

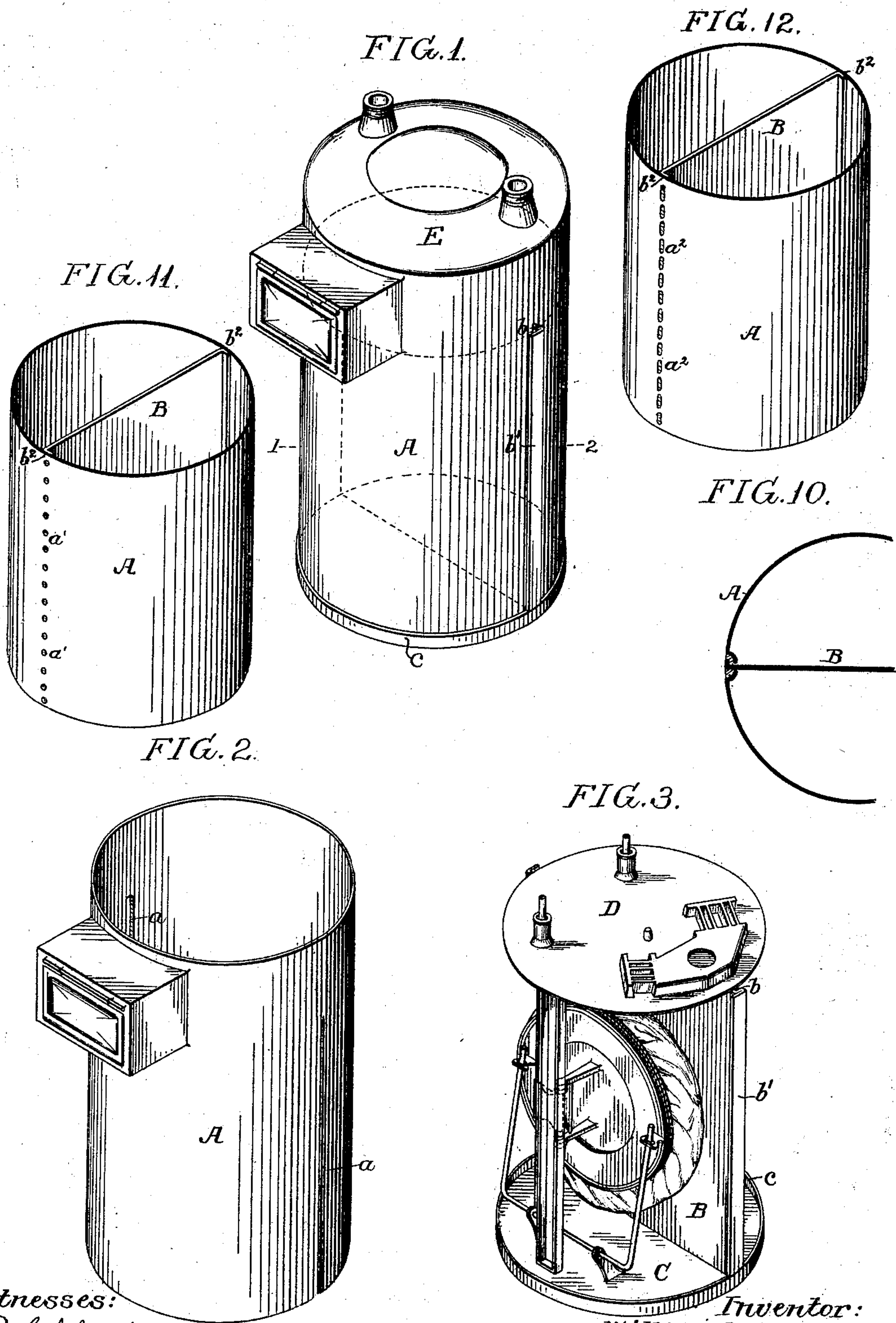
(No Model.)

W. N. MILSTED.
GAS METER CASING.

2 Sheets—Sheet 1.

No. 505,715.

Patented Sept. 26, 1893.



Witnesses:
R. Schleicher
J. R. Goodwin

Inventor:
William N. Milsted
by his Attorneys
Howson & Howson

(No Model.)

