

(No Model.)

A. A. GOUBERT.
SEPARATOR.

No. 482,354.

Patented Sept. 13, 1892.

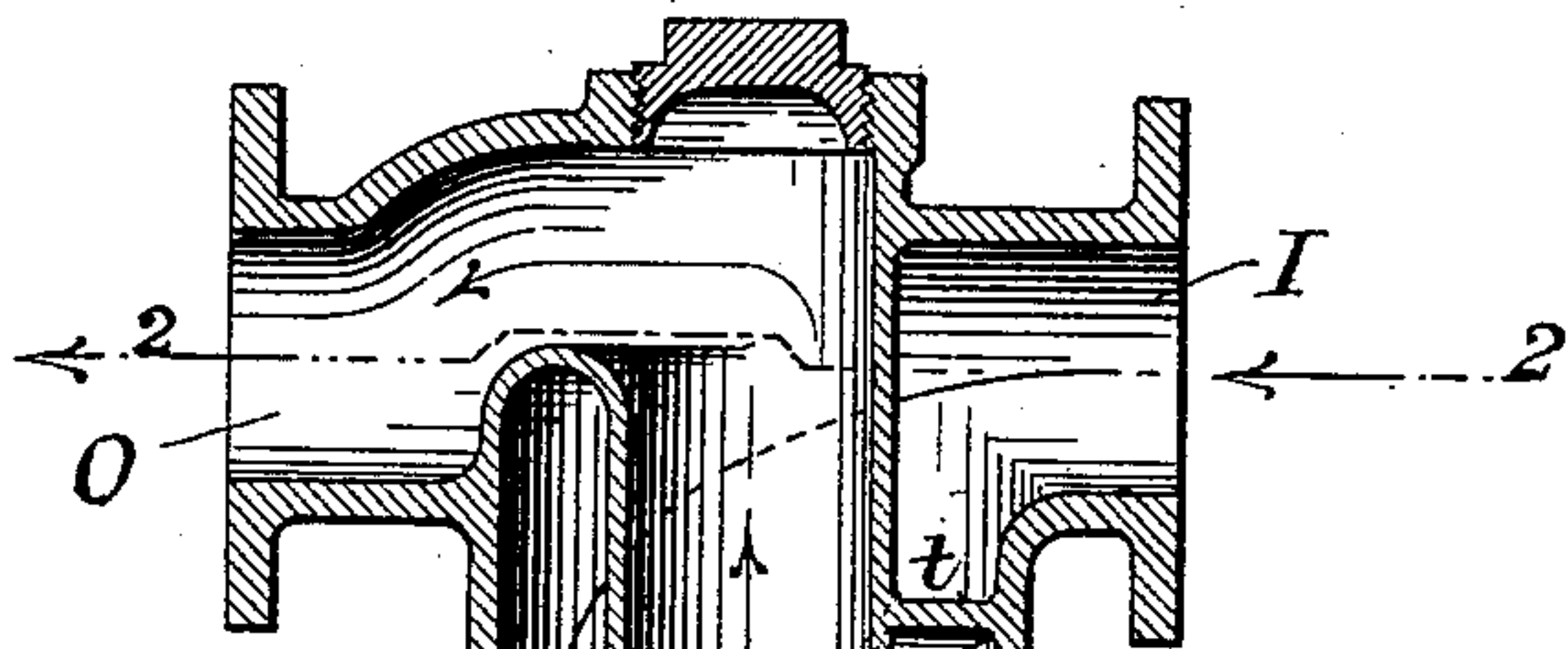


Fig. 1

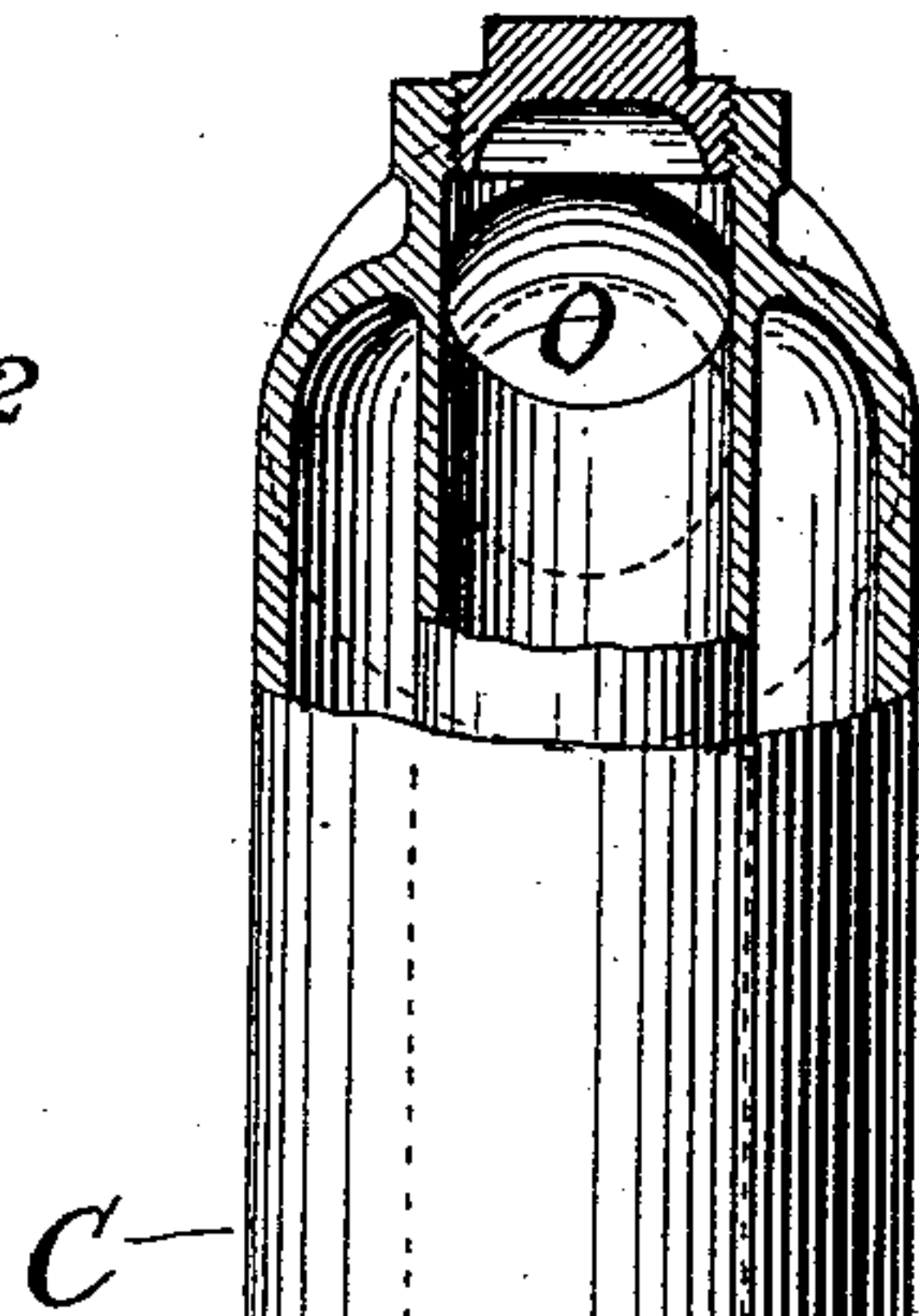


Fig. 3.

