

No. 649,350.

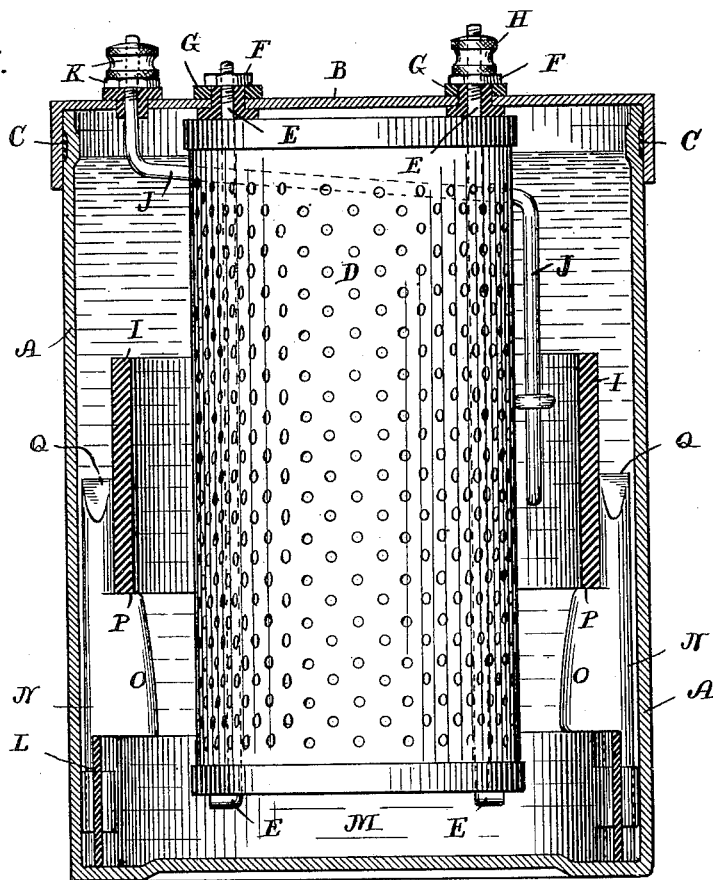
Patented May 8, 1900.

**C. M. PLATT.**  
**GALVANIC BATTERY.**

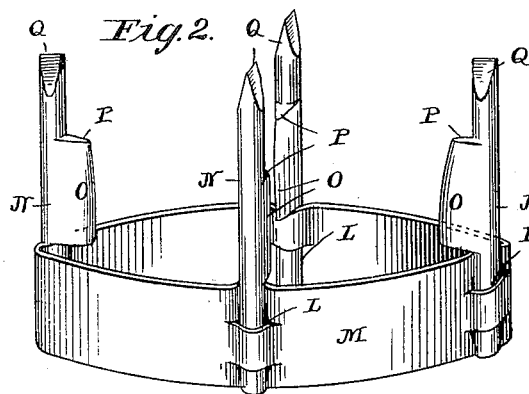
(Application filed July 29, 1899.)

(No Model.)

*Fig. 1.*

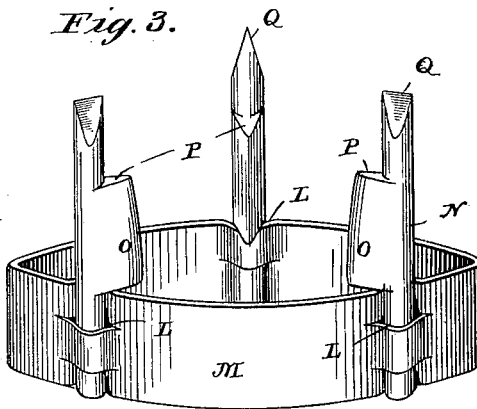


*Fig. 2.*



WITNESS

*Fig. 3.*



INVENTOR

CLARK M. PLATT

BY

*R. H. Newman.*

*Edward N. Nicholson*

*Chamberlain & Newman*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

CLARK M. PLATT, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE  
WATERBURY BATTERY COMPANY, OF SAME PLACE.

## GALVANIC BATTERY.

SPECIFICATION forming part of Letters Patent No. 649,350, dated May 8, 1900.

Application filed July 29, 1899. Serial No. 725,483. (No model.)

*To all whom it may concern:*

Be it known that I, CLARK M. PLATT, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Galvanic Batteries, of which the following is a specification.

