

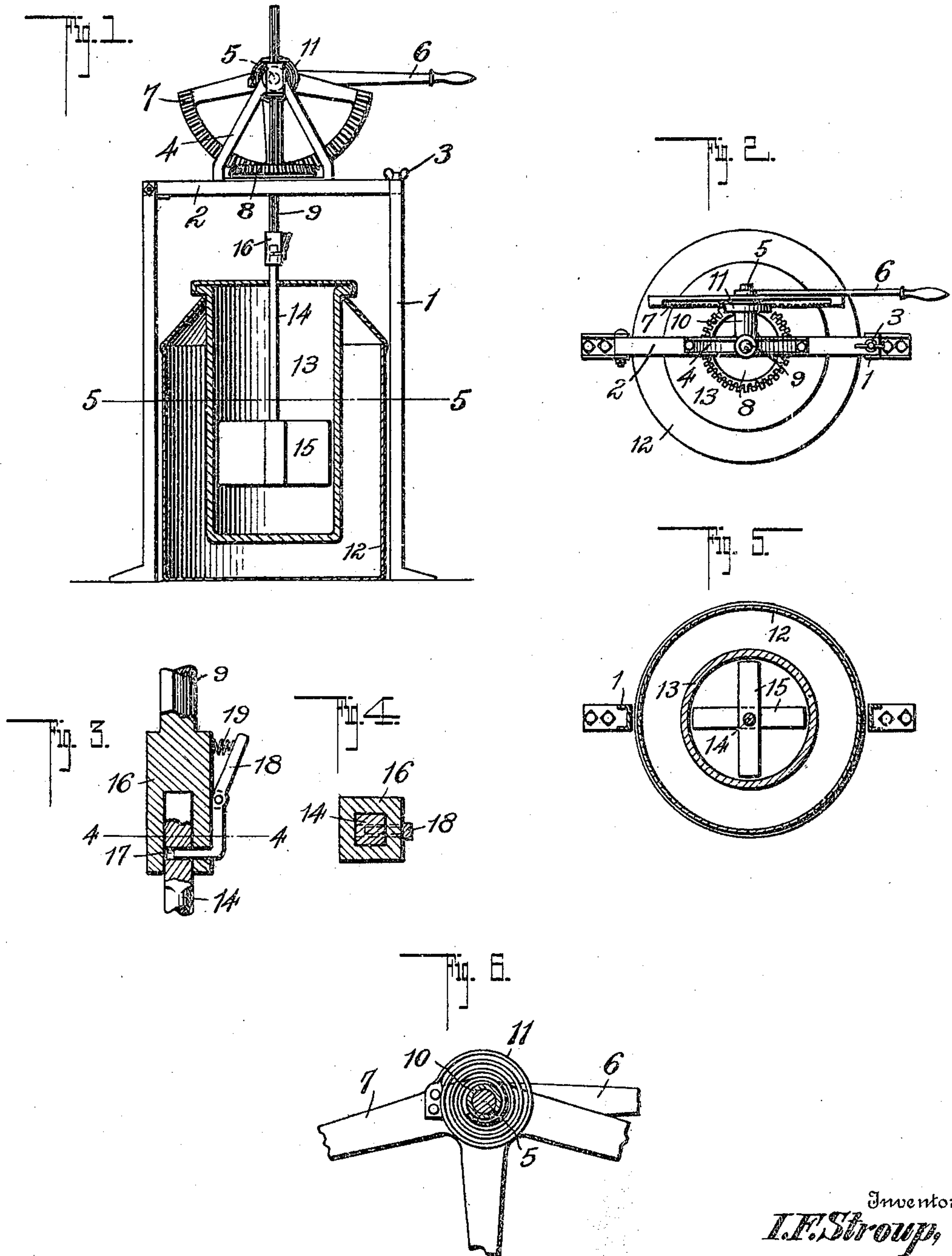
I. F. STROUP.

CHURN.

APPLICATION FILED APR. 10, 1909.

952,649.

Patented Mar. 22, 1910.



Witnesses

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# UNITED STATES PATENT OFFICE.

