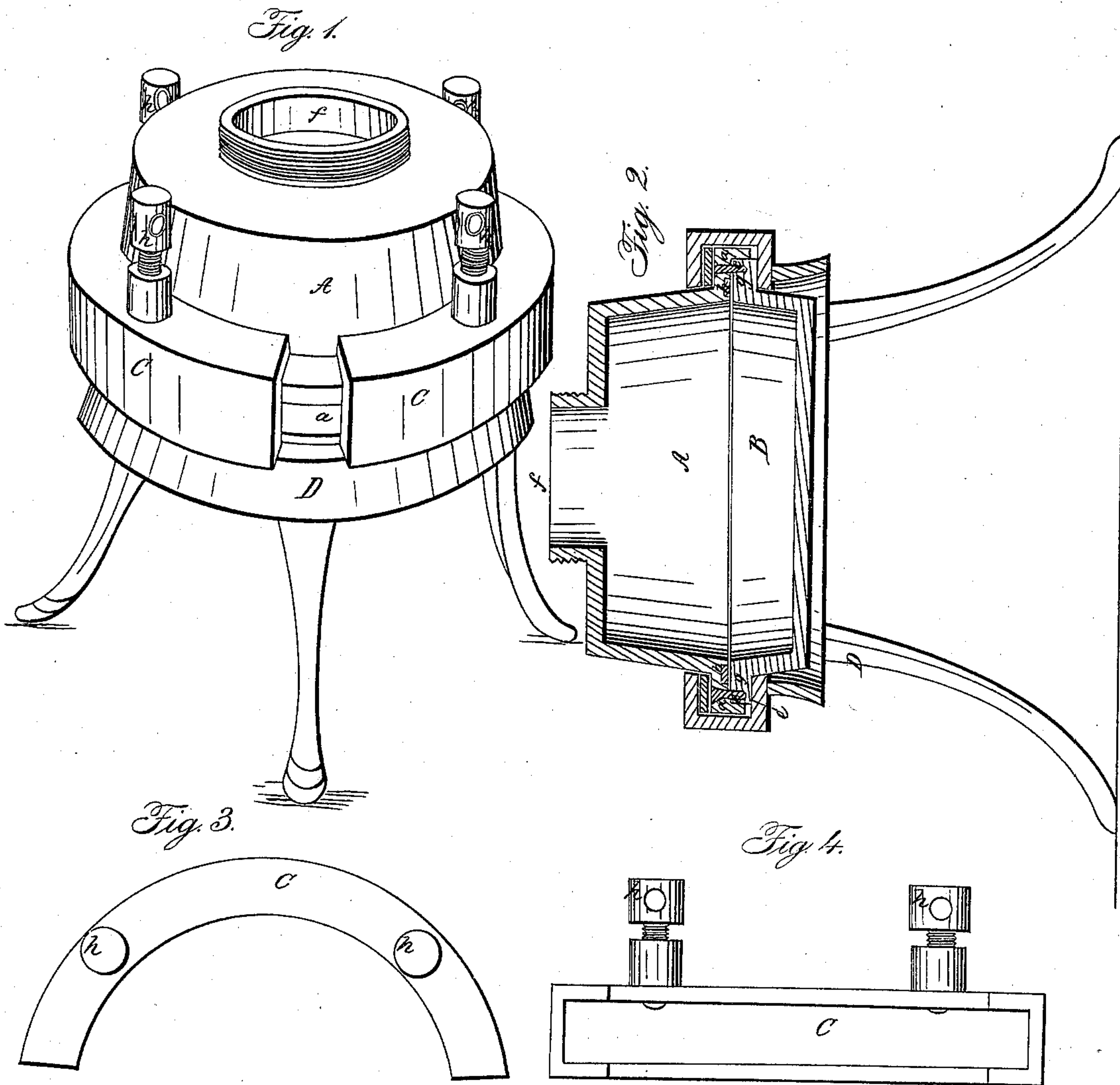


B. W. FRANKLIN.
Vulcanizing Apparatus.

No. { 2,242. }
 { 33,246. }

Patented Sept. 10, 1861



Witnesses:

T. H. Burras
J. W. Bushnell.

Inventor:

Brady W. Franklin

UNITED STATES PATENT OFFICE.

