

(Model.)

A. COCKRELL.

CHURN.

No. 327,241.

Patented Sept. 29, 1885.

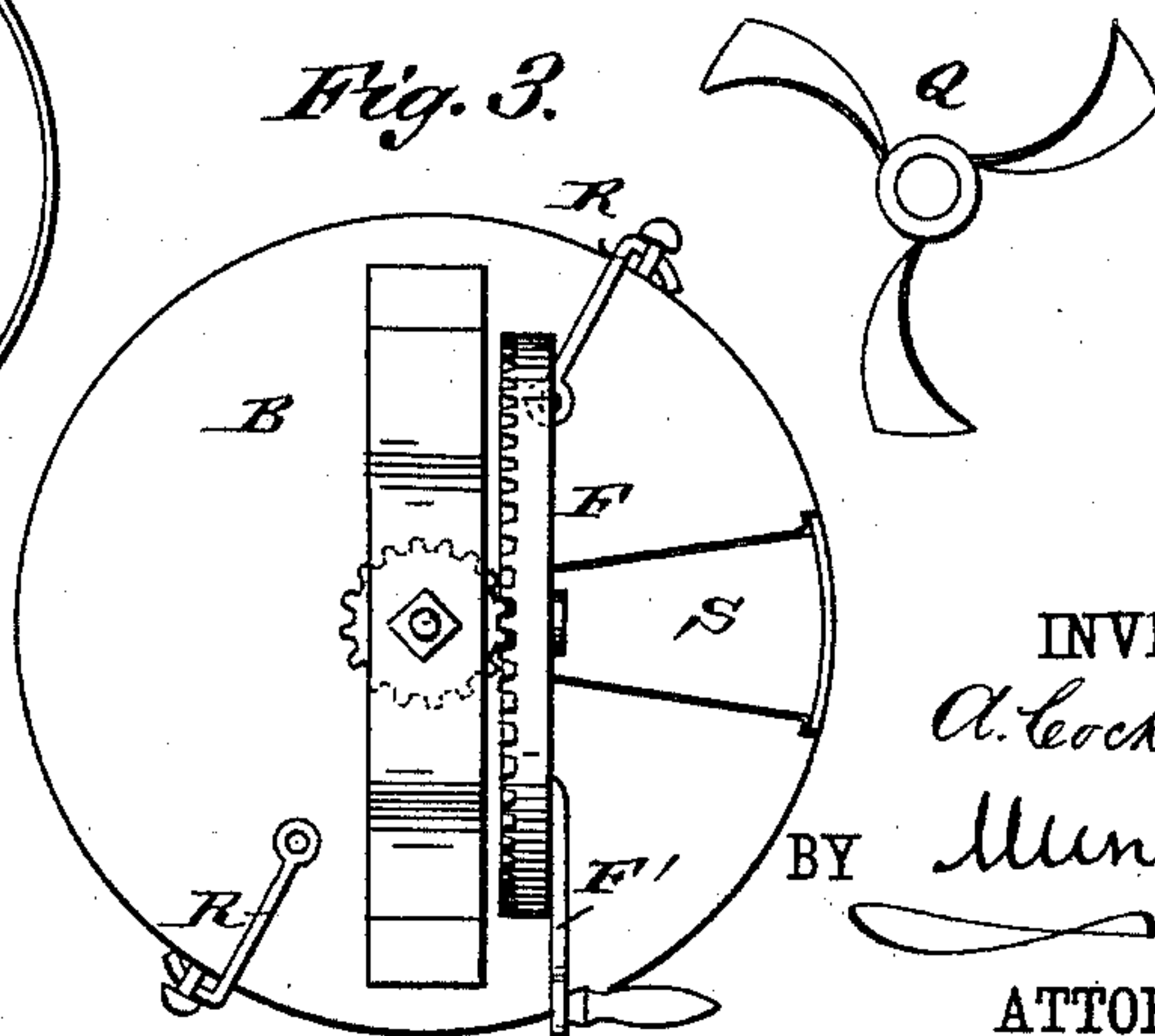
