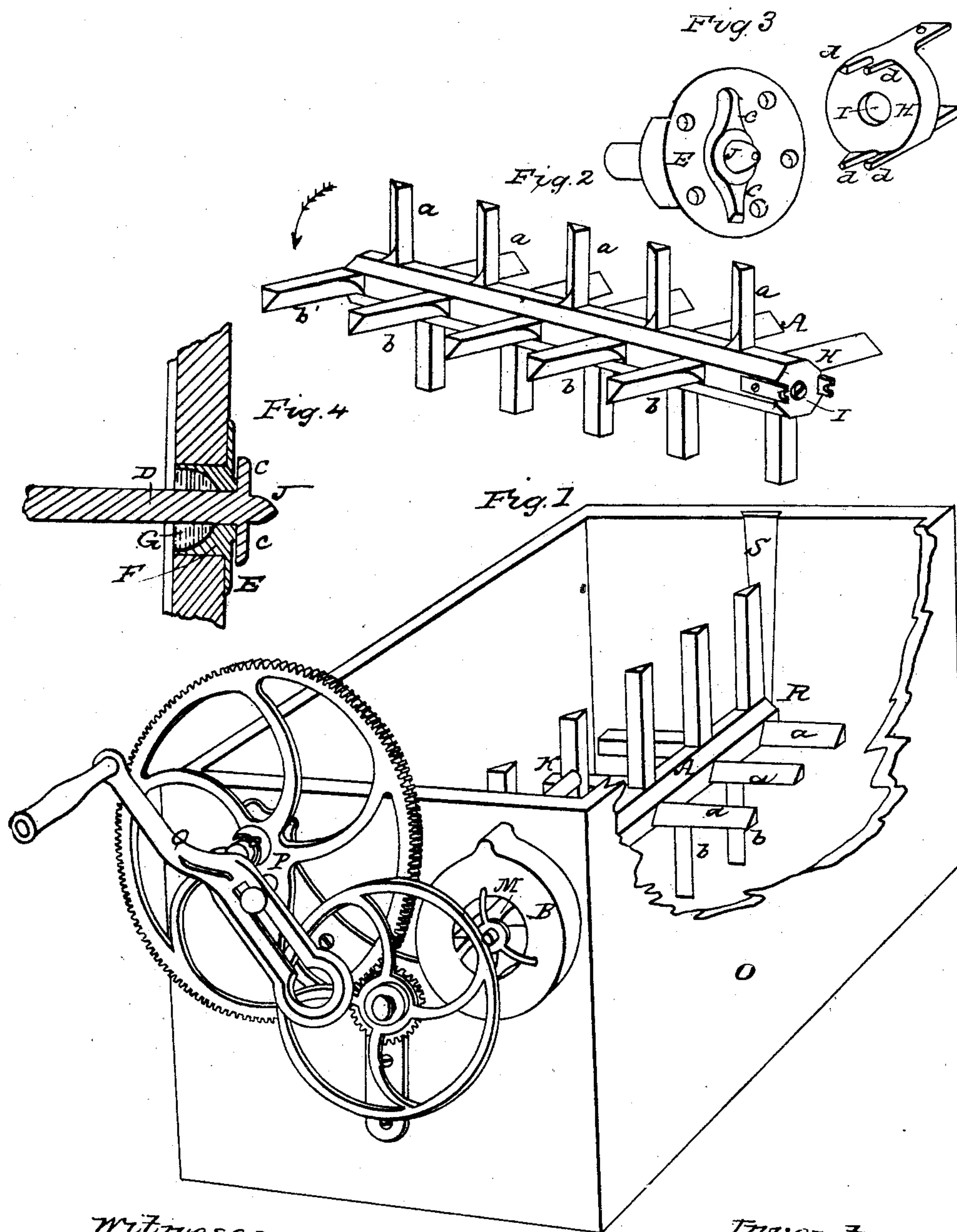


A. WESTCOTT.

Churn.

No. 55,566.

Patented June 12, 1866.



Witnesses  
S. M. Nash  
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# UNITED STATES PATENT OFFICE.

AMOS WESTCOTT, OF SYRACUSE, NEW YORK.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 55,566, dated June 12, 1866.

