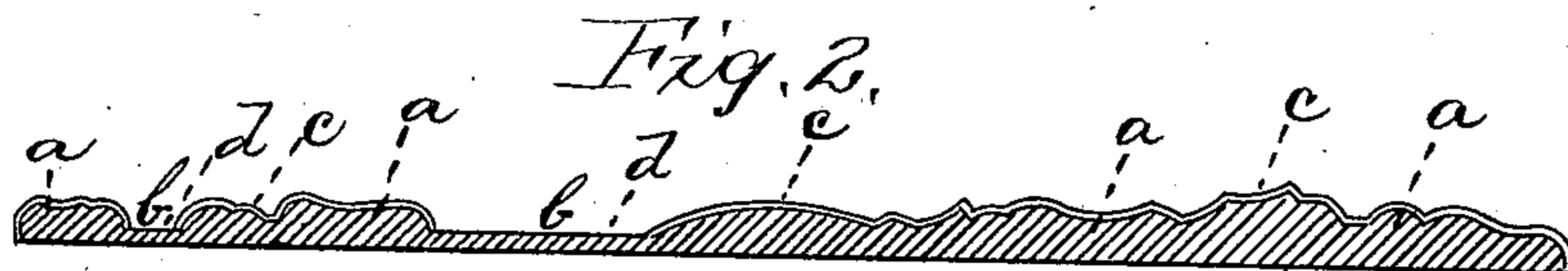
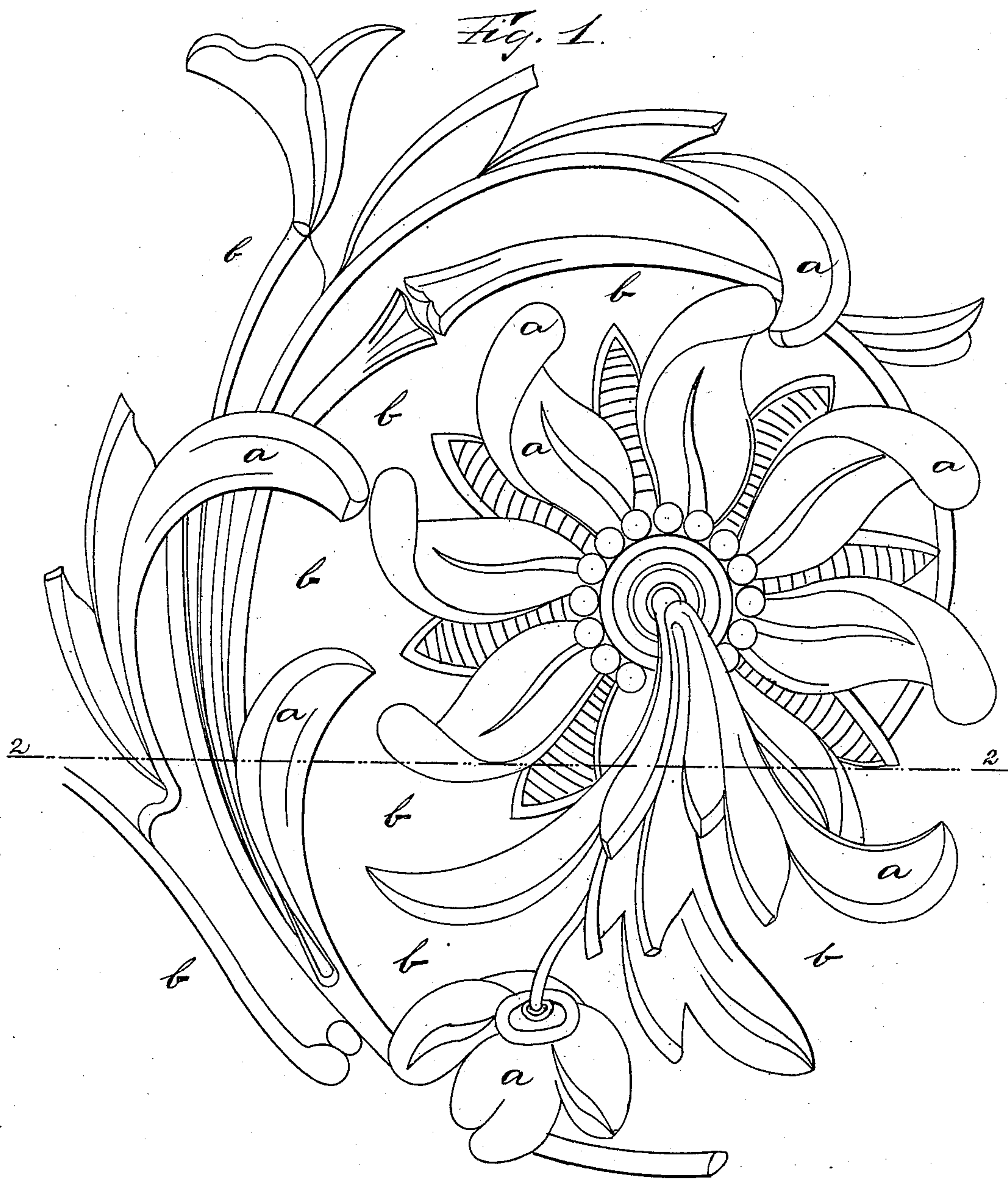


(Model.)

F. BECK.
STENCIL.

No. 316,225.

Patented Apr. 21, 1885.



