

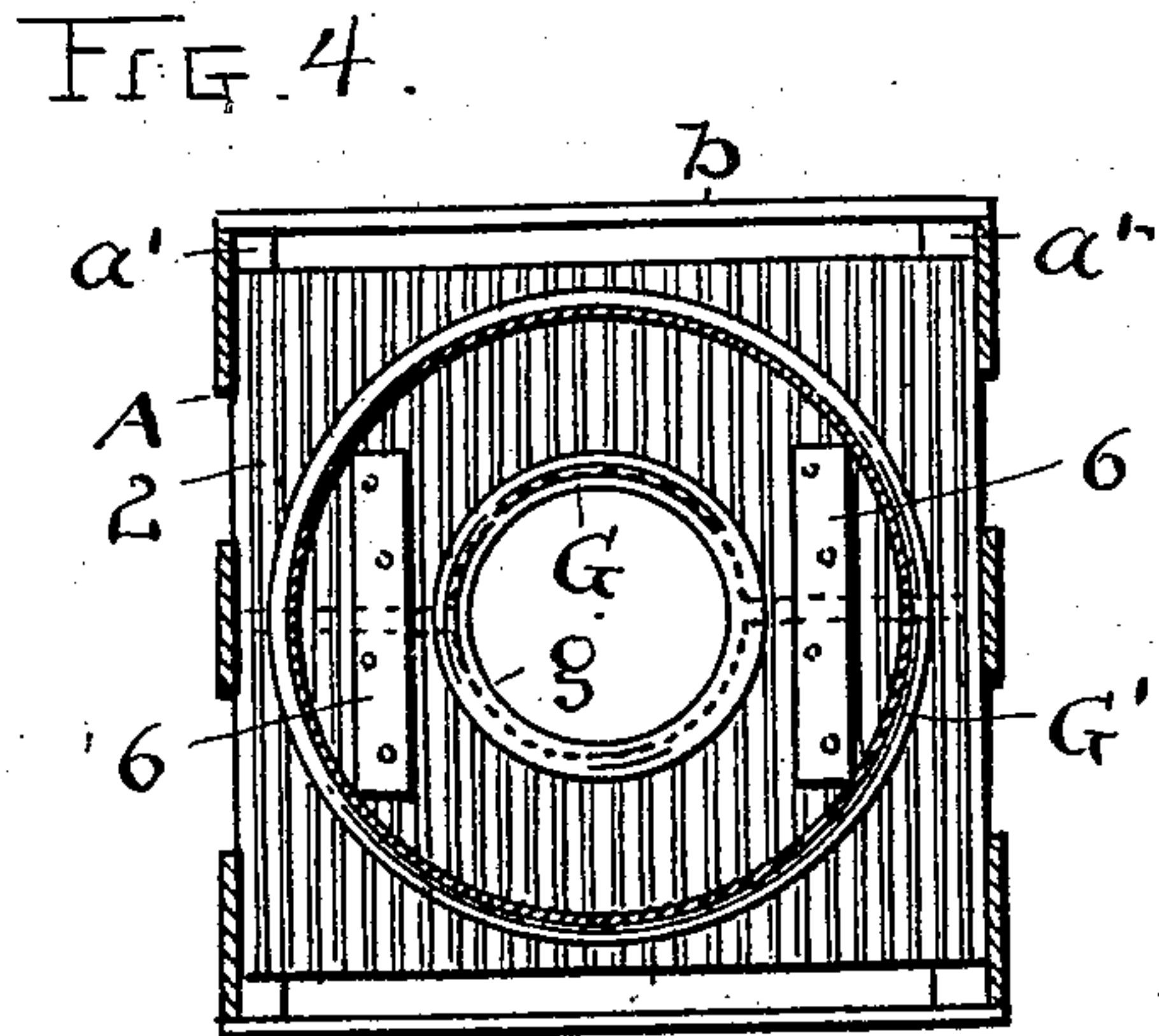