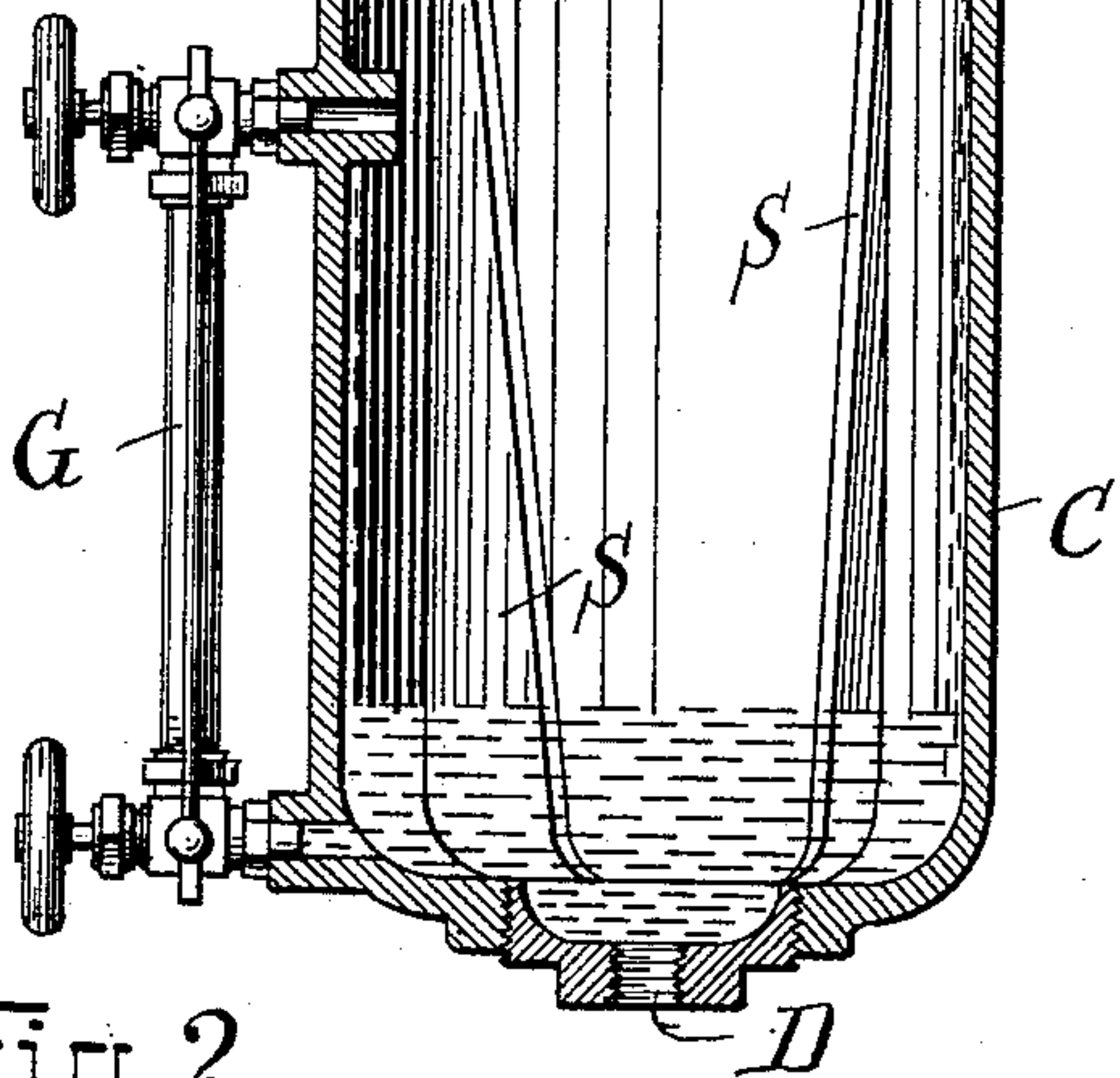


Fig. 2.

