

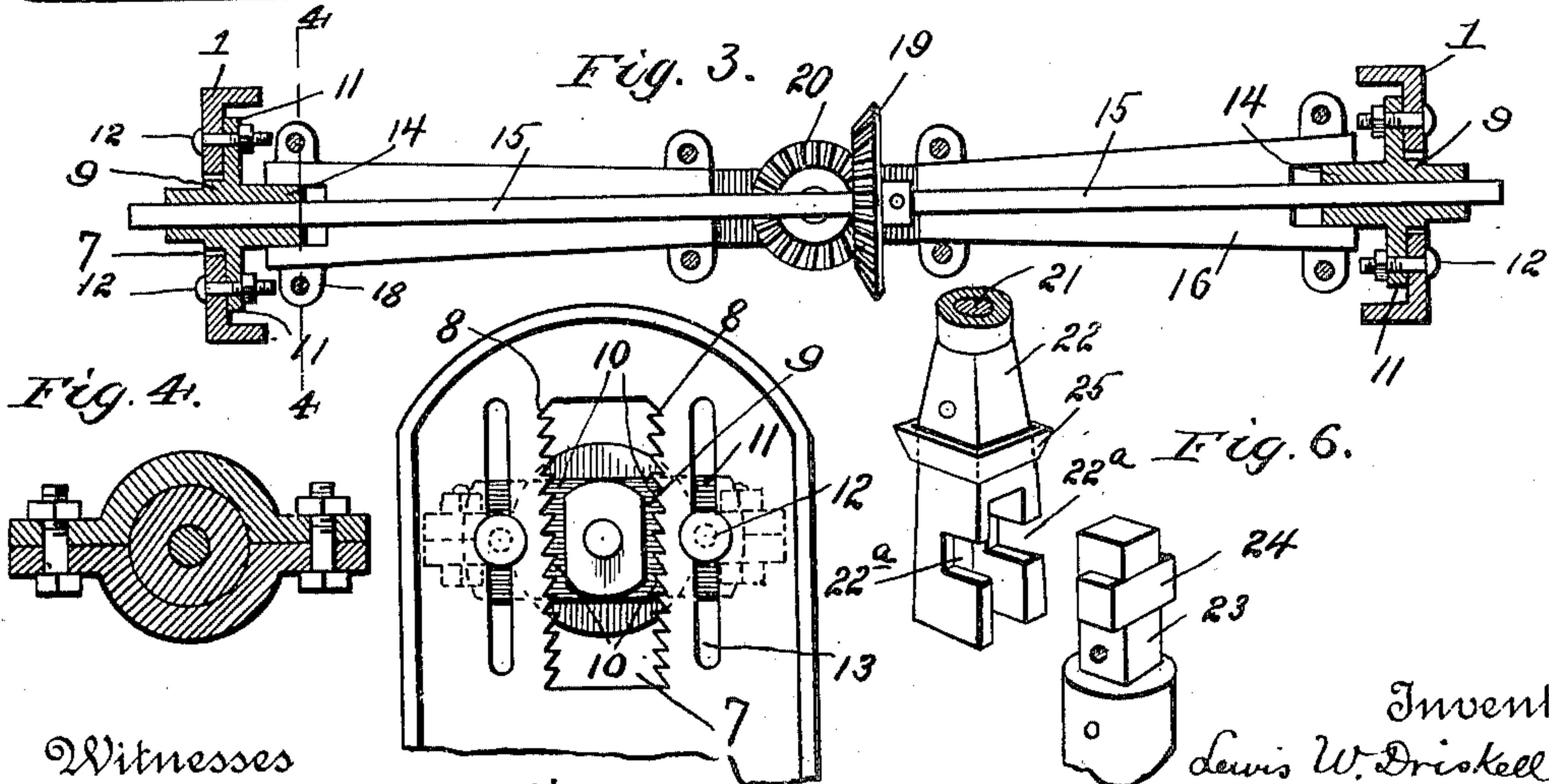
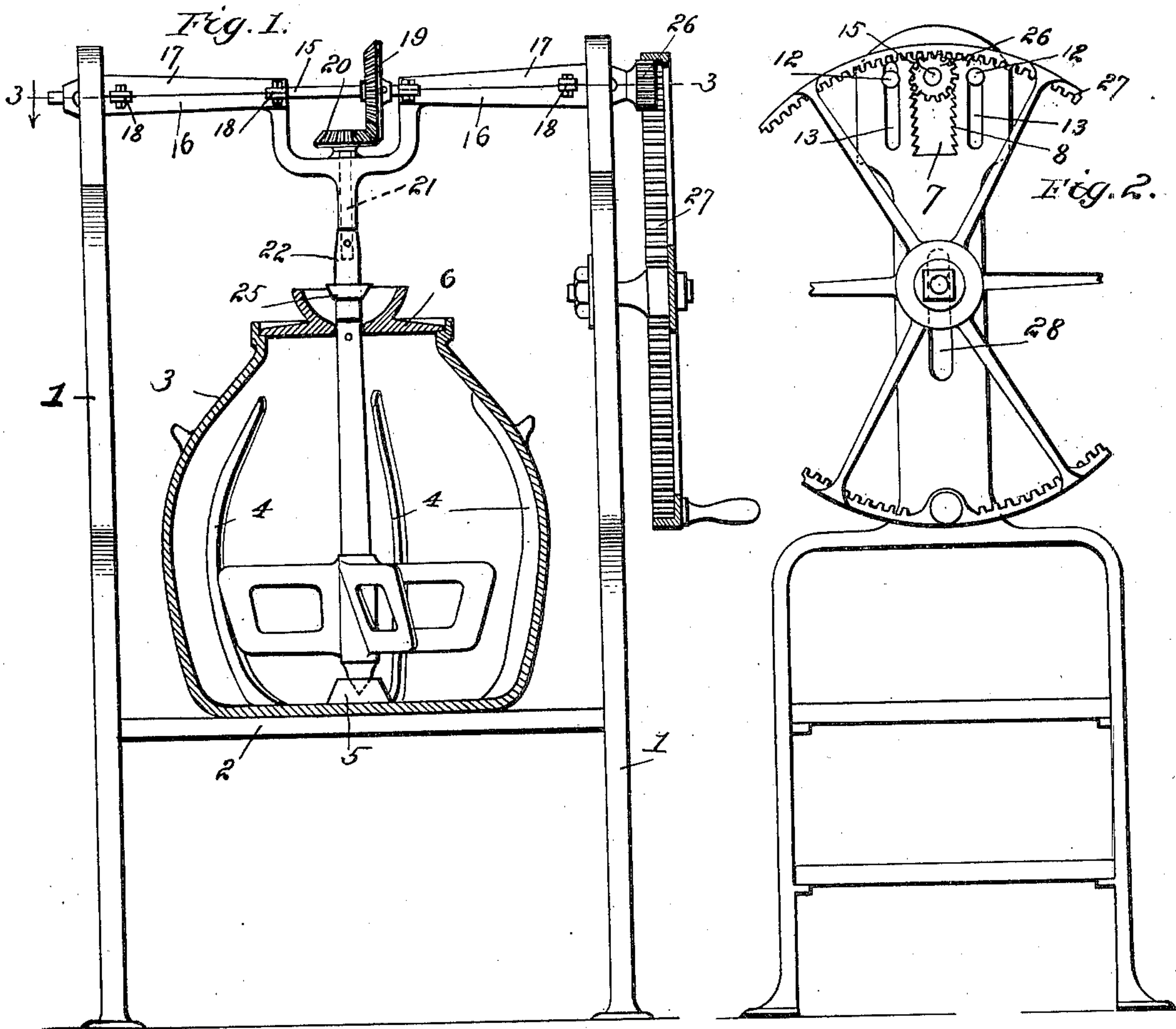
No. 652,388.

