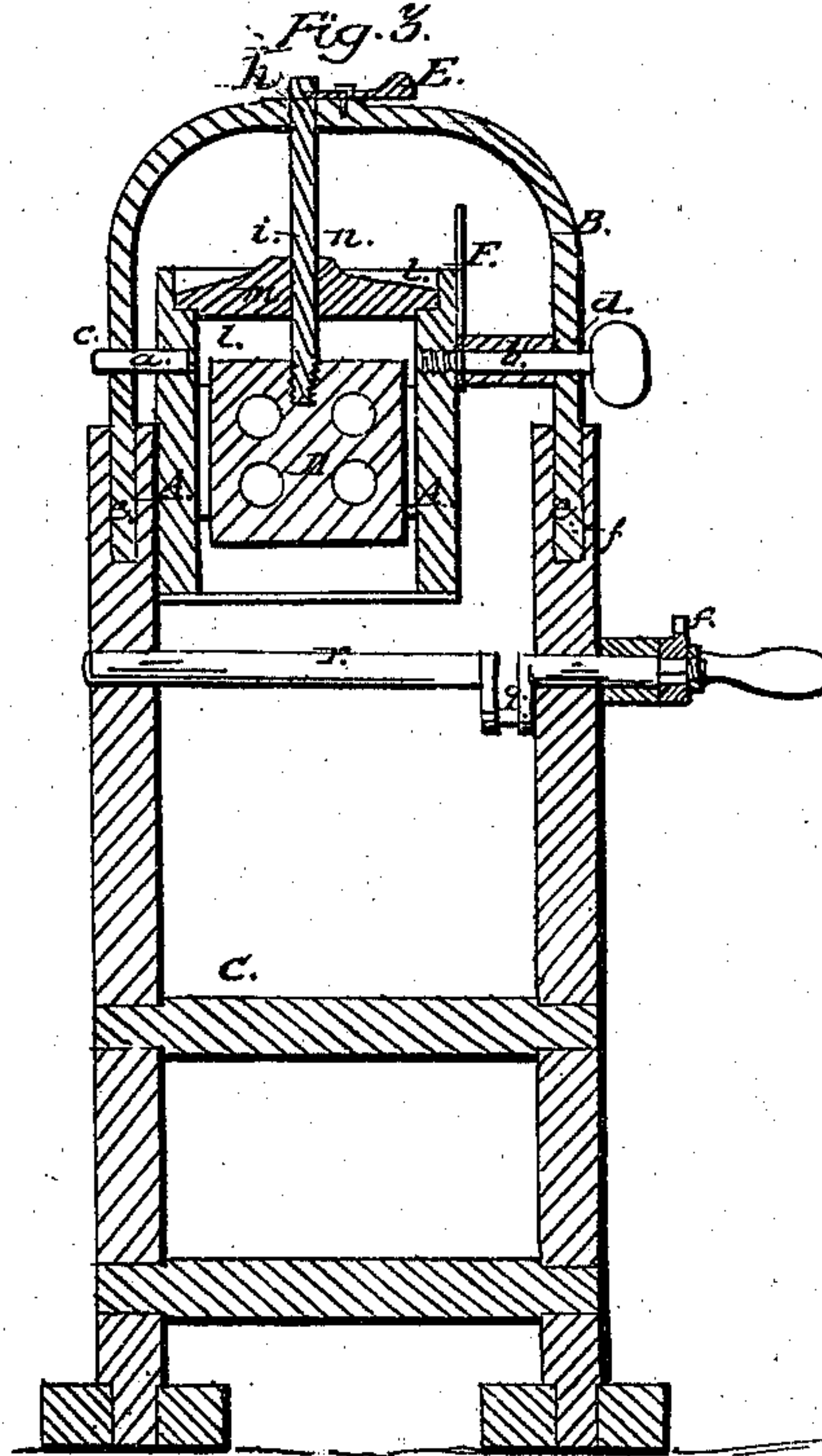
