

No. 774,857.

PATENTED NOV. 15, 1904.

H. W. THOMAS.
PLATE GLASS GRINDER.
APPLICATION FILED FEB. 26, 1904.

NO MODEL.

Fig. 1.

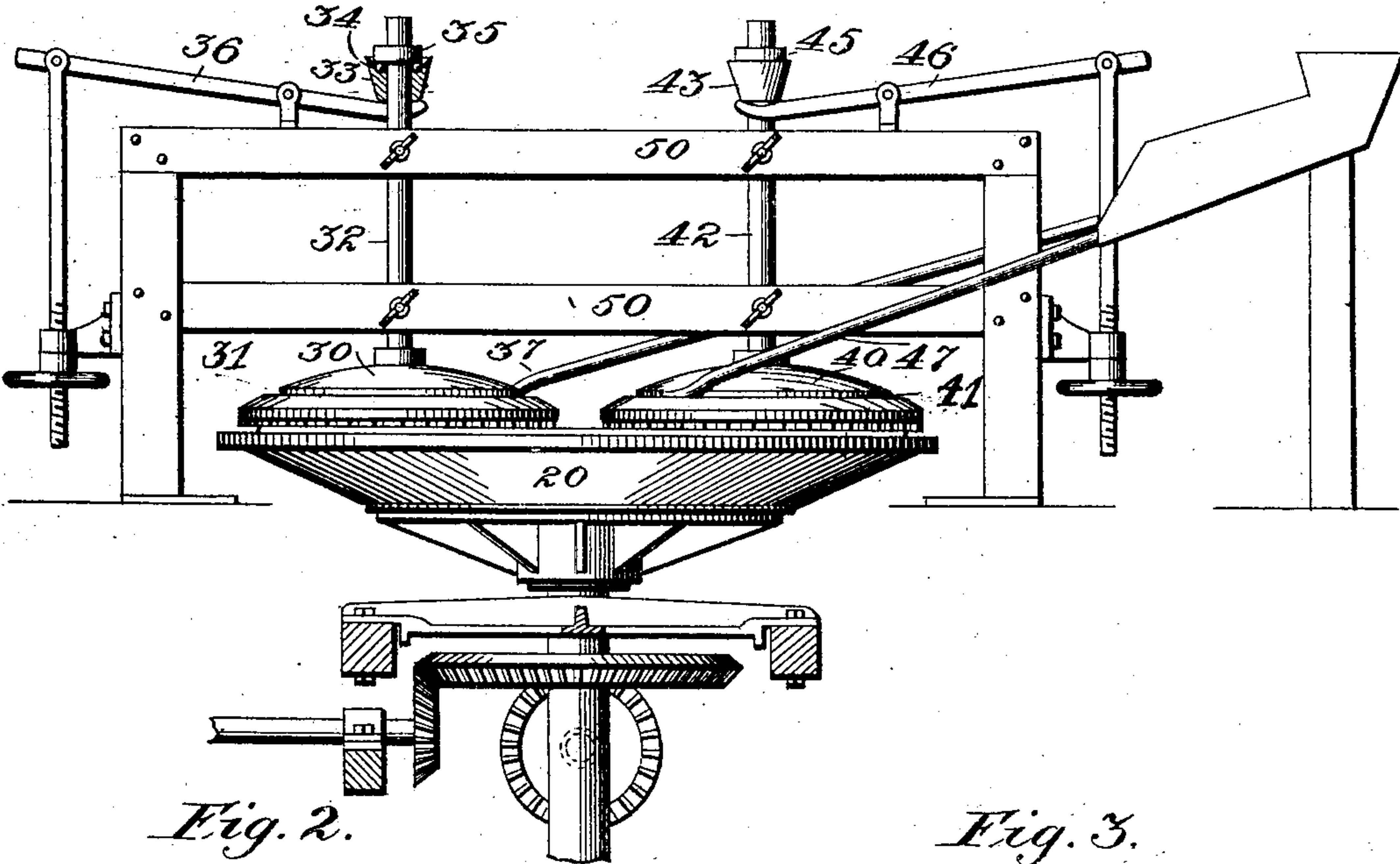


Fig. 2.

