United States Patent [19]

Ragir

[11] **3,750,991**

[45] **Aug. 7, 1973**

[54] **SUCTION MOUNTING DEVICE**

[76] Inventor: **Meyer J. Ragir,** 1375 Sheridan Rd., Highland Park, Ill.

[22] Filed: **May 5, 1971**

[21] Appl. No.: **140,386**

[52] **U.S. Cl.** ..... **248/206 R**
[51] **Int. Cl.** **F16b 47/00**
[58] **Field of Search** ..... 248/206 R, 467

[56] **References Cited**

UNITED STATES PATENTS

2,131,224	9/1938	Kaach	248/206 R

FOREIGN PATENTS OR APPLICATIONS

432,498	7/1935	Great Britain	248/206 R
1,915,483	5/1969	Germany	248/206 R
1,569,052	4/1969	France	248/206 R
441,647	1/1968	Switzerland	248/206 R

Primary Examiner—William H. Schultz
Attorney—Dressler, Goldsmith, Clement & Gordon

[57] **ABSTRACT**

A suction device including an elastic diaphragm and a camming lever pivoted on pins carried by a stem extending from the diaphragm with a reaction member interposed between the diaphragm and the lever. The pins are formed integral with the stem and the lever has a pair of arms located on opposite sides of the stem with the arms having L-shaped slots for receiving the pins. The lever also has a projection extending from an intermediate portion and the projection is in contacting engagement with an intermediate portion of the reaction member when the suction device is supported on a wall. In another embodiment, the reaction member also has a recess for receiving the projection to prevent relative movement between the lever and the reaction member when the device is attached to a flat surface.

