Sept. 5, 1933. L. M. RICHARD 1,925,500

SUPPORT

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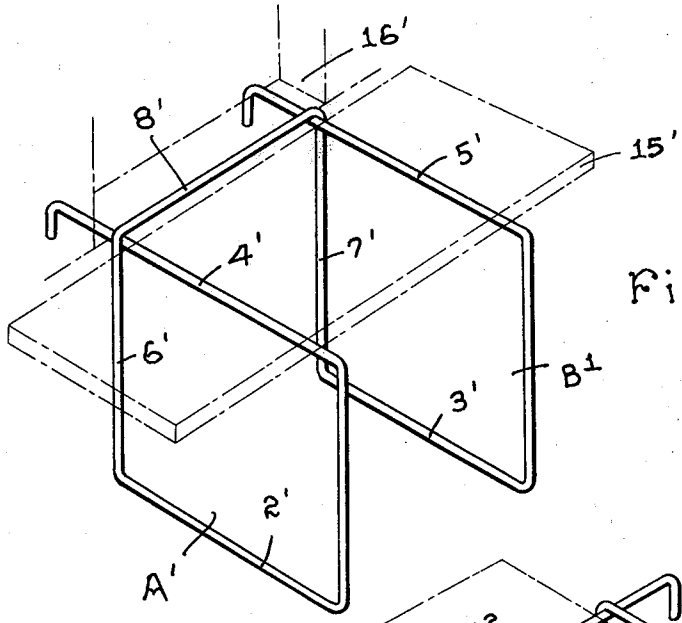


Fig. 1.

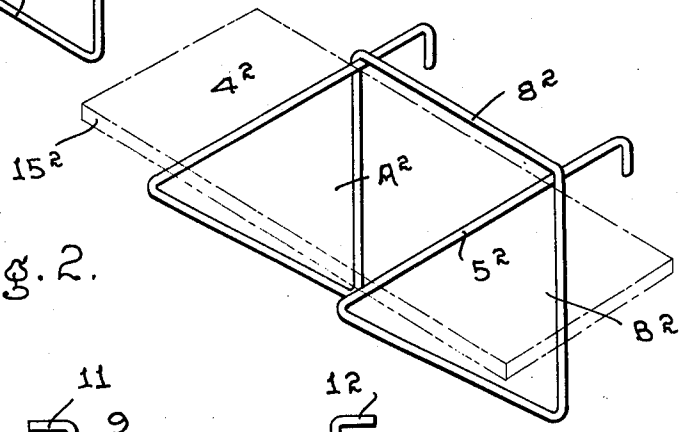


Fig. 2.

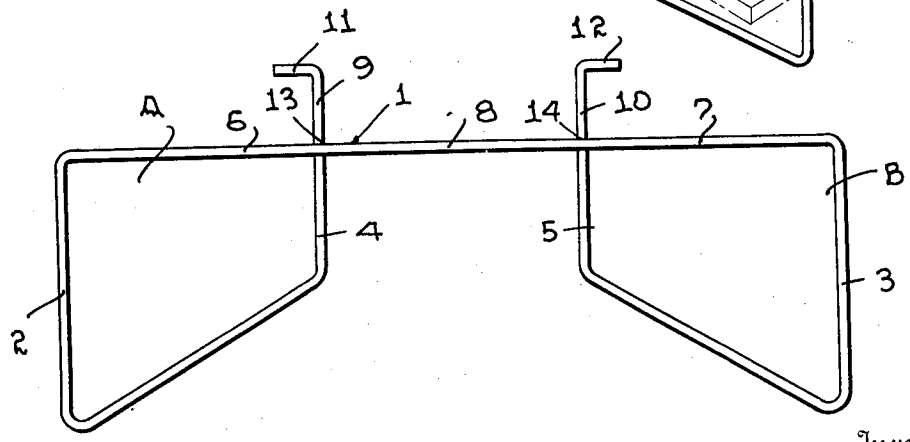


Fig. 3.

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By Sol Shapiro his Attorney

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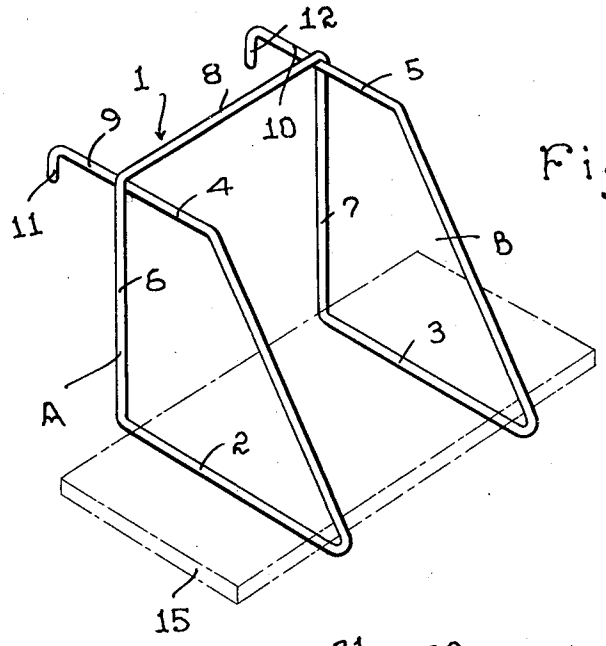


Fig. 4.

