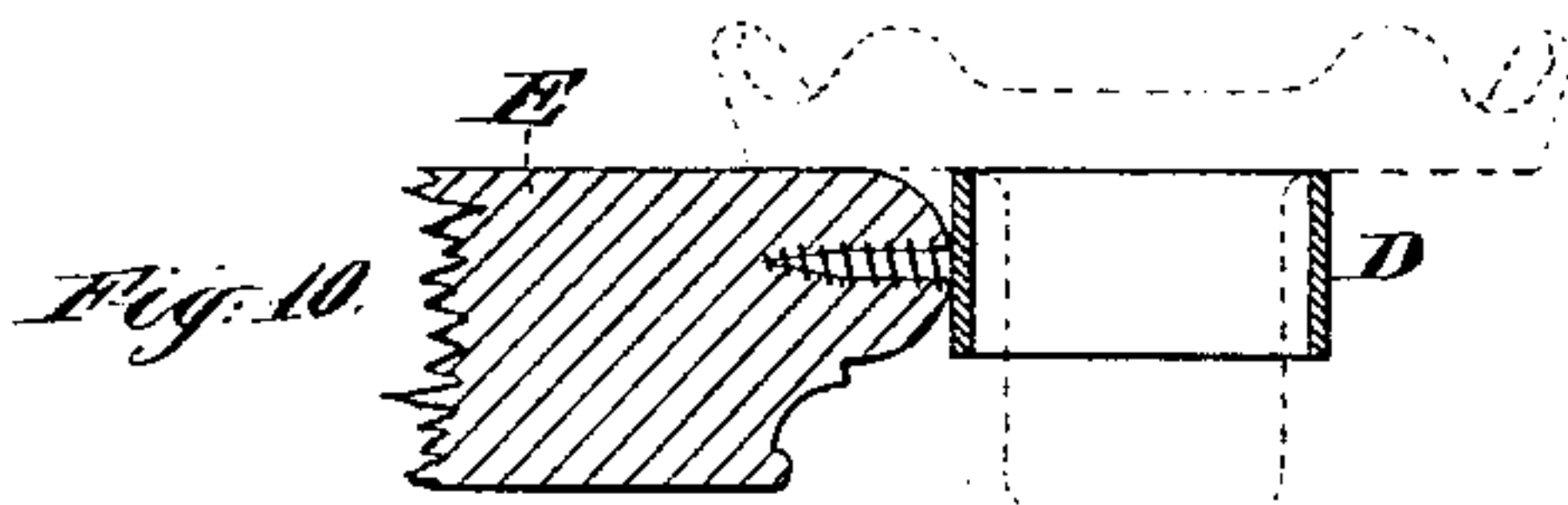
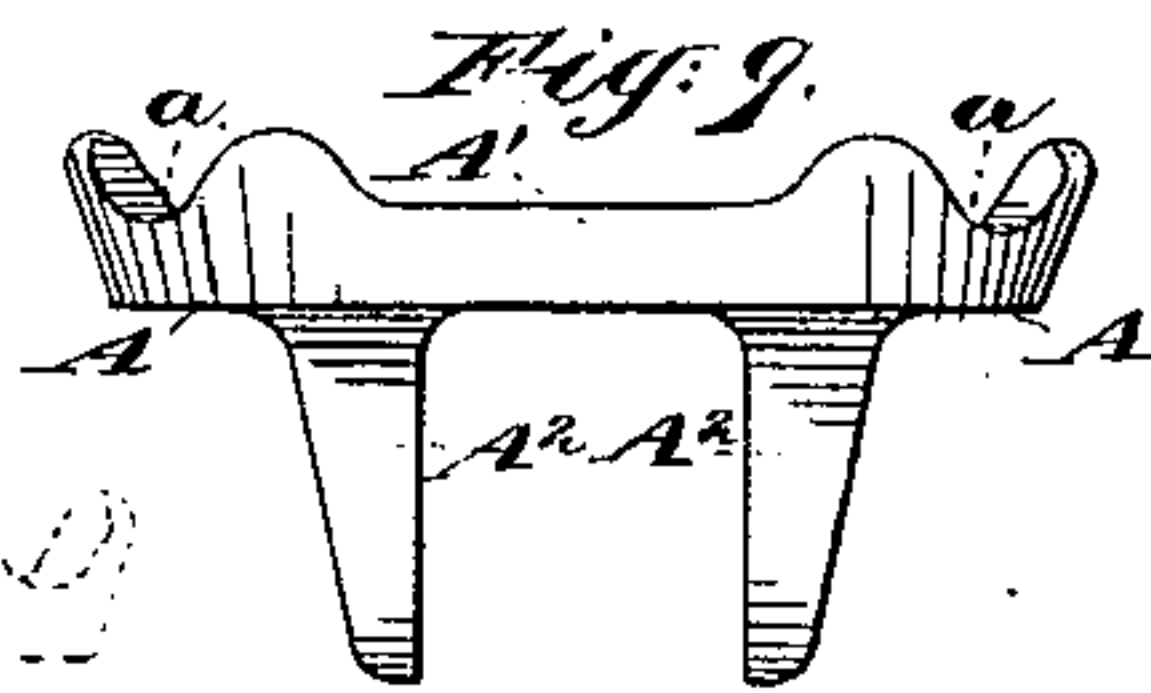
