

(No Model.)

W. F. MARTIN.
CHURN.

No. 494,430.

Patented Mar. 28, 1893.

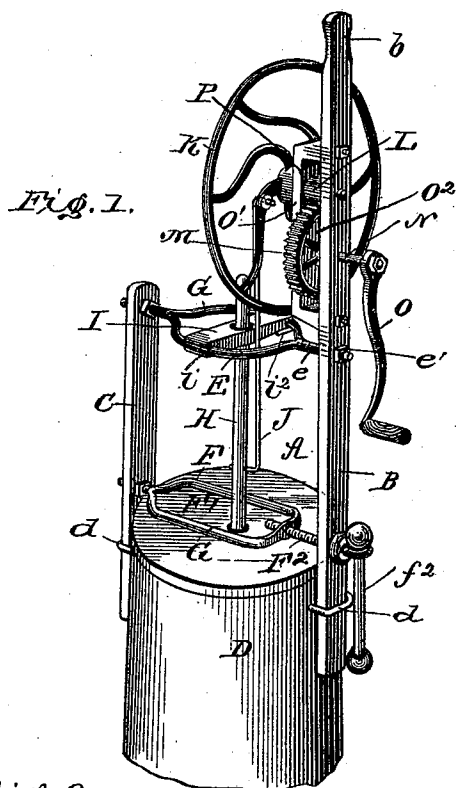


Fig. 2.

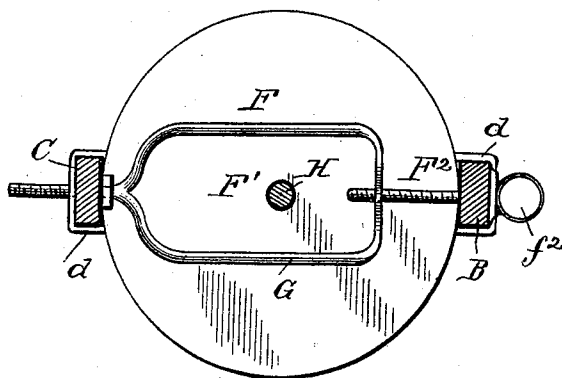
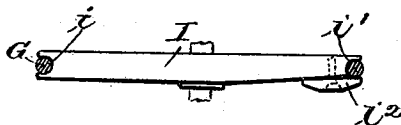


Fig. 3.



WITNESSES:
Fred G. Dieterich
P. B. Surpin.

INVENTOR
W. F. Martin
BY *Mum & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM F. MARTIN, OF AMBIA, TEXAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 494,430, dated March 28, 1893.

Application filed November 17, 1892. Serial No. 452,328. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. MARTIN, of Ambia, in the county of Lamar and State of Texas, have invented a new and useful Improvement in Churns, of which the following is a specification.

My invention is an improvement in churns and it consists in the novel constructions and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a perspective view of my invention as in use and Figs. 2 and 3 are detail views.

The supporting and clamping frame A comprises two uprights or bars B and C, the former being extended at *b* to form a handle and both being connected in the manner presently described.

The churn body D may be of any suitable construction and is preferably provided at or near its top on opposite sides with staples *d* or similar guides to receive the lower ends of the frame uprights as shown in Fig. 1. These uprights are joined by upper and lower cross connections E and F such connections being similar in having central or intermediate ring portions G and also being connected adjustably with the uprights. The upper connection has its end shafts *e* extended through the uprights and one or both threaded to receive the securing nuts *e'*. The lower connection F is made in two sections F' F² one having the ring portion G and the other F² being in the nature of a threaded shaft turning in a threaded opening in the ring journaled in one of the uprights and having at its outer end a handle *f*² by which it may be conveniently turned. This permits of the convenient clamping of the frame to the churn body by the constructions which unite the uprights of and form parts of the frame. At the same time the ring like central portions permit the passage of the dasher rod H and where necessary support the guide or guides for this rod H. As shown it is only necessary to provide such guide in the upper connection the guide consisting of a bar I having a central opening for the dasher rod and fitted in the ring G said bar I being notched at *i* in one end to engage the ring and having at its other end a seat *i'* for the ring and a button or latch *i*² to secure the bar to the ring. This permits

the convenient application and removal of the guide bar as may be desired.

To operate the dasher rod I connect with it the pitman J which has a crank connection with the fly wheel K on the shaft of the pinion L. This pinion L is meshed with a gear M on the drive shaft N having the crank handle O by which it may be driven.

To support the gears and their shafts I provide on the inner side of the upright B a box like keeper P secured at its ends to the upright and having its intermediate portion O' parallel to and separated from the upright providing a space O² in which the gears L and M operate, their shafts being journaled in the parts O' and B. This construction enables the easy and rapid operation of the dasher rod, the operator holding the crank handle with one hand and the handle *b* with the other. The connection F permits the convenient application of the frame to the churn body and its adjustment to fit churn bodies of different sizes. It will be seen that the upper connection E is such that it will permit a limited degree of adjustment of the lower ends of the uprights while for a greater adjustment of said ends the said connection E may be adjusted to set the uprights nearer together or farther apart.

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

1. In an apparatus substantially as described, the combination of the frame uprights, the connections between the same, having central ring like portions for the passage of the dasher rod and the lower connection being formed in sections having an adjustable connection all substantially as and for the purposes set forth.

2. The combination substantially as described of the frame uprights, the connections between the same, having intermediate ring portions and adapted to adjust the uprights together and apart, the dasher rod movable vertically within said ring portions and devices for operating said rod all substantially as set forth.

3. The combination substantially as described of the uprights the upper connection between the same, the lower connection formed in sections one having a ring like por-

tion and the other a threaded shaft, the dasher rod, and operating devices for reciprocating the said rod all substantially as set forth.

- 5 4. The improved apparatus substantially as herein described consisting of the frame uprights, the upper connection E having a central ring like portion, the guide I fitted and held in said portion and having a central

guide opening the lower connection formed in 10 sections F' F² having a threaded connection, the dasher rod, the fly wheel, and pitman connecting said wheel and the dasher rod, and the operating gearing substantially as set forth.

WILLIAM F. MARTIN.

Witnesses:

W. J. GRAHAM,

G. F. MARTIN.