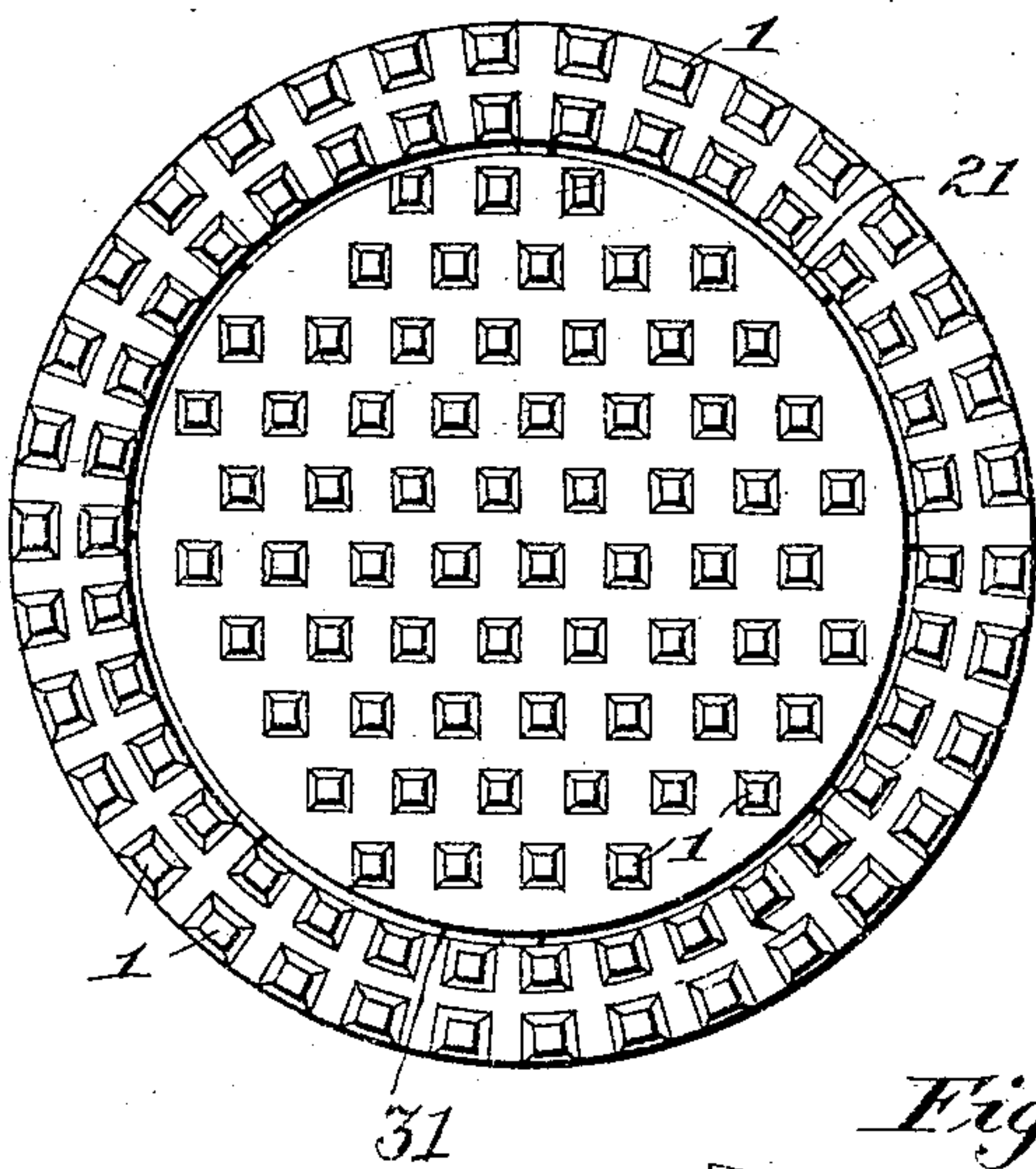


Fig. 3.

