No. 702,633. Patented June 17, 1902.

T. COLEMAN, JR. & C. RUNYON.

APPARATUS FOR GLAZING GLASS.

(Application filed July 22, 1901.)

(No Model.) 3 Sheets—Sheet 1.

FIG. 1.

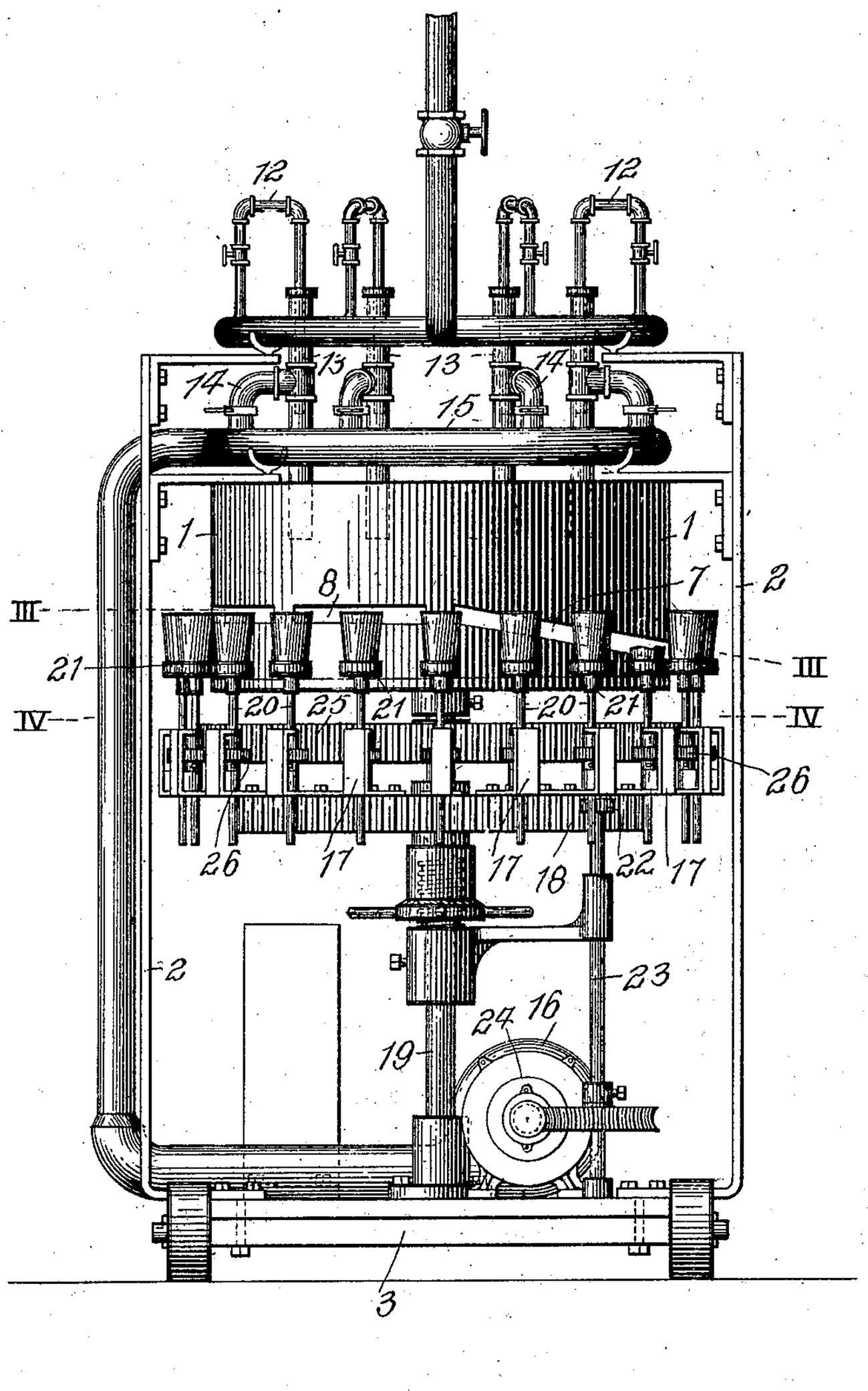

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FIG. 2.

