

No. 880,305.

PATENTED FEB. 25, 1908.

A. A. HOWELL.  
CHURN.

APPLICATION FILED AUG. 22, 1907.

2 SHEETS—SHEET 1.

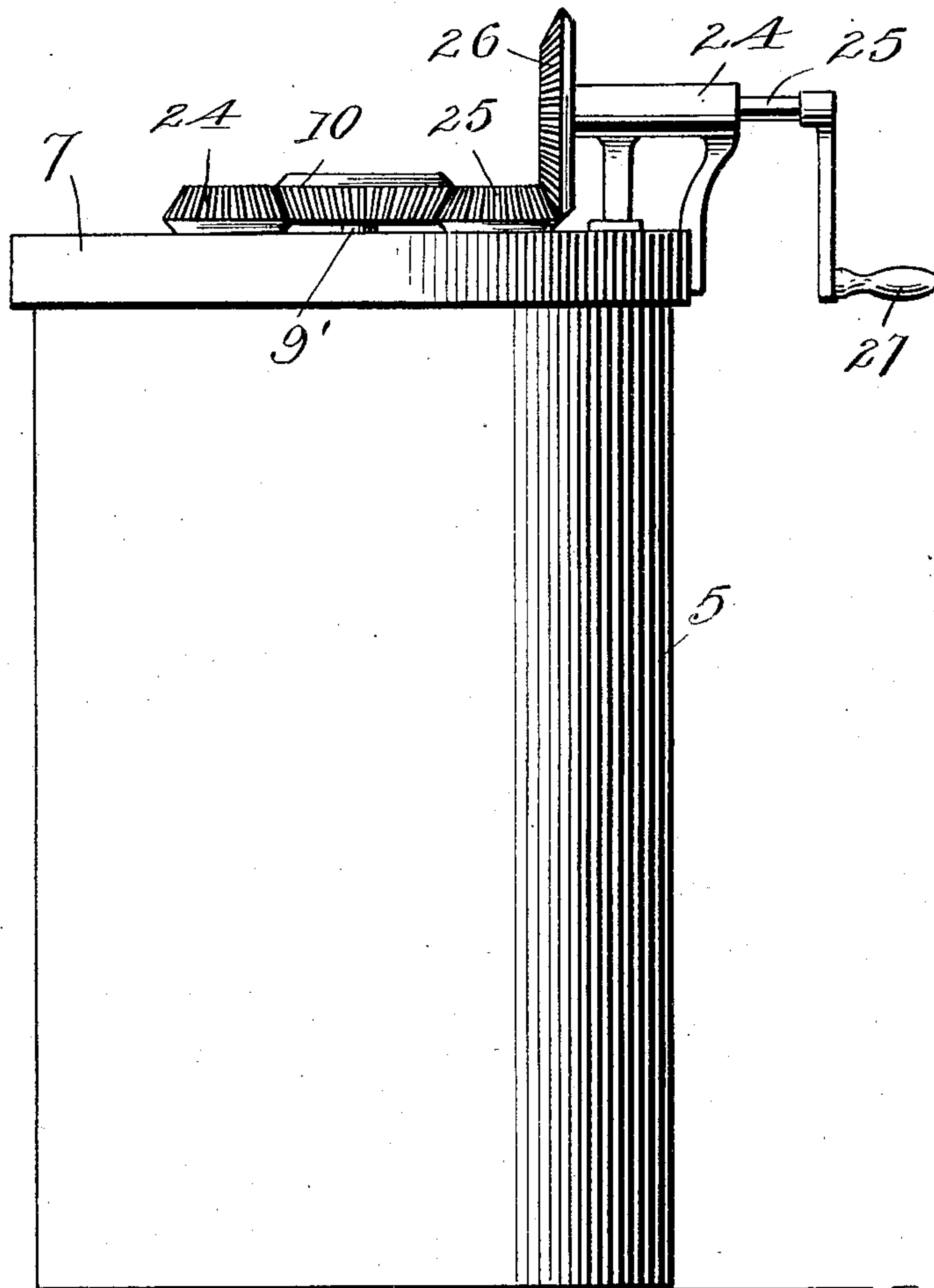


FIG. 1.