2 Sheets—Sheet 2.

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FIG. 5.

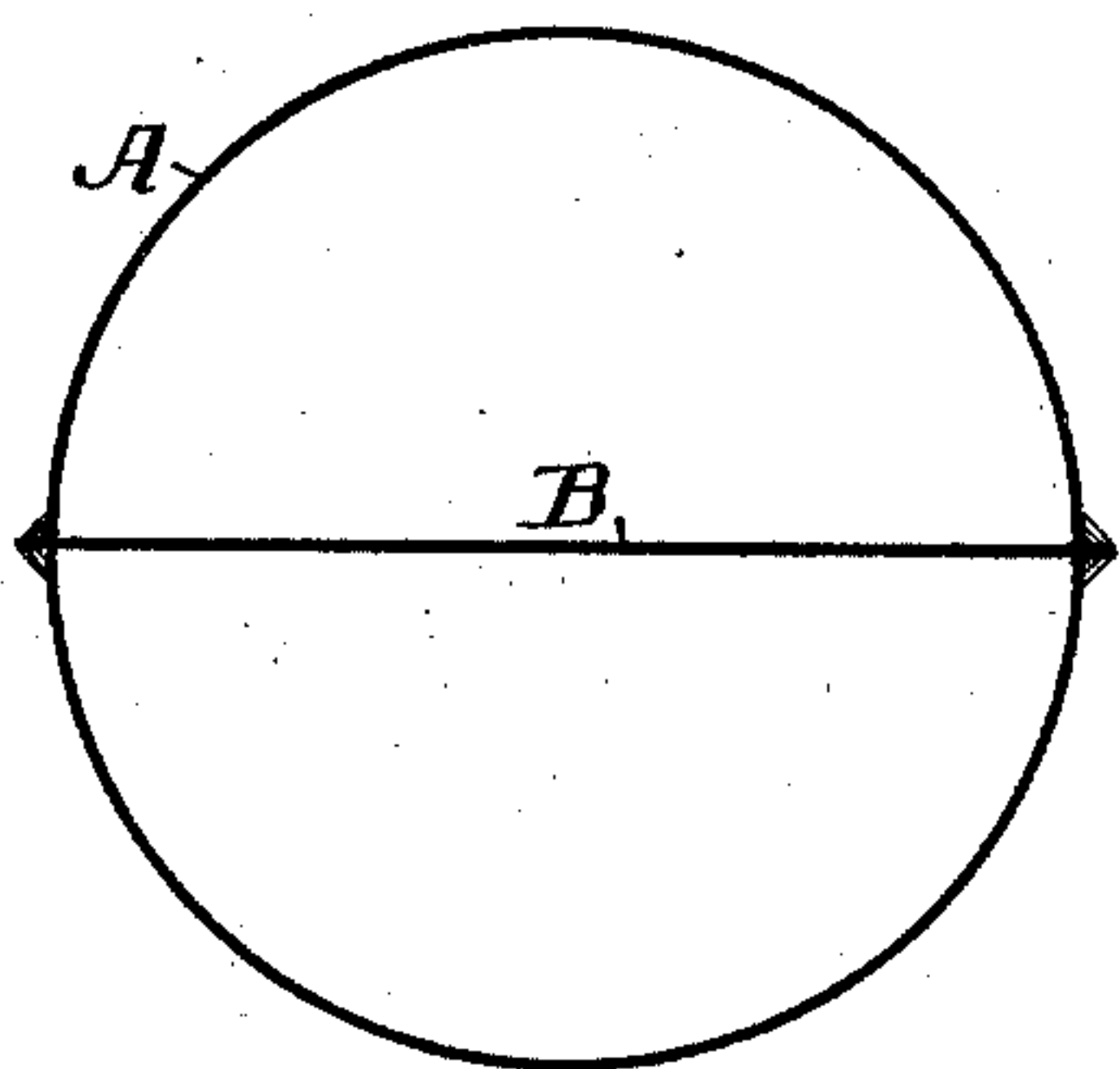


FIG. 6.

