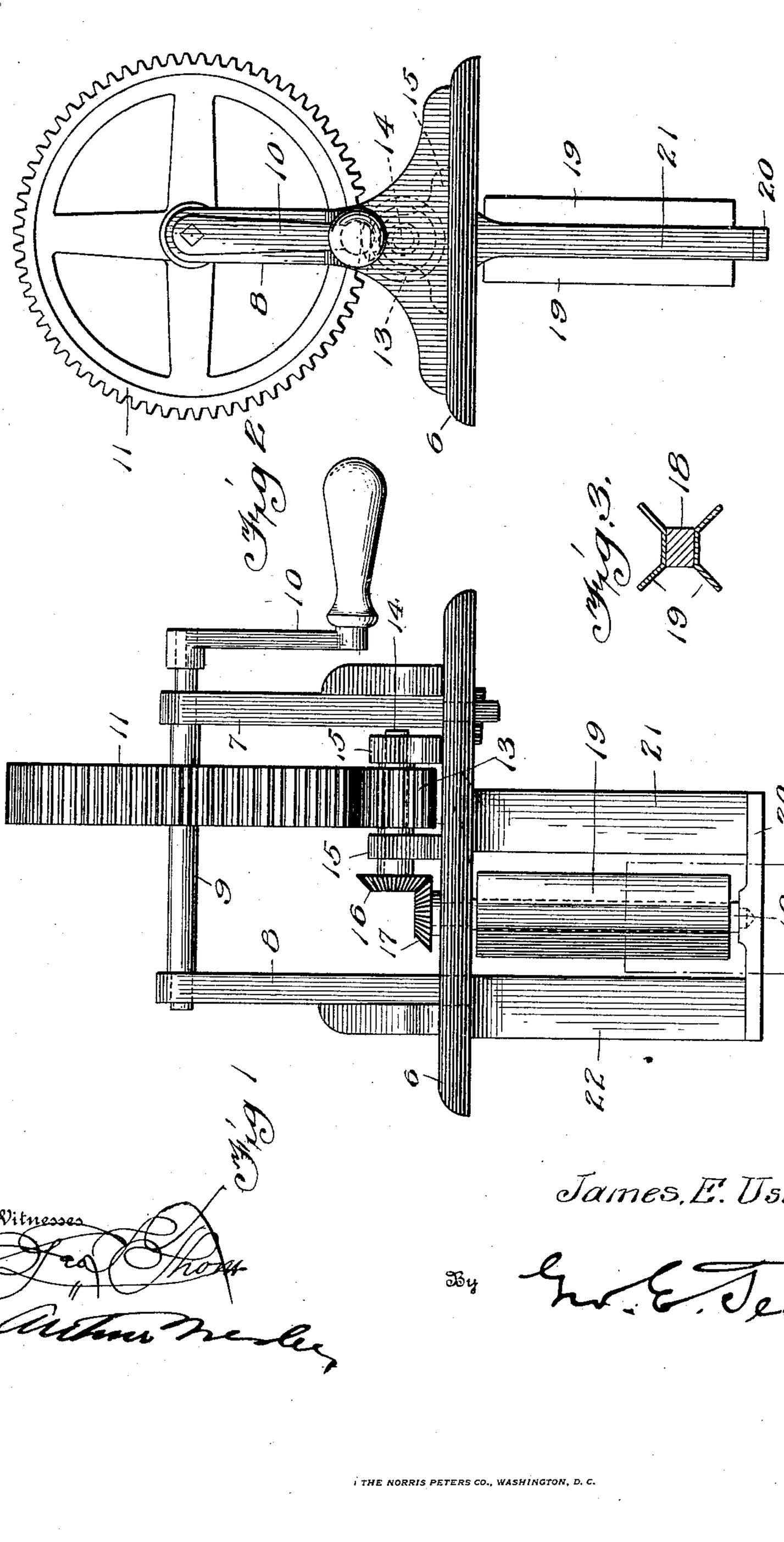
J. E. USHER.

CHURN.

APPLICATION FILED OCT. 14, 1908.

917,978.

Patented Apr. 13, 1909.



Witnesses

Inventor

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UNITED STATES PATENT OFFICE.

JAMES E. USHER, OF ELZA, GEORGIA.

CHURN.

No. 917,978. Specification of Letters Patent. Patented April 13, 1909.

Application filed October 14, 1908. Serial No. 457,758.

To all whom it may concern:

Be it known that I, JAMES E. USHER, citizen of the United States, residing at Elza, in the county of Tattnall and State of Georgia, have invented certain new and useful Improvements in Churns, of which the following is a specification.

This invention relates to churns, particularly of that class having a single rotary dasher, and the object of the invention is to provide improved means for supporting and operating the dasher in the churn.

The invention is illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of the machine; Fig. 2 is a side elevation at a right angle to Fig. 1; Fig. 3 is a sectional view on line 3—3 of Fig. 1.

Referring specifically to the drawings, 6 indicates a top plate or cover which is adapted to fit upon the top of the churn and to support the moving parts to be hereinafter described. A pair of standards 7 and 8 are mounted upon this cover, and in bearings at the top carry the crank shaft 9 provided with hand crank 10 at one end. This shaft carries a gear wheel 11 meshing with a pinion 13 on a shaft 14 supported in bearing brackets 15 on the top of the cover, and located under the crank shaft. At one end the former shaft has a beveled pinion 16 which meshes with a beveled pinion 17 at the upper end of the vertical dasher shaft 18, the top bearing of which is formed in the cover plate 6. This shaft has paddles or blades 19 which agitate the cream, said paddles or blades consisting of sheet metal folded to form two projecting flanges and secured at the middle to the flattened sides of the shaft 18. The lower end of the shaft 18 is stepped in a bearing in a cross piece 20 at the lower end of uprights 21 and 22 depending from the cover plate, the upright 22 being formed integral with the standard 8 and extending through an opening in the cover plate made to receive it.

The operation of the crank rotates the dasher in an obvious manner. The parts can be readily applied to or removed from the churn, all the moving parts being carried by the cover plate which can be easily lifted off to allow access to the churn.

The uprights 21 and 22 of the depending frame which supports the dasher shaft are widened transversely, in a plane parallel to the axis of the dasher shaft and to the blades of the dasher, and as the blades rotate they throw the cream against the sides of the uprights, thereby assisting in the agitation of the cream and preventing the mere production of a whirling movement. In other words, the uprights coöperate with the blades to agitate the cream.

I claim:

The combination with a vertical shaft and means to rotate the same, of blades comprising sheet metal plates bent to form vertical projecting flanges at opposite edges and secured at the middle to the sides of the shaft.

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

JAMES E. his × mark USHER.

Witnesses:
A. D. BELL,
ST. JAS. B. ALEXANDER.