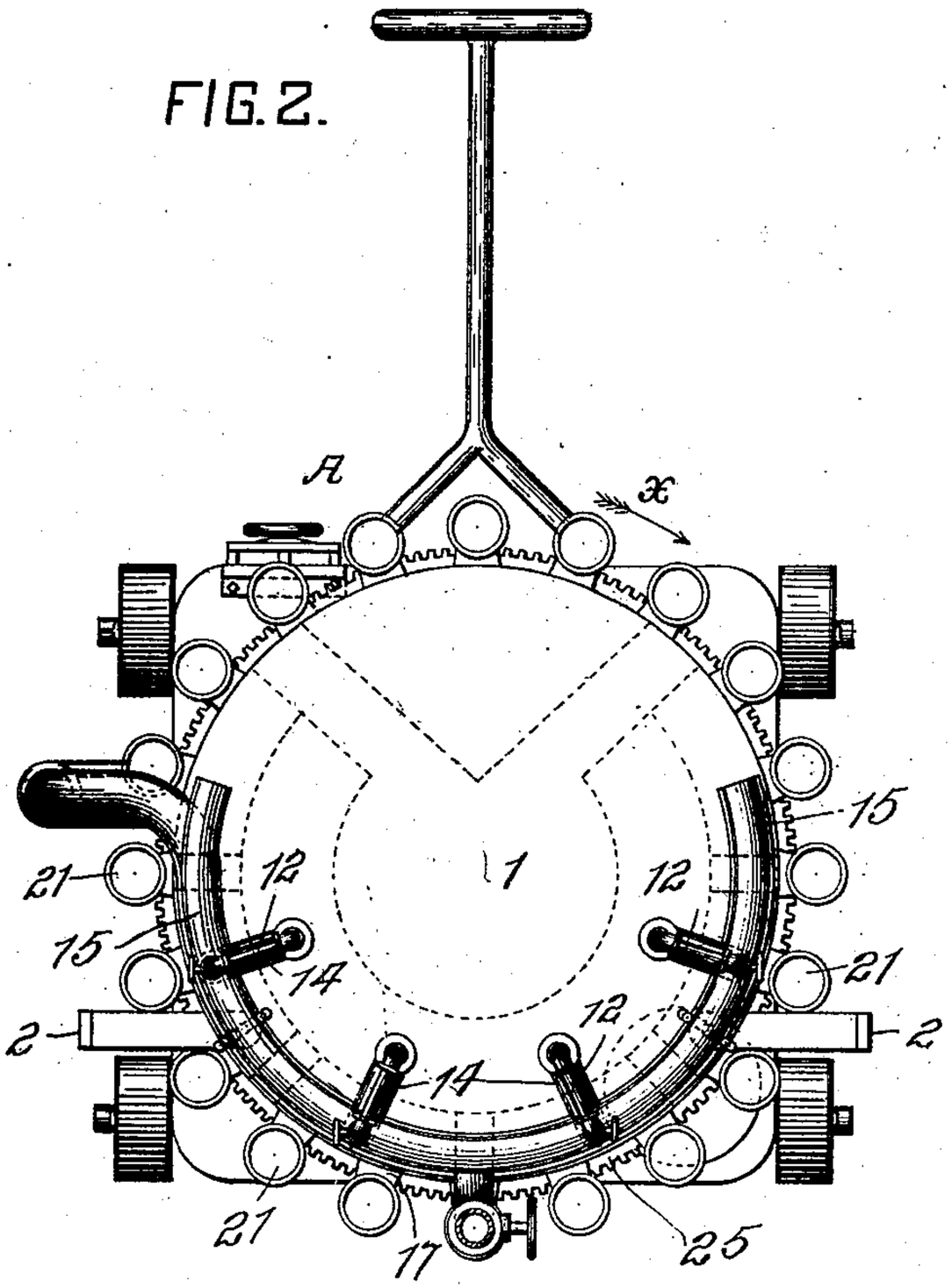

FIG. 3.