Patented June 26, 1900.

L. W. DRISKELL.
CHURN.

(Application filed Feb. 19, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS W. DRISKELL, OF FREMONT, NEBRASKA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 652,388, dated June 26, 1900.

Application filed February 19, 1900. Serial No. 5,831. (No model.)

To all whom it may concern:

Be it known that I, LEWIS W. DRISKELL, a citizen of the United States, and a resident of Fremont, Dodge county, State of Nebraska, have invented certain new and useful Improvements in Churns, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a front elevation, parts being shown in section. Fig. 2 is a side elevation, the cream-receptacle being omitted. Fig. 3 is a horizontal sectional view on line 3 3 of Fig. 1. Fig. 4 is a detail sectional view on line 4 4 of Fig. 3. Fig. 5 is a detail side elevation of the means for securing the shaft-boxes adjustably to the side frames, and Fig. 6 is a detail view showing the means for detachably securing the dasher-shaft to the driving mechanism.

Some of the objects of the invention are to provide a simple mechanism which will produce butter from cream in a short time and with a small expenditure of power and to adapt said mechanism to operate with various sizes of cream-receptacles.

Other objects of the invention will be hereinafter pointed out.

Referring to the various parts by numerals, 1 designates two suitable vertical side frames which are connected near their lower ends by a table or shelf 2, which supports the cream-receptacle 3. This receptacle is preferably formed of earthenware and has formed on its interior the inward-extending radial ribs 4, which are spaced equal distances apart around the receptacle. The dasher-shaft is removably supported in a socket 5 at the bottom of the receptacle and extends loosely through the cover 6 thereof and is provided with suitably-shaped open dasher-blades near its lower end.

