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W. A. COVENTRY

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CLOTHES RACK

Filed Sept. 12, 1928

Fig. 1.

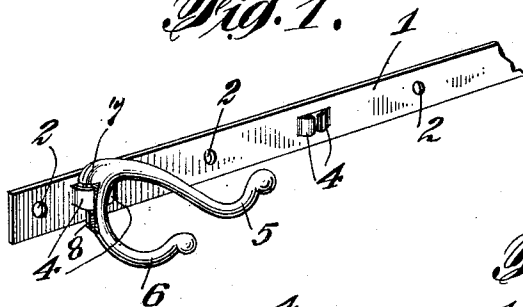


Fig. 2.

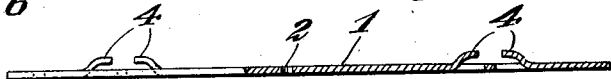


Fig. 3.

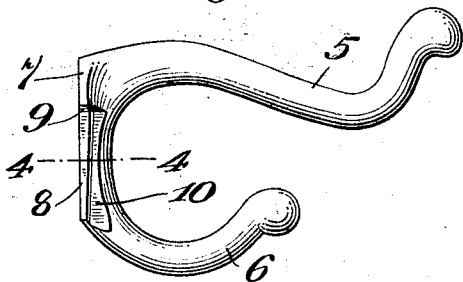


Fig. 4.

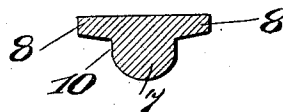


Fig. 5.

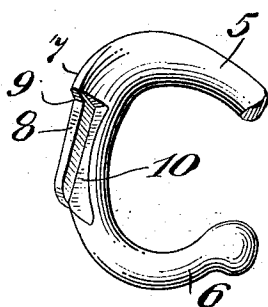


Fig. 6.

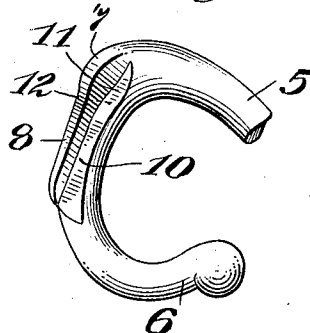
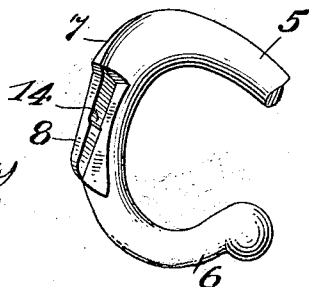


Fig. 7.



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CLOTHES RACK

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The present invention relates to clothes racks and more particularly to one in which the parts may be shipped separately and thereafter assembled.

Hooks, for supporting clothes and the like, formed with threaded lower ends for attachment to walls have been unsatisfactory. If the walls are sufficiently strong to hold the hooks, there is difficulty in screwing the hooks into place. If the walls are not hard, the hooks will not hold. Moreover, it is difficult to get the hooks positioned uniformly and perpendicular to the wall to present a neat appearance.

The present invention contemplates a rack with a plurality of hooks or supporting members spaced equal distances apart and held firmly and rigidly in position. Preferably, the rack comprises a metallic strip having apertures therein permitting it to be nailed or screwed to the wall. At equal intervals, there are provided spring fingers punched from the strip and spaced from the plane of the strip to form seats for the supporting members.

The hooks or supporting members are adapted to fit into these seats to be held rigidly thereby against lateral movement. By having the hooks detachable from the strips, the parts are much easier to pack and ship since they can be handled separately. Another advantage is that the parts may be sold separately, which is extremely desirable because it permits of their sale in ten cent store syndicates. The separate parts may be sold for a nickel whereas the assembled article would have to sell for about twenty-five cents, which would prevent its sale in ten cent stores.

An object of the present invention is to provide an inexpensive structure, the parts of which may be shipped and sold separately and thereafter readily assembled to provide an attractive and rugged clothes rack.

Another object of the invention is to provide a device of the above character in which the parts will not become disassembled accidentally.

