Dec. 31, 1935. C. D. GALLOWAY 2,026,030

SEPARATOR FOR STORAGE BATTERIES AND METHOD OF MAKING THE SAME

Filed Feb. 10, 1933 2 Sheets-Sheet 1

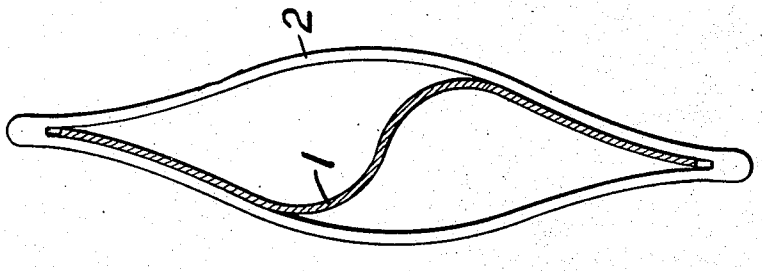



FIG. 4.

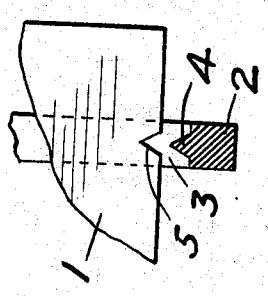



FIG. 3.

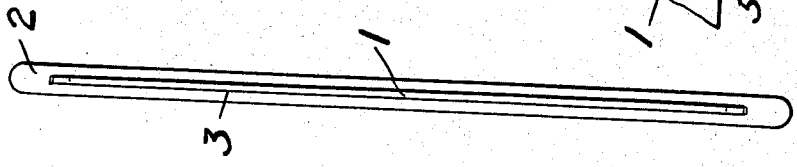



FIG. 2.

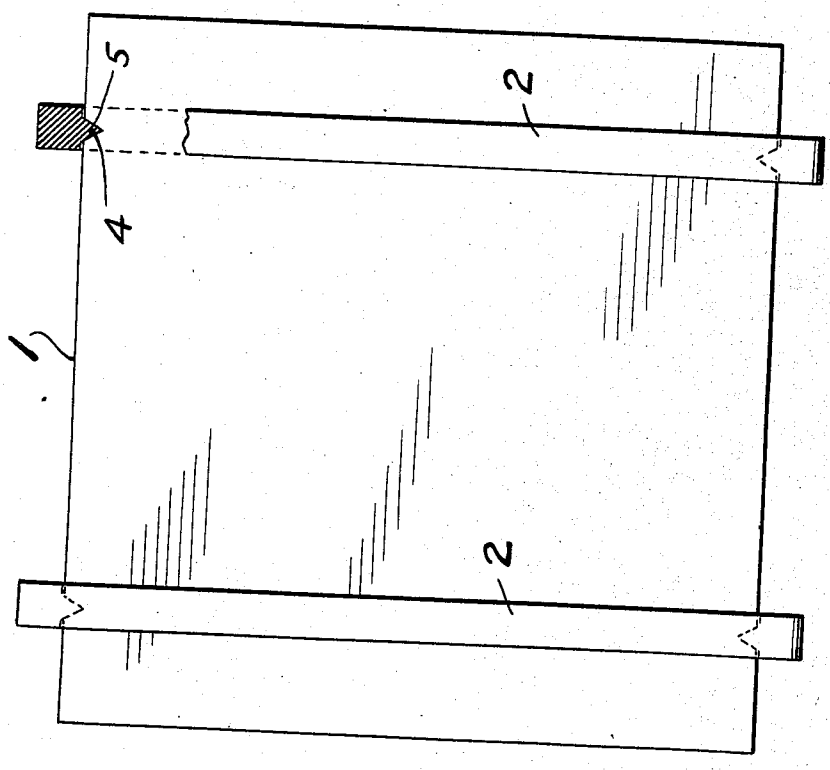



FIG. 1.

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SEPARATOR FOR STORAGE BATTERIES AND METHOD OF MAKING THE SAME

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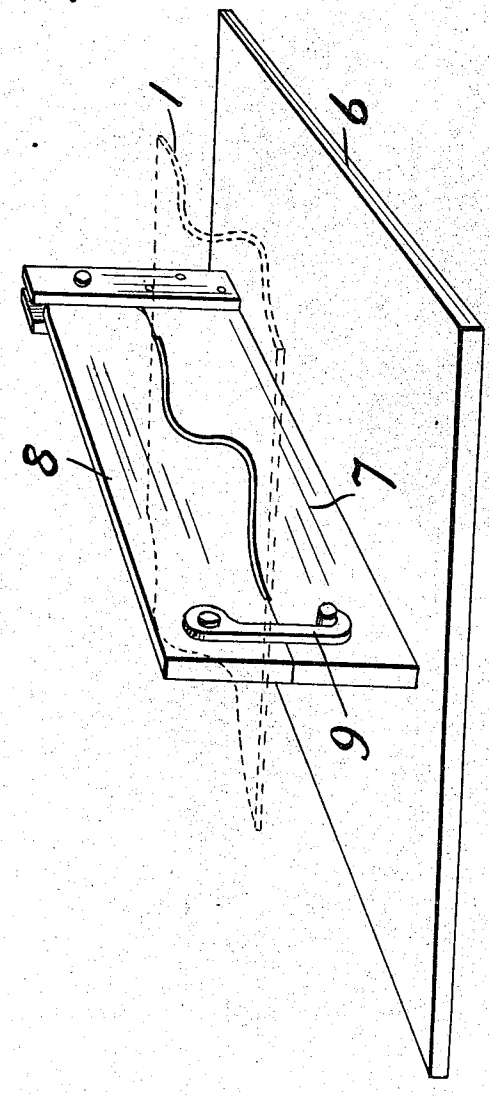



