

910,908.

F. CORDES.
ANNEALING BOX.
APPLICATION FILED JUNE 13, 1908.

Patented Jan. 26, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

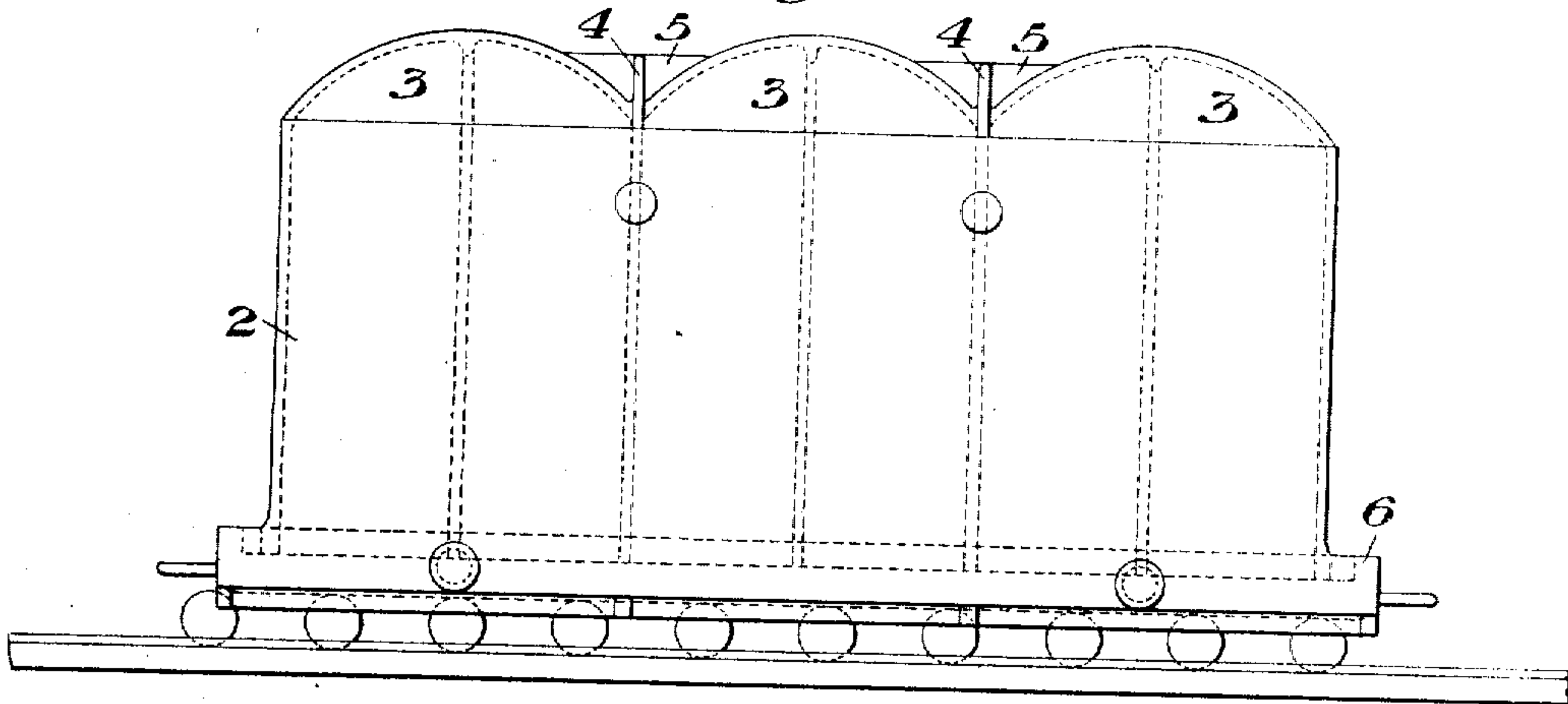


Fig. 2.

