

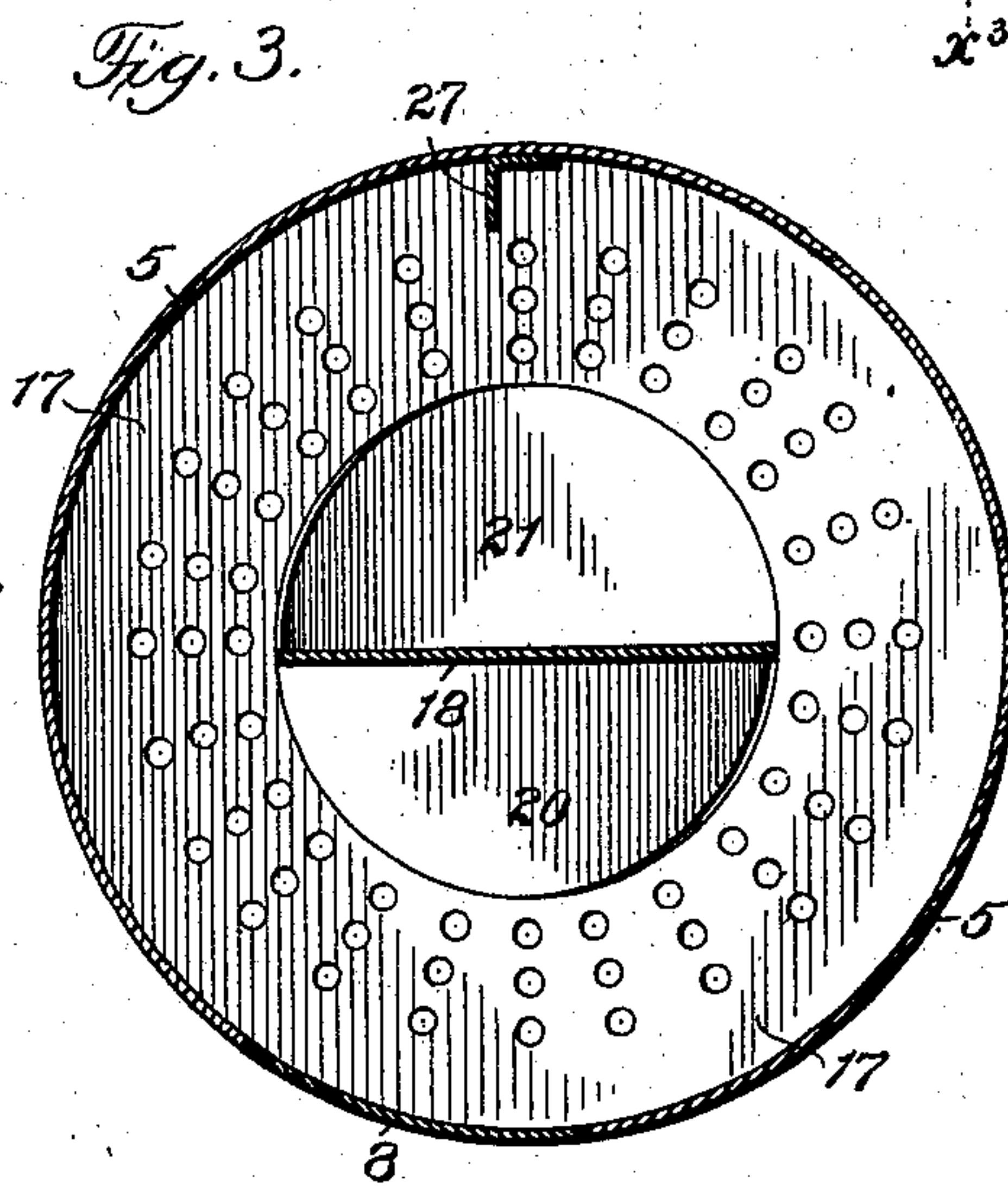
