

(No Model.)

C. C. DUSENBURY.
GALVANIC BATTERY JAR.

No. 557,779.

Patented Apr. 7, 1896.

Fig. 1.

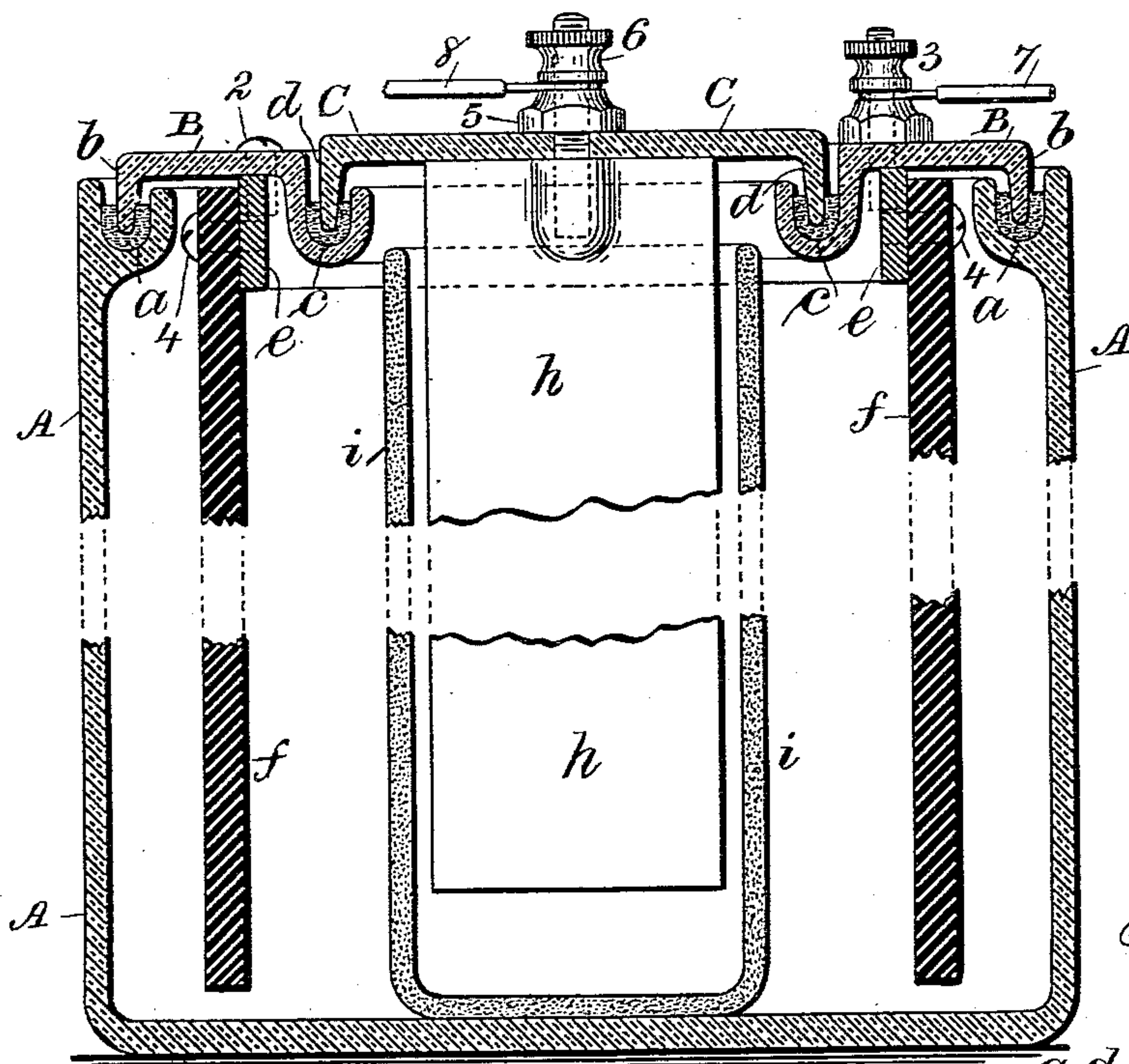


Fig. 3.

