

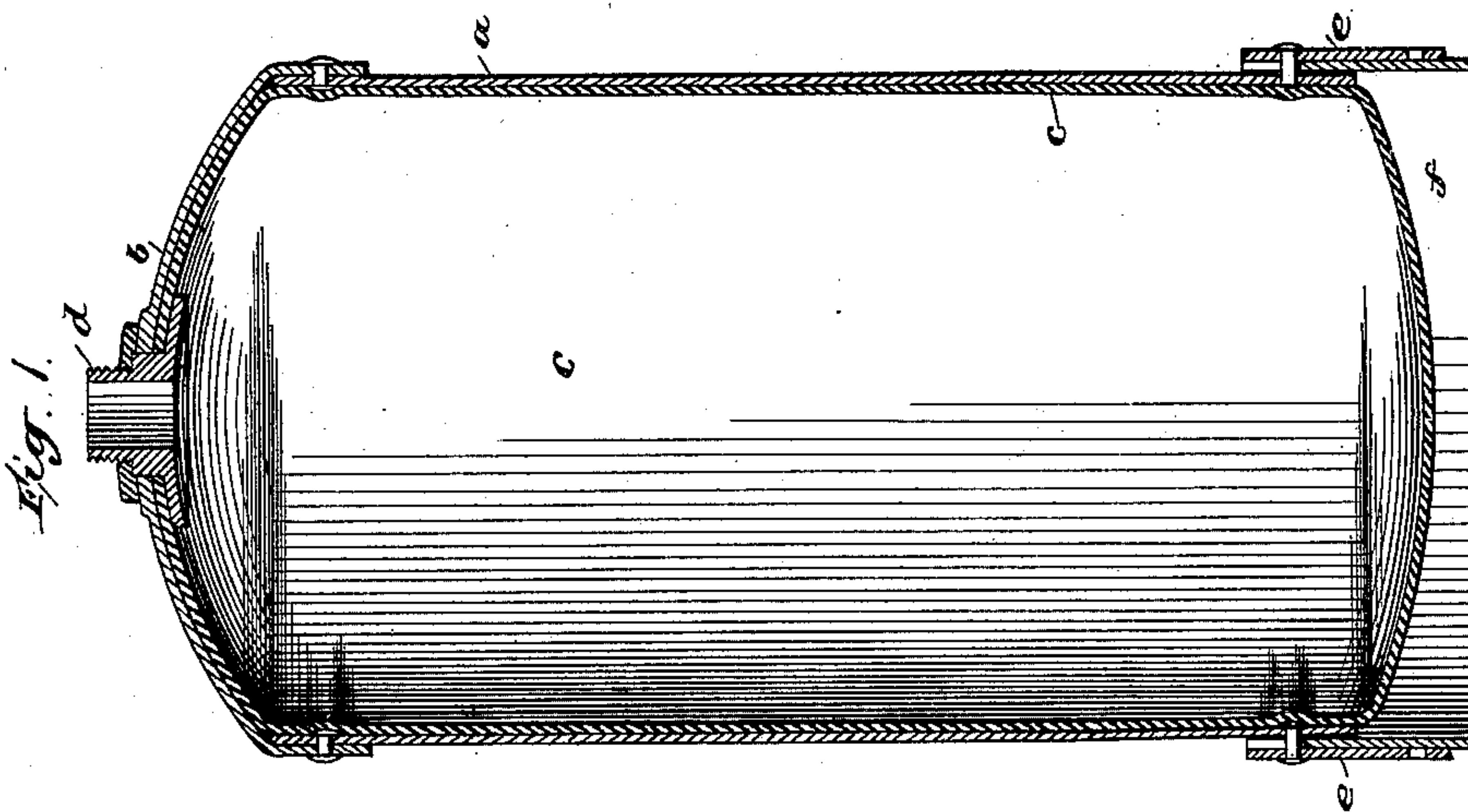