14 Claims, 12 Drawing Figures

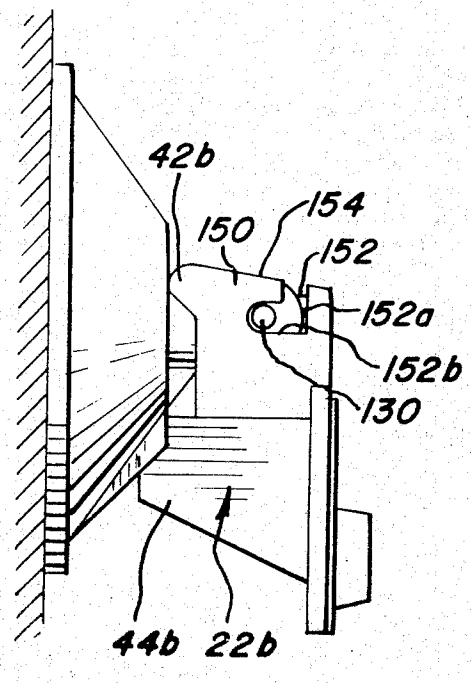


FIG. 1

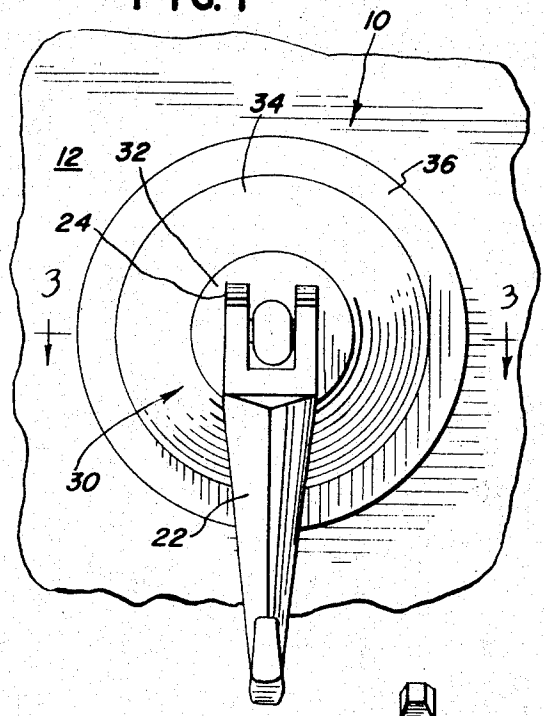


FIG. 4

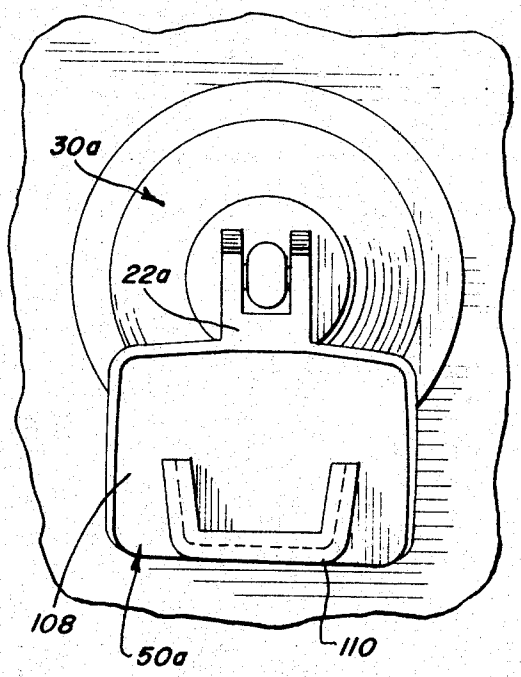


FIG. 3

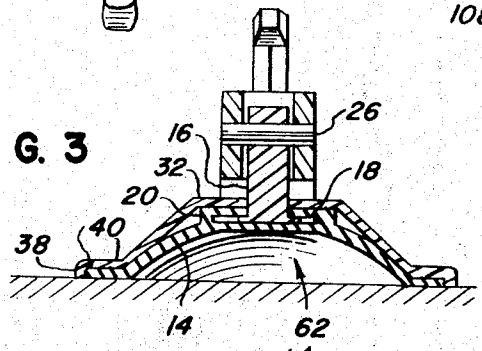


FIG. 2

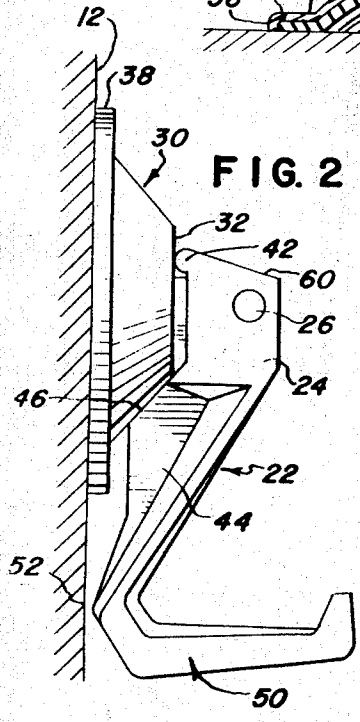


FIG. 5b

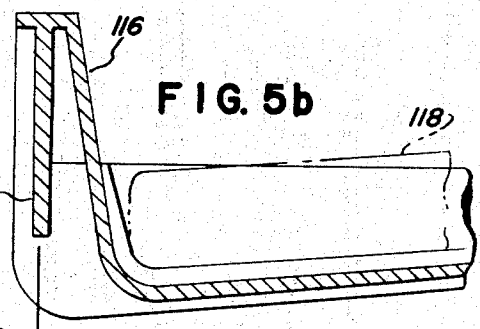
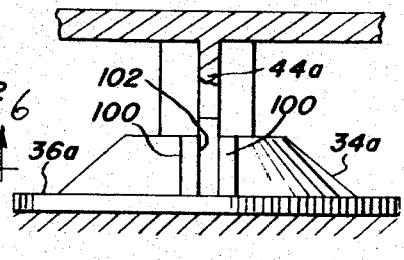


