

No. 610,018.

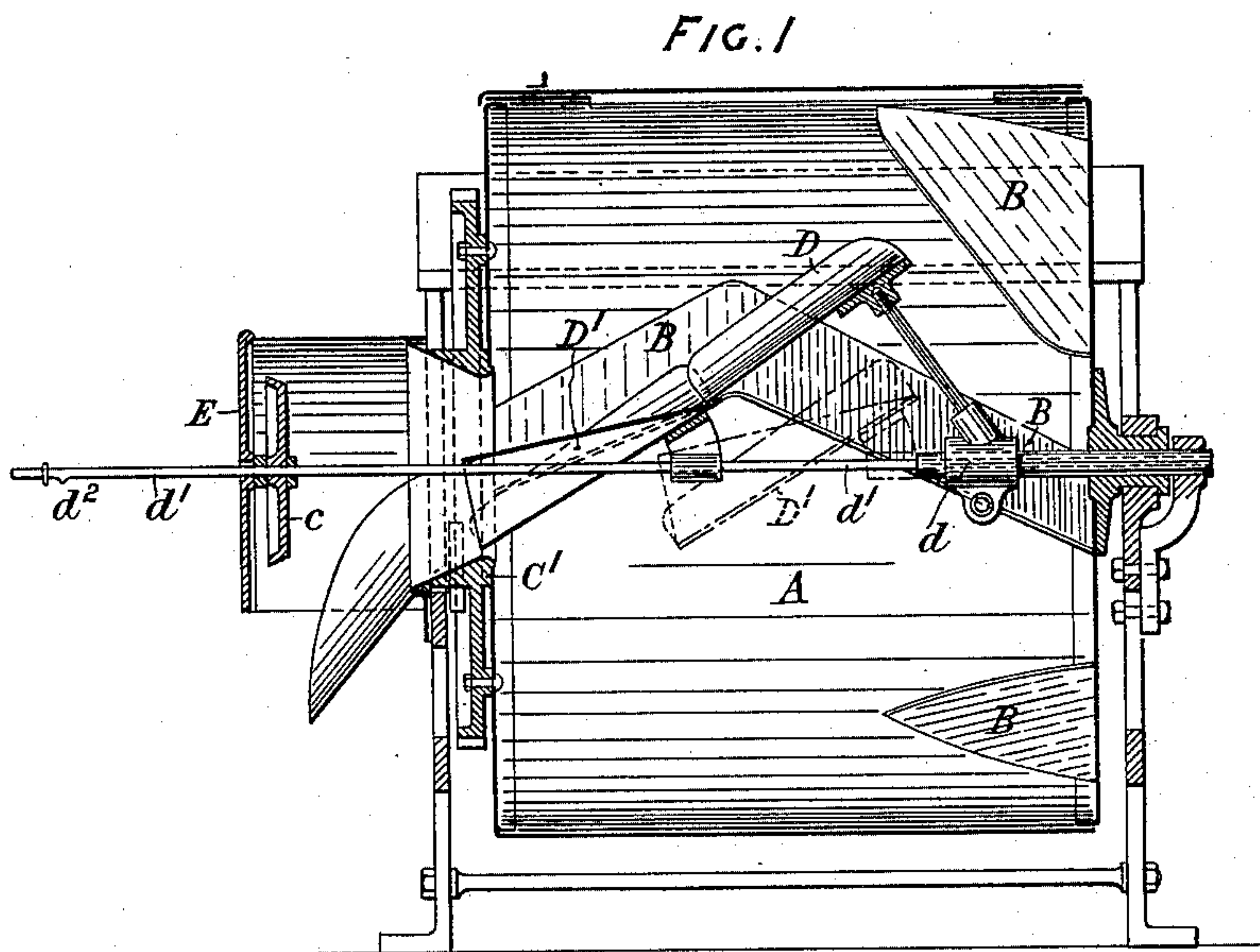
Patented Aug. 30, 1898.

C. H. BARTLETT.
APPARATUS FOR MIXING TEA.

(Application filed Dec. 22, 1897.)

(No Model.)

