

No. 780,864.

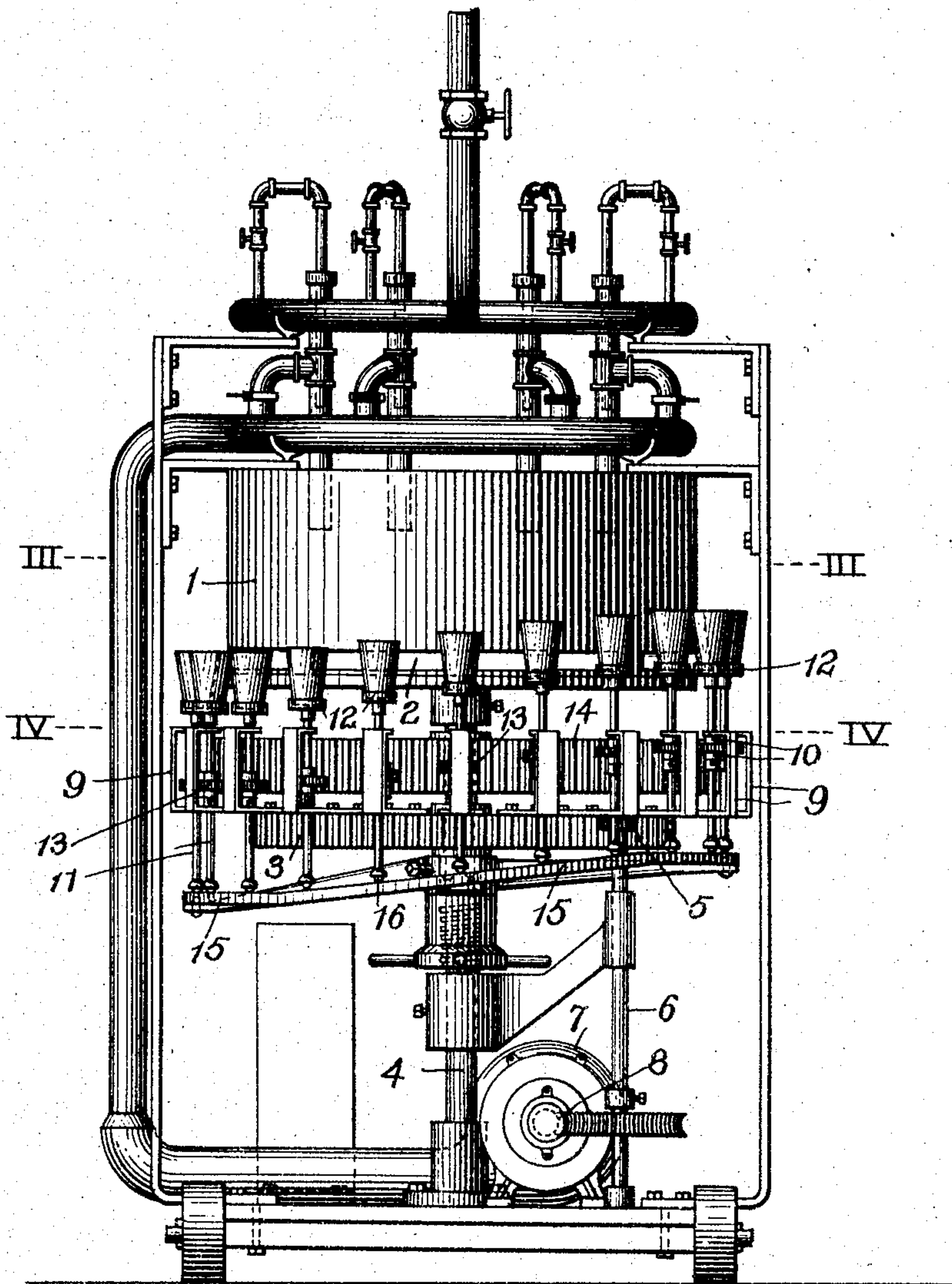
PATENTED JAN. 24, 1905.

T. COLEMAN, JR.  
APPARATUS FOR GLAZING GLASS.

APPLICATION FILED MAY 31, 1904.

3 SHEETS—SHEET 1.

FIG. 1.



