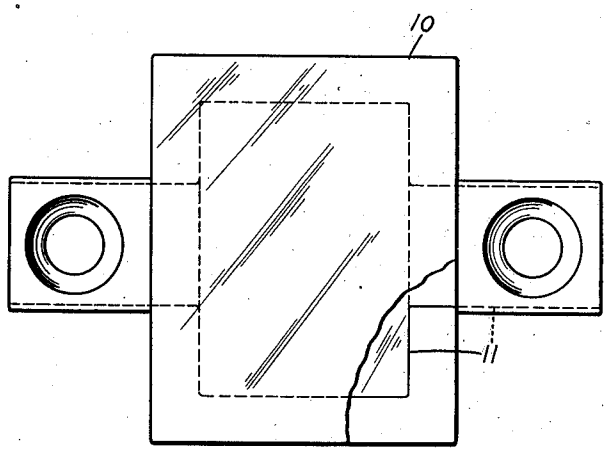
July 18, 1944. J. G. TANDBERG 2,354,074

METHOD OF IMPREGNATING ELECTRIC ARTICLES

Filed July 18, 1942



INVENTOR.
Johan Gudbrand Tandberg
BY
Thomas L. Betts
his ATTORNEY

Patented July 18, 1944 2,354,074

UNITED STATES PATENT OFFICE

2,354,074

METHOD OF IMPREGNATING ELECTRIC ARTICLES

Johan Gudbrand Tandberg, Stockholm, Sweden, assignor to Electrolux Corporation, Dover, Del., a corporation of Delaware

Application July 18, 1942, Serial No. 451,485
In Sweden June 11, 1941

2 Claims. (Cl. 117—47)

The present invention relates to a method of initially impregnating particularly electrical devices such as condensers or windings with an impregnation solution. In previously known methods of this kind for impregnating articles of the above type the latter have first been evacuated, whereupon impregnation solutions, for example in the form of phenol lac, have been supplied under pressure to the objects in question. Said impregnation method has not proved very satisfactory, however, because if the impregnation solution is viscous, it cannot entirely fill the interstices of the windings. This drawback is eliminated by the method according to the present invention, in accordance with which articles to be initially impregnated are boiled first in a liquid having a lower boiling point than that of the impregnation solution and then boiled in said solution. Benzol is suitable as the liquid of lower boiling point. The impregnation solution itself may, according to the invention, suitably consist of polystyrol dissolved in toluol-xylol.

The accompanying drawing shows, as an example of an object intended to be impregnated according to said method, a condenser whose insulation layers designated by 10 may consist of mica, whereas the metallic layers designated by 11 suitably consist of aluminium foils.

In carrying out the method according to the invention it is suitable first to dry the object to be impregnated, for example a condenser of the kind shown in the drawing, by subjecting it to heat. Thereupon the object is boiled in a liquid, such as benzol which has a lower boiling point than the impregnation solution which it is desired to use. Afterwards, the article is cooled and then boiled in an impregnation solution having a higher boiling point than the liquid in which the article was first boiled. As an impregnation solution use may preferably be made of polystyrol dissolved in toluol-xylol.

The invention obviously is not limited to the impregnation of condensers, it also being possible to impregnate according to the invention other objects, such as windings for electric machines, for instance motors, generators and the like.

What I claim is:

1. The method of initially impregnating hitherto unimpregnated articles having interstices comprising first boiling the unimpregnated articles in benzol, and then boiling the articles in a solution of polystyrol dissolved in toluol-xylol, said solution having a higher boiling point than benzol.

2. The method of initially impregnating hitherto unimpregnated articles having interstices comprising first boiling the unimpregnated articles in benzol, cooling the articles, and then boiling the articles in a solution of polystyrol dissolved in toluol-xylol, said solution having a higher boiling point than benzol.

JOHAN GUDBRAND TANDBERG.