FIG. 5.

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Patented Dec. 31, 1935

2,026,030

# UNITED STATES PATENT OFFICE

2,026,030

## SEPARATOR FOR STORAGE BATTERIES AND METHOD OF MAKING THE SAME

Charles D. Galloway, Philadelphia, Pa.

Application February 10, 1933, Serial No. 656,057

2 Claims. (Cl. 136—145)

The principal object of the present invention is to provide a separator assembly which shall be efficient and possesed of the requisite mechanical strength and which can be handled and transported as a unitary structure, and another object of the invention is to provide an expeditious and simple method of making the same.

Other objects of the invention will appear from the following description at the end of which the invention will be claimed.

Generally stated, the invention consists in a wooden diaphragm and hard rubber dowels having slots through which the diaphragm extends, there being provided between the end walls of the slots and the adjacent edges of the diaphragm inter-engaging tongues and grooves which keep the parts of the assembly together.

The invention also consists in moistening and deforming the wood diaphragm and threading it through the spread walls of the notches in the dowels until the tongues and grooves are in alignment, and then flattening the parts to engage the tongues and grooves.

The invention also comprises the improvements to be presently described and finally claimed.

In the following description reference will be made to the accompanying drawings forming part hereof and in which

Figure 1 is a face view of a separator embodying features of the invention with parts broken away.

Fig. 2 is an edge view of the same.

Fig. 3 is a fragmentary view, partly in section, illustrating features of construction.

Fig. 4 is an edge view illustrating a step in the method of assembly, and

Fig. 5 is a view of a jig.

In the drawings, 1 indicates a flat wood diaphragm as of wood veneer. 2 indicates hard rubber or like dowels having slots 3 therethrough. The diaphragm extends through the slots 3 and is reinforced by the dowels. Between the end walls of the slots 3 and the adjacent edges of the diaphragm 1 are provided inter-engaging tongues 4 and grooves 5 which keep the parts in assembled position. As shown the tongues are provided in the dowels. The grooves 5 on opposite edges of the diaphragm are aligned. The dowels are assembled on the diaphragm by saturating the latter with water to make it flexible and then distoring it and the dowels are spread to allow of their application to the distorted diaphragm through the slots 3, thus permitting a dowel to be passed over the diaphragm until the tongues or projections 4 register with the notches or grooves 5, then the diaphragm and dowels are restored to flat form so that the tongues 4 and grooves 5 inter-engage and prevent the dowels from becoming displaced with respect to the diaphragm.

Referring to Fig. 5 the jig consists in a base 6 upon which is mounted a forming jig in two parts 7 and 8. The lower part 7 is stationary while the upper part 8 is hinged at one end so that it can be raised to permit the wood diaphragm to be placed in position. The upper part of the jig is then brought down and held by a hook 9 at the opposite end from the hinge. The confronting edges of the two parts of this jig are shaped in a reverse curve with enough space between to allow for the thickness of the wood diaphragm. While the diaphragm is in the jig in the position indicated by the dotted lines, the dowels which are spread apart as shown in Fig. 4 are slipped over the diaphragm from either side of the jig whereupon the jig is released and the separator with the dowels in position is flattened into its final shape, the notches in the edges of the diaphragm registering with the projections at the ends of the slots in the dowels.

It will be obvious to those skilled in the art that modifications may be made in details of construction, arrangement and procedure without departing from the spirit of the invention which is not limited to such matters or otherwise than the prior art and the appended claims may require.

I claim:

1. The method of assembling a storage battery separator comprising a wood diaphragm and slotted rubber dowels having inter-engaging tongues and grooves between the adjacent edges of the diaphragm and the ends of the slots which comprises bending the diaphragm into a reverse curve, spreading the walls of the slots, threading the bent diaphragm through the spread dowels until the tongues and grooves are in registry, and flattening the parts to engage the tongues and grooves.

2. A separator for storage batteries comprising, a wood diaphragm, hard rubber dowels having slots therein through which the diaphragm extends, and inter-engaging tongues and grooves of wedge-shape provided between both of the end walls of each slot and both of the adjacent edges of the diaphragm which tongues and grooves keep the parts of the separator in place.

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