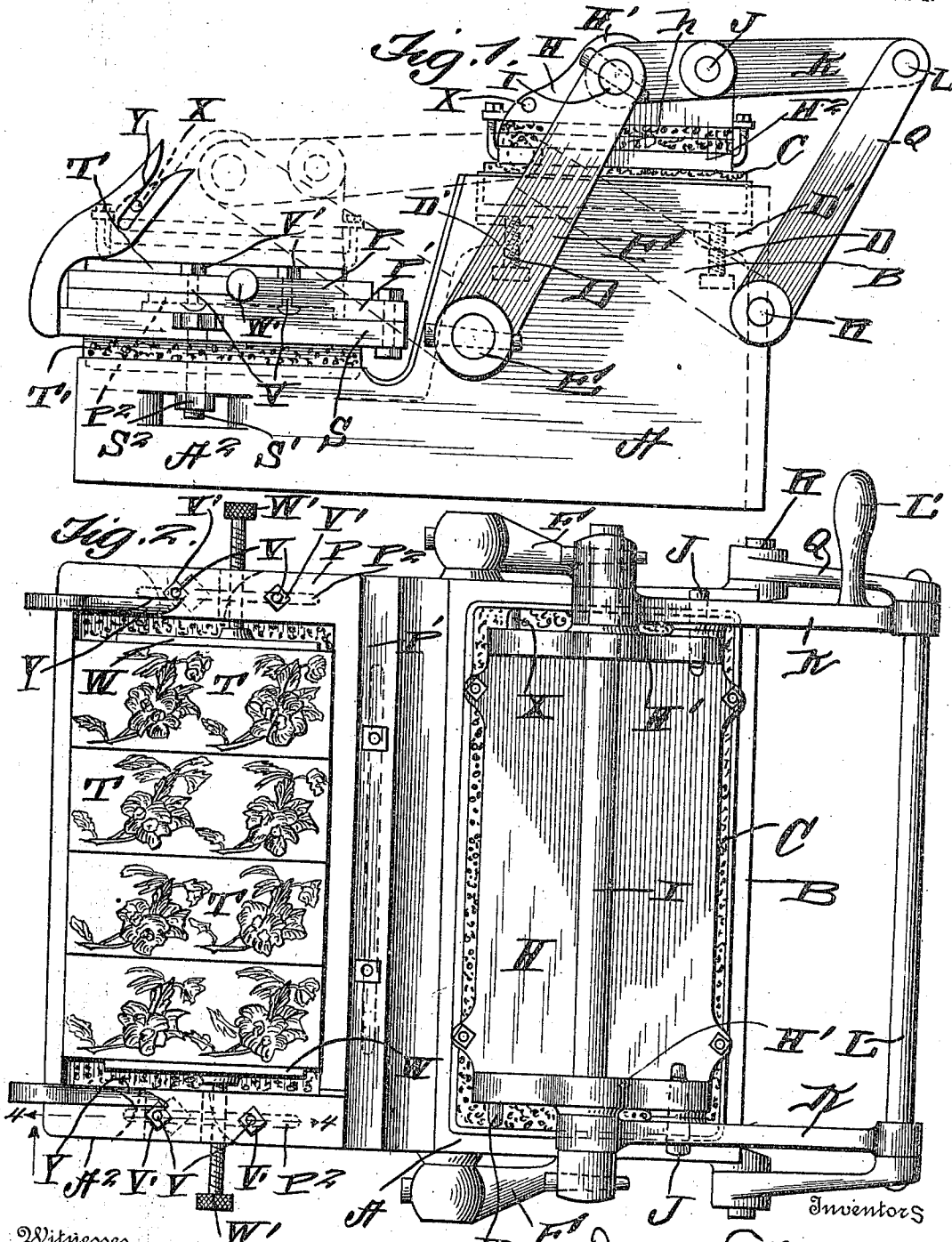


D. F. MEYER & J. W. YOUNG.
 APPARATUS FOR DECORATING TILES, &c.
 APPLICATION FILED OCT. 6, 1909.

948,931.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses
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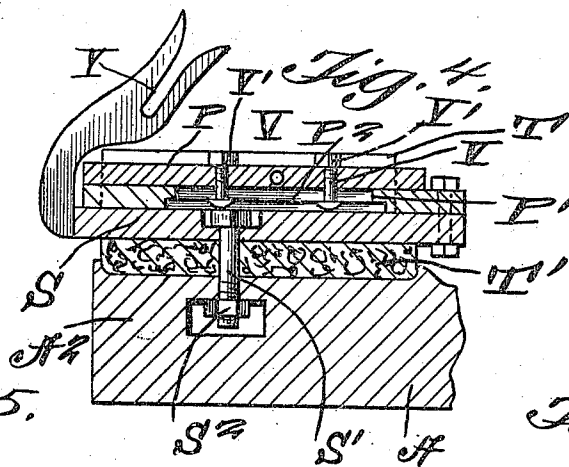
