

(No Model.)

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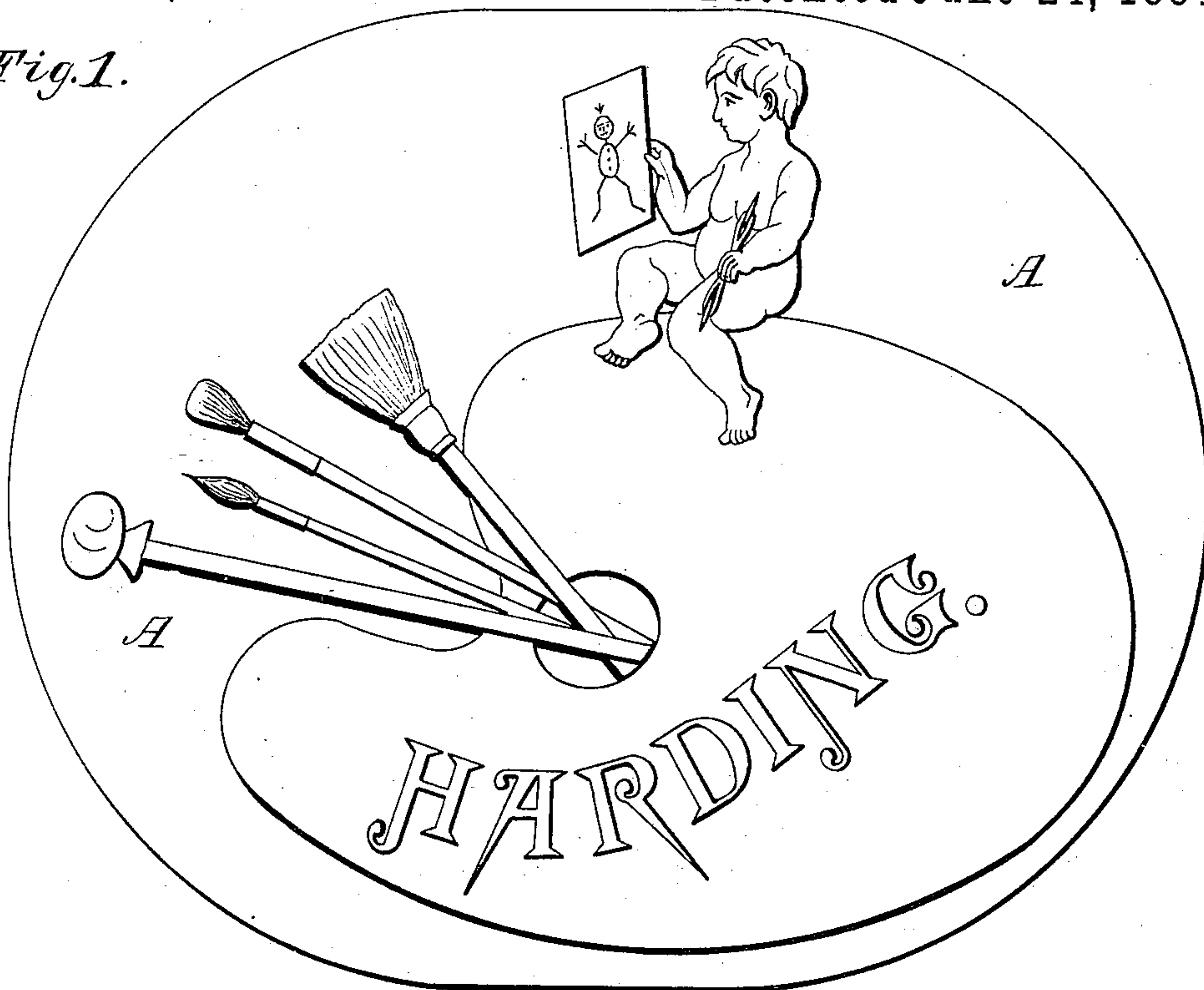
J. H. HARDING.

MOLD FOR CASTING ORNAMENTAL PLAQUES, &c.

