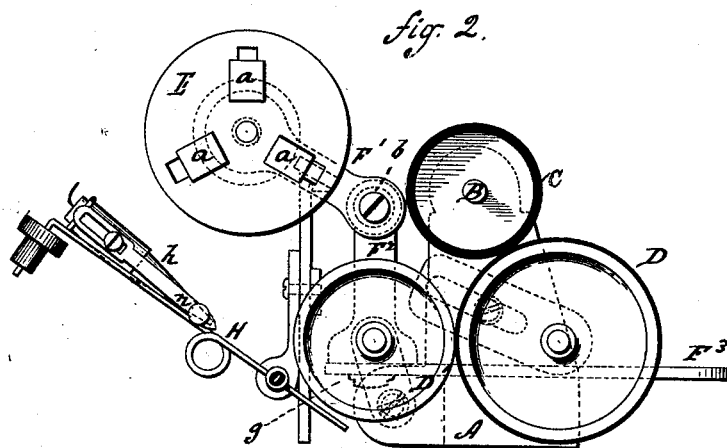
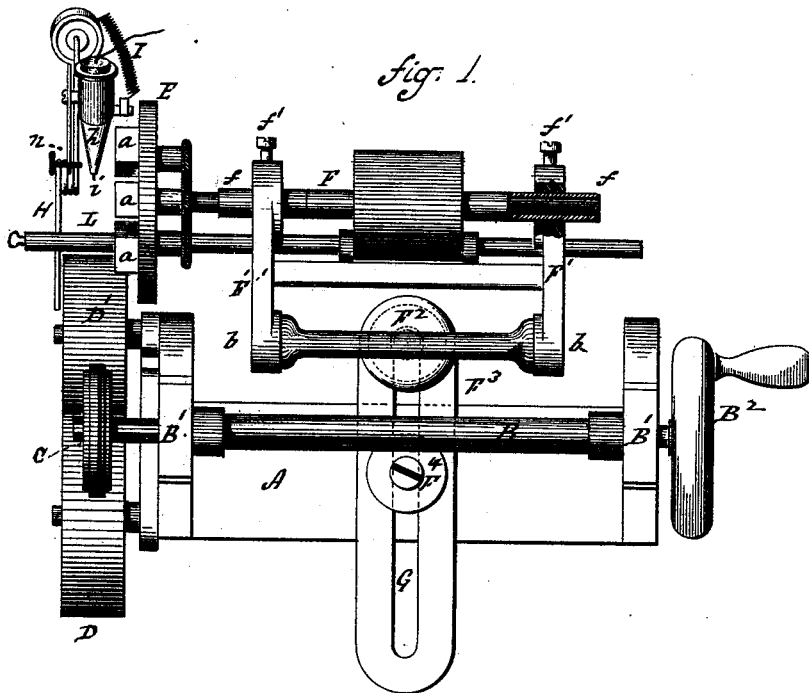


S. J. HOGGSON.  
Glass Printing and Decorating Machines.  
No. 219,862.      Patented Sept. 23, 1879.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

SAMUEL J. HOGGSON, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN GLASS PRINTING AND DECORATING MACHINES.

Specification forming part of Letters Patent No. **219,862**, dated September 23, 1879; application filed April 25, 1879.

### *To all whom it may concern:*

Be it known that I, SAMUEL J. HOGGSON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Glass Printing and Decorating Machines; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top or plan view; Fig. 2, an end view.

This invention relates to machines for decorating articles of china and similar ware, and is an improvement on the machine for which Letters Patent were granted to me November 25, 1873.

The object of the invention is to make a machine which is more general in its use than that invention; and it consists in the construction and combination of parts, as hereinafter described, and more particularly recited in the claims.