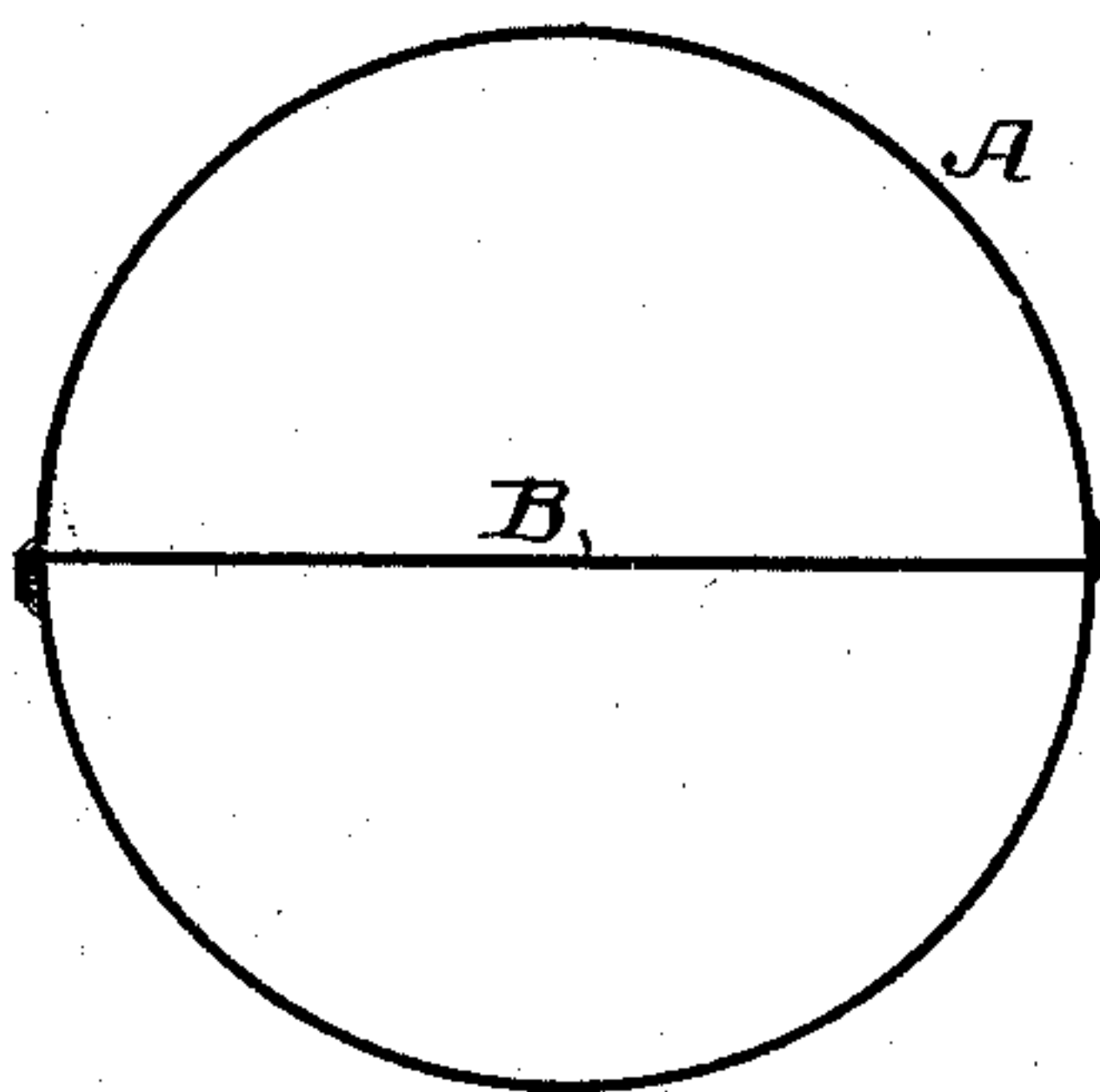


FIG. 4.