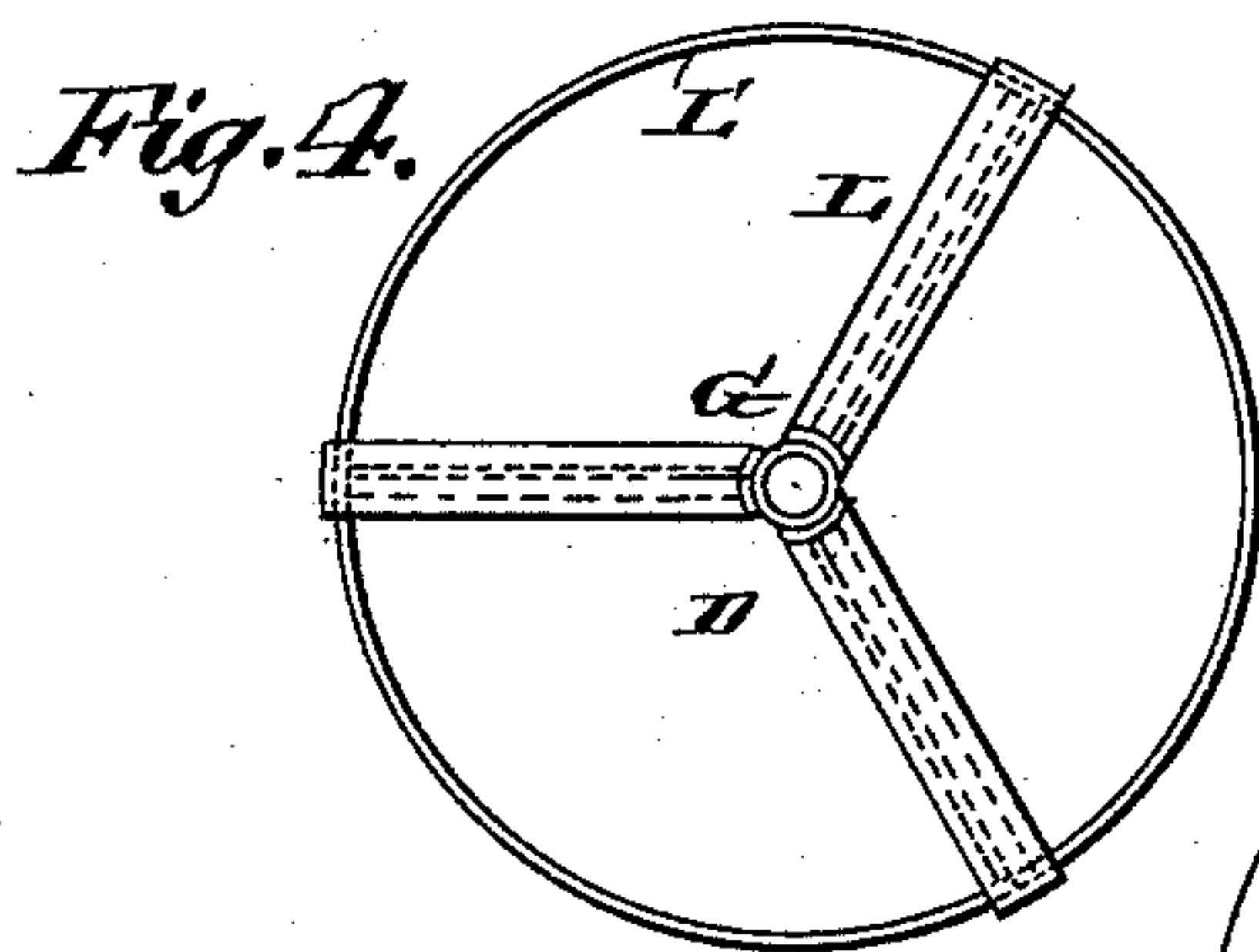
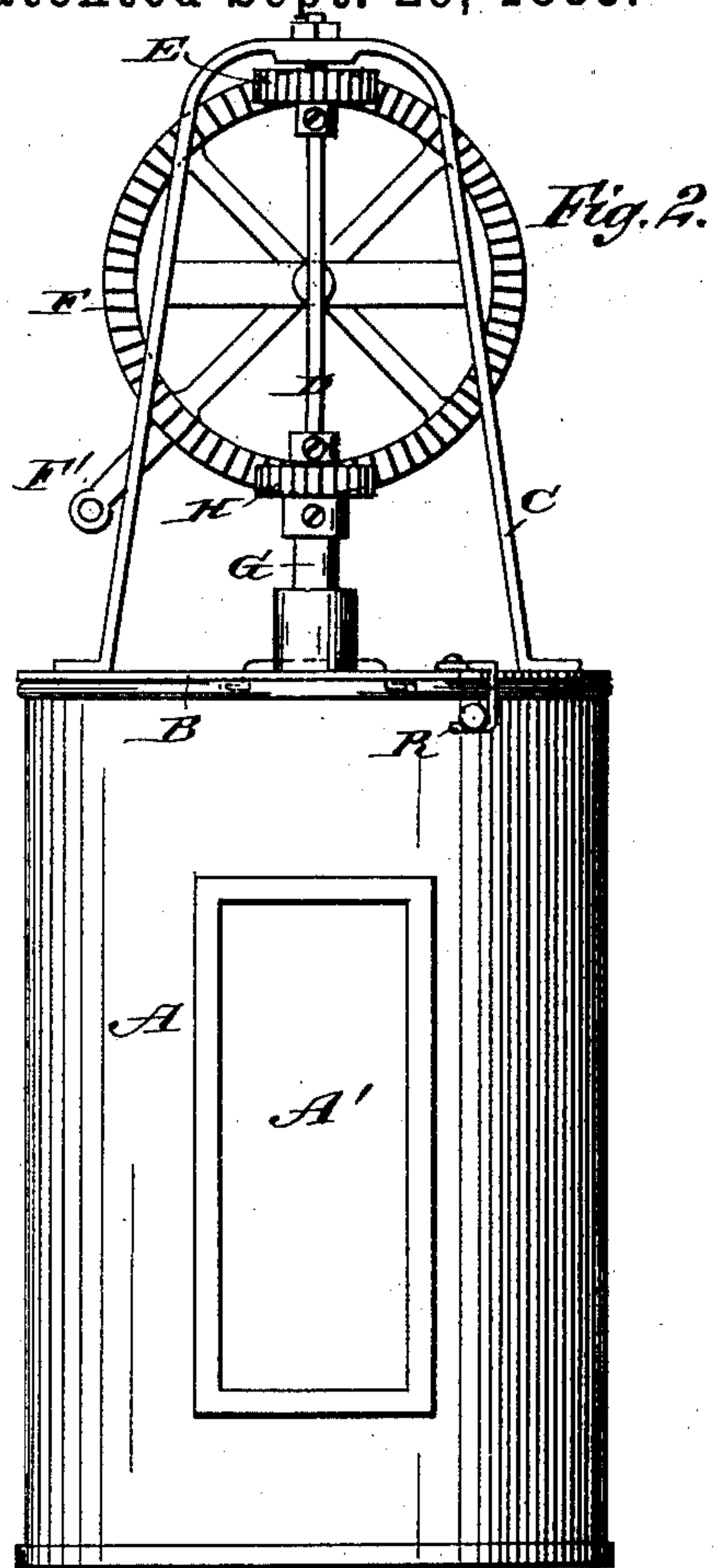
