

June 10, 1924.

1,497,531

J. M. AHLGREN

BATTERY CONTAINER

Filed July 11, 1921

FIG. 1

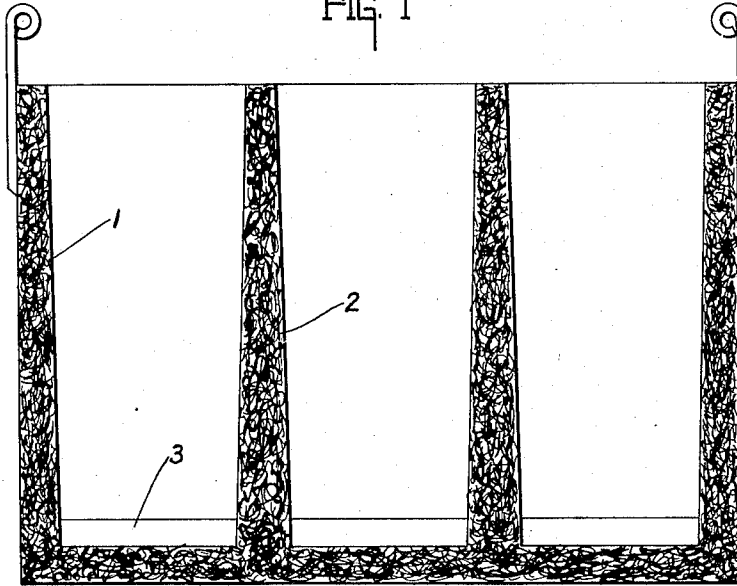
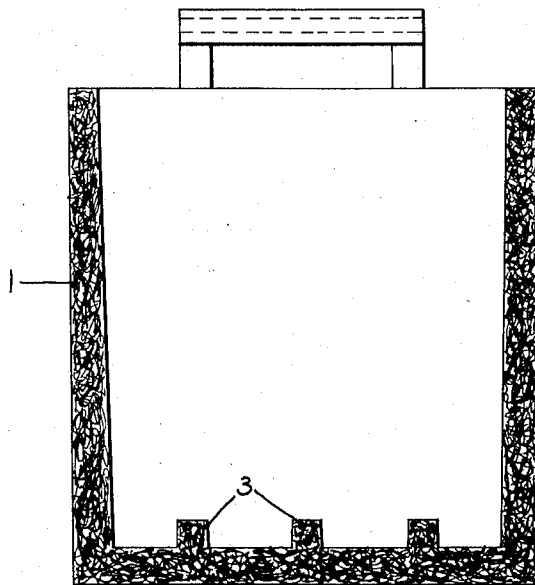


FIG. 2



INVENTOR.

JOHN M. AHLGREN.

BY

Edward J. [Signature]

ATTORNEY.

Patented June 10, 1924.

1,497,531

UNITED STATES PATENT OFFICE.

JOHN M. AHLGREN, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO AHLBELL BATTERY CONTAINER CORPORATION, OF CHICAGO, ILLINOIS, A CORPORATION.

BATTERY CONTAINER.

Application filed July 11, 1921. Serial No. 483,883.

To all whom it may concern:

Be it known that I, JOHN M. AHLGREN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Battery Containers, of which the following is a specification.

This invention relates to storage battery containers and is a further development of the art over my former Patents, #1,306,679, issued June 17, 1919, and #1,341,871, issued June 1, 1920, and the prime feature of the present invention, in addition to forming a complete unitary one-piece container, is in impregnating the material of which the container is formed, with an acid resisting substance, thereby simplifying the construction shown in my former patents, without detracting from the strength or acid resisting qualities thereof.

A further feature of the invention is in forming the parts of the container of such substance or substances as may be readily shaped to form a container when in a pliable condition, all the parts of which are integrally connected with each other and forming a one piece structure.

A further feature of the invention is the provision of means or substances, which, when added to the container forming body material, will resist cracking tendencies and increase the cohesiveness and toughness of the substances forming the walls and partitions of the container, at the same time providing a limited resiliency or give to the structure, so that strains to which the container may be subjected when used in connection with an automobile, will not tend to effect or in any manner form leakage spaces through the walls or partitions of the container.

Other objects and advantages will be hereinafter more fully set forth and pointed out in the accompanying specification.

In the accompanying drawings,

Figure 1 is a longitudinal sectional view through a container, and

Figure 2 is a transverse sectional view through the container.

Referring to the drawings, 1 indicates the side and end walls of the container; 2 the partition wall therefor; and 3 indicates supporting ribs for the battery plates, the body composition of said parts being formed

of a fibrous substance to which is added substances to lend cohesiveness and pliability thereto, as well as filling the interstices of the fiber and rendering the parts of the container impervious to acid.

Any suitable material or substance may be employed for this purpose, but I preferably employ comminuted rubber as a body, to which is added asbestos or linen fiber for lending cohesion to the comminuted particles, and to these particles is added sulphur and litharge for filling the interstices or pores of the body and rendering the product impervious to acids used in battery constructions. In compounding the ingredients approximately 80 per cent of rubber is used to which is added substantially 5 per cent of asbestos or linen fiber, 5 per cent of sulphur and 10 per cent of litharge.

This compound is mixed or treated in a set of regulation rubber mixing rolls, and then calendered to the proper thickness to form the various parts of the container when properly shaped, or a molding process may be employed in forming the container, in which molds are used, as set out in my former Patent 1,306,679, the composition being treated while still in a plastic state.

In either instance the product is so treated that when reduced to the form of a container, a single one-piece concrete structure will be produced thereby, eliminating any joints or points of union subject to separation when subjected to strains incident to usage; consequently no seams will develop through which the liquid contents of the container might escape.

The addition of the fiber to the rubber content together with the sulphur and litharge renders the product very cohesive and tough, so that although the parts of the container may have a very limited give or resiliency, yet an extremely durable structure will be provided, owing to the fact that the container is in one piece, and the addition of the other elements renders the product acid proof, and serves to more uniformly cement the product together.

It will thus be seen that I have not only provided as efficient a structure as formerly, but have greatly simplified the structure and materially reduced the cost of production, and without detracting from the strength and durability of the completed article.

Furthermore, the acid resisting qualities of the composition will be as fully conserved by placing the acid resisting properties directly within and making the same a part 5 of the compound, as would be accomplished by forming an acid resisting lining interiorly and exteriorly of the container.

It is to be understood that my invention extends to equivalent substances as well as 10 to those referred to by name and that the claims are to be construed accordingly even though specific terms are used therein such terms being for clearness and not for limitation.

15 The invention claimed is:—

1. A battery box molded out of a compound comprising comminuted rubber, asbestos, sulphur and litharge, substantially as set forth.

2. An integral battery box molded out of 20 plastic material comprising comminuted rubber, a fibrous binder, and acid-resisting material, substantially as set forth.

3. An integral battery box molded out of plastic material comprising a relatively 25 large proportion of comminuted rubber, and smaller proportions of a fibrous binder and acid-resisting material, substantially as set forth.

In witness whereof, I have hereunto set 30 my hand and seal at Chicago, Illinois, this 5th day of July, A. D. nineteen hundred and twenty-one.

JOHN M. AHLGREN. [L. S.]

Witnesses:

MAXIN FELLE,
H. R. FULLER.