FIG. 6



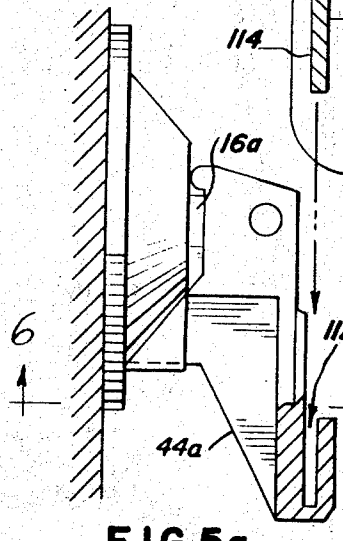


FIG. 5a

INVENTOR
MEYER J. RAGIR
BY Dressler, Goldsmith, Clement & Gordon
ATTORNEYS

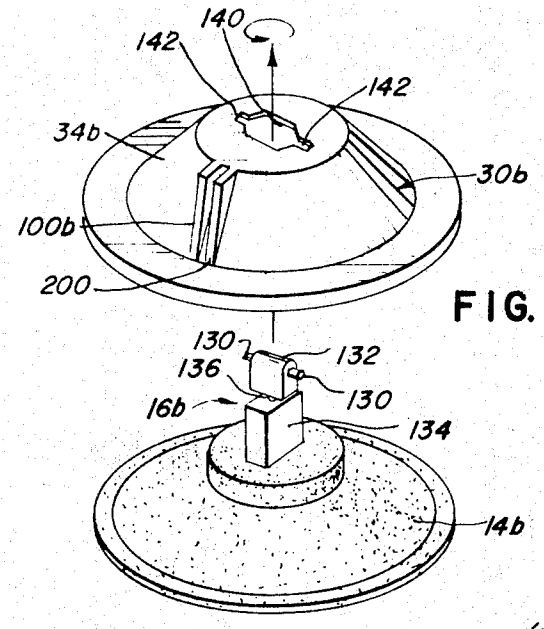


FIG. 7

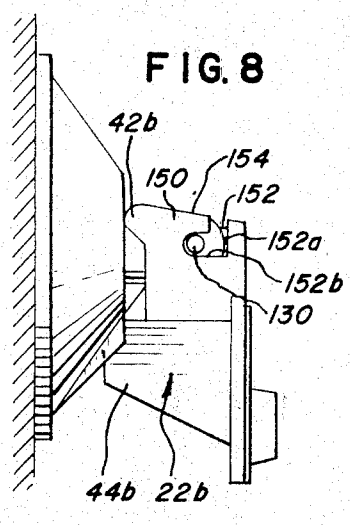


FIG. 8

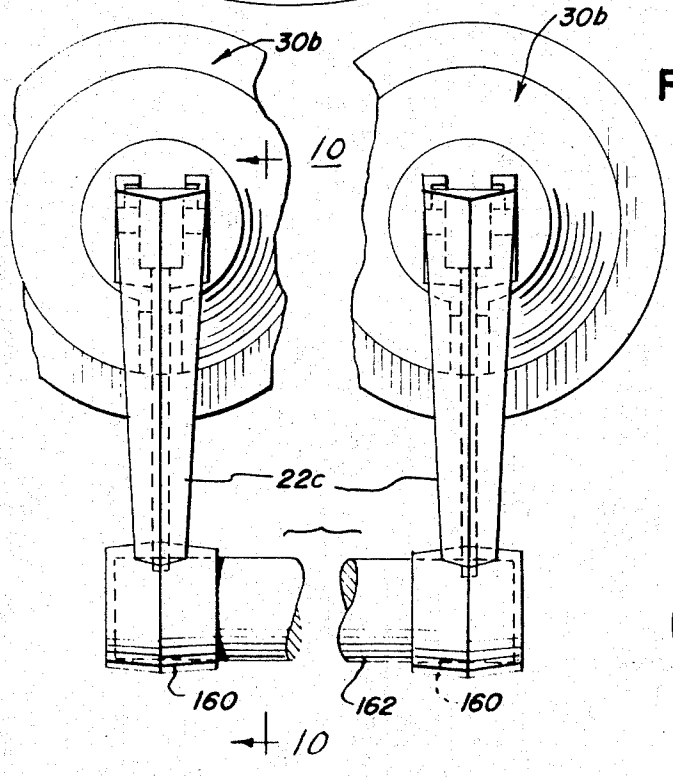


FIG. 9

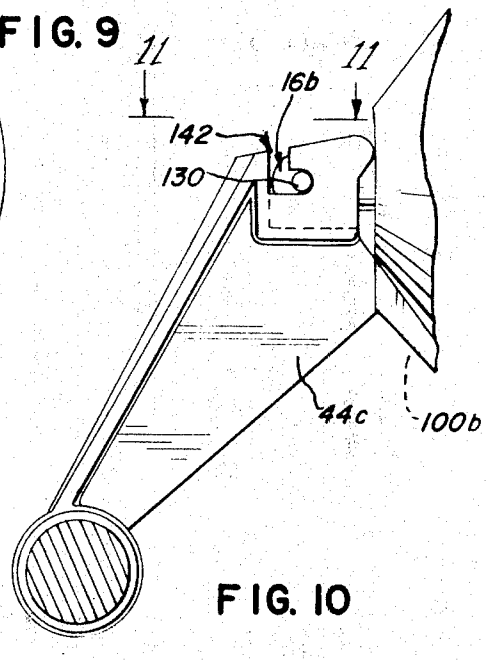


FIG. 10

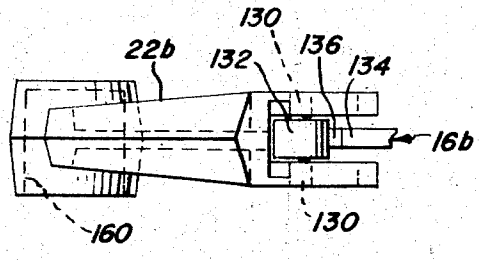


FIG. 11

INVENTOR
MEYER J. RAGIR
BY Lessler, Goldsmith, Clement & Gordon
ATTORNEYS

SUCTION MOUNTING DEVICE

BACKGROUND OF THE INVENTION

The present invention relates generally to mounting devices and more particularly to an improved suction mounting device for attaching articles to a flat surface.

