

(No Model.)

C. H. INGERSOLL.
SUCTION SUPPORTING DEVICE.

No. 435,752.

Patented Sept. 2, 1890.

Fig. 1.

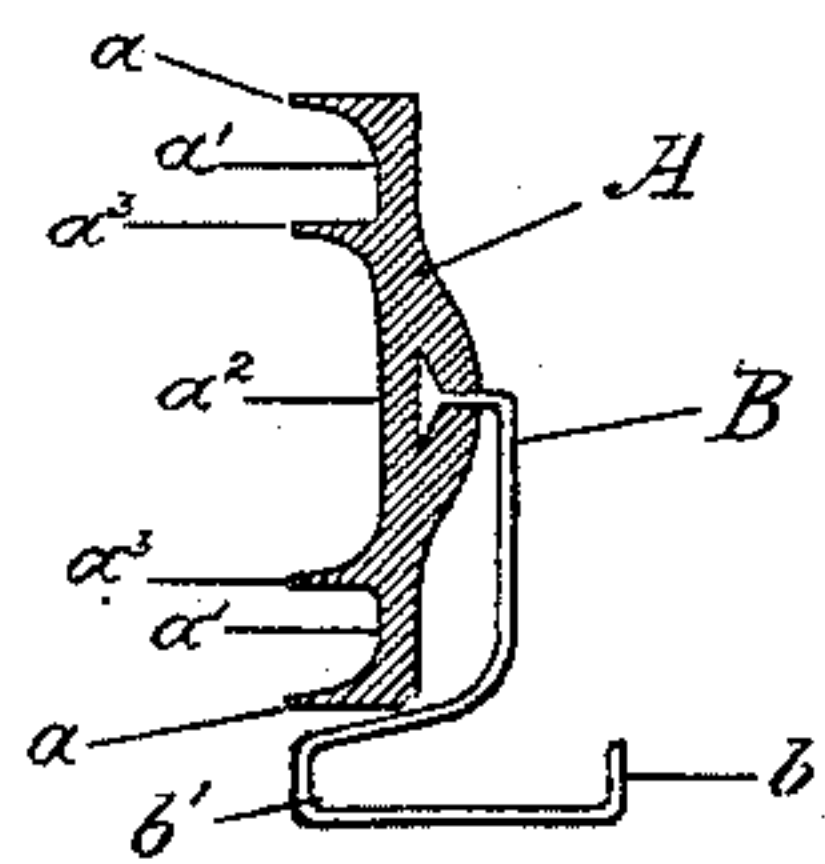


Fig. 2.