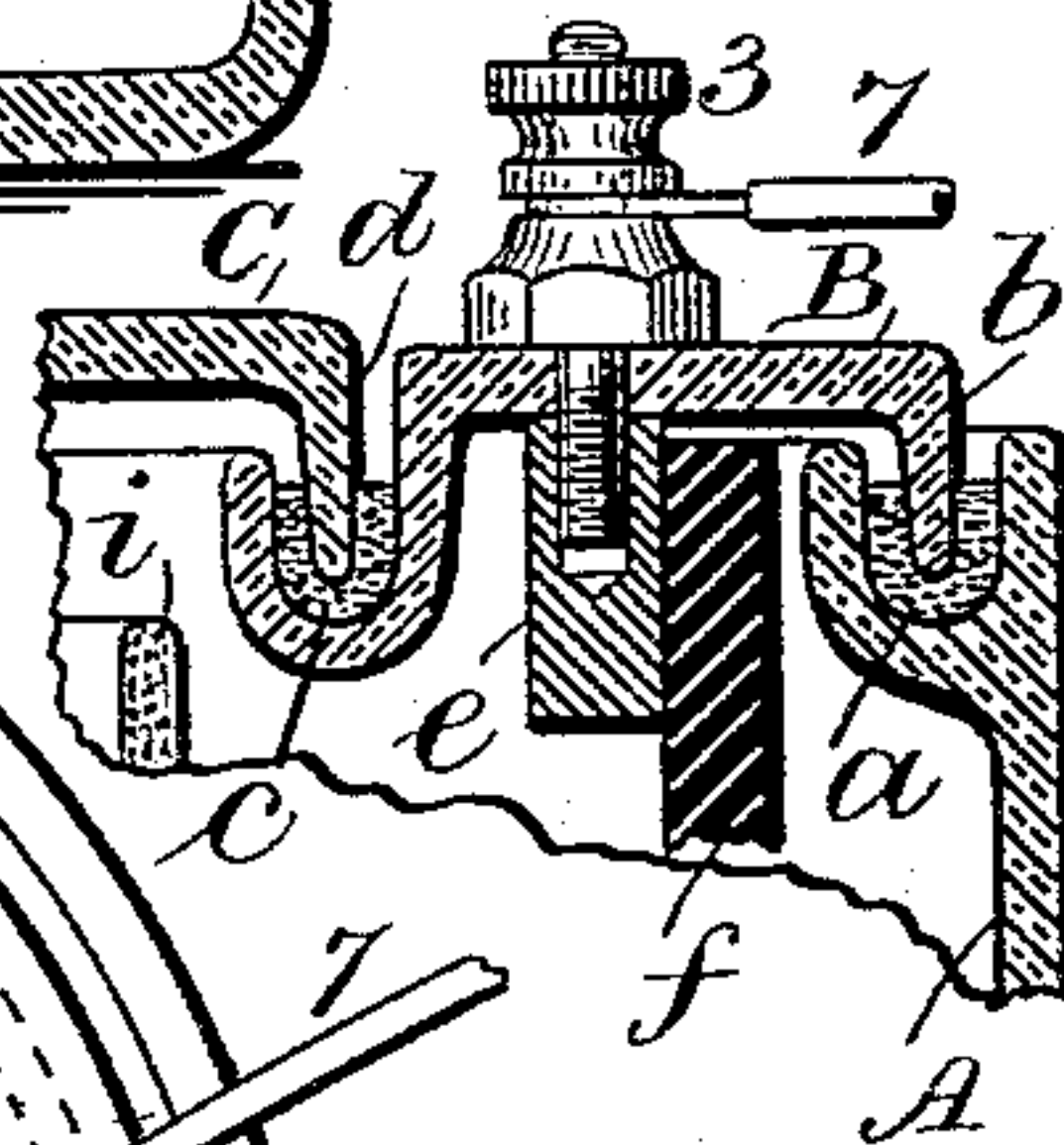
