7 is a front elevation of a modified form of hanger embodying this invention.

Fig. 8 is a vertical sectional view taken as indicated at line 8—8 on Fig. 7.

Fig. 9 is a fragmentary front elevation of a hanger incorporating a modification of the invention.

Fig. 10 is a detail sectional view taken as indicated at line 10—10 on Fig. 9.

Fig. 11 is a front elevation showing another modification of the invention.

Fig. 12 is a sectional view taken as indicated at line 12—12 on Fig. 11.

Fig. 13 is an enlarged detail elevational view showing a spring hinge employed in the structure of Figs. 11 and 12.

Fig. 14 is a detail sectional view showing a modified form of the invention in respect to the relation of the garment holding bar and the gripping member.

Fig. 15 is a similar detail section showing a slightly different relation between the holding bar and the gripping member.

Fig. 16 is a front elevational view of a garment hanger embodying a further modification of the invention.

Fig. 17 is a vertical section taken as indicated at line 17—17 on Fig. 16 and on a larger scale.

Fig. 18 is a front elevation or face view of a hanger embodying a further modification of the invention.

Fig. 19 is a front elevation of a hanger embodying the invention and constructed entirely of wire stock.

Various garment hangers have been designed for the purpose of holding a coat and also supporting a pair of trousers, or holding a woman's complete skirt, including the jacket and skirt, but in such structures, the trousers or the skirt have been either supported on a simple bar, without auxiliary holding means, or the clamping means designed to secure these garments was relatively complicated and awkward to operate. The various structures shown herein, and embodying the present invention, are adapted to provide firm, frictional gripping means to hold the skirt or trousers on a supporting bar, but in such a way that its grip is easily released by

merely pushing the gripping member out of holding position; and in some of the forms of the invention the holding member is automatically held up and out of gripping position to leave the bar free and clear for adjustment of the garment thereon, or for its removal therefrom.

The hanger shown in Fig. 1 includes an upper portion **10**, having suitable upper contours **12**, **12** to support a coat or jacket, and having a straight bar **14** disposed below the contoured portion in position to support a garment, such as the skirt shown at A, thereon. A swingable gripping member **16** is provided with pivots **18**, as shown in Fig. 2, and said pivots are journaled in brackets **20**, **20** attached to the contoured upper portion **10**, and depending therefrom. As thus supported, the gripping member **16** is free to swing to either side of the common plane of the portion **10** and the bar **14**. The bar may be connected to the depending arms **22** of the portion **10** by U-shaped clips or clevices **24**, as seen in Fig. 5, and the upper ends of these clips are clamped to the portions **22**, **22** by rivets **26**. These rivets extend through holes **28**, which are considerably larger than the rivets themselves so as to permit adjustment of the clearance between the bar **14** and the lower edge of the gripping member **16**. The frictional hold of the clips **24** on the arms **22** will be sufficient to retain the bar at any position in the range of adjustment thus afforded, and the adjustment can be changed by tapping the bar downwardly or tapping the clips upwardly.

The gripping member **16** is held normally and yieldingly in vertical alignment with the bar **14**, as shown in Fig. 3, a coil spring being provided for this purpose and being coiled about a rod **32** secured in a bail **34**. The end portions of the bail **34** are twisted to provide lugs **36** which are secured flatly to opposite faces of the part **10** by rivets **38**. One end portion **31** of the coil spring **30** extends downwardly past the horizontal portion of the bail **34**, and engages one face of the swingable gripping member **16** at a short distance above the axis of its pivots **18**, **18**. The other end portion **33** of the spring **30** extends downwardly past the bail **34** at the opposite side thereof, and engages the opposite face of the gripping member **16**, also at a point slightly above the axis of its pivots **18**, **18**. The horizontal portion of bail **34** is of sufficient width to constitute a stop means for both spring loops or terminals **35**, maintaining them spaced as shown in Fig. 3 with marginally sufficient over-travel so that they engage on opposite sides of the adjacent edge **17** of the secondary member **16**. Each of said end upper end portion **17** of the member **16**, against portions is preferably bent into a curved terminal **35**, as shown in Fig. 3; and the areas of the which the ends of the spring bear, may be shod with a U-shaped wear plate **37**, if desired. The spring terminals **31** and **33** thus tend to hold the part **16** at mid-position and registered directly above the bar **14**.