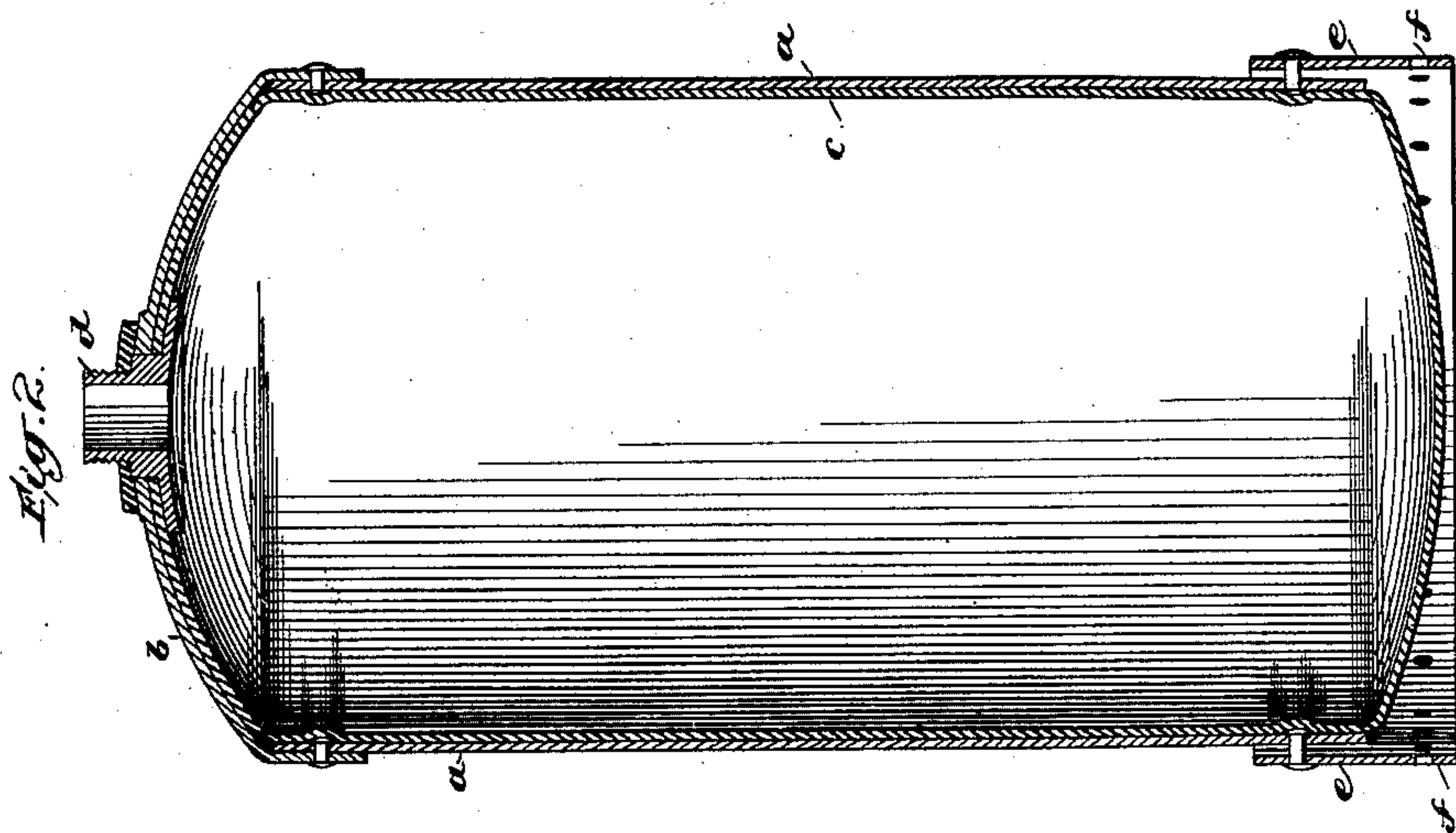
(No Model.)