The use of suction devices for attachment of various articles to a flat surface without marring the surface has been known for years. One specific type of unit that has previously been commercialized includes a suction device for attachment of a hook to a wall of a building. Such a device is generally disclosed in U. S. Pat. No. 355,021. A unit of this type is still being commercialized in a slightly modified form.

In recent years, efforts have been made to produce a minimum amount of projection of the hook from the wall when it is in its assembled condition. Thus, it has been proposed to change the configuration of the hook structure of the above mentioned patent in a manner that an intermediate portion of the hook is in close proximity or, in most instances, in contact with the supporting wall.

However, it has been found that both types of hooks discussed above, have a disadvantage in that the holding power of the suction device is decreased as additional weight of load is being applied to the hook.

SUMMARY OF THE INVENTION

The present invention contemplates an improved suction-type device for supporting articles on a wall and in which the holding power remains substantially the same under all conditions of actual use.

The suction device of the present invention includes an elastic diaphragm having an elongated stem or pin projecting from one surface thereof with a lever pivoted on a free end of the stem. A reaction member is interposed between the diaphragm and the lever and has an opening adjacent the central portion with the stem extending through the opening. An annular peripheral flange of the reaction member engages teh diaphragm near the periphery thereof and cooperating camming surfaces on the lever and the central portion of the reaction member will cause the central portion of the diaphragm to be drawn into engagement or in close proximity with the central portion of the reaction member as the lever is pivoted from an inoperative to an operative position. The lever has a projection at a location spaced from the pivot point for engaging the reaction member between the central portion and the flange and acts as a fulcrum for reaction forces when the lever is in an operative position and an article is supported on the free end.

In one embodiment, the suction device has the lever configured to define a hook for supporting an article while in an alternate embodiment, the article supporting means is in the form of a groove or slot for receiving a cooperating interlocking element.

In one form of the invention, the suction device further has means which define a recess on the intermediate portion of the reaction member which receives the projection and prevents any relative rotational movement of the lever about the axis of the elongated stem. In addition, the pins defining the pivot axis for the lever are integral with the stem and the lever has arms extending on opposite sides of the stem with the arms having L-shaped slots to receive the pins so that the stem and lever can readily be interconnected without any special equipment after the reaction member and diaphragm have been assembled.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF DRAWINGS

FIG. 1 shows a plan view of a suction device constructed in accordance with the present invention and attached to a wall;

FIG. 2 is a side elevation of the suction device shown in FIG. 1;

FIG. 3 is a sectional view taken generally along line 3—3 of FIG. 1;

FIG. 4 is a view similar to FIG. 1 showing a slightly modified form of the present invention;

FIG. 5*a* is a side elevation view of the suction device shown in FIG. 4 and shown partially in section;

FIG. 5*b* shows an article to be supported on the suction device;

FIG. 6 is a sectional view taken generally along line 6—6 of FIG. 5*a*;

FIG. 7 is an exploded perspective view of the diaphragm and reaction member showing another form of the invention;

FIG. 8 is a view similar to FIG. 5 showing the device of FIG. 7 in its operative position;

FIG. 9 is a plan view of two suction devices used to support a towel rack;

FIG. 10 is a fragmentary view along line 10—10 of FIG. 9; and

FIG. 11 is a fragmentary view along line 11—11 of FIG. 10.

DETAILED DESCRIPTION

While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will herein be described in detail several specific embodiments, with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiments illustrated.

FIG. 1 of the drawings generally shows a suction device, generally designated by the reference numeral 10, for supporting articles on a flat surface, such as a wall 12. The construction of the suction device is more clearly shown in the cross sectional view of FIG. 3 and includes an elastic diaphragm 14 which is substantially circular and has a stem or pin 16 connected thereto. The connection between the stem and diaphragm includes an aperture disc 18 integral with the stem and molded into a thickened central portion 20 of the diaphragm. Thus, the diaphragm 14 and stem 16 are constructed as a one-piece unit and the stem 16 projects from one surface of the diaphragm.

The suction device also includes a lever 22 having a bifurcated portion 24 on one end thereof which receives the free end of the stem 16 and is pivoted on the stem by a pin 26.

