No. 794,501. PATENTED JULY 11, 1905.

M. HEISSER.

STORAGE BATTERY GRID.

APPLICATION FILED JULY 5, 1904.

Fig. 1.

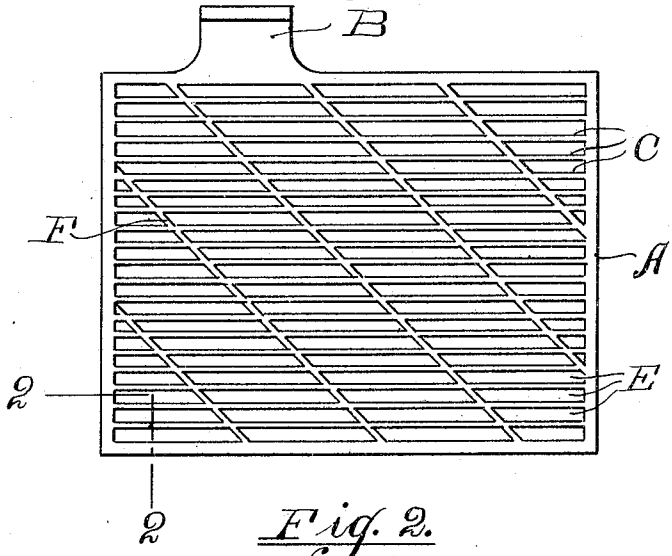
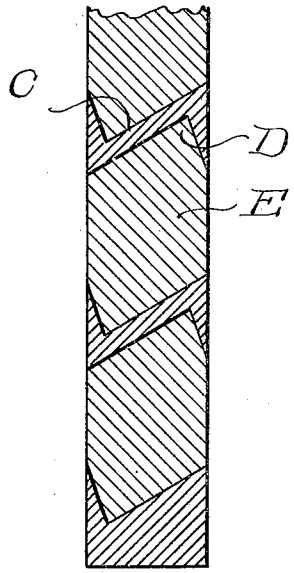


Fig. 2.



Witnesses:

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No. 794,501. Patented July 11, 1905.

UNITED STATES PATENT OFFICE.

MICHAEL HEISSER, OF CHICAGO, ILLINOIS.

STORAGE-BATTERY GRID.

SPECIFICATION forming part of Letters Patent No. 794,501, dated July 11, 1905.

Application filed July 5, 1904. Serial No. 215,337.

To all whom it may concern:

Be it known that I, MICHAEL HEISSER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Storage-Battery Grids; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a novel construction in a storage-battery grid, the object being to provide a grid in which the lead oxid is securely held and the supporting-bars are so formed as to prevent the same from being oxidized, and thus eaten away to an extent to cause the lead oxid to be released, and, further, to provide a grid which can be easily cast and in which the current is led with the least resistance to the pole; and it consists in the features of construction hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a side elevation of a storage-battery grid constructed in accordance with my invention. Fig. 2 is a detail vertical transverse section, on an enlarged scale, on the line 2 2 of Fig. 1.

My said grid consists of an outer frame A, of lead, of ordinary construction, having the pole B, and which is traversed by a plurality of parallel bars C, which are **Z**-shaped in cross-section, the said bars forming substantially **V**-shaped grooves D, in which the lead oxid E is held. The said bars C are so made that the flanges of same terminate in sharp points and are wedge-shaped, so as to resist attack by the liquid in the battery, it being well known that such liquid readily attacks the lead at the sharp corners presented thereby, but is slow to eat its way through a greater thickness of the metal. The outer walls of the flanges of said bars C lie in parallel planes, so that the finished grid is perfectly smooth on both sides when completed and the lead oxid has been introduced. The said bars C are made as light and thin as possible, and consequently will not bear great strains very readily. To this end said bars require to be reinforced between their ends, and this I accomplish by casting integral with said bars inclined cross bars or braces F, the latter being regularly spaced and extending substantially diagonally through the grid. The longest of said cross-bars F extend from the base of the pole B to the farthest corner of the grid, so that the current is led as directly as possible from the remotest portions of the grid to said pole, thereby reducing the resistance to a minimum.

My said grid is very advantageous by reason of the fact that it serves to firmly retain the lead oxid and presents a minimum of corners for the attack of the liquids in the battery, besides being very easy to cast, as it requires only a very simple mold.

I claim as my invention—

1. A storage-battery grid comprising a frame provided with a plurality of parallel cross-bars, said cross-bars being **Z**-shaped in cross-section and so disposed that the webs of the said bars extend at an incline from one side to the other of said frame and the outer faces of the flanges of all of said bars lie in two substantially parallel planes, said bars providing substantially **V**-shaped grooves in their upper and lower faces for retaining lead oxid, the flanges of said bars being wedge-shaped and terminating in sharp edges.

2. A storage-battery grid comprising a frame provided with a plurality of parallel cross-bars, said cross-bars being **Z**-shaped in cross-section and so disposed that the webs of the said bars extend at an incline from one side to the other of said frame and the outer faces of the flanges of all of said bars lie in two substantially parallel planes, said bars providing substantially **V**-shaped grooves in their upper and lower faces for retaining lead oxid, the flanges of said bars being wedge-shaped and terminating in sharp edges, and reinforcing-bars extending substantially diagonally through said grid and connected with said cross-bars at regular intervals.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

MICHAEL HEISSER.

Witnesses:

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