

No. 847,910.

PATENTED MAR. 19, 1907.

E. COOPER.

PROCESS OF MAKING ARTIFICIAL MICA SHEETS.

APPLICATION FILED JAN. 10, 1907.

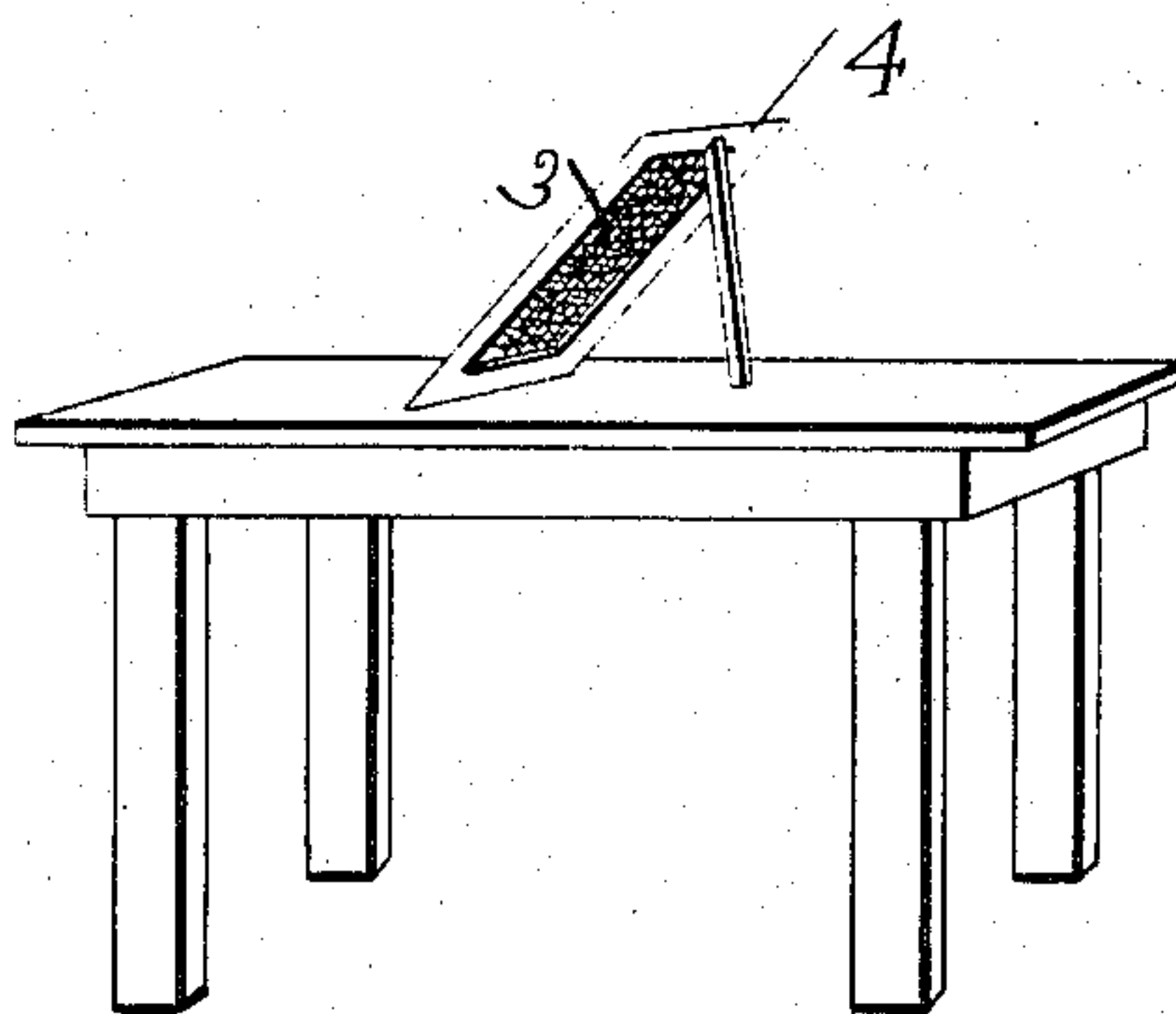
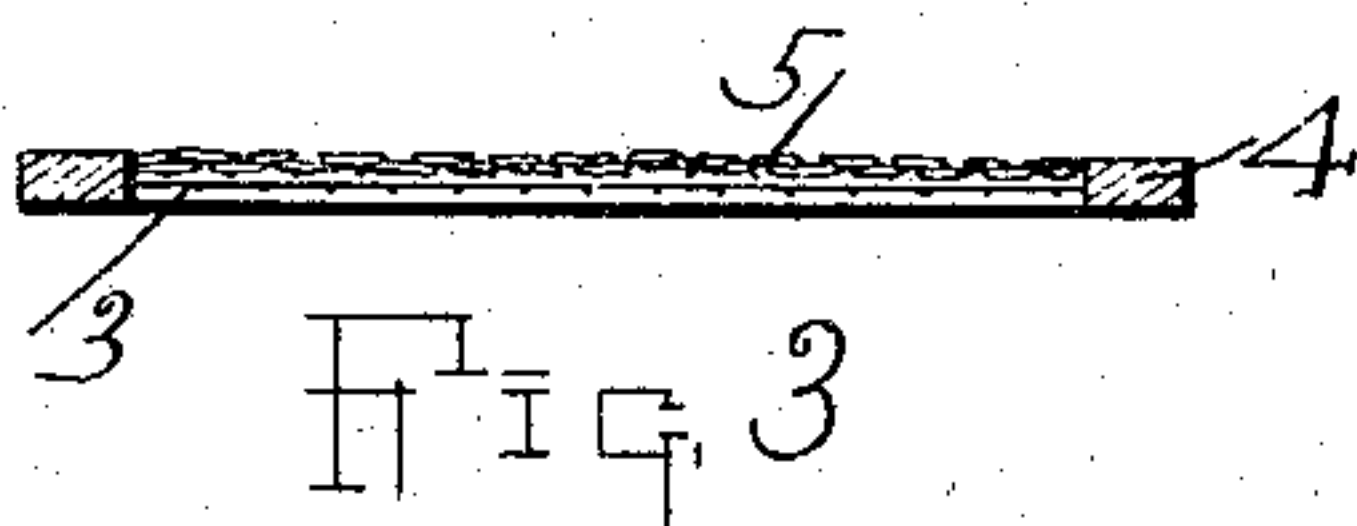
