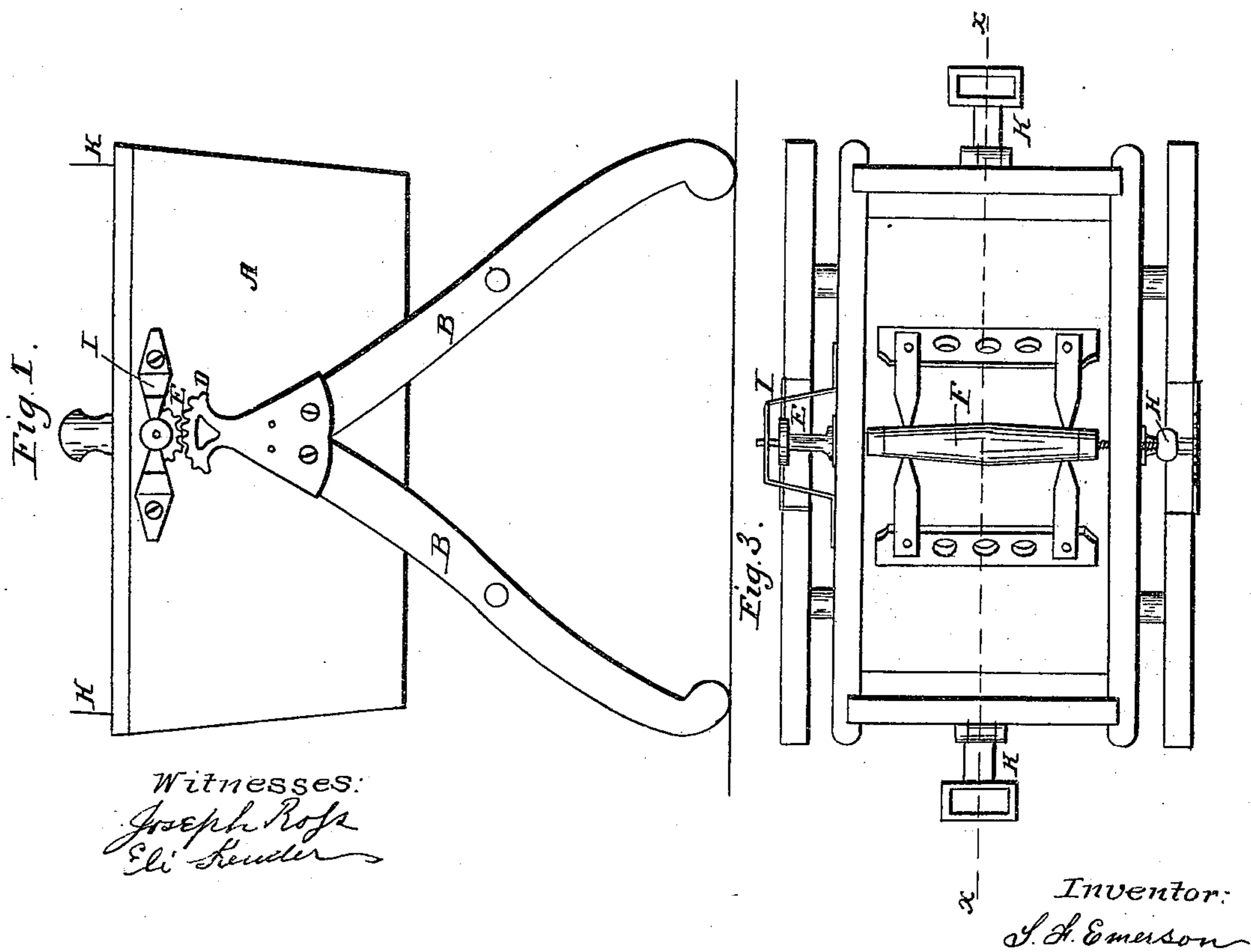
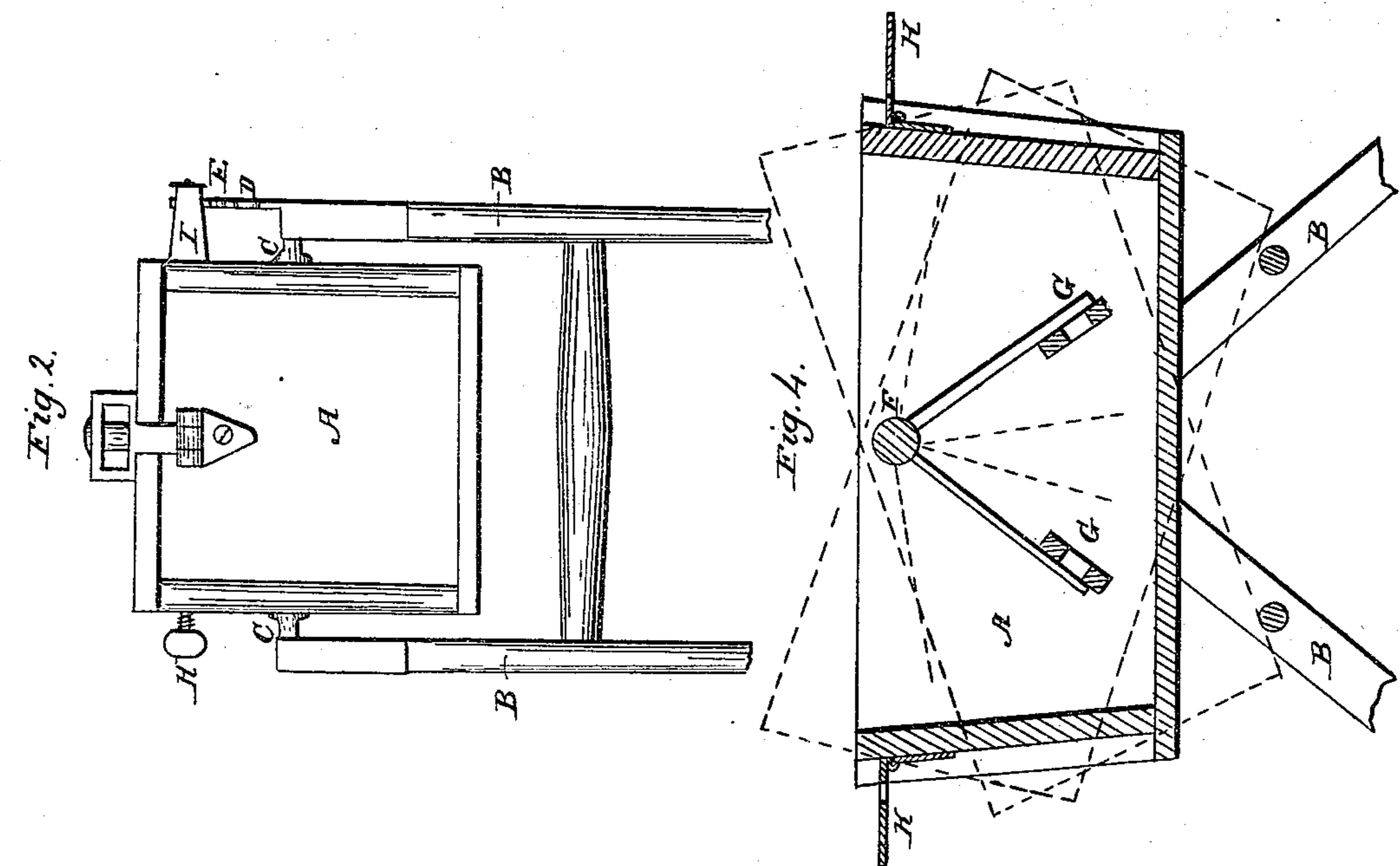


