

J. A. & G. C. Hanger,

Churn.

No. 98,958.

Patented Jan. 18. 1870.

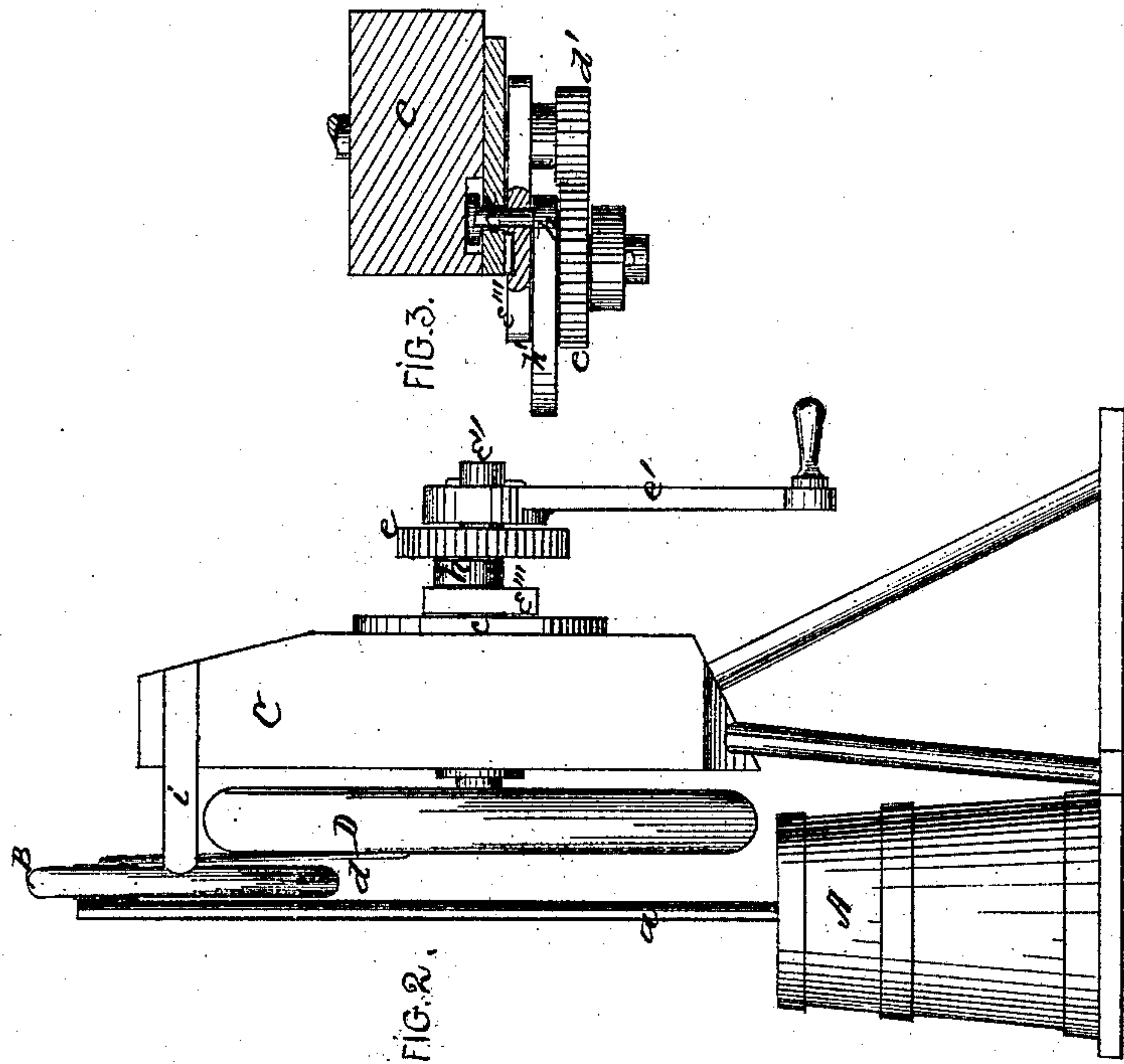


FIG. 2.