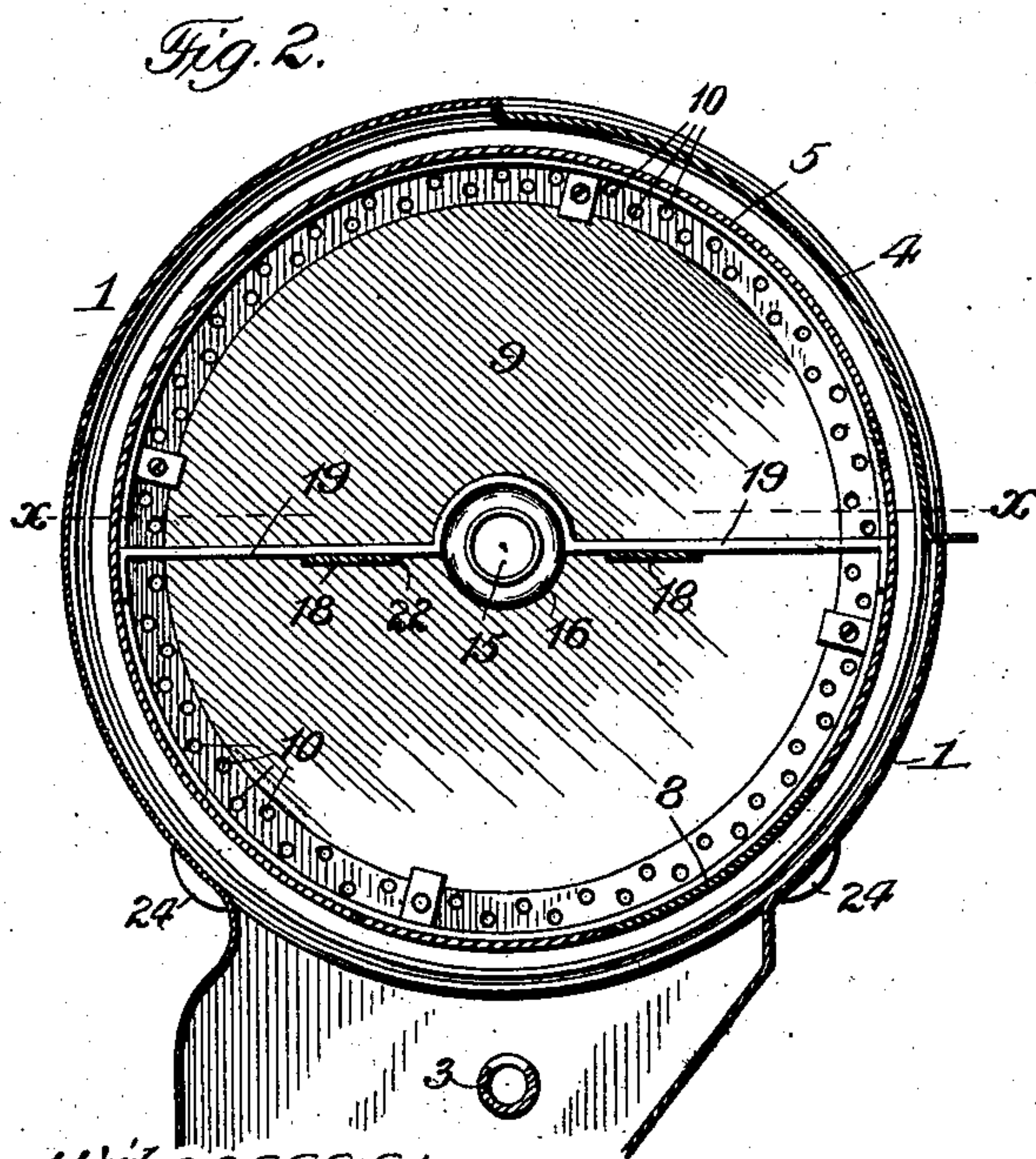
