C. A. AUSTIN.

SUCTION SUPPORTING DEVICE.

APPLICATION FILED MAY 17, 1909.

952,495. Patented Mar. 22, 1910.

Fig. 1.

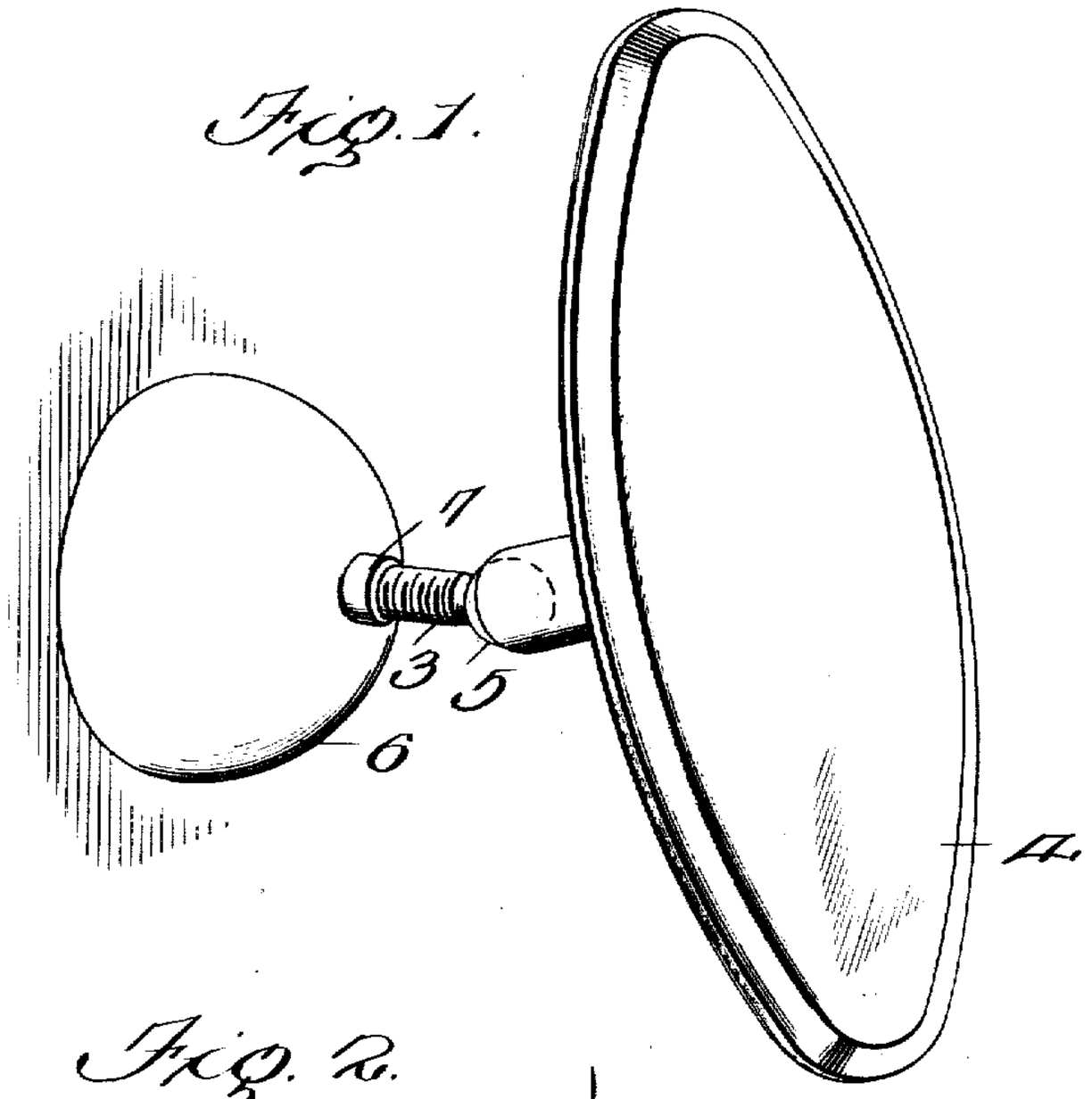


Fig. 2.

