Jan. 11, 1949. M. E. ZIMMERMANN 2,458,820

MULTIPLE HANGER

Filed Sept. 12, 1945

Fig. 1.

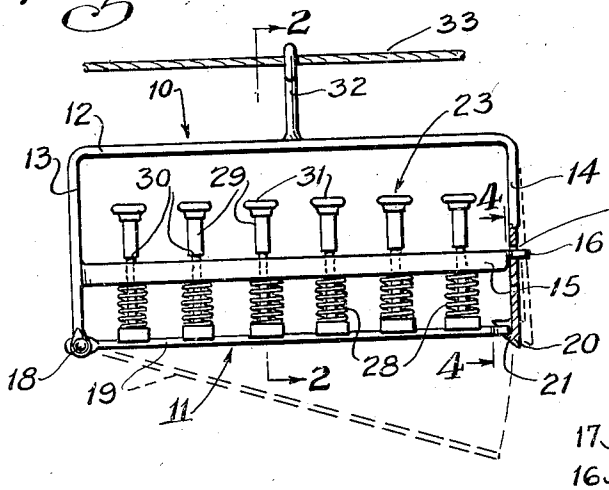
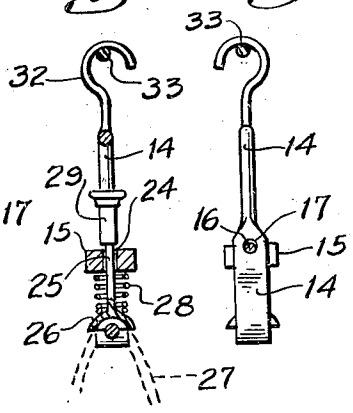


Fig. 2. Fig. 3.



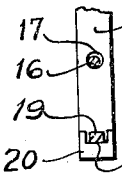


Fig. 4.

Fig. 5.

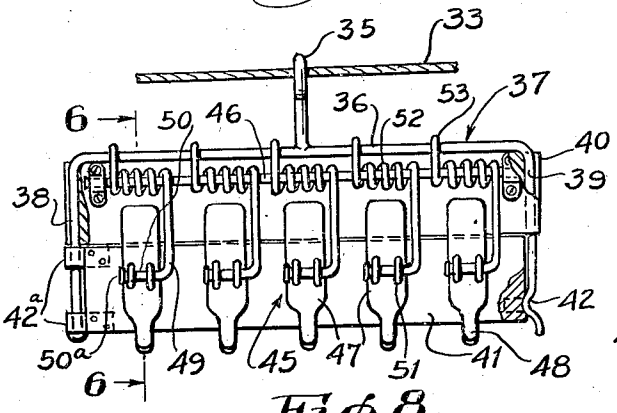


Fig. 6. Fig. 7.

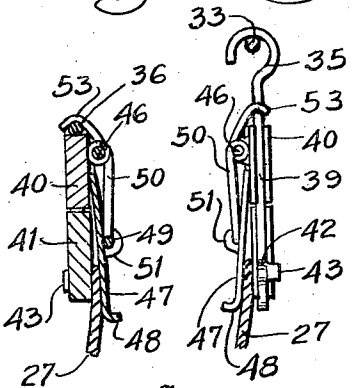
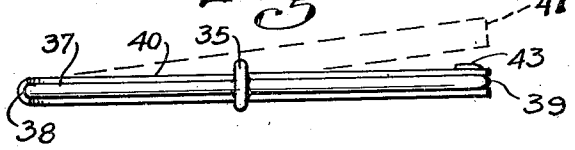


Fig. 8.



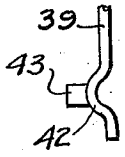


Fig. 9.

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MULTIPLE HANGER

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7 Claims. (Cl. 211—113)

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This invention relates to a multiple hanger.

Among the objects of the invention are: to provide in a single hanging device means for clamping a plurality of suspended pieces of fabric in place in such a manner that all the suspended articles may be simultaneously released; to provide an improved manually operable clamping means for use in the above stated situation; to provide a hanger better adapted for use on a clothes line in such a manner as greatly to increase the number of garments suspendable upon a single clothes line; and to provide a simpler, more easily manufactured hanger structure to perform the above mentioned functions.

Another object is to provide a hanger of the multiple type provided with more conveniently manually operable clamping means for releasably clamping small articles in a suspended position.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention resides in the parts, and in the combination, construction and arrangement of parts hereinafter described and claimed, and illustrated by way of example in the accompanying drawings, in which:

Fig. 1 is a side elevation of the hanger, the garment-supporting arm being shown in normal position in full lines and in released postion in dotted lines.

