

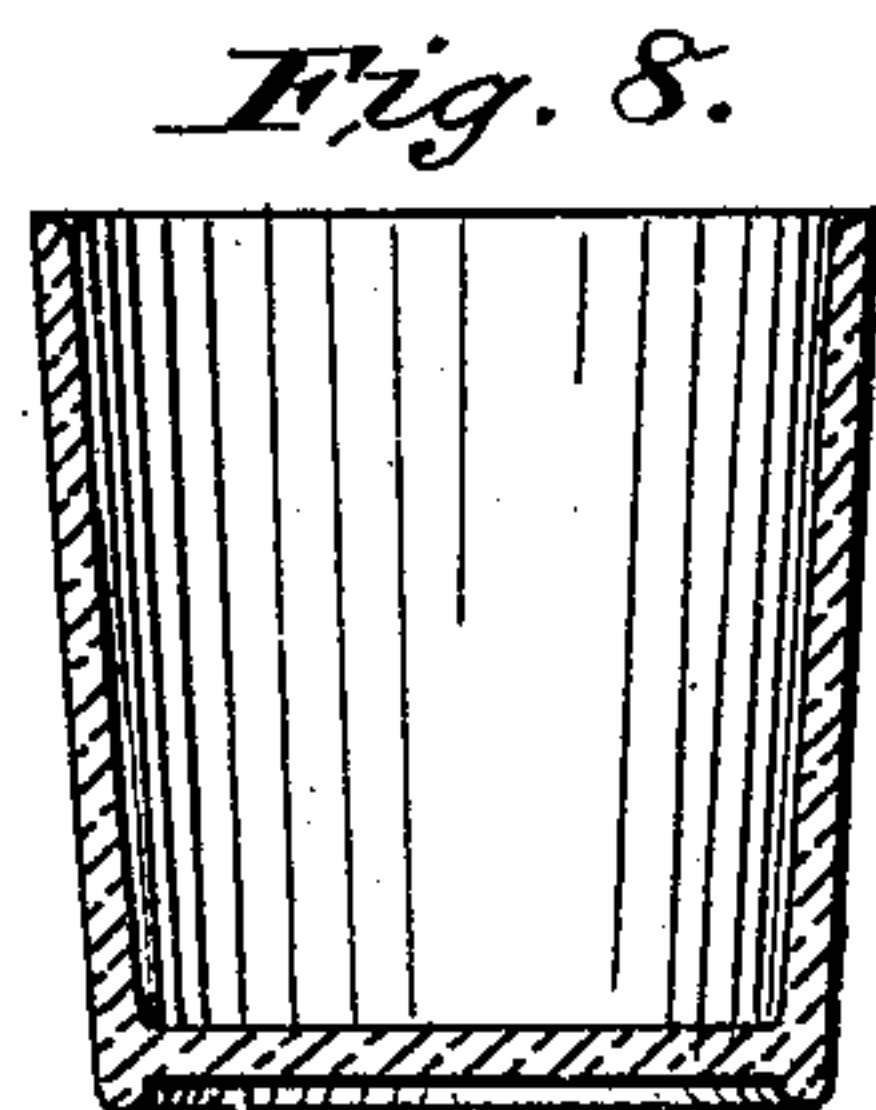
