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Margolin et al.

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[54] **ADJUSTABLE BRACKET ASSEMBLY**

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[73] Assignee: **Grun Mar Industries, Inc.,** New York, N.Y.

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Related U.S. Application Data

[62] Division of Ser. No. 382,459, July 25, 1973, Pat. No. 3,888,354.

[52] **U.S. Cl.** ..... **211/102;** 248/289 R

[51] **Int. Cl.²** **A47F 5/08**

[58] **Field of Search** 211/96, 97, 98, 102, 107, 211/110, 168, 174; 248/289, 290, 296

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[57] **ABSTRACT**

A bracket assembly comprising front and back plates of particular shape which are adjustably connected to each other at points adjacent their ends. The front plate has a recessed section and the back plate has a projecting section, the two sections, on tightening, gripping a support element or member therebetween. Remaining portions of the assembly provide openings into which bent rods may be inserted and these openings serve to retain the rods in a swivelable relationship with the rest of the bracket assembly. On further tightening, however, these rods are also gripped so as to prevent swiveling.

5 Claims, 6 Drawing Figures

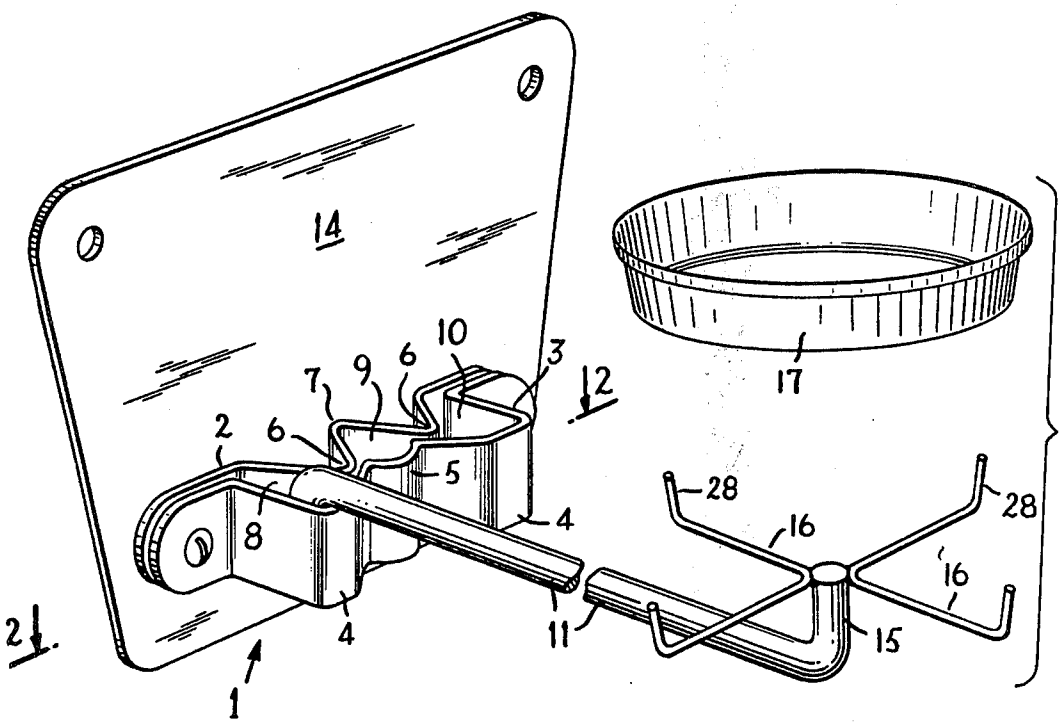


FIG. 1

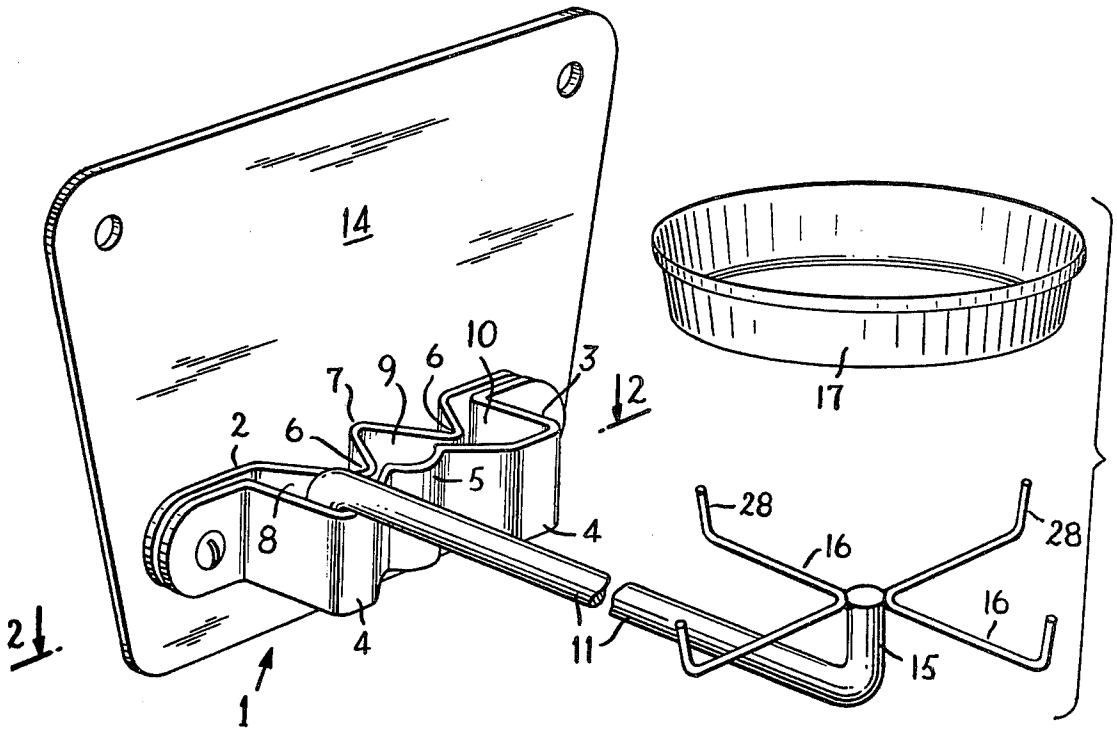
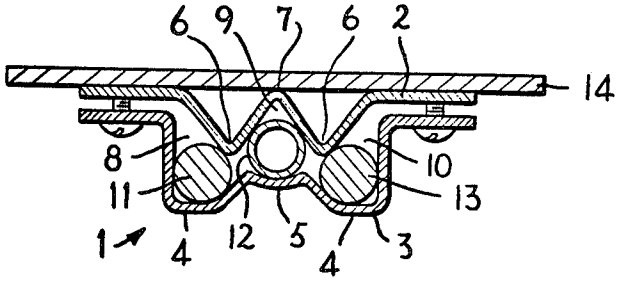

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FIG. 2


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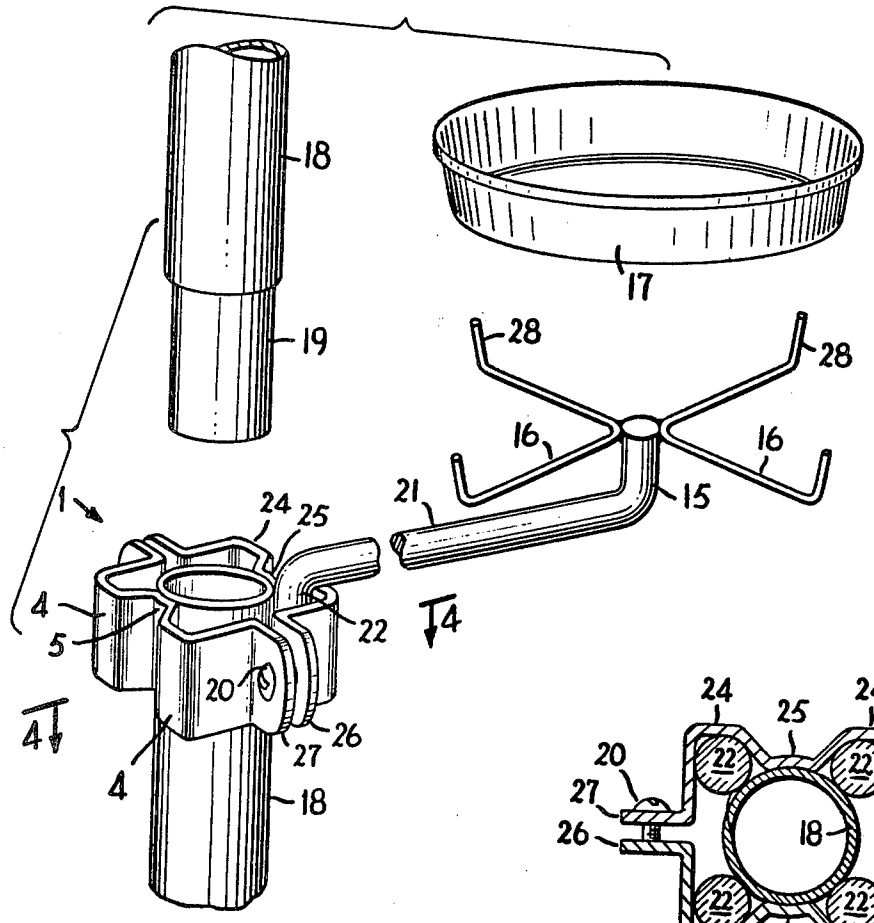