WITNESSES:

*Herbert Pryadley.*  
*Fred Kirchner.*

INVENTOR

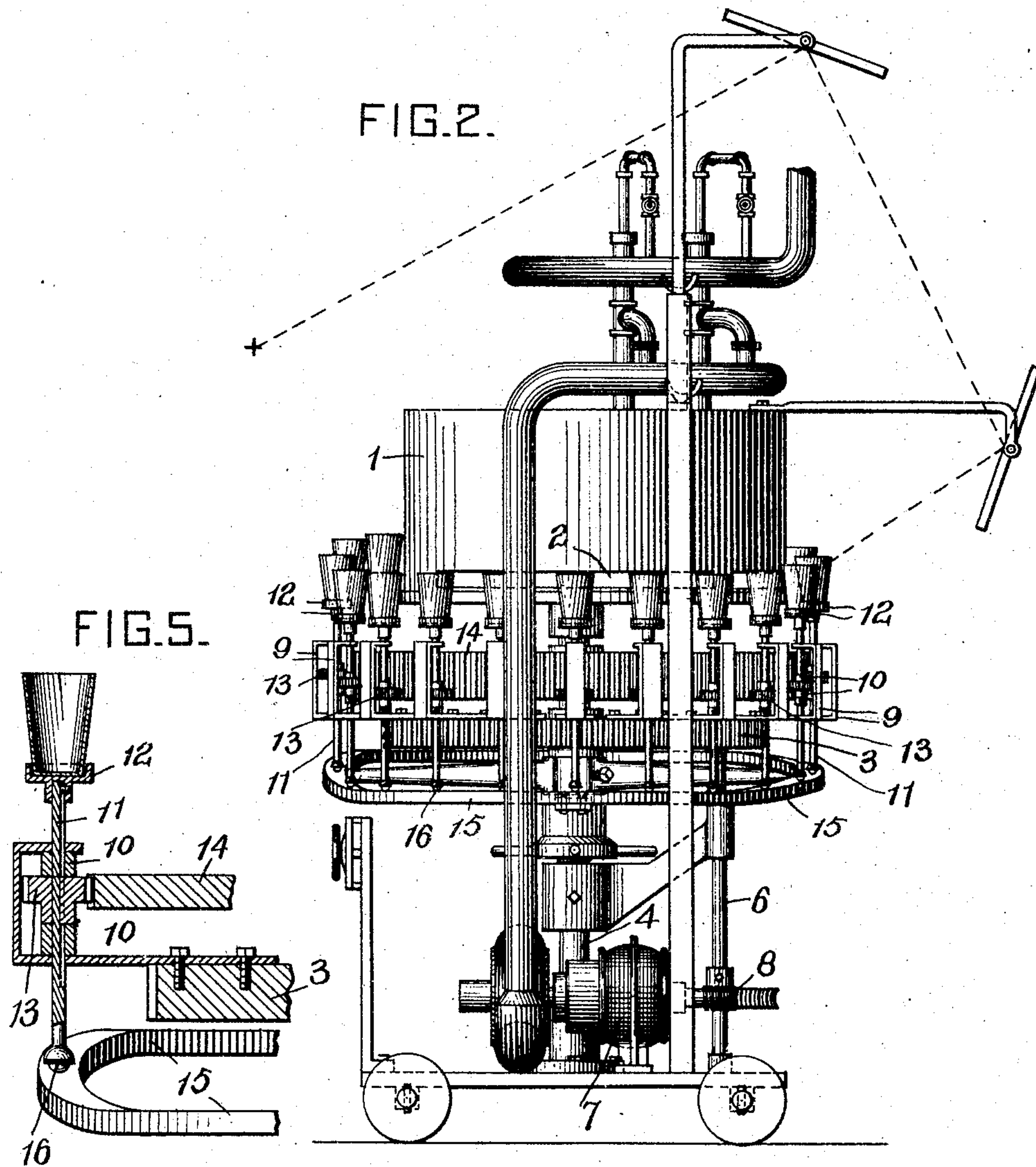
*Thomas Coleman, Jr.,*  
*by Christy & Christie, Attys*

No. 780,864.

PATENTED JAN. 24, 1905.

T. COLEMAN, JR.  
APPARATUS FOR GLAZING GLASS.  
APPLICATION FILED MAY 31, 1904.

3 SHEETS—SHEET 2.



WITNESSES:

Barber Bradley.  
Fred Kirchner.

INVENTOR

Thomas Coleman, Jr.,  
Christy & Christy, Attys.



No. 780,864.

PATENTED JAN. 24, 1905.

T. COLEMAN, JR.

APPARATUS FOR GLAZING GLASS.

APPLICATION FILED MAY 31, 1904.

3 SHEETS—SHEET 3.

FIG. 3.