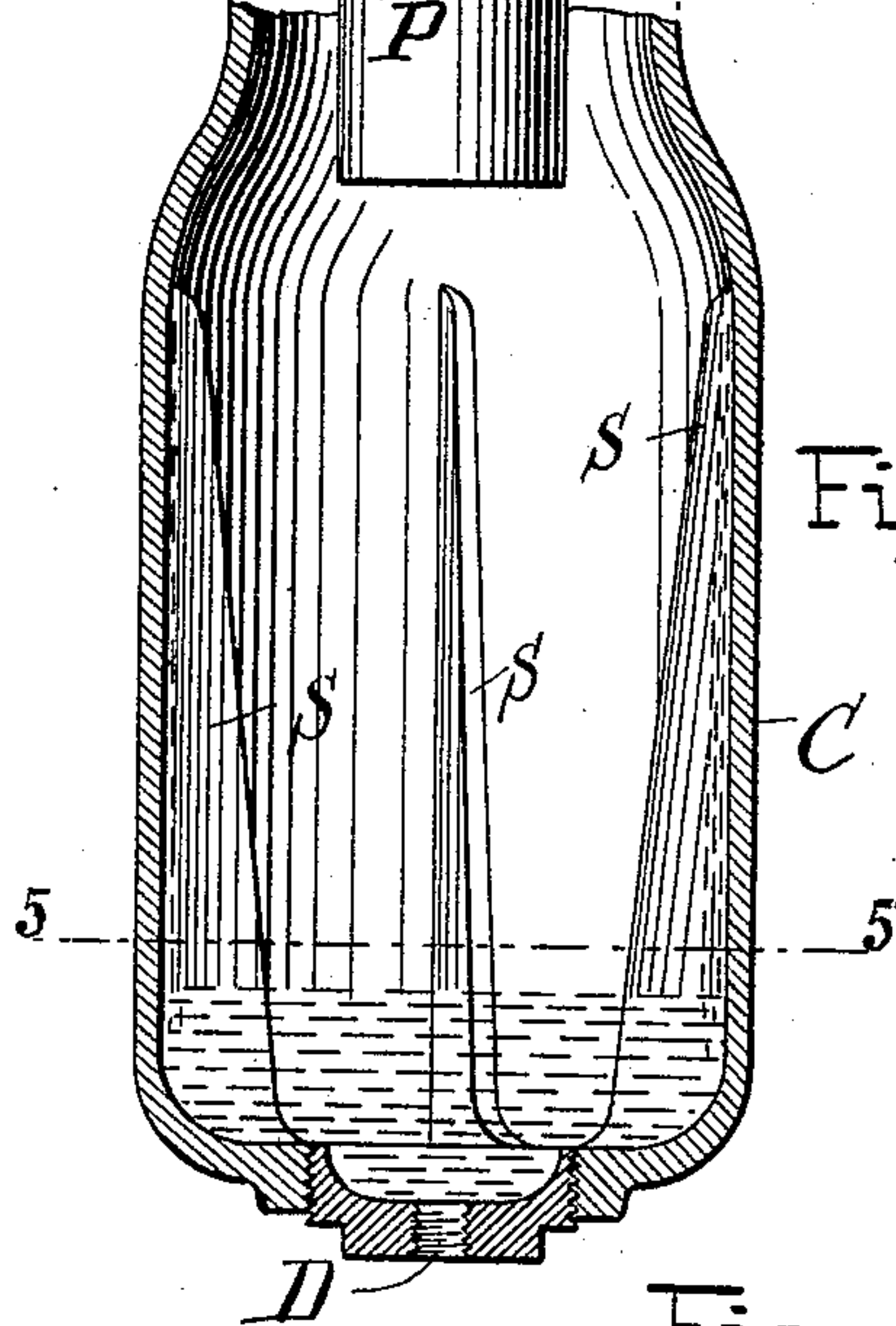


Fig. 4.