The suction device 10 further includes a reaction member, generally designated by the reference numeral 30, that encloses the elastic diaphragm 14 and cooperates with the diaphragm and the lever to produce and maintain an effective vacuum-seal when the suction device is attached to the flat surface or wall 12. The reaction member 30 includes a planar, circular, central portion 32, an intermediate portion 34, which is a conical segment that slopes away from the free end of the pin, and an annular peripheral flange 36 that ex-

tends substantially readially of the longitudinal axis of the stem. The free end of the peripheral flange has an axially extending portion **38** that cooperates with the radial portion **36** to define a recess along the periphery of the reaction member and the recess has a depth substantially equal to the thickness of the peripheral portion of the elastic diaphragm **14**, for a purpose to be described later. In addition, the lower surface of the flange **36** that is adjacent the elastic diaphragm, has a pair of circumferentially extending beads **40**, the purpose of which will be described later.

The substantially flat surface on the central portion **32** defines a camming surface on the reaction member that cooperates with a second camming surface defined by a pair of ears **42** that repsectively extend from the free ends of the arms defined by the bifurcated portion **24** of the lever **22**.

According to the primary aspect of the present invention, the lever **22** has a projection **44** extending from an intermediate portion thereof and defining means for engaging the reaction member between the central portion **32** and the peripheral flange **36**. The projection **44** has an elongated surface **46** that is in extended engagement with the outer surface of the intermediate portion **34**.

Before describing the advantages of the projection **44**, a description of the remainder of the suction device appears to be in order. In the embodiment illustrated in FIGS. **1–3**, the lever **22** has an angularly related end portion **50** adjacent the free end thereof that is spaced from the pivot pin **26** and the end portion **50** is curved or bent to define a hook for supporting an article and the hook portion or surface **52** adjacent the wall surface is spaced from the wall when the device is in its operative position.

In mounting the device **10** upon the wall **12**, the lever **22** is initially pivoted to a position substantially 90° **from the position shown in FIGS. 1–3.** In this position, the dimension between the edge **60** of the lever and the central portion **32** is sufficient to allow the elastic diaphragm or suction cup to be preliminarily attached to the wall by forcing the entire unit against the surface of the wall. Thereafter, the lever is pivoted from its first or inoperative position (not shown) to the second or operative position shown in the drawings and the cooperating camming surfaces on the ears **42** and the central portion **32** will cause the central portion of the elastic diaphragm to be drawn towards the central portion of the reaction member **30** to create a large vacuum space **62** (FIG. **3**). While the elastic diaphragm is drawn into substantially the configuration of the reaction member **30**, the annular flange **36** will maintain the periphery of the elastic diaphragm in sealing contact with the wall surface. The circumferential beads **40** on the lower surface of the annular flange **36** will insure that the periphery of the elastic diaphragm **14** is maintained in sealing engagement with the wall surface.

When the device is attached to the wall, the suction device of the present invention overcomes the tendency for the weight of the aritcle to pull the elastic diaphragm or suction cup **14** from sealing engagement with the wall surface. This is accomplished by the projection **44** engaging an intermediate portion fo the reaction member between the central portion **32** and the peripheral flange **36**. The engaging surface **46** of the projection **44** will act as a fulcrum for any forces resulting from the weight of articles supported on the free end of the lever or the hook **50** and will tend to force the lower portion of the reaction member and the suction cup into further contacting engagement with the surface wall. This will substantially overcome the tendency for the weight of the article to pull the suction device from the wall surface.

It will be appreciated that in either of the prior art types of units discussed above, the weight of the article will tend to produce pivotal forces that will pull the suction device from the wall surface. Thus, if the hook portion **52** adjacent the surface wall were in engagement with the wall, this engaging surface would be the fulcrum for any weight applied to the free end of the hook. The weight of articles on the hook would tend to produce a pivotal force about the fulcrum **52** and the extended moment arm defined by the dimension between the pivot axis **26** and the engaging portion **52** of the hook and the wall would tend to decrease the holding power as the load on the free end of the hook is increased. Also, if the hook portion **52** were to remain spaced from the wall surface, the fulcrum for any weight applied to the free end of the hook would be outside the periphery of the diaphragm, along the edge of the peripheral flange **36** of the reaction member **30** that is closest to the free end of the hook. Again, this arrangement would not in any way overcome the tendency for the holding power to decrease as the weight of the articles supported by the devices increases, since the fulcrum would be outside the periphery of the elastic diaphragm.

Summarizing briefly, the arrangement of the present invention considerably decreases the effective moment arm for the reaction forces resulting from the weight of articles on the device. In addition, having the fulcrum inside the periphery of the elastic diaphragm and spaced from the axis of the stem will result in increased holding power on at least a portion of the diaphragm as the weight on the hook is increased.