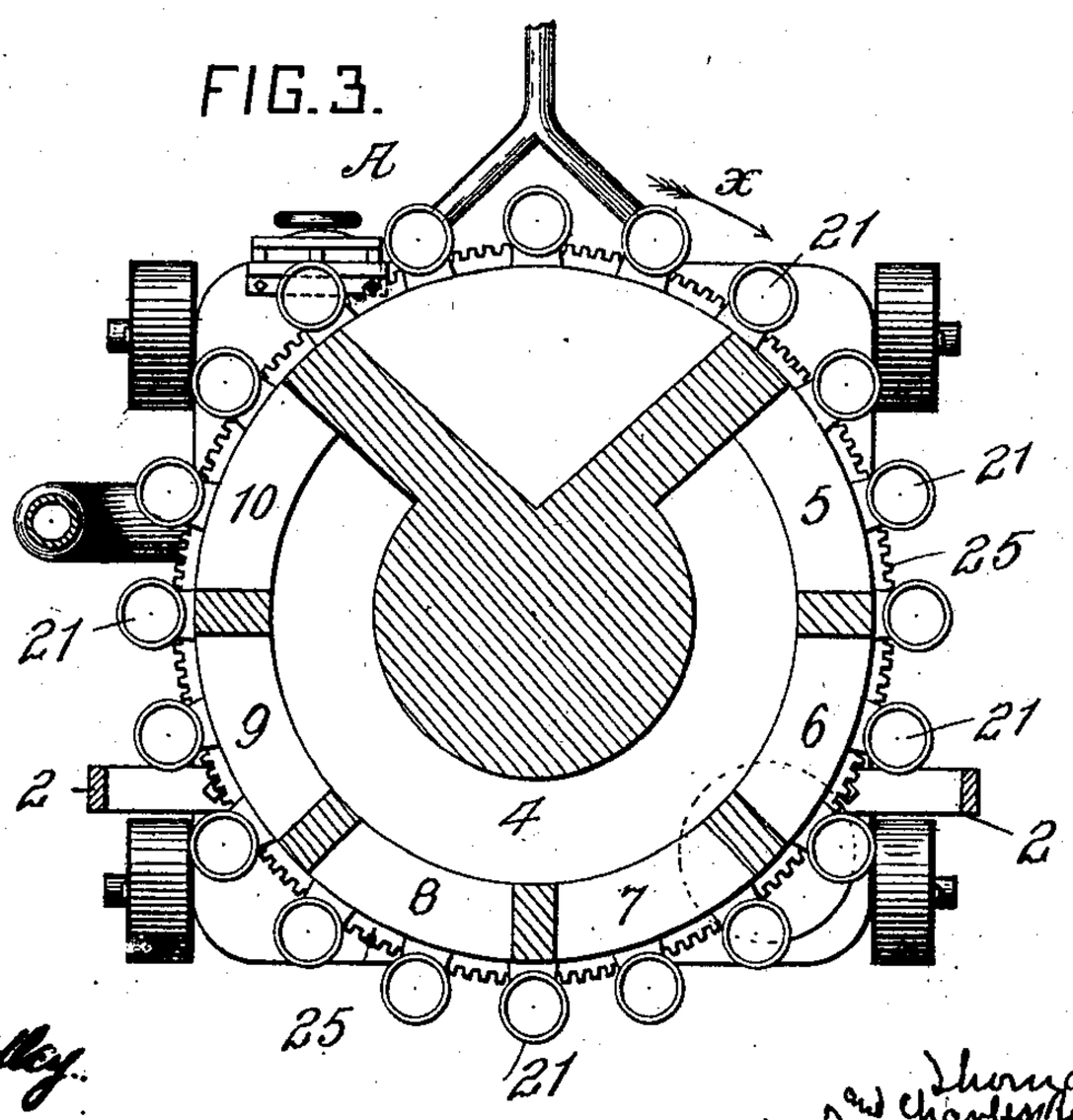

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FIG. 4.