To permit a garment to be placed over the bar **14**, the member **16** will be swung aside momentarily and then will be swung back by the pressure of the spring, to the position indicated in broken outline at **16a** in Fig. 3, and shown in section in Fig. 6. In these views the garment indicated at A may be a skirt, and the thickened portion at B may represent the top or belt portion of the skirt, or the part shown at A may represent a pair of trousers, while the thickened portion at B corresponds to the cuffs of the trousers. Although the presence of these thicker portions of the garments is not relied upon primarily for holding them on the hanger, it is evident that if the majority of the weight of the garment A depends from one side of the bar **14**, the garment may tend to slip to a position at which the thicker portion B is arrested by the edge of the gripping member **16**, as shown in Fig. 6. The principal holding action, however, is the friction clutch effect; the pressure of the spring **30** supplies initial contact between the garment and the lower edge of the gripping member **16**, and the friction between the garment and this edge of the member **16** causes the grip to be tightened by the weight of the garment itself as it tends to draw the free end portion B over the bar **14**. Thus the greater the weight, the more firmly it will be gripped by the member **16**, and, if desired, several skirts, or, at least, two or three pairs of trousers may be thus supported on a single hanger bar **14** and gripped thereon by the member **16**. Preferably, the lower edge of the member **16** is formed with a sinuous outline, as shown at **40**, to concentrate the gripping action at a plurality of points across the width of the goods supported on the bar **14**; incidentally, the recess **42**, thus provided at the middle of the width of the member **16**, will accommodate the side seams of trousers so as to avoid concentration of the entire gripping force on these seams, thus leaving the adjacent areas improperly supported by the hanger.

Since the end portions **31** and **33** of the spring **30** engage the member **16** only above its pivot axis, said member can be swung to a substantially horizontal position, as indicated in broken outline at **16b** in Fig. 3, until its upper end portion **17** swings clear of one end of the spring and is then stopped against its rounded portion **35** so that the gripping member **16** will be thus yieldingly retained in its up-swung position, leaving the bar **14** clear for the placement of a garment thereon or for its removal therefrom. The circular curve of the spring terminal **35** is such that a light pressure upon the horizontally projecting member **16** will cam its short end portion **17** past the rounded spring terminal **35** and permit the member to swing back to its pendant and operative position.

Figs. 7 and 8 illustrate a simplified form of the invention in which the contoured upper portion **50** is provided with clips **52** which support a bar **54**, and in which the gripping member **56** is attached to the contoured upper member **50** by flexible and resilient straps **58** of spring metal or like material. The gripping member **56** thus tends to assume a position in which it is registered directly above the bar **54**, as seen in Fig. 8, but it may be swung out of this position to permit placing a garment on the bar **54**. Thereupon, the spring members **58** will urge the gripping bar **56** toward the garment and into gripping relation therewith.

Figs. 9 and 10 illustrate a construction quite similar to that of Figs. 1 to 6. The contoured member **60** supports a gripping member **66** by means of pivots **68**, but instead of employing a coil spring for holding the member **66** at its mid-position or in a raised position, this structure is provided with a bent spring of flat strip stock. The part **60** is formed with a clearance opening **62** above the upper end portion **64** of the swinging gripping member **66**, and the middle of the spring member is secured in said recess **62** by a screw **70**. From this point the strip extends upwardly along both faces of the part

60 and then bends away from said faces at 72, 72, and downwardly to form curved terminal portions 74, 74 which engage opposite faces of the upper end 64 of the gripping member. When said member is swung about its pivots 68, 68 to the position shown in dotted outline at 66a in Fig. 10, the end portion 64 will force one of the rounded terminals 74 outwardly, and will then snap under said terminal so that the gripping member is retained yieldingly in upraised position.

Figs. 11, 12 and 13 show a further modification in which the contoured upper member 80 supports the swingable gripping member 86 by means of spring hinges, one of which is shown at 82 in the enlarged view of Fig. 13. Both hinges are mounted on the same face of the part 80 and are attached to the same face of the swingable gripping member 86. As shown in Fig. 11, the hinges automatically stop the member 86 with its lower edge registered directly above the bar 84, and the springs of the hinges permit swinging the member 86 in one direction, away from this position, to afford clearance for placing a garment on the bar. If desired, the bar 84 may be so adjusted, or the member 86 may be so dimensioned, that it will collide with the bar under the pressure of the spring hinges, as indicated at 86a in Fig. 14. As an alternative of this arrangement, the upper edge of the bar may be rabbeted, as shown at 84b, and the lower edge of the gripping member may be correspondingly rabbeted, as shown at 86b in Fig. 15, so that although the parts are vertically registered in the closed position of the gripping member, the latter will not swing past the bar.

It will be recognized that with the structures shown in Figs. 7 and 11 the gripping member will not be automatically supported in open position; but it can be easily held in open position while the garment is placed on the bar. The spring means which returns the gripping member to gripping position can be relatively light, since the primary factor in the holding action is the frictional drag of the garment against the lower edge of the gripping member, tending always to pull it more tightly into gripping position.

