July 25, 1939. W. E. HULL 2,167,046

BRACKET

Original Filed April 6, 1936

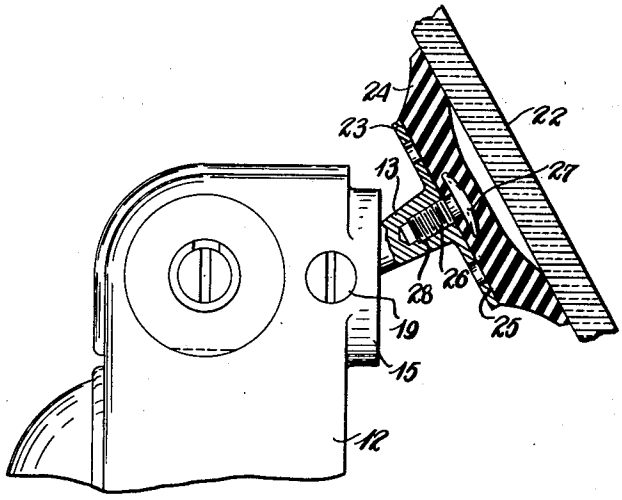


FIG. 1

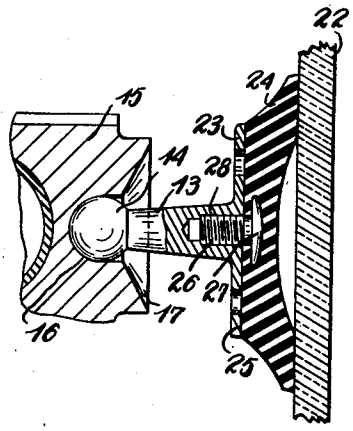


FIG. 3

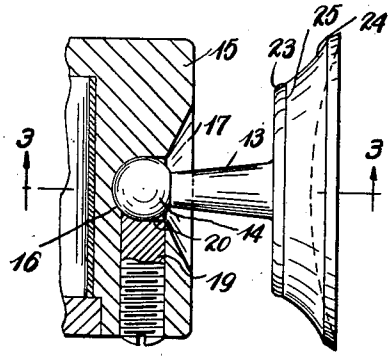


FIG. 2

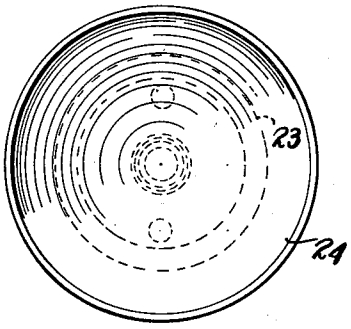


FIG. 4

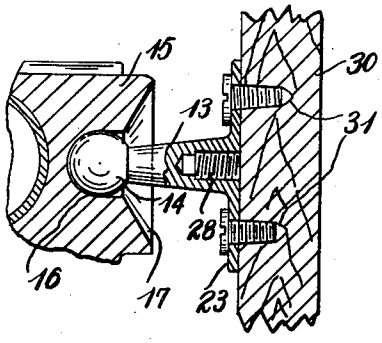


FIG. 5

BY

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Patented July 25, 1939 2,167,046

UNITED STATES PATENT OFFICE

2,167,046

BRACKET

Walter E. Hull, Warren, Ohio

Original application April 6, 1936, Serial No. 72,895, now Patent No. 2,155,712, dated April 25, 1939. Divided and this application February 2, 1938, Serial No. 188,331

1 Claim. (Cl. 248—206)

This invention relates to brackets and more particularly to an improved bracket with which a device or article can be quickly and easily mounted at a desired point on a supporting surface or wall.

This application is a division of my original application, Serial No. 72,895, filed April 6, 1936, now Patent No. 2,155,712, dated April 25 1939.

An object of my invention is to provide an improved bracket, for the purpose mentioned, having novel attaching means whereby the bracket can be readily mounted on a glass support, such as an automobile windshield or can be connected with a wood or metallic part of the vehicle by screws or the like.

Another object of my invention is to provide a bracket, of the type referred to, having a plate portion and a suction element thereon for connecting the bracket with a glass support, such suction element being removable and the plate portion being adapted for direct connection with a wood or metal support by means of screws or the like.

A further object of my invention is to provide an improved bracket, of the type referred to, in which one member has a ball portion engageable in a socket of another member and such other member has a screw therein with a hollow point adapted to frictionally engage the ball.

The invention may be further briefly summarized as consisting in certain novel combinations and arrangements of parts hereinafter described and particularly set out in the appended claim.

In the accompanying sheet of drawings,

Fig. 1 is a partial side elevational view, with portions thereof in section, showing my improved bracket being used for mounting a magnetic compass on a vehicle windshield or like support;

Fig. 2 is a partial top plan view of the device, with portions thereof shown in section;

Fig. 3 is a partial vertical sectional view taken as indicated by line 3—3 of Fig. 2;

Fig. 4 is an end view of the bracket, and

Fig. 5 is a vertical sectional view, similar to that of Fig. 3, but showing the bracket connected with a wood or metal support by means of screws, instead of by the suction element.

For a more detailed description of my improved bracket further reference will now be had to the accompanying drawing in which I have shown what I regard to be a preferred embodiment of my invention. It should be understood, however, that the invention is not to be regarded as limited to the particular bracket herein disclosed, but may be embodied in other similar devices.