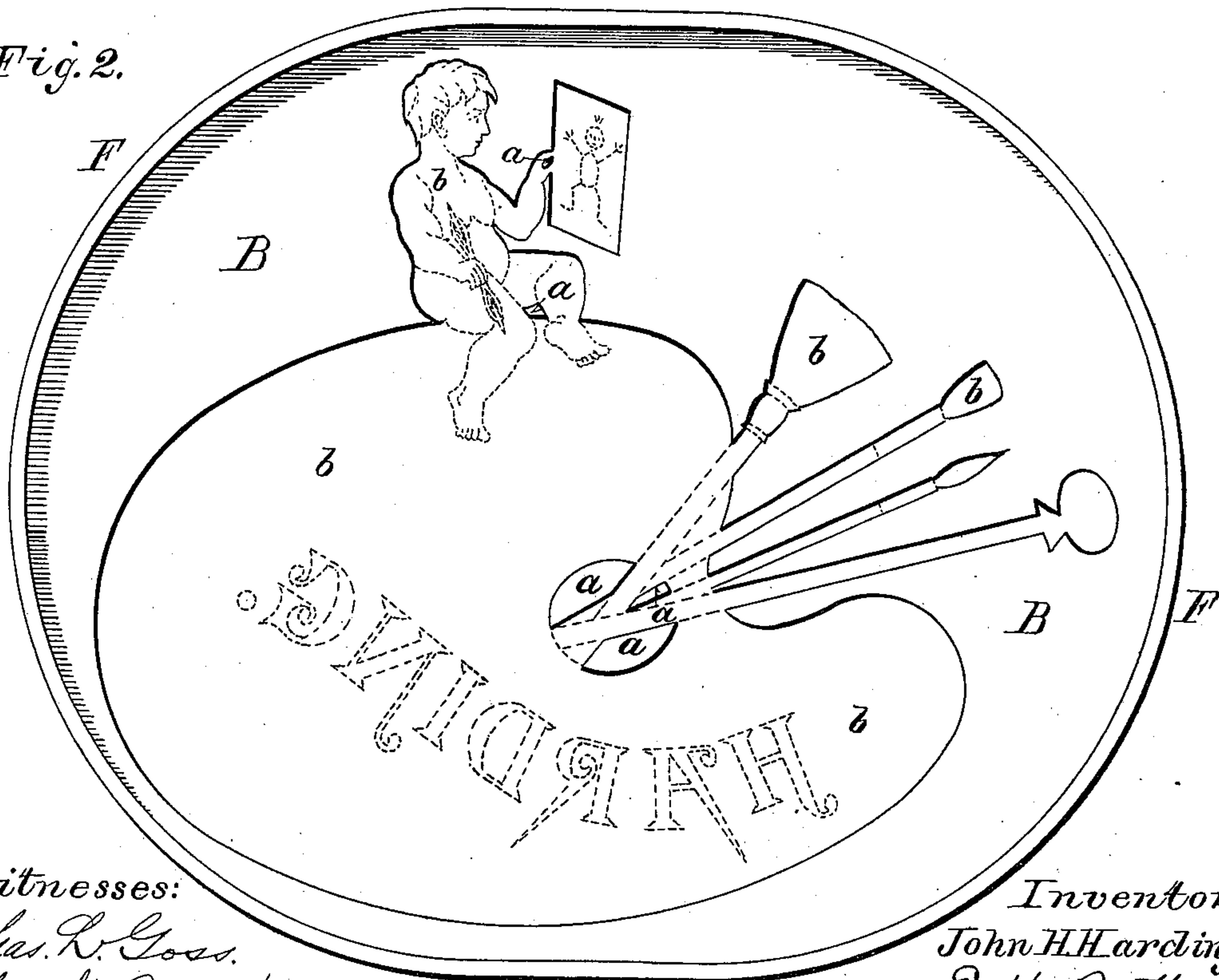
No. 300,967.

Patented June 24, 1884.

*Fig. 1.*



*Fig. 2.*



Witnesses:

Chas. R. Goss.

Frank Reyensdorf

Inventor,

John H. Harding

per E. H. Bottom  
Attorney.

(No Model.)

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Fig. 3.