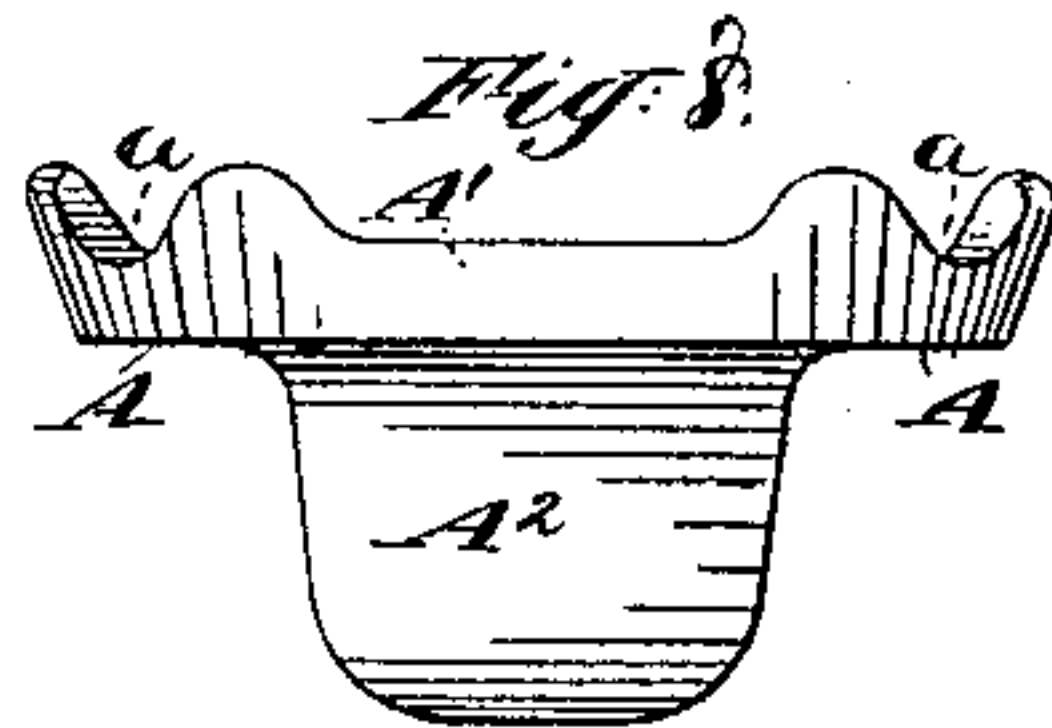