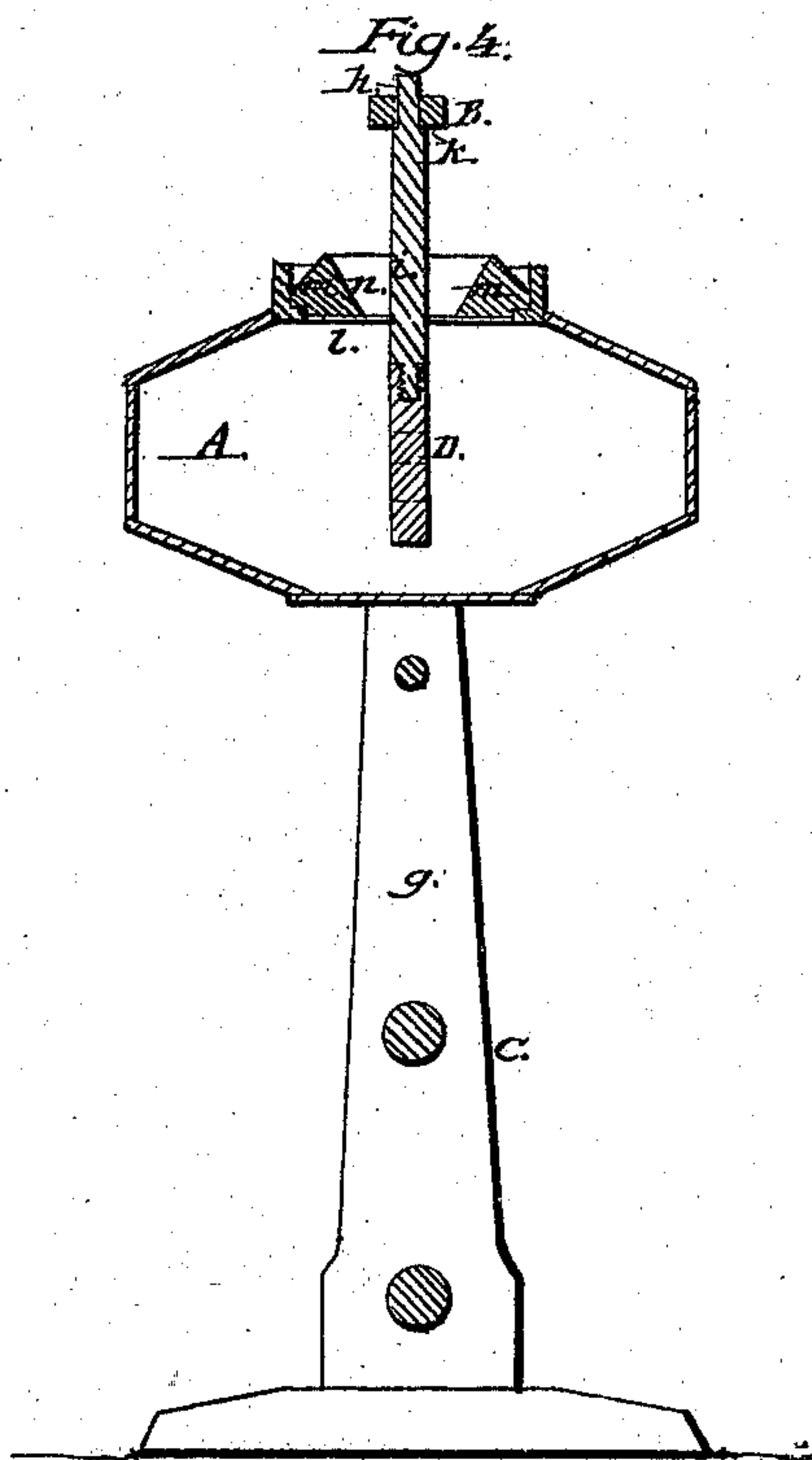
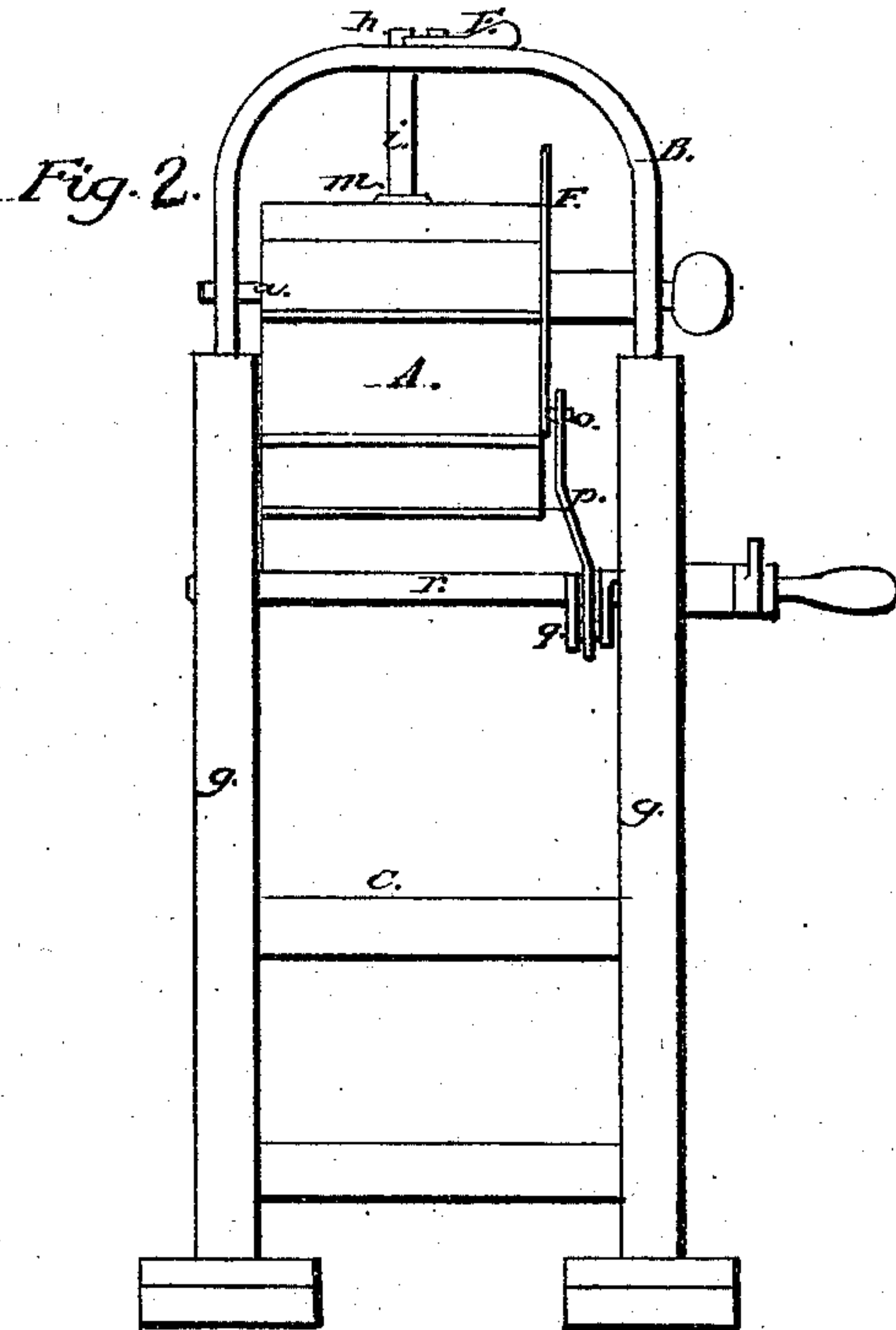
