

No. 704,401.

Patented July 8, 1902.

J. TALUAV.
METHOD OF FRAMING GLASS.

(Application filed Mar. 22, 1898.)

(No Model.)

Fig. 1.

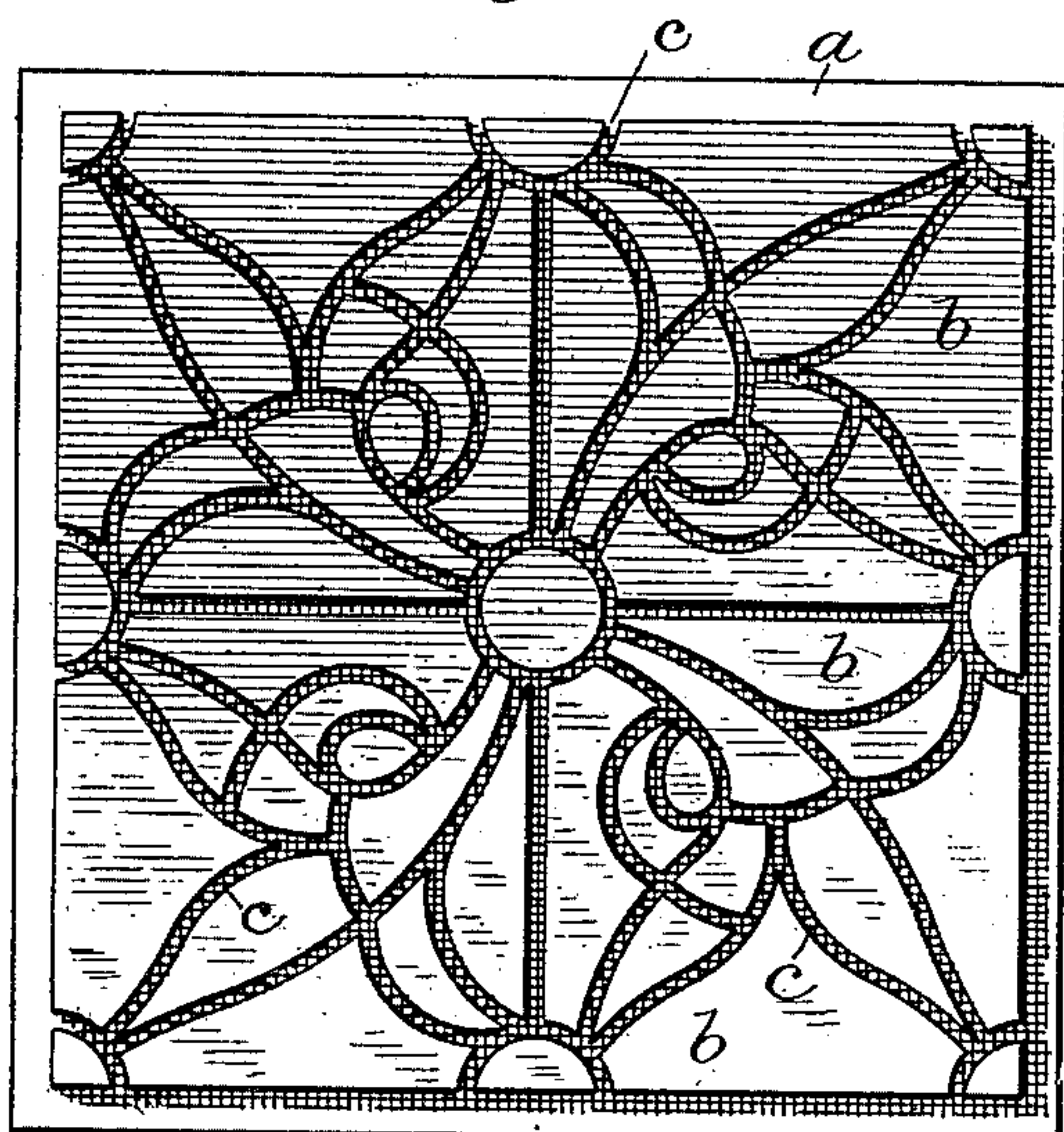


Fig. 5.