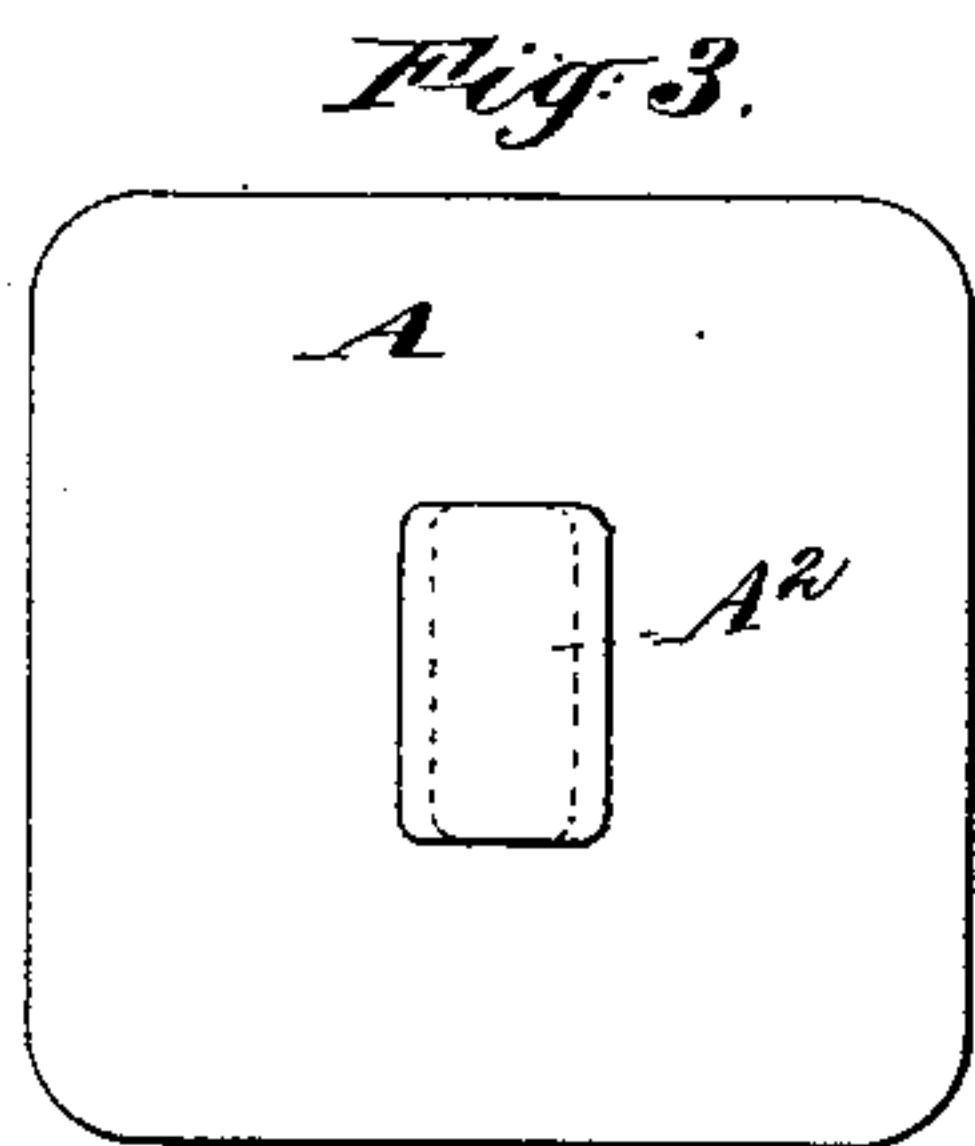
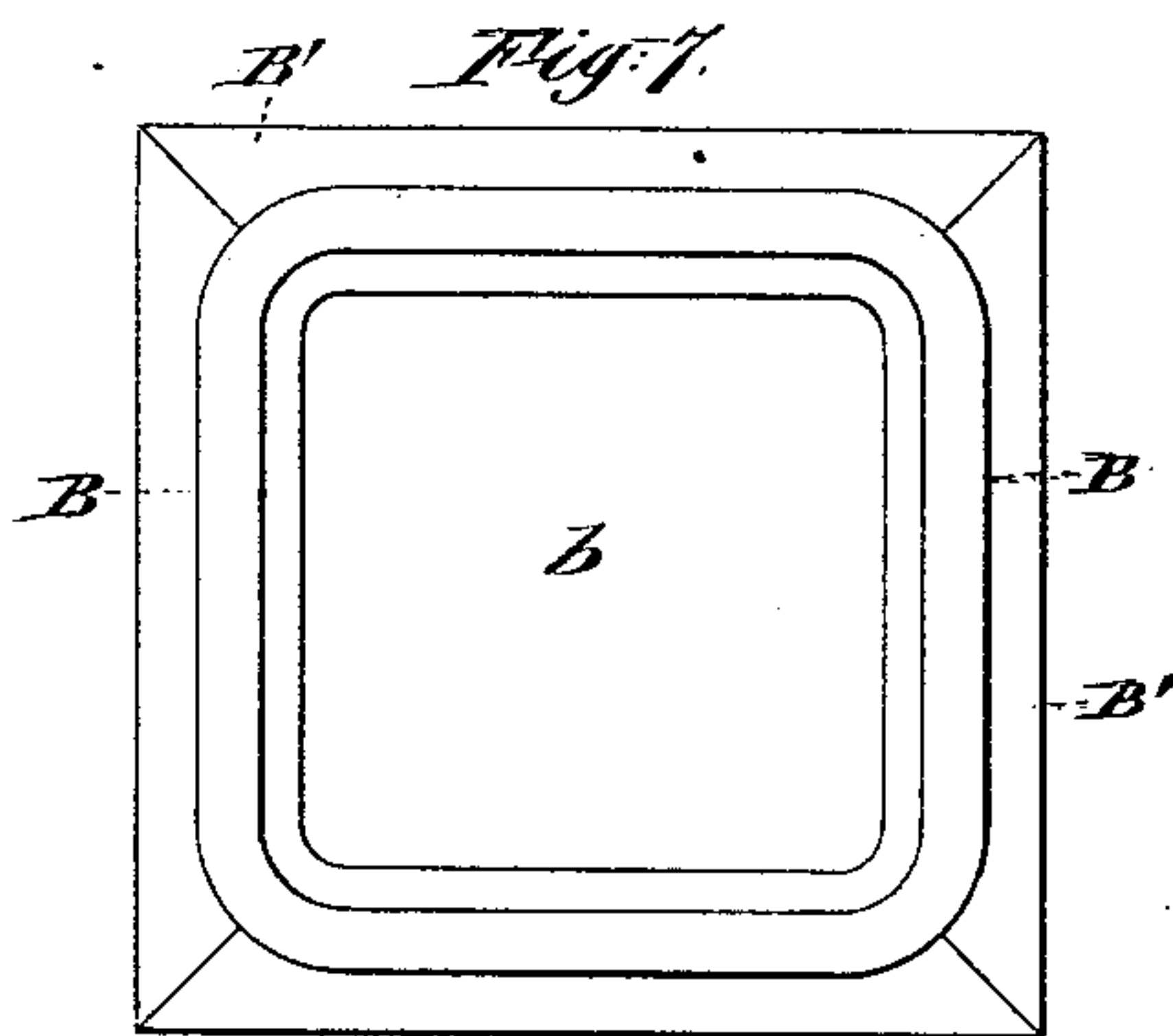
