

(No Model.)

J. SERSON.

BATTERY JAR.

No. 389,532.

Patented Sept. 11, 1888.

Fig. 1.

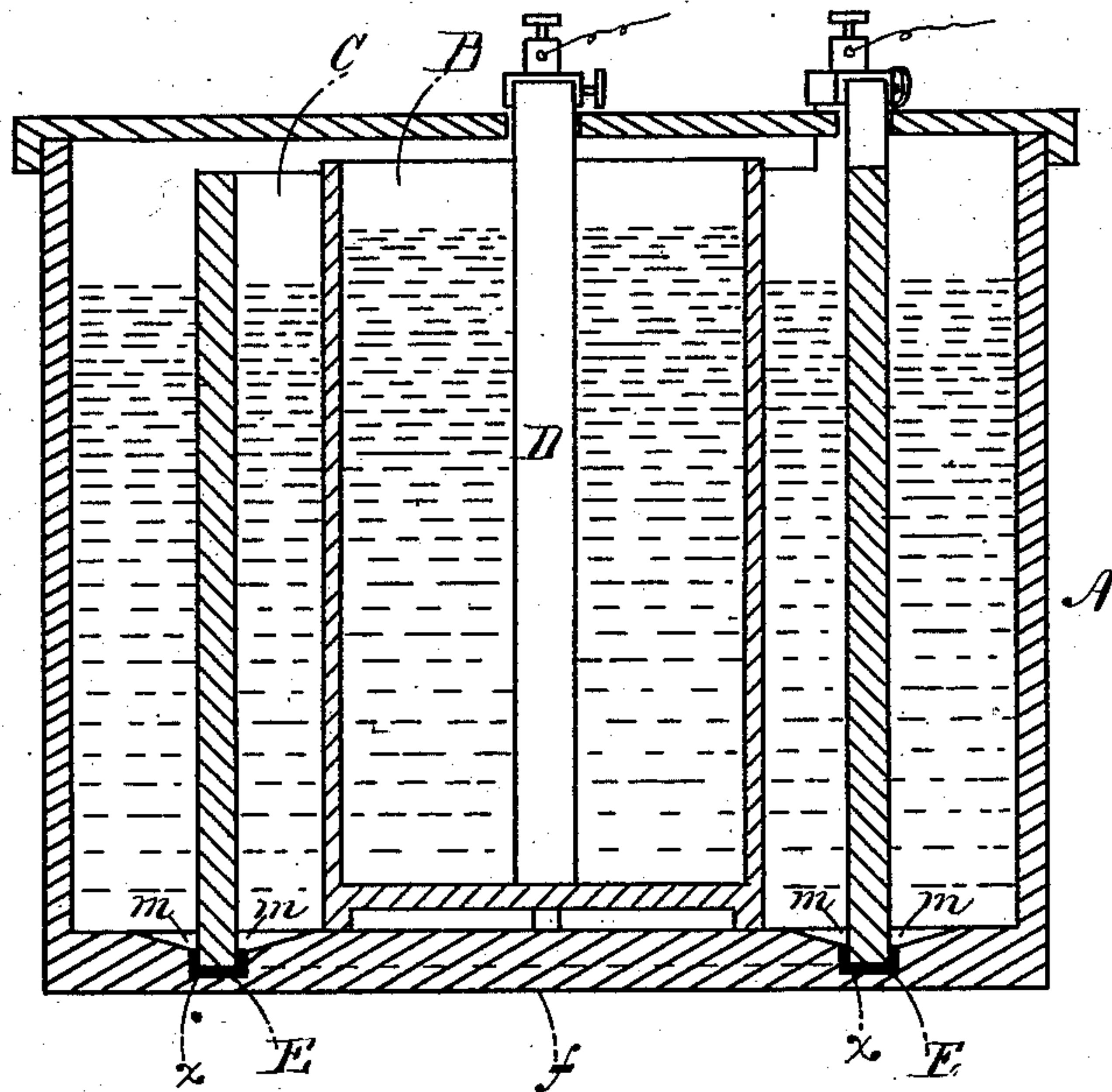


Fig. 2.