WITNESSES

Phillips Abbott
John H. Kes

INVENTOR

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UNITED STATES PATENT OFFICE.

FREDERICK BECK, OF NEW YORK, N. Y.

STENCIL.

SPECIFICATION forming part of Letters Patent No. 316,225, dated April 21, 1885.

Application filed February 10, 1885. (Model.)

To all whom it may concern:

Be it known that I, FREDERICK BECK, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented a certain new and useful Stencil, of which the following is a specification.

My invention relates to a new and useful improvement in the art of decorating uneven surfaces; and it consists in a peculiarly-constructed stencil and in the process whereby the same is produced.

Prior to my invention it has been customary to employ a stencil made of thin metal, cardboard, or similar material, having portions cut out therefrom through which the color is applied to walls and ceilings, thus quickly and inexpensively producing vari-colored fresco ornamentation; but such stencils can only be practically employed on flat or, at least, substantially uniform surfaces, because when used on irregular surfaces—such, for example, as molded work made of papier-maché, lincrusta, (*i. e.*, oxidized oil and wood or other fiber,) plaster-of-paris, or the like resulting in irregular figures in relief—the stencil, even if so cut as to expose the parts of the relief desired to be colored, would not fit the relief, but, on the contrary, being a flat plate, would rest only against the most projecting parts of the relief, and consequently the bristles of the brush used to apply the color would not be confined by the stencil, but would spread laterally into the unoccupied space underneath the stencil and apply color where it was not wanted, and practically ruin the work.

My invention consists in so constructing the stencil that it will exactly fit all parts of the relief, and which will protect the parts requiring protection as completely as though the relief was a flat surface.

Figure 1 is a plan view of the stencil. Fig. 2 is a sectional view of the stencil on the line 2 2 of Fig. 1.

It will be understood that in almost all relief decoration of the kind referred to by me a certain defined design, figure, or group of figures is successively repeated, and that if a stencil be made which will fit the design, figure, or group of figures, which is successively repeated that it may be used on all the other like designs, figures, or groups of figures, be-

cause it will fit any one just as well as that which it was especially made to fit. This being the case, I take a complete design, figure, or group of figures, which, being successively repeated, constitutes the ornamentation, and cover it thoroughly—the ground as well as the relief—with a coat of plumbago or other like material having the capacity of receiving metals by electro-deposition. I then place it in the bath and deposit upon it copper or other suitable metal until the metal has attained sufficient thickness to serve the purposes of a stencil. I then remove it from the bath and take off the deposited metal, which will be in one piece and will exactly conform on its reverse side to the relief. I then, with a fine saw or in any other desired manner, remove such portions of the metal as cover the parts which I desire should appear in color, as usual in the manufacture of ordinary stencils, and then, if necessary, smooth the under side of the stencil, removing all burrs, &c. I thus produce a stencil or shield which not only accurately fits and in use will completely protect the parts requiring protection, but also, because of its irregular form, possesses the stiffness of corrugated metal and will not readily get out of shape, and also when in use will accurately register itself, since it must be in exactly the right position on the relief, or it will not fit over it and cannot be used.

In the drawings, *a* is the relief covered with the deposit of metal. *b* is the base of background on which the relief is formed, (shown as flat in the drawings, although it may be of any other shape,) and *c* is the coating of deposited metal. (Seen more clearly in Fig. 2.) At *d d* are seen two spaces where the metal is absent. These are intended to represent the spaces where the color is to be applied, it being assumed that the stencil shown in the drawings is one prepared to color the background of the design.

The parts sawed out from the stencil may themselves be fastened together by soldering arched pieces of stiff wire from one to the other, thus forming another stencil, which I will call "stencil No. 2," by the use of which different colors can be applied to the parts protected by the use of the stencil first obtained; or a series of stencils can be made in the same manner that the first one was made, for the application of different colors to different parts of

the relief. In making stencil No. 2 the wires connecting the several pieces should be arched to such a degree that they will not touch any part of the relief, and also preferably so much
5 that the brush can be inserted under them, if desired, so as to apply the color underneath them.

Instead of applying the plumbago or other like substance to all parts of the relief, thus
10 producing, by means of the bath, a sheet of metal corresponding to the entire face of the relief from which the parts through which the color is to be applied must be afterward removed, I sometimes apply the plumbago to
15 such parts of the relief only as it is desired to protect by the stencil when in use. The metal will be deposited only on such parts as are covered with the plumbago, and there will be no necessity of cutting out or otherwise removing the portions through which the color is to
20 be applied.

The material composing the relief—*i. e.*, the papier-maché, lincrusta, (*i. e.*, oxidized oil and wood or other fiber,) plaster-of-paris, or other
25 substance—may be removed wherever the deposit of metal is not desired, either prior or

subsequent to putting the plumbago or like substance on the relief, if desired. This latter method—*i. e.*, removing portions of the relief or irregular surface before immersion in the
30 bath—may be practiced when the uneven surface or relief is composed of substances which will themselves receive metals by electro-deposition.

The process for the manufacture of these
35 stencils I have claimed in an application for patent therefor now pending.

Having thus described my invention, I claim—

As a new article of manufacture, a stencil
40 for use on uneven surfaces, the under side whereof matches the uneven surface over which it is placed when in use, substantially as and for the purposes set forth.

Signed at New York city, in the county of
45 New York and State of New York, this 28th day of January, A. D. 1885.

FR. BECK.

Witnesses:

JOSEPH HUGHES,
W. J. ANDERSON.