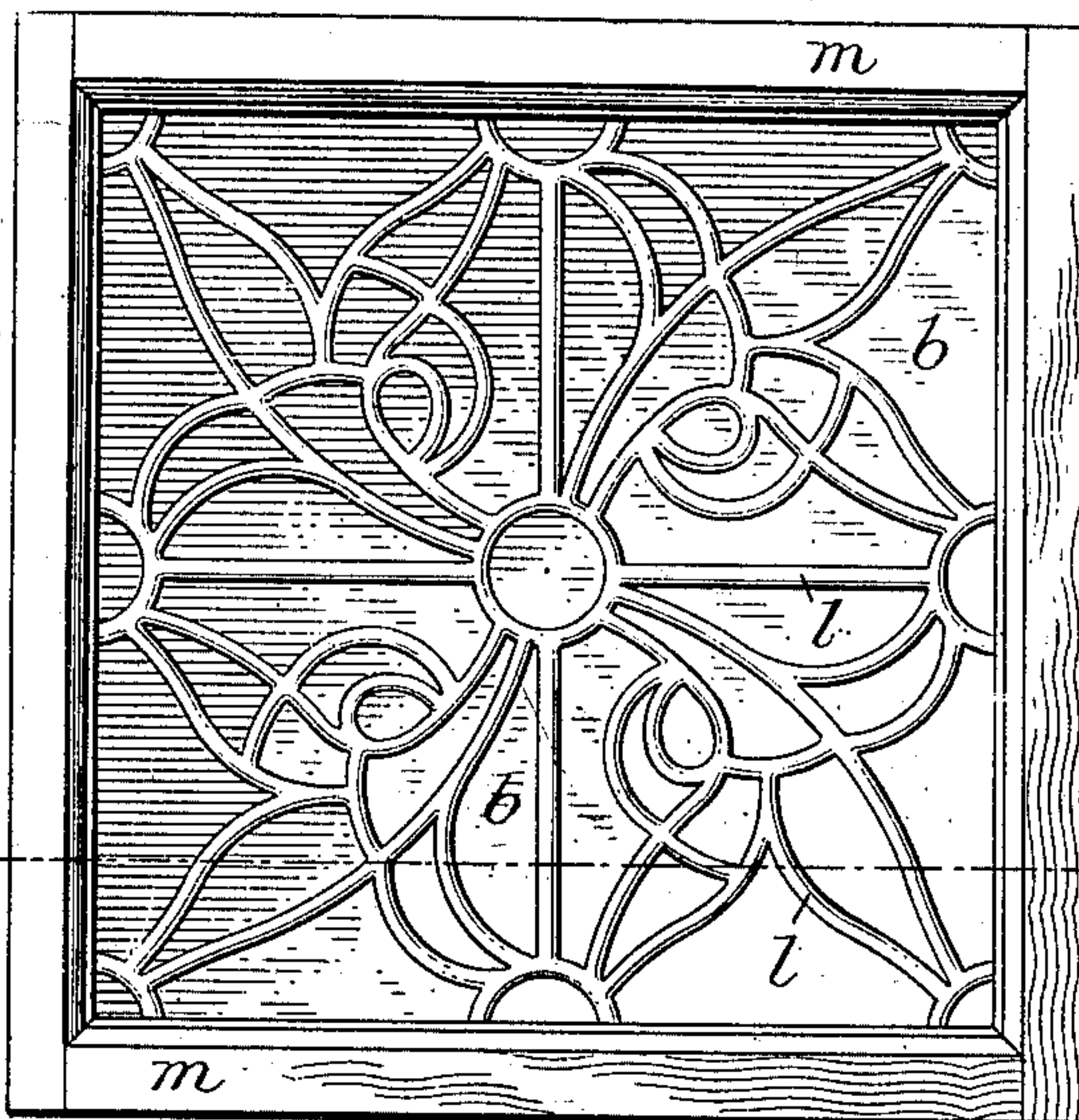


Fig. 2.