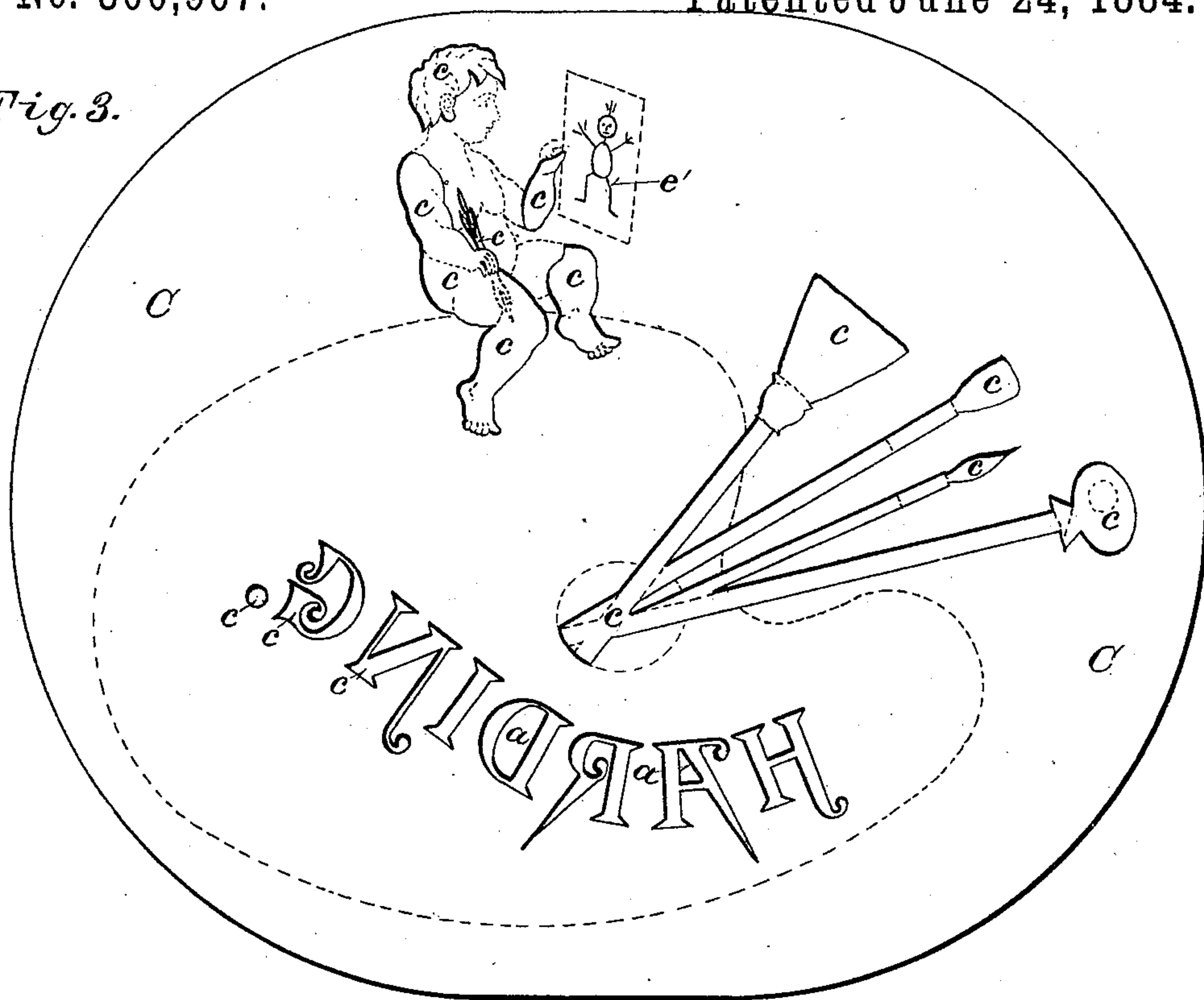