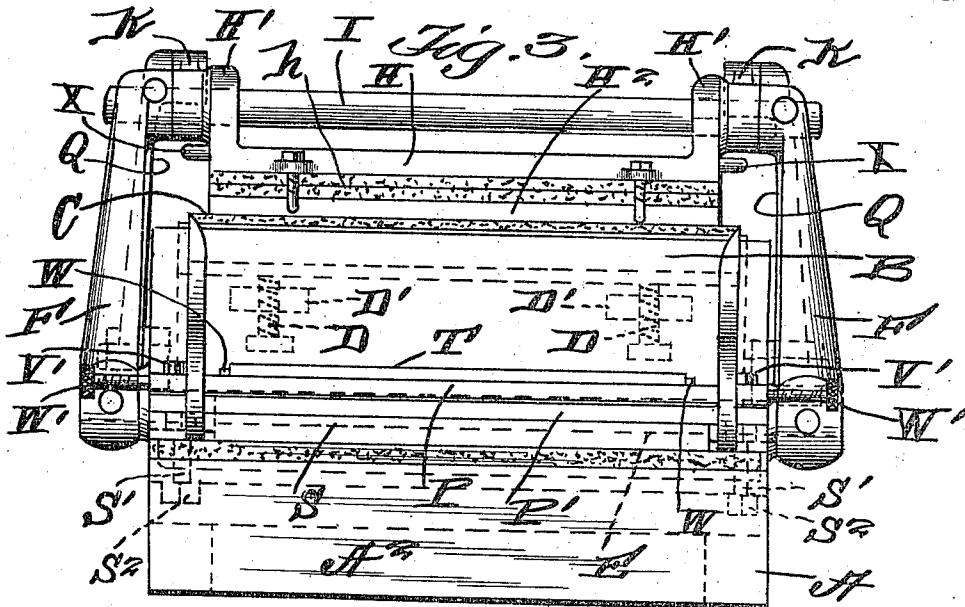


Fig. 5.

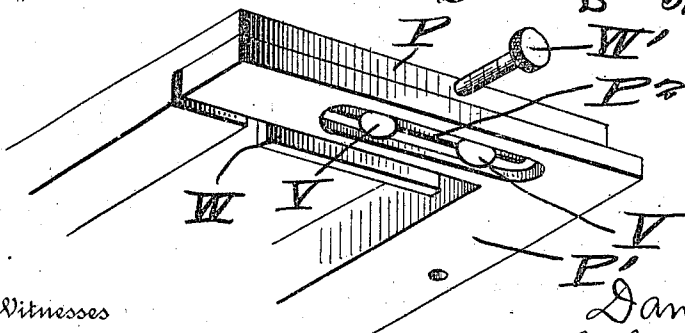
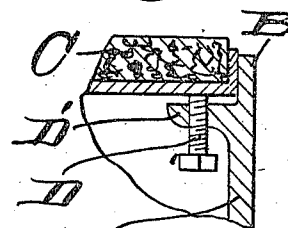


Fig. 6.



Witnesses

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 Attorney

UNITED STATES PATENT OFFICE.