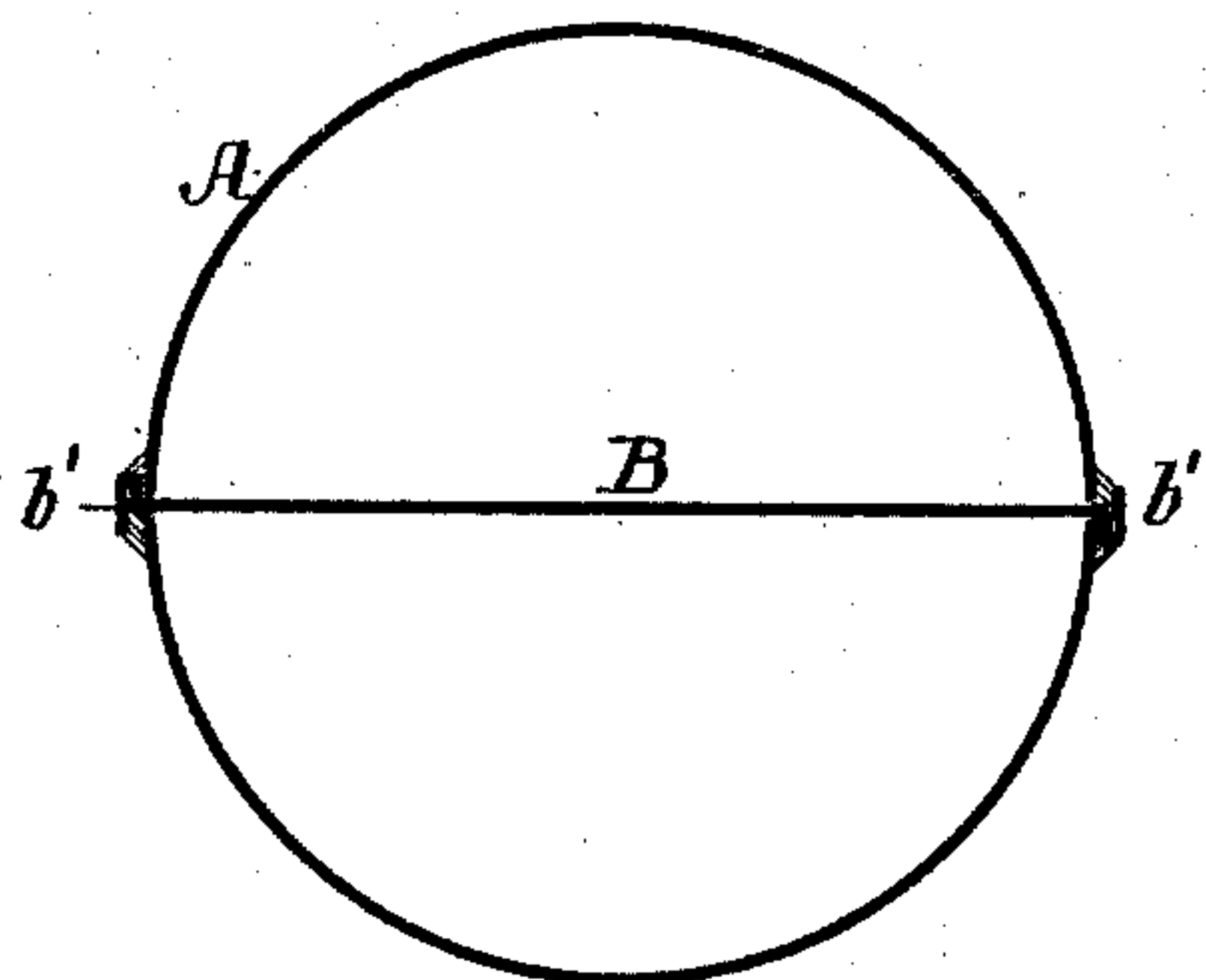


FIG. 7.