According to another aspect of the present invention, the hook end portion of the lever **22** is tapered in a manner that the free end thereof has a minimum cross sectional configuragtion (FIG. **1**) and progressively increases from this minimum dimension. This arrangement allows for a support of articles having extremely small holes for receiving the end of the hook. Heretofore, it has been common to provide a bulb on the free end of the hook thereby requiring a large opening in the article sufficient in size to receive the bulbous end portion.

A slightly modified embodiment of the invention is disclosed in FIGS. **4–6**. Since many of the elements are identical in construction, the reference numerals have been repeated with the suffix "a" being added to each of the reference numerals. The modified embodiment of the invention incorporates an additional feature that allows for the attachment of articles without producing any twisting action on the lever portion of the device.

Thus, in the modified embodiment, the intermediate, conical portion **34*a*** has a pair of fins **100** integral therewith and extending outwardly therefrom. The fins **100** cooperate to define a recess or slot **102** that receives the projection **44*a***. The transverse dimension of the recess **102** is substantially equal to the transverse dimension of the projection **44*a*** and defines means for preventing rotational movement of the lever about the axis of the stem **16*a***.

The modified embodiment of the present invention also includes a modified form of article support means on the free end of the lever. Thus, the article support portion **50***a* on the lever **22***a* has an enlarged flat surface **108** which has a projecting portion **110** extending from the surface **108** and dimensioned to define an article support slot or groove **112.** The article support slot is configured to receive a tongue or projection **114** forming part of the second portion **116** of the article support, that is illustrated as a soap dish having a recess for supporting a bar of soap **118.** The slot **112** and projection **114** define a tongue and groove connection between the article support and the lever.

The modified embodiment of the present invention is attached to the wall in a manner similar to that described in connection with FIGS. **1–3.** However, in the modified embodiment, the additional fins **100** will prevent any twisting or relative rotational movement of the stem and the lever about the axis of the stem if a torque force were applied to the free end of the lever. Thus, for example, if the suction cup device were to be utilized as a support for a soap dish or a towel rack, any twisting forces applied to the free end of the lever would prevent the entire unit from being rotated about the stem.

A further modified form of the present invention is shown in FIGS. **7** and **8** wherein the article support portion on the end of the lever is similar to that shown in the embodiment of FIGS. **5** and **6.** In the embodiment illustrated in FIGS. **7** and **8,** the free end of the stem, the opening in the reaction member and the pivoted end of the lever are modified to eliminate one molding operation and also one step in the assembly of the article support.

In the embodiment illustrated in FIGS. **7** and **8,** the diaphragm **14***b* is similar to the diaphragm **14** described above while the stem **16***b* has been modified to have the pivot pin formed integral therewith. As seen in FIG. **7,** the stem **16***b*, which is substantially rectangular in cross sectional configuration has a pair of pins **130** extending from opposite sides of the stem. The pair of integral circular pins **130** are located adjacent the free end of the stem **16***b* and are located on a common transverse axis extending perpendicular to the axis of the stem. In addition, the stem has first and second rectangular portions **132** and **134** interconnected by a reduced circular portion **136** located below the pins **130.** The rectangular portions **132** and **134** are substantially identical in cross section and have their major dimensions located perpendicular to each other, for a purpose which will be described later.

In the embodiment of FIGS. **7** and **8,** the reaction member **30***b* has an opening which consists of a substantially rectangular central portion **140** and elongated slots **142** extending from opposed edges of the rectangular portion. The elongated dimension between opposed ends of the slots **142** is equal to the dimension between opposite ends of the pins **130** while the rectangular central portion **140** of the opening is equal to the cross sectional configuration of the rectangular portions **132** and **134** of stem **16***b*.

As more clearly shown in the assembled condition in FIG. **8,** the lever **22***b* has a pair of arms (only one being shown) **150** that are adapted to extend along opposite sides of the stem **16***b* and define the bifurcated portion of the lever. The arms **150,** which have the ears **42***b* formed integral therewith, each have a slot **152** extending from one edge **154** thereof. The slot (see FIG. **8**) has a first portion **152***a* and a second portion **152***b* which extend substantially perpendicular to each other or may be termed to be angularly related to each other. Thus, the portions **152***a* and **152***b* cooperate to define a substantially L-shaped slot which has a dimension substantially equal to the diameter of the respective pins **130.**