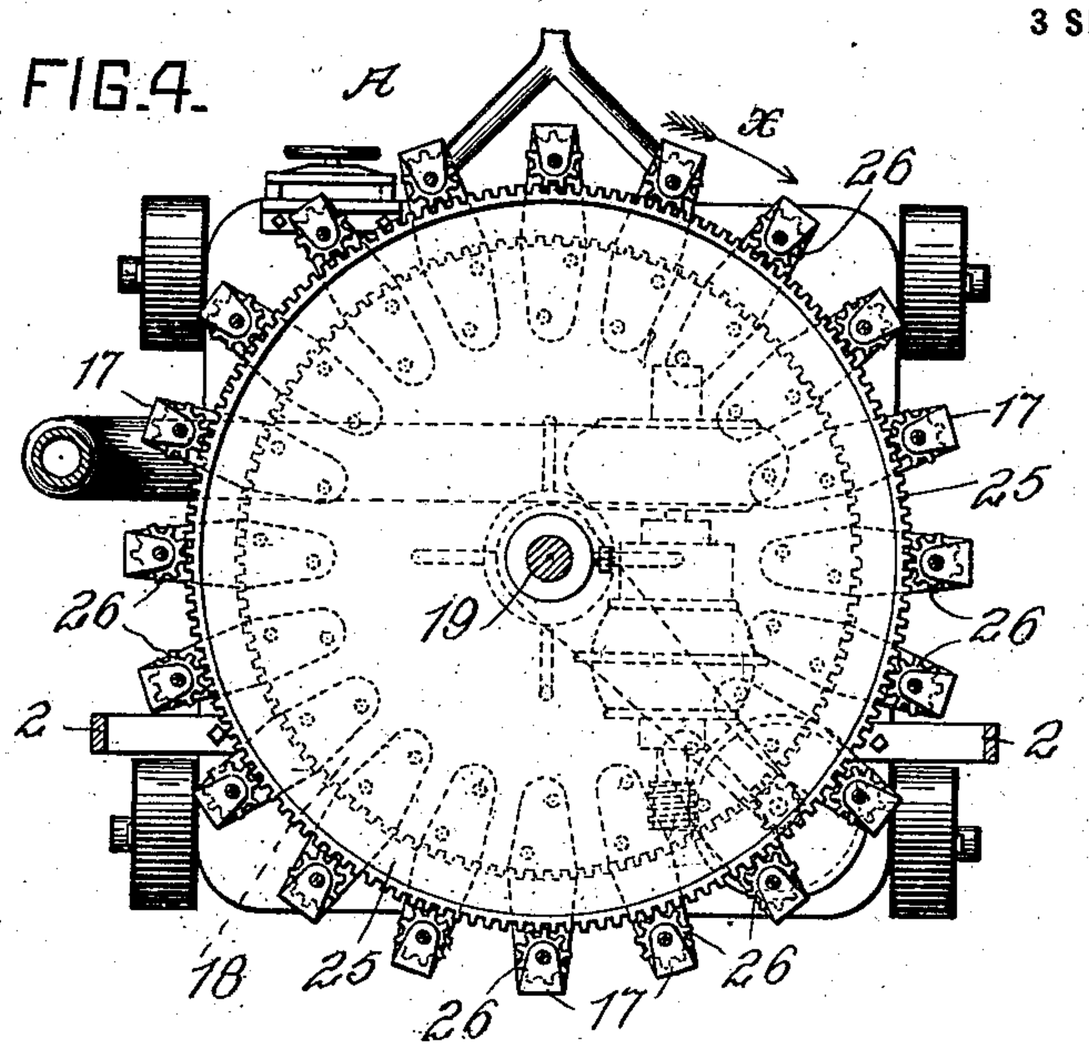