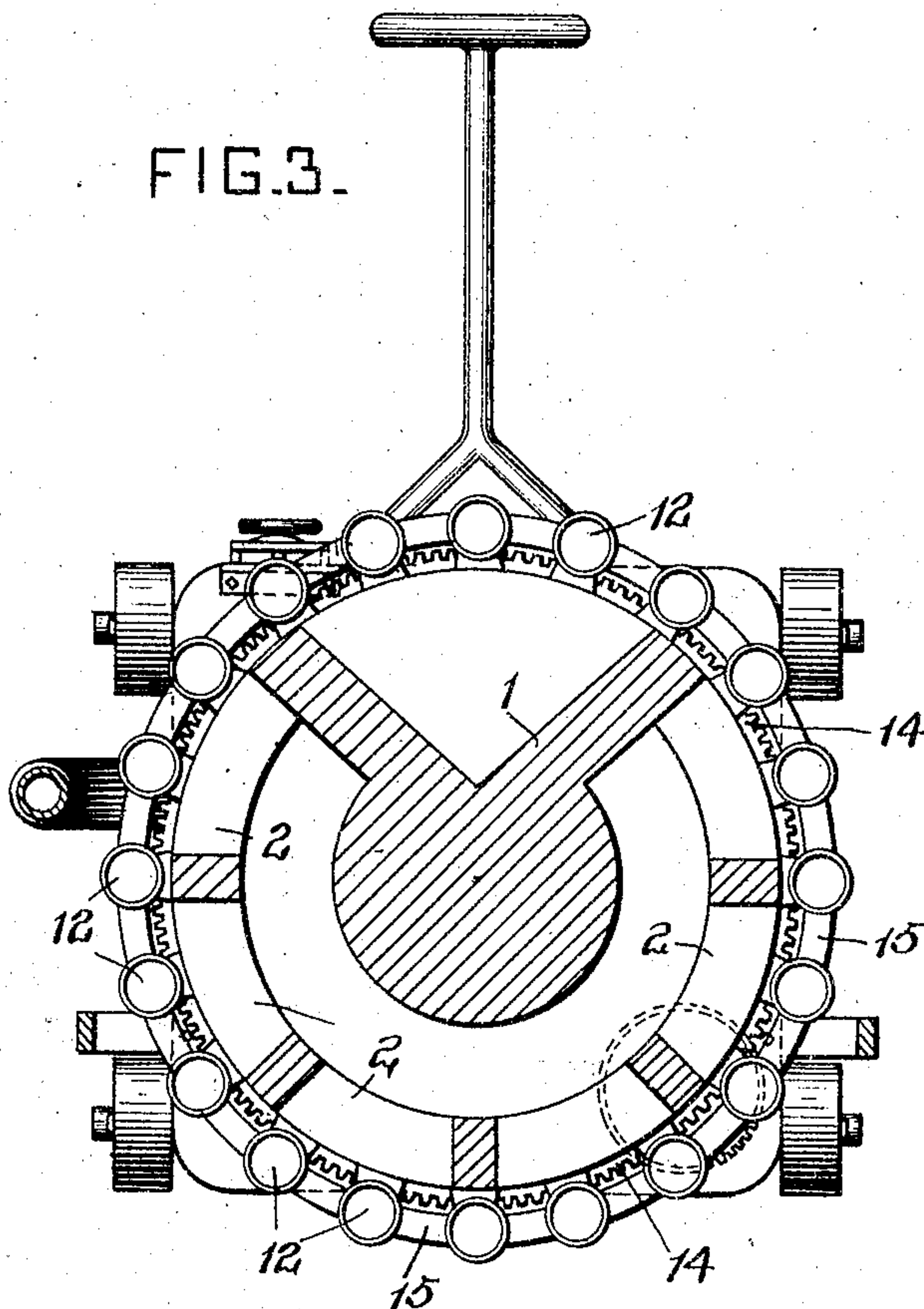
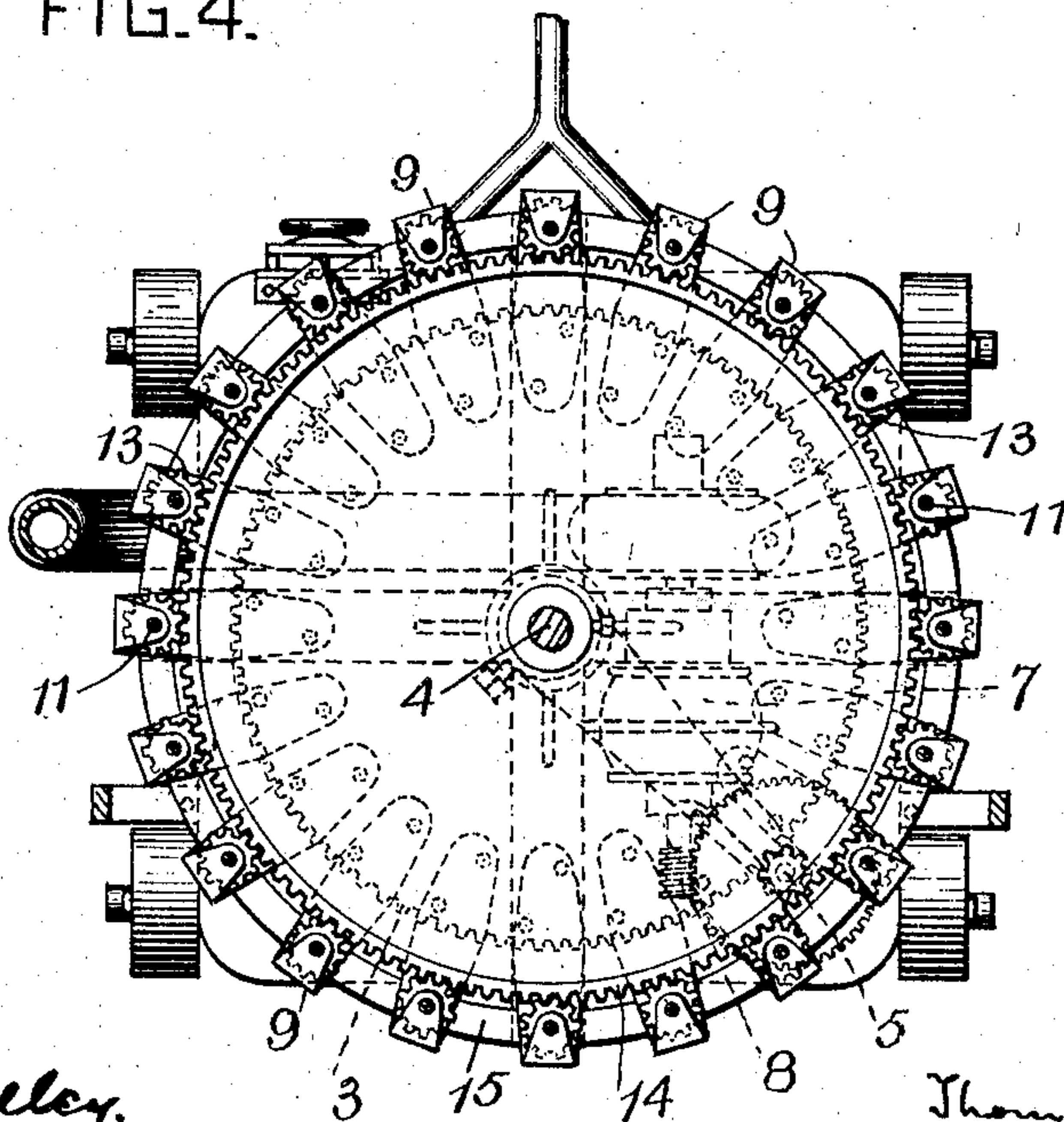