In assembling the diaphragm, reaction member and lever, the stem **16***b* is axially inserted through the opening in the reaction member with the pins **130** passing through the slots **142** until the bottom surface of the reaction member engages the top surface of the rectangular portion **134** of stem **16***b*. The reaction member **30***b* and diaphragm **14***b* are then rotated **90** degrees relative to each other to align the elongated dimension of the opening in the reaction member with the elongated dimension of the portion **134** of the stem **16***b*. This relative rotation is accommodated within the circular portion **136** of the stem which has a diameter no greater than the minor dimension of the rectangular portions **132** and **134.** Thereafter, the reaction member is moved downwardly below the circular portion **136** and the lever is attached to lhe stem by moving the pins along the first portions **152***a* of the slots **152** and then along the perpendicular portions **152***b*. Once the pins are located in the position shown in FIG. **8,** relative to the slot **152,** the first rectangular portion **132** will cooperate with the rectangular portion **140** of the opening in the reaction member to maintain the device in its assembled condition while the second rectangular portion **134** and the rectangular portion **140** of the opening prevent relative rotation between the stem and the reaction member. If desired, the intermediate portion **34***b* of the reaction member **30***b* may again have the projections **100***b* formed thereon which cooperate to define a slot for receiving the projection **44***b* on the lever **22***b*. The projections **100***b* extend perpendicular to the major dimension edges of the rectangular portion **140** of the opening in the reaction member and parallel to the minor dimension edges.

The advantage of the embodiment illustrated in FIGS. **7** and **8** can briefly be summarized as eliminating the need for a separate molding operation to form the circular pin **26** since the pins **130** can be formed simultaneously with the formation of the stem **16***b* and its enlarged disc (not shown in FIGS. **7** and **8**). In addition, during assembly of the device, it is no longer necessary to axially align the openings in the arms or bifurcated portions of the lever with the opening in the stem and then insert the pin therethrough. After the device is assembled, the rectangular portion **134** on the stem and the rectangular portion **140** of the opening cooperate to accommodate further axial movement while preventing rotation of the stem in the opening. Also, the rectangular portion **132** on the stem cooperates with the rectangular portion **140** of the opening to prevent accidental removal of the stem from the reaction member.

FIGS. **9–11** show a slightly modified form of the lever utilized in connection with the embodiment illustrated in FIG. **8** and also show two suction devices utilized in connection with supporting an elongated article support, such as a towel rack. In the embodiment illustrated in FIGS. **9–11,** the article support is in the form of a recess **160** formed on the outer end of each of the levers **22***b* with the recesses adapted to receive a towel

bar or rod **162**. Again, while not necessary to the practice of the invention, the projections **44***c* extend between the pair of projections or ribs **100***b* that extend from the intermediate portions of the reaction members **30***b* to increase the lateral stability of the levers when cantilever forces are applied to the bar **162**. If desired, the recesses **160** could take the form of openings extending through the circular end portions on the levers **22***b* so that the bar or rod could extend through the openings, thereby eliminating the need for forming two, or left and right-hand levers **22***b*. Also, if desired, caps could be utilized to close the ends of the openings to prevent exposure of the ends of the rod.

Thus, it will be seen from the above description that the present invention provides a simple and inexpensive expedient for substantially increasing the holding power of a suction cup device.

What is claimed is:

1. A suction device adapted to be attached to a flat surface comprising:

an elastic diaphragm;

a stem connected to said diaphragm, said stem having a free end spaced from said diaphragm;

a pair of integral pins extending from opposite sides of said stem adjacent to said free end thereof, said pins being located on a common axis extending transversely of the axis of said stem;

a lever pivoted on said free end of said stem;

said lever having a pair of spaced arms extending along said opposite sides of said stem;

each of said arms having a substantially L-shaped slot extending from an edge thereof for receiving one of said pins to define a pivot axis for said lever;

a reaction member interposed between said diaphragm and said lever;

said reaction member having an opening in its central portion with said stem extending through said opening and an annular peripheral flange for engagement with said diaphragm near the periphery thereof; and

means defining cooperating camming surfaces respectively on said lever adjacent the pivoted end thereof and on the central portion of said reaction member;

said cooperating camming surfaces of said lever and said reaction member cooperating to draw a central portion of said diaphragm toward the central portion of said reaction member as said lever is pivoted from a first to a second position.

2. A suction device as defined in claim **1** wherein:

said reaction member includes an intermediate tapered portion extending between said central portion and said peripheral flange; and

including projection means on said lever spaced from the free end of said stem for engaging the surface of said intermediate portion when said lever is in said second position.

3. A suction device as defined in claim **2** wherein:

at least a portion of said lever when in said second position extends beyond the periphery of said annular peripheral flange; and

said lever projection means is operative when engaging the surface of said intermediate portion to maintain said lever portion spaced away from the flat surface to which the suction device is attached.

