No. 647,177. Patented Apr. 10, 1900.

R. N. CHAMBERLAIN.

STORAGE BATTERY TANK.

(Application filed Aug. 19, 1899.)

(No Model.)

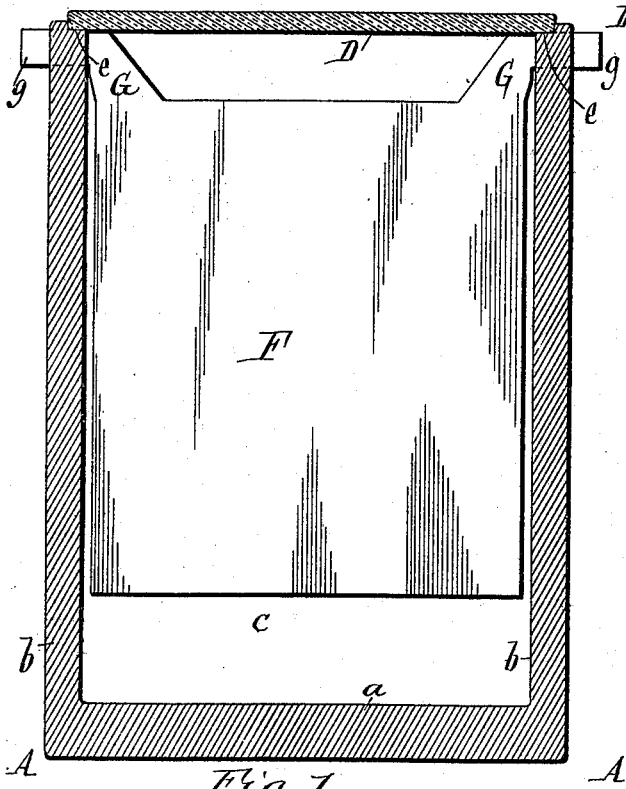

Fig. 1.

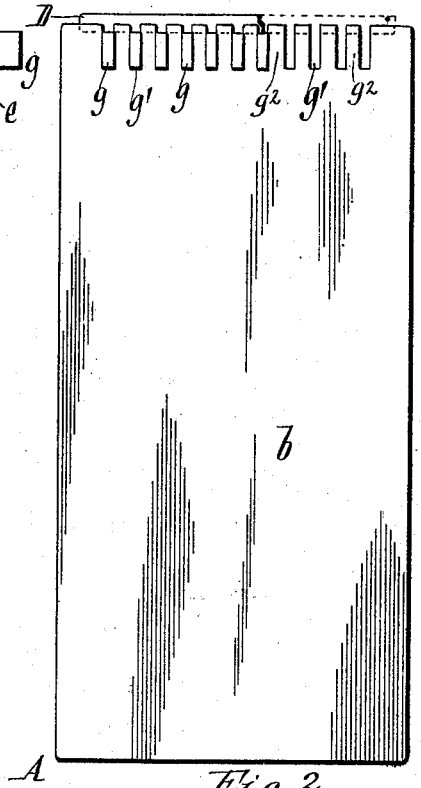

Fig. 2.

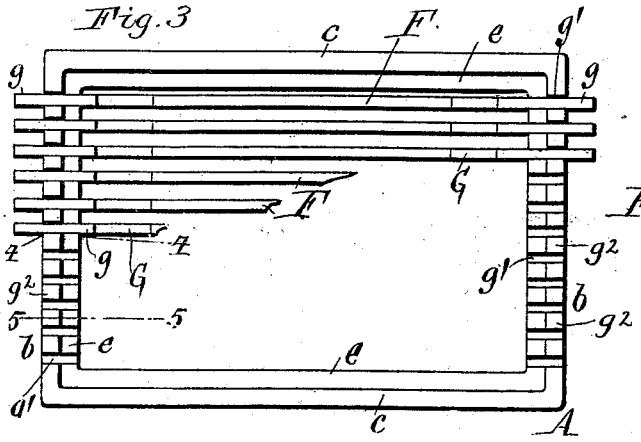

Fig. 3

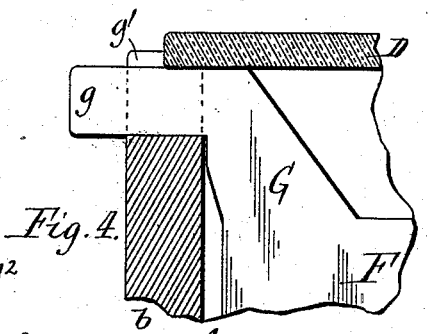

Fig. 4.