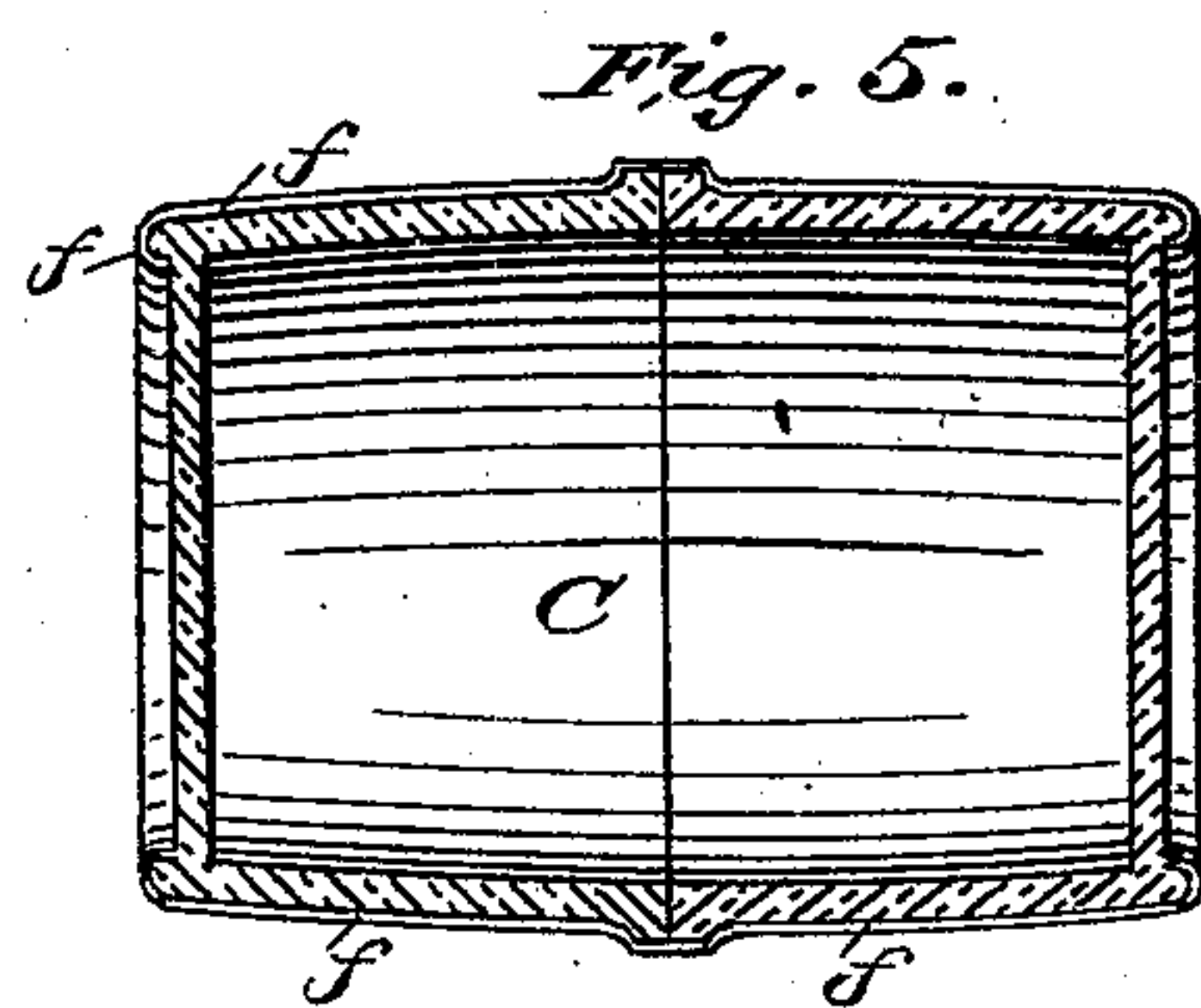
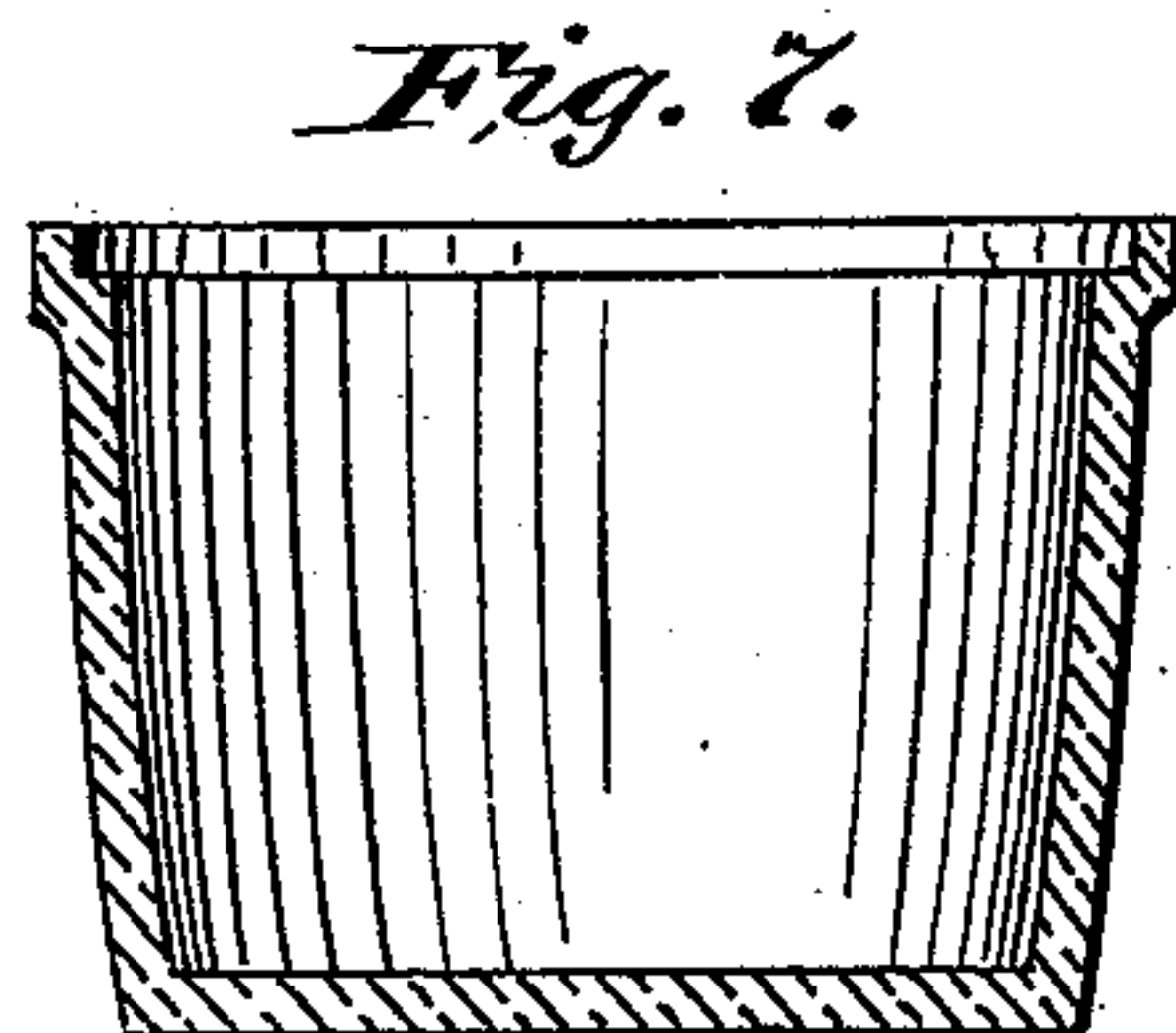