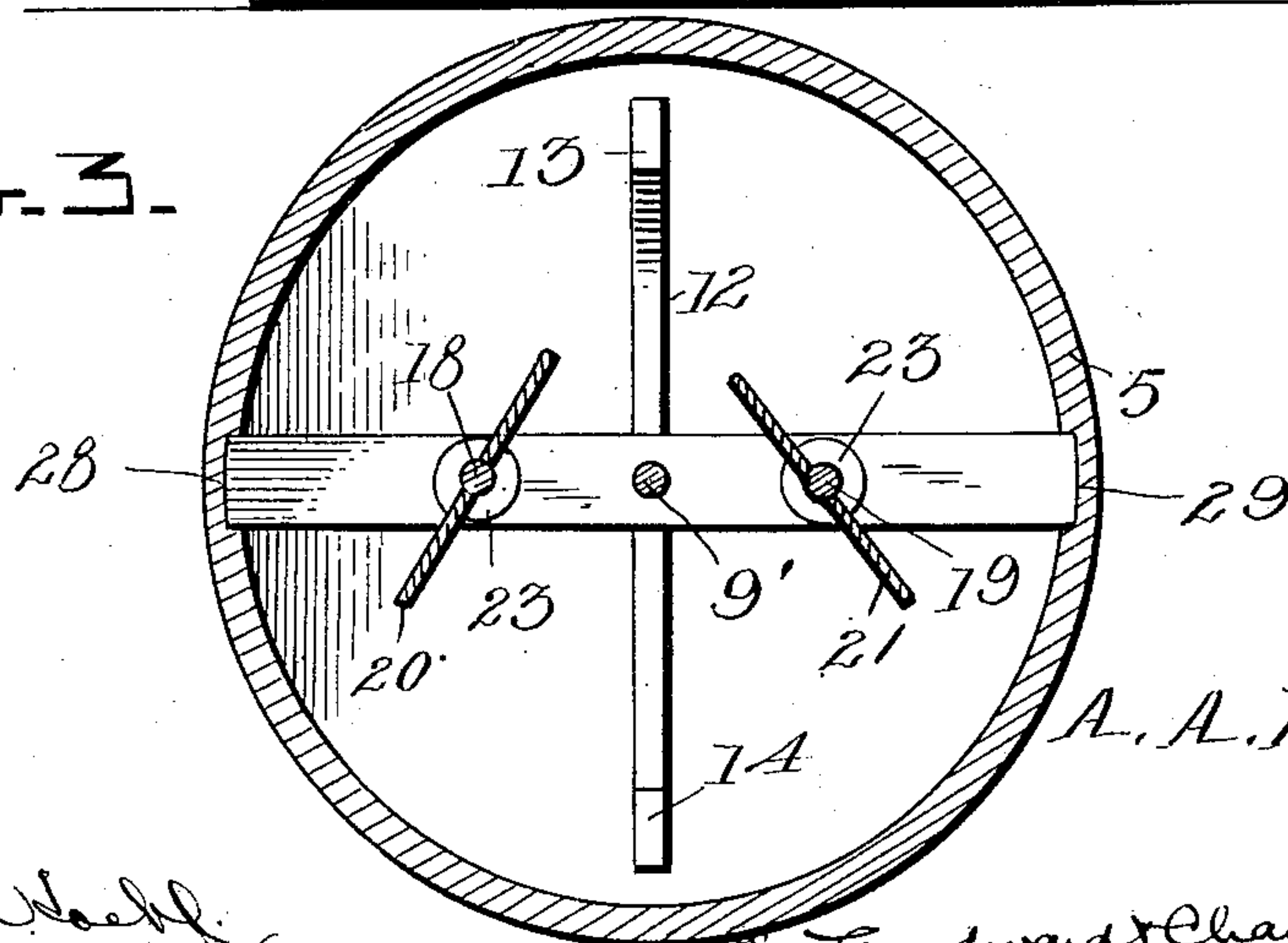


FIG. 3.