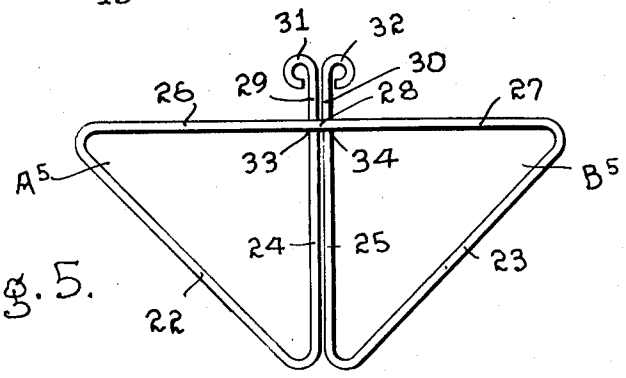


Fig. 5.

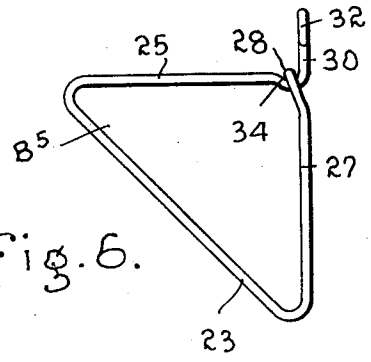
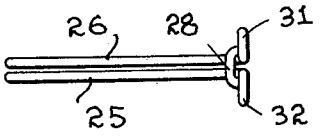


Fig. 6.

Fig. 7.



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Fig. 8.

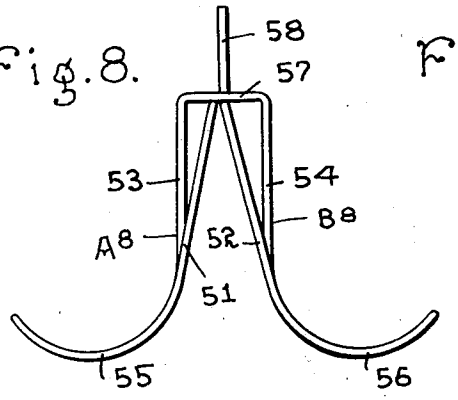
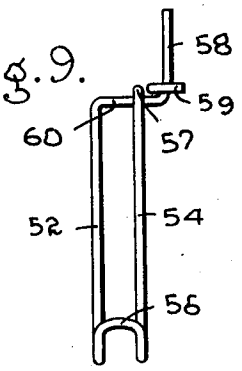


Fig. 9.



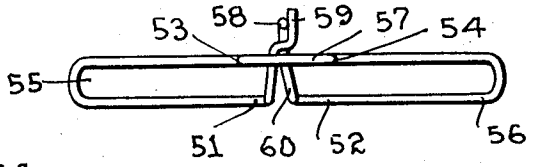


Fig. 10.

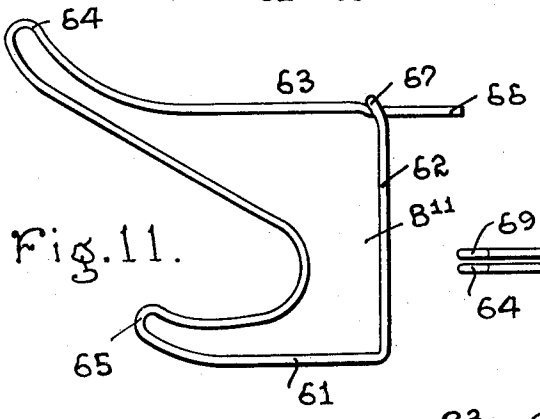
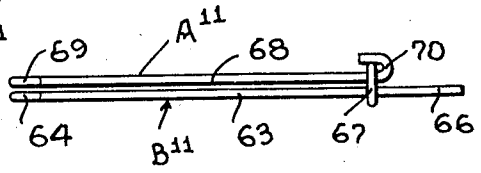


Fig. 11.

Fig. 12.