S. F. EMERSON.

Churn.

No. 40,997.

Patented Dec. 22, 1863.



UNITED STATES PATENT OFFICE.

S. F. EMERSON, OF SEVILLE, OHIO.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 40,997, dated December 22, 1863.

To all whom it may concern:

Be it known that I, S. F. EMERSON, of Seville, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view. Fig. 2 is an end view. Fig. 3 is a top view, and Fig. 4 is a longitudinal vertical section.

Like letters refer to like parts.

My invention relates to the pivoted vibrating box, segment, and segmental gear, in combination with pivoted vibrating beaters, whereby an oscillating or vibrating motion of the box will cause a reverse vibration in the beaters.

In the accompanying drawings, A represents the box or body of the churn. This is supported upon the legs B by means of the pivots C C. Upon one pair of legs, as seen in Fig. 1, and above the support for the pivot C, is a segment, D, provided with teeth or cogs, which correspond with and gear into another segment, E, shown in Figs. 1, 2, and 3. The beater-shaft is shown at F, and to which the segment E is attached. The radii of these segmental gears are such that the vibration of

the box A, which carries the segment E, causes a corresponding vibration in the opposite direction of the beaters G, as indicated by the dotted lines in Fig. 4, by means of which the cream, by its gravity, is brought into violent contact with the beaters moving with like velocity in the opposite direction, producing thereby the desired result. One end of the shaft F is supported by the screw H, while the opposite end, to which the segment E is attached, is supported by the bearing I. By loosening the screw H the beaters and shaft can be removed, and the body of the churn thus left free for the working and removal of the butter. The cover of the churn, seen in place at J, can be removed by turning back the hinged handles K.

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

Arranging the vibrating dasher-shaft at the top of the swinging box A, said shaft being provided with the pinion E, in combination with the segment-gear D, the whole being constructed and operating as and for the purpose set forth.

S. F. EMERSON.

Witnesses:

JOSEPH ROSS,
ELI KUDER.