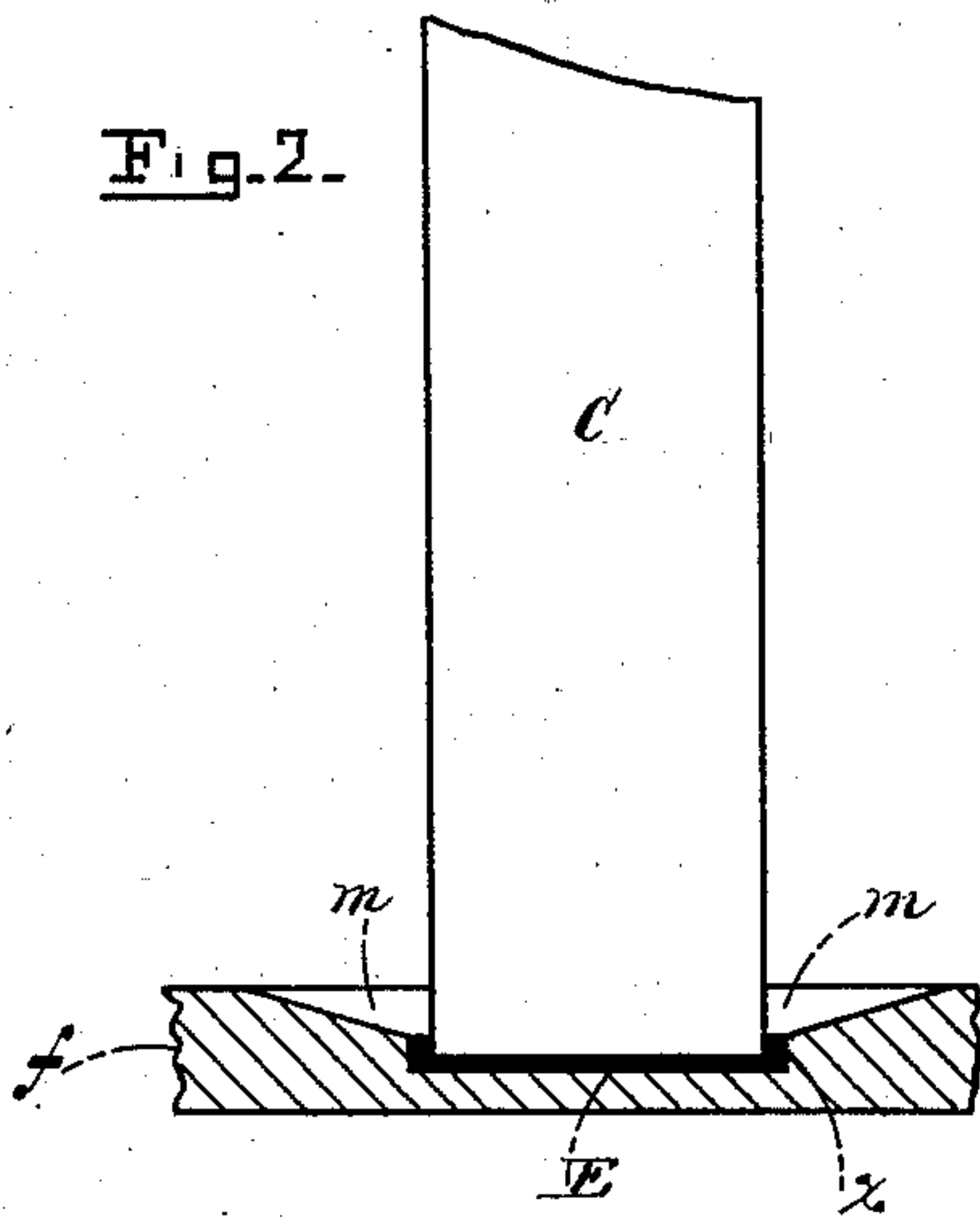


Fig. 3.