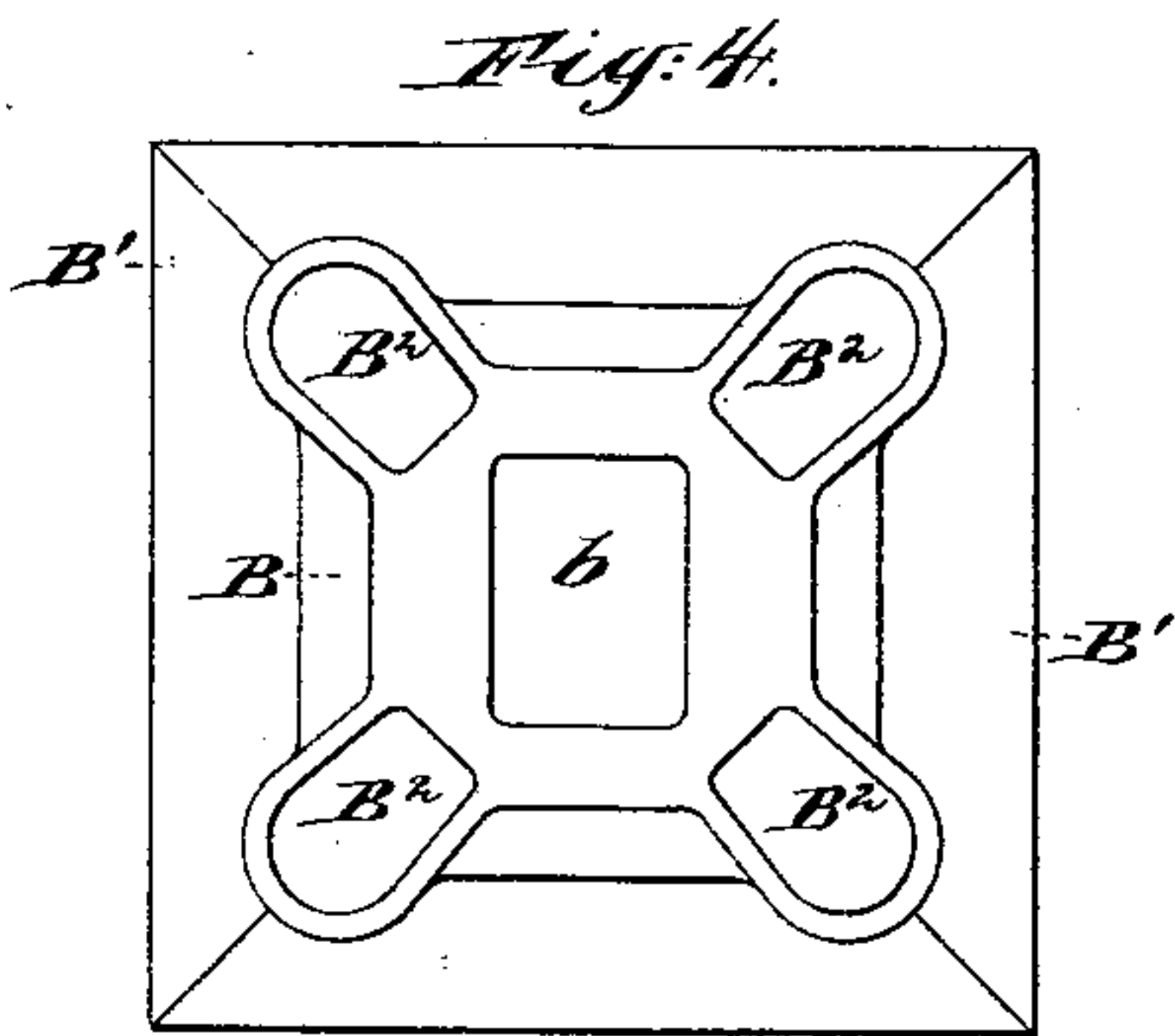
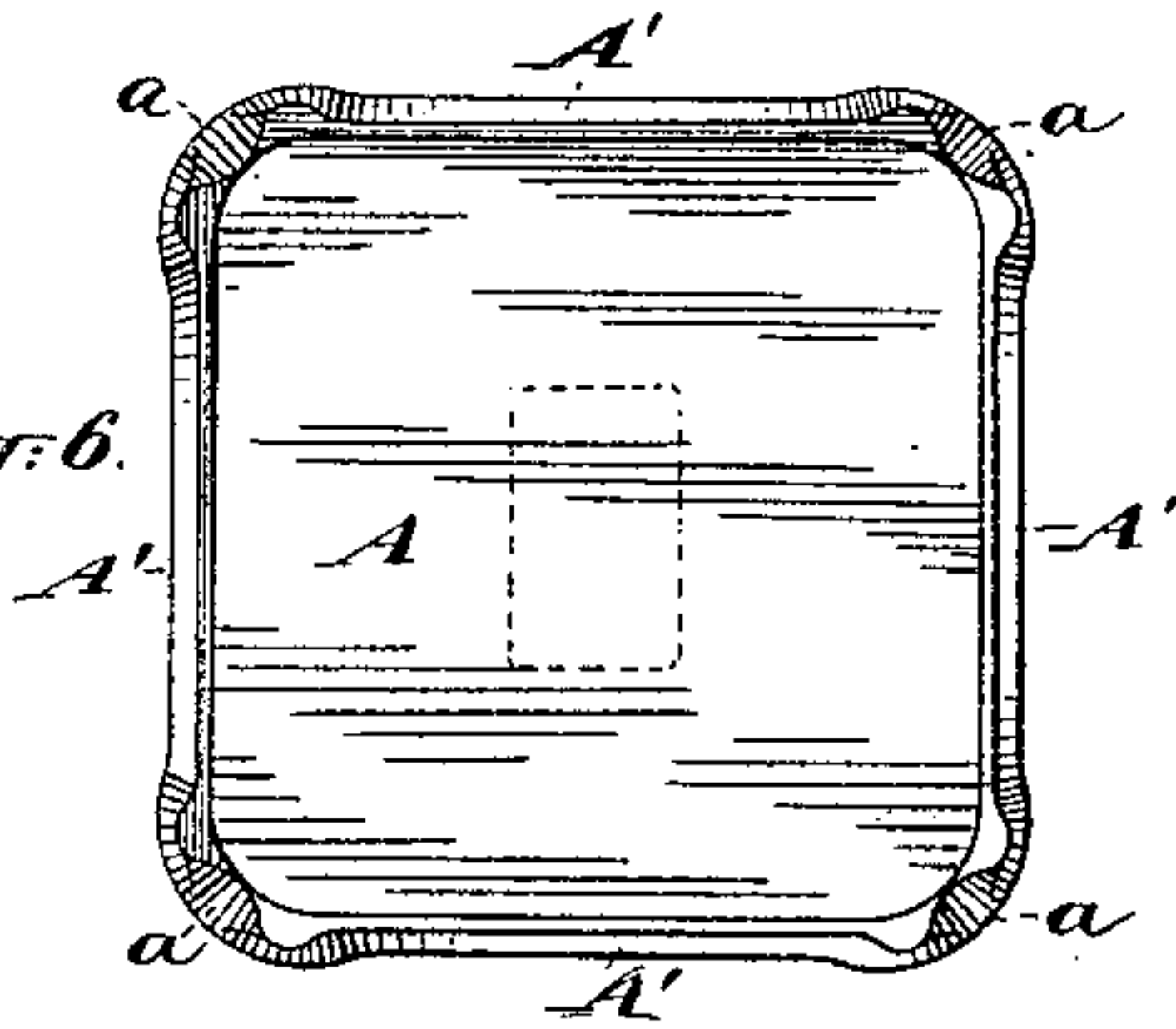
