

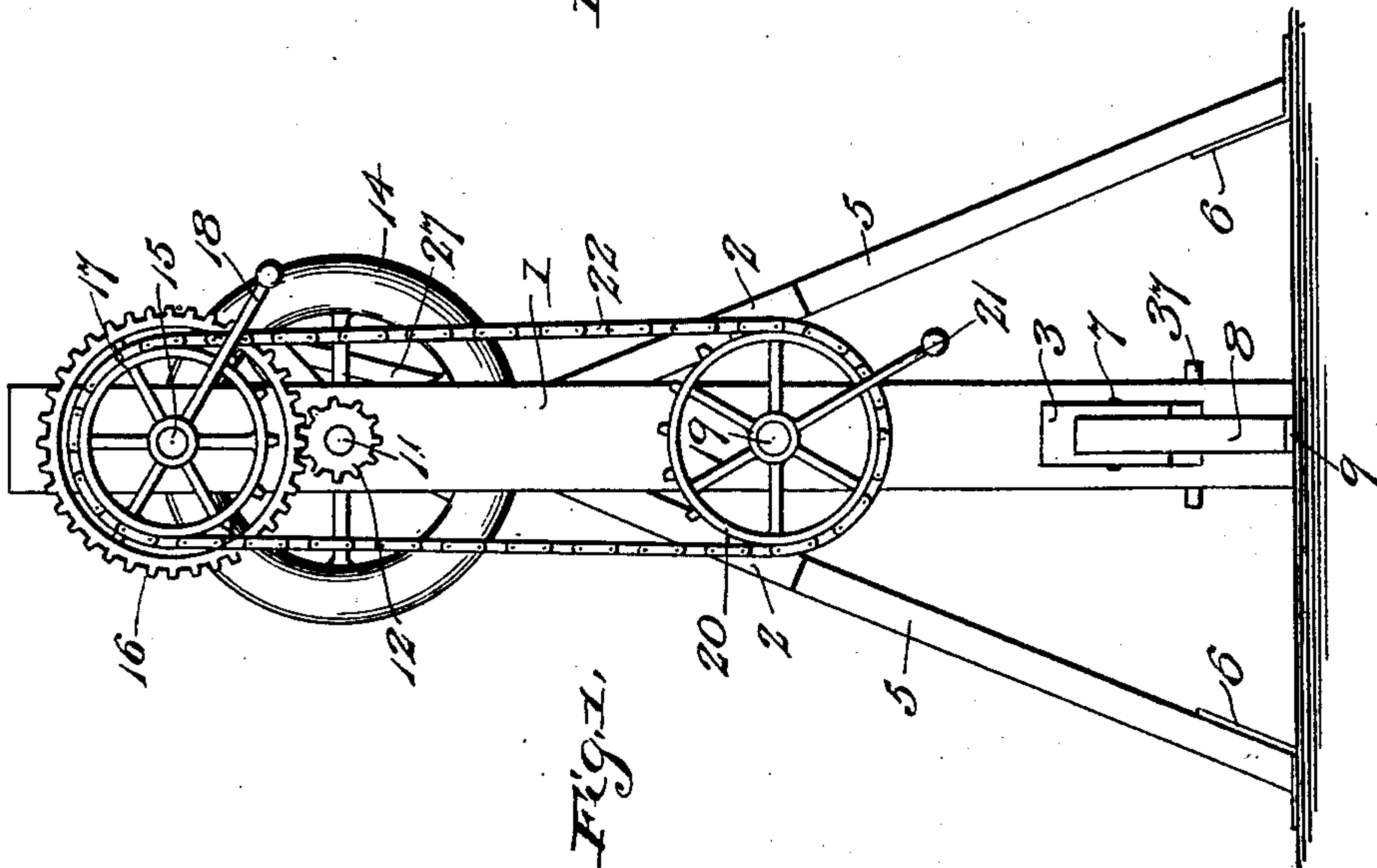