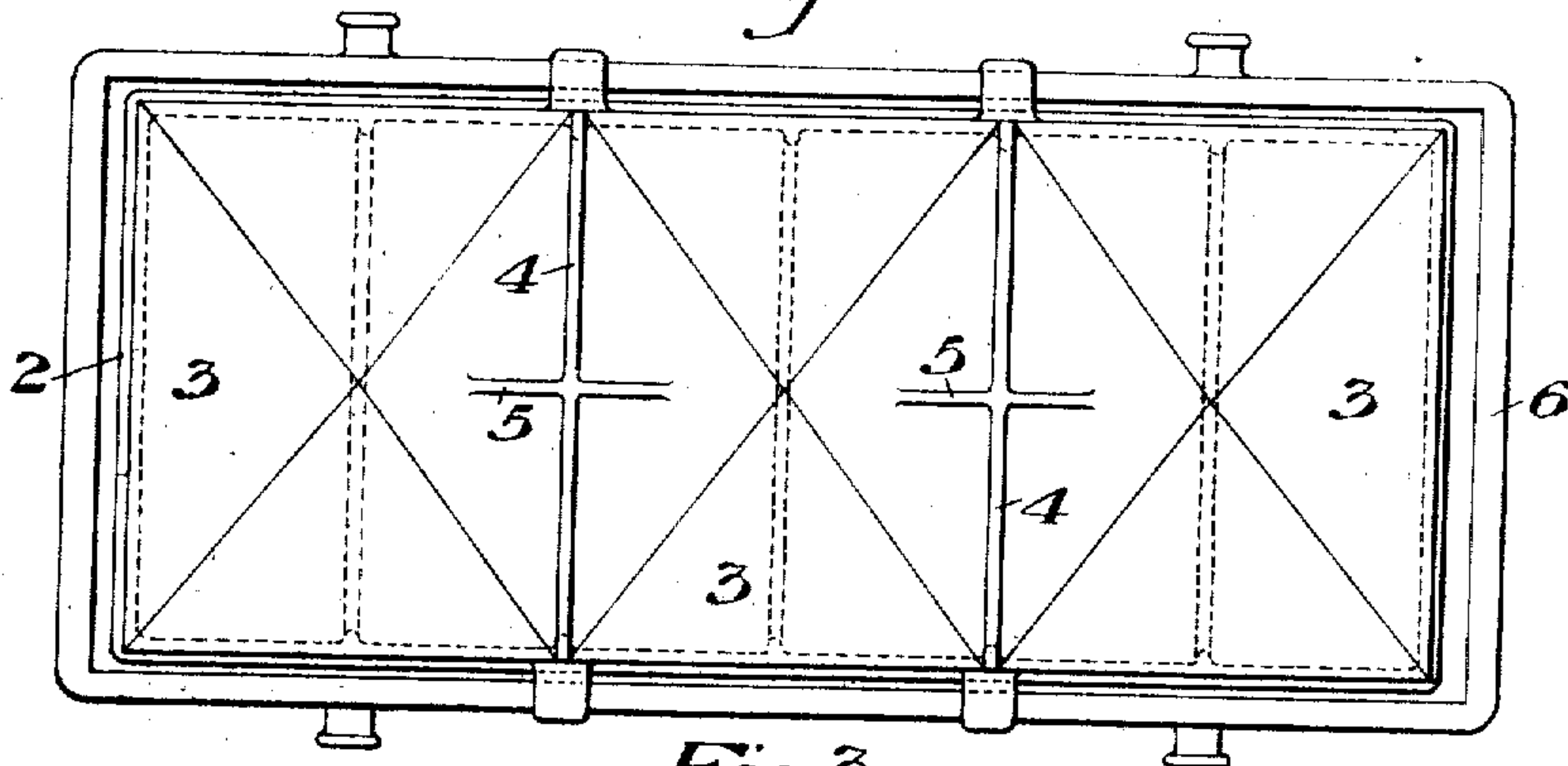
