(No Model.) 2 Sheets—Sheet 1.

F. RHIND.

BAROMETRIC RESERVOIR.

No. 386,657. Patented July 24, 1888.

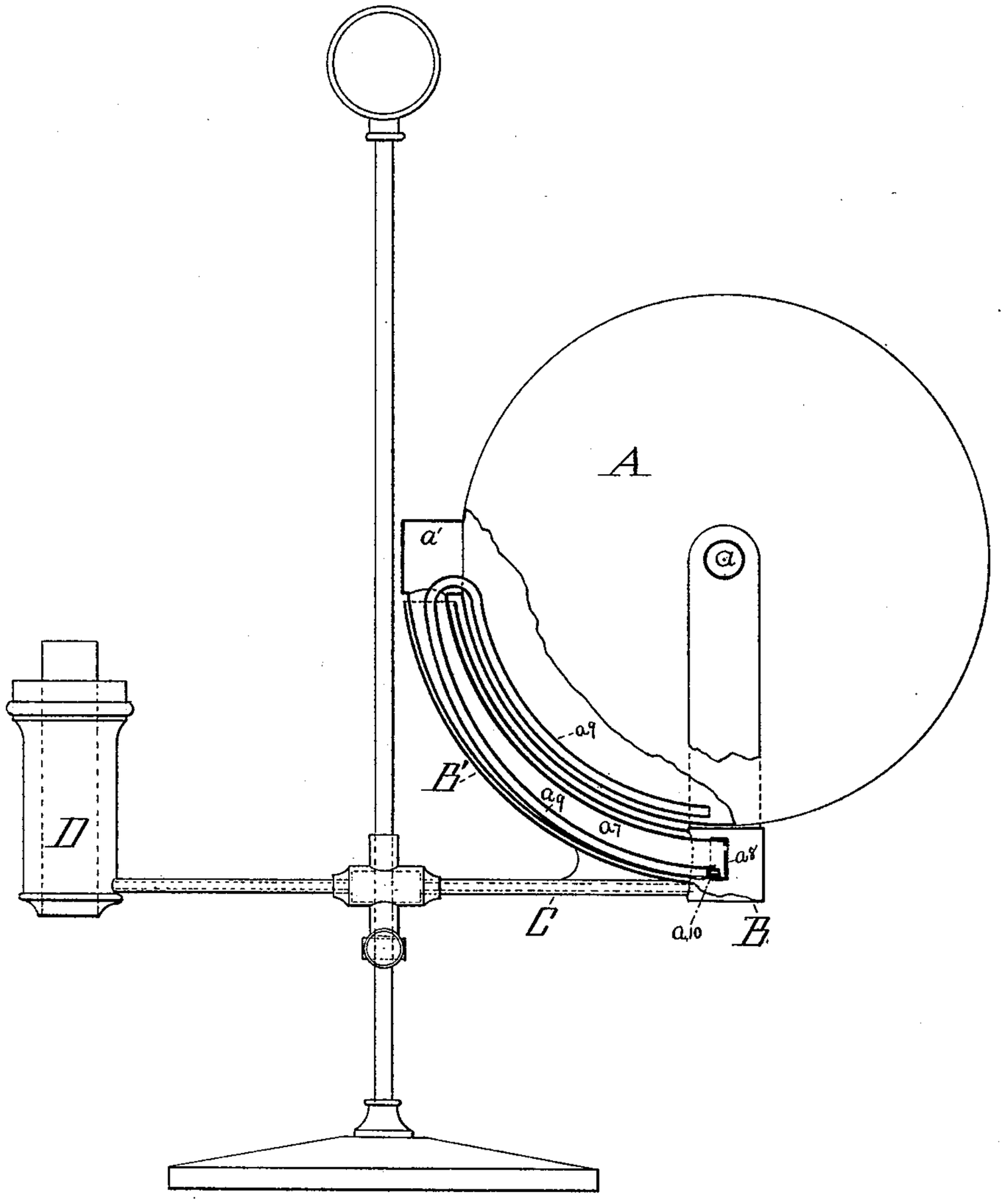

Fig. 1.

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S. J. Roby.
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Frank Rhind.
INVENTOR.
per Geo. L. Cooper. Atty.

(No Model.) 2 Sheets—Sheet 2.