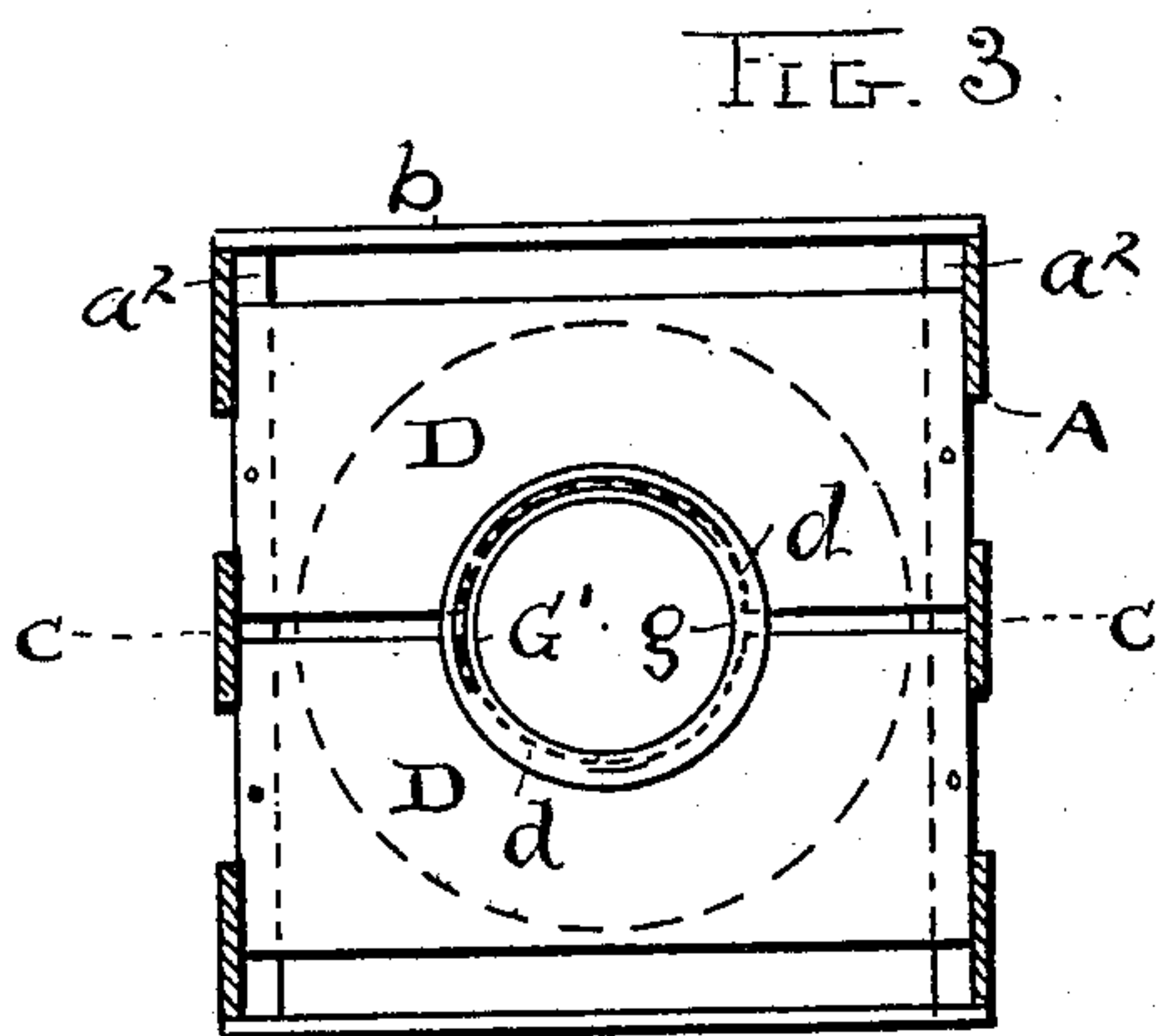