A is the bed of the machine; B, the driving-shaft, supported in suitable bearings B<sup>1</sup>, and to which power is applied to rotate the shaft in any convenient manner. (Here represented as by a crank, B<sup>2</sup>.) On the opposite end of the shaft is the print or type wheel, C, the face of which is made corresponding to the ornamentation to be produced by it. D is the ink-wheel, the surface of which is of an elastic character, and which runs in contact with the surface of the print-wheel. D' is the spreader, which evens the ink on the surface of the ink-wheel by revolving in contact with it. E is a chuck or plate provided with adjustable jaws *a*, and arranged upon a shaft, F, to which power is applied to revolve the said plate E. The shaft F is hung in a frame, F<sup>1</sup>, jointed at *b*, so as to swing vertically to move the plate E toward or from the print-wheel C.

The article to be printed is confined to the plate E by the adjustable jaws *a*, and so that the article so held may be pressed up against the print-wheel, and, revolving, will cause the figure on the print-wheel to be transferred to the surface of the article.

Should there be any irregularity in the sur-

face or variation in the diameter of different articles, the frame F' will move toward or from the wheel, so as to keep the surface always in printing contact.

In order that the holder may be set at different relative positions longitudinally for the purpose of printing in different annular lines, the shaft F is fitted in tubular bearings *f*, and so that a shoulder on the shaft will bear against corresponding ends of the said bearings, so that the location of said bearings longitudinally governs the longitudinal position of said shaft F and the holder attached to it. Hence, by moving the bearings *f* to the right or left, the holder will be adjusted accordingly, and, when so adjusted, the bearings are held by set-screws *f'*.

In some cases it is desirable to apply the printing in a line around the article diagonal to its axis, and the article must be adjusted so that its axis of revolution will have a corresponding inclination to the axis of the print-wheel. To this end the frame F<sup>1</sup> is arranged on a vertical post, F<sup>2</sup>. This post rests on a transverse bar, F<sup>3</sup>, secured to the base by a set-screw, F<sup>4</sup>, and the post is secured on the bar by a pivot set-screw, *g*, so that the post may be partially rotated and set the shaft F, which is supported in the frame, at any angle desired relative to the axis of the shaft B.

The frame which supports the plate E may be moved nearer to or farther from the shaft B by means of the slot G in the bar F<sup>3</sup>, to adapt the machine to articles of considerable variation in diameter.

For striping articles held on the plate E a pen is provided, consisting of a fountain, *h*, from the small end of which a fabricated material, like a wick, *i*, protrudes, and so that the color of the printing material in the fountain will be drawn through the wick. The fountain *h* is hung upon an arm, H, by a connection made in the form of a spiral spring, I, as seen in Fig. 1, and which permits the fountain to be universally moved or turned to any desired position, so that its discharging end, placed upon the surface of the article held on the plate E, will deposit on that surface a line of the coating material contained in the fountain.

The arm H, which supports the fountain, is

adjustably held in a longitudinal shaft, which is also adjustable. On the fountain is an adjustable guide, *n*, so as if, for instance, it be desired to make a line around a cup secured to and revolving with the plate E, the fountain applied to the cup so that the guide will bear against the edge of the cup will cause the line to be made exactly parallel with that edge, and adjusting the guide to different distances from the fountain will make the line correspondingly distant from the edge of the cup. This illustration will be sufficient to enable those skilled in the art to use the fountain for the various purposes for which it may be desired.

I claim—

1. The combination of the revolving print-wheel, the holder E, provided with clamping devices to hold the article, the frame F<sup>1</sup>, sup-

porting said holder, and said frame made adjustable to move said holder toward or from the print-wheel, and also to set the axis of said holder to any desired angle to the axis of the print-wheel, all substantially as described.

2. The combination of the revolving print-wheel, the holder E, provided with clamping devices to hold the article, the frame F<sup>1</sup>, supporting said holder, and said frame made adjustable to move said holder toward or from the print-wheel, and also to set the axis of said holder to any desired angle to the axis of the print-wheel, and adjustable tubular bearings *f* in said frame, all substantially as and for the purpose specified.

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Witnesses:

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