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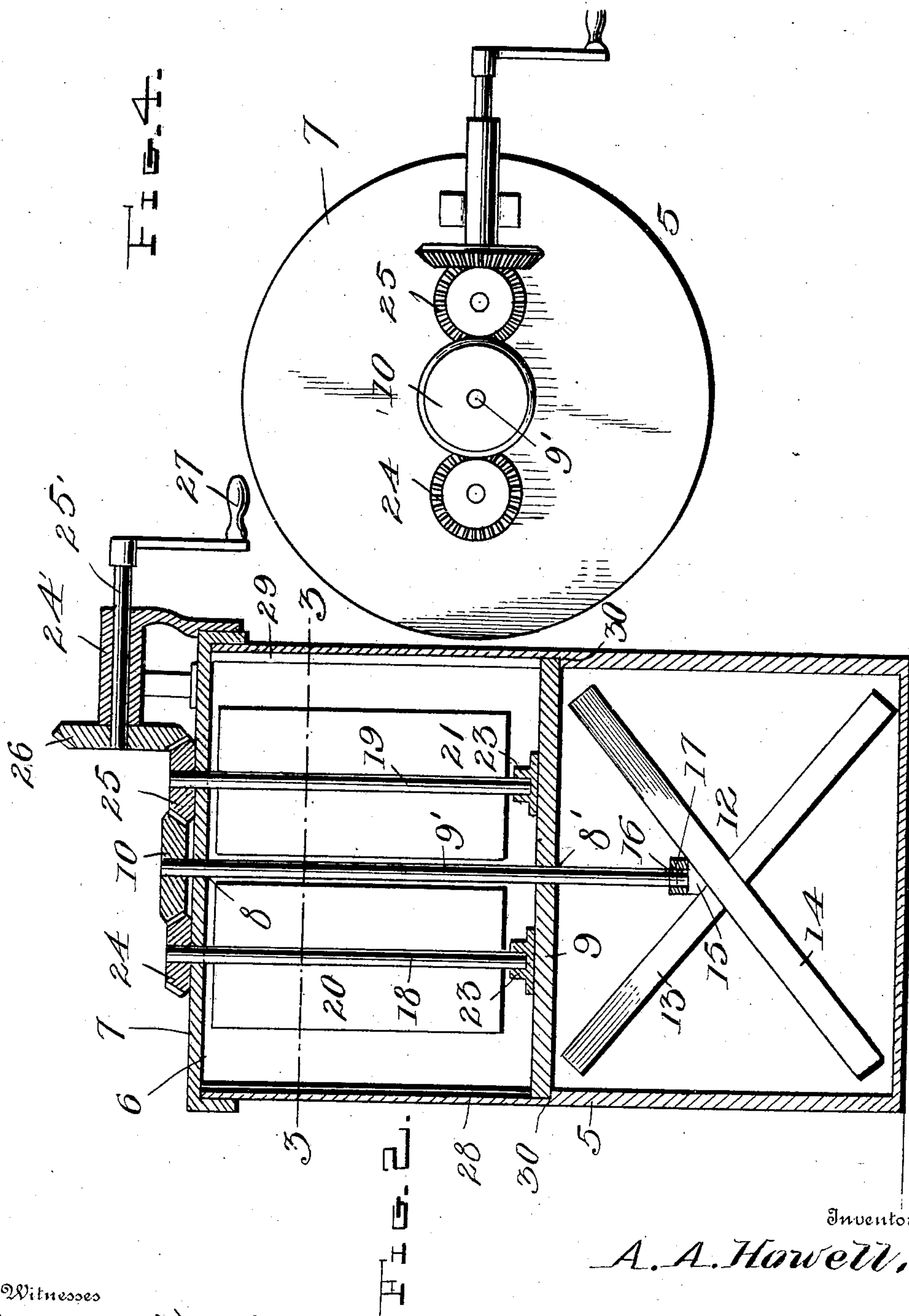
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# UNITED STATES PATENT OFFICE.