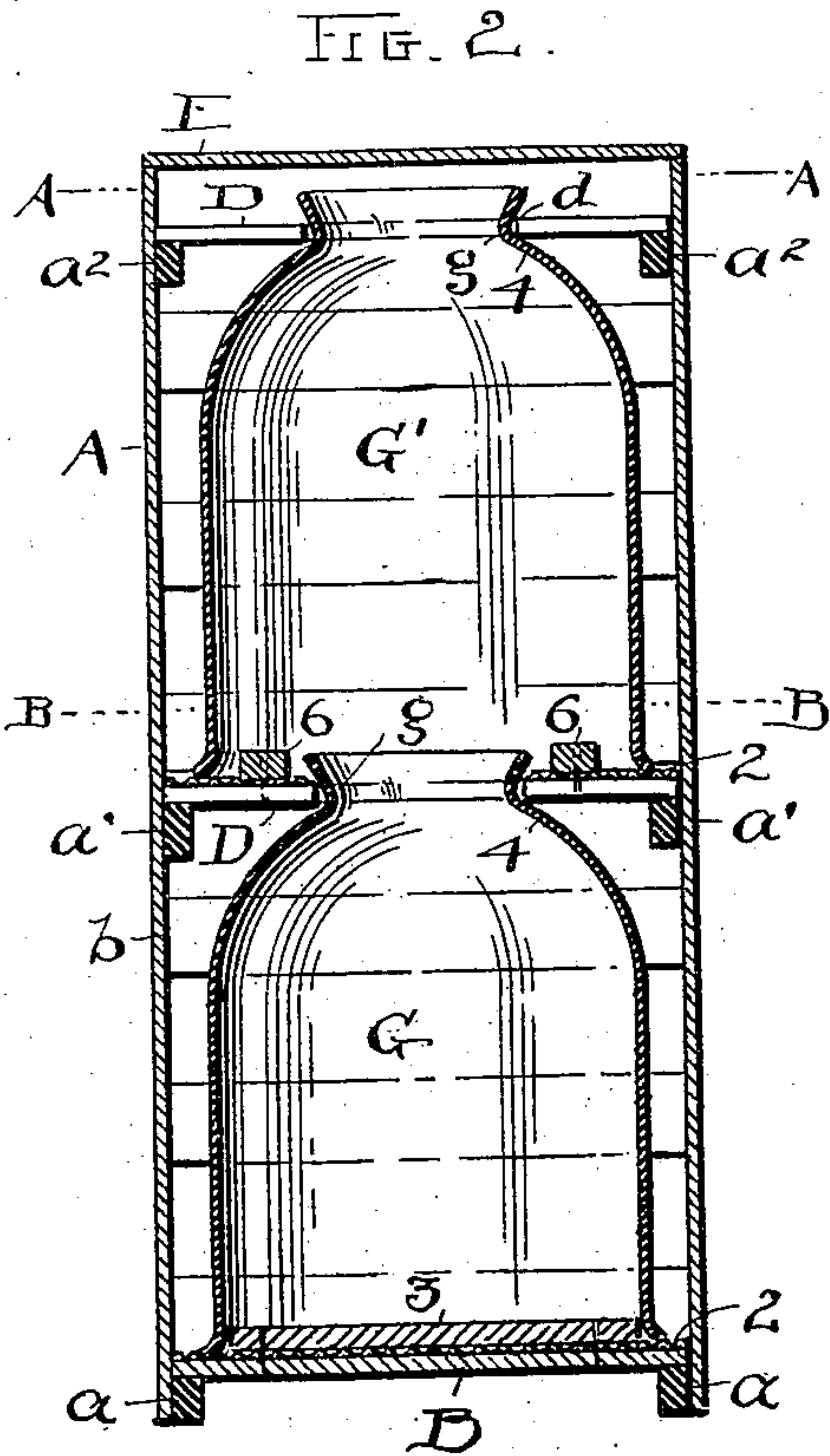