4. A suction device as defined in claim **2**, including means defining a recess on said intermediate portion engageable with said lever projection means for preventing rotational movement of said lever about the axis of said stem.

5. A suction device as defined in claim **1**, wherein at least a portion of said lever includes means defining an article support.

6. A suction device as defined in claim **5**, wherein said lever support portion defines a hook.

7. A suction device as defined in claim **6**, wherein said hook has a minimum cross sectional dimension at the free end thereof.

8. A suction device as defined in claim **5**, wherein said lever support portion includes a separable element, and means defining a tongue and groove connection between said lever support portion and said separable element.

9. A suction device as defined in claim **1** wherein:

the free end of said stem including said pins has a maximum dimension in a direction axially of the axis of said pins and a minimum dimension in a direction transverse to the axis of said pins; and

said opening in said reaction member having a maximum dimension corresponding to the maximum dimension of said free end of said stem and has a minimum dimension corresponding to the minimum dimension of said free end of said stem;

whereby rotation of said stem relative to said reaction member after passage of said free end of said stem through said opening prevents inadvertent separation of said reaction member and said stem.

10. A suction device adapted to be attached to a flat surface comprising:

an elastic diaphragm;

a stem connected to said diaphragm;

said stem having a free end spaced from said diaphragm and having first and second axially spaced portions;

each of said first and second axially spaced portions having a maximum dimension transverse to the axis of said stem and minimum dimension transverse to the axis of said stem, the maximum dimension of said first portion being angularly offset from the maximum dimension of said second portion;

said first and second portions being interconnected by an intermediate portion having a maximum dimension no greater than the minimum dimension of said first and second portions;

a lever pivoted on a free end of said stem;

a reaction member interposed between said diaphragm and said lever;

said reaction member having an annular peripheral flange for engagement with said diaphragm near the periphery thereof and an opening in its central portion adapted to accommodate passage therethrough of said stem;

the configuration of said opening accommodating passage therethrough of said first portion at only a limited number of angular positions of said stem and accommodating passage therethrough of said second portion at only a limited number of different angular positions of said stem;

whereby rotation of said stem after passage through said opening of said first portion permits passage through said opening of said second portion and precludes inadvertent separation of said stem and said reaction member;

means defining cooperating camming surfaces respectively on said lever adjacent the pivoted end thereof and on the central portion of said reaction member;

said cooperating camming surfaces of said lever and said reaction member cooperating to draw a central portion of said diaphragm toward the central portion of said reaction member when said lever is pivoted from a first to a second position.

11. An article support adapted to be attached to a flat surface comprising:

attaching means including an elastic diaphragm having a stem with a free end of said stem spaced from said diaphragm;

the free end of said stem having a pair of opposed integral pins extending transversely of the axis thereof;

a reaction member having an opening through which said stem extends with said pins spaced above said reaction member;

a lever having a pair of spaced arms extending along opposite sides of said stem, each of said arms having an open ended, slot configured to receive one of said pins and to pivotally retain and support said lever on said stem;

camming means on said arms and a central portion of said reaction member operative to draw a portion of said diaphragm towards said reaction member when said lever is pivoted to an operative position; and

projection means on said lever for engaging said reaction member at a location spaced from said central portion when said lever is in its operative position.

12. An article support as defined in claim **11**, wherein:

a portion of said lever extends beyond the periphery of said reaction member;

said projection means comprises an integral projection extending from said lever and having a free edge engaging said reaction member intermediate its central portion and its periphery to space said portion of said lever away from said flat surface; and

including means defining a recess on said reaction member for receiving at least a portion of said projection when said lever is in its operative position to prevent relative rotation between said reaction member and said lever about the axis of said stem.

13. An article support as defined in claim **11** wherein:

the cross sectional configuration of said stem is different at axially spaced locations thereof;

whereby rotation of said stem after passage of a portion thereof through said opening is required to permit passage of the remainder of said stem through said opening and inadvertent separation of said stem and said reaction member is precluded.

14. An article support as defined in claim **11**, wherein:

said stem has first and second axially spaced portions of generally rectangular cross section interconnected by a circular portion;

said first and second portions having minor and mojor dimensions thereof being angularly offset with respect to each other;

said integral pins extending from opposed surfaces of said first portion and defining in part the major dimension thereof;

said opening being generally rectangular and having slots extending from opposed sides thereof to accommodate passage therethrough of said pins;

said opening accommodating passage therethrough of said second portion only after rotation of said stem when said circular portion is in said opening after passage therethrough of said first portion;

whereby inadvertent separation of said stem and said reaction member is prevented.

* * * * *