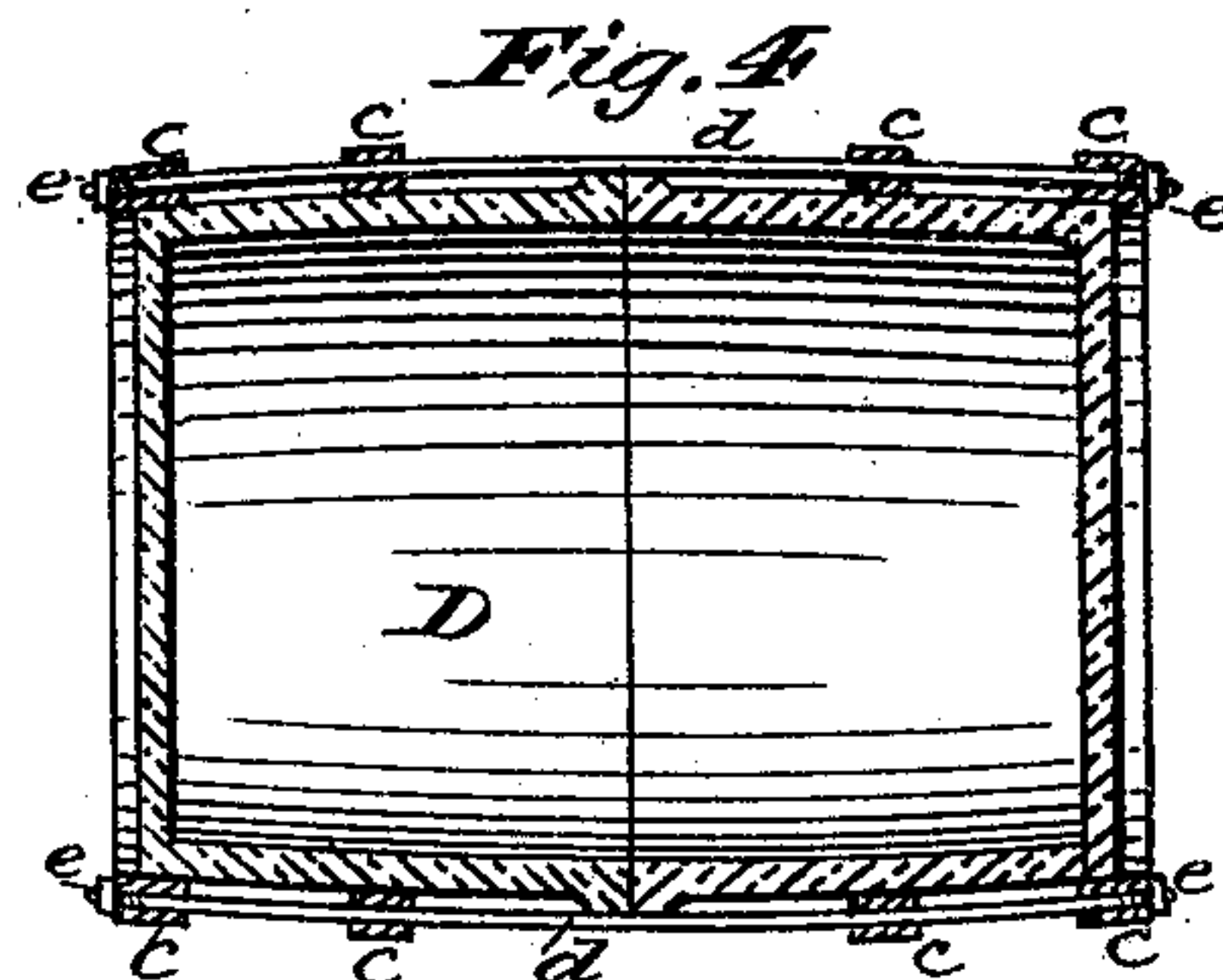