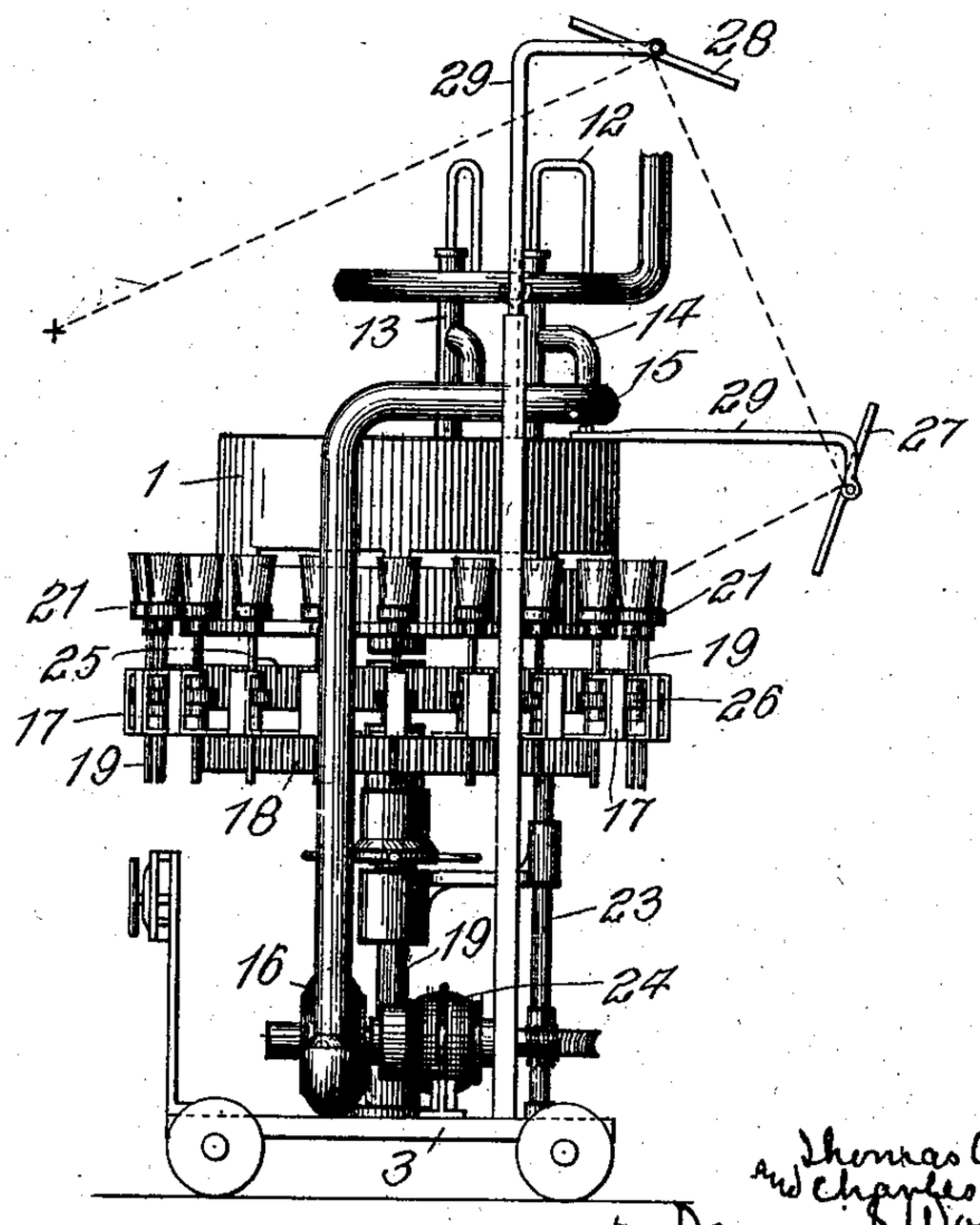