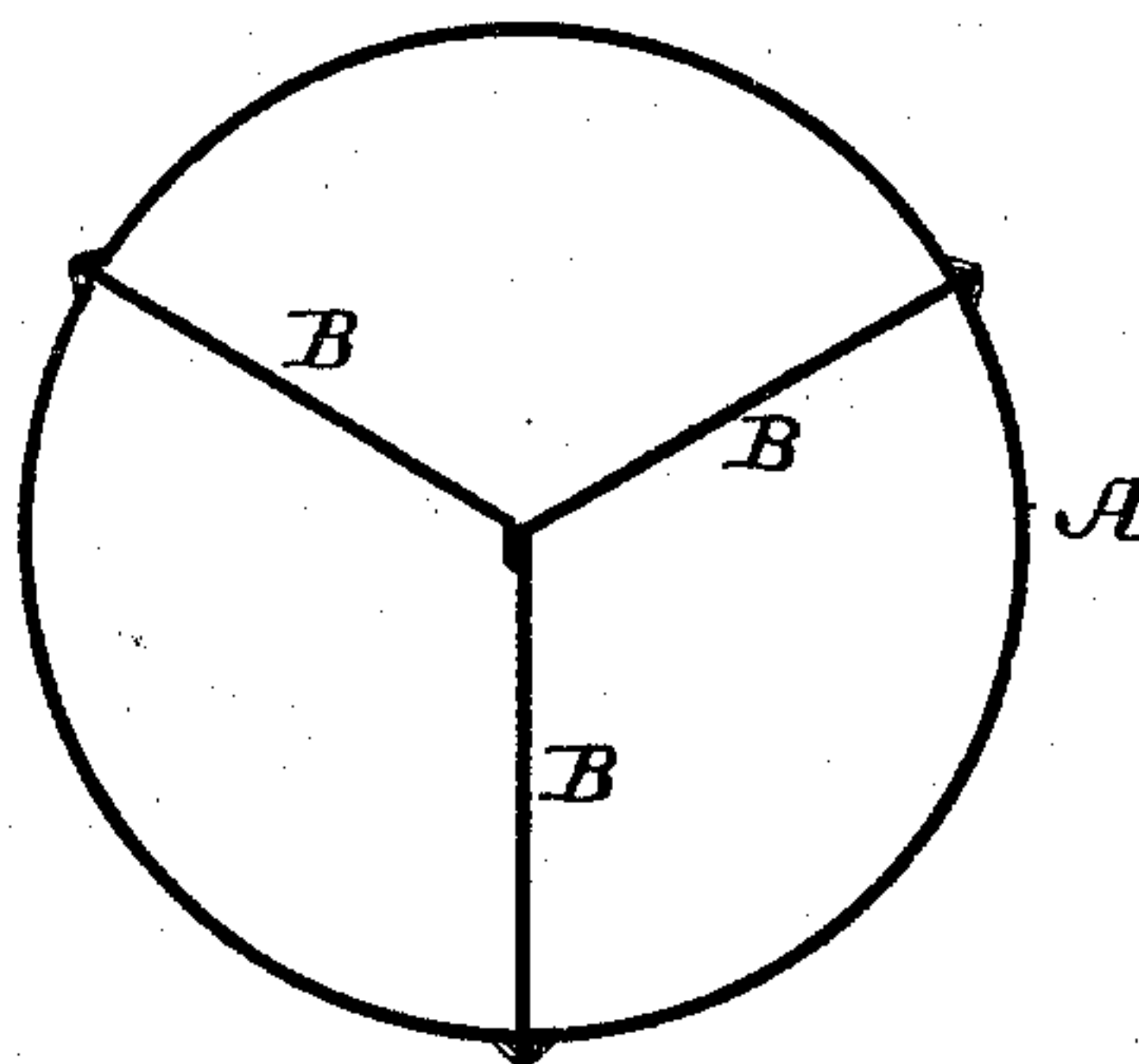


FIG. 9.