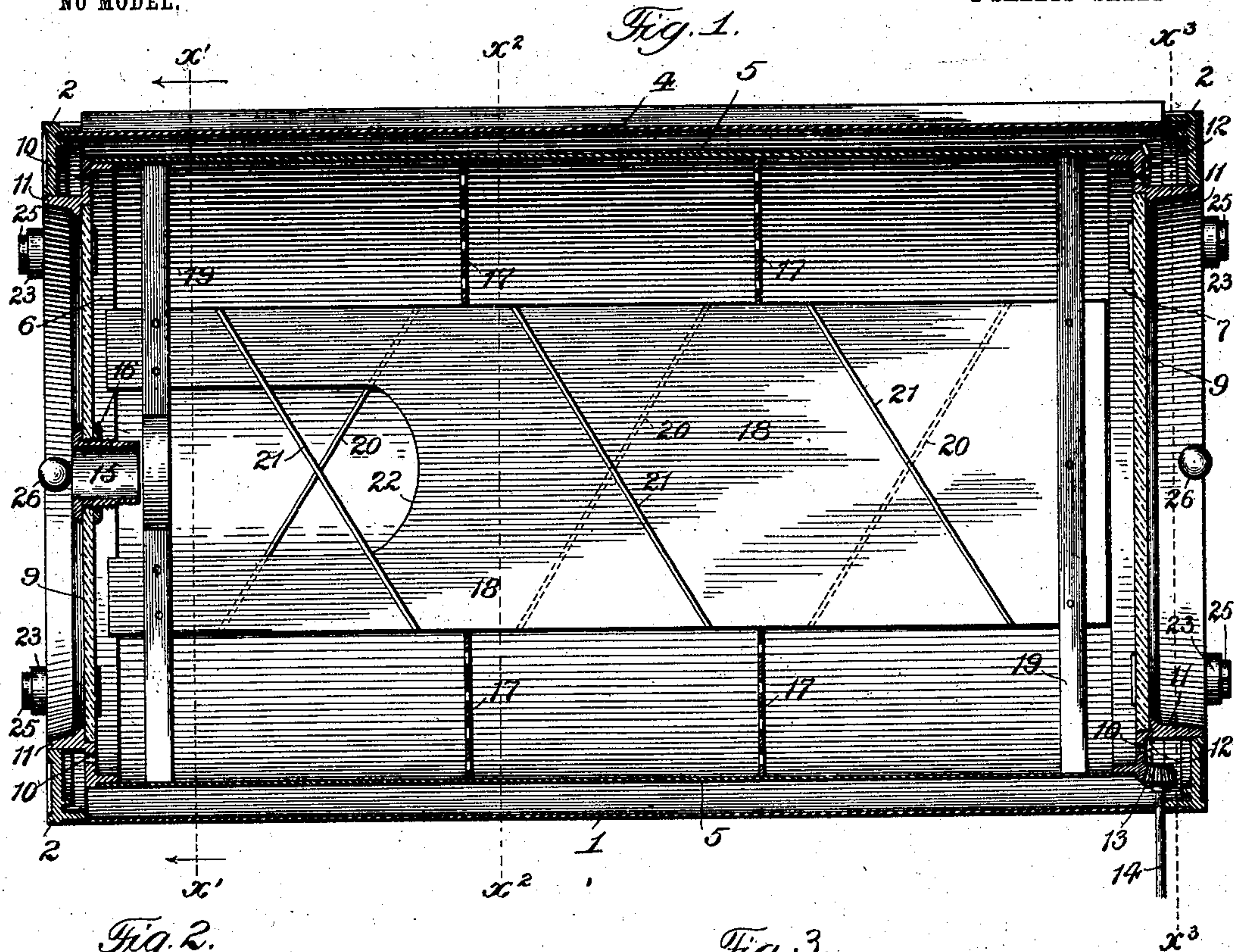
No. 728,549.