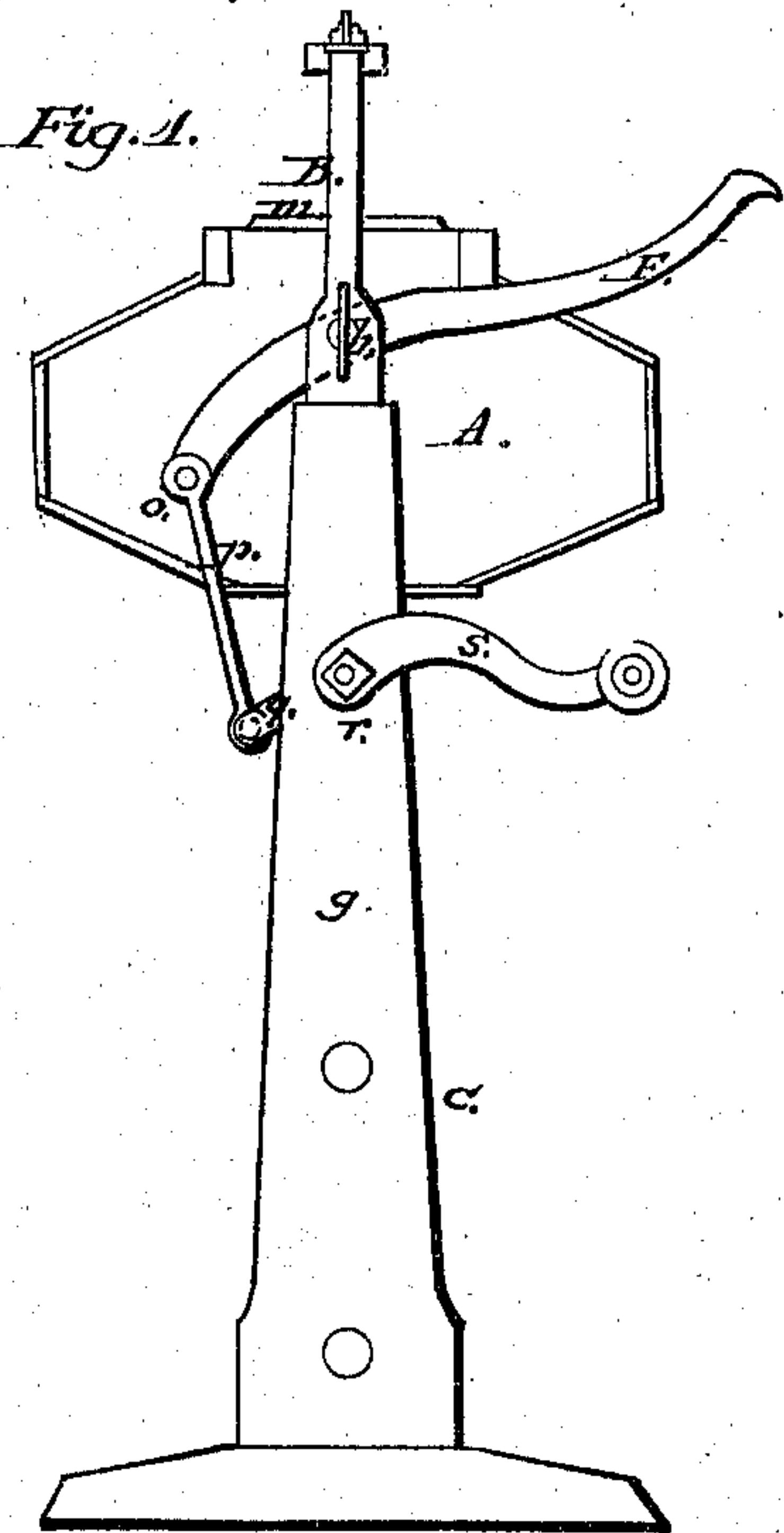