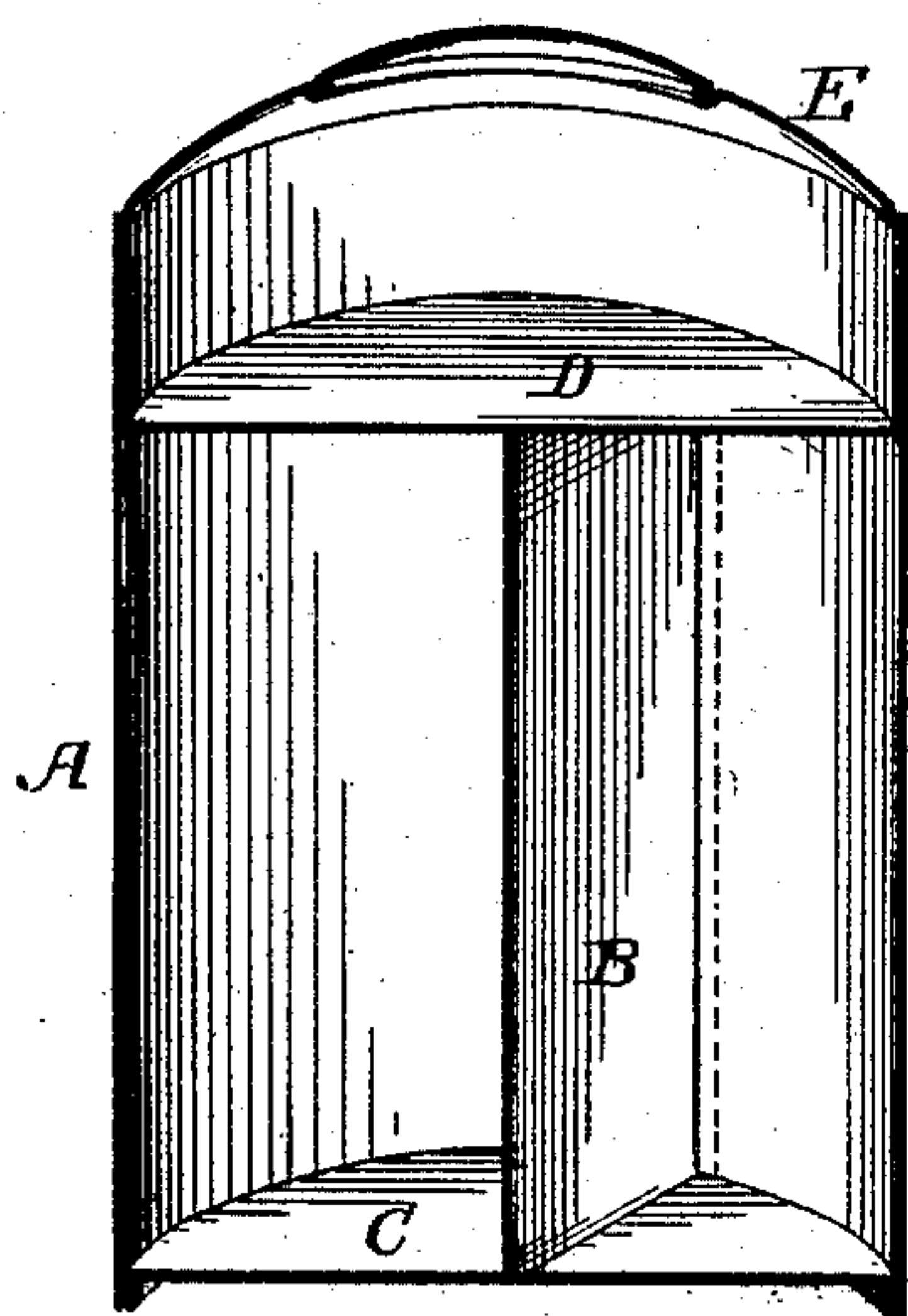
