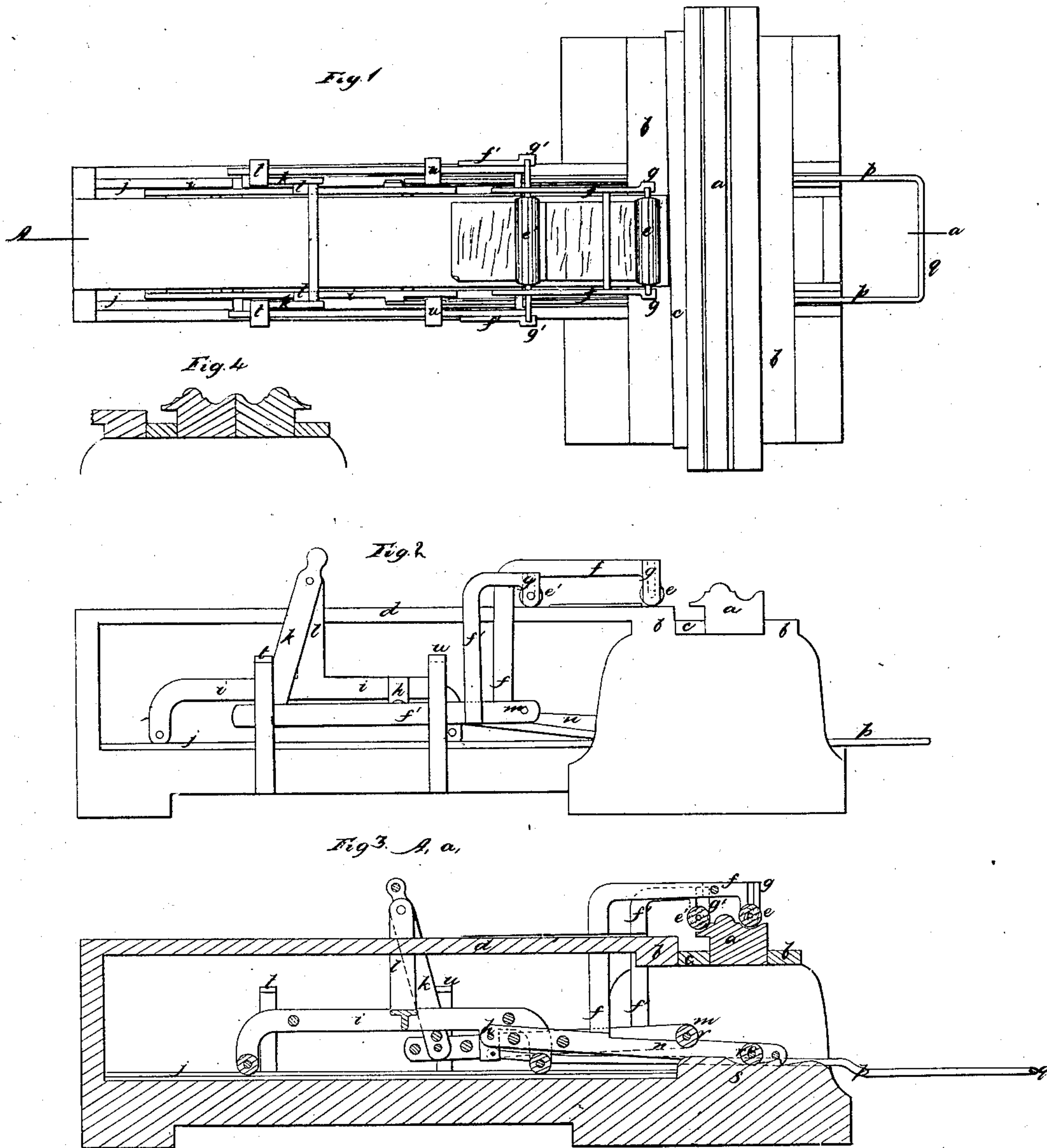


No. 32,950.

PATENTED JULY 30, 1861.

R. MARCHER.

APPARATUS FOR LAYING METAL LEAF ON MOLDINGS, &c.



Witnesses
Alfred Marcher
Peter Van Antwerp

Inventor
Robert Marcher

UNITED STATES PATENT OFFICE.

ROBERT MARCHER, OF NEW YORK, N. Y.

APPARATUS FOR LAYING METAL LEAF ON MOLDINGS, &c.

Specification of Letters Patent No. 32,950, dated July 30, 1861.

To all whom it may concern:

Be it known that I, ROBERT MARCHER, of the city, county, and State of New York, have invented certain new and useful Improvements in Apparatus for Laying Metal Leaf on Moldings and other Surfaces; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a plan of the said apparatus; Fig. 2, a side elevation; Fig. 3, a vertical section taken at the line A, *a*, of Fig. 1.

My said invention relates to an improvement on a method of laying gold or other metal leaf on moldings and other like surfaces, described in, and secured to me by Letters Patent of the United States bearing date the 10th day of May, 1859, which said patented method consists in rolling the metal leaf on a roller and passing the said roller over and across the moistened surface of the molding to lay the leaf thereon, the axis of the said roller being parallel with the axis of the molding, and thereby unrolling the metal leaf, which is thus laid evenly and smoothly into the cavities as well as on the protuberances of the moldings and at the same time avoiding the labor and inconvenience experienced in the practice of the method previously known of laying the leaf metal by means of a flat brush, called the tip which required the leaf to be cut in strips to lay it in the concavities of moldings.

