(No Model.)

E. BERLINER.

PNEUMATIC HOOK.

No. 380,309. Patented Apr. 3, 1888.

Fig. 2.

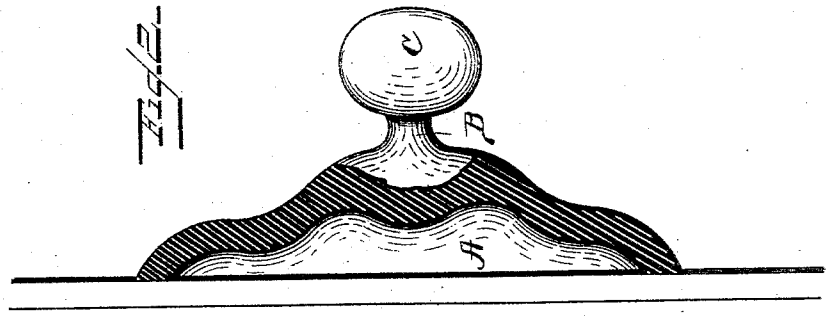
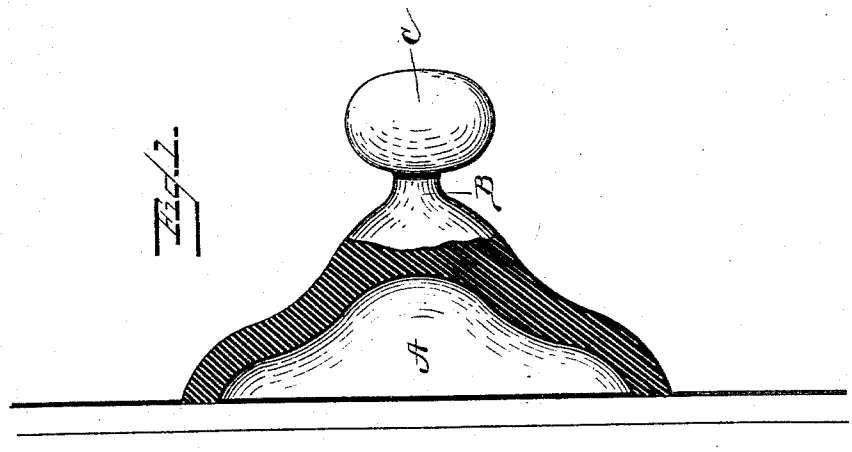


Fig. 1.



Witnesses.
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UNITED STATES PATENT OFFICE.

EMILE BERLINER, OF WASHINGTON, DISTRICT OF COLUMBIA.

PNEUMATIC HOOK.

SPECIFICATION forming part of Letters Patent No. 380,309, dated April 3, 1888.

Application filed September 5, 1887. Serial No. 248,891. (No model.)

To all whom it may concern:

Be it known that I, EMILE BERLINER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a certain new and useful Improvement in Pneumatic Hooks, of which the following is a specification.

This invention refers to a detachable hook which can be held to any smooth surface by atmospheric pressure, and it is virtually an elastic Magdeburg hemisphere or air-cup of soft rubber, and provided with an extension forming one piece with the air-cup, which extension serves as a hook for the purpose of supporting articles it is desired to suspend along the said smooth surface.

In the drawings, Figure 1 shows a partly-sectional view of my pneumatic hook laid or held loosely against a smooth plate of glass, metal, &c. Fig. 2 shows the same pressed against the plate and held there by pneumatic suction.

Furthermore, in Fig. 1, A is a cup of soft rubber, having on its deepest point a shank, B, and button C. This extension button and shank, constituting a hook, I preferably form at the same time as the cup, and it is best made of soft rubber; but it may also be hard rubber, or metal or other material, provided it can be intimately joined to the soft rubber, either during the process of baking or vulcanizing or by firmly cementing it to the outer surface of the cup. The reason why I make the hook and the cup practically in one piece will be obvious when I explain the *modus operandi* of my invention. Desiring, for instance, to suspend a watch or a chain or any other small article from the glass of a show-window, I simply press the cup firmly upon the glass, thereby displacing and expelling the greater part of the air from within. Upon releasing the pressure the cup is held tightly to the glass by virtue of atmospheric pressure, and I may now suspend articles of considerable weight on the hook B C without loosening the hold which the cup has on the glass. This position is shown in Fig. 2.

Pneumatic hooks have been made before this, but not in one piece with the air-cup forming part of them, and in those cases a metallic hook was stuck through the soft-rubber cup and sometimes riveted; but the constant pressure of the atmosphere would cause air to filter slowly through the loose joint between the rubber hole and the hook and the cup would soon get loose and fall off. This is impossible in my improvement.

What I claim is—

1. As a new article of manufacture, an elastic air-cup having a hook or knob baked or cemented to it and forming with the same a continuous mass, substantially as set forth.

2. As a new article of manufacture, an elastic air-cup provided with a rubber hook, both forming one continuous mass, substantially as set forth.

In testimony whereof I have signed my name this 5th day of September, 1887.

EMILE BERLINER.

Witnesses:
M. P. CALLAN,
MAX WEYL.