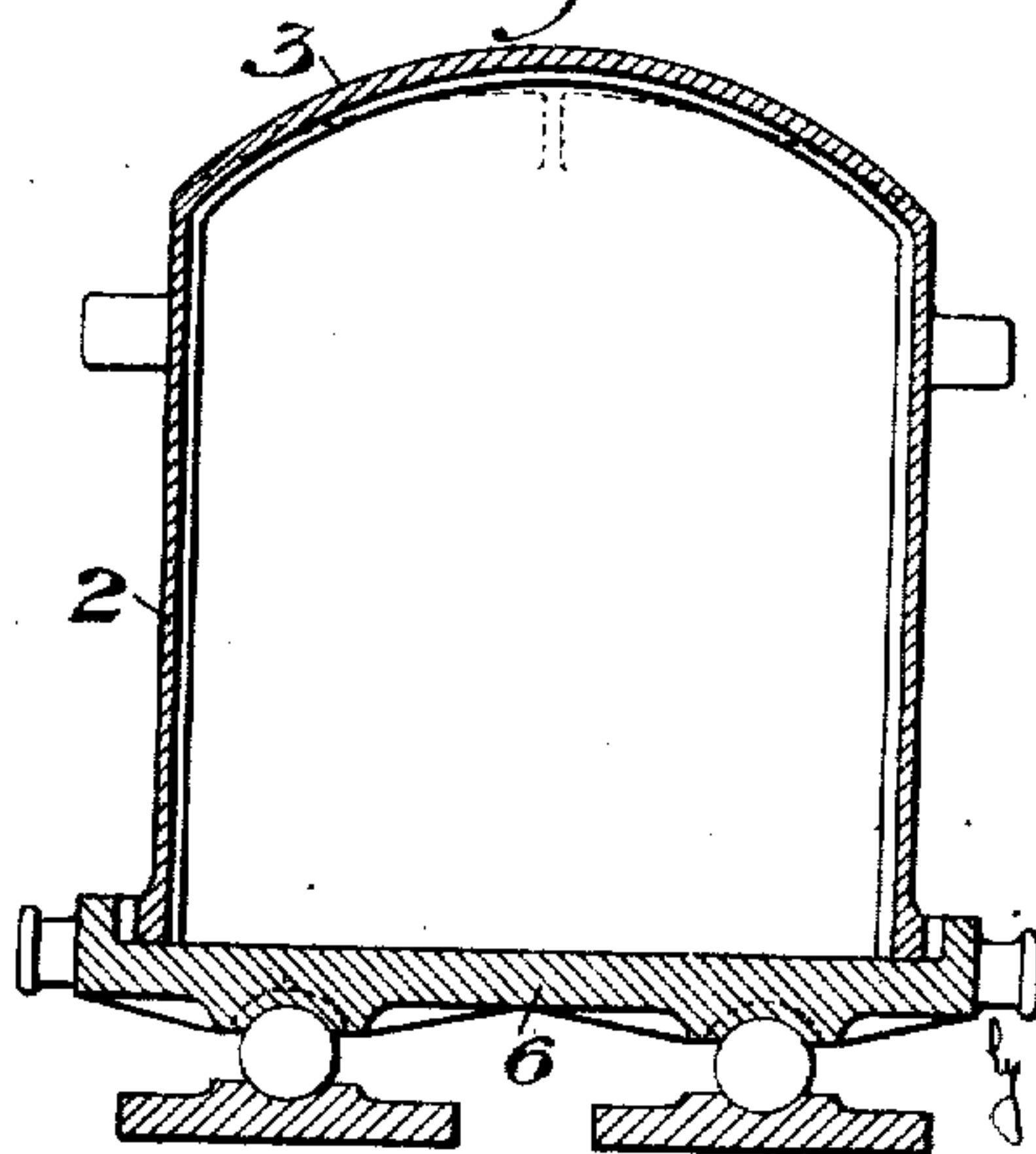