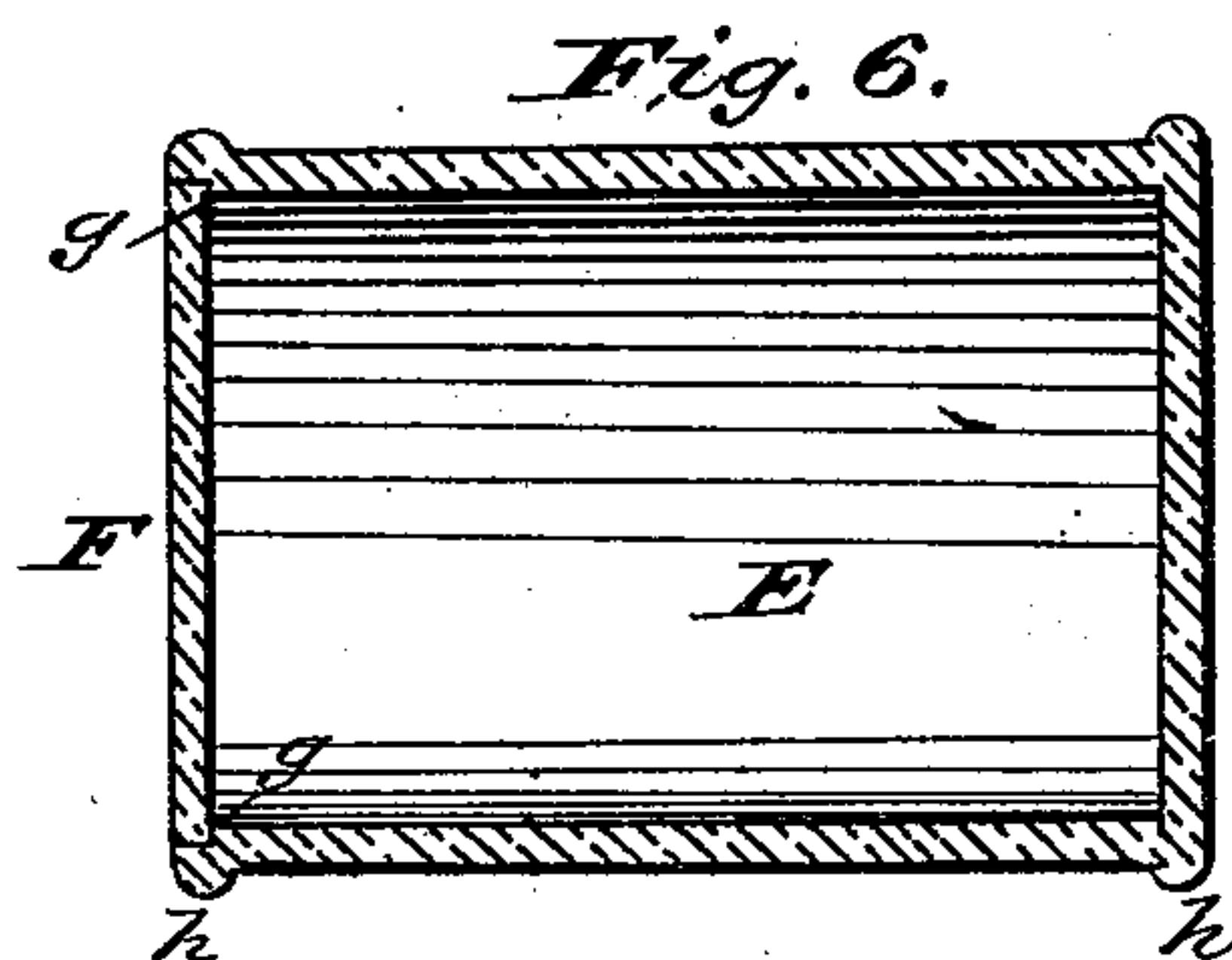
