

(No Model.)

2 Sheets—Sheet 1.

M. M. CLARK.
GALVANIC BATTERY.

No. 423,594.

Patented Mar. 18, 1890.

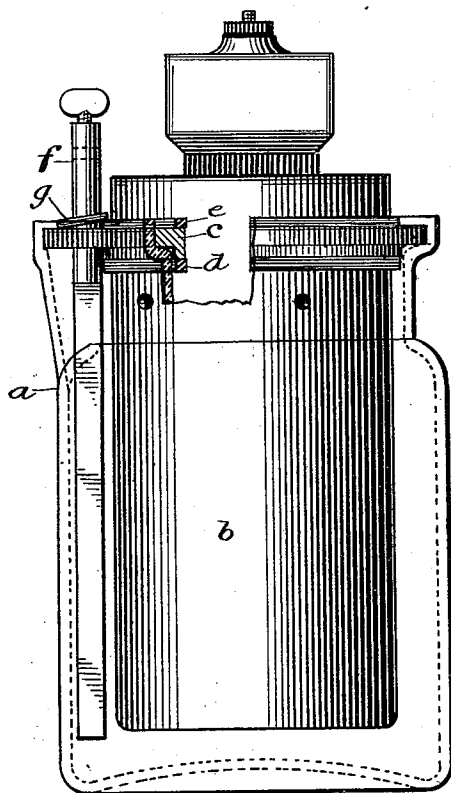


Fig. 1.

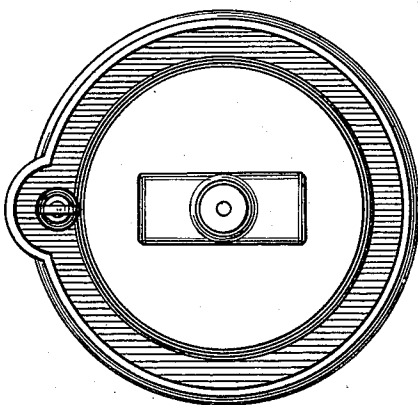


Fig. 2.

Witnesses.

Charles J. Hawley,
Geo. R. Parker.

Inventor.

Martin M. Clark.
By George P. Barton
Attorney.

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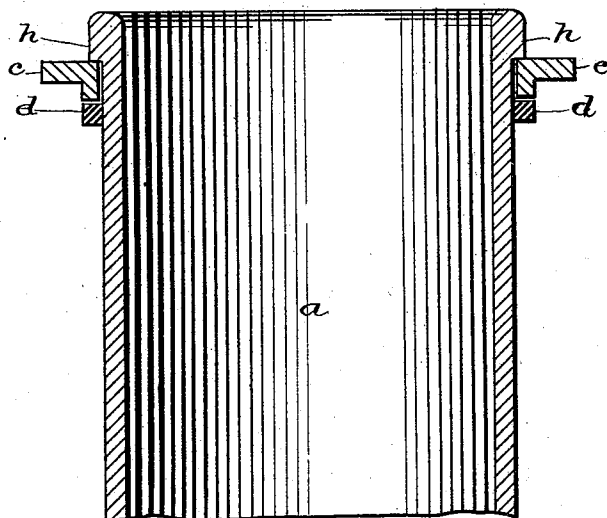


Fig. 3.

Witnesses.

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Inventor.

Martin M. Clark.
By George P. Boston
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UNITED STATES PATENT OFFICE.

MARTIN M. CLARK, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN
ELECTRIC COMPANY, OF SAME PLACE.

GALVANIC BATTERY.

SPECIFICATION forming part of Letters Patent No. 423,594, dated March 18, 1890.

Application filed December 9, 1889. Serial No. 333,134. (No model.)

To all whom it may concern:

Be it known that I, MARTIN M. CLARK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Leclanché Batteries, (Case 6,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to Leclanché batteries, and its object is to provide for supporting the porous cup and zinc in proper position within the jar.

My invention consists in a ring or collar, preferably of wood, which is placed upon the top of the jar, in combination with rubber bands or stops, one placed above and one below the same about the upper portion of the porous cup, together with the porous cup and zinc. Instead of the upper rubber band, a shoulder may be provided upon the porous cup, as hereinafter described.

My invention will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is an elevation of a cell of Leclanché battery embodying my invention, the collar and rubber bands being shown partially broken away. Fig. 2 is a top or plan view of the same. Fig. 3 is a view showing the shoulder upon the porous cup in place of the upper rubber band.

Like parts are indicated by similar letters of reference throughout the different figures.

The glass jar *a* may be of the usual form and adapted to hold the sal-ammoniac solution. The porous cup *b* is likewise of usual construction, and is preferably sealed at the top about the carbon plate in the usual manner. The ring *c* is preferably of wood and rests upon the upper edge of the glass jar, as shown. Rubber rings *d* and *e*, placed about the jar, as shown—one above and one below the collar—serve as adjustable stops. Thus the jar may be adjusted to any desired height. The zinc rod *f*, inserted through a hole provided in the collar, as shown, and a rubber band *g* upon the same, serving as a stop, per-

mits the rod to be adjusted to any height desired, preferably so that its lower end shall be in the same horizontal plane with the bottom of the jar, or thereabout.

As shown in Fig. 3, a shoulder *h* is provided upon the upper edge of the porous cup to take the place of the upper rubber band *e*. (Shown in Figs. 1 and 2.)

My invention as thus described provides a stop above and below the supporting-collar. These stops not only perform the function of supporting the cup, but also prevent the salts from creeping over the top of the cup. I have described a shoulder formed on the cup as taking the place of the upper rubber band. I prefer, however, the two bands, since they permit an adjustment of the cup to any position desired in the cell, and at the same time form a closer joint between the ring and the cup.

By the use of my invention the cup is suspended in the jar, being supported by the collar resting upon the upper edge thereof, instead of sitting upon the bottom of the jar, as has been usual heretofore.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination, with the jar, of the collar *c*, placed upon the upper edge thereof, the porous cup inserted through said collar, and the adjustable rubber bands, one above and one below the collar, serving as stops, and the zinc rod, also supported upon the collar by a rubber band, serving as an adjustable stop, substantially as and for the purpose specified.

2. The combination, with the porous cup suspended in the jar by a wooden collar resting upon the upper edge thereof, of an adjustable stop in the form of a rubber band surrounding said porous cup below the ring and a stop upon said cup above the ring, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 14th day of March, A. D. 1889.

MARTIN M. CLARK.

Witnesses:

ELLA EDLER,
GEORGE P. BARTON.