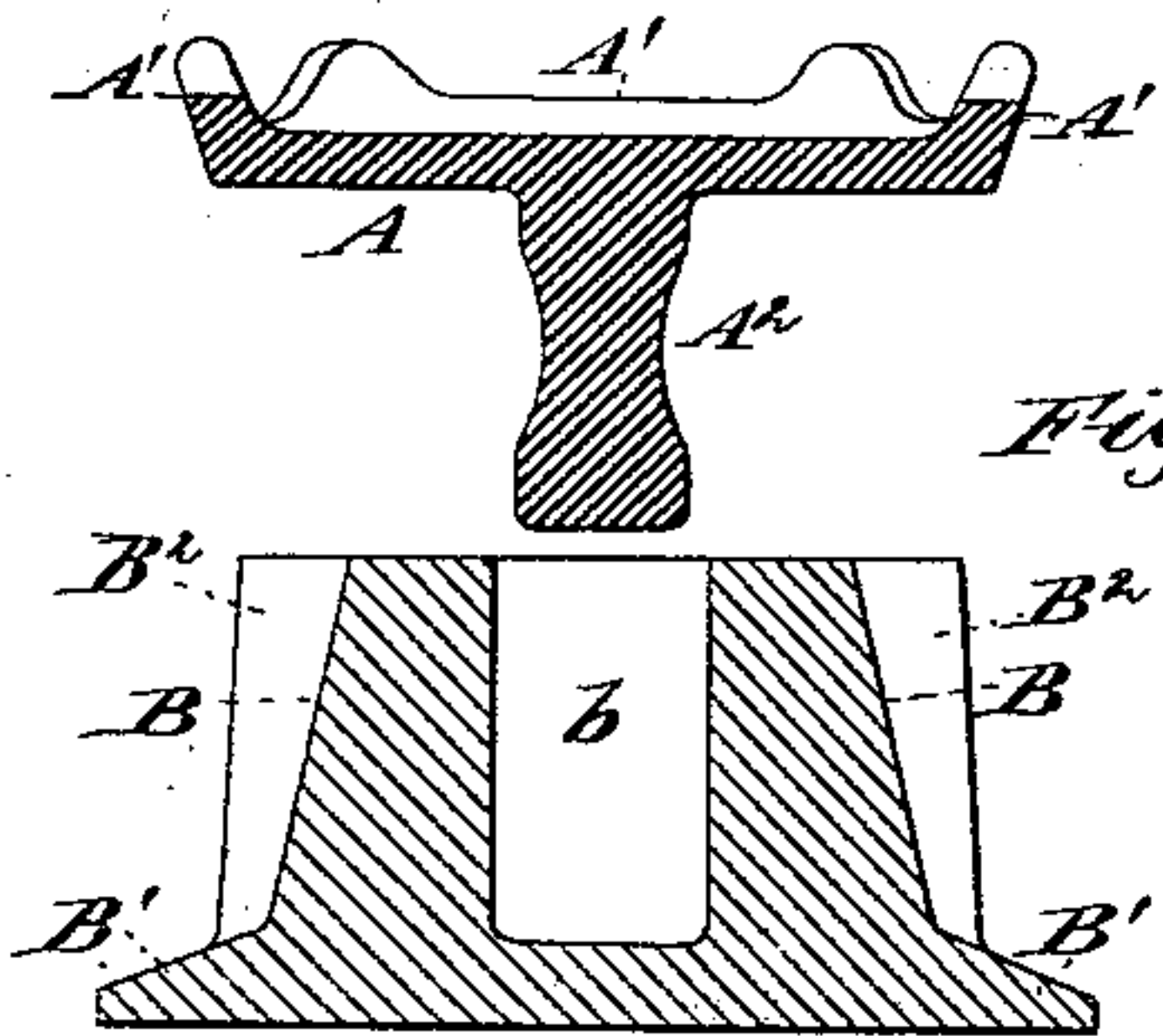