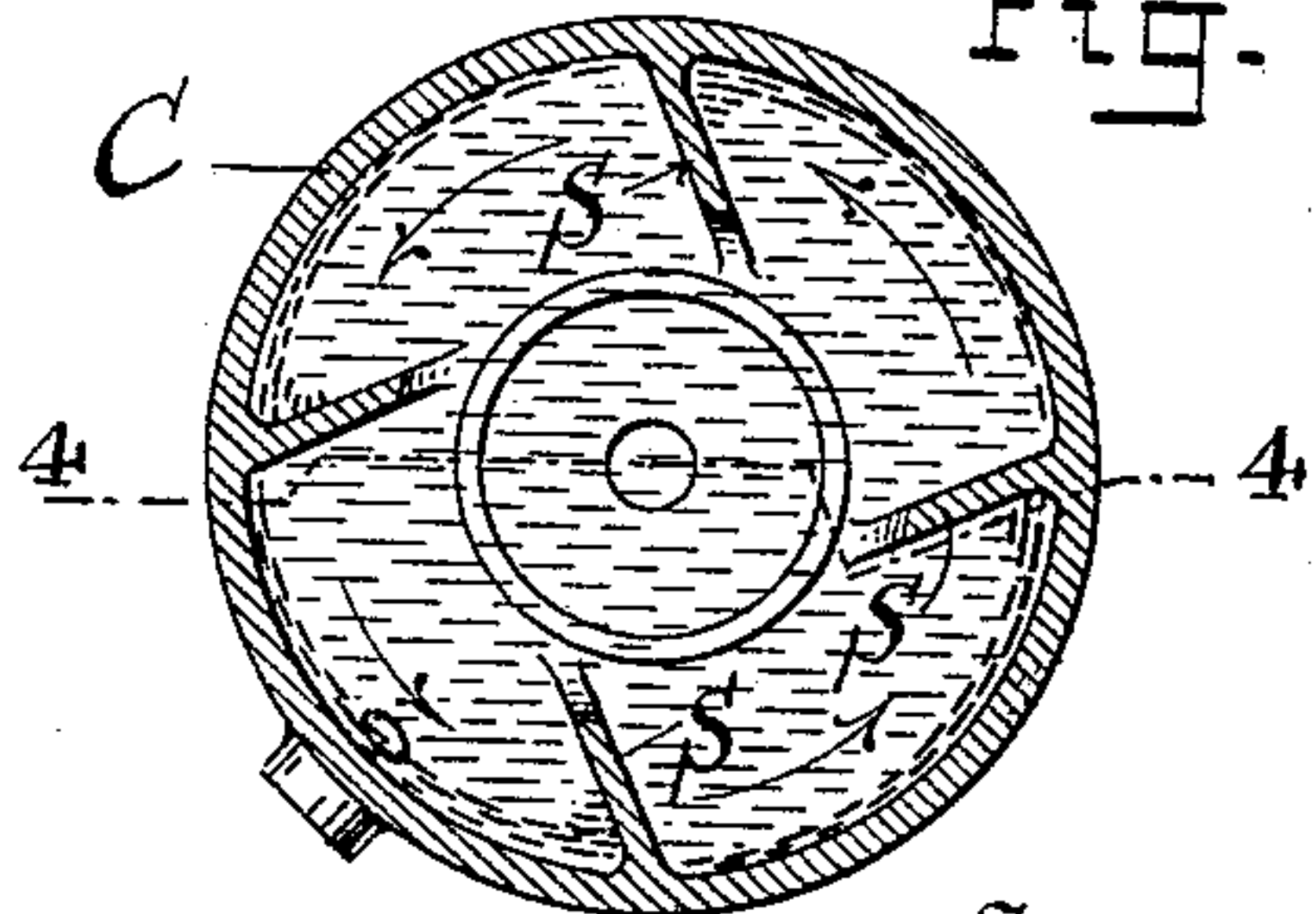