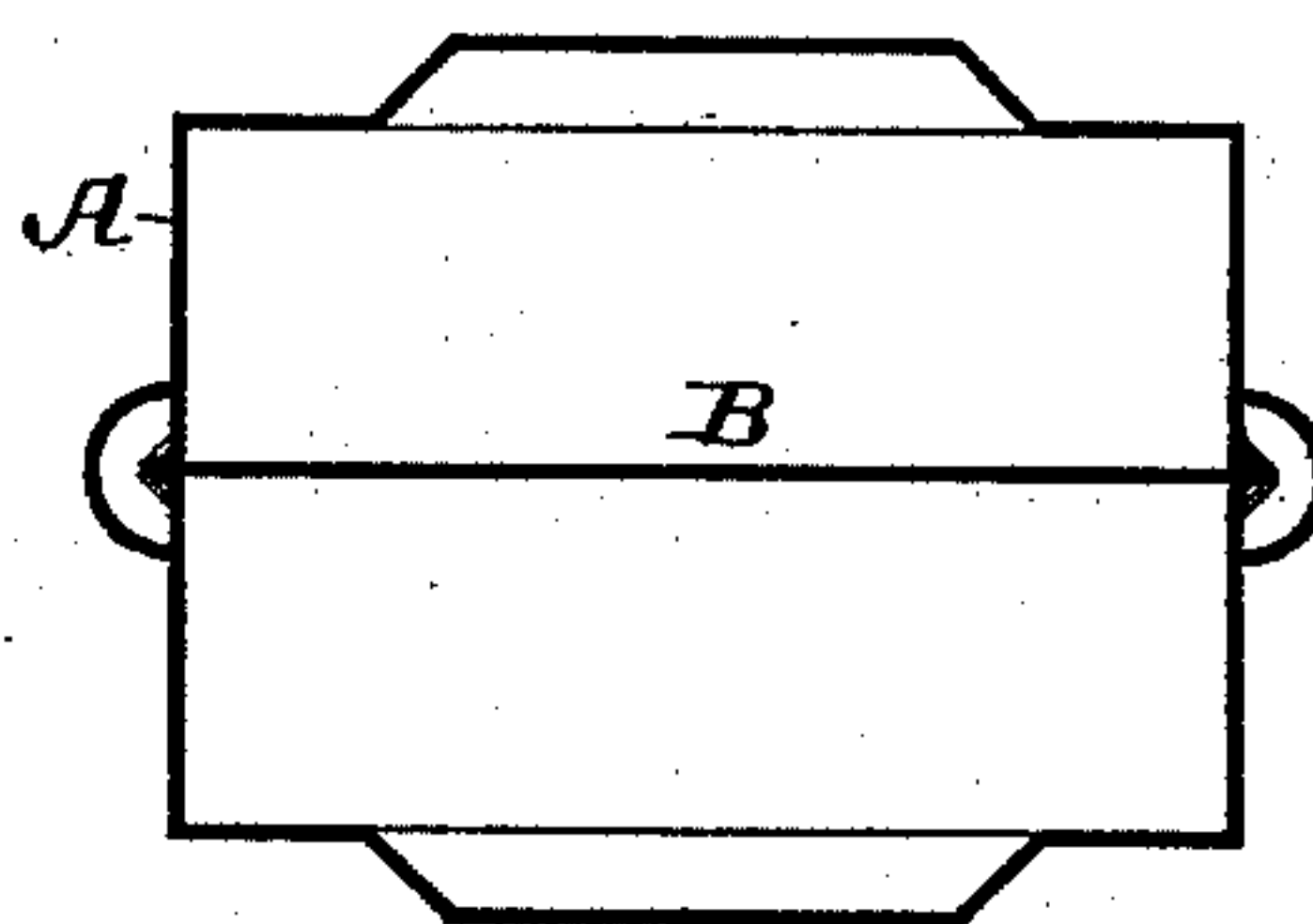