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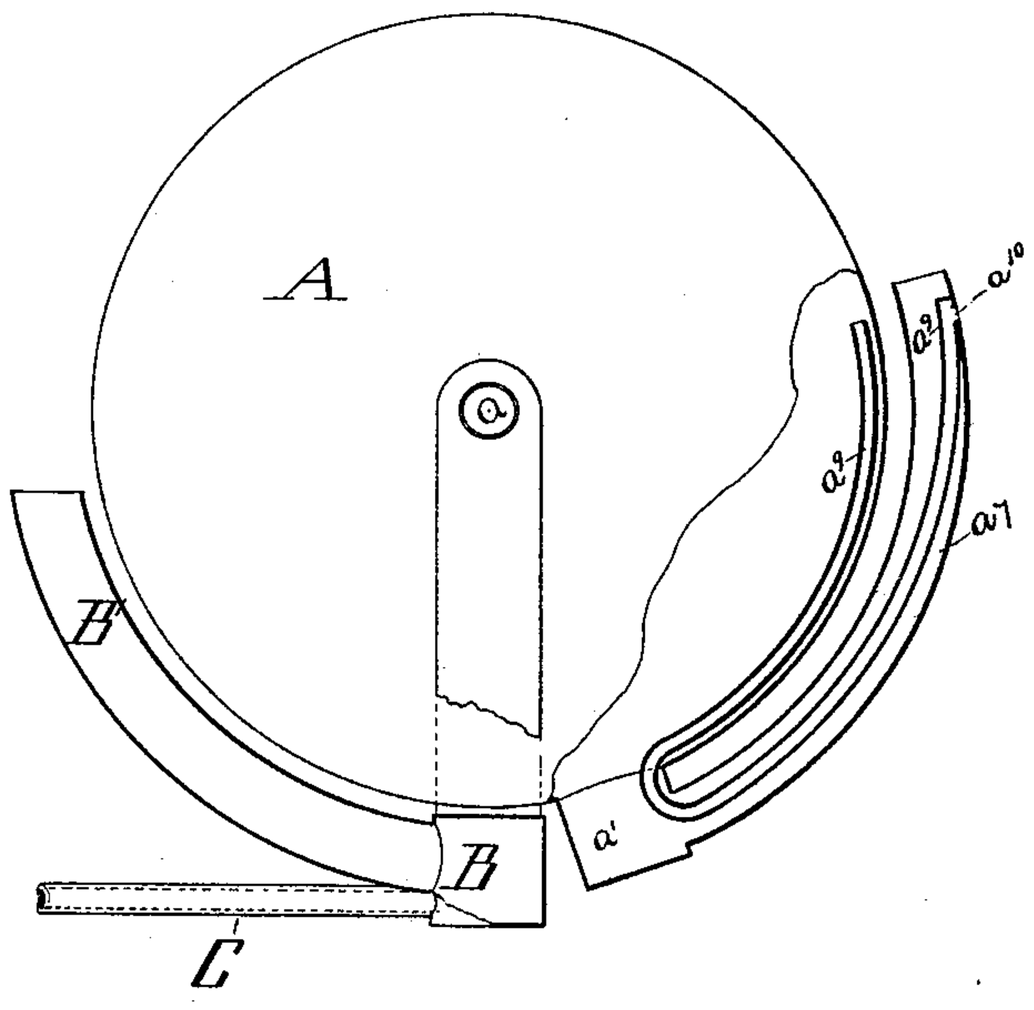
Fig. 2



Witnesses.

S. L. Roby,

E. B. Hawley.

Frank Rhind.

INVENTOR.

per Geo. L. Cooper. Atty.

UNITED STATES PATENT OFFICE.

FRANK RHIND, OF MERIDEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO EDWARD MILLER & COMPANY, OF SAME PLACE.

BAROMETRIC RESERVOIR.

SPECIFICATION forming part of Letters Patent No. 386,657, dated July 24, 1888.

Application filed July 23, 1887. Serial No. 245,096. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Meriden, county of New Haven, and State of Connecticut, have invented an Improvement in Barometric Reservoirs, of which the following is a specification.

My invention relates to that class of reservoirs which has a single opening from which, when the reservoir is in its normal position, the contained liquid is discharged, and through which the reservoir, when inverted, may be filled.

In the accompanying drawings, Figure 1 is represents a study-lamp embodying my improvement partly broken away to show the interior mechanism. Fig. 2 is a portion of the same lamp, also partly broken away and with the oil-fount in a nearly-inverted position.