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

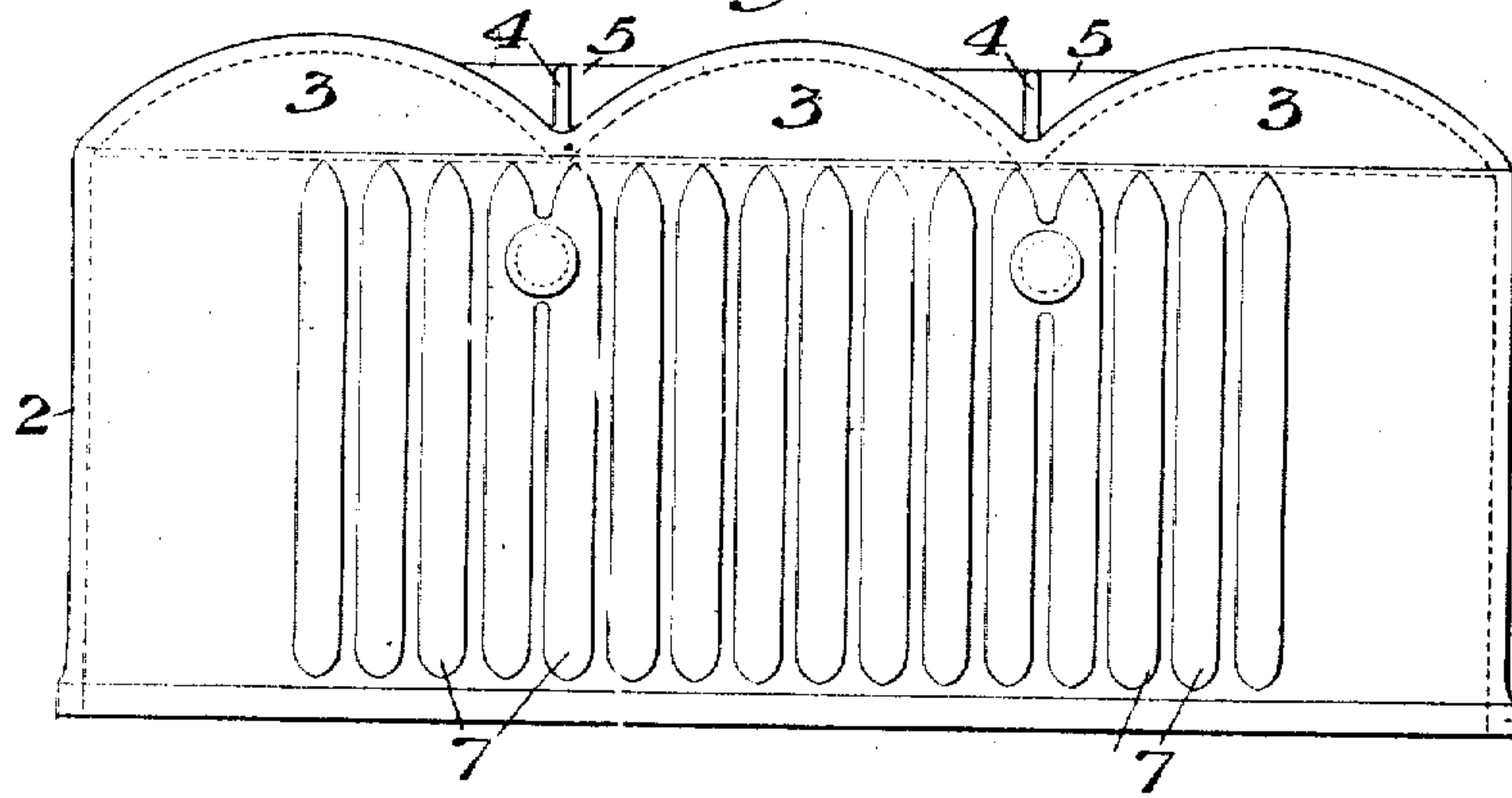


Fig. 5.