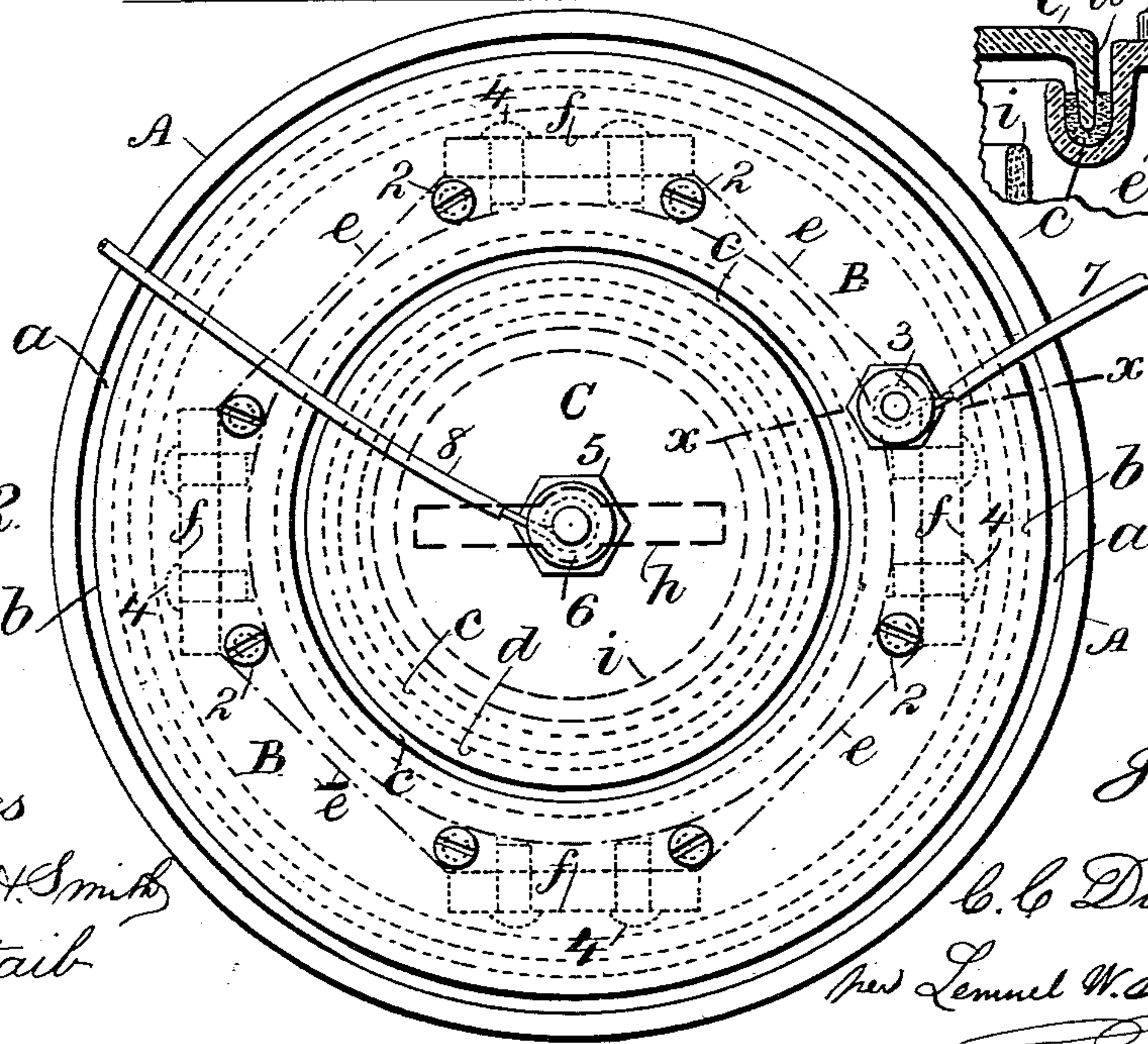