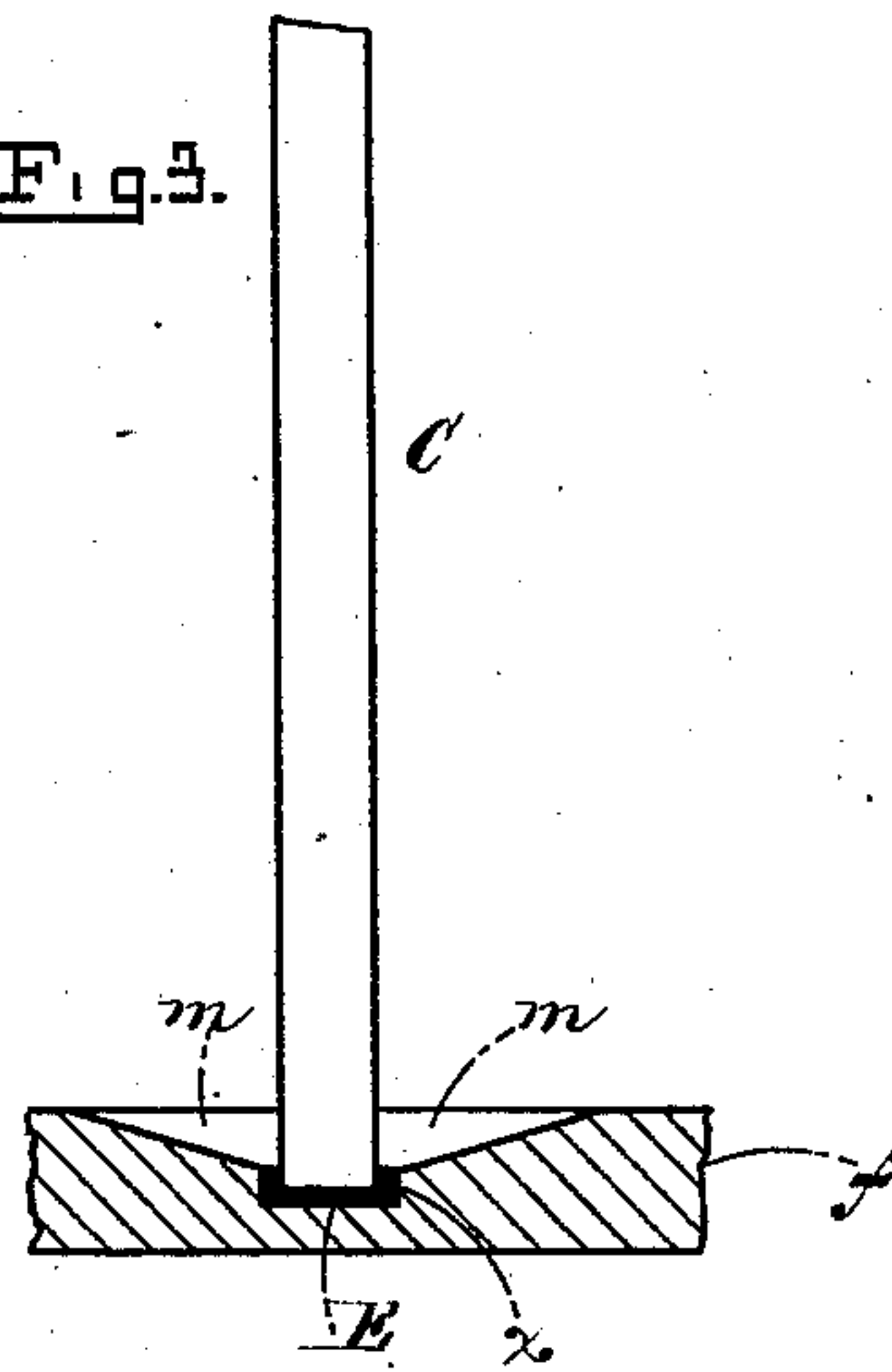
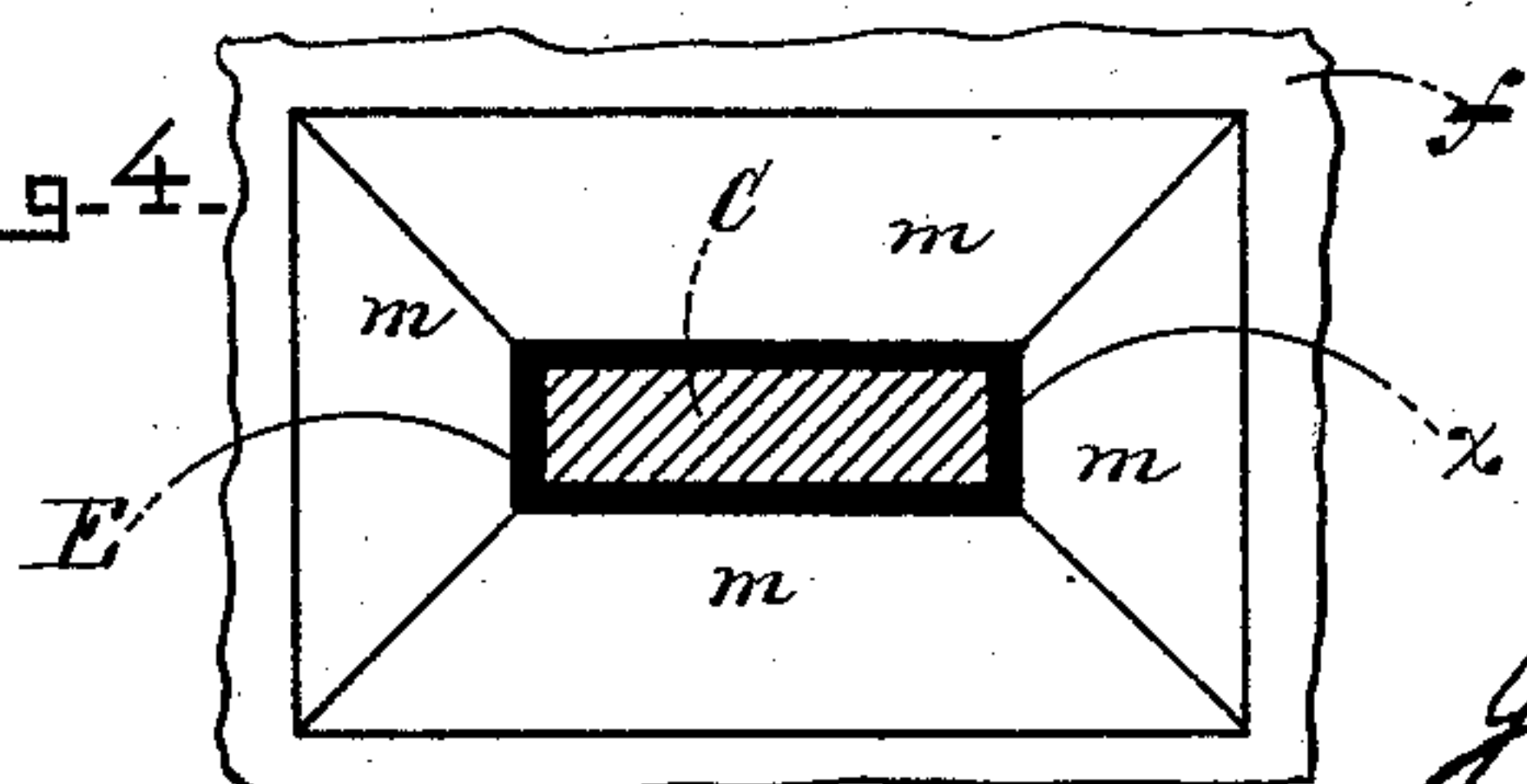