2 Sheets—Sheet 1.



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FIG. 2

2 Sheets—Sheet 2.

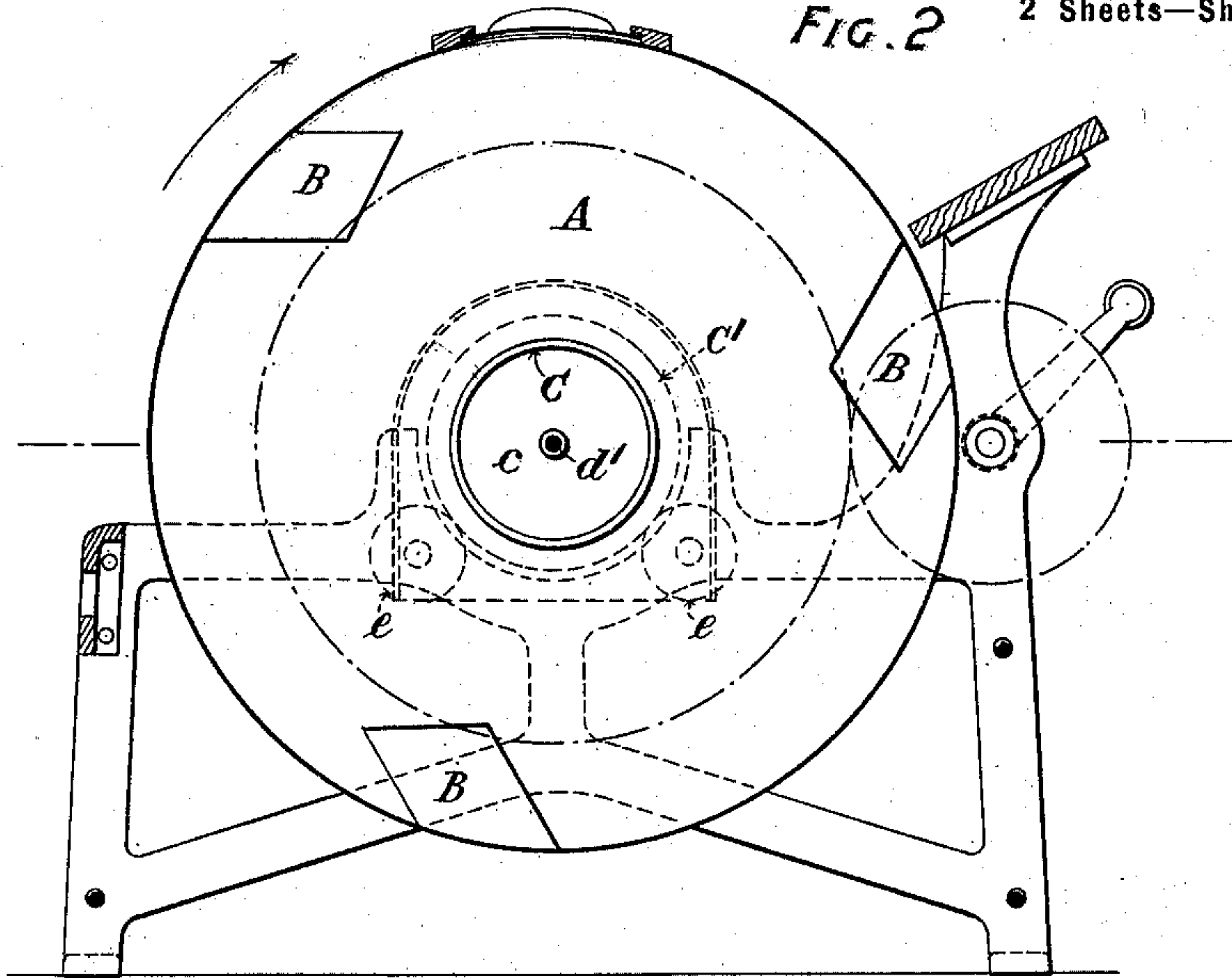
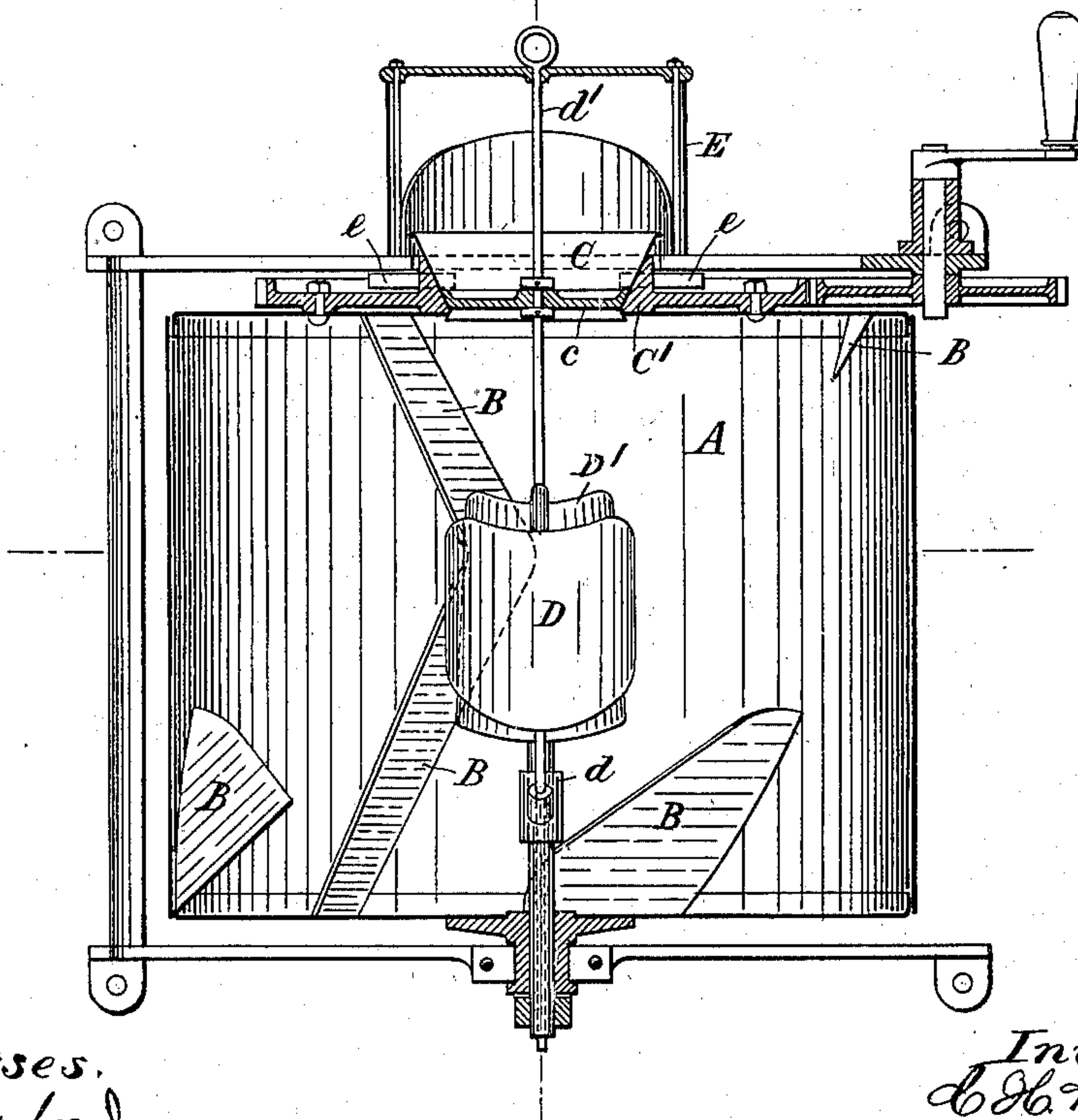