PATENTED MAY 19, 1903.

C. CRETORS.  
ROASTING APPARATUS.  
APPLICATION FILED AUG. 28, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

John Enders Jr.  
Henry A. Nott

Inventor:

Charles Cretors,  
by Robert Burns  
Attorney



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2 SHEETS—SHEET 2.

Fig. 5.

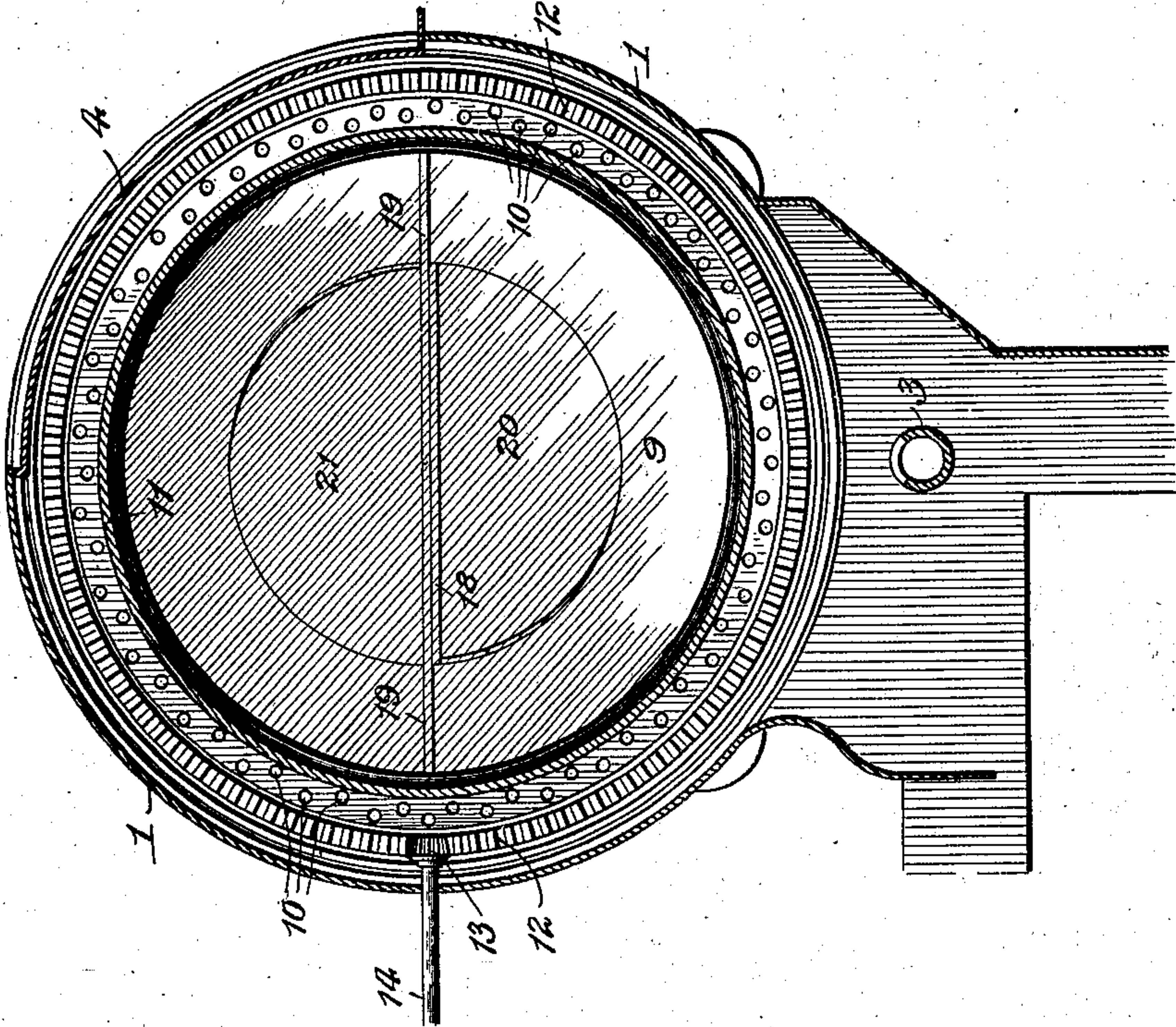
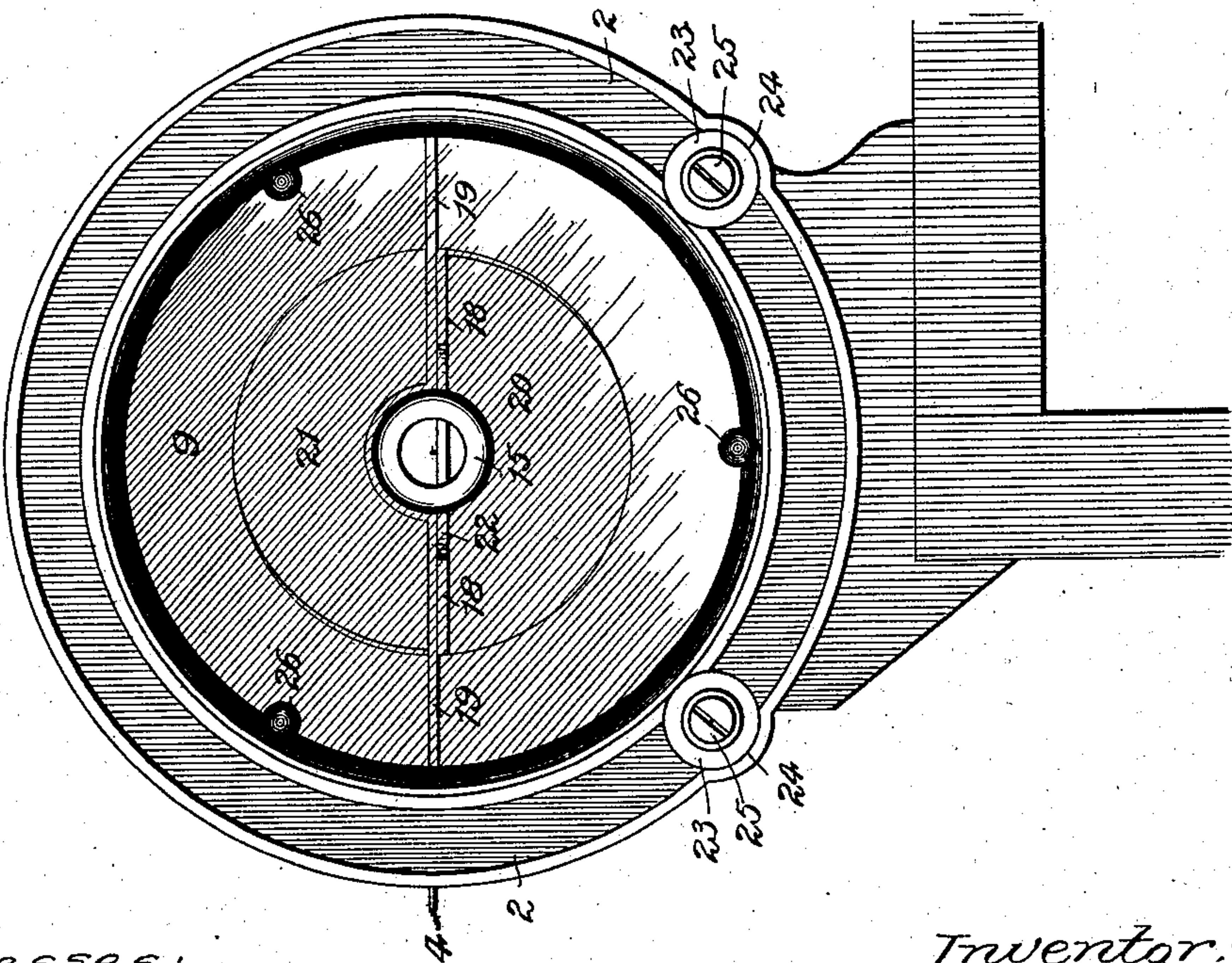


