C. HODGE.

SECONDARY OR STORAGE BATTERY.

APPLICATION FILED MAY 16, 1913.

1,125,321

Patented Jan. 19, 1915.

2 SHEETS—SHEET 1.

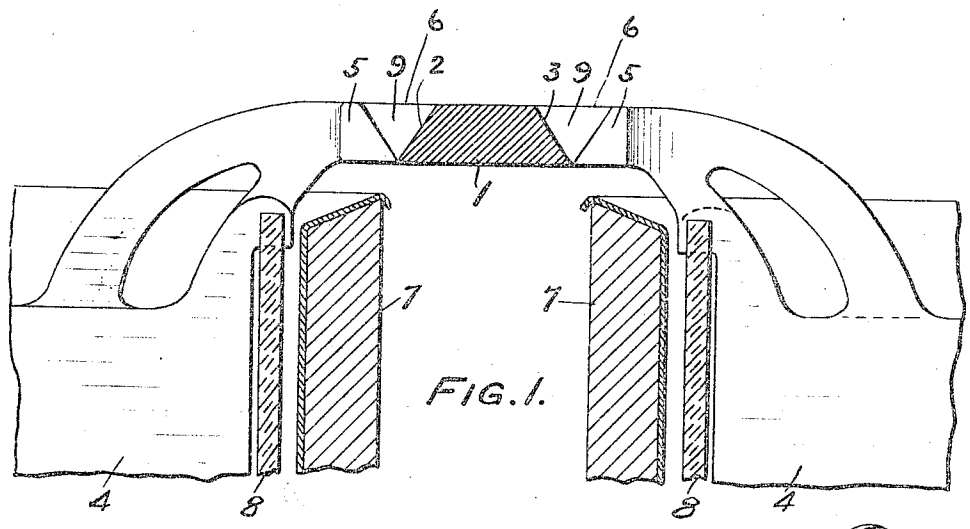


FIG. 1.

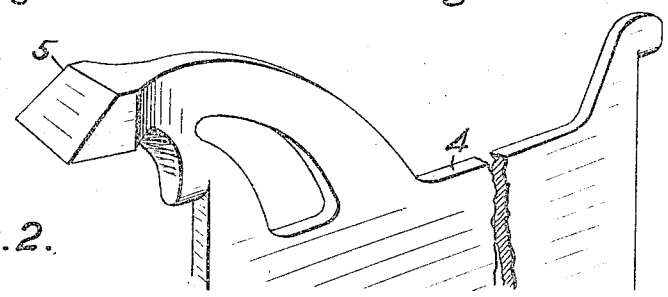


FIG. 2.

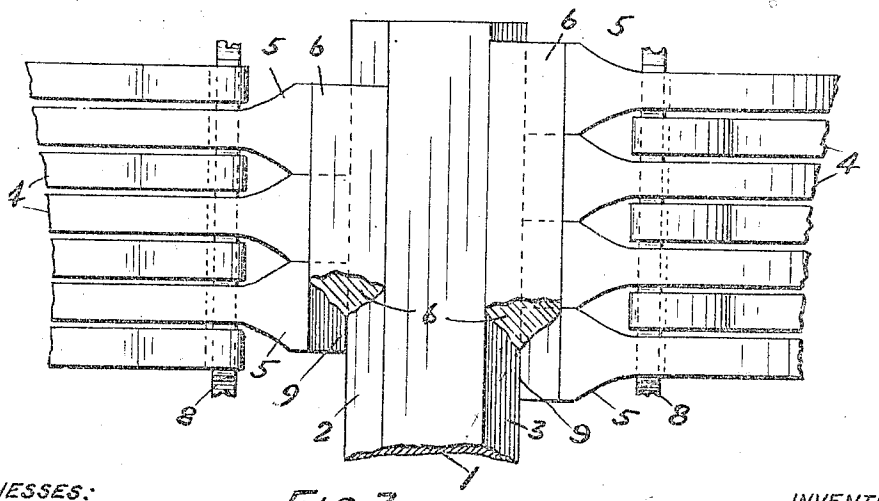


FIG. 3.

WITNESSES:

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2 SHEETS—SHEET 2.

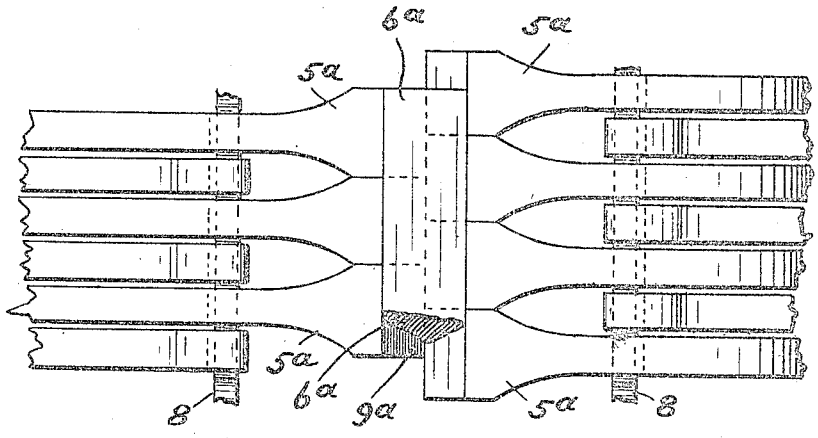


FIG. 4.