FIG. 3



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UNITED STATES PATENT OFFICE.

CHARLES HENRY BARTLETT, OF BRISTOL, ENGLAND.

APPARATUS FOR MIXING TEA.

SPECIFICATION forming part of Letters Patent No. 610,018, dated August 30, 1898.

Application filed December 22, 1897. Serial No. 663,011. (No model.) Patented in England April 7, 1891, No. 5,990.

To all whom it may concern:

Be it known that I, CHARLES HENRY BARTLETT, of Bristol, in the county of Gloucester, England, have invented new and useful Improved Apparatus for Mixing Tea, (for which I have obtained Letters Patent in Great Britain, dated April 7, 1891, No. 5,990,) of which the following is a full, clear, and exact description.

My invention relates to an improved apparatus designed for mixing or blending teas.

Heretofore it has been usual, after the mixing or blending operation has been performed, to discharge the contents of the mixer through the charging-aperture in the periphery of the drum into a drawer, hopper, chute, or other receptacle below. To perform this operation, the drum must be turned into such position that the charging-aperture is at the under side and there held while the bulk of the contents runs out by gravity. As, however, the internal pallets with which the drum is provided prevent the whole of the contents running out at once in a continuous stream, it is necessary to turn the drum backward and forward several times to completely empty it. In discharging the drum by allowing the contents to fall into a receptacle below, as above described, much dust is liable to escape into the air and the contents must be transferred, by shoveling, scooping, or otherwise, into the bins or final receptacles.

My invention has for its object to render the apparatus more compact and the mixing action more efficient and avoid the inconveniences inherent to this mode of discharging such mixers by providing the drum with internal means whereby it is rendered self-discharging when required and the contents are delivered direct from the drum into the bins or final receptacles in a continuous quietly-flowing stream without causing the escape of any dust.