FIG. 3

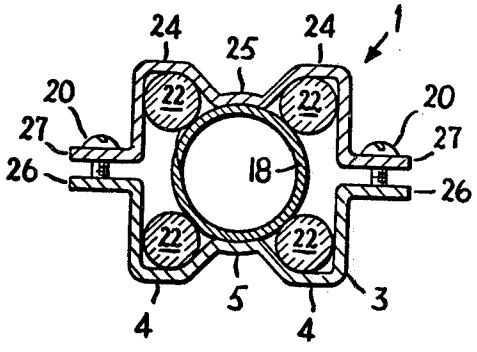


FIG. 4

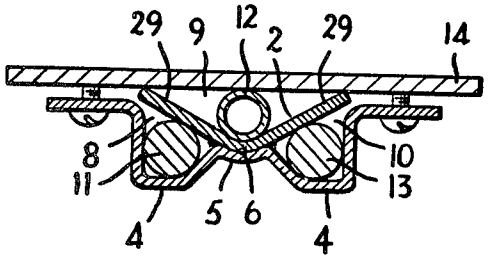


FIG. 5

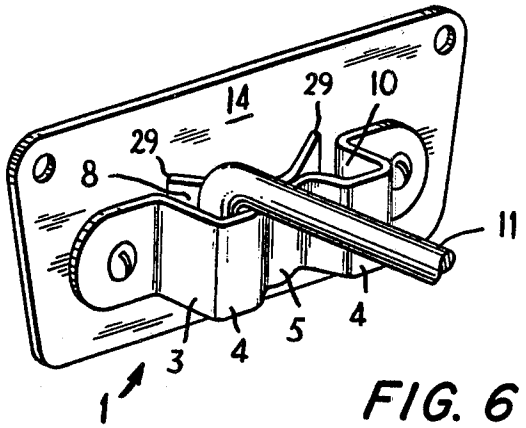


FIG. 6

ADJUSTABLE BRACKET ASSEMBLY

This application is a division of application Ser. No. 382,459, filed July 25, 1973, now U.S. Pat. No. 3,888,354.

The present invention is directed to an improved form of bracket. More specifically, the improved bracket is particularly adapted for adjustable mounting on a vertical pole and can hold a plurality of support rods.

It has become popular in the interior decoration field to provide various forms of "planters" in which living or artificial plants can be mounted. Often these are made integral parts of pieces of furniture so as to create a pleasing appearance in the home.

The present invention is intended to permit the mounting of planters and/or other things on a vertical pole or wall. The standard form of pole lamp has been generally well known for many years. With the bracket of the present invention it is possible to either convert such a pole lamp so as to include planters or to form such a pole lamp having the ability to adjust the height of the fixtures thereon.

In practicing the present invention there is provided a bracket assembly which comprises a front plate and a back plate. These plates are adjustably secured to each other at points adjacent their ends. The front plate is provided with a recessed section and one or more forward sections.

The back plate which is complementary to the front plate is provided with a rear section and one or more projecting sections.

The various sections are so arranged that when the two plates are affixed to each other the forward section and the projecting section together define a first opening and at the same time the recessed section and the rear section define a second opening. In a preferred form of the device there is also provided a second forward section and a second projecting section which together define a third opening.