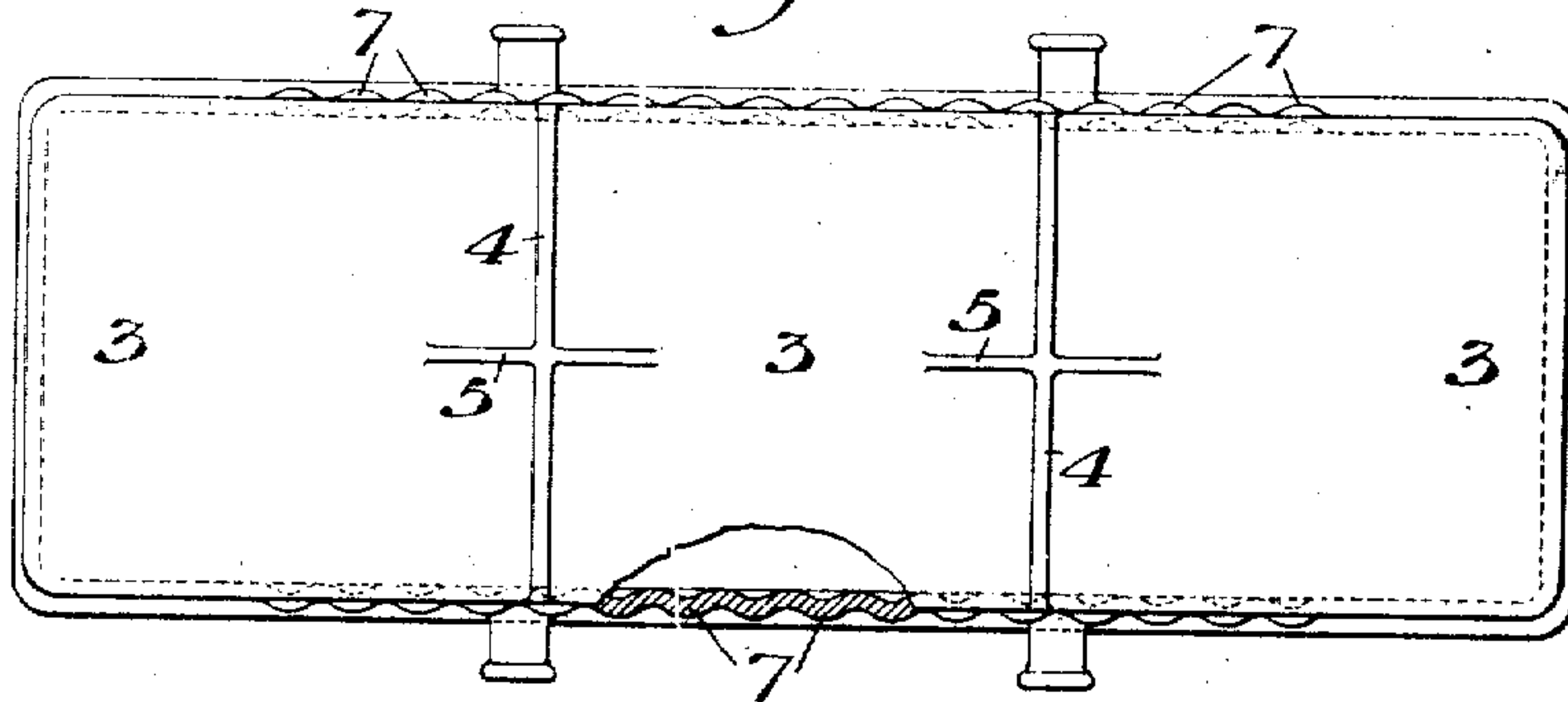


Fig. 6.