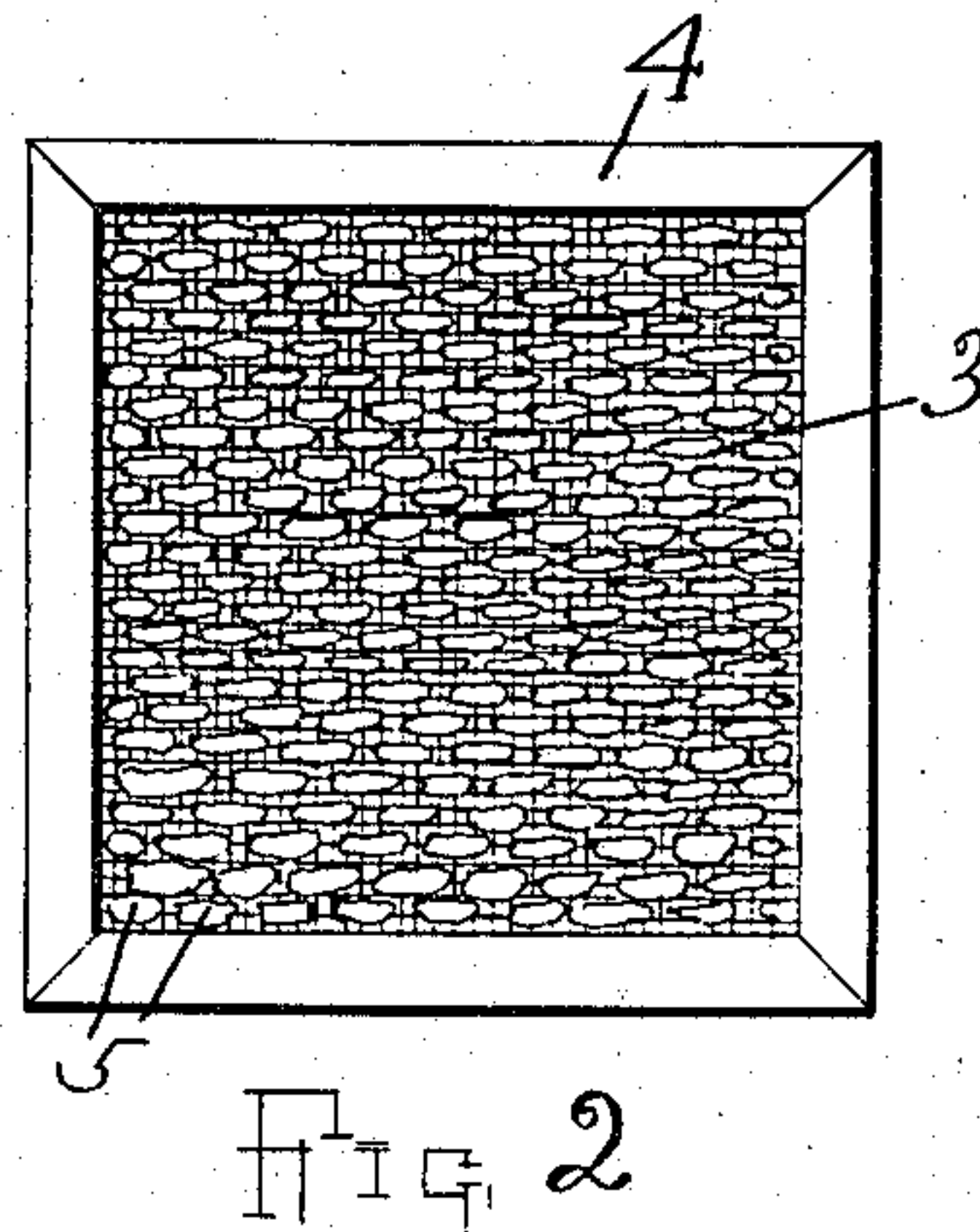
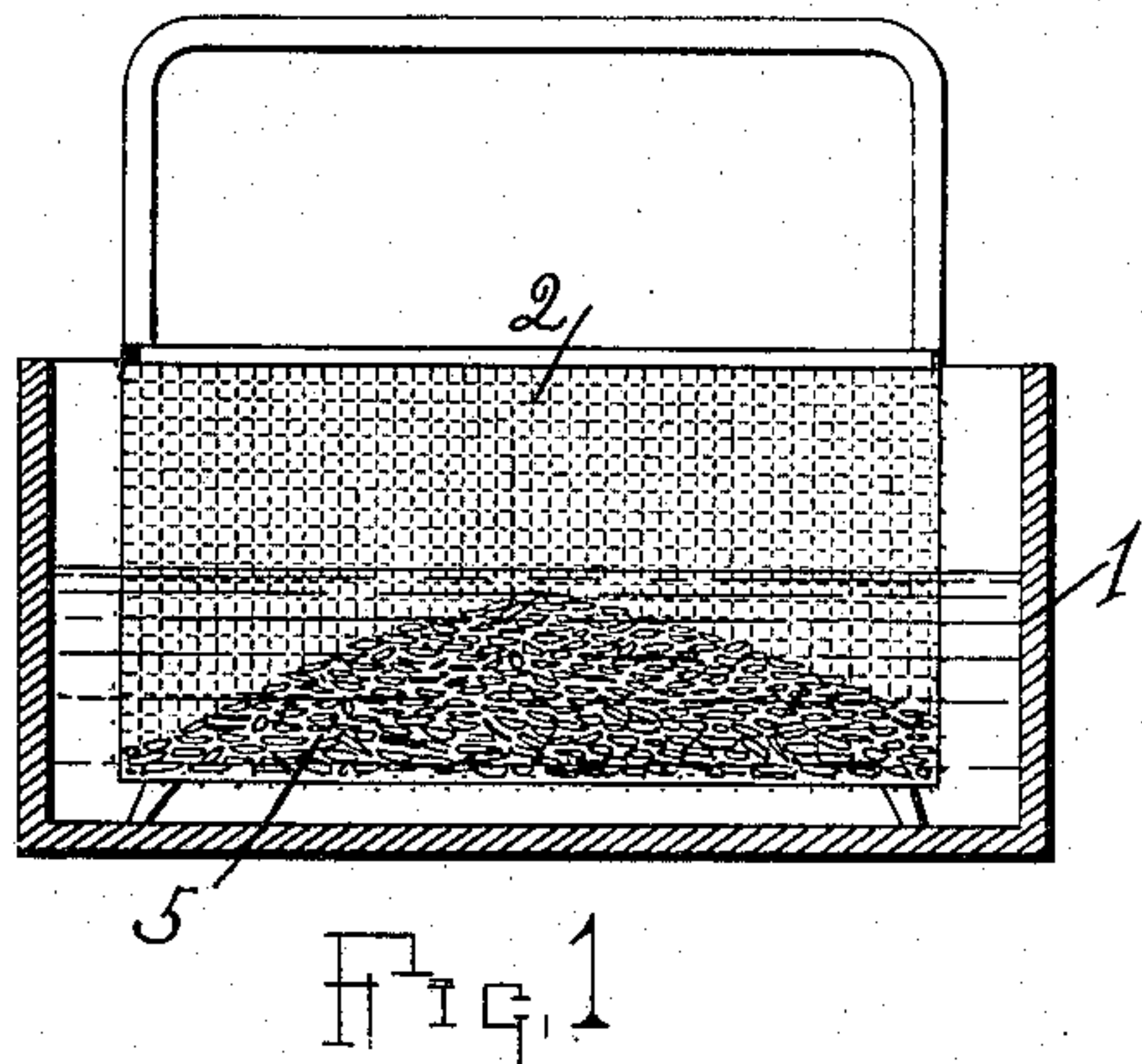