DANIEL F. MEYER, OF DAYTON, AND JOHN W. YOUNG, OF ZANESVILLE, OHIO, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, OF NINE-SIXTEENTHS TO SAID YOUNG, ONE-FOURTH TO HARRY H. POOL, ONE-EIGHTH TO OTTO E. POOL, AND ONE-SIXTEENTH TO CARL E. POOL, ALL OF URBANA, OHIO.

APPARATUS FOR DECORATING TILES, &c.

948,931.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed October 6, 1909. Serial No. 521,214.

To all whom it may concern:

Be it known that we, DANIEL F. MEYER and JOHN W. YOUNG, citizens of the United States, residing at Dayton and Zanesville, respectively, in the counties of Montgomery and Muskingum and State of Ohio, have invented certain new and useful Improvements in Apparatus for Decorating Tiles, &c.; and we do hereby 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in apparatus for decorating tile, pottery, etc., having either flat, concaved or convexed surfaces and comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

We illustrate our invention in the accompanying drawings, in which:—

Figure 1 is a side elevation of our improved apparatus. Fig. 2 is a top plan view. Fig. 3 is an end elevation. Fig. 4 is a detail sectional view on line 4—4 of Fig. 2. Fig. 5 is a perspective view of a detail of the invention, and Fig. 6 is a sectional view through the pad and supporting means therefor.

Reference now being had to the details of the drawings by characters, A designates the frame of the apparatus which may be of any suitable material and size and is provided with an upright portion B having a flattened top upon which an ink pad C is adapted to rest, and D designates set screws which are mounted in threaded apertures in the shoulders D' and are adapted to form means for adjusting said pad vertically. Pivottally mounted upon the ends of the shaft E which passes through the ends of said frame are the links F fixed to said shaft and adapted to rock therewith and to the upper ends of said links F is pivottally mounted a stamp holder H, the stamp H² being fixed to said holder in any suitable man-

ner and so arranged as to be easily detached and replaced and adapted to hold securely stamps having various designs for decorating either upon flat, concaved or convexed surfaces of tile, pottery or other material which it may be desired to decorate. Upon reference to each sectional view of the drawings, it will be noted that the stamp in order to produce the best results must be provided with a cushion, designated by letter h, and which is preferably of a spongy rubber or analogous material in order to allow the different parts of the design upon the stamp to yield for decorating upon either convexed or concaved surfaces. Said holder H has ears H' which are apertured and adapted to receive a shaft I which also passes through apertures in the links F, one mounted upon either side of the frame A. Links K at either end of the frame A are pivottally mounted upon the shaft I and their rear ends are pivoted to a shaft L which in turn is also pivoted to the links Q, the lower ends of which are pivottally mounted upon a shaft R passing through the ends of the frame A. A handle L' is mounted upon the shaft L and forms means whereby the stamp may be pushed forward in contact with the face of the tile to be ornamented or thrown back in a horizontal position upon the porous pad to receive a coating of ink or other pigment. In order to hold the stamp which is fixed to the holder H in a horizontal position in its swinging movement back and forth, I provide studs J which are carried by the links K and adapted to engage lugs upon the frame H and which lugs may be released if desired from the holder should it be desired to swing the stamp holder for the purpose of convenience in cleaning the face of the stamp or for other purposes, such as adjusting the stamp to a holder or removing the stamp. Said pad C is made preferably of a porous rubber, as shown clearly in the detail view of the drawings. We have found by experimenting that, in order to uniformly and thoroughly ink the stamp for the purpose of placing designs of various kinds upon a surface of tile or other ware, a porous pad is necessary, particularly when the designs to be printed are upon either

concaved or convexed surfaces. By the provision of the porous surface of the ink pad, the depressions or portions in relief of the stamp may be evenly inked.

5 Mounted upon the lateral extension A^2 of the frame of the apparatus is a vertically adjustable plate or table S mounted upon adjusting screws S' on the threaded portions of each of the nuts S^2 and affording means
10 for adjusting said plate or table vertically and upon said table the tiles, designated by letter T , or other objects which are desired to be decorated are adapted to rest while receiving the impressions from the stamp.
15 Underneath said plate or table is a resilient material T' serving as a cushion to the table. At the marginal edges of the table or plate are the adjustable clamps P and P' which have elongated slots P^2 and are adapted to
20 be held in adjusted positions by means of the bolts V having nuts V' thereon. Said clamps are for the purpose of holding tiles of various sizes in proper positions to receive the ornamentations on series of one
25 or more tile which may be placed upon the table and decorated simultaneously.