The first and third openings are adapted to receive support rods which can be swivelably retained therein. The second opening on the other hand, is intended to receive and grip a support member. This member is preferably a vertical pole of cylindrical cross section.

Adjacent the ends of the support rods remote from the bracket, there can be suspended a planter or light or other form of ornamentation or decoration as desired. In one form of the invention the support rods are provided with upturned sections at the remote ends upon which are fixed a plurality of mounting rods. These rods have upturned ends remote from the point at which they are mounted on the support rods. A dish capable of holding a flower pot is placed on the mounting rods and serves to support the planter.

Alternatively, such a dish could be suspended on chains mounted on its rim and hung at or near the remote ends of the support rods.

The swivelable mounting of the support rods permits easy adjustment of the position of the planter or other decorative device in a horizontal plane. Adjustment in the vertical direction can be obtained by loosening the bracket and sliding it up or down the vertical support member.

In a preferred form of the device there is provided a bracket assembly comprising front and rear plates adjustably connected to each other adjacent their ends. The front plate has at least one and preferably two

forward sections thereon and a recessed section is located adjacent the first forward section or between the first and second forward sections if there are two.

The rear plate is provided with a first rearward section and a front section adjacent said first rearward section. As in the case of the front plate, there is preferably provided a second rearward section on the rear plate in which case the front section is located between the first and second rearward sections.

A support opening is defined by the front section and the recessed section, and a support element is located therein in frictional engagement with said front and said recessed sections. A first hole is defined by the first forward section and the support element and a second hole is defined by the first rearward section and the support element.

In the preferred form of the device a third hole is defined by the second forward section and the support element and a fourth hole is defined by the second rearward section and the support element. The holes are adapted to receive support rods which are as in the first embodiment, preferably swivelably movable in the horizontal plane.

In the accompanying drawing constituting a part hereof and which like reference characters indicate like parts;

FIG. **1** is a perspective view partially broken away and partially exploded showing one form of the present invention;

FIG. **2** is a cross section along line **2—2** of FIG. **1**;

FIG. **3** is a view similar to that of FIG. **1** of a preferred embodiment of the invention;

FIG. **4** is a cross section along line **4—4** of FIG. **3**; and FIGS. **5** and **6** are views comparable to FIGS. **1** and **2** of another embodiment of the invention.

Referring more specifically to FIGS. **1** and **2**, the bracket assembly is shown generally at **1** and comprises back plate **2** and front plate **3**. Front plate **3** is provided with forward sections **4** and recessed section **5** located between forward sections **4**.

Back plate **2** has projecting sections **6** and rear section **7** located therebetween.

First opening **8** is formed by projecting section **6** and one of forward sections **4**. Second opening **9** is formed by rear section **7** and recessed section **5**. Third opening **10** is formed by the other of said sections **4** and the other of projecting sections **6**. Support member **12** is gripped in second opening **9** thereby retaining the assembly in the desired vertical position. First rod **11** and second rod **13** are located in first opening **8** and third opening **10**, respectively. They may be gripped by the walls defining the respective openings but they can advantageously be loosely and hence swivelably maintained therein.

As can be seen in FIG. **1**, first rod **11** carries upturned section **15** at the end thereof remote from bracket assembly one. Mounting rods **16** are affixed to upturned section **15** and carry retaining portions **28** at the ends thereof remote from upturned section **15**. Dish **17** is held by mounting rods **16** and retaining portions **28**. Dish **17** is adapted to receive a flower pot or similarly shaped object.

Referring more specifically to FIGS. **3** and **4**, there is shown a preferred embodiment of the invention. The bracket assembly is shown generally at **1** and comprises front plate **3** and rear plate **23**. Front plate **3** is provided with front flanges **26** and rear plate **23** is provided with rear flanges **27**. Screws **20** pass through flanges **26** and

27 and adjustably secure front plate 3 and rear plate 23 together.

Front plate 3 is provided with forward sections 4 adjacent flanges 26 and also carries recessed section 5 located between forward sections 4. Rear plate 23 is provided with rearward sections 24 located adjacent rear flanges 27 and also carries front section 25 located between rearward sections 24.

As can be seen in FIG. 4, recessed section 5 and front section 25 are adapted to frictionally grip support element 18. Support element 18 is usually in the form of a circular cross section which can have telescoping portion 19 mounted thereon. This enables the support element to be "broken" for ease of packing and shipment.