FIG. 4.



WITNESSES:

*Herbert Bradley*  
*Fred Kirchner*

INVENTOR

*Thomas Coleman, Jr.*  
*Christy & Christy, Attys*



# UNITED STATES PATENT OFFICE.

THOMAS COLEMAN, JR., OF CLARKSBURG, WEST VIRGINIA.

## APPARATUS FOR GLAZING GLASS.

SPECIFICATION forming part of Letters Patent No. 780,864, dated January 24, 1905.

Application filed May 31, 1904. Serial No. 210,461.

*To all whom it may concern:*

Be it known that I, THOMAS COLEMAN, Jr., a citizen of the United States, residing at Clarksburg, in the county of Harrison and State of West Virginia, have invented or discovered a certain new and useful Improvement in Apparatus for Glazing Glass, of which improvement the following is a specification.

The invention described herein relates to certain improvements in apparatus for glazing glassware, and has for its object a construction and combination of parts whereby the article to be glazed is caused to so traverse along the heating device or appliance that the heat is applied progressively from end to end and around the article.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figures 1 and 2 are elevations of my improved apparatus, the views being taken at right angles to each other. Figs. 3 and 4 are sectional plan views of the apparatus on planes indicated by lines III III and IV IV, Fig. 1; and Fig. 5 is a sectional detail view illustrating a modification of a portion of the apparatus.