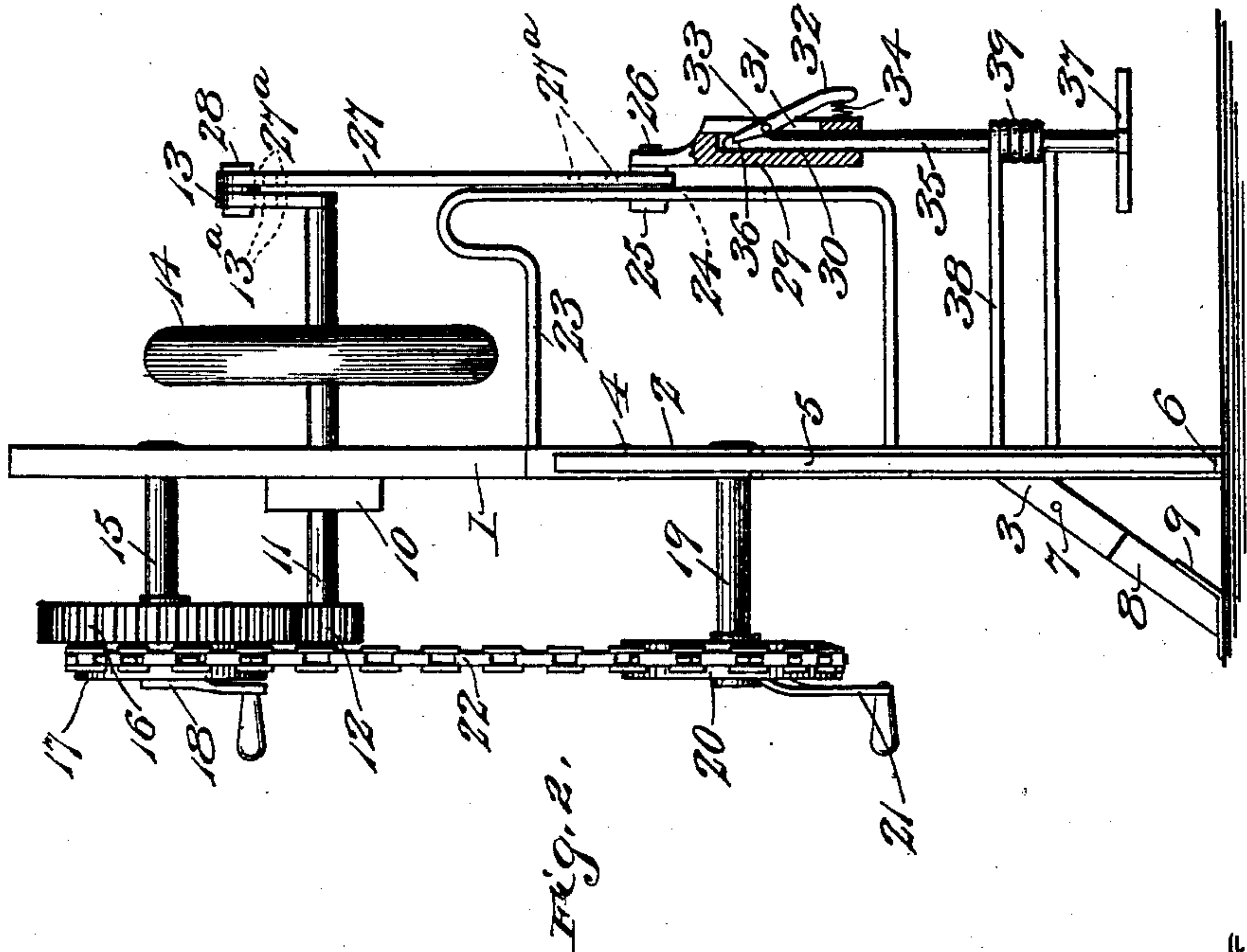
No. 677,586.