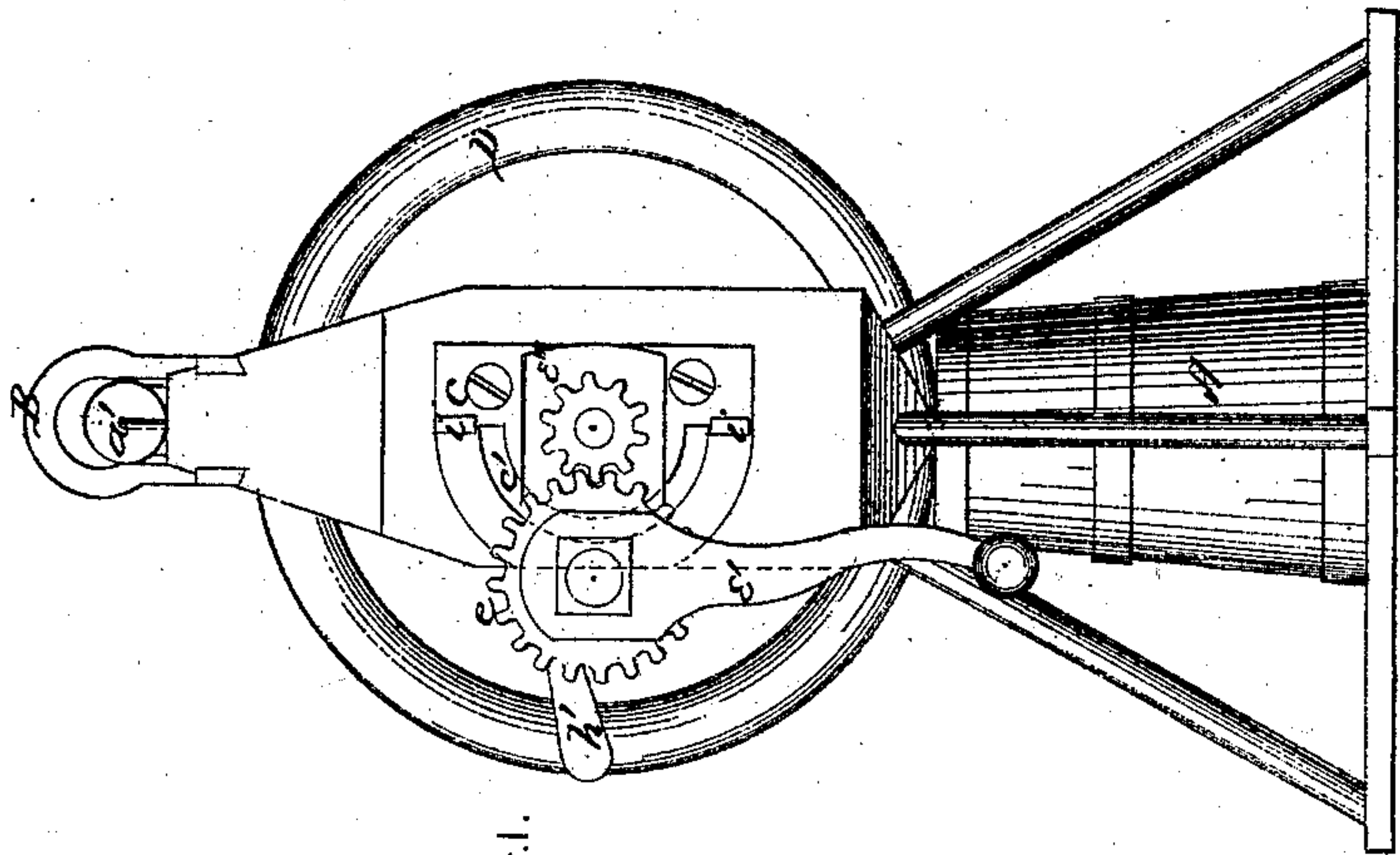


FIG. 1.