Each of the side frames 1 near its upper end is provided with a central vertical slot 7, on the edges of which are formed a series of horizontal ratchet-shaped notches 8. A block 9 fits said slot and has formed on its edges corresponding similarly-shaped projections 10, which engage the notches 8 and support the block. This block is formed with lateral ears 11, which are bolted to the frames 1 by bolts 12, which pass through vertical slots 13, formed in the frames, and thus secure the

blocks 9 in position. Each block 9 is formed on its inner side with a horizontal inward-extending stud 14, and said stud and block are bored horizontally for the passage of shaft 15, which extends across the machine from one frame to the other, the blocks 9 being thereby made to serve as journal-blocks for supporting said shaft. Supported by the studs 14 is a transverse frame 16, said frame being clamped to the studs by means of clamping-plates 17, which fit over the studs, the frame and the plates being formed with ears 18, through which clamping-bolts pass. The frame and the clamping-plates surround the shaft 15 for the greater part of its length and protect and steady it. Near its center it is exposed and carries the beveled gear 19, which meshes with a gear 20, carried by a short vertical shaft 21, journaled in the central depending portion of frame 16. To the lower end of this short shaft is secured a depending socket 22, which is provided with the rectangular socket and the horizontal notches 22^a intersecting it. This socket receives the upper end of the dasher-shaft, which is formed with the square vertical posts 23 to fit the socket and with the transverse head 24 to fit the notches 22^a. The exterior of the socket is slightly tapered, its lower end being the larger, and a slip-ring 25 is placed thereon and is adapted to slip down and fit tightly around the socket at the point where the head 24 fits the notches 22^a and securely hold the dasher-shaft to the shaft 21.

On one end of the shaft 15 is secured a small gear 26, which meshes with a large internal gear 27, which is adjustably supported in a vertical slot 28 in the side frame and is provided with a crank, by means of which it may be rotated.

By means of the peculiar construction of the means for supporting the shaft 15 said shaft may be adjusted vertically to permit receptacles and dasher-shafts of various sizes to be employed. When it is desired to raise or lower the shaft 15, the bolts which clamp frame 16 to the studs are first slightly loosened. Then bolts 12 are loosened sufficiently to permit the blocks to move inward far enough to free the projections 10 from the notches 8. The blocks 9 and the parts connected thereto may then be raised or low-

ered. The frame 16 and the clamping-plate are recessed at their outer ends to receive the studs 14, as shown in Fig. 3, and to permit said studs to have a slight inward movement.

5 It will thus be seen that the shaft 15 may be readily secured at the desired height and accurately set in a horizontal line, the notched slots and the correspondingly-shaped projections of the blocks rendering it a simple mat-
10 ter to accurately adjust each end of the shaft to its proper position. By supporting the frame 16 on the studs 14 the weight of the frame is not supported directly on the shaft 15, and yet a rigid central support is provided
15 for the short shaft 21, which may be readily adjusted up and down with the shaft 15 and which will maintain the gears 19 and 20 in mesh with each other at all times.

Having thus fully described my invention, 20 what I claim, and desire to secure by Letters Patent, is—

1. The combination of a pair of side frames, each having a vertical slot formed in it near its upper end, the edges of said slots being
25 notched, a block fitting in each of said slots and formed with projections to fit said notches to support the blocks, means for adjustably bolting the blocks to the side frames, a horizontal shaft mounted in said blocks, and car-
30 rying a beveled gear, a transverse frame supported by said blocks, a short vertical shaft carried by said frame, a gear on said shaft meshing with the gear on the horizontal shaft, a dasher-shaft connected to said vertical
35 shaft, a receptacle carried by the side frames, and means for rotating the horizontal shaft.

2. The combination of a pair of side frames, a vertically-adjustable block carried by each frame near its upper end, a horizontal shaft
40 carried by these blocks, a transverse frame extending across the machine and having its respective ends attached to and supported on said blocks, a dasher mechanism carried by
45 its length, a gear on the horizontal shaft mesh-

ing with a gear of the dasher mechanism, and means for rotating the horizontal shaft.

3. The combination of a pair of supports, a vertical slot being formed in each support near its upper end, the edges of said slots be- 50
ing notched, a block fitting each slot and formed with projections to fit the notches; laterally - extending lugs formed on said blocks, bolts passing through said lugs and through vertical slots in the frame to secure 55
the blocks to the frame; a shaft journaled in said blocks, a frame clamped to said blocks; and formed with a depending central portion; a vertical shaft journaled in said central por- 60
tion, gears on said shafts, said gears intermeshing, a dasher-shaft connected to the vertical shaft, and means for rotating the horizontal shaft.

4. The combination of a pair of side frames, a journal-block carried by each side frame 65
near its upper end, each journal-block having an inward-extending projection, means for vertically adjusting each side block, a horizontal frame extending across the ma-
chine and provided midway its length with a 70
depending part, removable clamping parts on each end of the frame removably clamping the respective ends of the frame to the inward-extending projections of the journal-
blocks, a shaft extending across the machine 75
and journaled in said blocks and provided with a gear-wheel near its mid-length, means for rotating this shaft, a shaft journaled in the depending part of the frame and provided with a gear meshing with the aforesaid gear, 80
a dasher-shaft connected with this latter shaft, and a churn-receptacle, substantially as and for the purpose set forth.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, 85
this 14th day of February, 1900.

LEWIS W. DRISKELL.

Witnesses:

ROBERT J. STINSON,
GRANT S. MARTIN.