

L. Reinauer,

Enameling Machine.

N^o 53338.

Patented Mar. 20, 1866.

Fig. 1.

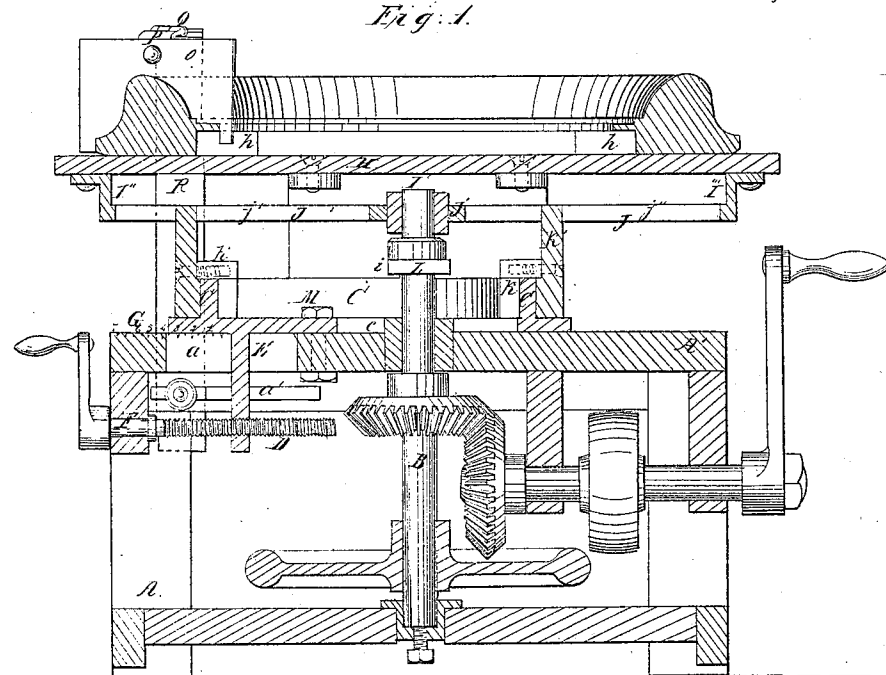


Fig. 2.

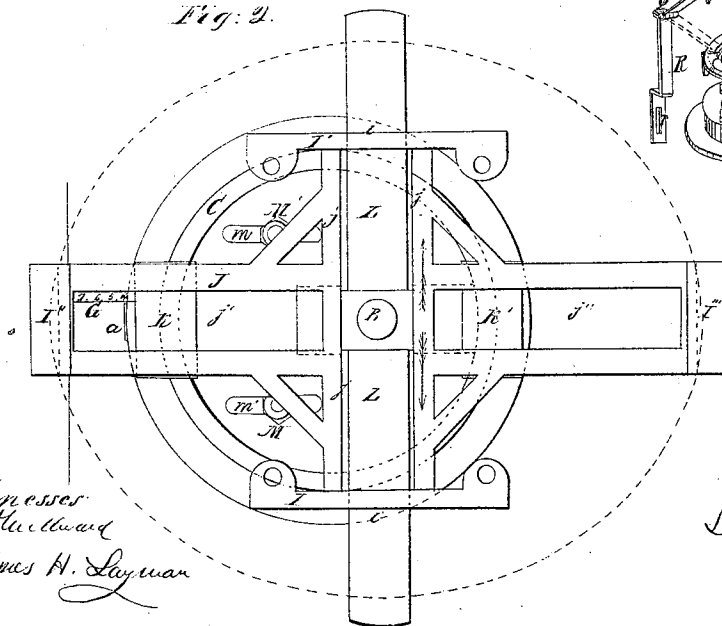
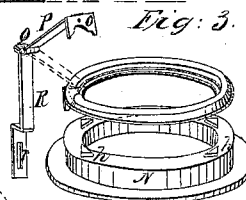


Fig. 3.



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LEOPOLD REINAUER, OF CINCINNATI, OHIO.

MACHINE FOR PREPARING OVAL FRAMES FOR GILDING.

Specification forming part of Letters Patent No. 53,338, dated March 20, 1866.

To all whom it may concern:

Be it known that I, LEOPOLD REINAUER, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Machine for Preparing Oval Frames; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This is an improvement in the class of machines employed to scrape the surface of picture-frames preparatory to gilding, and refers chiefly to, first, an arrangement by which the scraper is made independent of the rotary and reciprocating motions, and capable of self-adaptation to any irregularities on the face of the molding, and by which it may be temporarily withdrawn for sandpapering or otherwise; second, an arrangement of an imperforate rotary and reciprocating table or rest, which serves as a screen to the driving mechanism and prevents the clogging of the latter by the debris of the scraper; third, means for accurate and positive adjustment of the operative parts.