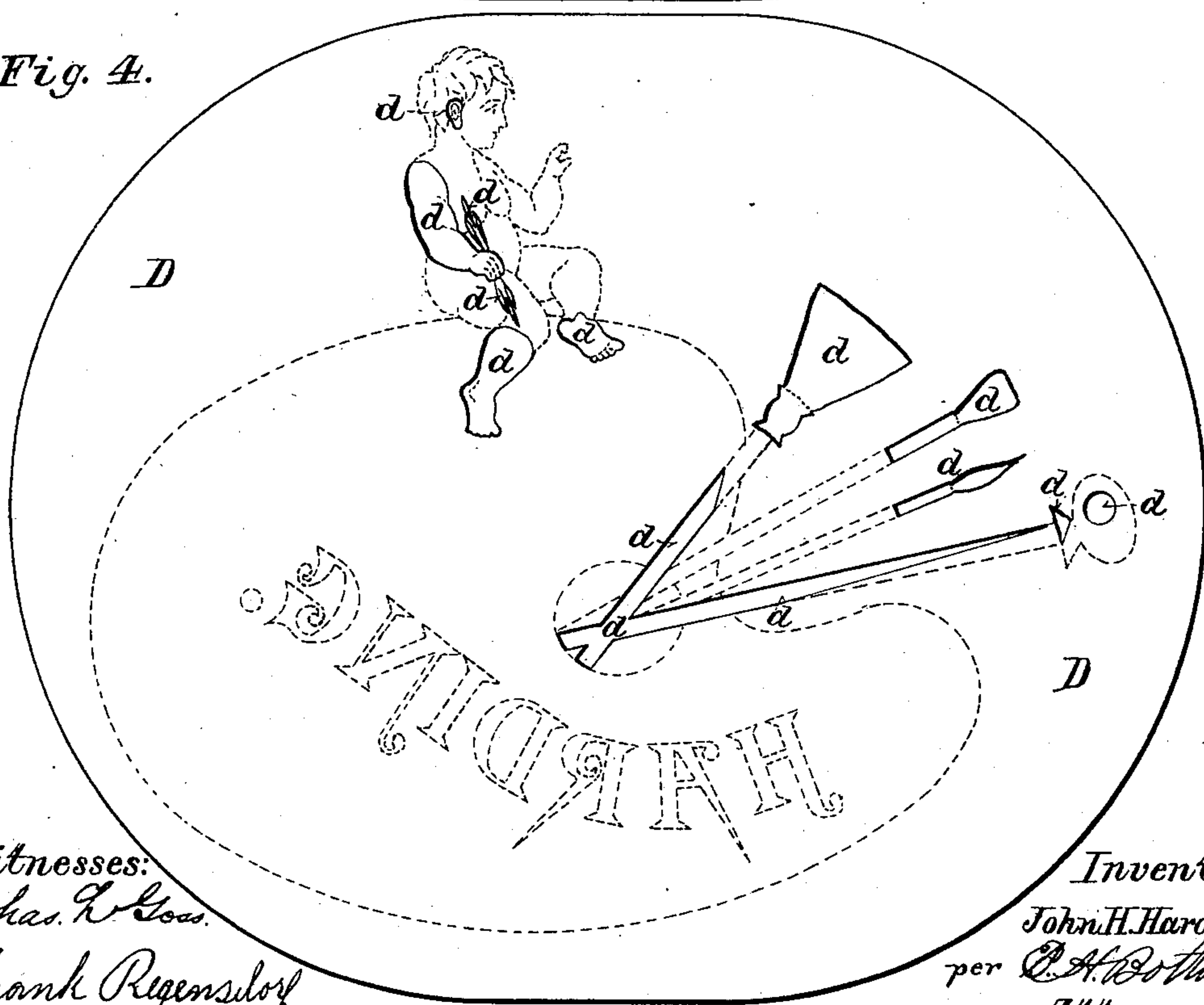