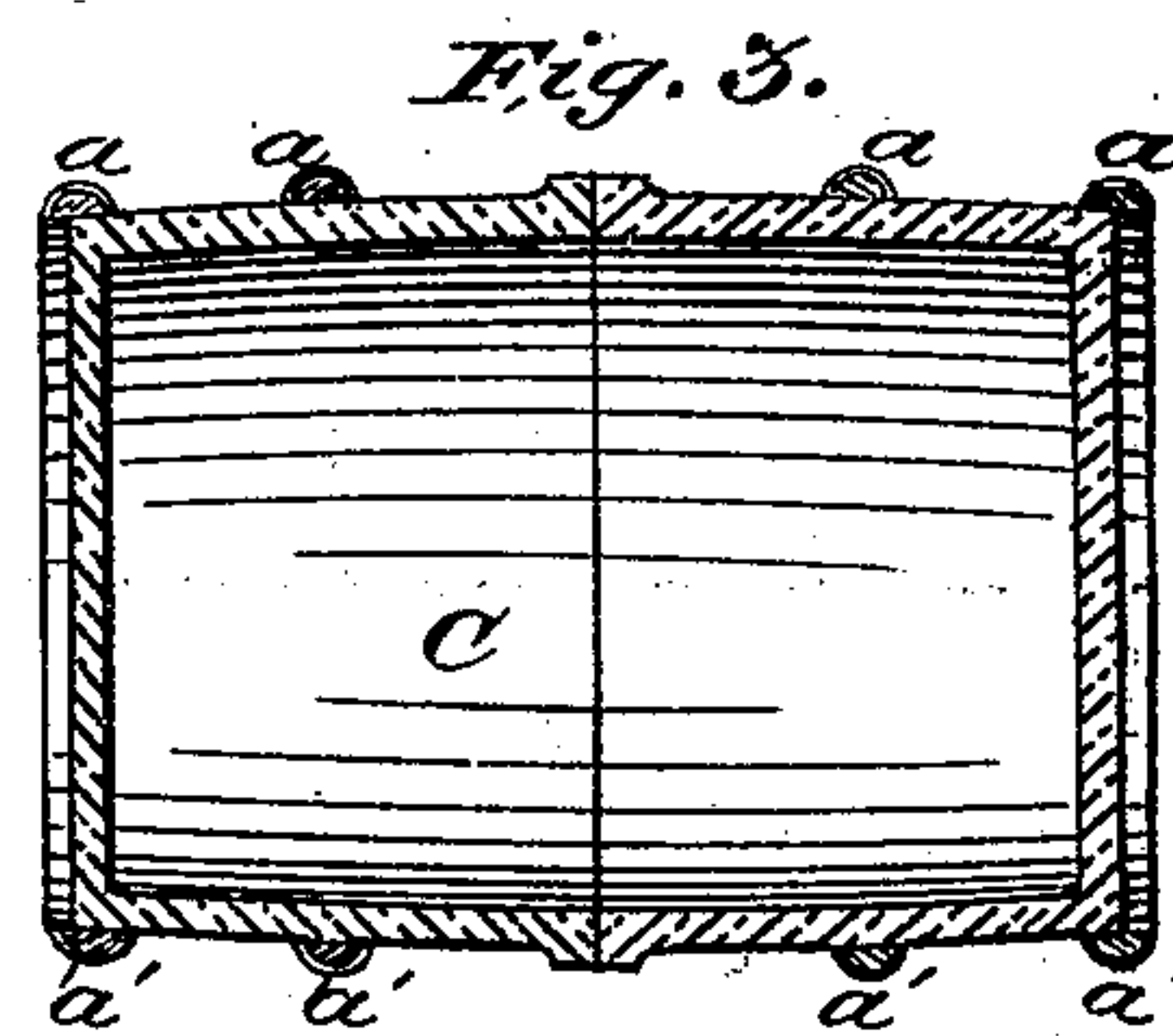
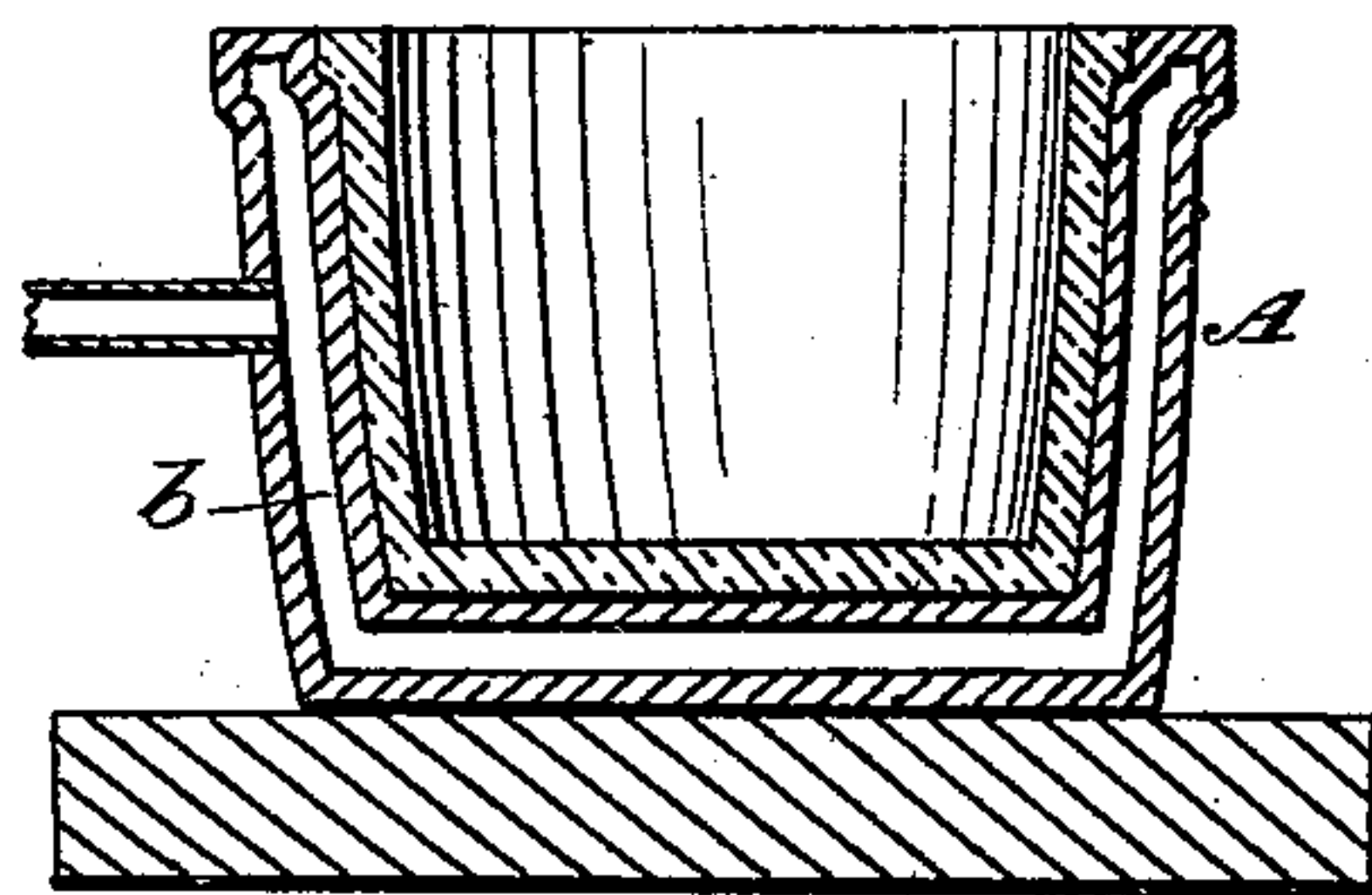