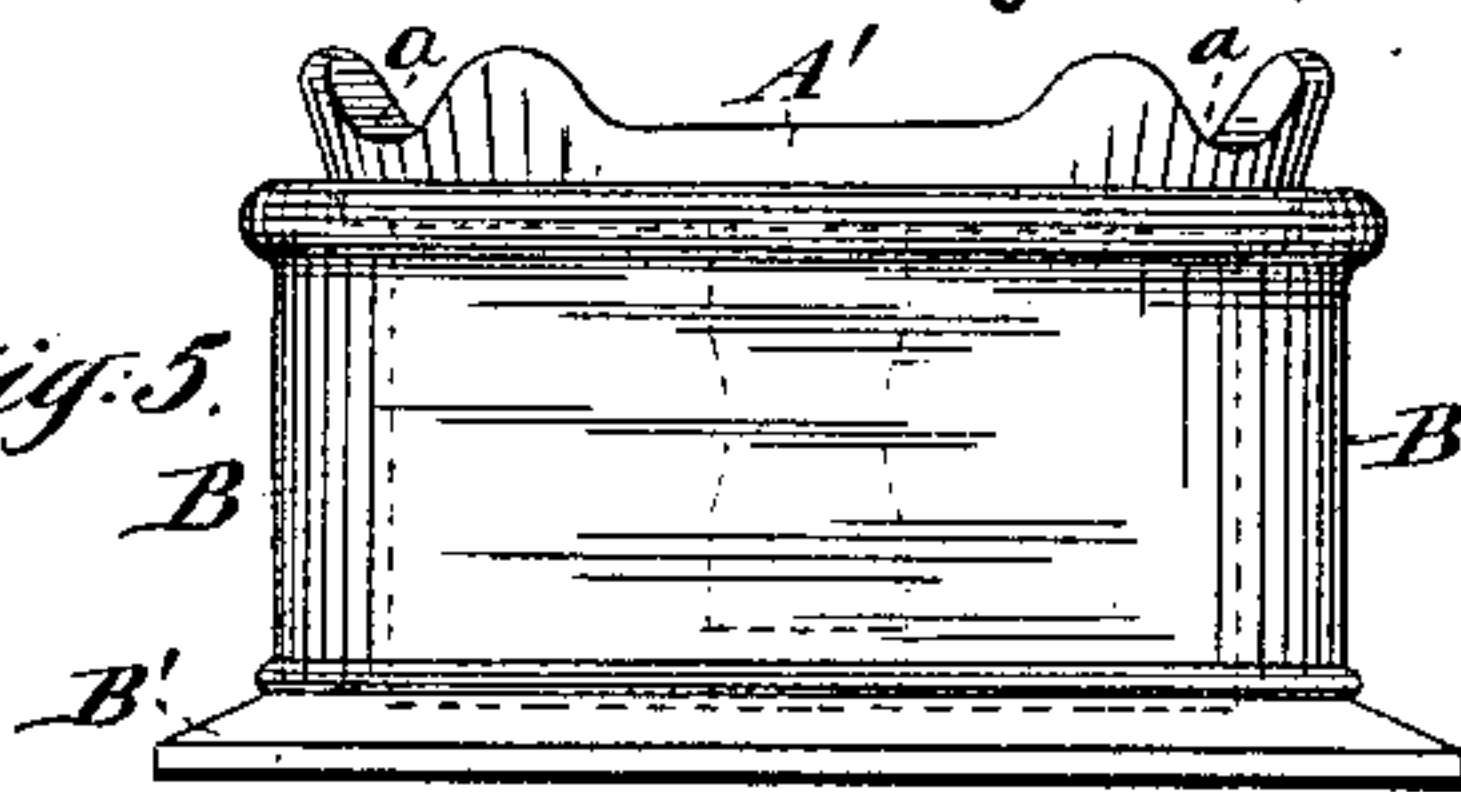
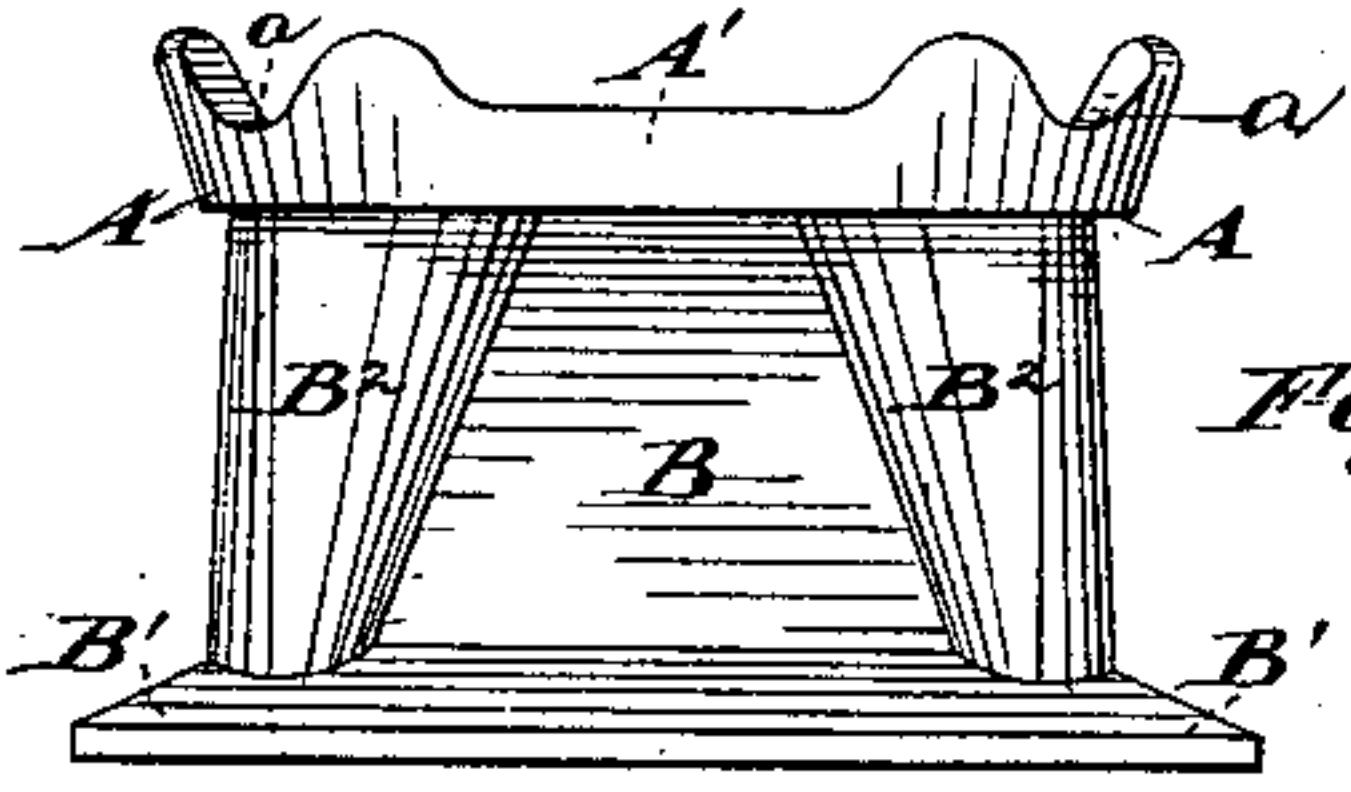