FIG. 5.



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UNITED STATES PATENT OFFICE.

THOMAS COLEMAN, JR., AND CHARLES RUNYON, OF CLARKSBURG, WEST VIRGINIA.

APPARATUS FOR GLAZING GLASS.

SPECIFICATION forming part of Letters Patent No. 702,633, dated June 17, 1902.

Application filed July 22, 1901. Serial No. 69,212. (No model.)

To all whom it may concern:

Be it known that we, THOMAS COLEMAN, Jr., and CHARLES RUNYON, citizens of the United States, residing at Clarksburg, in the county of Harrison and State of West Virginia, have invented or discovered certain new and useful Improvements in Apparatus for Glazing Glass, of which improvements the following is a specification.

The invention described herein relates to certain improvements in glazing glass articles, such as tumblers, &c.; and the invention has for its object a construction whereby the article may be rotated before the heating devices in such manner that the heating shall be progressive from the lower to the upper end of the article, or vice versa.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a rear elevation of our improved heater. Fig. 2 is a top plan view of the same. Figs. 3 and 4 are sectional plan views on planes indicated, respectively, by the lines III III and IV IV, Fig. 1; and Fig. 5 is a side elevation of the apparatus.

In the practice of our invention the furnace 1 is supported on suitable brackets secured to the side bars 2 of a frame, which is supported by a suitable truck 3, so as to permit of the shifting of the mechanism or apparatus from place to place. As clearly shown in Figs. 2 and 3, the furnace is provided with a combustion-chamber 4, preferably circular and provided with outlets 5, 6, 7, 8, 9, and 10, more or less, as required. These slots or outlets are so arranged that a portion of them will direct the heat flowing outwardly through them against one end of the article and others against the opposite end of the article, while the intermediate slot or slots are arranged so as to direct the heat against portions intermediate of the ends of the articles and to that end are preferably arranged at an angle, as clearly shown in Fig. 1. While any suitable fuel may be employed for producing the desired heat, gas is preferred and is introduced into the combustion-chamber, preferably at a number of points, by means of pipes 12, which extend down into blast-pipes 13, connected by branches 14 to a bustle-pipe 15, which extends from a blower 16, secured to the supporting-truck. By this means a very intense heat of flame can be produced within the combustion-chamber and forced outwardly through the slots or openings against the article.

A series of brackets 17 is secured to a wheel 18, loosely mounted on a shaft or standard 19, extending up from the bed of the machine, and in these brackets are formed bearings for a series of spindles 20, each provided at its upper end with a holder 21 of any suitable form or construction for the article to be glazed. As clearly shown in Fig. 1, the spindles are made of sufficient length, depending upon the height of the article, so as to bring the latter opposite the slots or openings from the combustion-chamber, as stated. The wheel 18 is provided with a toothed periphery adapted to intermesh with the pinion 22 on the driving-shaft 23, which is driven by a motor 24 through a suitable interposed worm-gearing, as shown in Fig. 1. A circular toothed rack 25 is supported, preferably by the supporting-shaft, above the gear-wheel 18, the teeth of said rack adapted to intermesh with pinions 26, mounted on the spindles 19, so that as these spindles are carried around the rack a rotation will be imparted thereto. In using the apparatus it is preferred that the boy attending the machine should stand at A, opposite a blank or imperforate portion of the wall of the combustion-chamber, to place the tumblers on the holders as they move past him in the direction of the arrow *x*. By the movement of the carrying-wheel the articles are presented or caused to traverse in front of the lower slot or slots, as 5 and 6, which will direct the heat against the lower ends of the articles. As the articles are carried along they are passed in front of the inclined slot or slots, so that the heat will be directed progressively up along the article, and next presented to or passed in front of the upper horizontal slot or slots, which direct the heat against the upper end of the article. As the glazed articles reach the point A the attendant will remove them from the holders and place others in position thereon. It will be understood, of course, that the arti-

cles may be carried in a reverse direction, so that the initial heating will be at the top instead of the bottom of the article.

It will be observed that the combustion-chamber does not extend entirely around the furnace or apparatus, so that the attendant will not be subjected to the heat therefrom, as the feeding-point is opposite the blank portion of the furnace.

In order to permit the attendant to inspect the articles and make such regulation as regards the heating of the same as may be necessary, one or more mirrors 27 and 28 are so supported by suitable arms 29, extending from the frame of the apparatus, that by turning his eyes upward the attendant can see reflected in the mirror the articles as they pass in front of the several slots, and thereby ascertain whether the heating is progressing satisfactorily or not.

We claim herein as our invention—

1. In an apparatus for glazing glass articles, the combination of a holder for the article a heat-supplying mchanism, and means for shifting one of said parts relatively to the other; the heat-supplying mechanism being inclined in a direction relative to the line of travel of the movable part or element whereby the glass article is progressively heated along and around its exterior surface, substantially as set forth.

2. In an apparatus for glazing glass articles, the combination of two or more appliances for applying heat to the articles, said appliances being arranged in different planes relative to the path of movement of the articles, holders for the articles and means for moving the holders in suitable proximity to the heaters, the heating appliances being so arranged relative to the movement of the holders that the heat will be applied progressively along and around the articles, substantially as set forth.

3. In an apparatus for glazing glass articles, the combination of a combustion-chamber having two or more outlets arranged in different planes, a carrier, holders for the articles mounted on the carrier, means for rotating the holders and means for shifting the carrier, whereby the articles are carried past the heat-outlets in succession and rotated during such movement, substantially as set forth.

4. In an apparatus for glazing glass articles, the combination of a circular combustion-chamber having two or more outlets arranged in different planes, one or more intermediate outlets arranged at an angle to the other outlets, a rotating carrier, holders for the articles mounted on the carrier and means for rotating said holders, substantially as set forth.

In testimony whereof we have hereunto set our hands.

THOMAS COLEMAN, JR.
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Witnesses:
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