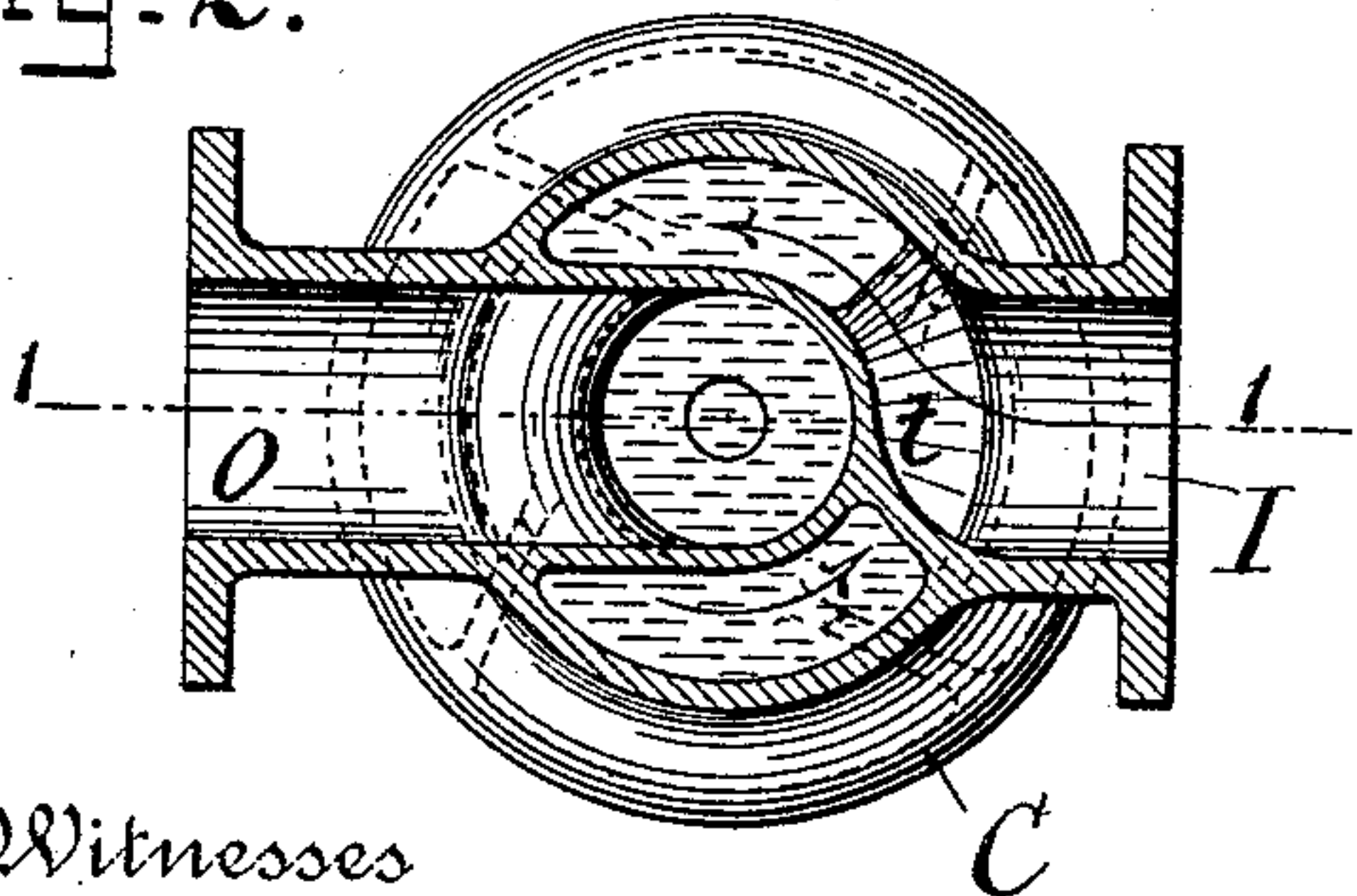