Fig. 16 shows a construction in which a tension spring is employed to control the gripping member. The contoured upper portion 90 of the hanger supports the gripping member 96 by means of pivots 98, engaged in the brackets 92. A relatively deep, upwardly extending recess 91 in the part 90 accommodates a coil tension spring 93 connected to a lug 95 which extends from the upper portion of the gripping member 96 and slightly above the axis of its pivots 98. The upper end of the spring is anchored by a cross-pin 97 in the head portion of the part 90. The tension of the spring 93 thus operates to hold the gripping member 96 normally in registration with the bar 94 of the hanger while permitting it to be swung to either side for placement of a garment on the bar 94, or removal of a garment therefrom.

In the structure shown in Fig. 18 the upper contoured portion 100 of the hanger is unitary with the straight bar portion 104, with an open area between these parts in which the swinging gripping member 106 is accommodated. A construction of this character might be made of plastic material, or might be formed of light sheet metal, or possibly of cast aluminum. The member 106 includes hinge lugs 107 by which it is supported on a rod 109 carried by lugs 101 extending integrally from the part 100. A bent wire spring which controls the gripping member 106 comprises a hairpin portion 110 with coils 112 and 114 having terminals 113 and 115 which respectively engage opposite faces of the member 106. The parts 112 and 114 are coiled about the pivot rod 109 in opposite directions so that their terminals 113 and 115 are stressed oppositely and are normally balanced against each other for holding the gripping member 106 in registration with the bar portion 104.

As shown in Fig. 19, the main frame 120 of the hanger is made of heavy wire stock and includes the upper portion, which supports a coat or jacket, and the lower bar 124 to carry a skirt or a pair of trousers. Said upper portion is connected to the hook 122 by horizontal portions 123 disposed in alignment, and the gripping member 126 which is also formed of heavy bent wire stock has its upper ends coiled about the parts 123 at 125, 125 to provide pivotal support for said gripping member. A double coiled spring, similar to that shown in Fig. 18, has its middle hairpin portion 130 anchored in the twisted connections of the ends of the wire which form the parts 120 and 124, while the spring coils 132 and 134 are wrapped around the horizontal parts 123 of the hanger. The terminals 133 and 135 bear against crank arms 128, 128 of the gripping member 126, and are stressed in opposite directions so as to normally hold said member in the plane of the main frame 120, 124. In operation, this structure will be quite similar to that of Figs. 7, 11, 16 and 18.

While I have shown and described herein several alternative structures embodying my invention and illustrative thereof, it should be understood that the invention is not limited thereto or thereby, but includes all modifications, variations and equivalents of the features disclosed herein which may come within the scope of the appended claims.

I claim:

1. A garment hanger comprising an upper portion shaped to support a coat, a bar portion spaced below said upper portion, a gripping member pivotally suspended from said upper portion in the space above said bar with its lower edge positioned to cooperate with said bar for gripping a garment thereon, a part of said gripping member projecting above the axis of its pivotal support, and spring means mounted on the upper portion of the hanger engaging said projecting part for yieldingly urging said member toward gripping position.

2. In a garment hanger as defined in claim 1, said projecting part of the gripping member being dimensioned to deflect said spring means and to swing past the same when the member is swung away from the bar through a predetermined angle, said spring means then engaging the projection as a detent to hold the gripping member swung away from the bar.

3. In a garment hanger as defined in claim 1, said spring means having a cam portion which engages the projecting part of the gripping member and which is deflected thereby, allowing said projection to slip past it when the gripping member is swung away from the bar through a predetermined angle, said cam portion then reengaging the projection to uphold the gripping member but being adapted to yield to permit return of the member toward the bar.

4. A garment hanger comprising an upper por-

tion shaped to conform with the profile of a coat garment, a bar connected at its ends to said upper portion and in spaced relationship thereto, a gripping member pivotally carried by said upper portion for swinging through said space and having a lower edge adapted to cooperate with an upper edge of said bar member for gripping an overhung garment therebetween, and a single spring member mounted in said upper portion for engaging said gripping member, said spring member being so disposed and tensioned as to hold said gripping member so that the lower edge of said gripping member registers directly over said bar member and so as to yield springably when said gripping member is swung through a predetermined angle in either direction from said registered position.

5. A garment hanger comprising an upper portion shaped to conform with the profile of a coat garment, a bar connected at its ends to said upper portion and in spaced relationship thereto, a gripping member pivotally carried by said upper portion for swinging through said space and having a lower edge adapted to cooperate with an upper edge of said bar member for gripping

an overhung garment therebetween, and a single coil spring mounted on said upper portion of said hanger having its axial center parallel to the pivot axis of said gripping member, the ends of said spring being positioned to engage the opposite surfaces of said gripping member, and stop means limiting movement of each end of said coil spring in one direction while permitting it to be moved with said gripping member in an opposite direction.

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