FIG. 8.



Witnesses:
R. Schlicher
P. H. Goodwin

Inventor:
William N. Milsted
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

WILLIAM N. MILSTED, OF NEW YORK, N. Y.

GAS-METER CASING.

SPECIFICATION forming part of Letters Patent No. 505,715, dated September 26, 1893.

Application filed September 14, 1892. Serial No. 445,890. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. MILSTED, a citizen of the United States, and a resident of New York, State of New York, have invented certain Improvements in Gas-Meters, of which the following is a specification.

The object of my invention is to improve the construction of gas meters, my invention relating especially to the construction of the casing and the permanent parts of the meter to which the working parts are attached.

In the accompanying drawings:—Figure 1, is a perspective view of a meter illustrating my invention, with a box attached containing the ordinary registering mechanism. Fig. 2, is a detached perspective view of the casing without the heads or internal partitions. Fig. 3, is a detached perspective view of one of the heads, the transverse partition, and the table, with some of the working parts carried thereby. Fig. 4, is a sectional plan view on the line 1—2, Fig. 1, all working parts being omitted; and Figs. 5 to 12, are views illustrating modifications of my invention.

The main object of the present invention is to dispense with packing and to permit the main joints to be soldered from the outside of the casing.

Referring to Figs. 1 to 4 of the drawings, A is the casing which may be quadrangular or cylindrical as desired and in the sides of said casing are two vertical slots *a*, for the reception of the vertical partition plate B, the ends *b b* of which extend through the slots. The partition plate B, as shown in Fig. 3, is preferably secured to the bottom head C and to the table D upon which are mounted the valves of the meter.

As shown in Figs. 1 and 3, the bottom plate C has a flange *c* which overlaps the bottom of the casing A and the ends *b b* of the partition B are bent over as shown in Fig. 4 to form T-flanges *b'*.

When the casing is slipped over the table D and the partition B and into the flanged bottom head C it is ready for soldering, the solder being first applied around the bottom and then up each side where the partition projects through the casing, as clearly shown in Fig. 4, so that the important solder joints are made on the exterior of the casing after the bellows and valves are in position upon

the partition and table. The table is soldered in position before the cap or cover plate E is secured. Hence all the solder joints necessary in a gas proof meter are made after the parts are in their relative positions.

Heretofore it has been a difficult task to stop a leak from one chamber to the other between the edge of the vertical partition plate and the casing after the meter was put together, but by the construction described such leaks may be stopped both cheaply and expeditiously without taking the meter apart.

The partition in some instances may simply extend through the slotted casing, as shown in Fig. 5, projecting enough to provide for a solder joint on each side of the casing.

In Fig. 6 I have shown the partition plate provided with a simple L-flange instead of the T-flange shown in Fig. 4, and in Fig. 10 I have shown such partition combined with a casing recessed at the opposite sides for the reception of the flanges so that the solder joints do not form projections on the sides of the casing, while in Fig. 7 I have shown a meter divided so as to use three diaphragms, it being understood that the meter may have as many divisions as desired, without departing from my invention.

In Fig. 8 I have shown my invention as applied to a quadrangular meter, and in Fig. 9 I have shown a vertical sectional view of a meter in which the bottom head is inserted within the casing with the flange turned downward to facilitate riveting the two together or the flange may be turned upward if desired.

In that class of meters where the gas conveying pipes are at the sides of the meter casing instead of passing through the top, as shown in Fig. 1, said pipes may incase and protect the joints between the partition plate and casing, as shown in Fig. 8, so that any gas which escapes through the slots owing to defective soldering will simply pass into the tubes.

It is not necessary that the ends of the partition should in all cases project through the slots in the casing, or even that the casing should be slotted throughout the length of the partition, as said partition may have at the ends a flange such as shown for instance at *b'* in Fig. 11, such flange closing either a slot, or a row of perforations *a'* as in Fig. 11,

or a row of elongated openings α^2 as in Fig. 12, the soldering of the partition to the casing being effected by solder introduced from the outside through such slots, perforations, or openings.

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

10 1. The combination of a meter casing having openings in its sides with an internal partition plate, having its side edges exposed through said openings, and secured to the casing by solder, externally applied, substantially as specified.

15 2. The combination of the meter casing having slots in its sides, with a partition plate separating the casing into two or more compartments and projecting through the slots, said projecting portions being secured to the casing by external solder joints, substantially as described.

20 3. The combination of the meter casing having slots in its sides, a partition plate dividing the casing into two or more compartments and having portions projecting through the slots in the casing and provided with external flanges soldered to the casing, substantially as specified.

4. The combination of a casing having openings in its opposite sides with a partition plate or plates, the side edges of which are exposed through the openings, said partition plate or plates dividing the casing into two or more compartments, a table mounted on said partition plate and a bottom-head secured to the lower edge of the partition, the latter with its table and bottom edge, being attached to the casing by solder, substantially as described.

5. The combination of the casing having openings in its sides, and the partition plate dividing the casing into two or more compartments and secured to said casing by externally applied solder, with strips of metal soldered at their edges to the outside of the casing on each side of the partition joints, so as to form channels or pipes for conveying gas to or from the meter and concealing and protecting the partition joints, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM N. MILSTED.

Witnesses:

HENRY HOWSON,
JOSEPH H. KLEIN.