

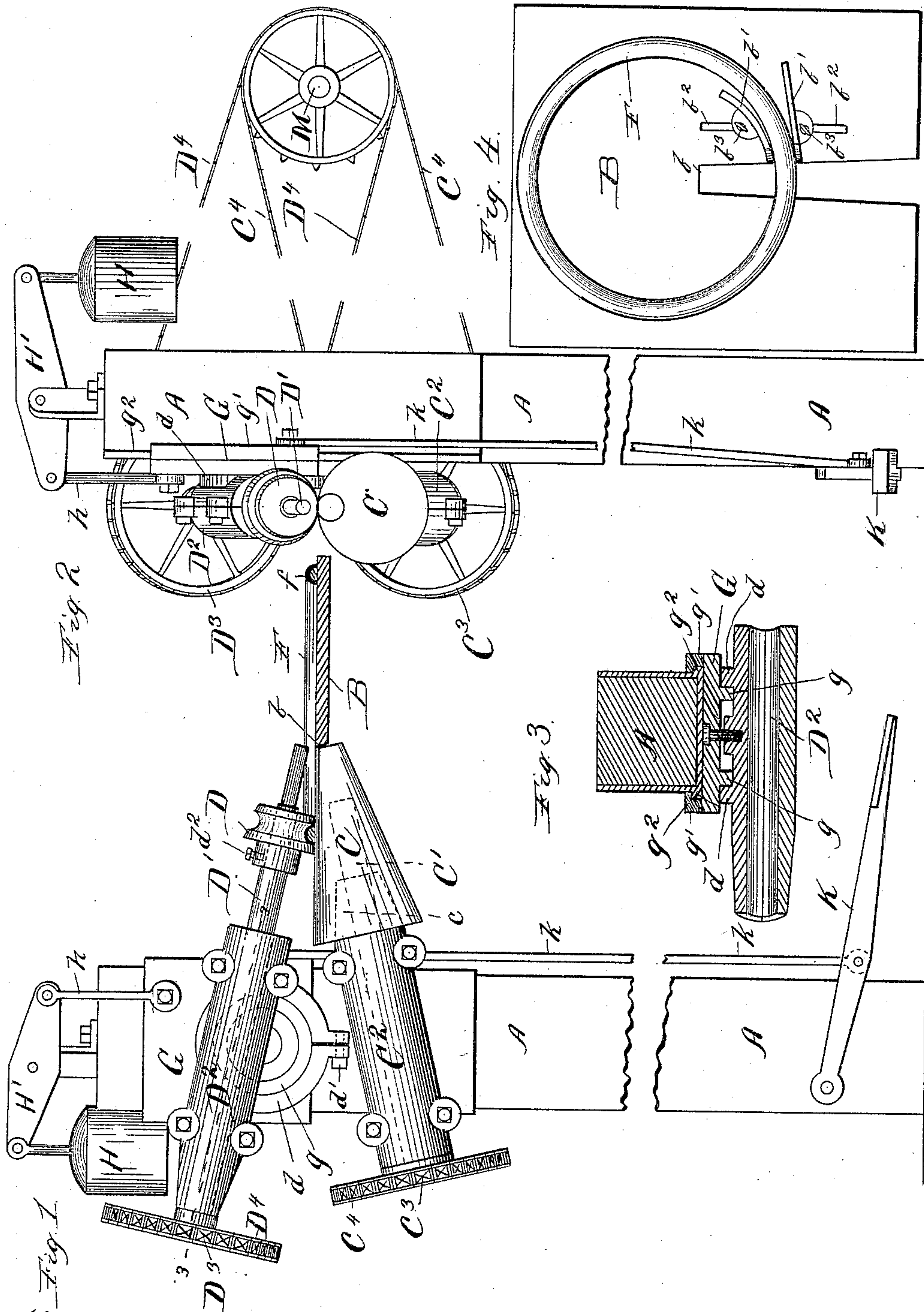
(No Model.)

J. GROBLE.

MACHINE FOR DECORATING CIRCULAR MOLDING.

No. 430,576.

Patented June 17, 1890.



Witnesses:
Sew. C. Curtis
Emma Stack

Inventor:
James Groble
By Munday Evans & Adcock
His Attorneys.

UNITED STATES PATENT OFFICE.

JAMES GROBLE, OF CHICAGO, ILLINOIS, ASSIGNOR TO JOHN MOORE, OF
SAME PLACE.

MACHINE FOR DECORATING CIRCULAR MOLDINGS.

SPECIFICATION forming part of Letters Patent No. 430,576, dated June 17, 1890.

Application filed February 27, 1890. Serial No. 342,013. (No model.)

To all whom it may concern:

Be it known that I, JAMES GROBLE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Machines for Decorating Circular Moldings, of which the following is a specification.

Heretofore circular moldings have been usually decorated by hand, the composition being applied to the circular wooden frame by hand and pressed and molded to shape in short sections to give the required decoration.

The object of my invention is to provide a machine of a simple and durable construction, by means of which circular or oval moldings may be cheaply and rapidly decorated, whatever may be their diameter.

To this end my invention consists, in connection with a suitable table or support for the circular molding-frame, of a pair of revolving conical rolls set at an angle to each other, one of the rolls being a plain roll to bear against the flat face of the circular molding-frame, and the other of which is a decorated or grooved roll corresponding to the decoration desired to be given to the circular molding. The shaft of the upper roll is journaled in a pivotal or adjustable bearing, so that the angle which the axes of the two conical rolls make with each other may be adjusted to correspond to the diameters of different circular moldings, as may be required. This pivotal bearing is carried by a vertically-moving slide connected with the foot-treadle or lever, by which the operator exerts the requisite pressure to properly compress the composition upon the wooden molding-frame and to impress upon it the decorative configuration of the upper or decorated roll. A counter-weight is connected to this slide through the medium of a lever and operates to lift the upper roll or separate the rolls when the work is completed, so that the finished molding may be removed from the machine and another molding-frame inserted. The shafts of the two conical rolls are driven by chains and pulleys or other equivalent means, so that the adjustment of the upper shaft to a different angle will not interfere with the driving mechanism.