ALBERT A. HOWELL, OF POWERS LAKE, NORTH DAKOTA.

## CHURN.

No. 880,305.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed August 22, 1907. Serial No. 389,741.

*To all whom it may concern:*

Be it known that I, ALBERT A. HOWELL, a citizen of the United States, residing at Powers Lake, in the county of Ward and State of North Dakota, have invented certain new and useful Improvements in Churns, of which the following is a specification.

This invention relates to churns, and has for its object to provide a plurality of dashers working in the churn body or receptacle to thoroughly and rapidly agitate the contents of the churn to quickly produce butter.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the churn, Fig. 2 is a vertical longitudinal section therethrough, Fig. 3 is a horizontal section on the line 3—3 of Fig. 2, Fig. 4 is a top plan view.

Referring now to the drawings, there is shown a churn body 5, having the usual filling opening 6 therein and a cover 7 for closing said opening.

Passed through an opening 8 in the cover 7, and through an opening 8' in a cross bar 9 there is shown a vertically disposed shaft 9', which carries at its upper end a bevel gear 10, and at its lower end this shaft is provided with a dasher 12. The dasher 12 consists of diagonal members 13 and 14 respectively, and a shaft receiving projection 15. The projection 15 is formed with a socket 16 which is preferably threaded, as at 17, to receive the threaded lower portion of the shaft 9'.

Shafts 18 and 19 respectively are shown on either side of the shaft 9', and these shafts carry at their lower ends dashers 20 and 21 respectively. The lower end of the shafts 18 and 19 are journaled in step bearings 22 and 23 on the cross bar 9. The upper ends of the shafts 18 and 19 carry bevel gears 24 and 25 which mesh with the gear 10 on the shaft 9'. The bearing bracket 24' is mounted on the cover 7, and in this bracket there is journaled a shaft 25' which carries at its inner end a bevel gear 26 which meshes with the bevel gear 25

on the shaft 19, and the opposite end of the shaft 25' carries a crank handle 27 for rotation of the gearing. In the body of the churn 5, there are shown longitudinally extending grooves 28 and 29 which receive the ends of the cross bar 9, and this bar rests on shoulders 30 at the lower ends of the grooves 28 and 29. It will thus be seen that upon removal of the cover 7, that all parts of the operating mechanism are removed and the churn body thus relieved of interior obstructions. By the diagonal dashers 12, and the vertical dashers 20 and 21 respectively mounted thereabove, it will be seen that a thorough agitation is had, and effective results produced.

What is claimed is:

1. In a churn, the combination with a churn body including a cover, the churn body having longitudinally extending grooves in its side walls, of a vertically disposed shaft carried by the cover and in the center thereof, a gear carried by the shaft, diagonal dashers carried by the shaft and at the lower end thereof, a cross bar carried by the shaft and having its ends disposed within the grooves, shafts mounted in the cover and at either side of the first named shaft and having their lower ends journaled in the cross bar, dashers carried by the shaft, gears carried by the last named shaft and meshing with the first named gear, and means for operating the gears.

2. In a churn, the combination with a churn body, the body having longitudinally extending grooves, of a cross bar carried by the shaft and having its outer ends disposed within the grooves, a vertical shaft arranged within the churn body, diagonal dashers carried by the shaft, the dashers being arranged beneath the cross bar, vertical shafts disposed above the diagonal dashers and having their lower ends journaled in bearings upon the cross bar, dashers carried by the last named shafts, and operating means for the shafts.

In testimony whereof I affix my signature, in presence of two witnesses.

ALBERT A. HOWELL.

Witnesses:

L. A. FISHER,  
ROSS R. MARTIN.