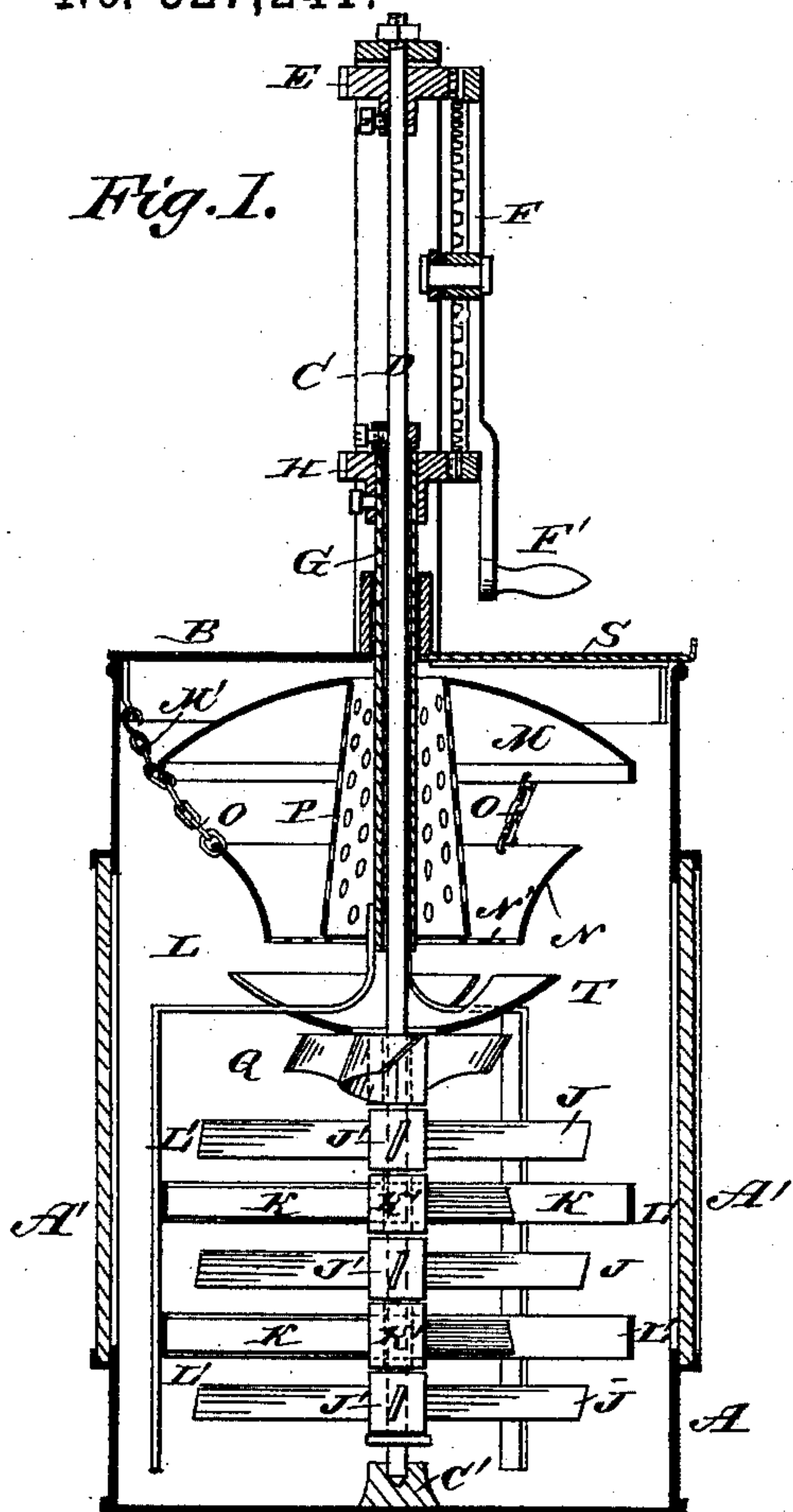