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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GALVANIC-BATTERY JAR.

SPECIFICATION forming part of Letters Patent No. 557,779, dated April 7, 1896.

Application filed December 23, 1895. Serial No. 572,989. (No model.)

To all whom it may concern:

Be it known that I, CALEB COLES DUSENBURY, a citizen of the United States, residing at New York, in the county and State of New York, have invented a new and useful Improvement in Galvanic-Battery Jars, of which the following is a specification.

The objects of my invention are to exclude the atmosphere from the interior of the galvanic-battery jar and at the same time to prevent the evaporation of the contents and the escape of the fumes of the liquid, and thus obviate the necessity of frequently refilling the jar and extend the term of active usefulness of the battery.

In carrying out my invention I prefer to construct the body and cover of the jar of vitrified material—such as glass, earthenware, or porcelain; but the cover may be made of hard rubber or similar material. The upper edge of the body is widened and made with an annular groove, and the outer part of the cover is made as a ring whose outer edge is provided with a depending flange to set within the annular groove of the body and whose inner edge is made with an annular groove. The central portion of the cover is made with a depending flange around its edge that sets within the annular groove of the ring portion. These annular grooves are partially filled with paraffin, wax, or other material adapted to form a seal to prevent evaporation of the contents of the jar and to exclude the air. The electrodes are connected to the cover in any desired manner; but I prefer to employ a metal ring connected to the under side of the ring top to support one electrode, while the other electrode is supported from the central part of the cover, and the usual porous cup surrounds one electrode within the jar.

In the drawings, Figure 1 is a vertical section representing my improvement. Fig. 2 is a plan of the same, and Fig. 3 is a vertical section of a part of the top or cover at *xx* of Fig. 2.

The body *A* and the top or cover portions *B C* are preferably made of such material as glass or earthenware, or similar vitrified material may be employed, or the cover portions *B C* may be made of hard rubber or other

suitable material. The upper edge of the body *A* is made with an annular groove *a*.

The cover portion *B* consists of a ring having a depending flange *b* at its outer edge and an annular groove *c* at its inner edge, and the annular grooves *a* and *c* are to be partially filled with paraffin, wax, or similar material. The flange *b* is received in the groove *a*, and the cover portion *C* is formed as a disk with a depending flange *d* at its edge, that is received in the groove *c*. These grooves and flanges, sealed with a wax or other suitable material, prevent evaporation of the contents of the jar and the admission of air.

A metal ring *e* with flat vertical outer faces, preferably forming an octagon, is connected to the under side of the ring portion *B* by screws 2, passing through holes therein and into the metal ring at the intersection of the flat faces, and one of said screws 2 is replaced by the screw-stem of the binding-post 3. The carbon electrodes *f*, of which I have shown four, are preferably secured to the outer flat faces of the said ring by screws 4, passing through the same into the ring *e*.

The disk *C* has a central opening, and the zinc electrode *h* has a screw-stem at the upper end, that passes through said opening, and the nut 5 connects said parts together, and the nut 6, also upon said screw-stem, forms a binding-post. The circuit-wires 7 and 8 are connected to the binding-posts as usual. The porous cup *i* within the jar surrounds the zinc electrode.

From this construction it is obvious that the disk portion *C*, with the one electrode, can be removed and the porous cup lifted out without disturbing the other parts, and that thereafter the ring *B* and the other electrodes can be removed.

It is also obvious that the zinc and carbon electrodes may be reversed in position, as their location forms no essential part of my invention.

I claim as my invention—

1. The combination in a galvanic battery with the battery-jar having an annular groove at its upper edge, of a ring forming part of the cover and having a depending flange at its outer edge to pass into the groove of the jar, and an annular groove at its inner edge,

and a central disk covering the opening in the ring and having a depending flange to pass into the latter annular groove, substantially as set forth.

5 2. The combination in a galvanic battery with the electrodes and the jar having an annular groove at its upper edge, of a ring having an outer flange to set into the groove of the jar and an annular groove at its inner
10 edge, and connections between said ring and one electrode for supporting the same, a central disk having a flange to set into the annular groove of said ring and a connection
15 supporting the same, substantially as specified.

3. The combination with the jar having an annular groove at its upper edge, of a ring forming part of the cover and having a de-
20 pending flange at its outer edge received into

the groove of the jar-body, and an annular groove at its inner edge, a metal ring and screws and a binding-post for connecting the same to the under side of the said ring, an electrode and screws for connecting the same
25 to said metal ring, the disk having a depending flange received into the groove of the ring and forming the central part of the cover, an electrode having a stem passing through the disk and the nuts for connecting the parts
30 and forming a binding-post and the porcelain cup surrounding the central electrode, substantially as set forth.

Signed by me this 16th day of December, A. D. 1895.

C. COLES DUSENBURY.

Witnesses:

GEO. T. PINCKNEY,
HAROLD SERRELL.