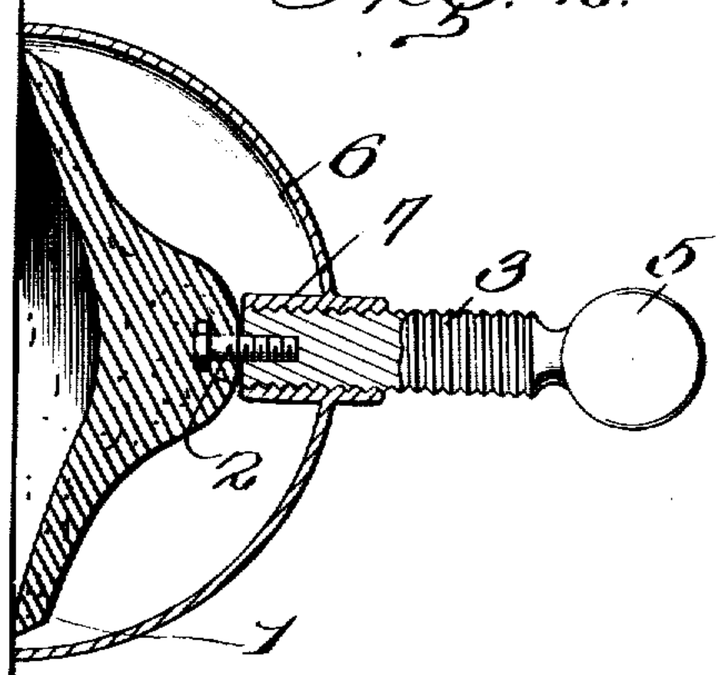
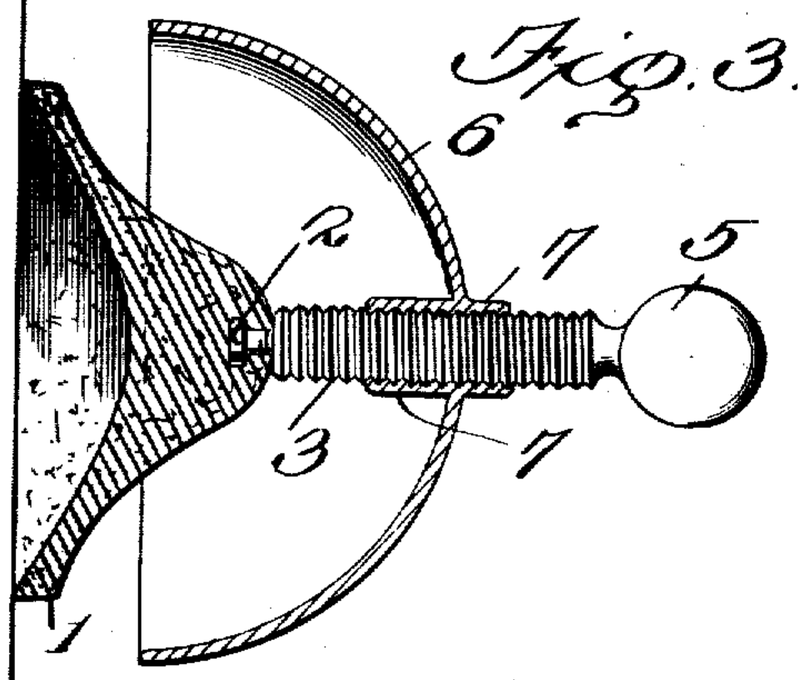


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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SUCTION SUPPORTING DEVICE.

952,495. Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed May 17, 1909. Serial No. 496,461.

To all whom it may concern:

Be it known that I, CHARLES A. AUSTIN, citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Suction Supporting Devices, of which the following is a specification.

The object of this invention is a simple, durable and efficient construction of suction device, designed particularly for use in sustaining a shaving mirror on a window pane or similar sustaining surface, and also applicable for a great variety of uses such as holding articles in windows and show cases for display purposes or for holding advertising cards, signs, etc.

