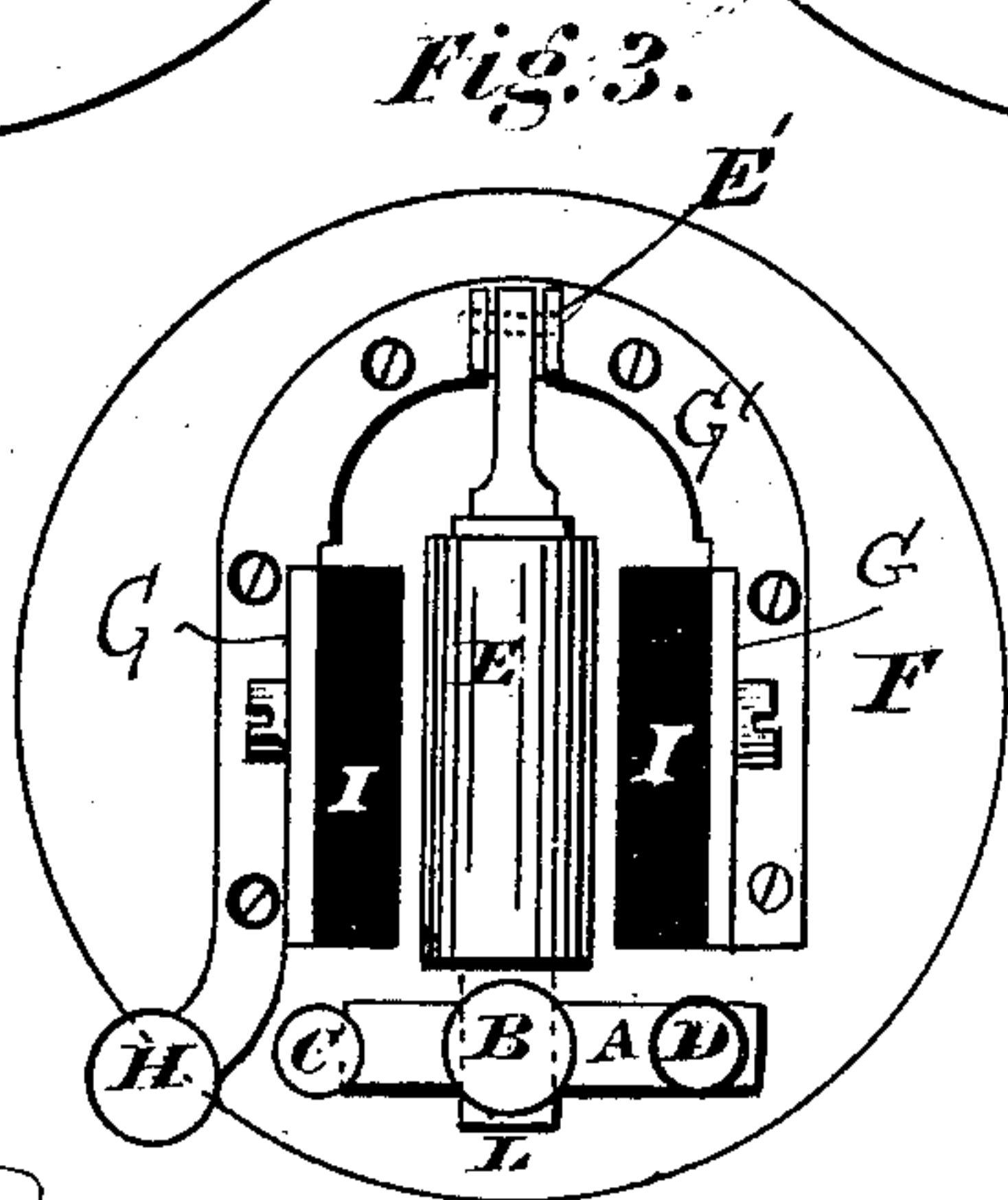
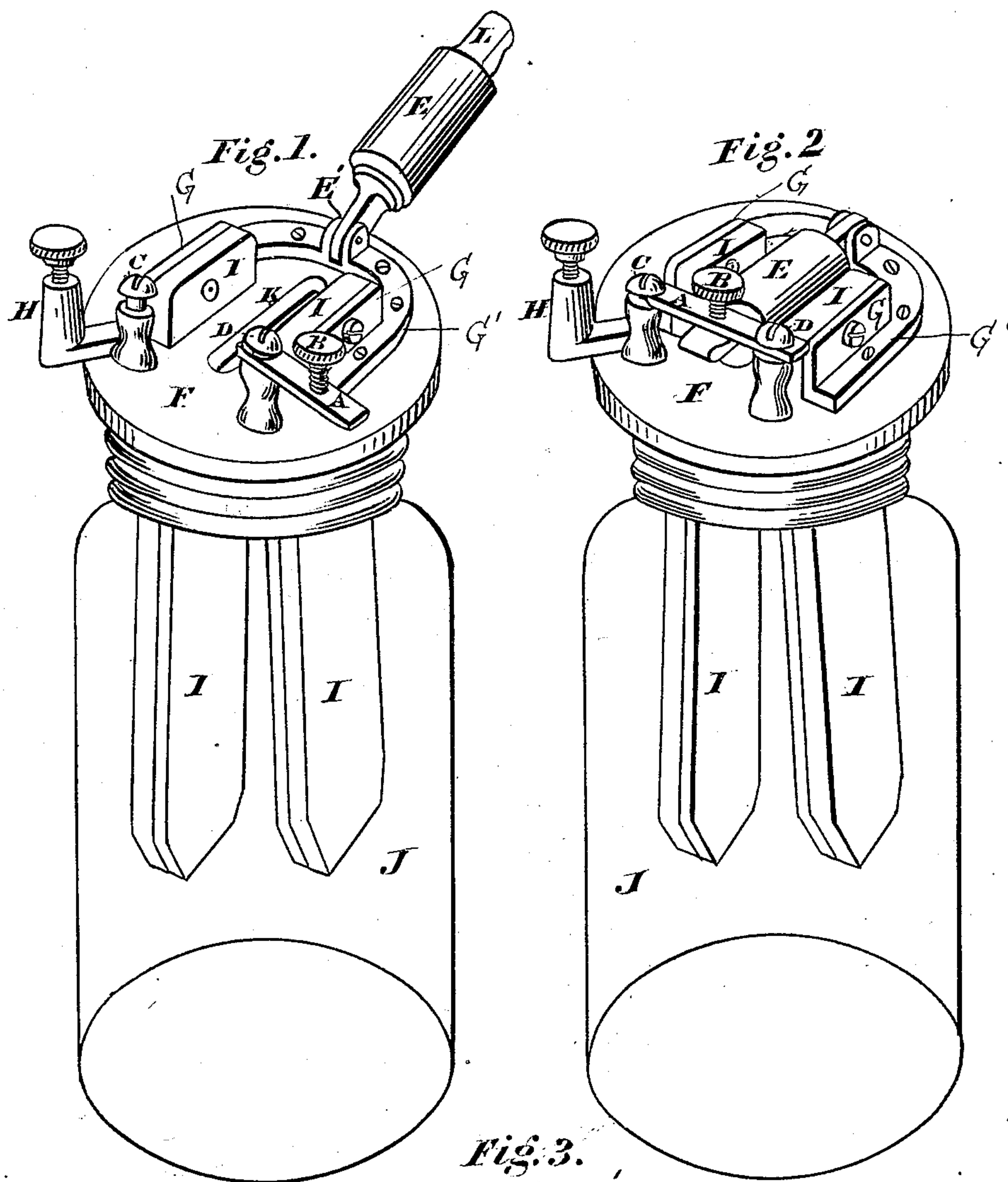