ISAAC F. STROUP, OF NOVINGER, MISSOURI.

CHURN.

Specification of Letters Patent. Patented Mar. 22, 1910.

952,649.

Application filed April 10, 1909. Serial No. 489,194.

To all whom it may concern:

Be it known that I, ISAAC F. STROUP, a citizen of the United States, residing at Novinger, in the county of Adair and State of Missouri, have invented a new and useful Improvement in Churns, of which the following is a specification.

This invention relates to a churn.

The object of the invention is to keep the cream cool while in the churn, and to make the work of churning as easy as possible by interposing between the churn dasher and the hand certain mechanical devices to be hereafter described.

The invention consists of the combination and arrangement of the various parts as hereafter set forth, pointed out in the claim, and shown in the accompanying drawings, in which,

Figure 1 is a side elevation, the churn being shown in section. Fig. 2 is a top plan view. Fig. 3 is a detail sectional view illustrating the manner of locking a rotatable shaft to the churn dasher. Fig. 4 is a section on the line 4—4 of Fig. 3. Fig. 5 is a transverse section on the line 5—5 of Fig. 1. Fig. 6 is an enlarged side elevation showing a spring connected to a shaft and an operating lever.

In these drawings, 1 represents suitable uprights which are preferably of metal, and to one of these uprights is hinged a cross-bar 2 the said bar being detachably locked by means of a thumb nut 3 to the other upright. The uprights support a tri-angular frame 4 provided at its upper end with suitable bearings for a shaft 5 upon which is fixed an operating handle 6. Also fixed upon the shaft is a crown gear segment 7 which meshes with a gear 8, the last mentioned gear turning within the frame 4, and being fixed upon a shaft 9, journaled in the cross bar 2, and in the apex of the frame 4. To prevent interference between the shafts 5 and 9 the shaft 5 is mounted in a sleeve 10 projecting from one side of the apex portion of the frame 4. A coil spring 11 encircles the shaft 5 and is secured at one end to the shaft 5 and at the other end to any suitable portion of the frame 4. Arranged within the upright frame formed by the uprights 1 and the cross-bar 2 is a can 12 within which is suspended a churn 13 into which extends a rotatable dash rod 14 carrying a dasher 15

formed of intersecting blades. The dash rod 14 is detachably connected to the shaft 9 as shown in Fig. 3. The lower end of the shaft is enlarged and provided with a square socket into which fits the upper squared portion of the dash rod 14, and a slot 16 is cut in one side of the lower end of the shaft 9 and a suitable slot 17 is formed in the squared portion of the dasher rod 14. A pivoted angled locking key 18 has one free end engaged by a spring 19 arranged between the key and the side of the shaft 9, and the other end of the key enters the slots 16 and 17 and locks the dasher rod in place. By compressing the spring 19 the key can be disengaged and the dasher rod and shaft 9 separated. After detaching the dasher rod and removing the thumb nut 3 the cross-bar 2 and all parts carried by it can be swung so as to bring the bar into a vertical position, thus rendering access to the churn 13 easy.

In operation downward and upward movement of the handle will oscillate the gear segment 7, and impart rotation to the gear 8, shaft 9 and the dasher rod and dash, the direction of rotation being reversed with each reversal of the direction of movement of the handle 6. The coil spring 11 will be wound upon the shaft with downward movement of the handle 6 and will aid in the upward movement, thus serving to equalize the strokes.

What I claim is:—

The combination with a churn, uprights arranged adjacent the churn, a cross-bar connecting said uprights and hinged to one of them, a triangular frame mounted on said cross-bar, a sleeve carried by a side of the apex portion of the frame, a shaft mounted therein, a handle on the shaft, a spring on the shaft, the spring being connected to the shaft and to the frame, a segmental gear fixed on the shaft, a second shaft journaled in the cross-bar and apex of the frame, a gear fixed upon the second mentioned shaft and meshing with the segmental gear, a dasher rod arranged in the churn, and means for detachably connecting the dasher rod to the second mentioned shaft.

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Witnesses:

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