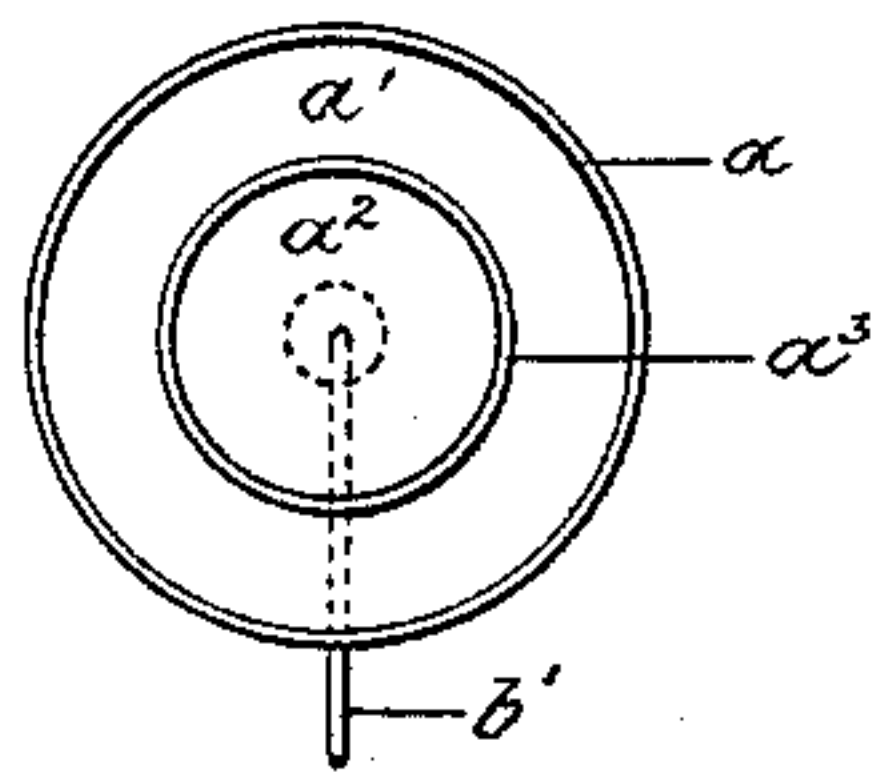
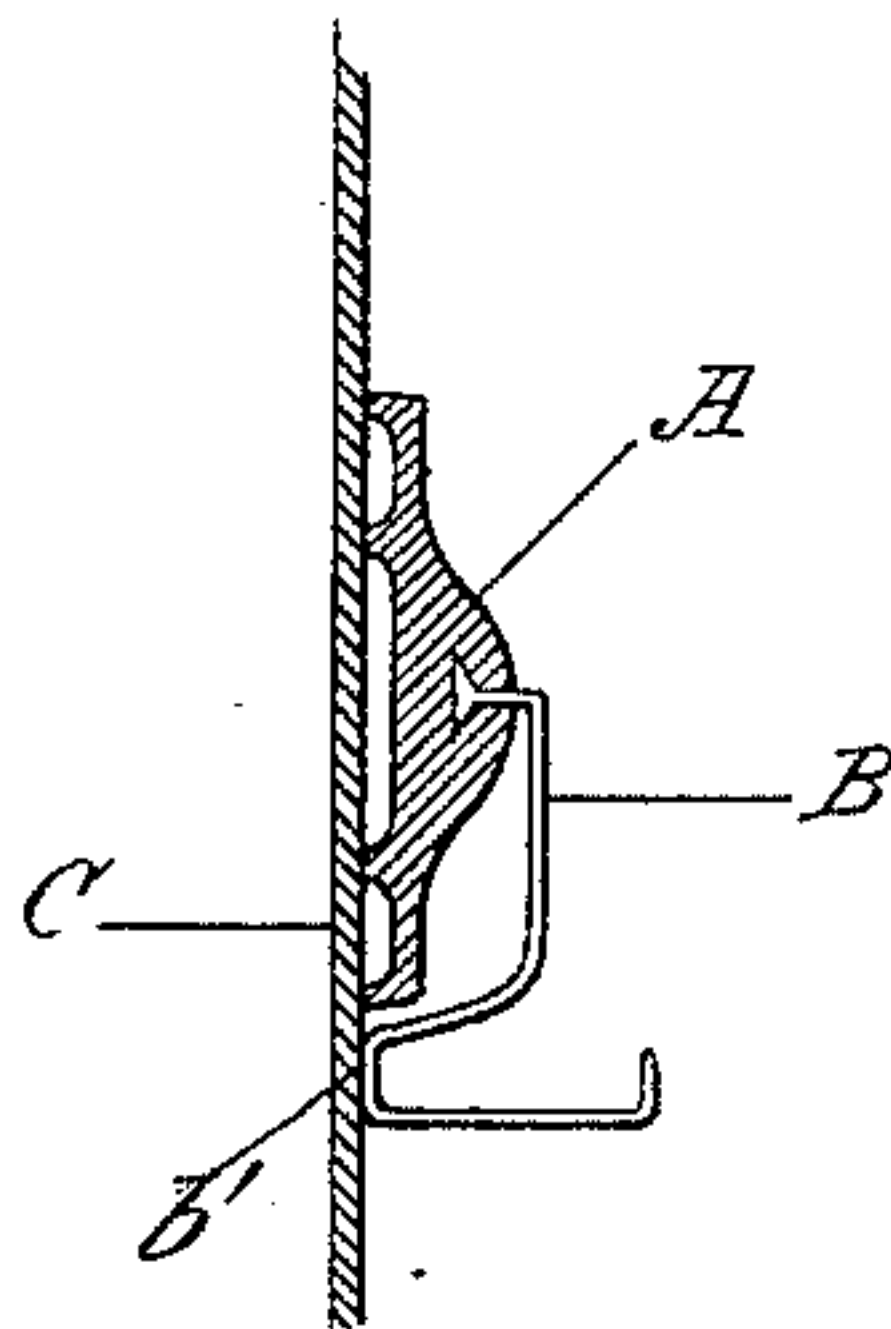