Fig. 4.



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# UNITED STATES PATENT OFFICE.

CHARLES CRETORS, OF CHICAGO, ILLINOIS.

## ROASTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 728,549, dated May 19, 1903.

Application filed August 28, 1902. Serial No. 121,314. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES CRETORS, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Roasting Apparatus for Peanuts and the Like, of which the following is a specification.

The present invention relates to that class of roasting apparatus in which the material to be roasted is contained within a horizontally-rotating cylinder surrounded by an inclosing casing or housing, within which is also contained a burner or fire chamber, from which the heat required in the roasting operation is supplied; and the present improvement has for its object to provide a simple, durable, and efficient construction and arrangement of parts whereby the roasting operation is performed in a rapid, certain, and uniform manner and which in addition involves a stable and efficient support for the revolving roasting-cylinder, a simple and efficient means for stirring the material during the roasting operation, and a convenient means for observing the progress of the roasting operation and for testing the material during such progress of the operation, all as will hereinafter more fully appear, and be more particularly pointed out in the claims.

In the accompanying drawings, illustrative of the present invention, Figure 1 is a horizontal section at line  $xx$ , Fig. 2, of a roasting apparatus embodying the present invention; Fig. 2, a transverse section at line  $x'x'$ , Fig. 1; Fig. 3, a transverse section of the roasting-cylinder at line  $x^2x^2$ , Fig. 1; Fig. 4, an end elevation of the apparatus; Fig. 5, a transverse sectional elevation at line  $x^3x^3$ , Fig. 1. Similar numerals of reference indicate like parts in the several views.

Referring to the drawings, 1 represents the main inclosing casing of a cylindrical or other suitably-shaped form and having end heads 2 2, to which such casing 1 is secured by attaching-flanges on said heads, as shown.

3 is a burner or other like source of heat arranged in the lower part of the inclosing casing 1.

4 is a segmental-shaped door closing a longitudinal opening in the upper portion of the casing 1 and affording convenient access to

the roasting-cylinder. In the construction shown in the drawings the end of such door is adapted to slide in curved grooves or ways in the respective casing-heads 2, as shown in Figs. 1, 2, and 5.

5 is an imperforate cylinder forming in connection with the end heads 6 and 7 the revolving cylinder of the apparatus.

8 is a door in the side of the roasting-cylinder of any usual form and affording access to the interior of such cylinder.

The heads 6 and 7 are of substantially the same construction, and each head will comprise an annular sash-ring of metal formed with an inwardly-extending annular glazing-fillet, as shown in Fig. 1, and a central transparent disk 9, secured in the socket formed by the fillet aforesaid and adapted to afford a convenient observation of the material undergoing the process of roasting without the necessity of stopping the operation of the apparatus or removing or manipulating any of the parts.

10 represents annular series of perforations in the webs of the respective rings or annulus for the escape of the vapors generated in the roasting operation and which in the present construction prevents in a very perfect manner any condensation of such vapors upon the transparent disks 9, that form the greater portion of the heads 6 and 7.

11 represents circular track-flanges on the heads 6 and 7, adapted to having bearing upon the series of track-rollers, hereinafter described. Such track-flanges are adapted to fit loosely within orifices for the same in the end heads 2 of the main casing 1, so as to prevent accidental disengagement of the track-flanges aforesaid from their bearing upon the track-rollers.

12 is a beveled-gear formation near the outer rim of one of the end heads of the roasting-cylinder adapted to mesh with and be driven by a bevel-pinion 13 on a counter-shaft 14, which in turn has operative connection with a suitable power source.

15 is a flanged tubular bushing fitting an axial orifice in the transparent disk 9 of one of the end heads of the roasting-cylinder and secured in place by an annular follower-nut 16, screwing upon the screw-threaded shank of such bushing, as shown in Fig. 1. Such



bushing is adapted to afford a substantial opening for the introduction of the usual trier, by which a quantity of the material within the roaster-cylinder can be removed for a more intimate and thorough inspection than can be afforded by a visual inspection through the transparent end walls 9 of the roaster-cylinder.

17 17 are one or more perforated partitions arranged transverse the length of the roaster-cylinder and dividing the interior of the same into a series of separate subchambers, in which the mass of peanuts or other like material are kept in a separated condition, and the banking up of such material to one end or the other of the roasting-cylinder is positively prevented. Such banking of the peanuts to one end or the other has been a serious defect in the portable or wagon type of peanut-roasting apparatus now in general use.

18 is a flat stirrer-plate of a less width than the diameter of the roasting-cylinder and arranged centrally within the same and transverse the axis of rotation of such cylinder. Such stirrer-plate extends substantially the entire length of the roaster-cylinder and is held in position by means of stay-bars 19, extending to and secured to the inner surface of the roasting-cylinder, as shown in Figs. 1 and 2. Such plate is preferably formed by a single sheet of metal of the required size, and the series of partitions 17, heretofore described, are formed with central orifices through which the plate passes and is supported intermediate of its length by the walls of such orifices.