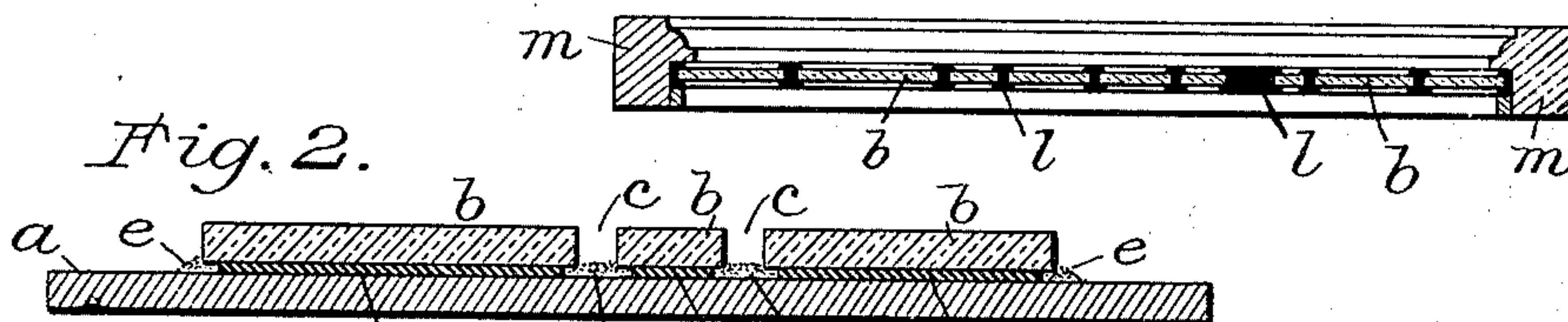


Fig. 3.

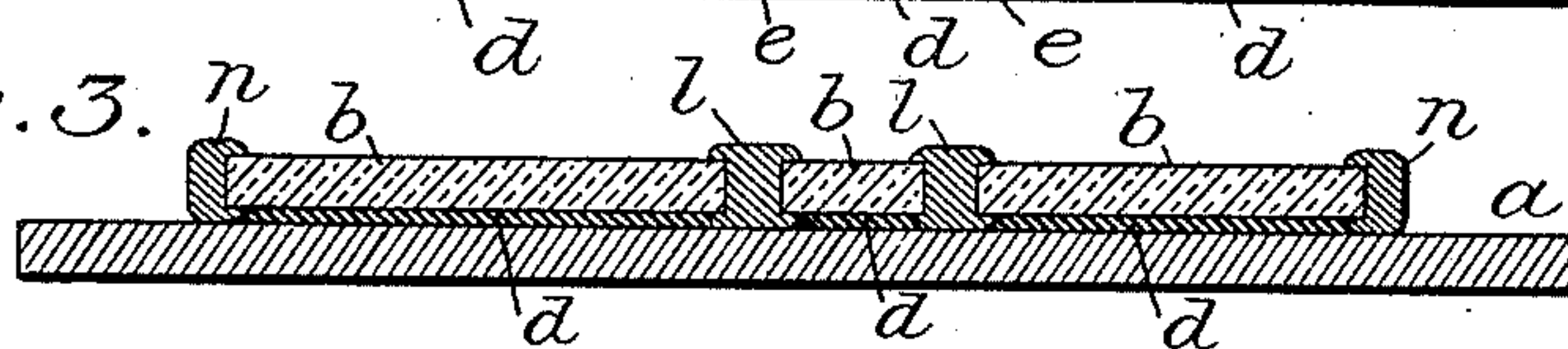


Fig. 4.