Patented July 2, 1901.

B. H. McDANIEL.  
CHURNING MACHINE.

(Application filed Apr. 28, 1900.)

(No Model.)



Witnesses:  
A. J. Burleson.  
Charley Webster.

Inventor  
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# UNITED STATES PATENT OFFICE.

BILL HOMER McDANIEL, OF KOSSE, TEXAS.

## CHURNING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,586, dated July 2, 1901.

Application filed April 28, 1900. Serial No. 14,783. (No model.)

*To all whom it may concern:*

Be it known that I, BILL HOMER McDANIEL, a citizen of the United States, residing at Kosse, in the county of Limestone and State of Texas, have invented new and useful Improvements in Churning-Machines, of which the following is a specification.

My invention relates to that class of churning-machines which are provided with a single dasher and crank mechanism whereby the dasher is operated.

My improvement comprises an upright or standard, two hinged side braces, and a hinged front brace for the upright or standard, a shaft-bearing secured near the upper end of the upright or standard, a driven shaft extending through the shaft-bearing and through the upright or standard, having a pinion fixed to its front end, a crank fixed to its rear end, and a balance or fly wheel fixed to its middle part, an upper journal-stud secured to the upright or standard, a gear-wheel rotatable on the journal and stud and meshing with the pinion, an upper sprocket-wheel secured to the face of the gear, a crank-handle for rotating the gear-wheel to operate the driven shaft, a lower journal-stud secured to the upright or standard, a lower sprocket-wheel rotatable on the lower journal-stud, a crank-handle for rotating the lower sprocket-wheel, a sprocket-chain connecting the sprocket-wheels, an upper wrist-pin mounted in crank, a bracket having a vertical guideway and secured to the upright or standard, a slide carrying a lower wrist-pin and adapted to slide in the guideways of the bracket, a pitman supported on the upper wrist-pin and carrying the slide, a socket-block suspended from the lower wrist-pin formed with a longitudinal socket and a longitudinal opening in the face thereof, a latch pivoted in the opening, a spring located between the lower end of the latch and the socket-block for throwing the upper end of the latch into the socket, a dasher having a head and a rod having its upper end formed with an inclined notch or recess with which the latch detachably connects the rod with the socket-blade, and a guide having a coiled cuff surrounding the dasher-rod for bracing the latter.

My invention consists in the novel features hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a front elevation of my improved churning-machine. Fig. 2 is a side elevation thereof.

1 is an upright or standard having inclined bifurcated side arms 2 and an inclined bifurcated front arm 3. To the side arms 2 are hinged by transverse pins 4 long folding braces 5, having angular footpieces 6, and to the front arm 3 is hinged by transverse pin 7 a short folding brace 8, having an angular footpiece 9. These braces provide a substantial support for the upright or standard. Near the upper end of the upright or standard is secured a shaft-bearing 10, in which is mounted a driven shaft 11, which extends across the upright or standard and carries at its front end a pinion 12 and at its rear end a crank 13.

14 is a balance or fly wheel mounted on the driven shaft.

15 is an upper journal-stud rigidly secured at the upper end of the upright or standard, and on this journal-stud is loosely mounted a gear-wheel 16, meshing with the pinion 12, and having fastened thereto, so as to rotate therewith, a sprocket-wheel 17. A crank-handle 18 is fastened to the hub of the sprocket-wheel, whereby the machine may be operated. To enable the machine to be operated at a lower point, I provide a lower journal stud 19, also rigidly secured to the upright or standard and carrying a lower sprocket-wheel 20, loosely mounted thereon and having a crank-handle 21 fastened to its hub, whereby it may be rotated.

22 is a sprocket-chain connecting the sprocket-wheels.

23 is a bracket secured to the rear side of the standard and having guideways 24, in which a slide 25 travels. This slide 25 carries a lower wrist-pin 26, which is connected with a pitman 27, suspended from an upper wrist-pin 28, carried by the crank of the driven shaft. From the lower wrist-pin 26 depends a socket-block 29, having a longitudinal socket 30 and a longitudinal opening 31 in its face connected with the socket.

32 is a latch pivoted by a transverse pin 33



in the opening and having its end projecting into the upper end of the socket, being forced thereinto by a spring 34, secured to the face of the socket-piece and bearing against the lower end of the latch to throw it outward.

5 The socket-piece receives the upper end of a dasher-rod 35, having an inclined notch or recess 36, adapted to receive the upper end of the latch, whereby the dasher is detachably supported in the socket-piece.

10 37 is the dasher-head.

For bracing the dasher in its reciprocation I provide a guide 38, rigidly secured to and extending horizontally from the upright or standard and having a coiled cuff 39, surrounding and snugly fitting the dasher-rod.

15 The shaft-crank 13 is provided with a series of holes 13<sup>a</sup>, in which the upper wrist-pin 28 may be adjusted, while the pitman is also provided with a series of holes 27, whereby it may be adjusted on both the wrist-pins, so that means for considerable adjustment be-

tween the wrist-pins is provided. The upper arm of the bracket is depressed, so as to avoid the balance or fly wheel.

25 Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

A churning-machine comprising an upright or standard, a driven shaft having a crank, a guide-bracket, a slide traveling in the guide-bracket, a pitman whereby the slide is carried on the crank, a socket-block having a socket and an opening, a latch pivoted in the opening, and a dasher having a rod formed with an inclined notch in which the latch engages for detachably supporting the dasher in the socket-block.

30 In testimony whereof I affix my signature in presence of two witnesses.

BILL HOMER McDANIEL.

Witnesses:

B. D. KEELING,  
R. E. ROGERS.