The invention consists in the novel devices

and novel combinations of parts and devices herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a front view. Fig. 3 is a detail section on line 3 3 of Fig. 1; and Fig. 4 is a detail plan view of the supporting-table and guides.

In the drawings, A represents the frame of the machine, which may be of any suitable construction, and consists, preferably, of simply a vertical post.

B is the table or support for the circular molding-frame.

C and D are the two conical rolls secured to the revolving shafts C' and D'. The shaft C' of the lower or plain roll is journaled in a box or bearing C², secured to the frame or post A at an angle, so that the upper surface of the conical roll C will be parallel to the upper surface of the table B and project just slightly above the same, so that the circular molding-frame F will at this point rest upon the roll C and clear the table B. The shaft D' of the upper roll D is journaled in a box or bearing D². The box or bearing D² is secured to a clamp-ring d, which fits upon the stud or boss g on the vertical slide G, so that by simply loosening the clamp-screw d' the axis of the roll D may be adjusted to any angle desired, according to the diameter of the molding to be operated upon.

The slide G is furnished with a removable member g', and it works upon suitable guides g², secured to the post or frame A.

H is the counter-weight connected to the lever H', one end of which is connected by the pivotal link h to the slide G.

K is the lever or treadle, which is connected by a pivotal link k with the slide G, so that the operator may press the roll D with the requisite pressure down upon the roll C and the circular molding interposed between the rolls. The roll D is removably secured to its shaft D' by means of a set-screw d², so that the decorated or figured roll may be easily and quickly removed and replaced by another. The bearing C² of the lower roll C is fur-

nished with a projecting end *c*, which fits in the base of the hollow roll C, so as to give additional support and bearing to the roll C. This is clearly indicated by the dotted lines in Fig. 1. The rolls C and D, or their shafts C' D', are furnished with sprocket wheels or pulleys C³ D³, and they are both driven or revolved by means of chains C⁴ D⁴ from suitable driving-wheels on the driving-shaft or counter-shaft M. The plastic composition *f*, which is to be pressed upon the circular molding-frame F and to receive the decoration or configuration of the figured roll D, is, in the operation of the machine, fed or placed upon the upper surface of the wooden frame F by the operator as the frame F revolves between the rolls C D. At the same time the operator with his foot exerts the requisite pressure upon the lever K to cause the roll D to firmly compress the composition upon the wooden frame and to give it the requisite decoration. When the circular molding is thus decorated or finished, the operator raises or removes his foot from the treadle K, and the weight H at once raises the slide G and lifts the roll D, so that the finished molding may be removed from between the rolls and another frame F placed in position for operation.

The table B is preferably furnished with a slot or opening *b*, through which the roll C projects. The table B is provided with adjustable guides *b'* *b'*, one bearing against the inner periphery and the other against the outer periphery of the molding-frame F as it revolves. These guides are adjustable in slots or grooves *b²* *b²* in the table B, and are fixed in place by thumb-screws *b³* *b³*. These guides serve to keep the molding-frame F in its proper course or position as it passes between the rolls C D.

I claim—

1. The machine for decorating circular moldings, consisting in a table or support for the molding-frame and a pair of revolving conical rolls having their driving-shafts or axes of revolution at an angle to each other, one of said rolls being mounted in a pivotal bearing carried by a vertically-moving slide, so that the rolls may be separated or pressed together and the angle of their axes of revolution adjusted to correspond to the diameter

of the molding operated upon, substantially as specified.

2. The combination, with table B, of roll C, its shaft C', bearing C², the upper end of said roll being parallel to the surface of said table, roll D, shaft D', bearing D², clamp-ring *d*, slide G, having stud *g*, weight H, lever H', link *h*, treadle K, and link *k*, substantially as specified.

3. The combination, with table B, of roll C, its shaft C', bearing C², the upper end of said roll being parallel to the surface of said table, roll D, shaft D', bearing D², clamp-ring *d*, slide G, having stud *g*, weight H, lever H', link *h*, treadle K, link *k*, driving-pulleys C³ D³, chains C⁴ D⁴, and driving-shaft M, having pulleys for said chains, substantially as specified.

4. The combination, with post A, of rolls C D, having shafts C' D', journaled on said frame at an angle to each other, the journal or bearing for said roll D being mounted on a vertically-moving slide G and being pivotally adjustable on said slide, substantially as specified.

5. The combination, with post A, of rolls C D, having shafts C' D', journaled on said frame at an angle to each other, the journal or bearing for said roll D being mounted on a vertically-moving slide G and being pivotally adjustable on said slide, and a weight and treadle for operating said slide, substantially as specified.

6. The combination of frame A, conical roll C, table B, conical-figured roll D, having a shaft D', journaled in a pivotally-adjustable and vertically-movable box or bearing, mechanism for moving said box or bearing up and down, and mechanism for revolving said rolls C and D, substantially as specified.

7. The combination of frame A, with conical rolls C D, journaled thereon, with their driving-shafts or axes of revolution at an angle to each other, and table B, having adjustable guides *b'* to bear against the inner and outer periphery of the molding, substantially as specified.

JAMES GROBLE.

Witnesses:

H. M. MUNDAY,
EMMA HACK.