The invention consists essentially in a sustaining device of this character which embodies a suction cup of rubber or similar flexible material, a stem secured to said cup, and a substantially rigid cap or backing designed to be adjustably held on said stem so as to work thereon over or toward the suction cup, so as to press the rigid cap against the sustaining surface and increase the partial vacuum within the suction cup, until the said backing rests firmly against the sustaining surface, thereby giving the supporting stem which is secured to the cup a rigidity which will enable it to carry considerable weight without sagging. And the invention also consists in certain arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention and the merits thereof, and also to acquire a knowledge of the details of construction, and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view showing the adaptation of my device to a shaving mirror; Fig. 2 is a sectional view of the operative portion of the device showing the same in an operative relation to the sustaining surface; and Fig. 3 is a similar view illustrating the parts preparatory to producing a partial vacuum within the cap which sustains the mirror or other article in the desired position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings, by the same reference characters.

Referring to the drawings, the numeral 1 designates a suction cup, of rubber, leather, or similar material, and 2 designates a relatively small threaded pin which is molded or otherwise secured in the cup 1 at the apex thereof. The pin 2 is designed to be screwed into a socket formed in one end of an exteriorly threaded supporting stem 3, which is secured in any desired way to the part to be suspended, such as a mirror 4, as by a ball and socket joint connection, 5.

A substantially rigid cap or backing 6 of substantially semi-spherical shape, said cap being preferably formed of metal, although not necessarily thus formed, is provided at its apex with an opening, the walls of which are preferably formed with an outwardly and inwardly extending sleeve 7, so as to reinforce the backing. This sleeve 7 is interiorly threaded to screw upon the supporting stem 3, as clearly illustrated in the drawing, and preferably the backing 6 is of a size to entirely inclose the cup edge when screwed downwardly on the stem 3 to the operative position illustrated in Fig. 2.

From the foregoing description in connection with the accompanying drawing, the operation of my improved suction device will be apparent.

In the practical use of the device the cup 1 is placed against a pane of glass or other sustaining surface and distended, and the backing or cap 6 is then screwed down on the stem until it rests firmly against the sustaining surface, as illustrated in Fig. 2 thus giving the suspending stem 3 such rigidity as to enable it to carry considerable weight without sagging and holding the mirror or other part in suspended condition by means of the partial vacuum formed within the cup.

It is to be understood that my invention is not limited in any way to the particular use illustrated in the accompanying drawing, nor to the exact construction, arrangement, and proportions of the parts hereinbefore described and illustrated, as various changes may be made without departing from the scope of the invention as defined in the appended claims.

Preferably, the cap 1 is detachably secured to the stem 3 as by the threaded pin and socket connection shown, thus making the suction cup easily replaceable when worn out, while the rest of the structure will last comparatively indefinitely.

It is of course to be understood that in the preferred application of the device, the suction cup is to be moistened on the inside, as this will tend to increase the length of time in which the cup will adhere to the sustaining surface.

Having thus described the invention, what is claimed as new is:

1. A suction device, comprising a suction supporting cup, a supporting stem secured to said cup, and a rigid backing adjustably mounted on said stem.

2. A suction device, comprising a suction supporting cup, a threaded supporting stem secured to said cup, and a rigid backing screwing on said stem and arranged in one position to inclose the cup in the distended condition of the latter.

3. A suction device, comprising a suction supporting cup, a supporting stem having a detachable connection with said cup, and a rigid backing adjustably mounted on said stem.

4. A suction device, comprising a suction supporting cup, a threaded pin secured to said cup, an exteriorly threaded supporting stem formed with a socket to receive said pin, and a rigid backing formed with an opening and an interiorly threaded sleeve defining said opening, said sleeve being arranged to screw on said stem as and for the purposes set forth.

5. A suction device, designed to sustain an article from a supporting surface by a partial vacuum, the same comprising a suction supporting cup, a supporting stem secured to said cup and a relatively rigid backing adjustably mounted on said stem and arranged in one position to directly engage with the sustaining surface in the distended condition of the cup.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. AUSTIN. [L. S.]

Witnesses:
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