As has already been indicated in a general way, my improved bracket is adapted to be used for mounting devices or articles on glass, such as automobile windshields, or can be used for mounting the same devices or articles on a wood or metallic support when the latter form of mounting is preferred. In Figs. 1 to 4 inclusive I show my improved bracket constructed for the accomplishment of these two different forms of mountings and, by way of example, I show a magnetic compass 12 as constituting the device or article to be mounted, although it should be understood that the bracket can be used for mounting a variety of other devices or articles.

My improved bracket comprises an arm member or post 13 having at its outer end a ball portion 14, and a socket member 15 having a recess or socket 16 in which the ball portion rockably seats. The member 15 may be formed as a separate part adapted to be attached to the article or device 12 to be supported, or, as shown in this instance, may be formed as an integral part of the body of the device. The socket or recess 16 opens outward through the rear face of the member 15 so that the ball portion 14 of the arm member 13 can be inserted thereinto. This opening at the rear face of the member 15 is preferably provided with a bevel 17 so that relative angular adjustment is permissible without interference between this member and the arm member 13.

The ball and socket connection thus provided between the members 13 and 15 of the bracket permits relative angular adjustment therebetween for bringing the device 12 into a desired position or setting with respect to the support on which the bracket may be mounted. When the desired relative position or setting for the device 12 has been obtained, the members 13 and 15 may be frictionally held against accidental relative shifting. For this purpose I provide novel means in the form of a screw 19 which is mounted in a threaded opening of the member 15. This screw has a hollow point 20 which is engageable with the ball portion 14 of the member 13 and which is so shaped that the curvature of the hollow point conforms substantially to that of the ball portion whereby the screw is adapted to frictionally engage the ball portion and to hold the members 13 and 15 in their desired relative adjustment.

For mounting the bracket on a supporting member, such as the glass windshield or support 22, I provide the member 13 with a base preferably

in the form of a plate portion or disk **23** and also provide a suction element **24** on such plate portion for engagement with the glass. The plate portion **23** is preferably round, although it may be of other shape, and is preferably formed as an integral part of the member **13**. The suction element **24** is also preferably round in form and may be made of soft vulcanized rubber with a suction recess in its rear face so that when pressed against the surface of the glass **22** it will adhere firmly thereto. The suction element has a substantially flat front face **25** engageable with the outer face of the plate portion **23** and of a size and shape corresponding substantially with such plate portion.

For connecting the suction element with the member **13** I may provide an insert which is carried by the suction element and has releasable connection with such member. This insert is preferably in the form of a screw **26** having a head portion **27** completely embedded in the body of the suction element and a threaded shank engageable in a threaded opening **28** extending axially of the member **13** and opening through the outer face of the plate portion **23** thereof. By this connection the suction element **24** can be firmly attached to the member **13** to adapt the bracket for mounting on a vertically disposed windshield, as shown in Fig. 3, or on a sloping windshield, as shown in Fig. 1.

When the device **12** or other article to be supported is to be mounted on a wood or metallic support, as shown in Fig. 5, in preference to a glass support, the suction element **24** is detached from the member **13** so that the plate portion **23** can be applied directly to such wood or metallic support which may be the header section of a vehicle body or some other part. The suction element **24** can be readily detached from the member **13** by simply rotating the same relative to the plate portion **23** in a direction to unscrew the insert **26** from its threaded opening. The member **13** may be firmly attached to the wood or metallic support **30** by means of screws **31** extending through appropriate openings of the plate portion **23**.

Although the arm member **13** of my bracket may be formed of any suitable material, it is desirable to construct this member out of brass or other suitable non-magnetic material when the device to be supported is a magnetic compass as in this instance. The socket member **15** may also be formed of any suitable material such as metal or composition, the latter being preferred when the device to be supported is a magnetic compass.

From the foregoing description and the accompanying drawing it will now be readily understood that I have provided a novel bracket of simple and economical construction which is especially suitable for use when a device or article is to be mounted either on the windshield of a motor vehicle or on some wood or metallic part thereof. By reason of the novel bracket construction which I have provided the device or article can be readily mounted on the windshield by means of a suction element or, by removal of the suction element, can be adapted for direct mounting on a wood or metallic support. It will also be seen that by reason of the ball connection between the bracket members and the novel clamping means therefor, the device can be frictionally held in any desired position of relative adjustment.

While I have illustrated and described my improved bracket in a somewhat detailed manner, it should be understood however, that I do not wish to be limited to the precise construction and arrangement of parts herein disclosed, but regard my invention as including such changes and modifications as do not involve a departure from the spirit of the invention and the scope of the appended claim.

Having thus described my invention, I claim:

A bracket comprising an arm member having means at one end thereof for connection with a part to be supported and a transverse plate portion at its other end, said arm member having a threaded hole extending axially thereof and opening through the outer face of said plate portion, a suction element adapted to be pressed into gripping engagement with a window or like support by said plate portion, and a screw having a head portion embedded in said suction element and a stem portion engaging in the threaded hole for connecting the suction element with said plate portion, said suction element being detachable from said plate portion by disengagement of the screw from said hole and said plate portion being adapted for direct connection with a support by screws or the like when the suction element has been detached.

WALTER E. HULL.