(No Model.)

J. A. KIMBALL.  
DENTAL MIXING DISH.

No. 386,750.

Patented July 24, 1888.



Witnesses:  
Charles R. Searles,  
H. A. Johnston.

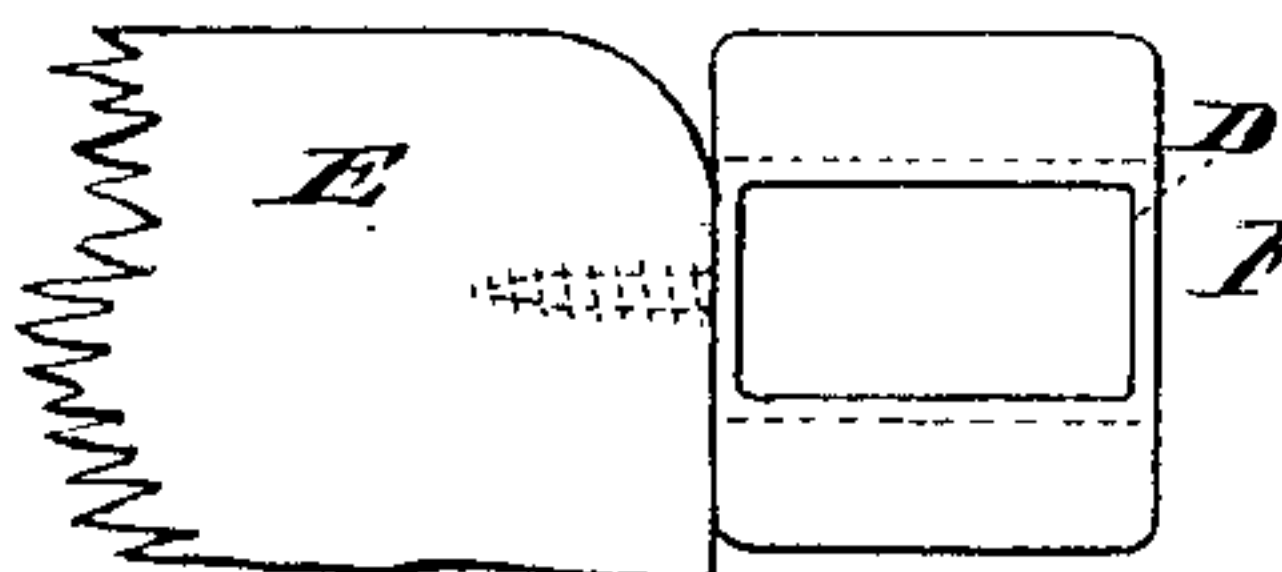


Fig. 12.

Inventor:  
J. Albert Kimball.  
By his attorney  
Thomas Drew Peterson.



# UNITED STATES PATENT OFFICE.

JOSEPH ALBERT KIMBALL, OF NEW YORK, N. Y.

## DENTAL MIXING-DISH.

SPECIFICATION forming part of Letters Patent No. 386,750, dated July 24, 1888.

Application filed November 7, 1887. Serial No. 254,495. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH ALBERT KIMBALL, of the city and county of New York, in the State of New York, have invented a certain new and Improved Dish, of which the following is a specification.