In the practice of my invention the heating device or appliance is preferably constructed in the form of a furnace 1, having an interior combustion-chamber and supported upon a suitable frame, preferably movable from place to place. The heat generated in the furnace escapes through horizontal slots 2, arranged in or approximately in the same horizontal plane and extending part way around the furnace, which, as shown, is circular in form, as shown in Fig. 3. A suitable carrier provided with holders is arranged to move the articles along in front of the slot. With a circular furnace the carrier is made in the form of a gear-wheel 3, loosely mounted upon a shaft 4, and it is adapted to be rotated by a pinion 5 on the driving-shaft 6, which is driven by any suitable means—as, for example, an electric motor 7, connecting with the shaft 6 through a worm-gear 8. A series of brackets 9 are secured to the gear-wheel 3, said brackets extending, as clearly shown, especially in

Fig. 4, beyond the periphery of the gear-wheel and provided with bearings 10 for the spindles 11. Each of these spindles is provided with a suitable article-holder 12, the construction and shape of such holder being dependent upon the article to be treated. The spindles 11 are provided with pinions 13, which intermesh with a stationary circular rack 14, so that when the gear-wheel 3 is rotated the spindles are carried around with the gear-wheel and are also caused to rotate by the engagement of the pinions with the rack. As the spindles with their holders are carried in front of the slot they are moved in a direction at an angle to their plane of rotation. Such movement can be effected in many ways—as, for example, the lower ends of the spindles may be arranged to bear upon an inclined track 15, preferably through the medium of a ball 16, arranged in a socket in the lower ends of the spindles. As shown in Figs. 1 and 2, the arms of the brackets may be arranged a sufficient distance apart to permit of the pinion being moved up and down a distance equal to the desired vertical traverse of the article, and in such case the circular rack 14 is made of a considerable width, so that during such vertical movements of the pinions they will remain in engagement with the rack. In lieu of such construction the pinion 13 may be held by the bearings on the bracket as against vertical movement and the spindle caused to move through the pinion, which is connected to the spindle, as by a spline and groove, in such manner as to cause the spindle to rotate therewith, but permit the latter to move freely therethrough. This inclined track 15 is so arranged that when the gear-wheel 3, carrying the spindles, with their holders, is rotated, a vertical movement, through their driving-pinions, will be imparted to the spindles by the inclined track, so that as the article is carried around the furnace it will be rotated and have a motion transverse of the slots 2, and therefore will be gradually heated from end to end and circumferentially. By reference to Fig. 3 it will be seen that there is a blank portion of the furnace, or a portion having no heat-outputs, and that a horizontal portion of the in-



clined track is arranged at such blank portion of the furnace, so that the articles which have been heated may be removed and new ones substituted for them while the carriers  
5 are moving along this portion of the furnace.

I claim herein as my invention—

1. In an apparatus for glazing glass, the combination of a holder for the article, a horizontally-arranged heat-supplying mechanism  
10 and means for rotating the holder and means for shifting it in a direction at an angle to the plane of rotation and during its rotation, substantially as set forth.

2. In an apparatus for glazing glass, the  
15 combination of an extended heat-supplying mechanism, a holder for the article, means for shifting the holder along the heat-supplying mechanism, means for rotating the holder and means for shifting it in a direction at an  
20 angle to its plane of rotation, substantially as set forth.

3. In an apparatus for glazing glass, the combination of a heat-supply mechanism arranged in the arc of a circle, a holder for the  
25 article, means for moving the holder in the arc of a circle along the heat-supplying mechanism, means for rotating the holder and means for shifting it in a direction at an angle

to the plane of rotation of the article, substantially as set forth.

4. In an apparatus for glazing glass the combination of a combustion-chamber having a horizontal slot for the escape of heat, a series of spindles provided with holders, means  
35 for shifting the spindles and holders in front of the slot, means for rotating the spindles and an inclined track for imparting vertical movement to the spindles while being moved in front of the slot, substantially as set forth.

5. In an apparatus for glazing glass, the  
40 combination of a circular combustion-chamber provided with a horizontal slot for the escape of heat, a rotating carrier or wheel, a series of spindles provided with holders, mounted on the carrier, means for rotating  
45 the spindles while being shifted around the chamber, and a circular inclined track for imparting a vertical movement to the spindles, substantially as set forth.

In testimony whereof I have hereunto set  
50 my hand.

THOMAS COLEMAN, JR.

Witnesses:

S. W. GORDON,  
MARY A. GORDON.