Fig. 2 is a cross section on line 2—2 of Fig. 1.

Fig. 3 is an end elevation looking at the right end of Fig. 1.

Fig. 4 is a fragmental detail of the catch shown at the right hand end of Fig. 1.

Fig. 5 is a side elevation of a modification.

Fig. 6 is a cross section on line 6—6 of Fig. 5.

Fig. 7 is an elevation looking at the left end of Fig. 5.

Fig. 8 is a plan view of the modified hanger, the broken lines indicating the position of the garment-supporting bar in the initial part of its swing toward garment-releasing position. Parts are omitted.

Fig. 9 is an enlarged reproduction of the lower portion of the catch arm shown at the right end of Fig. 5.

Referring in detail to the drawing, in both of the illustrated embodiments of the invention the body portion or frame of the hanger comprises two elongated members, in Fig. 1 these members being designated 10 and 11, said members being hinged to each other at one end of the hanger. In Fig. 1 the frame member 10 is shown as comprising a somewhat resilient rod shaped as a

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broad, inverted rectangular U having a body portion 12 and end arms 13 and 14. Said end arm 13 has fixed to it one end of a mounting bar 15, the opposite reduced end portion 16 of said bar projecting loosely through an aperture 17 provided for it through the aforesaid arm 14.

A hinge structure 18 located at the outer end of arm 13 connects therewith one end of the swingable hanger arm 19, the free end of said arm normally resting upon the shoulder of a beveled catch head 20 formed upon the outer end of the arm 14. The catch shoulder has a seat 21 to receive the end of the upswung arm 19.

A series of six clamping devices 23 are shown in Fig. 1, supported by the mounting bar 15 in a cooperative relation to the swingable hanger bar 19, bar 15 having vertical bores 24 within which the clamp stems 25 have working fits. Each of these clamps has an arcuate foot 26 positioned to clamp garment portions 27 between itself and the swingable hanger bar 19.

Spiral springs 28 around the clamp stems 25 act between the bar 15 and feet 26 to perform the aforesaid clamping action. The upper part 29 of each clamp 23 is diametrically enlarged to form a stop shoulder 30 at its lower end, and at its upper end carries an operating head 31. The device is shown provided at its midlength with an upwardly directed hook 32 to suspend it upon a clothes line 33.

Describing the modification shown in Figs. 5 to 9, the suspending hook 35 is carried by the upper run 36 of the inverted wire U-bar 37 having end arms 38 and 39. A rectangular board or panel 40 is fitted into the inner part of said U-bar. Said panel has grooved end edges to seat said arms 38 and 39, said panel being shown with its breadth equal to about half the lengths of the arms 38 and 39, leaving space between the outer portions of said arms for the swingable panel 41 which is connected by means of hinge elements 42a to the lower half of the arm 38. The opposite end of said panel 41 has in it a depression to receive the convex catch element 42, associated with which is a stop lug 43 (Fig. 9) to arrest the swing of panel 41, normally to keep it parallel to panel 40.

A series of five clamping devices 45 is shown in Fig. 5, these devices being carried by a rod 46 extending along and attached to the upper part of the panel 40. Each of these clamps comprises a plate or shoe 47 which is so mounted that its toe 48 extends below the lower edge of the panel 41 to form a finger-hold. Each shoe has a mounting wire 49 provided at one end with an

angularly extending arm 50 (upset at 50a) pivotally attached to the midlength portion of the shoe by keepers 51, this wire having at its opposite end a similarly directed spring coil portion 52 which loosely surrounds the rod 46 and terminates in a finger 53 in a spring-pressed engagement with the rod 36. These fingers are backwardly curved as shown in Figs. 6 and 7 and keep the panel 40 from receding from the wire run 36.

It will be seen that in both embodiments of the invention the upper or non-swingable member is of an elongated plate-like character in respect to the space which it occupies. In the first described embodiment the swingable member swings in the same plane as that occupied by said plate-like space, but in the second embodiment this member swings laterally in relation to said plate-like space.

In using the embodiment shown in Figs. 1 to 4 the operator, after seeing that the swingable hanger bar 19 is latched in place in its up-swung position, will put the various small articles to be suspended in place upon said bar in an overlying relation thereto, manually lifting each clamp 22 by gripping its head 31 before he places each article upon the section of the bar underlying the foot of the clamp being operated. The device is then in readiness for being hung upon a closet hook or the clothes line 23. When it is desired to release the suspended articles it is only necessary to release the catch 20 from the end of the bar 19, allowing said bar to gravitate to a down-swung position, thus simultaneously freeing all the suspended articles from the clamps and allowing them to slide off from said bar into a suitable receptacle.