Fig. 4.



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(No Model.)

3 Sheets—Sheet 3.

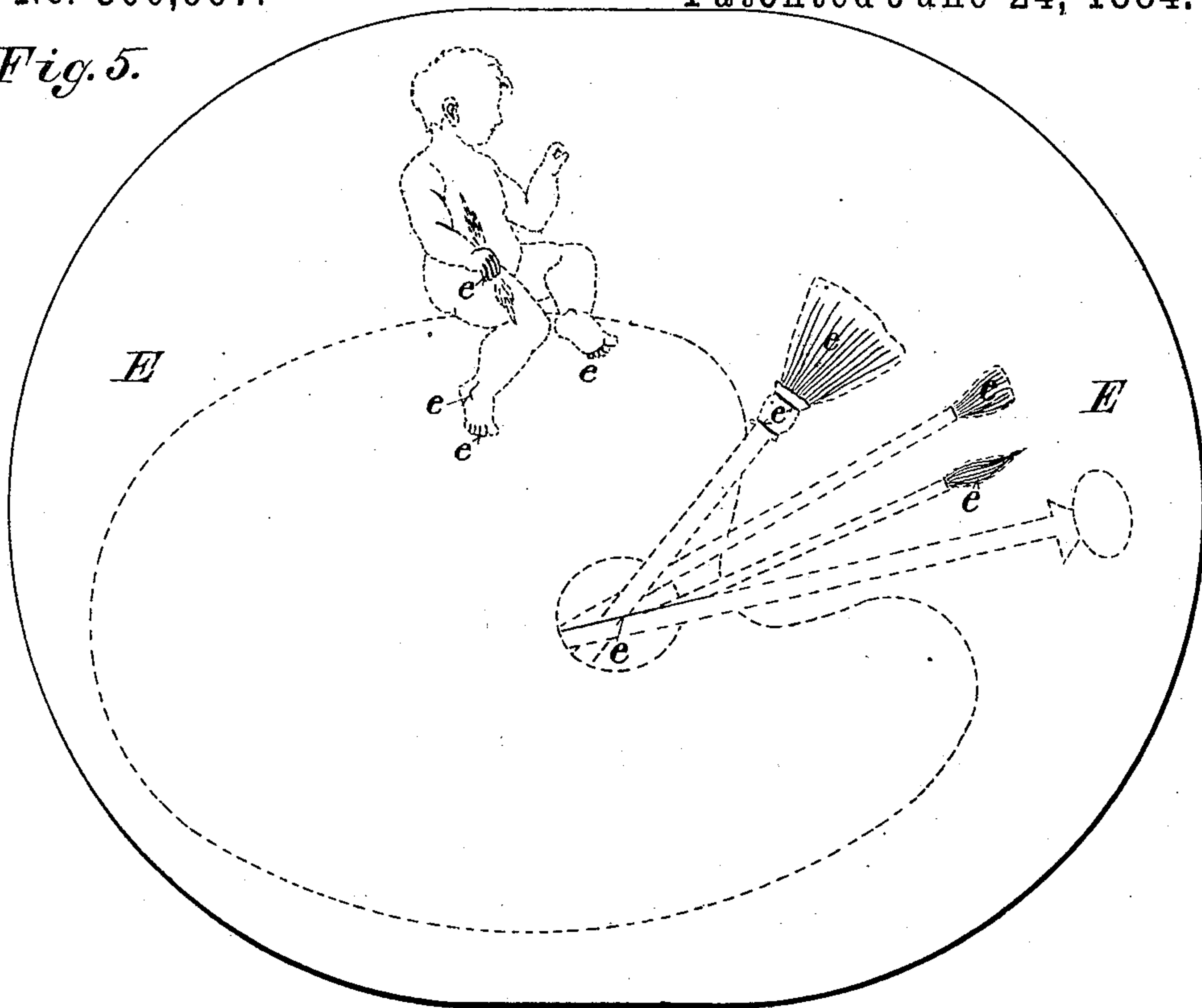
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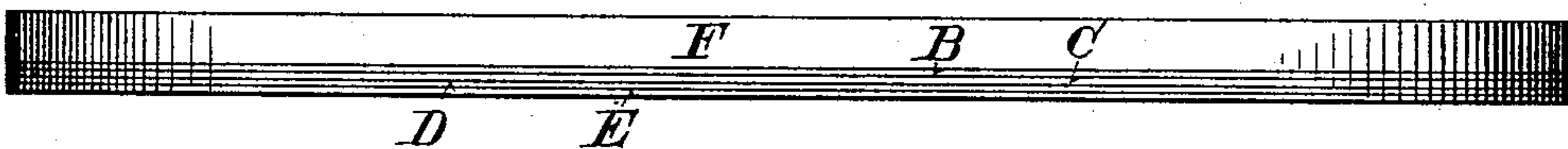
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*Fig. 5.*



*Fig. 6.*



*Witnesses:*

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*Frank Regensdorf.*

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# UNITED STATES PATENT OFFICE.

JOHN H. HARDING, OF MILWAUKEE, WISCONSIN.

## MOLD FOR CASTING ORNAMENTAL PLAQUES, &c.

SPECIFICATION forming part of Letters Patent No. 300,967, dated June 24, 1884.