BRADLEY W. FRANKLIN, OF NEW YORK, ASSIGNOR TO THE AMERICAN
HARD RUBBER COMPANY, OF FLUSHING, LONG ISLAND, NEW YORK.

IMPROVEMENT IN VULCANIZING CAOUTCHOUC IN SINGLE-CHAMBER APPARATUS.

Specification forming part of Letters Patent No. 33,246, dated September 11, 1861.

To all whom it may concern:

Be it known that I, BRADLEY W. FRANKLIN, of the city, county, and State of New York, assignor to the AMERICAN HARD RUBBER COMPANY, of Flushing, Long Island, State of New York, have invented a new and Improved Apparatus which I call a Combined Flask and Heater; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Similar letters of reference indicate like parts in all the drawings.

Figure 1 is a perspective view of my improved "vulcanizing flask and heater" as put together and ready for use. Fig. 2 is a perpendicular section of the same. Figs. 3 and 4 are parts in detail.

The nature of my invention consists in the use of an apparatus constituting but one chamber without fittings or other parts for vulcanizing india-rubber and other gums when the same are inverted in molds or forms of plaster-of-paris or other suitable granulated material.

My invention is particularly adapted to the vulcanization of plates and gums for artificial teeth, being more simple, economical, and safe than any other apparatus heretofore used for that purpose.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my improved vulcanizing flask and heater of any suitable metal in two sections A and B, as seen in Figs. 1 and 2. Section A is a truncated hollow cone of suitable dimensions, having a double flange at its base, (marked *a a*,) the under surface of which is grooved at *b* so as to admit of the introduction of a packing. Two guides or steady-pins on opposite sides of the cone project from the horizontal flange at *ee*. The top of the cone A is provided with an opening at *f*. Section B is a shallow dish beveled at the sides, its rim terminating in a flange *g* and closely fitting the inner circumference of the perpendicular flange *a*, section A. The upper surface of

the flange in section B is placed so as to fit accurately the inner edge of the base of section A, and is pierced with two holes for the reception of the guides or steady-pins *ee*.

C C, Figs. 3 and 4, are segmental clamps, and are secured to the flanges *a* and *g* of sections A and B by means of the set-screws *h h h h*, and which serve to draw the edges of the flask close together. On the outside of the opening at *f*, section A, a thread is cut for the purpose of attaching a thermometer or gage to indicate the temperature.

D, Fig. 1, is a tripod upon which the apparatus is placed when ready for vulcanizing.

Operation: In vulcanizing dental preparations the case to be vulcanized is prepared in the usual manner by taking the model of the mouth, adjusting the teeth, and investing the piece in plaster-of-paris in section B of the flask. Section A is then placed in position and the clamps C C secured to the flanges *a* and *g*, and the sections A and B are brought in close contact by means of the set-screws *h h h h*. The surface of the case having been properly prepared, plaster-of-paris is mixed with water to a suitable consistency, and the flask is filled up through the opening at *f* in section A. When the plaster has set, the clamps are removed, the pattern taken out of the flask, and its place supplied with vulcanizable gum. The sections are then put together, the clamps readjusted, the thermometer screwed on and placed upon the tripod, and heat applied by means of an alcohol-lamp, gas-burner, or other convenient means of heating.

Other articles of any desired form may be made and vulcanized in a similar manner.

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

The mode of vulcanizing india-rubber and other gums, as herein set forth, by the use of an apparatus constituting but one chamber without fittings or other parts, substantially as set forth and described, and for the purpose specified.

BRADLEY W. FRANKLIN.

Witnesses:

JAMES W. BUSHNELL,
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