The operation of the embodiment shown in Figs. 5 to 9 resembles that of the embodiment first described, but differs therefrom in that the clamps are raised by manually contacting their toe portions 48, and the articles gripped between the clamps and the panel 41 are manually released by withdrawing the catch element 42, thus allowing the panel 41 to swing laterally a sufficient distance to release all the suspended articles from the clamps 45.

I claim:

1. In a multiple hanger, two elongated members which normally extend alongside each other, means at one end of the hanger whereby said members are hinged together, manually releasable catch means at the opposite end of the hanger to releasably hold said members in substantial parallelism, and a series of manually operable spring loaded clamps carried in a row by one of said members to clamp garments in a suspended relation to the other member, the clamped garments being simultaneously freed from the hanger to gravitate therefrom when said catch means is released.

2. In a multiple hanger, two elongated members which normally extend alongside each other, one of said members being of a plate-like character, a hinge located at one corner portion of said plate and connected with corresponding end portions of said elongated members so that one of them is swingable in an edgewise manner in relation to the other plate, manually operable spring-pressed clamps carried by the non-swingable member in an operative relation to the swingable member to clamp suspended articles against the latter when it is in normal position, and a manually releasable catch carried by one of said members and operatively connected to the free end of the swingable member to hold said members in the normal position, the clamped articles being simultaneously freed from the hanger when said catch is released.

3. In a multiple hanger, two elongated members which normally extend alongside each other, one of said members having at one end an arm projecting transversely from said member, means to suspend the other member with its length extending horizontally, a swingable arm one end of which is hinged to the outer end of said arm, means carried by the end portion of the hanger opposite to its arm to releasably maintain said swingable arm in its inswung position, and manually operable clamps carried by said one member of said hanger in a cooperative relation to said swingable arm to hold garments in a clamped relation to it when it is in its inswung position, said swingable arm being swingable in a vertical plane when the other member is suspended as aforesaid.

4. In a multiple clamp a frame comprising a rod or wire shaped as a broad inverted U having downwardly directed end arms, a bar spanning the space between said arms, one end of said bar being secured to one of said arms and the opposite end thereof extending loosely through an aperture in the other end arm, a swingable arm for supporting garments, one end of said swingable arm being hinged to said frame in an outwardly spaced relation to said bar, a catch carried by the outer end portion of said apertured arm and normally engaging the free end of said swingable arm to keep it upswung, and spring-presser clamps carried by said bar in an abutting relation to said swingable arm when the latter is unswung, said apertured arm having sufficient resiliency to allow the catch which it carries to be manually moved to and from releasing position.

5. In a multiple clamp, two elongated members which normally extend alongside each other, said members being hinged together at one end of the device, manually releasable means at the opposite end of the device to releasably hold said members in their normal relation, one of said members being an upper member and the other a lower member, means normally suspending said upper member with its length extending horizontally, a longitudinally extending rod carried by said upper member, and a plurality of manually releasable clamps supported by said rod, each of said clamps comprising a shoe and a spring wire support therefor having a coiled portion surrounding said rod, said wire support having a run extending downwardly from said coiled portion arranged and tensioned to cause the lower part of said shoe to operate as a clamp to grip articles to be supported, between it and said lower member, said upper and lower members comprising plates normally in edgewise vertical alinement and each of said shoes normally abutting against both of said plates and having finger-hold portions projecting below said lower plate usable to release them from clamping position.

6. In a multiple hanger, two elongated members which normally extend alongside each other, means carried by one of said members to suspend it with its length extending horizontally, means at one end of the hanger whereby said members are hinged together, manually releasable catch means at the opposite end of the hanger mounted upon one of said members and connectible with the other normally to releasably hold said members in substantial parallelism, a series of clamp-

ing devices mounted upon the suspensible member of said hanger in a row extending longitudinally thereof and at spaced apart points, springs carried by said clamping devices tending to urge them laterally into contact with the other of said elongated members, thus normally maintaining in a suspended condition garments portions of which are interposed between said clamps and the last recited elongated member, subject to being simultaneously released from the hanger by the manual release of the aforesaid catch means.

7. In a hanger, an elongated rectangular open frame, and a row of individually releasable holding members mounted to extend transversely across the opening of said frame, each of said holding members being supported along one longitudinal side of said frame with its opposite end coacting with the opposite longitudinal side of the frame for releasably clamping articles upon the latter.

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