Fig. 3.



WITNESSES:

W. M. Fowler
J. J. Quinn

C. H. Ingersoll INVENTOR
BY L. A. Hill & Co ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES H. INGERSOLL, OF NEW YORK, N. Y.

SUCTION SUPPORTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 435,752, dated September 2, 1890.

Application filed October 8, 1888. Serial No. 287,581. (No model.)

To all whom it may concern:

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

My invention relates to suction supporting devices, and has for its object the provision of a device simple in construction, cheap in manufacture, and which will be efficient in practical use.

To attain the desired end my invention consists in the construction and arrangement of parts hereinafter fully set forth.

In the drawings which form a part of this specification, Figures 1, 2, and 3 represent views of my invention.

Like letters of reference wherever they occur indicate corresponding parts in all the figures.

Referring again to the drawings, A represents the body of my suction supporting device constructed of rubber and provided upon the inner side with two circular concentric flanges a and a^3 , the inner flanges a^3 surrounding a preferably circular concave or bowl-like depression a^2 , and the outer flange a encircling a preferably circular round-edged groove a' , placed between the flanges a and a^3 , as is clearly shown in the drawings. The flanges a and a^3 are preferably made in cone-shape section, gradually becoming thinner, and terminating in a sharp edge.

Embedded preferably in the central part of the outer portion of the body A is a wire B, the purpose of which is to provide the body A with a depending brace adapted to rest against the wall, and also with a hook. In order to accomplish this result, the wire is suitably formed or shaped, as in the present instance the free end b' of the wire B is bent downward, conforming to the contour of the body A, and terminates in a hook b .

The method of using my supporting device is as follows: Upon pressing the body A against any surface, as a side wall, the elasticity of the rubber serves to expel the air from the concave portions or chambers a' and a^2 , and upon removing the pressure the flanges a and a^3 serve to prevent the air from entering the non-vacuum chambers a' and a^2 , and on account of the pressure of the atmosphere

the pin B will sustain a considerable weight without the rubber body A becoming detached from the wall.

In order to increase the supporting-power, the wire B is preferably bent so that a portion of the same, as b' , will rest against the wall-surface C, to which the body A is attached, as shown in Fig. 3. The outer flange a and concave groove a' serve to strengthen the body A and also to steady the same and to give it more supporting-power.

Before attaching the body A to any surface I sometimes moisten the flanges a and a^3 in order to make them adhere more closely, and thus to become more air-tight.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that I reserve the right to make such changes; and that

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a suction supporting device, with the body A, provided with concentric flanges a a^3 , placed on the rear or inner side of the suction-body, and also provided with a brace adapted to rest against the wall, of a hook projecting from the outer face of the body, as and for the uses and purposes set forth.

2. The combination, in a suction supporting device, with a body provided with a brace adapted to rest against the wall, of a hook projecting from the outer face of the body, as and for the uses and purpose set forth.

3. The combination, in a suction supporting device, with the body A, provided with the concentric flanges a a^3 , placed on the rear or inner side of the suction-body, of a hook projecting from the outer face of the body, as and for the uses and purpose set forth.

In testimony of the foregoing specification I do hereby sign the same, in the city, county, and State of New York, this 13th day of September, A. D. 1888.

CHARLES H. INGERSOLL.

Witnesses:

W. H. BIRKHEAD,
GEO. FRED VIGUS.