

(Specimens.)

P. E. ARENCIBIA.

TOY OR ORNAMENT.

No. 303,607.

Patented Aug. 19, 1884.

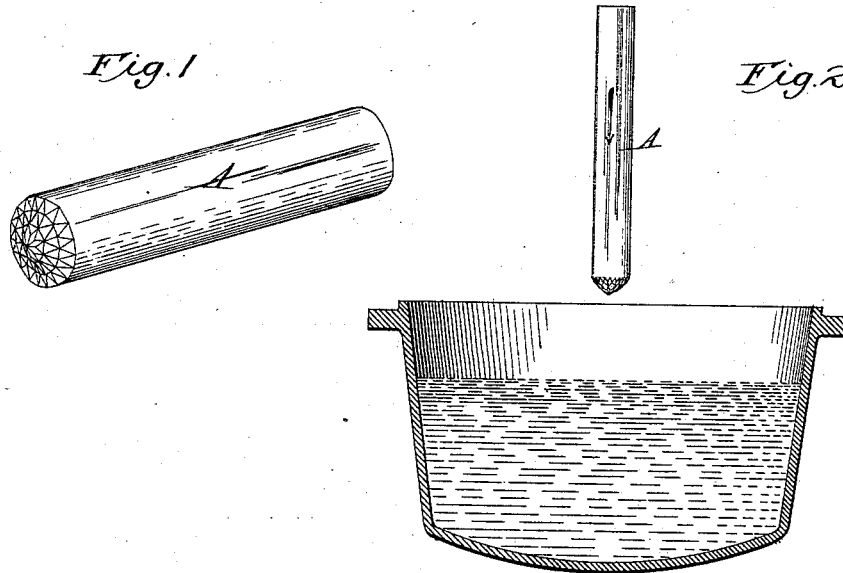


Fig. 3.

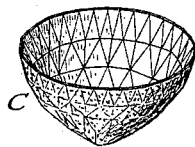


Fig. 4.

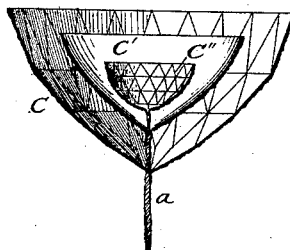


Fig. 5.

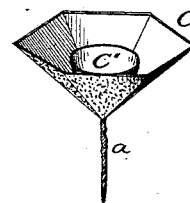


Fig. 6.

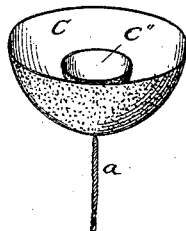
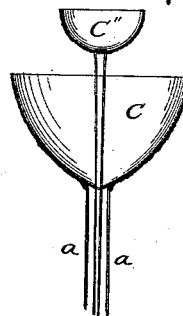


Fig. 7.



Attest

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UNITED STATES PATENT OFFICE.

PEDRO ENRIQUE ARENCIBIA, OF HAVANA, CUBA.

TOY OR ORNAMENT.

SPECIFICATION forming part of Letters Patent No. 303,607, dated August 19, 1884.

Application filed July 18, 1884. (Specimens.)

To all whom it may concern:

Be it known that I, PEDRO E. ARENCIBIA, of Havana, Cuba, have invented certain Improvements in Toys and Ornaments, of which the following is a specification.

The aim of my invention is to provide at a trifling cost toy ornaments for use upon Christmas-trees, for decorating walls and tables, and for combination in the form of cornices, urns, and other ornaments, which shall present to the eye the appearance of being composed of cut glass or crystal.

To this end it consists in the new product—the concave body composed of lead, tin, and bismuth—cast in form with an internal surface of high reflecting-power, and with or without one or more bodies of small size therein.

It also consists in the method of producing these bodies by dipping a convex pattern of highly-polished glass into the molten alloy and immediately removing the same therefrom, and then removing from the mold the adhering film of metal, which constitutes the desired product.

Referring to the accompanying drawings, Figure 1 represents the mold or form upon which my ornaments are formed. Fig. 2 is a sectional elevation illustrating the manner in which the formation of the cast is effected. Fig. 3 is a perspective view of one of the resulting casts. Figs. 4, 5, and 6 are views illustrating the ornaments in different forms. Fig. 7 is a sectional view showing the manner in which the internal and external bodies are united.

In proceeding to carry out my invention I first provide a glass mold or pattern, A, having a convex highly-polished end, which may be of spheroidal, conical, or polygonal, or any other desired form, being susceptible of modification to any extent desired, provided only that it is such as to admit of the metal being removed therefrom, as hereinafter explained. I next provide an alloy composed of tin three parts, lead one part, and bismuth, and bring the same to a molten condition in a ladle or other apparatus of any suitable character. Into the molten bath I plunge the polished end of the glass pattern, which is immediately withdrawn, bearing upon its end a thin film or coating of metal, which instantly solidifies. This film presents on the exterior a roughened

appearance, but upon being removed from the mold its interior will be found to present a surface of great brilliancy and high reflecting-power. The single reflecting-body C thus produced may be used alone or joined to others of a similar character, either of the same or of different forms. They may be united at the edge by soldering them together, or in any other suitable manner, and they may be combined to produce articles of any form or pattern required. For most purposes, however, I prefer to combine with each of these bodies one or more bodies of a similar character and of smaller size. These, as indicated at C' and C'' in the drawings, will be placed one within another and secured firmly in position either by applying molten metal between them or by providing the bodies or parts with wires a, and thrusting the wires of each part through holes formed for the purpose in the back of the other part or parts, and finally twisting all the wires together, as shown in Fig. 4.

In order to produce the most striking effects, I propose to apply to the inner or outer surfaces or both of the internal reflectors a coating of transparent colored material. These colored surfaces, being reflected by the outer body, will greatly heighten the effect.

Ornaments constructed on my plan possess reflecting-surfaces of great brilliancy, which do not oxidize or tarnish under ordinary conditions, and which, because of their high reflecting-powers, present to the eye, when viewed from a distance, the appearance of cut-glass bodies or crystals.

Having thus described my invention, what I claim is—

1. The improved toy or ornament, consisting of a concave cast-metal body composed of lead, tin, and bismuth in proportions substantially as specified, with internal reflecting-surfaces.

2. The toy or ornament consisting of two or more concave bodies with internal reflecting-surfaces secured one within another, substantially as described.

3. In combination with the external metal body having the concave reflecting-surfaces, the internal body having the internal reflecting-surface, and an external surface, colored or ornamented, as described.

4. In a toy ornament, the combination of

three metal bodies secured one within another, each body being provided with an internal reflecting-surface, and the intermediate body being also provided with a surface colored as
5 described.

5. The method of producing toy reflectors, consisting in dipping a pattern of polished glass momentarily into a molten alloy of tin, lead, and bismuth, whereby a body is pro-

duced with a concave surface of high reflecting-power.

In testimony whereof I hereunto set my hand, this 9th day of July, 1884, in the presence of two attesting witnesses.

PEDRO ENRIQUE ARENCIBIA.

Witnesses:

PHILIP T. DODGE,
JOHN T. ARMS.