2 Sheets—Sheet 1.

C. S. MÜLLER.  
BOTTOM FOR VESSELS.

No. 351,707.

Patented Oct. 26, 1886.



Witnesses:

*Geo. H. Botts*  
*Arthur C. Webb*

*Inventor:*  
*Charles S. Müller*  
*By Ernest C. Webb*  
*Atty.*

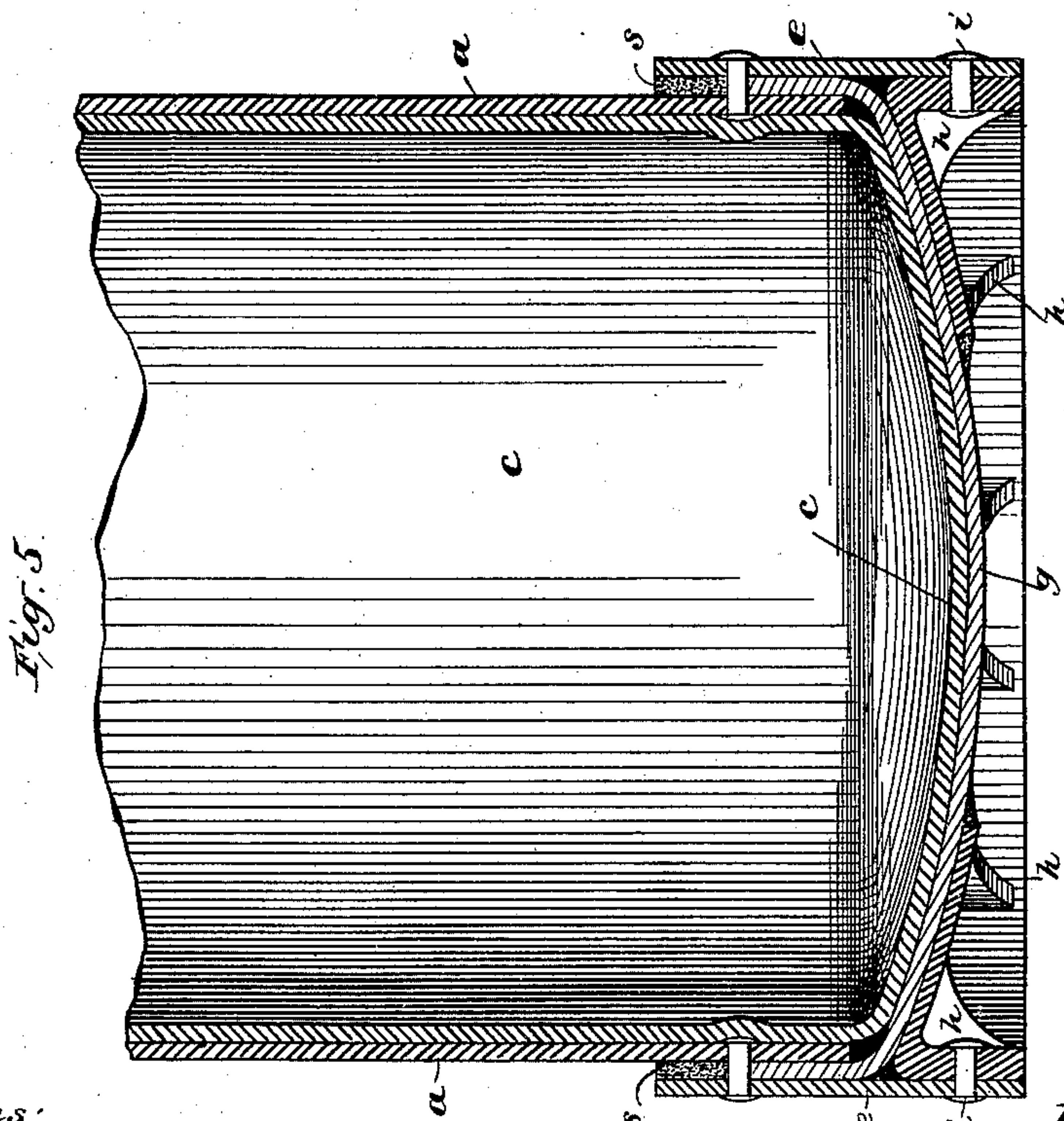
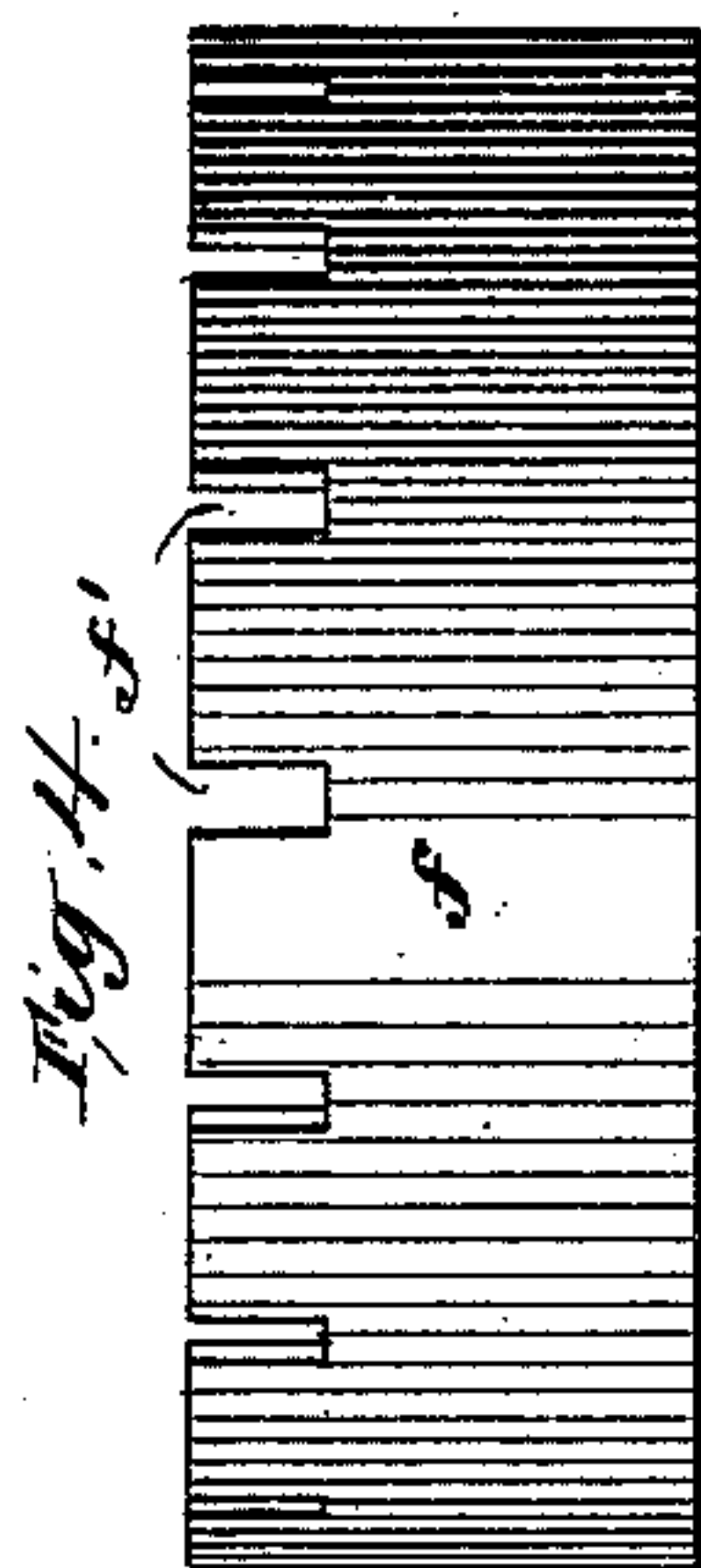
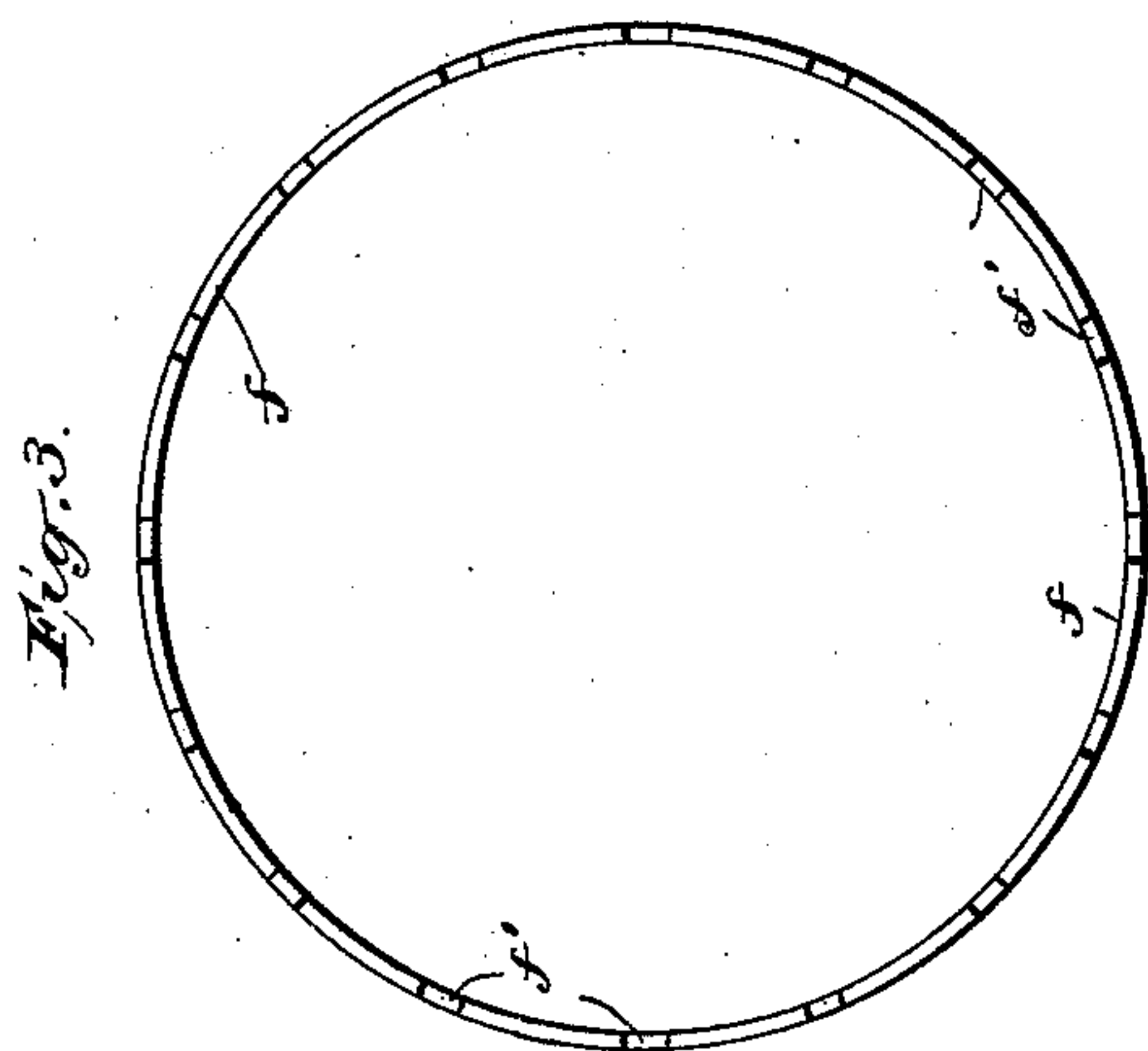
(No Model.)

