

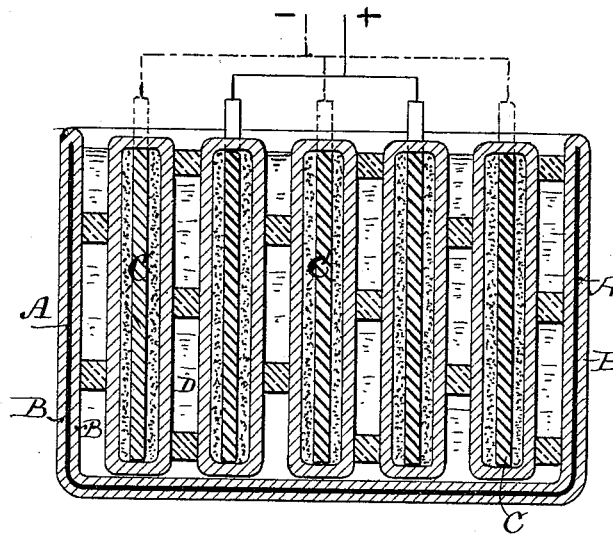
(No Model.)

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CONTAINING VESSEL FOR GALVANIC BATTERIES.

No. 266,798.

Patented Oct. 31, 1882.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CAMILLE A. FAURE, OF PARIS, FRANCE.

## CONTAINING-VESSEL FOR GALVANIC BATTERIES.

SPECIFICATION forming part of Letters Patent No. 266,798, dated October 31, 1882.

Application filed August 10, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, CAMILLE ALPHONSE FAURE, of Paris, in the Republic of France, have invented a new and useful Improvement in Containing-Vessels for Galvanic Batteries, which improvement is fully set forth in the following specification.

The present invention has for its object mainly to make a light, cheap, strong, and durable vessel for containing the electrodes and fluids or electrolytes of galvanic batteries, the improved vessel, although adapted for general use, being more particularly designed for use in polarization-batteries or electric accumulators—such, for example, as those of Gaston Planté, or those described in Letters Patent No. 252,002, granted to my assignees January 3, 1882, and in my application for improvements in polarization-batteries or electric accumulators, filed of even date herewith. A proper vessel to hold the liquid of these batteries is an object of great importance, which it has been heretofore very difficult to attain. All such materials as glass and pottery are too brittle and heavy, and not susceptible of being made very large. Tanks made of wood must be very expensive to be sound, and capable of resisting change of temperature and moisture, however impregnated with preservative or water-repellent substances, while metallic tanks are subject to corrosion, even when covered with any known varnish applied in ways heretofore known.

By the present invention vessels, tanks, or cells are constructed in such a manner that they are permanent, cheap, and not breakable. Iron, copper, or any convenient metal is used as a staying nucleus, and this is coated inside, or preferably both inside and outside, with fibrous material combined with a non-corrodible varnish or cement.

The following is deemed the most advantageous mode of carrying the invention into effect: The surfaces of the vessel are first coated with a varnish of pitch, linseed-oil, paraffine, and tar, or with a varnish of a similar character or composition, applied hot. The pitch and tar from gas-works are preferably employed, although native asphaltum may be used for the pitch; or the pitch and tar, either or both, may be of vegetable origin. The fol-

lowing proportions have been found to give good results, to wit: Pitch, forty (40) parts, by weight; linseed-oil, ten (10) parts, by weight; paraffine-wax, ten (10) parts, by weight; tar, (10) ten parts, by weight. These proportions, however, may be varied within wide limits, and the materials can be altered and the compound will still be suited to the purposes of this invention. Sheets of felt, asbestos fabric, canvas, or other fibrous or textile material, are soaked in the varnish, and while this is still hot the surface of the vessel is covered with said sheets. One, two, three, or more of these coverings may be applied. The coating thus obtained is very substantial, and not, like a mere application with a brush, susceptible of being destroyed by an accidental scratch. It is, moreover, a non-conductor of electricity, which is a very important feature where a number of cells are to be connected in tension. The coating may also be applied in the shape of wood (in strips) or of paper-pulp (from wood or other material) soaked in varnish, such as above indicated, and used alone or in connection with the felt or cloth. It may be applied to other base than metal for a portable battery, and it can with advantage be applied also to stationary tanks or cisterns, such as cement tanks or cisterns.

In the accompanying drawing is shown in section a cell of a battery having a containing-vessel constructed in accordance with the invention.

A is the metal body or base, and B a fibrous coating impregnated with varnish and cemented to the base, completely covering the same, both inside and outside. C are the electrodes of metal plates covered with active material, and D the electrolyte or battery-fluid.

It is obvious that other varnish or composition having the desired property of not being attacked by the battery-fluid could be used in place of that described, which is given for the purpose of illustration.

Having now fully described my said invention and the manner of carrying the same into effect, what I claim is—

1. In a galvanic battery, a containing vessel or cell lined or coated with a non-corrodible varnish or composition, such as the varnish of pitch, linseed-oil, paraffine, and tar, united or

combined with fibrous material, such as felt, asbestos cloth, pulp, wood, or the like, substantially as described.

2. In a galvanic battery, a containing vessel  
5 or cell having a base or foundation of iron or other metal, and lined or coated, both inside and outside, with a non-conducting and non-corrodible fibrous coating, substantially as described.
- 10 3. A portable battery having a containing-

vessel lined with a non-corrodible fibrous coating, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

C. A. FAURE.

Witnesses:

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