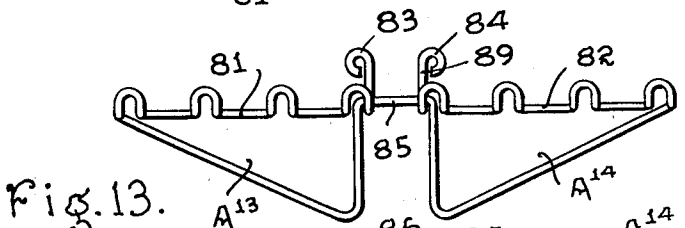


Fig. 13.

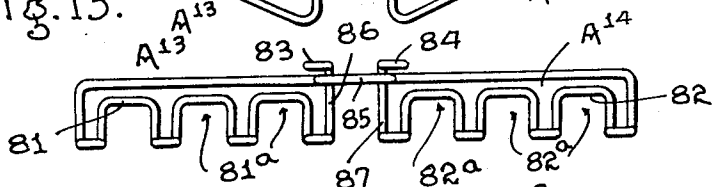


Fig. 14.

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Patented Sept. 5, 1933 1,925,500

UNITED STATES PATENT OFFICE

1,925,500

SUPPORT

Louis M. Richard, Woodbridge, Conn.

Application November 12, 1926
Serial No. 148,086

1 Claim. (Cl. 248—18)

This invention relates to supports and to processes of making the same, and more particularly to such supports of simple construction formed from a single continuous metallic element.

Among the objects and advantages of this invention are the production of supports of exceedingly simple construction that may be economically manufactured.

Other and further objects and advantages will appear from the more detailed description set forth below, it being understood that this more detailed description is given by way of illustration and not by way of limitation, since various changes therein may be made both in the form and method, by those skilled in the art, without departing from the spirit and scope of this invention, as more particularly emphasized in the claim hereunto attached.

In the drawings to be considered in connection with the illustration of this more detailed description there are shown in

Figure 1, one form of support coming within the scope of this invention, said support having substantially square shaped faces; in

Figure 2, a second form of support having substantially triangularly shaped faces; in

Figure 3, a continuous metallic element shaped before being bent into the form of Figure 4; in

Figure 4, a third form of support illustrative of this invention having substantially trapezoidally shaped faces; in

Figures 5, 6, and 7 respectively, a novel support shown in elevation and plan and formed from the shaped element of Figure 5; in

Figures 8, 9, and 10, a support in the nature of a coat hook shown respectively in front and side elevation, and in plan; in

Figures 11 and 12, another form of coat hook shown respectively in side elevation and plan; and in

Figures 13 and 14, a bracket form of support suitable for tooth brushes, respectively shown in elevation and plan views.

It will at once appear from these drawings that in the most desirable forms that this invention may take, there is shown a number of supports, all however being of exceedingly simple construction and contour, so that they may be readily formed from a single continuous metallic element. The process utilized in forming such supports from the described metallic element is generically similar in each case in that two faces are generally first formed from the metallic element, such faces lying usually and substantially in the same plane, and these two faces are then bent out of that plane into the final support form. By making the support in the manner indicated, a very rigid construction results, and particularly if the form is so bent that that portion of the metallic element which serves as a connecting bar member between the two faces, lies above the members of the faces which are contiguous to said bar and transversely thereof. The application of this invention in several ways is more particularly illustrated below. But in this connection it will be understood that while the forms illustrated are desirably formed in the manner indicated, other methods of bending the metallic element into a desired support may be used. The metallic element used is desirably a wire of sufficient cross section to give a rigid structure that will take the strains to which it is subjected during use.

Referring now more particularly to the Figures 1 to 7 of the drawings, the several forms illustrated will be more explicitly considered. Figure 3 shows a metallic element such as the wire 1 shaped to form two faces A, B, lying substantially in the same plane. These faces are trapezoidal in contour, with members 2, 3, 4, and 5 substantially parallel in that plane. Members 6 and 7 of the two faces A, B are continuous with the bar member 8 joining them. The members 4 and 5 desirably project beyond the bar 8 and on the same side thereof to form attaching means 9 and 10 having respectively right angular portions 11 and 12. Having shaped the continuous metallic element 1 in this way, and assuming that the two faces are in substantially the same plane, which in this instance will be the plane of the paper, the two faces are then bent out of that plane about the points 13 and 14 until the two faces are substantially parallel with each other and lie in planes at substantially right angles to the horizontal plane. Preferably this bending operation is so carried out that the bar member 8 extends above the members 4 and 5, and this is accomplished in the instance under consideration by bending the faces downwardly out of the horizontal plane. The resulting structure is shown in Figure 4. This support is capable of wide usage, as for example for supporting a board or other member 15 which may be placed on the members 2, 3 or upon the members 4, 5; or if desired two such articles may be supported in this way. A shelf or two is thus readily built up, which for example may be supported just outside of a window the projecting ends 9 and 10 extending over the window sill, and the right angular portions 11 and 12 serving to prevent the

accidental displacement of the support from the sill. The structure illustrated gives a very rigid form since any member or article supported upon the shelf 15 pulls downwardly upon the arms 6, 7 which because of the bar 8 is held rigidly in position and kept from distortion of the support.