FIG. 4

Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD COOPER, OF NEWTON LOWER FALLS, MASSACHUSETTS.

PROCESS OF MAKING ARTIFICIAL MICA SHEETS.

No. 847,910.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed January 10, 1907. Serial No. 351,688.

To all whom it may concern:

Be it known that I, EDWARD COOPER, a citizen of the United States, residing at Newton Lower Falls, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Processes for Making Artificial Mica Sheets; and I do 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 an improved process of manufacturing laminated mica sheets for use in electrical insulation.

The object of the invention is to provide a process for making laminated mica sheets in a rapid and economical manner whereby a great saving of labor is obtained,

In order that the details of my invention may be fully understood, the accompanying drawings are described in connection therewith.

Figure 1 represents a longitudinal section of a cement-containing tank with a dipping-basket containing mica scales immersed therein. Fig. 2 represents a top plan view of the scale-supporting screen, showing a single layer of scales arranged thereon. Fig. 3 represents a vertical section through the screen, showing two layers of scales arranged thereon. Fig. 4 represents a perspective view of a table with the improved screen arranged thereon in tilted position to permit the light to shine through thin places in the mica sheet.

The apparatus herein shown for carrying out this process comprises a tank 1 for containing a liquid cement suitable for this purpose, copal varnish or shellac being generally employed in which the dipping-basket 2 is to be immersed. This basket is preferably made of screen-wire having a mesh sufficiently open to permit the cement to flow freely therethrough, and yet prevent the scales from dropping out. The mica scales are first placed in the basket, and the basket is then immersed in the cement in the tank 1, whereby the scales are thoroughly coated with the cement. The basket is then elevated above the tank and so held to permit the surplus cement to run off the scales back into the tank. The scales are then removed

from the basket and arranged on a perforated supporting-base, preferably made in the form of a wire screen 3, mounted in a frame 4 of wood or any other suitable material. The first layer of the scales is arranged on the screen by taking several thicknesses of the scales at one time and arranging them in place without separating each scale, as heretofore. Another layer is then placed over the spaces found between the scales forming the first layer, as shown in Fig. 3. Any desired number of layers are so arranged to form a sheet of the desired thickness. After the second layer is laid the screen is tilted into position (shown in Fig. 4) to permit the light to shine through in thin or weak places in the sheet being formed, so that the operator may reinforce these weak places by placing more scales thereover. By using a basket and immersing a large quantity of scales at one time in the cement-bath the necessity of using a brush for cementing each layer individually is avoided, also permits using several thicknesses of mica scales at a time and not be required to separate each scale and arrange in place, as in old process, on account of the mica scales being thoroughly coated with cement, and a saving of about sixty per cent. in labor is accomplished. The use of the wire screen or other perforated supporting-base for the cement-coated scales provides for the discovering of thin or weak places in the sheet being formed. There is no excess of cement after removing scales from basket.

I claim as my invention—

1. The process of making laminated mica sheets which consists in first immersing the scales in a cement-bath, then draining the so immersed scales and arranging several thicknesses thereof in one operation on a perforated supporting-base, placing another layer of scales over the spaces of said first layer to break joint therewith, then tilting said perforated support into position to permit light to shine through thin or weak places in the sheet being formed and then placing reinforcing-scales over the weak places so discovered.

2. The process of making laminated mica sheets from scales which consists in first placing scales in a perforated basket and im-

mersing it in a cement-bath, elevating said
basket to drain surplus cement from the
scales, then arranging them on a wire screen
with their edges spaced apart and in the
5 same plane and placing another layer of
scales over the spaces of said first layer to
break joint therewith.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

EDWARD COOPER.

Witnesses:

F. CURTIS.

CHARLES KNIGHT.