The article is intended more particularly for dentists' use, and will be so described. It is necessary in certain branches of the dental art to mix the materials for a cement in small quantities and to introduce it while plastic into the previously-prepared cavity of a tooth. The cement hardens very rapidly. I provide a small shallow dish with one or more stems extending downward from the base, which stems, being held between the fingers, support the dish on the back of the left hand, which may be held close to the mouth. The right hand, applying the materials on the dish, can rapidly mix them, and with a suitable instrument transfer the cement into the tooth. The stem or stems under the dish are adapted also to match into a socket or sockets in a suitable stand to support the dish firmly on a table or other ordinary support. The edges of the dish are nearly perpendicular, and are thin, adapted to serve in scraping surplus cement from a tool. The corners are formed to serve as spouts in pouring off fluid, when required.

The accompanying drawings form a part of this specification.

Figure 1 is a side elevation of the device complete. Fig. 2 is a vertical section showing the parts separated. Fig. 3 is a bottom view of the dish alone. Fig. 4 is a plan view of the support alone. The remaining figures show modifications. Fig. 5 is a side view showing the parts together; Fig. 6, a top view of the dish, and Fig. 7 a top view of the support with the dish removed. Fig. 8 is a side view, and Fig. 9 an end view of a dish with two stems. Figs. 10, 11, and 12 show a bracket fixed in the edge of a table to serve as a support for the dish. This may be employed instead of the portable support shown in the other figures, or both may be provided, allowing either to be used, as desired. Fig. 10 is a side elevation showing the mixing-dish supported in the bracket. Fig. 11 is a view at right angles to that in Fig. 10, showing the supporting-bracket

without the dish; and Fig. 12 is a plan view corresponding to Fig. 11.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

Referring to Figs. 1 to 4, A is the base of the dish. A' is a narrow rim which forms the boundary of the dish, and A<sup>2</sup> is a stem extending downward from the base A in the form represented. The stem is generally rectangular, but hollowed at the mid-height to receive the sides of two adjacent fingers of the hand in holding it. The rim A' is increased in height near each corner, but exactly at the angle is a notch, as indicated by *a*. Any one of these notches or depressions, which descend to about the level of the other portions of the rim, may serve as a spout in pouring off any fluid or semi-fluid material from the dish.

B is the support, having in its center a rectangular socket, *b*, adapted to receive the corresponding stem, A<sup>2</sup>. The dish may be supported on this stand, and cement may be mixed on the dish as it is supported in the stand and taken therefrom by the tool to be inserted in the tooth; but ordinarily the dentist will support the dish on the left hand by holding the stem A<sup>2</sup> between the first and second fingers and resting the base of the dish on the back of the fingers. The material may be mixed in this position by supplying the several ingredients by the right hand simultaneously or in quick succession, and then properly stirring and applying with a suitable tool. In this use of the dish the cement may be more conveniently carried the short distance to be traversed for insertion in the cavity of the tooth. The same hand or arm which thus supports this dish close to the mouth also supports the patient's head, or assists in any of the various ways required while continuing to support the dish, and hold it in close proximity to the patient's mouth.

B' is a broad base for the support.

B<sup>2</sup> B<sup>2</sup> are pockets independent of the socket *b*, which may serve, when the stand is not used as a support for the dish, as receptacles for engine-points and other small instruments. Hot or cold water may be introduced in these pockets to give any desired temperature to



the support and to the dish resting thereon. It is sometimes desirable in working certain materials—as gutta-percha—to deliver the cement at a certain moderately high temperature.

Figs. 5, 6, and 7 show a modification of the support, having an aperture corresponding to the socket *b*, of sufficient capacity to contain a liberal quantity of water or other fluid at the proper temperature. On putting the dish A upon this support it will engage its edges on the shelf within the rim and be firmly held against any movement. It is not usually necessary to stir the gutta-percha filling; but any manipulation desired can be effected on the dish while on this support, treating either gutta-percha, oxy-phosphate, or other fillings.

D is a bracket of brass or other suitable material fixed in the edge of a table, E, adapted for holding the device firmly when desired. Such bracket will form a convenient substitute for the stand B, described above.

It will often be convenient to mix the material while the device is supported in this bracket D, and then by a quick movement to transfer the dish with its contents to the left hand and proceed with the operation.

Modifications may be made without departing from the principle or sacrificing the advantages of the invention. I can use two stems, A<sup>2</sup>, as shown in Fig. 9. Parts of the invention can be used without the whole. I

can omit the spouts *a* at three of the corners, retaining a spout at one corner, or I can omit the spouts altogether.

The invention is not necessarily confined to dentists' purposes. I believe it may be used by artists and many others to mix or otherwise treat small quantities of material while supported on the stand, afterward holding the dish on the back of the left hand, while the latter holds the stick on which the right hand rests in painting, sometimes called the "maul-stick," or in doing other useful service.

I claim as my invention—

1. A mixing-dish having the base A, rim A', and stem A<sup>2</sup>, combined and adapted to serve as herein specified.

2. The dish described, having the base A, rim A', one or more spouts, *a*, and stem A<sup>2</sup>, as herein specified.

3. The dish described, having the base A, rim A', and spout *a*, in combination with the stem or stems A<sup>2</sup>, and support B *b*, adapted to hold the dish firmly, as herein specified.

In testimony whereof I have hereunto set my hand, at New York city, this 11th day of October, 1887, in the presence of two subscribing witnesses.

JOSEPH ALBERT KIMBALL.

Witnesses:

M. F. BOYLE,

H. A. JOHNSTONE.