

# UNITED STATES PATENT OFFICE.

WILLIAM MORRISON, OF DES MOINES, IOWA.

SEPARATOR FOR STORAGE-BATTERY PLATES.

1,058,779.

Specification of Letters Patent.

Patented Apr. 15, 1913.

No Drawing.

Application filed September 7, 1912. Serial No. 719,196.

*To all whom it may concern:*

Be it known that I, WILLIAM MORRISON, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Separators for Storage-Battery Plates, of which the following is a specification.

My invention relates to a wooden separator for storage battery plates and to a method of producing the same, and has for its object to remove as far as possible the sap and other constituents of the wood, which, when subjected to the electrolyte of a storage battery, have a deleterious action on the battery plates.

The process comprises immersing the wood in a heated bath, preferably of melted paraffin, in which it is kept at a temperature high enough to cause the liquids contained in the wood to be absorbed or driven off. A temperature not much below that at which the wood will char is preferably used. The wood is kept in the heated bath until the ebullition caused by the escaping steam and vapor has subsided. The highly-fluid and very hot material penetrates the pores of the wood and subjects it throughout its whole body to the action of the heat. The wood is then removed from the heated bath and immersed in gasoline or other suitable solvent of the bath material, to dissolve any such material still adhering to the wood, thus leaving the wood free from deleterious substances.

While I prefer to use paraffin as the material for the heating bath, other waxes which become highly fluid when melted, or high boiling point oils, capable of being

heated to the required degree and then removed from the wood, may be used; and I have used the term "melted wax" in the claims to include both classes of material.

It has been found, in practice, that separators made from wood treated in the manner above described, are substantially free from ingredients which, under the action of the electrolyte of the battery, would form compounds injuriously affecting the plates.

I claim:—

1. A separator for storage battery plates, composed of wood which has been treated by a process comprising heating it in a bath of melted wax at a temperature and for a time sufficient to drive off the volatile ingredients of the wood, removing the wood from the bath, and then dissolving from the wood the residual bath material.

2. A process of treating wood for separator plates, which comprises heating it in a bath of melted paraffin at a temperature and for a time sufficient to drive off the volatile ingredients of the wood, removing the wood from the bath, and then dissolving out the paraffin from the wood.

3. A process of treating wood for separator plates, which comprises heating it in a bath of melted wax to a temperature and for a time sufficient to drive off the volatile ingredients of the wood, removing the wood from the bath, and then dissolving from the wood the residual bath material.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM MORRISON.

Witnesses:

C. W. FOWLER,

J. H. BRICKENSTEIN.