In order to hold the tile or tiles or other objects being ornamented upon the table, I provide a clamp W which, when the tile or
30 tiles or other objects to be ornamented are placed in position to receive the impressions from the stamps, may be pushed up from the edge thereof and held securely in place by means of a set screw W' and so held until
35 the tile or other object being decorated receives a proper impression from the stamp. By holding the tile securely in place, one or more impressions may be imparted to the surface of the tile in order to secure satisfactory ornamentation. Lugs X project
40 from the opposite sides of the stamp holder and are adapted, as the stamp approaches the surface to be decorated, to engage the slots Y in order to hold the stamps rigidly while it is imparting an impression
45 upon the surface of the tile or other article being decorated.

The operation of our invention will be readily understood and is as follows:—The
50 tile or other articles to be decorated are placed upon the table or plate S and in proper positions to receive the impressions from the stamp. The stamp which is normally held in contact with the porous surface of the pad is swung forward by the
55 operator taking hold of the handle L and pushing the parts so that the stamp will leave the surface of the pad and come in contact with the surface of the tile or tiles
60 or other objects and make an impression upon the surface thereof.

In the application of our invention, which is especially adapted for decorating tile, the latter may be ornamented or decorated

either in a green, bisque or glazed state and it will also be understood that the ornamentation or decoration may be applied
65 equally as well to the tile when in either of the said states. When applied to tile in the green state, the tile after being decorated
70 may be once fired and thereby produce an unglazed tile especially adapted for floor use or the tile, when decorated in a green state, may be dipped in glaze and fired, thus
75 producing an underglaze decoration with one firing, but ordinarily the decoration is applied to the tile in a bisque state, the decoration being then dipped in a glaze and
80 afterward fired, thus producing an underglaze decoration.

Heretofore in the decoration of tile, it has been the custom to either apply the decoration by hand or by transfer decalcomania designs and, to produce the best results, the decoration is put on the surface of the tile
85 after it has been fired twice, the first firing reducing the tile to a bisque state, after which it is dipped and fired and the transfer design or hand ornamentation applied to the glazed surface and afterward the tile
90 with its decoration fired the third time, which produces a completed tile with its ornamentation which is not under glaze. By our improved apparatus, we produce a
95 complete decorated tile, the ornamental design upon which is under glaze and thereby protected and a tile which is only once or twice fired accordingly as the decoration is placed upon the tile in a green or in a
100 bisque state.

In order to produce the best results in the decorating of the tile or other articles, the stamp upon which the design to be transferred to the surface of the tile is made preferably of rubber and has a cushion
105 backing made preferably of a spongy rubber, this mounting of the stamp being essential in order to print the design satisfactorily upon convexed or concaved surfaces, but the construction of the stamp
110 forms no part of the present invention.

What we claim to be new is:—

1. An apparatus for decorating tile or other articles, comprising a frame, an adjustable table, adjustable clamps upon the
115 latter, an inking pad of porous rubber, a stamp holder, a stamp fixed thereto, links pivotally connecting said holder to the frame, a handle, and link connections between the latter and said holder and frame.
120

2. An apparatus for decorating tile or other articles, comprising a frame, an adjustable table, adjustable clamps upon the
125 latter, an inking pad of porous rubber, a stamp holder, a stamp fixed thereto, links pivotally connecting said holder to the frame, a handle, link connections between the latter and said holder and frame, lugs

projecting from said stamp holder, and slot-
ted guide arms rising from the frame and
adapted to be engaged by said lugs to hold
the stamp rigidly while making an impres-
5 sion against the surface of the article to be
decorated.

In testimony whereof we hereunto affix

our signatures in the presence of two wit-
nesses.

DANIEL F. MEYER.
JOHN W. YOUNG.

Witnesses:

S. W. JAMES,
WILLIAM M. MATTHEWS.