Another object of the invention is to prevent any play in the joints connecting the parts, thereby to avoid any tendency for the hooks to wiggle.

Another object of the invention is to provide a device in which the parts may be shipped and sold separately and locked in assembled position by application of pressure to the holding members to form a rigid structure.

A further object of the invention is to provide an inexpensive device which is rugged in construction and fully capable of withstanding the rough usage to which it may be subjected.

Other and further objects of the invention will be obvious upon an understanding of the illustrated embodiment about to be described or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawings, wherein

Fig. 1 is a perspective view of the clothes rack partially assembled;

Fig. 2 is a side elevational view, partly in section, of the metallic strip showing the shape of the spring fingers, forming the seats;

Fig. 3 is a side elevational view of a hook adapted to be attached to the metallic strip;

Fig. 4 is a sectional view on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of the base of the hook shown in Figs. 3 and 4;

Fig. 6 is a perspective view of another form of base for a hook; and

Fig. 7 is a perspective view of a base adapted to be automatically locked in position.

Referring to the drawings, there is shown a metallic strip 1 having a series of apertures 2 for the reception of nails or screws to attach the strip to a suitable base such as a wall. At equal intervals, there are formed from the strip, pairs of spring tongues 4, the free ends of the tongues in each pair extending toward and being spaced slightly from each other as shown. These tongues may be readily formed by a punching and stamping operation; for example, a suitable die may cut the metal and press it into proper posi-

tion out of the plane of the strip. The metal of the strip is not materially weakened since the apertures formed by the punching operation are comparatively small and a strip of metal is left intermediate the apertures, forming each pair of spring tongues. The supporting members may have a comparatively long upper hook 5 for hats and the like and a short lower hook 6 for coats and the like. The base 7 is adapted to fit between the spring tongues 4.

As shown more particularly in Figs. 3, 4 and 5, the base of the hook comprises a pair of lateral extensions 8 having a depth substantially equal to the depth of the space between the ends of the members 4 and the upper side of the strip, and having a width substantially equal to the length of the tongues 4. Adjacent the longer hook 5 there is an abutment 9 against which the spring fingers rest to determine the position of the hook. There is also provided a vertical wall 10 against which the ends of the spring members 4 substantially abut, in the preferred embodiment.

The thickness of the wall 10 extending between the two lateral extensions 8 is substantially equal to the space intermediate each of the pairs of tongues. In this manner the wall 10 may contact with the ends of the tongues to prevent any lateral play and the abutment 9 definitely determines the lower position of the hooks. The sides and edges of the lateral extensions 8 also contact with the spring tongues 4 to increase further the tightness of the fit and to prevent play between the hook and the strip.

In Fig. 6 instead of a sharp abutment 9 as shown in Figs. 5 and 7, the walls 10 are inclined outwardly as shown at 11 and the lateral extensions 8 adjacent the long hook 5 are increased in thickness and also in width. In other words, the lateral extensions are inclined upwardly and outwardly. The advantage of this construction is that when the hook slides in its seat, there is no abrupt stop but the inclined portions 11 and 12 are wedged between and under the spring tongues 4 to prevent any play whatever. These inclined portions adjacent the longer hook, take care of any irregularity in the formation of the spring fingers either in their distance from the strip or variations in distance between the free ends of the pairs of fingers by the formation of a wedge-like joint.

In Fig. 7 there is provided a recess 14 in the base of the hook having a length substantially equal to the width of a spring finger to permit the spring tongues to be seated in the recesses by application of pressure thereto; in some cases the resilience of the fingers may be sufficient automatically to lock the hook or support in its seat. When this hook is once assembled, it cannot be thereafter disassembled. This permits these hooks to be assembled at the factory or to be sold and shipped

separately from the strips and assembled later into a rigid structure.

In the operation of the device, the strips of sheet metal are formed by a stamping operation which may be done in one factory and the hooks are formed by a casting operation which, if desired, may be done at a different plant. Preferably, the two are shipped disassembled thereby reducing the freight and cost of packing. They may be assembled by the merchant and sold in that condition or sold in parts and assembled by the buyer.