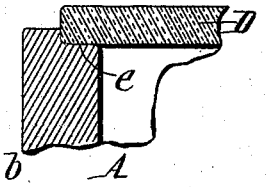

Fig. 5

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UNITED STATES PATENT OFFICE.

RUFUS N. CHAMBERLAIN, OF DEPEW, NEW YORK, ASSIGNOR TO CHARLES A. GOULD, OF PORT CHESTER, NEW YORK.

STORAGE-BATTERY TANK.

SPECIFICATION forming part of Letters Patent No. 647,177, dated April 10, 1900.

Application filed August 19, 1899. Serial No. 727,747. (No model.)

To all whom it may concern:

Be it known that I, RUFUS N. CHAMBERLAIN, a citizen of the United States, residing at Depew, in the county of Erie and State of New York, have invented new and useful Improvements in Storage-Battery Tanks, of which the following is a specification.

This invention relates to that class of electric storage batteries in which the tanks or jars of lead-lined wood, glass, or earthenware which contain the lead plates or grids are provided with covers.

The object of this invention is to so construct the tank or jar that the necks of the lead plates or grids project outside of the tank, while a practically tight fit of the cover on the tank is maintained.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of a battery-tank provided with my improvement. Fig. 2 is a side elevation of the tank with the cover and lead plates in place. Fig. 3 is a top plan view of the same with the cover removed and showing some of the lead plates in place. Figs. 4 and 5 are vertical sections, on an enlarged scale, in lines 4 4 and 5 5, Fig. 3, respectively.

Like letters of reference refer to like parts in the several figures.

A represents the tank or receptacle, consisting of a bottom *a*, end walls *b*, and side walls *c*. This tank is constructed of any suitable material, preferably earthenware.

D represents the cover, which closes the open top of the tank and which is constructed of any suitable material, preferably glass. As shown in the drawings, the end and side walls of the tank are provided in their upper ends or top faces with a rabbet *e*, in which the cover rests.

F represents the lead plates or grids, which are of any suitable construction and provided at their upper ends with laterally-projecting necks *g*, which are connected with the plates by upwardly-projecting shanks G. These plates are arranged in the tank side by side and parallel with the side walls *c* of the tank and rest with their necks in notches *g'*, formed in the upper ends of the end walls *b*. The portions g^2 of the tank which remain standing between the notches form filling-pieces which fill the spaces between the necks of the plates. The upper sides of the necks are preferably flush with the bottom of the rabbet in which the cover rests, so that the cover rests on the bottom of the rabbet and on the necks of the plates, forming a practically close or snug fit all around the top of the tank, which practically prevents the escape of moisture, but permits the escape of gas. A gas-vent in the cover is therefore not required. The necks of the plates support the plates in the tank and project outside of the tank where they can be conveniently connected.

The snug fit of the cover prevents rapid evaporation and the carrying off of solution by escaping gas-bubbles and the objectionable results arising therefrom, which are, briefly stated, the waste of solution, the necessity of replenishing the same, the corrosion of adjacent metallic parts, and the destruction of adjacent wooden parts by rot.

I claim as my invention—

1. The combination with a battery tank or jar provided in its top at opposite ends with two corresponding series of notches, of battery-plates arranged side by side, each provided at its upper end with necks which project laterally in opposite directions through said notches and have their upper sides arranged below the top surface of the jar, and a cover which rests on the jar and projects below the top surface thereof to the upper sides of said necks, substantially as set forth.

2. The combination with a battery tank or jar having its top provided with a rabbet and with two oppositely-arranged corresponding series of notches, of upright battery-plates arranged in said tank side by side and each provided at its upper ends with necks which project laterally in opposite directions and which rest in said notches and support each plate individually therein, and a cover which is arranged in said rabbet and over the necks of said plates, substantially as set forth.

3. A battery tank or jar having its top provided with a rabbet adapted to receive a cover and with two oppositely-arranged, corresponding series of notches, extending below said rabbet and adapted to receive the laterally-projecting necks of a corresponding number of battery-plates, substantially as set forth.

Witness my hand this 26th day of July, 1899.

RUFUS N. CHAMBERLAIN.

Witnesses:

P. R. DIAMOND,

F. C. GEYER.