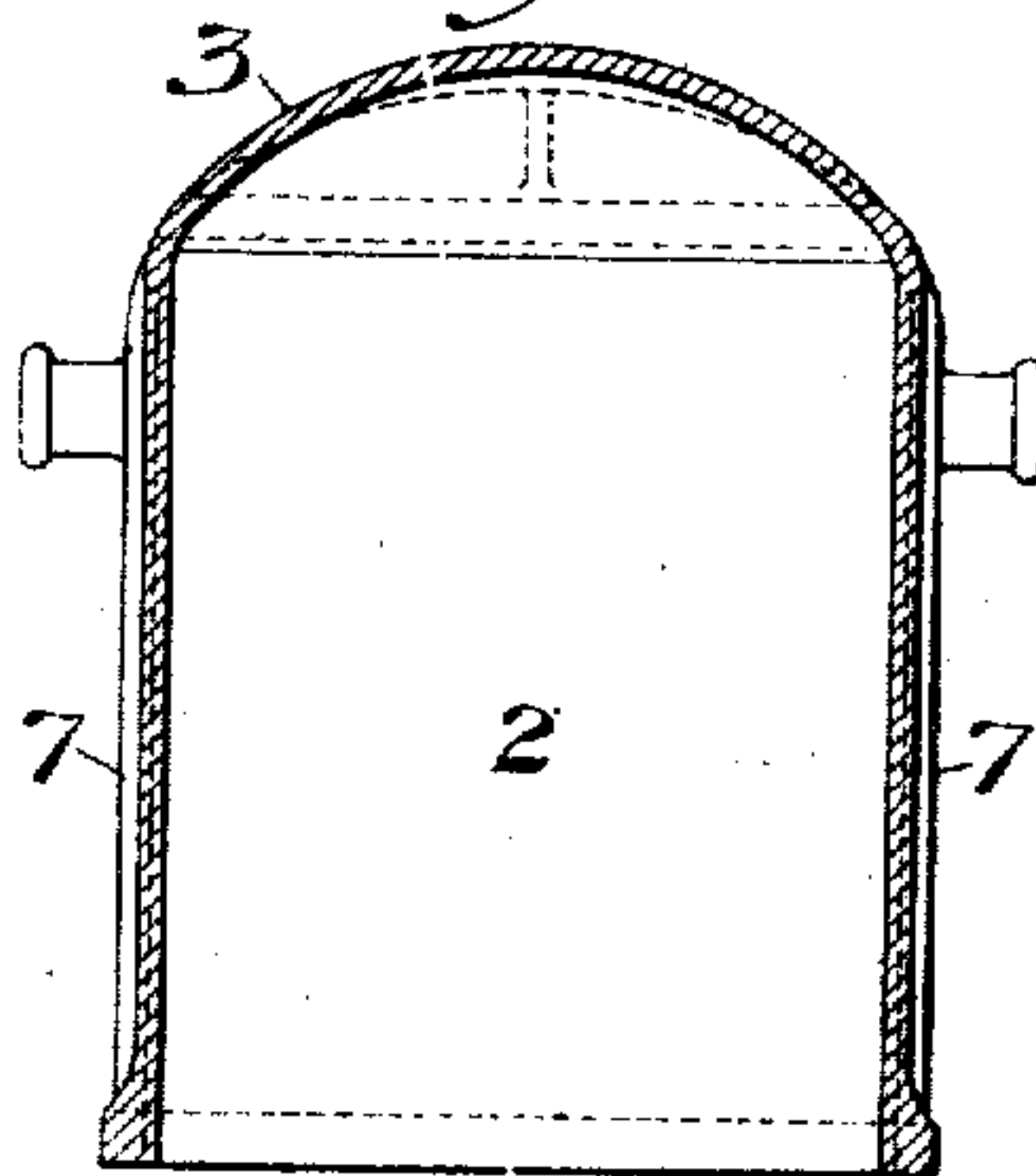
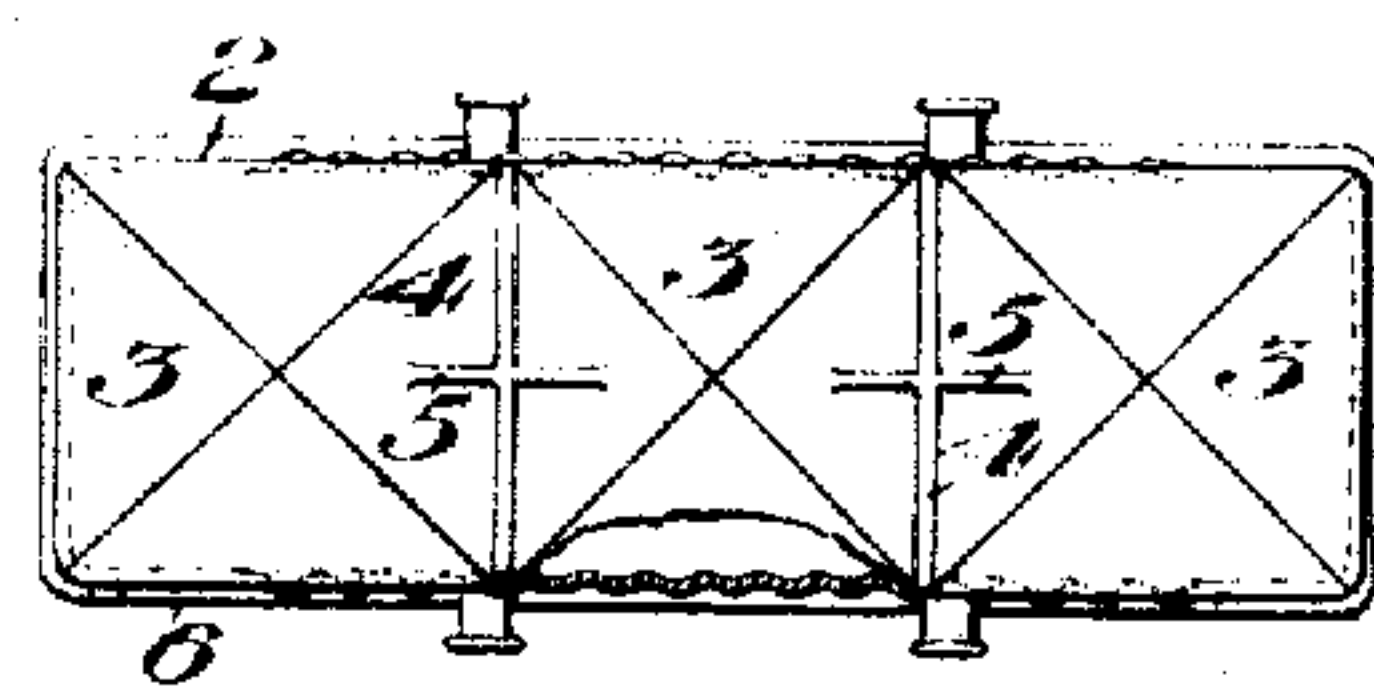


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANK CORDES, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO UNITED ENGINEERING & FOUNDRY COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

ANNEALING-BOX.