2 Sheets—Sheet, 2.

C. S. MÜLLER.  
BOTTOM FOR VESSELS.

No. 351,707.

Patented Oct. 26, 1886.



Witnesses:  
Geo. H. Bots  
Arthur C. Webb

Inventor:  
Charles S. Müller  
By  
Ernest C. Webb  
Atty.



# UNITED STATES PATENT OFFICE.

CHARLES S. MÜLLER, OF BROOKLYN, ASSIGNOR TO THE IRON CLAD MANUFACTURING COMPANY, OF NEW YORK, N. Y.

## BOTTOM FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 351,707, dated October 26, 1886.

Application filed December 3, 1885. Serial No. 184,638. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES S. MÜLLER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a certain new, useful, and Improved Bottom for Vessels, of which the following is a full, clear, and exact description.

The object of this invention is to provide a strong and durable bottom for vessels used for containing liquids of various sorts, but more especially as fountains for aerated beverages.

The invention consists in certain novel features in the construction and arrangement of a re-enforced bottom, as I will now proceed to particularly set forth and claim.

In the accompanying drawings, in which like parts are designated by similar letters of reference, Figure 1 is a vertical longitudinal section of a soda-water fountain, illustrating one of the first steps in my invention. Fig. 2 is a similar view with this step completed. Fig. 3 is a top view, and Fig. 4 a side elevation, of a device employed in holding the bottom hoop in position during the riveting; and Fig. 5 is a vertical longitudinal section, on a larger scale, of the lower part of a fountain finished according to my invention.

For convenience of description I have shown my invention as applied to a soda-water fountain; but I do not thereby limit its applicability.

The outer cylinder, *a*, the head *b*, the lining *c*, and bung *d* may be all as usual.

*e* is the bottom hoop, which is of greater diameter throughout than the cylinder *a*, so as to leave a space between the two, and which may be of slightly less diameter at its upper end than at its lower end to contract this space at its upper end. This hoop is riveted to the cylinder *a* before the lining *c* is introduced, and with a ring or hoop, *f*, interposed between the cylinder and hoop *e*, said ring *f* being of the thickness of the difference between the diameters of the hoop *e* and cylinder *a*, so that while said hoop *e* and cylinder are riveted together their surfaces do not come in contact. The ring *f*, as seen in Figs. 3 and 4, is provided

with a series of notches, *f'*, equal in number to the number of rivets employed in connecting the hoop *e* and cylinder *a*. Fig. 1 shows said ring *f* in position for riveting on the hoop *e*, and Fig. 2 shows said hoop riveted onto the cylinder and the ring *f* withdrawn. After the hoop *e* has been riveted, the lining is introduced, and then a cup-shaped bottom, *g*, (see Fig. 5,) is applied, its upper edge terminating at the rivets and entering the space between the hoop *e* and cylinder *a*. After this bottom is in position, a bottom-support, *h*, of suitable construction is applied and secured to the hoop *e* in any suitable manner, and then the space between hoop *e* and cylinder *a* is filled with solder, as indicated at *s*, Fig. 5, and the several parts firmly sweated together in any of the usual ways applicable to the work in hand.

The bottom-support which I prefer, and which I have herein shown, is covered in Letters Patent No. 272,590, dated February 20, 1883. I prefer to use rivets *i* in connecting the bottom-support and hoop *e*, and I arrange this bottom-support in immediate contact with the bottom *g*, so that said bottom *g* is braced between its support and the rivets used to connect the hoop *e* and cylinder *a*. This construction, supplemented by the solder and sweating, makes practically a solid bottom for the vessel.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the body of a vessel, of a hoop secured to the same by rivets, with an intervening space between the body and hoop, a bottom proper, with its peripheral edge in the space between the hoop and body and secured by solder applied in such space and sweated, and the bottom-support attached to the hoop close up against the bottom, substantially as described.

In testimony whereof I have hereunto set my hand this 2d day of December, A. D, 1885.

CHARLES S. MÜLLER.

Witnesses:

ARTHUR C. WEBB,  
CHARLES A. GUIBERT.