This invention relates to new and useful improvements in galvanic batteries wherein positive and negative elements, together with a sal-ammoniac or other solution, constitute the essential parts. Heretofore the elements above referred to have usually been placed in a suitable glass or porcelain jar; but with the more recent and extensive usage of batteries of this class it has been found desirable to use a more substantial jar, such as sheet-steel. Since steel is a conductor, it is necessary when using jars of that material to provide proper insulations between the jar and the zinc element, so as to prevent the two from coming in contact with each other and short-circuiting the battery.

It is the object of my present invention to provide a practical, cheap, and desirable form of an insulated support for the negative element of a battery, whereby the latter is supported around the basket or positive element at a distance therefrom and also out of engagement with the jar itself.

With the above objects in view my invention resides and consists in the novel construction shown in the accompanying drawings, forming a part of this specification, upon which similar characters of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 shows a central vertical cross-section of a battery complete and fitted with my improved insulating-support. Fig. 2 shows a detached perspective view of the insulating-support proper contained in Fig. 1. Fig. 3 shows a similar perspective view of a slightly-modified form of support and wherein three instead of four porcelain insulating-blocks are used.

Referring to the characters of reference marked upon the drawings, A indicates a sheet-steel jar, B a cover, and C a rubber ring

located within an annular recess of said jar and around the upper edge thereof. The depending overlapping edge of the cover is designed to snugly engage the rubber and thereby form an air-tight seal for the jar. To the cover B is suspended a basket D through the medium of vertical rods E, nuts F, and insulating-washers G. One of these rods is also provided with a binding-screw H, by means of which one of the field-wires is attached. The basket in question may be constructed of any of the usual or cheap materials, such as perforated sheet metal or wire screen, and is filled with oxid of copper or other ingredient.

The positive or zinc element I of the battery is shown as being in ring form, encircling the basket, and located about midway between the latter and the jar. A wire J leads up from the zinc and is preferably bent to partially encircle the basket, and it is then disposed upward through an insulating-washer of the cover. A binding-nut K is attached to the threaded end of the wire J, whereby the second field-wire of the battery may be attached. The purpose of bending the wire J as described is to produce a construction which will insure quickness of assembly, in that the extreme end can more readily be inserted into its opening when in this form than if straight.

Since it is not desirable in all instances to support the positive element of the battery upon the basket itself or from the cover, I have provided means to support it from the bottom of the jar. Said means comprises an annular sheet-iron ring or base M, containing a series of sockets L and in which are seated vertical porcelain or other non-conductive supports N, having inwardly-extended enlargements O, with a shoulder P on their top edge. The extreme upper ends Q of these supports are preferably beveled off to prevent the clogging and accumulation of sediment, thus avoiding any possibility of forming a contact between the zinc and the jar. The zinc, as will be seen, rests firmly upon the shoulders P and is thus rigidly retained in place at a proper distance from the jar upon all sides, and consequently it would be impossible for said zinc to become misplaced or

thrown against the jar by any probable usage. The basket, as previously described, is firmly secured to the cover, and since the cover in turn is properly secured to the jar it is likewise impossible for the basket to come in contact with the zinc, and therefore I produce a battery especially adapted for rough usage, since the zinc is properly insulated from both the jars and basket, thus producing a battery which is particularly desirable for many branches of business which the old form of battery could not satisfactorily fill.

It will be obvious, of course, that my invention may be carried into effect by other details of construction than those heretofore referred to, and in which connection it is particularly true that the base portion of said support might be formed of wire, cast-iron, or in other manner, and that a sheet-metal construction in this exact form is not essential to its proper and effective operation.

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

1. In a galvanic battery of the class described, the combination with a positive and negative element, of a jar, a series of insulating-blocks interposed between the jar and said positive element and having means for supporting the latter, and means irrespective

of the negative element for retaining said insulating-supports in said position.

2. In a battery of the class described the combination with a jar, of positive and negative elements, a series of insulating-blocks interposed between the negative element and jar and having means for supporting the latter, and a base within the jar for supporting said insulating-blocks.

3. The combination in a battery, of a jar, zinc and copper elements, an annular ring containing a series of sockets, and a series of porcelain blocks retained in said sockets for supporting said zinc element, and insulating it from the jar referred to.

4. A support for a positive element of a battery, substantially as herein shown, the same comprising an annular base adapted to rest upon the bottom of a battery-jar and provided with a series of sockets, and a series of porcelain posts seated in said sockets and adapted to insulate the element in question from the jar.

Signed at Waterbury, in the county of New Haven and State of Connecticut, this 5th day of July, A. D. 1899.

CLARK M. PLATT.

Witnesses:

JAY H. HART,  
AGNES I. WALKER.