20 and 21 are deflecting plates or vanes secured to the opposite sides of the stirrer-plate 18 and having a reverse angular relation to each other, as indicated in full and dotted lines in Fig. 1, the arrangement being adapted to assist in the stirring operation by imparting an alternate longitudinal movement to the material during the rotation of the roaster-cylinder.

In the present improvement the stirrer-plate 18 is formed with a central cut-away portion 22 at the end adjacent to the tubular bushing 15, which constitutes the trier-orifice of the roaster cylinder, so as to admit of the introduction of the trier in the required axial position and insure the rapid filling of the same with material by the remaining end portions of the stirrer-plate. The stay-bar 19, adjacent to said end of the stirrer-plate, is deflected away from the axis of rotation, as shown in Fig. 2, so as to be out of the path of the trier.

23 23 are pairs of track-rollers journaled in receiving-pockets 24 therefor in the end heads 2 of the main casing by means of headed journal-studs 25, which pass through the track-rollers and screw into the metal at the inner ends of the receiving-pockets aforesaid. Such track-rollers are arranged equidistant at each side of a vertical line cutting the axis

of rotation of the roaster-cylinder and wholly support such cylinder through the circular track-flanges 11 thereof, which are adapted to have bearing on the periphery of such track-rollers, as shown in Fig. 4.

26 represents a series of knobs secured to the inner faces of the track-flanges 11 and adapted to afford convenient means for rotating the roaster-cylinder by hand in the emptying and filling operations and the like.

27 is the usual longitudinally-arranged stirrer-blade, secured to the inner wall of the roaster-cylinder to aid in the stirring operation as such cylinder revolves.

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

1. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, said cylinder end comprising an annular sash-ring having an inward annular glazing-fillet, a transparent disk fitted to the glazing-fillet of the sash-ring aforesaid, and forming the central portion of said cylinder end, a circular track-flange on said cylinder, and a pair of track-rollers journaled on the end head of the inclosing casing and adapted to supportingly engage the track-flange of the roaster-cylinder, substantially as set forth.

2. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, an annular series of perforations formed in the cylinder end outside such central portion, a circular track-flange on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

3. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, an axial trier-orifice in said central portion formed by a tubular bushing, a circular track-flange on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

4. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a



transparent disk forming the central portion of said cylinder end, an annular series of perforations formed in the cylinder end outside such central portion, an axial trier-orifice in said central portion formed by a tubular bushing, a circular track on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

5. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, a circular track-flange on said cylinder, a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, and a series of projecting knobs secured to the inner face of the track-flange to afford means for manually turning the roaster-cylinder, substantially as set forth.

6. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, a diametric stirrer-plate extending the length of the roaster-cylinder and having a width less than the diameter of such cylinder, a circular track-flange on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

7. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, a transverse perforated partition arranged within the roaster-cylinder, a diametric stirrer-plate extending the length of the roaster-cylinder and having a width less than the diameter of such cylinder, a circular track-flange on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

8. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, a diametric stirrer-plate extending the length of the roaster-cylinder and having a width less than the diameter of such cylinder, a series of reversely-inclined deflector-plates secured to said stirrer-plates, a circular track-flange on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

9. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, an axial trier-orifice in said central portion formed by a tubular bushing, a diametric stirrer-plate extending the length of the roaster-cylinder and having a width less than the diameter of such cylinder and a central cut-away portion adjacent to the trier-orifice, a circular track-flange on said cylinder, and a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, substantially as set forth.

10. In a roasting apparatus of the character herein described, the combination of an outer inclosing casing, an end head for such casing provided with a circular orifice, a revolving roaster-cylinder arranged within said casing with an end projecting into said orifice, a transparent disk forming the central portion of said cylinder end, a circular track-flange on said cylinder, a pair of track-rollers engaging said track-flange and journaled on the end head of the inclosing casing, a beveled-gear formation on said track formation, a bevel-pinion engaging the same, and a driving-shaft carrying said bevel-pinion, substantially as set forth.

Signed at Chicago, Illinois, this 26th day of August, 1902.

CHARLES CRETORS.

Witnesses:

ROBERT BURNS,  
HENRY A. NOTT.