By my present invention the two ends of the metal leaf are rolled up in opposite directions on two rollers with the middle portion hanging between them. In this condition the leaf is lifted and carried to the prepared molding, or a series of moldings placed side by side, and the hanging portion of the leaf let down onto the middle portion of the width of the prepared and moistened portion of the surface to be covered with the metal leaf and the ends unrolled in opposite directions. In this way the leaf in a single piece can be laid smoothly and evenly across the surface of a molding whether concave or convex, the axis of the rollers being parallel with the axes of the concavities or convexities of the moldings.

In the accompanying drawings (*a*) represents a molding and which when suitably prepared in the usual manner for receiving

the metal leaf is properly held in place between two parallel bars (*b, b*) by a wedge (*c*); but other suitable modes of holding it may be substituted provided such mode will admit of readily shifting it longitudinally, as the different portions of its length are coated with the metal leaf. Back of the bars (*b, b*) which constitute what may be termed a bench, there is a table (*d*) on which the book of metal leaf is placed.

Two rollers (*e, e'*) are mounted parallel with each other, and with the axis of the molding (*a*), and each separately in one of two movable frames (*f, f'*). The journals of these rollers are fitted to turn and move freely up and down in what may be termed elongated journal boxes (*g, g, g', g'*). These two frames (*f, f'*) extend each side of, and below the table (*d*), and the rear end of the one (*f*) is connected by a hinge joint at (*h*) with a carriage (*i*) which runs on ways (*j, j*) below the table; and the rear end of the other (*f'*) is in like manner hinged to the lower end of two pendulous arms (*k, k*) which are hinged at their upper ends to two standards (*l, l*) of the carriage (*i*). The forward end of the frame (*f'*) rests by a rod (*m*) on the forward part (*n*) of the frame (*f*), and the forward end of the frame (*f*) rests in like manner by a rod (*c*) on two rods (*p, p*) attached to the front part of the carriage *i*, the said two rods (*p, p*) being connected together in front by a cross rod which forms a handle (*q*) by which the operative can operate the whole mechanism.

There are rollers (*r, r*) on the rods (*m*) and (*o*), and below the bench on which the molding is placed a guard (*s*) so formed and located, as represented, that during the movement of the mechanism by carelessness the front ends of the frames (*f, f'*) in passing over the molding cannot come in contact with it to injure it.

When the mechanism is in the position represented in Fig. 2, with the two rollers (*e, e'*) resting on the table (*d*), one before and the other behind the book of metal leaves, the operator by the handle (*q*) forces back the carriage and with it the frame (*f*) which causes the roller (*e*) to take and roll up onto itself the front end of the metal leaf. The pendulous arms (*k, k*) being at the beginning of this motion in contact with two stops (*t, t*) on the ways (*j, j*), the same motion of the carriage causes the pendulous

arms (h, h) to vibrate forward and thereby to move forward the frame (f') and with it the roller (e') which rolls upon itself the other end of the metal leaf, leaving the middle portion of the leaf extending between the two rollers. The operator then lifts the handle (q) which lifts the two rollers (e, e') from the table and with them the metal leaf, the middle portion of which will hang loosely between, its weight causing the two rollers to turn sufficiently to permit it to hang loosely. The operator then pulls the carriage forward by the handle (q) taking care to lift up sufficiently to prevent the hanging portion of the leaf from touching the surface of the molding, and when the whole is in the position represented in Fig. 3 he lowers the handle and with it the rollers which permits the hanging portion of the leaf to come down onto the moistened surface of the molding and to adapt itself to the surface of the molding whether convex or concave, the capillary attraction due to the moisture drawing it smoothly and evenly to the surface, and at the same time that the operative lowers the handle he draws the carriage farther forward which causes the roller (e) to unroll the front end of the leaf as it is drawn to the front portion of the surface of the molding while at the same time, and by the same forward movement of the carriage the pendulous arms (h, h) are caused to vibrate backward by two other stops (u, u) and to carry the other roller (e') which in moving back unrolls the back end of the leaf as it is drawn by capillary attraction to the surface of the rear portion of the molding. The operator then lifts the handles and forces back the carriage to the position represented in Fig. 2, the molding is shifted and the operation repeated.

The molding to be treated should be set on the bench so that the concavity or convexity nearest the middle of its width will be about central under that portion of the leaf which hangs between the rollers when

brought forward to the position represented in Fig. 3. If desired the stops (t, t) and (u, u) can be made adjustable vertically and laterally, vertically so as to give to the two frames (f) and (f') and their rollers (e) and (e') different ranges of motion relatively to each other that one may take up and give out a greater proportion of the length of the leaf than the other when the principal convexity or concavity of the molding is not in the middle of the width of the molding, and laterally to adapt the range of motion of the frames and rollers to different widths of moldings.

Instead of one molding two or more moldings placed side by side as represented in Fig. 4 of the accompanying drawings may be operated upon at the same time.

The rollers may be covered with any suitable soft substance which will take the metal leaf, but I prefer to cover them by winding soft floss cotton yarn. And although I have above described an arrangement of mechanism by which an operative can successfully impart the required movements to the two rollers, I do not wish to be understood as limiting my claim of invention to the use of such special mechanical arrangements, as other and equivalent arrangements having a like mode of operation may be substituted.

What I claim as my invention and desire to secure by Letters Patent is—

Laying metal leaf on moldings or other like surfaces by means of two rollers or their equivalents having a mode of operation substantially such as herein described, for rolling up the opposite ends of the metal leaf, laying the hanging and unrolled portion thereof onto the molding, and then unrolling the ends in opposite directions, as set forth.

ROBT. MARCHER.

Witnesses:

ALFRED MARCHER,
PETER VAN ANTWERP.