(Model.)

A. C. HARRIS.
VOLTAIC BATTERY.

No. 249,615.

Patented Nov. 15, 1881.



Witnesses
John Curry Miller
Frank Pardon.

Inventor:
A. C. Harris

UNITED STATES PATENT OFFICE.

ALONZO C. HARRIS, OF LOUISVILLE, KENTUCKY.

VOLTAIC BATTERY.

SPECIFICATION forming part of Letters Patent No. 249,615, dated November 15, 1881.

Application filed March 12, 1881. (Model.)

To all whom it may concern:

Be it known that I, ALONZO C. HARRIS, of the city of Louisville, in the county of Jefferson, State of Kentucky, have invented certain
5 new and useful Improvements in Voltaic Batteries, of which the following is a specification.

This invention relates to certain improvements in voltaic batteries, and it has for its objects to provide a cell for such batteries,
10 whereby the fluid contents may be prevented from coming in contact with the binding-posts and outside connections of the cell and corroding the same, and by means of which the contents may be prevented from evaporation when
15 the cell is not in use, and from loss by leakage during transportation, as more fully hereinafter specified. These objects I attain by the devices illustrated in the accompanying drawings, in which—

20 Figure 1 represents a perspective view of the improved cell with the parts in position to receive the zinc element; Fig. 2 represents a similar view, showing the opening for the zinc element closed; and Fig. 3 represents a top
25 view of the cell, showing the aperture for the zinc element closed.

The letter J indicates the cell, which is preferably constructed in the form of a jar, of glass or other suitable material, with a screw-
30 threaded neck, over which is adapted to fit a cap, F, of vulcanite or other non-conducting material.

The letter I indicates the carbon or other negative elements. These extend through suitable apertures in the top of the cap and are
35 secured to the upright extensions G of a horseshoe-shaped frame, G', of suitable conducting material, which is attached by means of screws or otherwise to the top of the cap.
40 The said frame at one end is provided with a binding-post, H, for the negative wire. The top of the cap between the carbons is provided

with a rectangular aperture, K, through which the zinc or positive element may be inserted. This may be in the form of a flat bar of suitable
45 length, having an ordinary clamp and binding-post secured to its upper end to conveniently connect it with the positive wire.

The letter E indicates a cylindrical bar covered with rubber or other elastic material. 50 The said bar is pivoted at E' to the frame G in such position that it may be thrown back, as indicated in Fig. 1, or down, as indicated in Fig. 2, and to open and close the aperture K.

The letters C D indicate two screw-posts, to 55 one of which is secured a bar, A, the free end of which is adapted to be engaged by the screw on the other, as indicated in Fig. 2 of the drawings. The said bar is provided with a set-
60 screw, B, which may be brought to bear upon the flattened end of the bar E, so as to clamp said bar down upon the aperture in the top of the cap and securely close it.

When the cell is required for use the bar A is swung back, as shown in Fig. 1, and the bar 65 E thrown into the position indicated in said figure. The jar having been charged with suitable exciting-fluid, the zinc is inserted through the aperture.

Having thus described my invention, what 70 I claim, and desire to secure by Letters Patent, is—

In combination with the cell and its cap the frame secured to the top of the cap, the negative elements projecting through the cap 75 and secured to the said frame, the pivoted bar adapted to cover and close an aperture in the cap formed for the reception of the positive element, and the mechanism for holding the bar in place, substantially as specified.

ALONZO C. HARRIS.

Witnesses:

JOHN CURRY MILLER,
CHAS. H. SHRADER.