Application filed December 6, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. HARDING, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Molds; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to molds for casting ornamental plaques, blocks, tiles, types, &c.; and it consists, essentially, of one or more stencils fastened together, properly backed, and provided with walls about its upper edges to retain the liquid or plastic material to be formed therein. Its object is a simple and inexpensive method of preparing molds for casting new and various designs for industrial and ornamental work, such as tiles, plaques, signs, cornices, center-pieces, &c.

In the accompanying drawings like letters refer to the same parts in each figure.

Figure 1 represents a plaque bearing a design arbitrarily chosen to illustrate my improved process. Figs. 2, 3, and 4 represent the stencils which enter into the mold for forming the plaque shown in Fig. 1. Fig. 5 shows the back or bottom of the mold, and Fig. 6 is a side view of the mold.

A is a plaque of any desired design, cast of plaster, cement, or any suitable plastic material capable of being formed in molds.

B, C, and D are the stencils necessary to form the mold for casting the plaque A. The portion *b b* is cut out of the stencil and forms the lowest relief in the mold. The parts *c c* are cut away from the stencil C, so as to form the second or next to the lowest relief, and the parts *d d* are cut out of stencil D, so as to form the highest relief. The full lines show the parts cut out, while the dotted lines complete the design. The stencils B, C, and D are then stuck together in the order shown in Fig. 6, and the bottom or back E to the lowest stencil with varnish, glue, cement, or any suitable adhesive material. The stencils forming the mold, together with the back E, may be

stuck together at the outset, and then cut as desired. In this way a smoother cut can be made and more perfect edges formed than when each stencil is cut separately. Unlike stencils used in the ordinary way, holders may be dispensed with in stencils formed into my molds, and in this way the design may be cast complete. Parts like those marked *a a a* in the drawings, requiring holders in ordinary stencils, are stuck to the back of the mold or to the stencil next underneath them. Delicate tracery—such as is seen in the veining of leaves and the folds of drapery—may be produced by indenting the back of the mold or the face of the stencils, which, when more than one stencil is used, become a part of the back of the mold. When raised tracery is desired, the back E, or stencil forming part of the back, is indented with the pattern upon its face or upper side; and when it is desired to depress the pattern into the cast, it is traced with a sharp instrument on the under side of the back E, or stencil forming part of the back. In this way the pattern is raised upon the upper side or face of the back or stencil, and is consequently depressed into the cast.

*e e e*, Fig. 5, represent such tracings made in the back E of the mold, and *e'* shows such tracing cut or pressed into the stencil C, where it serves as a back to stencil B above it. The veining of leaves may be exactly reproduced by pasting the leaf itself to the back of the mold, the outline of the leaf being first cut in a stencil, to produce its general outline in relief.

For casting type a single stencil with a back and side walls is used. When the letter is cast, it may be mounted upon a block of wood of the required thickness in the same way that electrotypes are mounted.

By the use of a number of stencils quite complicated designs may be cast, with as many distinct augmentations of the relief as there are stencils used to form the mold.

To provide against the cast sticking in the mold, the stencil or stencils forming the same should have their edges beveled upward and outward. Besides, a better finish is thereby given to the cast.

In the manufacture of my improved molds for all ordinary purposes I prefer to use oiled

stencil-paper, although other materials may be used without departing from the principle of my invention.

5 A variety of materials—such as wood, glass, tin, &c.—may be used for the back E, which may be carved, scratched, or etched for more elaborate and finished designs.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A mold composed of one or more stencils cemented together, and provided with a back, E, secured thereto, substantially as and for the purposes set forth.

15 2. A mold composed of one or more stencils stuck together, and provided with a back, E, to which is applied an etched, engraved, or embossed pattern, substantially as and for the purposes set forth.

3. The method herein described of casting 20 ornamental and industrial designs by the use of molds composed of one or more stencils and a back, E, all cemented together, substantially as and for the purposes set forth.

4. A mold for casting designs in plaster or 25 any like plastic material, composed of stencils cemented together, and provided with back E and wall F, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as 30 my own I affix my signature in presence of two witnesses.

JOHN H. HARDING.

Witnesses:

H. W. MASON,  
THOS. M. JAMES.