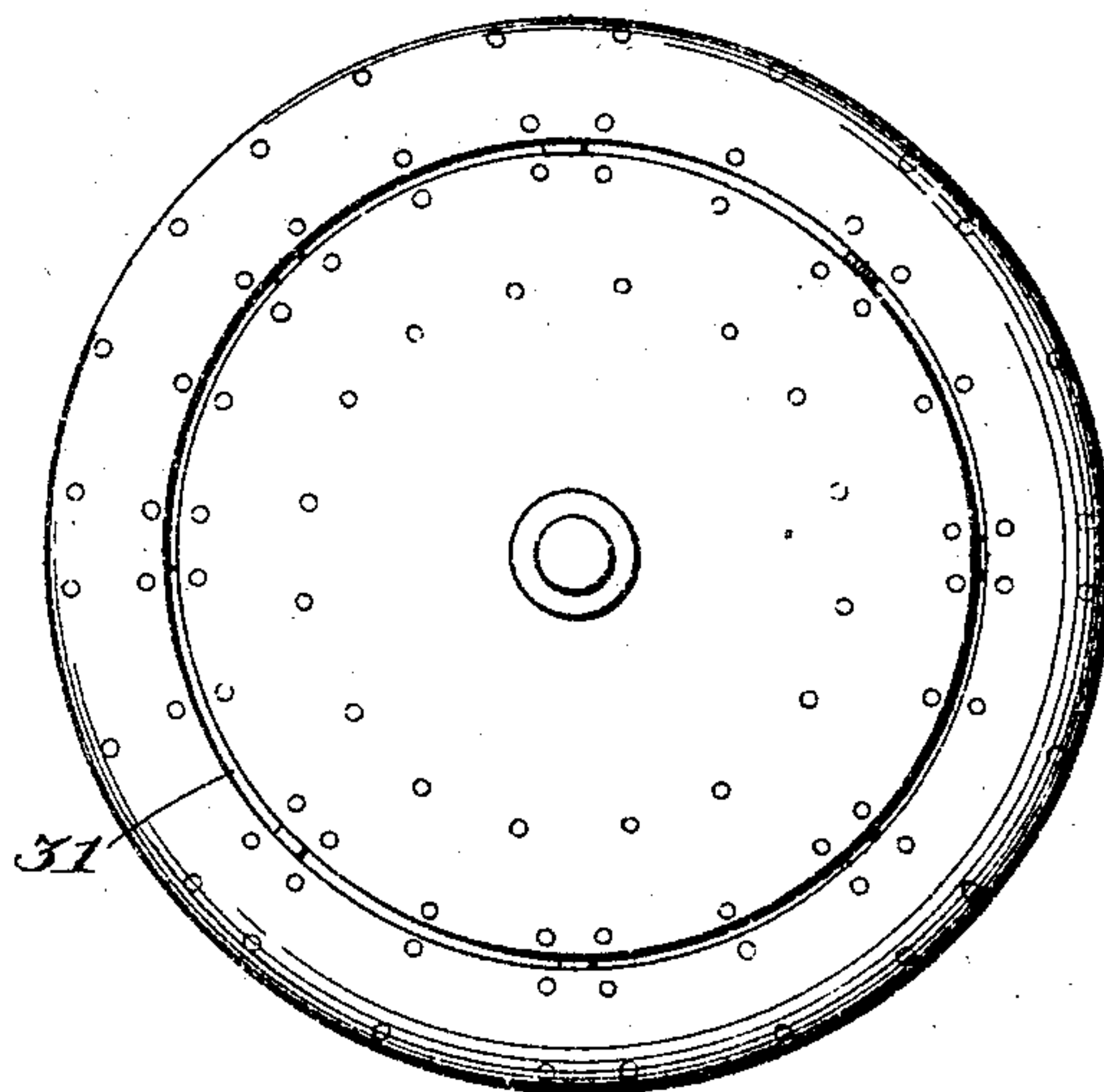


Fig. 4.



Witnesses:

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Inventor:

Howard W. Thomas
per John S. Rodgers
Att'y

UNITED STATES PATENT OFFICE.

HOWARD W. THOMAS, OF CHARLEROI, PENNSYLVANIA.

PLATE-GLASS GRINDER.