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, AUGUSTE A. GOUBERT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Separators, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, in which—

Figure 1 is a side view, partly in section; Fig. 2, a plan view of the same on the line 2 2; Figs. 3 and 4, other side views at right angles to Fig. 1; and Fig. 5, a cross-sectional view of Fig. 4 on the line 5 5, illustrative of my invention.

The invention relates to improvements in steam-separators in which the water in entrainment is separated from the steam by centrifugal action due to the circular or circuitous direction given the steam in its passage therethrough, the separated water gravitating to a well or chamber located beneath the route of the steam.

In this class of separators it has been found in practice that the rotary course given to the steam-current after entering is extended to the separated water in the well or chamber, causing the water to rotate therein and preventing it from assuming a quiet and level state, the larger proportion of the water in the well being maintained by such action adjacent to the wall or shell and practically permitting the steam to escape downward through the center of the well and outward through the drain-pipe, and also showing in the glass water-gage a height or quantity of water in the well incommensurate with the amount actually contained therein. To overcome this difficulty I have provided a series of wings or plates S without the well or chamber projecting from the shell at an acute angle to the course of the steam or water at various places toward the center of the chamber, whereby the rotary or circular course of the water and steam coming in contact therewith is arrested and the water concentrated at the bottom of the well or chamber and maintained in a solid or quiet state.

In the drawings, C represents the shell or body of the separator; P, the depending pipe for the exit of the steam; S S, wings projecting from the interior of the shell of the well or chamber; G, the glass water-gage; D, the drain opening from the well; and I O, the induction and eduction passages, respectively. The induction-passage is directed to encircle the extension of the depending pipe P, as shown, whereby the rotary action is imparted to the steam and the eduction-passage connects directly with the depending or exit pipe P, as shown in Fig. 2. The relative positions of the wings S S are arranged as shown in the plan view, Fig. 5, the natural direction of the water being indicated by the arrows, and the wings set at an acute angle, as shown, to form a complete obstruction to the direction of its flow.

The operation of this type of separators is well understood, and it is obvious that the arresting-wings S S forming the means for carrying out my invention may be of such size or numbers and in such location as found in practice to accomplish the desired result. I am aware that arresting wings or plates have been used in the well-chamber of this class of separators which project radially or at right angles from its interior surface and for a similar purpose, and this arrangement I do not claim, my invention and improvement consisting in projecting said plates at a greater or acute angle, thereby forming a gutter and housing and more effectually preventing the water from escaping toward the center of the well-chamber.

Having thus fully described my invention, what I claim is—

A centrifugal steam-separator provided with wings or plates projecting from the interior surface of the well-chamber at an acute angle therewith and to the course of the steam or water, substantially as described.

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Witnesses:

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