Similarly the structures of Figures 1 and 2 are made. In Figure 1 however the faces A^1 and B^1 are substantially square in contour and made up of members 2^1, 3^1, 4^1, 5^1, 6^1, 7^1, 8^1, etc. all strictly similar to the corresponding members of the structure shown in Figure 4. Analogously the faces of the support shown in Figure 2 is made up of faces A^2 and B^2 of triangular contour, a shelf 15^2 being illustrated in dotted lines as supported on the members 4^2 and 5^2, corresponding with the shelf 15^1 supported on members 4^1 and 5^1 of Figure 1, the latter figure also showing a window sill indicated in dotted lines at 16^1.

In the structure shown in Figure 5, the first forming or shaping operation gives the metallic element two faces A^5 and B^5 made up of substantially triangular contour having elements 22, 24, 26, 29, and 31, and 23, 25, 27, 30, and 32 respectively. These faces as pointed out above are desirably formed so that they lie in substantially the same plane. The members 26 and 27 are continuous with the bar member 28 which is also desirably placed above or at least on the same side of the members 24 and 25. To form the structure shown in Figures 6 and 7, the faces are bent out of the horizontal plane about the points 33 and 34 respectively so that the bar member 28 remains above the members 24 and 25. The points 33 and 34 are respectively the intersection of bar member 28 with members 24 and 25. The projecting ends 29 and 30 are desirably formed into eyes 31 and 32 so that screws or nails may be inserted therethrough to retain the support on a wall or etc.

In the support of the type of a coat hook as shown in Figures 8, 9, and 10, the structure is made up of two faces A^8 and B^8 with elements 51, 53, and 55, and 52, 54, and 56 respectively corresponding with analogous elements in Figures 1 to 7. However, the faces are rounded out transversely as shown at 55 and 56 to form ears adapted to receive a coat, or other article on the hooks formed by the ear members. The bar member 57 connects the members 53 and 54 and is placed above them. In this instance, one of the projecting ends 58 is turned upwardly as shown at 58 and may be threaded if desired to form a screw for insertion into a wall or shelf as desired. The other projecting end 59 is desirably looped about the member 58. This structure although made in a manner similar to that shown in Figures 3 and 5, gives a coat hook of rigid construction but of ready and simple manufacture. Articles placed on the ears 55 and 56, cannot cause distortion of the support since the bar member 57 passes over the horizontal portions of members making up the faces A^8 and B^8 in a way analogous to that shown in the other figures.

Considering the coat hook of Figures 11 and 12, the faces A^{11} and B^{11} are formed as shown having members 61, 62, 63, and corresponding portions on the other face of which member 63 only shows in Figure 12. These members are bended to form hooks 65 and 64, there being corresponding hooks on the face A^{11} of which hook 69 only shows. These two faces lie close together, and their corresponding hooks may be secured together as by wiring or soldering in order to improve the rigidity of the structure. It will be understood that in making up this form of support entirely similar procedure is used to that shown in Figures 3 and 5, in that the face A^{11} is identical in contour with face B^{11}, and these faces are first formed in substantially the same plane with the bar member 67 continuous with member 62 and its corresponding element in face A^{11}. These faces are then bent out of the horizontal plane until they lie close together and substantially parallel, with the bar member 67 preferably above the members 63 and its corresponding element in face A^{11}. The projecting end 66 of element or member 63 is desirably threaded so that the support may be placed on a wall. The hooks 64 and 65 receive the articles such as coats or hats to be supported, and due to the fact that the bar member is placed above the elements 63 etc., a very rigid structure simple to manufacture is obtained.

The modification shown in Figures 13 and 14 follows the description given above for the other and related supports. In this device, however, the elements 81 and 82 are provided with a number of recesses such as 81^a, 81^a, and 82^a, 82^a adapted to receive brushes such as tooth brushes for example. The bar member 85 passes above members 86, 87 of the faces so that in this structure also, a rigid construction is obtained. The projecting ends 88 and 89 are desirably formed with upwardly projecting eyes 83 and 84 serving as means by which the support or bracket may be attached to a wall for example. This structure is formed in a manner strictly analogous to the other supports illustrated, the first step being two faces of the desired contour which are subsequently bent out of the horizontal plane into the final position.

Having thus set forth my invention, I claim:

A support comprising a continuous metallic element bent to form two portions of polygonal contour connected by a bar member, the ends of the metallic element projecting beyond said bar member, the bar member lying above but resting upon the members of the polygonal portions contiguous to the bar member, whereby rigidity of structure is secured.

LOUIS M. RICHARD.