(No Model.)

F. HOLLAND.

SUPPLYING POLISHING COMPOUNDS TO POLISHING OR CUTTING TOOLS.

No. 605,283. Patented June 7, 1898.

FIG. 1.

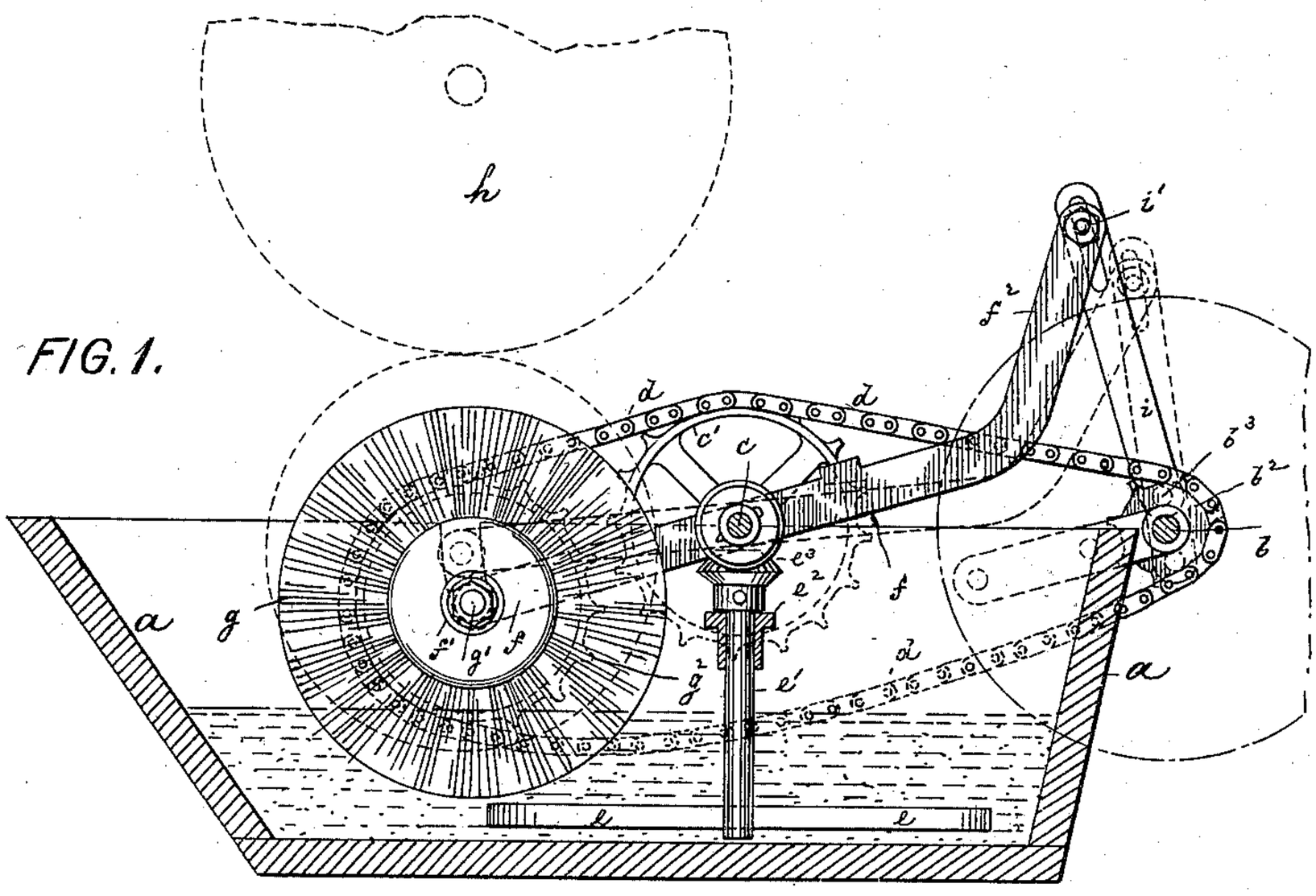
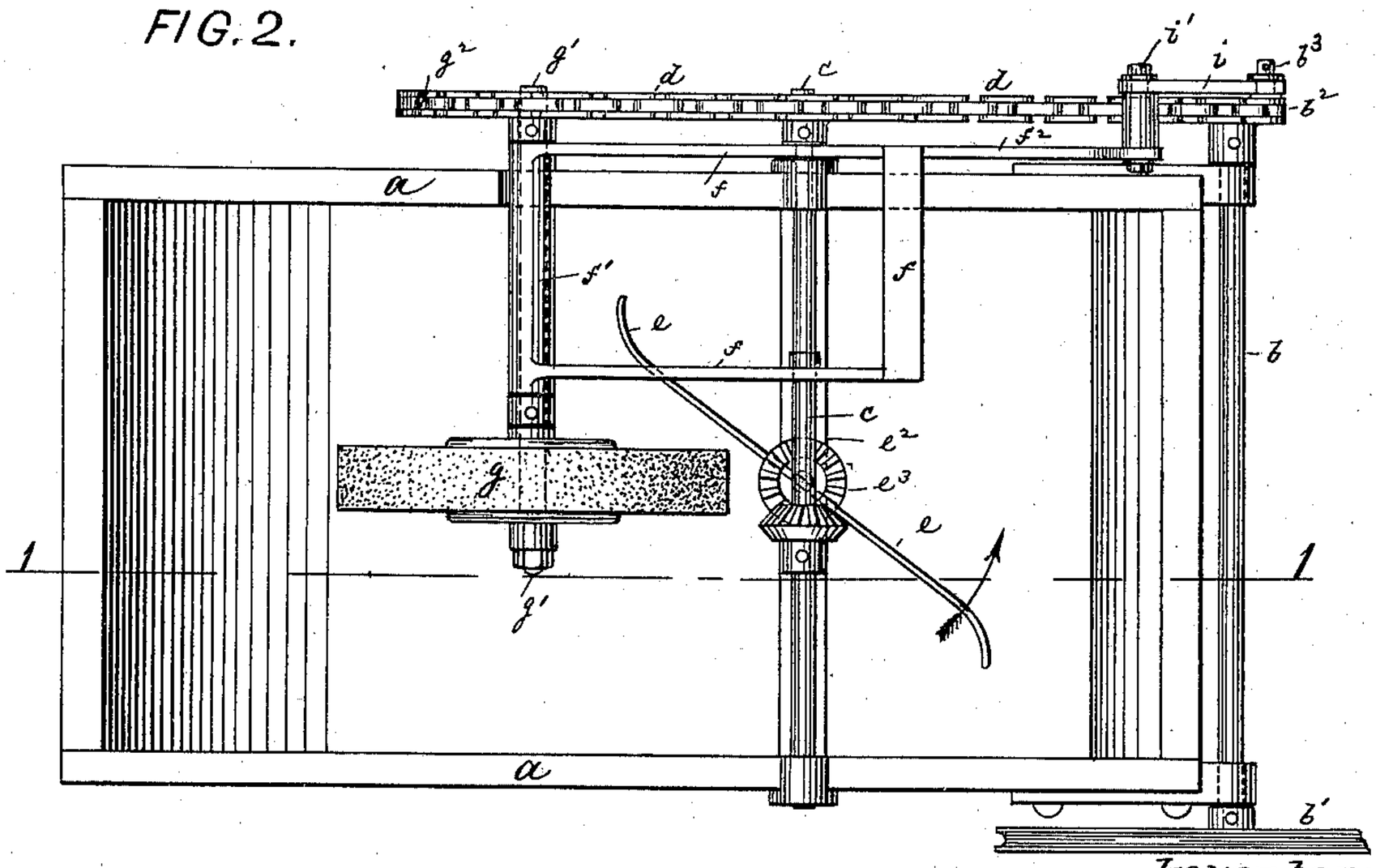