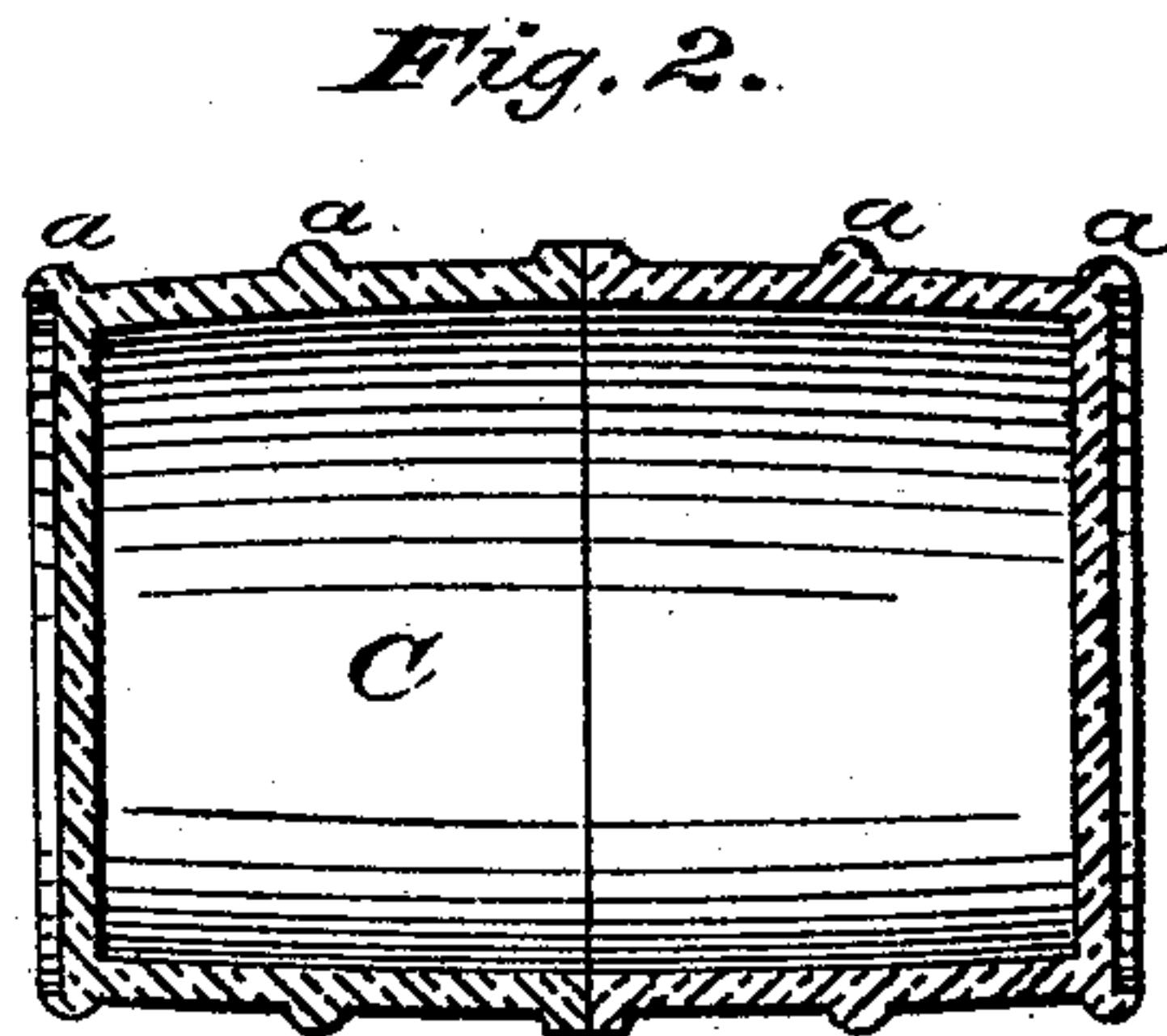