Witnesses:

Victor Hagmann

S. C. Remon

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per Kamm & Co
Attorneys,

United States Patent Office.

JACOB A. HANGER AND GEORGE C. HANGER, OF CHURCHVILLE, VIRGINIA

Letters Patent No. 98,958, dated January 18, 1870.

IMPROVEMENT IN CHURNS

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that we, JACOB A. HANGER and GEORGE C. HANGER, of Churchville, in the county of Augusta, and State of Virginia, have invented a new and useful Improvement in Churns; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation;

Figure 2, a side elevation; and

Figure 3 is a horizontal section, showing the means of clamping the crank-handle.

This invention relates to a churn in which the dasher is operated by a roller attached near its upper end, at one side, said roller being made to play vertically in a sash or guide-way, under the action of a pitman, pivoted, at its upper end, to the centre of the roller, and at its lower end to one side of the centre of a balance-wheel, which, by its revolution, gives the pitman motion, said revolutions being caused by a shaft upon which the balance-wheel is affixed, which shaft runs through a block, and is operated by gearing at the opposite side of the block from the balance-wheel; such gearing being a pinion on the end of the shaft projecting from the block, and a cog-wheel connecting with said pinion.

The invention consists chiefly in making the said cog-wheel that engages with the balance-wheel pinion, and which bears the crank by which the gearing is operated, adjustable, with reference to said pinion, so that said cog-wheel may be placed in a position to suit the convenience of the operator.

In the drawings—

A is the churn.

α , the dasher.

α' , the roller, affixed to the dasher at one side, near its top.

B, the vertical sash in which the roller plays, said sash being held in brackets projecting from the top of the block C, the latter being supported on a tripod, and forming the bearing for the shaft of the balance-wheel D.

A pitman, d , pivoted at one end to a point at one side of the centre of said balance-wheel, is jointed at its upper extremity to the centre of the roller α' , and communicates motion to the latter, and through it to the dasher.

On the end of the balance-wheel shaft that projects from the opposite side of the block b is a pinion, d' .

A cog-wheel, e , gears with the pinion, said cog-wheel

being affixed to the inner side of the but of the crank-handle e' , and said wheel and handle both being loosely placed upon an arm, e'' , projecting from the outer end of a plate, e''' , pivoted, at its inner end, upon the balance-wheel shaft. Hence, in order to vary the position of the crank-handle to suit the convenience of operators of different heights, or sitting, such handle and wheel e may be rotated around the balance-wheel shaft as a centre.

It is necessary, however, to provide some means for fixing, for the time, the wheel and handle in the position found most convenient. To this end, I affix to the side of the block b a vertical plate, c , having a semi-circular slot, c' , in it, and a recess within the plate into which said slot opens throughout its whole length.

A pin, c'' , passes through the slot, said pin having a head on its end, to prevent its coming through the slot, and passing also through the plate e''' . The outer end of the pin is affixed to the eccentric but h of the handle h' . The head on the inner end of the pin c'' has an offset, so placed, that on turning the handle h' crosswise of the curved slot, the offset clamps the pin in the recess within the plate c .

There are three ledges, i , on the outside of the plate c , at quadrant distances, top, middle, and bottom, either one of which may, by the foregoing process, be drawn into a recess on the inner side of the plate e''' , and thus serve to support the latter and the crank-handle. The guide-way B and brackets i , by which it is affixed to the block, are cast in one piece.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The guide-way B and brackets i , cast in one piece, and used as and for the purpose described.

2. The combination of the guide-way B, roller α' , and pitman d , when the former is arranged between the staff and pitman, and the latter is bent at its upper end, to form an axle for the roller, and a connecting-bar for the staff, all constructed and arranged as and for the purpose specified.

3. The means herein set forth for varying the positions of the crank-handle, so as to suit the convenience of the operator.

To the above specification of our improvement, we have set our hands, this 6th day of November, 1869.

JACOB A. HANGER.

GEORGE C. HANGER.

Witnesses:

HENRY H. HANGER,

WM. D. RUNNELS.