FIG. 2.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

FRANK HOLLAND, OF BROOKLYN, NEW YORK, ASSIGNOR TO JAMES CAVANAGH, OF SAME PLACE.

SUPPLYING POLISHING COMPOUNDS TO POLISHING OR CUTTING TOOLS.

SPECIFICATION forming part of Letters Patent No. 605,283, dated June 7, 1898.

Application filed August 24, 1897. Serial No. 649,309. (No model.)

To all whom it may concern:

Be it known that I, FRANK HOLLAND, of Brooklyn, county of Kings, and State of New York, have invented an Improved Apparatus for Supplying Polishing Compounds to Polishing or Cutting Tools, of which the following is a specification.

This invention relates to an improved apparatus for applying a polishing compound at regular intervals to a grinding, cutting, or polishing disk or tool. It is well known that tools more particularly designed for cutting and polishing glass must be continually supplied with a polishing compound, as otherwise the glass would crack owing to the excessive heat evolved.

In my apparatus a revolving circular brush hung in an oscillating bearing alternately dips into the polishing compound and contacts with the polishing or cutting tool, so that a limited amount of the compound is transferred at regular intervals to such tool. In this way a sufficient but not excessive quantity of the compound is supplied to the polishing or cutting tool, while at the same time the transferring-brush is not apt to become rapidly worn by continuous frictional contact with such tool.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improved apparatus on line 1 1, Fig. 2; and Fig. 2 is a plan of the same.

The letter *a* represents a box or other receptacle adapted for receiving the polishing material and provided at one end with bearings for a shaft *b*, driven from pulley *b'*. A second shaft *c* is hung across box *a*, parallel to shaft *b*, and is driven by a chain *d*, engaging a sprocket-wheel b^2 on shaft *b* and a sprocket-wheel *c'* on shaft *c*.

The shaft *c* serves to impart rotating motion to a mixing-blade *e*, which continuously stirs up the mass to form a paste of uniform consistency. The blade *e* is secured to the lower end of an upright shaft *e'*, hung in a slotted bearing e^2 and intergeared with shaft *c* by bevel-gears e^3.

The shaft *c*, besides imparting motion to the stirring-blade, forms the pivotal support for an oscillating frame *f*. This frame at its free end forms the tubular bearing *f'* for the shaft *g'* of a revolving cylindrical brush *g*. Upon the outer end of the brush-shaft *g'* is mounted a sprocket-wheel g^2, which is likewise engaged by the chain *d*, so that this chain revolves both the mixer *e* and the brush *g*.

Aside from the rotary motion imparted to the brush it likewise receives a vertically-reciprocating motion, so that it alternately dips into the box and contacts with the cutting or polishing roller or tool *h*, which is revolubly mounted vertically above such brush. This vertical motion is imparted to the brush as follows: To one face of the sprocket-wheel b^2 is pivoted by wrist-pin b^3 one end of a link *i*, so that the sprocket-wheel constitutes, in effect, a crank-arm. The other end of link *i* is adjustably connected by pin *i'* with an arm f^2 of frame *f*. Thus the rotation of shaft *b* will cause the frame *f* to rock on shaft *c*, and thus to alternately raise and lower the cylindrical brush *g*.

It will be seen that my improved apparatus automatically mixes the polishing compound and applies it intermittently and uniformly to the polishing or cutting tool. In this way a surcharge of such compound is avoided and at the same time the life of the transmitting-brush is greatly extended, because it is not apt to be worn by constant contact with the polishing or cutting tool.

What I claim is—

1. In an apparatus for supplying polishing material, the combination of a box with a pivoted frame having a bearing, a revoluble brush hung within said bearing, means for oscillating the frame, and means for revolving the brush during the oscillation of the frame, substantially as specified.

2. An apparatus for supplying polishing material composed of a box, a power-shaft having sprocket-wheel b^2, a shaft *c*, having sprocket-wheel *c'*, a mixing-blade *e*, having shaft *e'*, intergeared with shaft *c*, an oscillating frame *f*, a brush having shaft *g'*, hung in said frame, a sprocket-wheel g^2, on shaft *g'*, a chain engaging wheels b^2, *c'*, g^2, and a crank connection between shaft *b*, and frame *f*, for imparting an oscillating motion to said frame, substantially as specified.

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Witnesses:

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