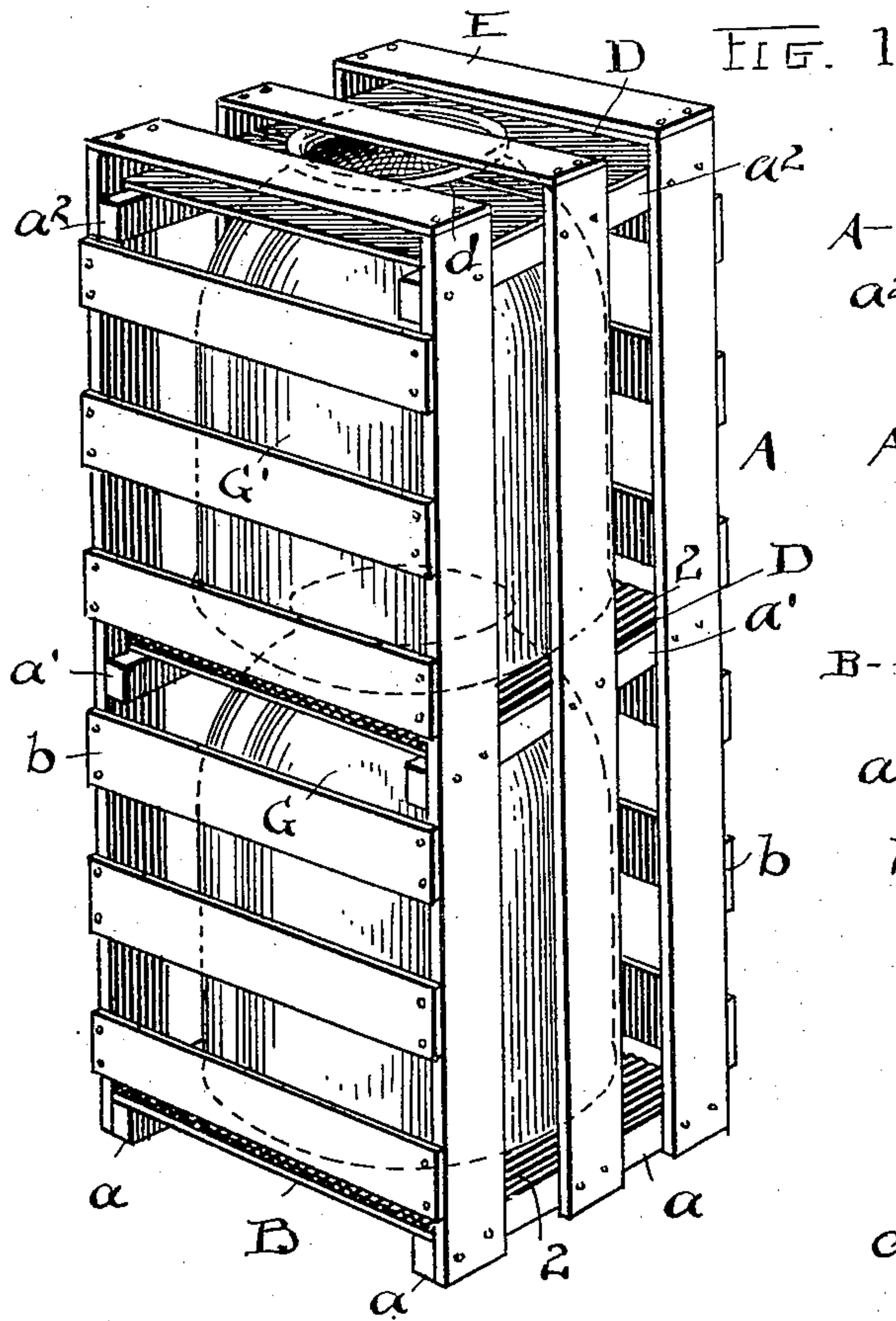
No. 689,487.