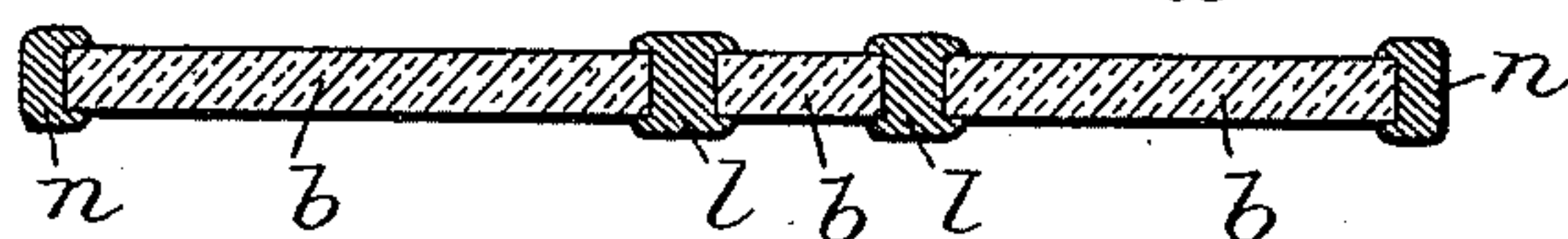
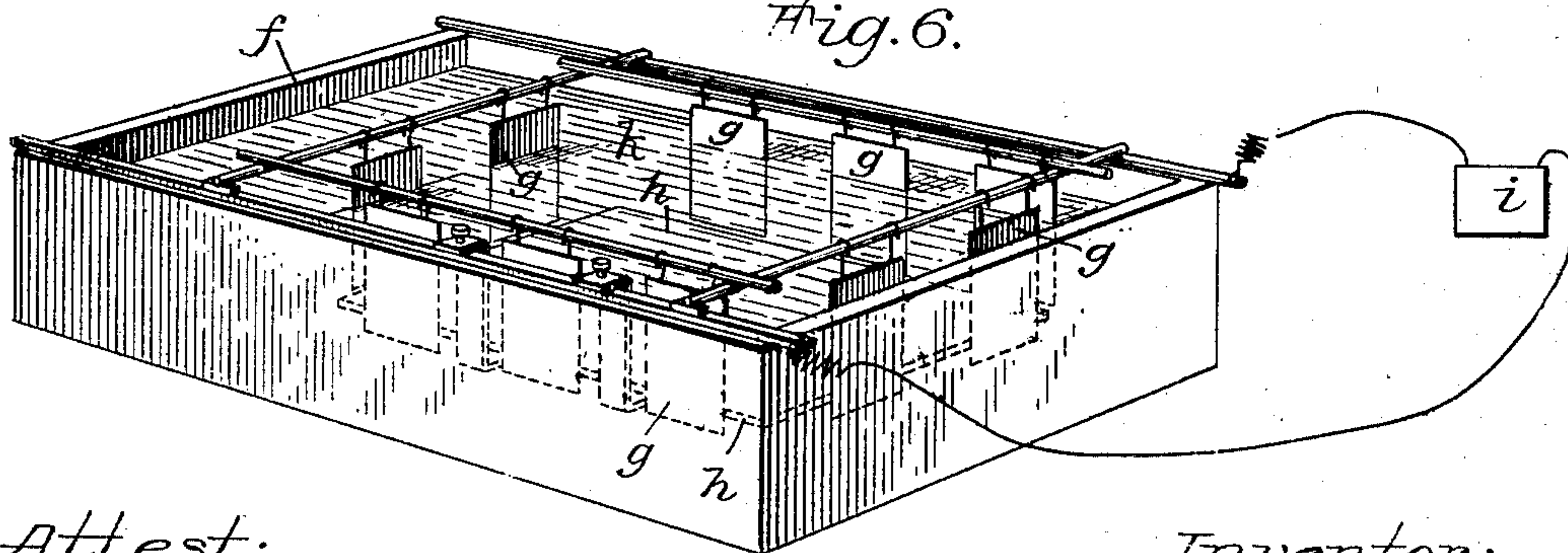


Fig. 6.



Attest:
Howell Barth
Nellie Callahan.

Inventor:
Julius Taluav.
by *Wm. F. Finckel*,
Atty.

UNITED STATES PATENT OFFICE.

JULIUS TALUAU, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HENRY W. SCATTERGOOD, OF PHILADELPHIA, PENNSYLVANIA.

METHOD OF FRAMING GLASS.

SPECIFICATION forming part of Letters Patent No. 704,401, dated July 8, 1902.

Application filed March 22, 1898. Serial No. 674,813. (No model.)

To all whom it may concern:

Be it known that I, JULIUS TALUAU, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Framing Glass, &c., of which the following is a full, clear, and exact description.