SPECIFICATION forming part of Letters Patent No. 774,857, dated November 15, 1904.

Application filed February 26, 1904. Serial No. 195,492. (No model.)

To all whom it may concern:

Be it known that I, HOWARD W. THOMAS, a citizen of the United States, residing at Charleroi, in the county of Washington and State of Pennsylvania, have invented a new and useful Improvement in Plate-Glass Grinders, of which improvement the following is a specification.

The present invention has reference to certain improvements pertaining to a machine for grinding glass, the object of the invention being to construct the mechanism relative to the application of the abrasive in order that greater economy of the abrasive be effected.

The invention also includes a certain device for reducing the friction in the operation of the runner.

Figure 1 is a view of the side elevation of the machine. Fig. 2 is a bottom plan view of the runner, its annular gutter, and shoes. Fig. 3 is a top plan view of a runner with the gutter. Fig. 4 is the end of the spout of the abrasive-hopper.

In the present machine the abrasive is applied in an annular passage at opposite quadrants of the runners in order that the diverging motions of the runners and table will tend to distribute the abrasive evenly and effectually under the grinding-shoes.

Referring to the drawings, numeral 20 denotes the table upon which the glass is secured to be ground. This table is mounted, as usual, upon a vertical shaft and operated in any manner, preferably by miter-wheels connected with the power apparatus, as well known to the art.

30 and 40 denote two runners each of which is provided with an annular passage, also with shoes or grinding-blocks. The said runners are suspended and adjusted from the frame 50.

31 and 41 are each an annular passage of the said runners situate in the zone of the outer half of the radii near the point describing half the area of the runners and spaced in order that the said passage be within the circumference of the table. The shoes within the passage of the said runner are set with their axes at an angle to the axes of those of the same runner without the said passage in order to

distribute and retain the abrasive within the area of usefulness.

The application of the abrasive is in opposite quarters, being fed in and by water running from the spouts 37 and 47 of the hopper through the annular passage to the table, preferably in the first quadrant of one runner, 30, and the third quadrant of the other, 40, in order that diverging motions of the table and runner assist in distributing the abrasive under the several shoes.

32 and 42 are vertical shafts of the runners provided with flanges 35 and 45, riding on ball-bearings 34 and 44 in bearing-blocks 33 and 43, supported by the adjusting-levers 36 and 46 and operated in the usual manners.

The use of any convenient number of runners is within the spirit of this invention.

In the operation of this machine the glass to be ground is placed upon the table, embedded by plaster-of-paris or any other means. The runners are let down with their shoes or grinding-blocks upon the glass by the adjusting-lever. Motion is imparted to the same by the table, which is rotated by the usual means known to the art. The abrasive is applied in and by water running through the said spouts in the annular passage to the first and third quadrants, respectively, of 30 and 40 in order that the abrasive be advantageously distributed by the diverging motion of the face of the blocks.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A grinding-machine having a revolving table for supporting the material to be ground, means for rotating the same, two runners each provided with an annular passage and one of which is provided with two approximately equal series of shoes or grinding-blocks, one series being within the annular passage the other without and each series set with their axes at an angle to the corresponding axes of those of the other, substantially as described.

2. In a grinding-machine having a runner, the said runner being provided with an annular passage, situated in the zone of the radius

describing half the area of the said runner substantially as described.

3. A grinding-machine, having a revolving table, means for rotating the same, two runners, each provided with an annular passage; abrasive-hoppers having spouts, said spouts being spaced to apply the abrasive in the first quadrant of one of the runners and the third quadrant of the other; the said runners provided with grinding-blocks substantially as described.

4. A grinding-machine comprising a revolving table, means for rotating the same, two runners each provided nearly equal with series of number of shoes or grinding-blocks, one series within the annular passage, the other

without; each series set with their corresponding axes at an angle to the other, and said runners having an annular passage in the outer half of the radius, and abrasive-hoppers, the spouts thereof located in opposite quadrants, viz., first quadrant of one and third quadrant of the other, substantially as set forth and described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HOWARD W. THOMAS.

In presence of—

B. A. ZOLLNER,

GEORGE W. RISBECK.