The construction of the base of the hooks and the construction of the spring tongues is such that there is a tight fit without lateral movement. In the form shown in Fig. 6, the inclined portions 11 and 12 automatically compensate for any irregularities in the formation of the spring tongues or in the formation of the castings. In the form shown in Fig. 7, the spring tongues are depressed to lock the hooks in position upon being assembled and thereby avoid loss of hooks and at the same time provide an integral bracket.

It will be seen that the above invention provides an inexpensive bracket, parts of which may be sold and shipped separately. Further, when assembled, the hooks or supporting members fit tightly within the spring tongues irrespective of irregularities in the formation of either. There is no lateral play. The parts are rigid. The hooks are uniformly spaced and present a neat and attractive appearance. Further, the bracket is fully capable of withstanding the rough usage to which it may be subjected.

As various changes may be made in the form, structure and arrangement of the parts without departing from the spirit and scope of the invention and without sacrificing its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of a strip with resilient holding fingers formed on the strip, said fingers being spaced from each other, and supporting means having a base portion adapted to slide between and beneath the ends of said fingers, said base portion having a recess adapted to permit said fingers to snap therein and to hold said supporting means rigidly in position.

2. In a device of the class described, the combination of a metal strip having pieces of metal cut from and bent out of the plane of the strip to form spring fingers, said spring fingers being arranged in pairs with the free ends spaced from and extending toward each other to form a groove therebetween, a supporting member having a base adapted to slide in the groove between said fingers, said supporting member having

guideways on the respective sides of the base thereof adapted to cooperate with the ends of said spring fingers, the height of said base being sufficient to cause said fingers to bend further outward, and a recess in said guideways adapted to permit said fingers to snap therein whereby the supporting member is locked in position and removal prevented.

3. A detachable supporting member comprising a base member having lateral extensions forming tongues adapted to fit in and cooperate with members forming suitable grooves for holding the support in place, and recesses in said lateral extensions adapted to form pockets to receive the members forming the cooperating grooves thereby to lock the supporting member in place.

4. In a device of the class described, the combination of a metallic strip with parts punched therefrom to form spring fingers spaced from and extending toward each other, a hook having a rigid base portion adapted to slide between and beneath said fingers, the ends of said fingers being adapted to engage said hook to prevent lateral movement thereof and to resiliently retain the hook in position, and abutments on said base adapted to engage the upper edges of the spring fingers to limit the downward movement of the hook.

5. In a device of the class described, the combination of a metallic strip having parts of the metal cut from and bent out of the plane of the strip to form spring fingers, said spring fingers being arranged in pairs with the free ends spaced from and extending toward each other, a hook having a base with grooves on the respective sides thereof adapted to form guideways for said bent fingers, said base being adapted to slide between the ends of and beneath said bent fingers, the under sides of the bent fingers being adapted to press against the base of said hook to hold said hook resiliently in position, and abutments on the edges of the base of the hook for engaging the upper sides of the fingers and for determining the position of the hook.

6. In a device of the class described, the combination of a strip of metal having a plurality of spaced pairs of spring tongues cut and bent therefrom with the free ends thereof extending towards each other, detachable hooks having lateral extensions on their base adapted to slide under and be held in position by said tongues, said hooks having substantially vertical walls adjacent said lateral extensions, said lateral extensions being thickened and widened at the upper portions thereof to wedge against said spring tongues at the free ends thereof to wedge said hooks in position and to prevent lateral play thereof.

7. In a device of the class described, the combination of a strip of metal having a plu-

ality of pairs of spring tongues bent therefrom, the free ends of said tongues being spaced from and extending towards each other to form a groove therebetween, detachable hooks having lateral extensions on their base adapted to slide under and to be held in position by the free ends of said tongues, said hooks having vertical walls adjacent said lateral extensions, said extensions having recesses therein adapted to engage the free ends of said tongues to prevent lateral displacement of the hooks and to hold them rigidly in position.

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