*To all whom it may concern:*

Be it known that I, AMOS WESTCOTT, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a new and Improved Churn; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In Figure 1, O represents the body of the churn, which may be in any of the ordinary forms of a box-churn; P, the gear-wheel attached to the end of the body of the churn and gearing into the pinion-wheel N, which is connected with and communicates motion to the main shaft inside the body of the churn. B represents a fan wheel or blower, made in any convenient form, and attached to the same end of the churn, and moved by the friction of an enlarged rim fastened to the pinion-wheel N upon the friction-pinion M of the fan-wheel, the air, by the action of this fan-wheel, being forced into the body of the churn through the short tube K. A represents the main shaft inside the body of the churn, which is broken away in the drawings for the purpose of such representation.

In Fig. 2 A represents the main shaft removed from the body of the churn, and which is usually made octagonal for convenience, and *a a* and *b b* the dasher-paddles, which are set in a spiral about said shaft and upon four of its sides only. These dasher-paddles are made of any convenient size, rectangular, each end of each forming a square. Those which are set upon one of the sides of the shaft A—for instance, *b b b*—have their faces beveled off or cut away diagonally, each in the same direction, as shown in this figure, so that when the shaft A shall be turned in the direction indicated by the arrow they will, in moving through the cream, have a tendency to force it to that end of the shaft farthest from the arrow, while those which are set upon the next side, containing dasher-paddles—for instance *a a a*—have their faces beveled off or cut away diagonally in the opposite direction, so that they, in moving through the cream, will have a tendency to force it toward the other end of the

shaft, nearest the arrow. In commencing to bevel off or cut away diagonally the faces of these dasher-paddles, as above described, it is necessary to begin on that side of the shaft A containing the dasher-paddle which is nearest the churn—*b*, for instance—which must be so cut away as to tend to force the cream from that end of the churn.

In Fig. 3 H represents a metal ferrule which in Fig. 2 is shown fastened to the shaft at the end which, when in place, comes next the gearing. This ferrule has in it a hole, (marked I in Fig. 3,) and also upon its outer face four projections, two upon each side, about one-fourth of an inch apart, (marked *d d d d*.) J represents the inner end of the short shaft of the pinion-wheel N, Fig. 1, which shaft is of a length just sufficient to reach through the end of the churn and this pinion-wheel. The inner end of this shaft J has an acorn-shaped head, from the base of which project two arms, *c c*, one upon each side, of a length just sufficient to reach to the outside of the ferrule H, where the acorn-shaped head is placed in the hole I and the arms *c c* between the projections *d d* and *d d* of the ferrule. E represents the face of the bearing in which the shaft J turns, and this bearing is held in place by having E screwed firmly to the inner surface of the end of the churn.

In Fig. 4 E represents the bearing in place, with its face screwed to the inner surface of the end of the churn, and its outer end let into the end of the churn, as at F. The outer end of this bearing is scooped out cup-shaped, as shown at C, in which some suitable packing is put to prevent leakage about the shaft, as at D, where it passes through the end of the churn. This shaft J is put in place from the inside of the churn, the arms *c c* moving close to the inner surface of the end of the churn, and the outer end of this shaft passing just through the pinion-wheel N, Fig. 1, and being firmly fastened to it.

It will readily be seen that when the acorn-shaped head of the shaft J is placed in the hole I of the ferrule H, and the arms *c c* between the projections *d d* and *d d*, as above described, and the shaft J be turned, it will turn with it the ferrule H, and also the main shaft, to which the ferrule is fastened, as shown in Fig. 2. The other end of the main shaft A, Fig. 1,

turns upon a simple pin projecting therefrom, which rests in a bearing at R, Fig. 1, when the shaft is in place, as there shown, and it is secured there by the slide S.

I do not claim as my invention the body of the churn, the fan-wheel or blower, or the gearing; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The use of dasher-paddles having their faces beveled or cut away diagonally, substantially in the manner and for the purpose above described, when combined with the main shaft, as above described.

2. The manner of connecting the main shaft with the gearing and body of the churn, in combination with said shaft and the dasher-paddles, constructed substantially as and for the purposes above described.

3. The combination of the parts mentioned in the preceding claims, constructed as above described, with the fan wheel or blower, substantially as above described.

A. WESTCOTT.

Witnesses:

S. M. NASH,

S. B. PALMER.