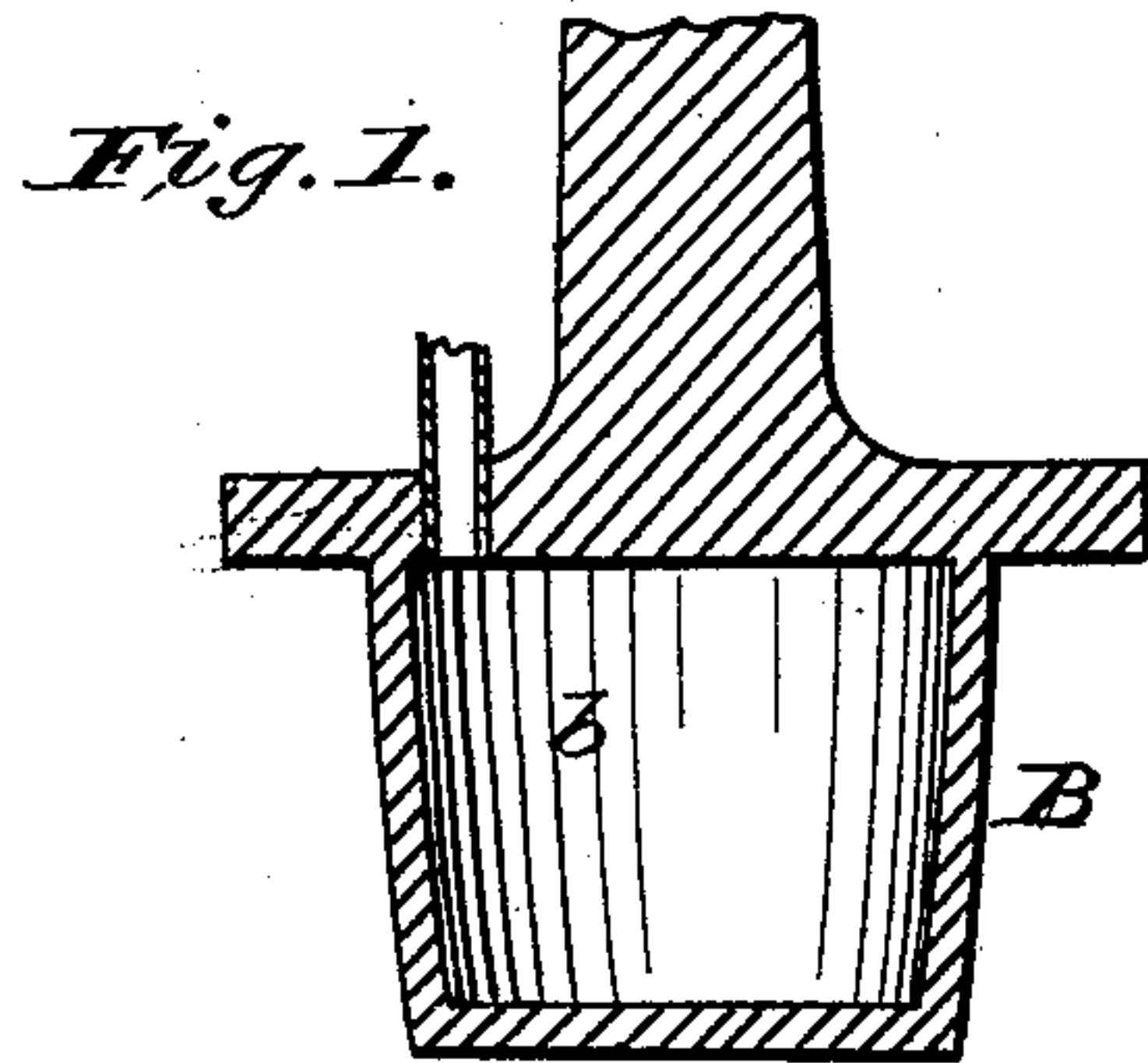
(No Model.)