The invention will be described with reference to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a longitudinal sectional elevation; Fig. 2 a cross-section, and Fig. 3 a horizontal section, of the improved mixer.

The same letters of reference indicate the same parts in all the figures.

A is the mixer-drum, mounted to rotate

about its horizontal longitudinal axis and furnished with internal pallets B, each pallet being, for the purpose of my invention, composed of two oppositely-inclined portions meeting at about mid-length of the drum, so that when the latter is rotated in the direction of the arrow the contents of the drum will be gathered toward the mid-length of the drum and delivered into the chute, as hereinafter described. For the purpose of my invention the drum is provided with an axial discharge-aperture C through a hollow flaring trunnion C' at one end, and within the drum is a chute D D', whereof the part D is mounted upon a tubular support d , passing through the other trunnion, this part of the chute being stationary and situated within the upper part of the drum and inclined toward the discharge-aperture C. The other part D' is carried by a rod d' , sliding in d , and likewise through a hood E, covering the discharge-aperture C. This part D' is movable longitudinally in order that it may be retracted beneath the part D during the mixing operation, as shown in dotted lines in Fig. 1, or drawn forward, so as to form an extension of the part D, whereby the chute may, when it is required to discharge the drum A, be continued to or through the discharge-aperture C, as shown in full lines in the same figure. This extension portion of the chute may be operated from any convenient position external of the drum, and upon the rod d' , which carries it, is also carried a plug-cover c , which fits in the flaring mouth of the discharge-aperture C during the mixing operation and is locked in the closed position by a lug d^2 on bar d' . A hinged, pivoted, or other cover might, however, be used instead. The part D of the chute materially assists the mixing operation by receiving the contents from the pallets B and gently redelivering the same thereto without allowing such a height of fall as to injure the contents or cause the formation of dust.

In order to discharge the drum, the chute extension D' is drawn forward and aperture C unclosed, as shown in Fig. 1, and the drum is continuously rotated, as in the mixing operation, so that the contents, carried up by the pallets and deposited in the chute, will be discharged through the aperture C in a con-

tinuous stream and may be at once delivered into or conducted by a stationary external chute to bins or other receptacles. The hollow trunnion, being of relatively considerable diameter in order to afford a large discharge-aperture, is preferably mounted on antifriction-roller bearings *e e*. The drum may be driven by spur-gear from a winch-handle, as shown, and is provided with a filling-aperture in its circumference closed by a sliding shutter, at which the charge to be mixed may be received from a tea or other mill supported on the framework above.

I claim—

1. In a tea-mixing machine, the combination with a horizontal revolving drum having an axial discharge-aperture in one end and having internally-projecting pallets at intervals around its circumference, each pallet extending from end to end and bent at an intermediate point of its length to a wide-angled-V form, of a chute mounted wholly within the drum in such relation to the angular part of the pallets and to the discharge-aperture as to receive the charge carried up in the re-entering angle of the pallets during rotation of the drum in one direction and deliver the same through the aperture, substantially as specified.

2. In a tea-mixing machine, the combination with a horizontal revolving drum having an axial discharge-aperture in one end, and having internally-projecting pallets at intervals around its circumference, each pallet extending from end to end, and bent at an intermediate point in its length to a wide-angled-V form, of a stationary chute mounted within

the drum in such relation to the angular part of the pallets as to receive the charge raised thereby, the chute being formed of two parts, the one adjustable so as to be capable of forming an extension bridging over the space between the other part and the discharge-aperture, or of being retracted so as to allow the matters received by the other part of the chute falling back into the drum, substantially as specified.

3. In a tea-mixing machine, the combination with a horizontal revolving drum having an axial discharge-aperture in one end and having internally-projecting pallets at intervals around its circumference, each pallet extending from end to end, and bent at an intermediate point in its length to a wide-angled-V form, of a stationary chute mounted upon a stationary axial support within the drum and above the axis thereof in such relation to the angular part of the pallets as to receive the charge raised thereby, and of an adjustable chute adapted to form a continuation of the stationary chute and to bridge over the space between it and the said aperture or to be retracted as specified, and of a cover for the said aperture, movable with the adjustable part of the chute so as to uncover the aperture when the movable part of the chute is in operative position and close the aperture when the movable part of the chute is retracted, substantially as specified.

CHARLES HENRY BARTLETT.

In presence of—

W. B. MULERFALL,
DAVID THOMAS MAY.