In the application for patent for stained-glass windows and similar objects filed by me on December 16, 1895, Serial No. 572,318, I have sought to cover the manufacture of such objects by the substitution of an electrodeposited framing for the lead framing theretofore common in the manufacture of such objects, and I therein described various methods of carrying out my invention. Among other things, there is described in said application a support upon which the pieces to be united are arranged in relative position with spaces between them, which spaces contain a conductor of electricity, so that when the object is placed in an electrolytic bath under proper conditions the spaces will be filled with deposited metal which will form a frame for uniting the several pieces in a unitary object. I have therein described also the cementing of the pieces to the support in order to hold such pieces in place during the period of electrodeposition and to permit the removal of the support or foundation.

At the date of the aforesaid application it was old and well known in the art to provide a stained-glass window or other composite article of similar character with a frame, so as to enable the use or setting of the objects.

This present case relates to certain forms of the broad invention common to the case referred to and to this and is designed to cover them specifically.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 shows pieces of glass arranged upon a support ready for the electrodepositing-bath. Fig. 2 is a cross-section on an enlarged and exaggerated scale. Fig. 3 is a cross-section, also on an enlarged and exaggerated scale, showing the object after the completion of the electrodepositing process. Fig. 4 is a cross-section, also on an enlarged and exag-

gerated scale, of one of the finished objects. Fig. 5 is a plan view and cross-section showing the finished object framed. Fig. 6 is a perspective view of one form of electrolytic apparatus that may be employed in carrying out my invention.

The foundation, backing, or support *a* may be of lead-foil or sheet-lead or other metal or metallized body; but whether such support be itself a conductor or be capable of receiving a conductor of electricity it should be or be made to be of sufficient rigidity to support the pieces of glass or other material to be united in a unitary design. The pieces of glass or other material *b* are appropriately arranged upon this support to form the desired object, and spaces *c* are left between their adjacent edges. The pieces *b* may be cemented to the support by the interposition of suitable adhesive material *d*, and my invention is not limited to the kind of cement, I having used wax, among other substances, for this purpose. If the support itself be not a conductor, then the pieces of glass are assembled on such support, as before, and then the support is provided in the spaces between the pieces with the metallic surface, as at *e*, that will serve as a conductor. For this purpose any suitable metallic powder may be used. Whatever the nature of the support and conductor the object to be framed after being prepared as described is subjected to the action of an electrolytic bath—such, for example, as that shown in Fig. 6, wherein *f* is the vessel; *g* and *h*, the anode and cathode, respectively; *i*, a battery or other source of electricity, and *k* the proper solution or electrolyte. When the spaces have been filled with the electrodeposited metal, as at *l*, Figs. 3 and 4, the object may be removed from the bath, and it is then ready for receiving its permanent casing or frame, such as *m*, Fig. 5, the support being removed or retained according to whether or not a transparency is desired. The electrodeposited frame may be formed also around the perimeter of the object, as indicated at *n*; but that feature of the invention is claimed in the application hereinbefore mentioned.

As already indicated, I seek herein to claim certain specific forms of the invention which

is set forth and broadly claimed in the prior application hereinbefore referred to.

What I claim is—

1. The method of uniting pieces of glass or
5 other material, which consists in arranging such pieces on a support to hold them in relative position with spaces between them, then providing an electric conductor on such support in proximity to such spaces, then exposing
10 in an electrolytic bath and electrodepositing on such conductor and within such spaces until the spaces are entirely filled with deposited metal, so as to form an electrodeposited holding-frame therefor.
- 15 2. The method of electroglazing glass and other substances, consisting in providing a support upon which the several pieces are placed in such manner as to have their adjacent edges slightly separated, some cementitious or adhesive material being interposed
20 between the support and the pieces, the spaces between the pieces being provided with an electric conductor, then inserting the object into an electrolytic bath and deposit-

ing material upon the electric conductors between the several pieces, and then removing the support. 25

3. The method of forming a series of pieces of glass or other substances into a body, consisting in placing the several pieces upon a support in such manner that their adjacent edges will be slightly separated, a quantity of cementitious or adhesive material being interposed between the pieces and the support, then applying electrically-conducted material in the spaces between the several pieces, then immersing the body in an electrolytic bath and depositing metal between the parts to be connected, and thereby connecting the pieces to adapt them to receive a surrounding frame, the support being removed or retained as desired. 35 40

In testimony whereof I have hereunto set my hand this 18th day of March, 1898.

JULIUS TALUAU.

Witnesses:

JOHN M. HARPER,
S. E. CARVER.