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES SERSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JAMES O. WHITTEN, OF SAME PLACE.

BATTERY-JAR.

SPECIFICATION forming part of Letters Patent No. 389,532, dated September 11, 1888.

Application filed December 12, 1887. Serial No. 257,566. (No model.)

To all whom it may concern:

Be it known that I, JAMES SERSON, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Battery-Jars, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical transverse section showing a battery-jar provided with my improvement, and Figs. 2, 3, and 4 sectional views showing modifications of the improvement.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

In galvanic batteries which contain free mercury for amalgamating the zinc the mercury is usually placed in a trough disposed above the bottom of the jar, and in case the battery is accidentally disturbed or partially overturned when in use the mercury is liable to be spilled onto the bottom of the jar and thereby wasted or prevented from performing its functions properly.

My present invention is designed to obviate this objection; and to that end I make use of means which will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the outer or containing jar; B, the porous jar; C, the zinc, and D the carbon, these parts being all of the ordinary form and construction, excepting as hereinafter specified.

Formed in the upper side of the bottom *f* of the jar A there is an annular groove, E, for containing the free mercury *x*, the lower end of the zinc C being inserted in said groove in contact with the mercury when in use.

At each side of the groove E the bottom *f* of the jar is gradually inclined downwardly, as shown at *m*, the inner ends of said inclines terminating at the top of said groove and constituting a hopper or funnel for catching and returning the free mercury to the groove when the same is accidentally spilled. The walls of the groove E are preferably vertical; but they may be inclined at any suitable angle; and, if desired, the inclines *m* may be so

constructed as to terminate at the bottom instead of at the top of said groove, thereby substantially serving as its walls. The zinc shown in Fig. 1 is tubular, and hence requires an annular groove, E, for its reception; but when the zinc is round, flat, or square in cross-section of course the receptacle for mercury in the bottom of the jar should correspond therewith.

In Figs. 2, 3, and 4 a flat zinc, or one which is rectangular in cross-section, is shown, the receptacle E in the bottom *f* being constructed to correspond therewith and provided with inclines *m* at its sides and ends, as best seen in Fig. 4.

The inclines *m* may stand at any desired angle to the plane of the bottom *f*, and when the groove or receptacle E is annular, as shown in Fig. 1, the inner inclines may extend to the center of the jar and the outer inclines to the side walls of the same, so that when the mercury is spilled onto any part of the bottom it will find its way into said receptacle.

When the receptacle is round, square, rectangular, or any similar shape, the inclines may be extended to the outer walls of the jar on all sides thereof.

Having thus explained my invention, what I claim is—

1. A battery-jar provided with a groove or receptacle in its bottom for the reception of free mercury, the bottom of the jar adjacent to said groove or receptacle being inclined downward toward the same for the purpose of catching the mercury when accidentally spilled and conducting it back into the groove or receptacle, substantially as described.

2. In a battery-jar, the bottom *f*, provided with the groove or receptacle E and inclines *m*, the walls of said groove standing at an angle to said inclines, substantially as described.

3. A battery-jar the bottom of which is provided with a groove extending around said bottom for the reception of free mercury, and with inclined faces extending downward in opposite directions to said groove on both sides thereof, forming a hopper for catching the mercury when accidentally spilled out of said groove and conducting it back thereto, substantially as described.

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Witnesses:

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