Patented Dec. 24, 1901.

J. N. HAHN.
CRATE FOR SHIPPING GLOBES.

(Application filed May 4, 1901.)

(No Model.)



ATTEST.

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CRATE FOR SHIPPING GLOBES.

SPECIFICATION forming part of Letters Patent No. 689,487, dated December 24, 1901.

Application filed May 4, 1901. Serial No. 58,710. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. HAHN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Crates for Shipping Globes; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to

which it appertains to make and use the same.

My invention relates to crates for shipping globes for electric and gas lights; and the invention is an improvement on the crate set forth in my application for Letters Patent of the United States filed March 5, 1901, Serial No. 49,788. In the said application I show a construction wherein the globe is substantially spherical, with a closed top, and adapted to be confined substantially beneath and by the support next above the same, and the globe does not extend through or above the support engaging its top.

In the present application the globe is of a substantially can shape, with a tubular body and a reduced and somewhat flanged or flaring mouth and narrowed neck about its top, thus requiring a special construction of crate to carry it.

To these ends the invention consists in a crate constructed substantially as shown and described, and particularly as pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective elevation of a crate adapted to carry two globes. It might be constructed to carry one or more; but these globes are large and are most conveniently handled in the smaller crates. Fig. 2 is a vertical central sectional elevation of the crate and globes on a line corresponding to C C, Fig. 3. Fig. 3 is a cross-section at the top of the crate on a line corresponding to A A, Fig. 2; and Fig. 4 is a cross-section on a line corresponding to B B, Fig. 2.

The crate A is designed to be a comparatively light skeletonized structure, as crates ordinarily are, and proportioned in strength to its size and the number of globes to be shipped therein. Obviously for a single globe a crate of lighter material can be used than one which carries two or more globes. In this particular structure the frame A is therefore of a

suitable strength, but distinctly a crate and not a box. Its construction embodies cross-pieces a , a' , and a^2 and outside slats or boards b , the said cross-pieces being inside. A base-board B rests on pieces a and serves as a support for the lower globe or globes and is covered by corrugated paper 2 or equivalent cushioning or yielding material to form a soft rest or seat for the globe, and a suitable block or cleat 3 is fixed down over said paper, within the globe in this instance, and of sufficient depth to engage the globe about its bottom and hold it in place laterally, so that it will not have any shift or play in transportation. Usually I prefer to employ a single piece or block 3 for this purpose, and the most convenient form is a square block which will engage the globe at four points equally and center it securely; but the shape is not material, so that the globe is held in its place.

A novel feature of this invention is the neck-support D for the globe. It will be noticed that the globe itself has a neck g , with a somewhat flaring flange or mouth about its top, and for safety in shipping it is desirable to engage this neck somewhat closely to hold the globe steady at the top; but it will be noticed that the globe-body comes up to said neck with a circular shoulder 4, so that the bottom of support D engages down to this shoulder and keeps the globe in place endwise. This enables me to utilize the shouldered portion of the globe for holding it down upon its seat and also to utilize the neck for holding it in position laterally. Of course this is a great advantage in shipping. Now to these ends I use a set of boards D, which have semi-circular or equivalent recesses d formed in their inner edges, adapted to engage up against the neck of the globe, as shown, and inasmuch as this style of globe comes in different sizes I can use the same boards D for several sizes advantageously and adapt them to a considerable range of use, because I do not mean them at any time to extend entirely around the neck of the globe. It will be noticed also that the mouth of the globe extends through above the boards or pieces D, so that in any case the upper cleats a^2 in this instance must be down below or within the top of the crate far enough to allow cover or top pieces E being nailed across outside the globe.

If a single-globe crate were used, the cover E would come over the same relatively, (as seen here over the top globe,) and the boards D are secured to the internally-arranged cross-pieces a' and a^2 on opposite sides. Where globes are arranged one above the other; as here shown, the intermediate laterally-supporting boards D become also the rests or base-supports for globe G' above, and here again I employ cushioning-paper 2 and cleats 6, Figs. 2 and 4, or their equivalent for holding the globe G' in position on its rest.

By the foregoing construction the globes are supported from every direction in whatever position they may be carried, and they are inclosed, so as to be removed from danger, while at the same time they are within a comparatively light frame, where they are exposed to view and which of itself contributes very greatly to their protection in both handling and shipping. I am therefore enabled by these means to ship these globes long distances with material economy in freight and with very decided advantage as to losses from handling as compared with the close boxes

in vogue heretofore, wherein the globe was packed by straw or hay and was exceedingly liable to be broken before it reached its destination.

What I claim is—

In crates for carrying glass globes, a crate-frame, a globe-supporting board and a cushioned seat 2 for the globe and a detachable cleat fixed to said seat and arranged to engage the edge of the globe to hold it on its seat, in combination with a set of removable boards D having circular recesses d oppositely in their inner edges adapted to engage about the upper neck portion of the globe, and cross-pieces E over the top of the crate above the globe therein, whereby the globe is seated on the board on which it rests and is held laterally at its top and protected, substantially as described.

Witness my hand to the foregoing specification this 30th day of April, 1901.

JOHN N. HAHN.

Witnesses:

R. B. MOSER,
H. E. MUDRA.