C. W. McLEAN.

MANUFACTURE OF CASKS, BARRELS, &c., OF GLASS.

No. 253,543.

Patented Feb. 14, 1882.



WITNESSES
G. Johnson
A. H. Betz

INVENTOR
Chr. W. McLean,
By *J. C. Drecht*
his Attorney

UNITED STATES PATENT OFFICE.

CHRISTOPHER W. McLEAN, OF NEW BERNE, NORTH CAROLINA.

MANUFACTURE OF CASKS, BARRELS, &c., OF GLASS.

SPECIFICATION forming part of Letters Patent No. 253,543, dated February 14, 1882.

Application filed October 4, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER W. McLEAN, a citizen of the United States, residing at New Berne, in the county of Craven and State of North Carolina, have invented certain new and useful Improvements in the Manufacture of Casks, Barrels, &c., of Glass; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Figure 1 is a sectional view of a hollow mold and plunger for making barrels, casks, and like articles of glass. Fig. 2 is a sectional view of a cask with projections cast thereon, on which the weight of the cask is supported. Figs. 3, 4, and 5 are sectional views of casks as made in the mold shown in Fig. 1, showing modifications of the protecting devices herein-after more fully described. Fig. 6 is a sectional view of a cask having one end cast solid with the sides and the other end inserted and supported on ledges. Figs. 7 and 8 are sections of a butter-tub and pail or bucket.

My invention consists in improvements in the manufacture of casks, barrels, &c., made in a sectional mold, in which the body of the mold, as well as the plunger, is provided with a heating-chamber, so that the inside as well as the outside of the cask or barrel is thoroughly annealed. The sections of the cask or barrel are then welded together in the ordinary and well-known manner.

It also consists in providing the cask, barrel, &c., either with wooden hoops held in place by tie-bolts, or with hoops covered with rubber, or in covering the entire barrel or any portion thereof with a rubber cover to prevent the cask, barrel, &c., from becoming injured.

It consists, further, in certain details of construction more fully hereinafter set forth, and pointed out in the claims.

In Fig. 1, A designates the mold, and B the plunger, both of which are provided with heating-chambers *b*, as is more fully set forth in another application (marked "Case A") filed even date herewith, and the object of the heating-chambers is to so heat the molds that the glass will not chill while being placed therein, and to continue the heat after the article is formed,

so as to anneal or harden the same prior to removal from the mold.

In Figs. 2, 3, and 5, C indicates finished casks of glass, the open ends of the sections composing the same having been properly trued and welded together by means of a band of glass.

In Figs. 2 and 3, *a* indicates the strengthening, protecting, or supporting bands cast thereon or otherwise secured thereto, by which means the cask is protected from injury. In Fig. 3 I have shown the protecting-bands as covered with india-rubber or other analogous material, *a'*.

In Fig. 4, D represents a cask made of sections of glass, as formed in the mold shown in Fig. 1, properly welded together, and strengthened or protected by wooden or other hoops *c*, which are connected and held in place by rods *d*, the ends of which are screw-threaded to receive the nuts *e*, by which means the hoops are held in place, and when occasion requires it they can be tightened up. In this mode of strengthening or protecting the casks or barrels the end hoops are made wider, so as to project over the ends of the cask and protect the same from breakage by sudden jars.

In Fig. 5 I have shown still another form of protecting the cask or barrel, which consists in coating the cask, including the chine, with india-rubber, as indicated at *f*. For many purposes the covering of the cask with rubber will be of great value as a protecting medium from blows or jars during transportation, &c.

Fig. 6 indicates a cask the sides and one end of which are pressed or cast in one piece, the other end being provided with a shoulder or offset, *g*, to receive and support the head *F*, which is cemented thereto or welded therein. The form of cask shown in Fig. 6 is also provided with strengthening-ribs *h* at the ends and along the sides.

In Fig. 7 I have shown a section of which the casks or barrels are composed utilized as a tub for packing butter and other analogous uses, with a recess or rabbet in the top, which receives and supports a cover of glass or wood. In the same figure I have shown a pail or water-bucket made of glass, the advantages of which, especially for dairy uses, will be obvious to any one skilled in this art.

I am aware that casks or barrels have been heretofore made of glass in sections and welded or otherwise secured together; also, that molds for coffins, in which the body of the
5 mold was provided with a heating-chamber while the plunger was made solid, are not new, and therefore disclaim such.

I am also aware that lamps have been made in sections and welded together. By anneal-
10 ing only the outside of the article and not the inside it is liable to crack.

I am further aware that vessels or receptacles for containing liquor, &c., have been covered with a thin coating of leather, canvas, or
15 analogous material to give them the appearance of carpet-bags; but such coating would not protect them from injury.

Having thus described my invention, what I
20 claim, and desire to secure by Letters Patent, is—

1. The combination of a mold having a heating-chamber with a plunger also provided with a heating-chamber, for the manufacture of casks, barrels, &c., and for the purpose of annealing them through the entire structure, 25 substantially as specified.

2. A cask, barrel, or analogous article made of glass and annealed through its entire structure, and provided with strengthening and protecting hoops or surfaces, substantially as 30 specified.

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

CHRISTOPHER W. McLEAN.

Witnesses:

A. H. BETZ,
T. C. BRECHT.