No. 910,908.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Application filed June 13, 1908. Serial No. 438,320.

To all whom it may concern:

Be it known that I, FRANK CORDES, of Pittsburg, Allegheny county, Pennsylvania, have invented a new and useful Improvement in Annealing-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of one form of annealing box embodying my invention; Fig. 2 is a top plan view of the same; Fig. 3 is a vertical section; and Figs. 4, 5 and 6 are views which are respectively similar to Figs. 1, 2 and 3, but which illustrate a modification, Fig. 5 being also partially broken away. Fig. 7 is a plan view partially broken away showing another modification.

My invention has relation to annealing boxes, and is designed to provide a novel construction of box adapted to withstand the severe heat to which it is subjected in service, and which by reason of its peculiar construction as hereinafter described, will be more durable in service than the boxes heretofore used.

To this end my invention comprises a box which is cast in a single, integral piece, preferably of steel, and which has its top arranged in the form of a series of arched domes of such form as to be self-supporting.

A further feature of the invention consists in corrugating those portions of the sides of the box which are most likely to give away in service.

Referring first to the form of box shown in Figs. 1, 2 and 3, the numeral 2 designates the body of the box, which is cast in a single, integral piece, consisting of side and end portions and having a closed, integral top composed of a series of domes 3. These domes are in the nature of groined arches, being arched in both directions as shown, thus forming a dome which is self-supporting against any tendency to collapse. The top may be further strengthened by means of the exterior ribs 4, which act as inverted trusses. These ribs are placed between adjacent arches, and extend transversely of the box with lateral branches 5, which join the adjacent exterior walls of the arches.

6 designates a separate base or support for the box.

In the form of my invention shown in

Figs. 4, 5 and 6, the top of the box consists of a plurality of simple transverse arches. The central portions of the side walls of the box are also corrugated as indicated at 7. This corrugation gives additional strength to the sides of the box, and is applied to the central portions, which are the portions which are most likely to give away in service. Fig. 7 shows a plan view of the box in which the sides are corrugated and the top is formed by groined arches or domes similar to those shown in Figs. 1 and 2. While I prefer to employ these corrugated sides in connection with the domed arrangement of the top as shown, yet this feature may be applied with advantage to any form of box having a different design for its top.

While I have shown the boxes as having three domes or arches, I do not limit myself thereto, as the top of the box may have only two of the domes or arches, or more than three.

I claim:

1. An annealing box formed as an integral casting, and having its top portion formed into a plurality of groined arches or domes; substantially as described.

2. A cast steel annealing box having an integral top formed by a plurality of domes, and having exterior supporting ribs or trusses intermediate the domes; substantially as described.

3. A cast steel annealing box, having an integral top formed by a plurality of domes, and exterior strengthening ribs or trusses extending transversely of the box and intermediate the domes, said ribs or trusses having longitudinal branches joining adjacent domes; substantially as described.

4. An integral cast metal annealing box having its top formed by a plurality of domes; substantially as described.

5. An integral cast metal annealing box having its top formed by a plurality of domes and having the central portions of its sides formed with vertical corrugations, substantially as described.

6. A cast steel annealing box having the central portions of its sides vertically corrugated and its top formed by a plurality of groined arches; substantially as described.

7. A cast metal annealing box having an integral top formed by a plurality of groined arches or domes and having portions of its

sides formed with vertical corrugations, substantially as described.

8. A cast metal annealing box having an integral top formed by a plurality of arches,
5 and exterior strengthening ribs extending transversely of the top intermediate adjacent arches; substantially as described.

In testimony whereof, I have hereunto set my hand.

FRANK CORDES.

Witnesses:

GEO. B. BLEMING,
GEO. H. PARMELEE.