Fig. 5.

WITNESSES:

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ALLIN COCKRELL, OF LAMAR, MISSOURI.

CHURN.

SPECIFICATION forming part of Letters Patent No. 327,241, dated September 29, 1885.

Application filed May 6, 1885. (Model.)

To all whom it may concern:

Be it known that I, ALLIN COCKRELL, of Lamar, in the county of Barton and State of Missouri, have invented a new and Improved Churn, of which the following is a full, clear, and exact description.

This invention relates to that class of churns in which the dasher-blades, mounted on revolving rods or shafts, are revolved in opposite directions in the cream box or tub.

The invention consists in the construction and arrangement of parts as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a cross-sectional elevation of my improved churn. Fig. 2 is a side view of the same. Fig. 3 is a plan view of the same. Fig. 4 is a plan view of the outer dasher. Fig. 5 is a plan view of propeller-wheel.

The cylindrical cream vessel or tub A is provided with two opposite lights or gage-panes, A', and a cover, B. On the top of the latter an upright frame, C, is secured, in which, and a socket, C', on the upper surface of the vessel A, a shaft, D, is journaled, on the upper end of which a pinion, E, is mounted which engages with a cog-wheel, F, mounted on a laterally-projecting shaft of the frame C, and having a handle, F', for turning it.

A tubular shaft, G, surrounding the shaft D, projects down through a neck in the cover B, and on its upper end is mounted a pinion, H, engaging with the cog-wheel F diametrically opposite the point at which the pinion E engages said cog-wheel. A series of paddles or blades, J, project radially from hubs J', held rigidly on the shaft D, and between the hubs J' hubs K' are loosely mounted on the shaft D, and are provided with radially-projecting wings or blades K, the outer ends of which are united by vertical bars L, having their upper ends bent rectangularly and secured to the lower end of the tubular shaft G. The outer ends of the blades or wings K are united by rings L'.

A concave cup or hood, M, having the concave side downward, is held by chains or links M', below the cover B, and is provided with a central aperture.

A cup, N, having a perforated bottom, N', is suspended by chains O from the cup M. A conical perforated tube, P, connects the cups M and N.

Below the cup N a concave cup, T, having its concave side facing upward, is held on the bars L, and directly below the same a propeller-wheel, Q, is held on the tubular shaft G, or the same may be independent.

The action of the propeller-blade forces the cream upward and agitates it. It also forces the butter upward into the cup N, as hereinafter described.

The cover B is held in place by hooks R, and the cover has a slide, S, which can be removed to examine the progress of the churning. The blades J and K are inclined in opposite directions, one set forcing the cream upward and the other downward.

By revolving the cog-wheel F the blades or wings are revolved in opposite directions, and thereby the cream is agitated very thoroughly.

The wheel Q throws the butter upward, and it is deflected by the cup or hood M into the cup N. The cream, buttermilk, &c., are drained off from the butter by the perforated bottom N' and the perforated tube P.

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

1. The combination, with the vessel A, of the shaft D, the tubular shaft G, surrounding it, the blades J on the shaft D, the blades K, having their outer ends connected by bars L secured to the tubular shaft G, the rings L', uniting the ends of the blades K, and of gearing for revolving the shafts D and G in opposite directions, substantially as herein shown and described.

2. The combination, with the vessel A, of shafts D and G, the blades J and K, connected with said shafts, the cup T, the propeller-wheel Q, and gearing for revolving the shafts D and G in opposite directions, substantially as herein shown and described.

3. The combination, in a churn, with the dasher and its shaft, of a stationary vessel suspended within the churn above the blades, a concave deflector above the said vessel and connected therewith, and the propeller Q on the dasher-shaft between its blades and the vessel, substantially as set forth.

4. The combination, with the vessel A, of
blades revolved by shafts, a cup above the
blades for the purpose of catching the butter,
a deflector above the cup, and a perforated
5 tapered tube uniting the cup and the deflector,
substantially as herein shown and described.

5. The combination, with the vessel A, of
blades revolved by shafts in opposite direc-
tions, a cup above the blades, a deflector above
10 the cup, a perforated tapered tube uniting the
deflector and cup, and of chains for suspending
the deflector from the cover of the vessel A,
substantially as herein shown and described.

6. The combination, with the vessel A, of
the shafts D and G, the hubs J' on the shaft 15
D, the blades J on the hubs J', the hubs K'
between the hubs J', the blades K on the hubs
K', and end bars connecting the blades K with
each other and with the tubular shaft, sub-
stantially as herein shown and described.

ALLIN COCKRELL.

Witnesses:

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