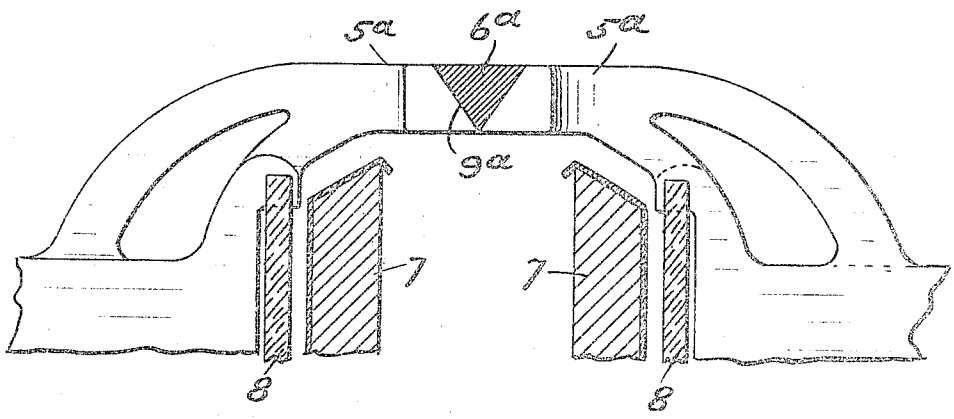


FIG. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CARROLL HODGE, OF RADNOR, PENNSYLVANIA.

SECONDARY OR STORAGE BATTERY.

1,125,321. Specification of Letters Patent. Patented Jan. 19, 1915.

Application filed May 16, 1913. Serial No. 767,977.

To all whom it may concern:

Be it known that I, CARROLL HODGE, a citizen of the United States, residing at Radnor, in the county of Delaware and State of Pennsylvania, have invented certain new and useful improvements in Secondary or Storage Batteries, of which the following is a specification.

The principal object of the present invention is to cheapen, improve and facilitate the connection by burning between adjacent cells, and between the bus bar and the plate lugs avoiding the use of forms in the burning operation and obtaining an excellent contact.

The invention will be claimed at the end hereof, but will be first described in connection with the embodiment of it chosen from among other embodiments of it for illustration in the accompanying drawings, in which—

Figure 1, is a side view, partly in section, of so much and such parts of a storage battery as are necessary for an illustration of the invention. Fig. 2, is a perspective view of a plate shown in Fig. 1, with parts thereof broken away. Fig. 3, is a top or plan view of the construction shown in Fig. 1. Fig. 4, is a top or plan view illustrating a modification of the invention in which the bus bar is not employed, and Fig. 5, is a view similar to Fig. 1, but showing the modification of Fig. 4.

In the drawings 1, is a bus bar having a beveled face or perhaps more accurately two beveled faces 2 and 3. Each plate 4, has a beveled lug 5, extending laterally beyond the faces of the plate.

6, is a metal filling which is co-extensive with the lugs of the plates and connects them with the bus bar 1.

In use the plates are mounted in a tank or container 7, and are properly supported therein, for example, by a support 8. The lugs of the plates by reason of their width contact with each other at each end of the tank. More accurately, the lugs of the alternate plates contact with each other at each end of the tank. The contacting lugs of a number of plates are made to touch the side of the bus bar 1. The beveled face of the bus bar and the beveled faces of the lugs constitute a long continuous groove 9, shown in Fig. 3. By burning and puddling this groove 9, is filled with metal 6, thus connecting the bus bar and lugs. Puddling is the term applied in the art to describe the operation which consists in burning or joining two pieces together while applying molten metal to the joint. It may be said to be something like soldering but the metals are usually all the same, whereas in soldering or brazing the applied metal is often different from the other metals. Since the groove is continuous, forms are not required and the assembling operation may be performed rapidly, successfully and comparatively inexpensively.

In the modification shown in Figs. 4 and 5, the construction and arrangement are as above described, except that the bus bar 1 is omitted and the lugs 5^a of the plates are of appropriate length. For example, they may be somewhat longer than in Fig. 1. The metal 6^a is puddled into the groove 9^a, which, however, in this modification is constituted by the opposed beveled ends of the lugs 5^a.

The invention is not intended to be limited further than the prior state of the art may require, but

What I claim as new is:

1. In a storage battery the combination of a bus bar having a beveled face, a plurality of plates each having a bevel-faced lug extending laterally beyond the faces of the plate, said lugs adapted to contact laterally with each other forming with the face of the bus bar a continuous groove, and metal filling said groove to burn the parts together, substantially as described.

2. The combination in a storage battery of a plate of one polarity, plates of opposite polarity arranged on opposite sides of said plate and each of the last named plates provided with a bevel-faced lug which extends laterally beyond its faces, the lateral extensions of said lugs being substantially in contact to form a continuous groove section for puddling purposes.

In testimony whereof I have hereunto signed my name.

CARROLL HODGE.

Witnesses:
G. W. WOODWARD,
BRUCE FORD.