Figure 1 is a vertical section of a machine embodying my invention. Fig. 2 is a top view thereof without the revolving bed. Fig. 3 is a small perspective view of the bed and scraper detached.

A frame, A, supports in fixed bearings a vertical shaft, B. C is a circular track, resting upon the bench A' of the frame and capable of being set either concentric with the shaft B or at any desired eccentricity therewith, by means of a set-screw, D, revolving in a lug, E, which depends rigidly from the track C.

The lug E and journal-box F act in conjunction with slots *a* and *c* in the bench and circular track, respectively, to restrict the adjustment of the said track to a definite radial line.

A scale, G, upon the bench A', enables the operator to set the circular track C to any desired degree of eccentricity.

My bed H is entirely free from slots or perforations, and is made to simultaneously revolve and reciprocate in its own plane by means which I will now proceed to describe. The bed H has depending rigidly from its under side a series of cheeks, I I' I'' I''', connected by bridges J and J', which are traversed by slots *j* and *j'*, of which the slot *j*

permits the bed and its projections I I' I'' I''' J J' to reciprocate bodily with respect to the shaft B in obedience to the action of the eccentric circular track C upon the cheeks I and I'.

The slots *j'* *j''* are occupied and traversed by jaws K K', which, embracing the circular track C at opposite points intermediate between the cheeks I and I', assist to hold the said cheeks to the said circular track and to prevent binding.

Projecting rectangularly from the shaft B is a driver, L, which, traversing slots *i i'* in the cheeks I I', compels the rotation of the bed, while the said cheeks I I', closely embracing the eccentric circle C, compel the bed, in rotating, to reciprocate from side to side, as indicated by the double-pointed arrow, the said cheeks, in so doing, sliding freely to and fro along the driver L.

The track C, having been adjusted to the required eccentricity, can be secured positively thereto by means of one or more screw-bolts, M M', which for that purpose traverse slots *m m'*, either in the bench A' or in the circular track C.

The rotary and reciprocating bed H is provided with studs *h*, which, entering suitable cavities in the frame to be operated on, oblige it to assume the motions of the bed.

The bed H may have an annular rest, N, (see Fig. 3,) which, being surrounded by suitable studs *h*, elevates the frame from the bed sufficiently to allow of considerable accumulation of refuse plaster before it becomes necessary to clean off the bed.

Instead of conducting the drive-shaft in the usual way up through a slot in a reciprocating bed and mounting the scraper on an arm or crank projecting rigidly from said shaft, I form my bed entire and imperforate and give it, in addition to the customary reciprocation, a rotary as well as a reciprocating motion instead of rotating the scraper.

My scraper O does not rotate at all, but is suspended to an arm, P, connected, by a swivel-joint, Q, to a stationary post, R, screwed fast to the frame A, outside the bed. A vertical slot, *r*, in the post R enables the scraper to be set higher or lower, as may be required, while a horizontal slot, *a'*, in the frame A enables the lateral adjustment of the post to suit a larger or smaller picture-frame to be operated upon.

The bed H is so adjusted as to eccentricity as to enable the oval picture-frame to remain constantly tangential to the arm of the scraper at the place of contact during the entire circuit of the revolution of said frame, and the scraper is so adjusted both vertically and laterally as to be coincident with an axial plane at such place of contact.

Among a number of decided advantages possessed by the above machine over the common forms the following are apparent.; All of the motion being in the bed, and the scraper being capable of being lifted up off of the molding, the said scraper may be replaced by an emery or other pad, so that the work may be prepared for the hand of the gilder by wholly automatic means. The arm of the scraper being flexible both laterally and vertically, enables the latter to operate even over irregular and rough moldings. The bed being imperforate serves as a screen or guard to the entire operating machinery, and enables the use of an elevated annular rest, by which several dozen moldings may be scraped before it becomes necessary to clean off the bed.

I claim herein as new and of my invention—

1. The imperforate eccentrically-revolving bed H, in combination with the scraper O, connected, by arm P and swivel-joint Q, to a fixed object outside of said bed.

2. The elevated annular rest N upon a gilder's preparing-bed rotated eccentrically, as set forth.

3. The vertical shaft B, armed with a driver, L, which traverses and rotates a bed, H, having the described or equivalent connection with a stationary eccentric circular track.

4. The described combination of the elements A, A', B, C, D, E, F, H, I, I', I'', I''', J, and L, or their equivalents, for producing the desired adjustable elliptical movement of the bed.

5. The devices D E F a c M m for fixing the circular track C to any specific eccentricity.

In testimony of which invention I hereunto set my hand.

LEOPOLD REINAUER.

Witnesses:

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