The first of forward sections 4 together with support element 18 form a first hole adapted to receive downturned portion 22 of the first support rod 21. Similarly, the second of forward sections 4 and support element 18 form a second hole. In like manner the first of rearward sections 24 and support element 18 form a third hole and the second of rearward sections 24 and support element 18 form a fourth hole.

Each of said holes receives a downturned portion 22 of a support rod 21. As in the previous embodiment, portions 22 need not be firmly gripped in their respective holes but can advantageously be retained loosely so that they can swivel in the horizontal plane.

Upturned section 15 of support rods 21 carries mounting rods 16 with retaining portions 28. Dish 17 is adapted to fit into and be held by mounting rods 16 and retaining portions 28.

Adjustment of the location in the horizontal plane can be obtained merely by swiveling rods 21 to the desired positions. Adjustment in the vertical plane is obtained by loosening screws 20 sliding bracket assembly to the desired height and then retightening screws 20 so that support element 18 is firmly gripped between recessed section 5 and front section 25.

A still further improved embodiment is shown in FIGS. 5 and 6. Since this embodiment of the invention is a modification of the form shown in FIGS. 1 and 2, it will not be necessary to describe it fully. Back plate 2 is provided with a V-shaped projecting section 6. The plate has rearwardly and outwardly extending resilient legs 29. These legs together with projecting section 6 and fastening plate 14, define second opening 9 within which support member 12 is gripped. First and third openings 8 and 10 for receiving first and second rods 11 and 13 are defined by legs 29 and the respective forward sections 4. The operation of this form of the device is like that of FIGS. 1 and 2.

In practicing the present invention, such changes as would be apparent to the person having ordinary skill in the art may be made without departing from the scope or spirit thereof. For example, the flower pot may be suspended from the ends of the support rods by a chain or similar ornamental device, the other ends of the chain being affixed to the periphery of the dish. Alternatively, a lighting mechanism can be supported by the support rods or a vase or other decorative piece used in place of the flower pot.

Furthermore, it is clear that tubular members can be substituted in whole or part for the rods specifically described in the present application. It is to be preferred in all of the members disclosed herein that the opening which receives the support member be of such size that the support member is gripped as the bracket is tightened prior to the remaining holes or openings gripping the swiveling rods. In this way it is possible to tighten the bracket on the support then install the rods and swivel them to the desired position. Once this has been accomplished, the bracket is tightened further and the rods are gripped and prevented from swiveling. As a result of this construction it is possible for one person to install the bracket without difficulty.

The invention is also useful for producing modular structures in the home or for use as display devices in stores. These structures will be made up of various rods and/or tubes which would be clamped together by the bracket of the present invention. The present invention is particularly adapted to producing shelving of various shapes and arrangements.

What is claimed is:

1. A bracket assembly comprising a front plate and a back plate, said plates being adjustably connected to each other adjacent their ends, at least a first forward section on said front plate, a recessed section on said front plate adjacent said first forward section, a projecting section on said back plate, a rear section on said back plate adjacent said first projecting section, a first opening defined by said first forward section and said first projecting section, a second opening defined by said recessed section and said rear section, a support member frictionally held in said second opening, a first rod in said first opening.

2. A bracket assembly according to claim 1 wherein said first rod is swivelable in a plane substantially perpendicular to said support member.

3. A bracket assembly according to claim 1 wherein there is a second forward section on said front plate, said recessed section being between said first forward section and said second forward section, a second projecting section on said back plate, said rear section being between said first projecting section and said second projecting section, said second forward section and said second projecting section defining a third opening, a second rod in said third opening.

4. A bracket assembly according to claim 3 wherein said first rod and said second rod are swivelable in a plane substantially perpendicular to said support member.

5. A bracket assembly comprising a front plate, a fastening plate, and a resilient V-shaped back plate therebetween, at least a first forward section on said front plate, a recessed section on said front plate adjacent said first forward section, said back plate having a projecting section thereon and affixed to said front plate thereby, said back plate having a first leg extending laterally and rearwardly from said projecting section, said front plate and said fastening plate being adjustably connected to each other adjacent their ends, a first opening defined by said first forward section and said first leg, a second opening defined by said back plate and said fastening plate, a support member frictionally held in said second opening, a first rod in said first opening.

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