Similar letters refer to like parts in both views.

A designates an oil fount or reservoir; a, a trunnion or hub on which the reservoir A may rotate; a', a stop by which such rotation is limited; a^7, a circumferential tube connected at one end with the reservoir A; a^8, a removable plug or cap at the other end of the tube a^7; a^9, a siphon-shaped tube partly within the reservoir A; a^{10}, a removable plug or cap at the outer end of the tube a^9; B, a frame or shell supporting the reservoir A; B′, an arc-shaped tube connected with the frame or shell B; C, a connecting-tube leading from the frame or shell B to the burner-tube D. The form of my invention illustrated in the drawings is constructed and operated as follows:

The frame B is provided with a tube, B′, bent to the form of an arc of a circle slightly larger than the circumference of the globular reservoir or fount A. The fount A is provided with an opening surrounded by a neck or collar, a', which, striking against the upper end of the tube B′, acts as a stop to limit the rotation of the fount A. Connected with this opening in the fount A is a tube, a^7, bent to a curve substantially concentric with the fount A and of a size to pass freely into the guard-tube B′. The tube a^7 is provided with a plug or cap, a^8, preferably screw-threaded and pierced by a small hole. Partly within the tube a^7 and partly within the fount A is a small siphon-shaped tube, a^9, open at its inner end in the fount A, and preferably closed at its outer end by a removable plug, a^{10}. An opening is made in the tube a^9 near the plug a^{10}, and on that side of the tube a^9 which is next the side of the tube a^7.

When the fount A, as shown in this construction, is inverted or turned to the position shown in Fig. 2, the plug or cap a^8 may be removed, as is shown in Fig. 2, and the fount filled with oil through the tube a^7, the contained air escaping after the oil has reached the level of the top of the opening at a' through the tube a^9. The plug a^8 is then replaced and the fount A returned to its normal position, the tube a^7 passing into the guard-tube B′. The oil then flows through the tube a^7 and through the opening in the plug a^8, as in the ordinary study-lamp, until the level in the fount sinks to the lower edge of the opening at a'. After this point is reached, the oil flows through the siphon a^9 until the fount A is emptied. The plug a^{10} is inserted in the end of the tube a^9 to prevent the filling of this tube with oil when the fount A is being filled. It is preferably made removable to facilitate the withdrawal of any obstruction which may lodge in the tube a^9.

It is obvious that no part of the siphon a^9 need be within the tube a^7, but that it may be outside of and parallel with said tube.

Instead of or in addition to the plug a^8 the tube a^7 may be provided with a valve of any convenient form. In practice, however, it is found that no oil escapes from the opening in the plug a^8 during the rotation of the fount A until the end of the tube a^7 has reached the end of the tube B′.

I do not desire to be understood as limiting myself to the precise form of construction here shown, as it is obvious that various changes may be made without departing from the spirit of my invention.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination of a barometric reservoir, a frame or shell in which said reservoir is supported so as to be capable of axial revo-

lution, an opening in said reservoir, and an exterior tube attached to said opening, bent to a curve substantially concentric with said reservoir and adapted to carry oil to or from said reservoir, substantially as described.

2. The combination of a barometric reservoir, a frame or shell in which said reservoir is supported so as to be capable of axial revolution, an opening in said reservoir, an exterior tube attached to said opening, bent to a curve substantially concentric with said reservoir and adapted to carry oil to or from said reservoir, and a guard-tube attached to said shell or frame and adapted to receive said tube, substantially as described.

3. The combination of a barometric reservoir, a frame or shell in which said reservoir is supported so as to be capable of axial revolution, an opening in said reservoir, an exterior tube attached to said opening, bent to a curve substantially concentric with said reservoir and adapted to carry oil to or from said reservoir, and a siphon-shaped tube partly within said reservoir and projecting through said opening, substantially as described.

4. The combination of a barometric reservoir, a frame or shell in which said reservoir is supported so as to be capable of axial revolution, an opening in said reservoir, an exterior tube attached to said opening, bent to a curve substantially concentric with said reservoir and adapted to carry oil to or from said reservoir, and a removable plug or cap at the free end of said tube, substantially as described.

FRANK RHIND.

Witnesses:
GEO. L. COOPER,
S. J. ROBY.