E. Coleman,

Churn.

No. 87,639.

Patented Mar. 9. 1869.



Witnesses:
J. N. Piper.
D. P. White Jr.

Inventor:
E. Coleman
per R. V. Eddy
atty.

United States Patent Office.

EBENEZER COLEMAN, OF WOBURN, MASSACHUSETTS.

Letters Patent No. 87,639, dated March 9, 1869.

IMPROVEMENT IN CHURNS.

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

To all persons to whom these presents may come:

Be it known that I, EBENEZER COLEMAN, of Woburn, in the county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Churns; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation,

Figure 2, a front elevation,

Figure 3, a transverse section, and

Figure 4, a longitudinal section of a churn provided with my improvement.

The reservoir of this churn is so supported or pivoted to a frame, as to be capable of being vibrated therein, while the dasher is held stationary by such frame.

In carrying out my improvement, I have combined with the dasher, the vibratory reservoir, and their main supporting-frame, a separate movable arch, yoke, or bail, provided with tenons, to enter mortises in the posts of the main frame. This arched frame, yoke, or bail, while serving to support the dasher and the vibratory reservoir, enables them to be easily detached from the main frame, for convenience of package or transportation of the two. It also admits of the dasher being easily separated or removed from the reservoir. Furthermore, the arch serves as a bail, or handle for the reservoir, to enable a person to easily move it from place to place. Besides this, I have combined together and with the reservoir and its supporting-frame two distinct means of operating or vibrating the reservoir, it being capable of being operated by either or both of them, as occasion may require.

In the drawings—

A denotes the vibratory cream-reservoir, which is arranged within the arch B, and pivoted thereto, or in other words, is supported by journals *a b*, extending from opposite sides of it, and going through bearings *c d* in the arch.

This arch, at its extremities, is provided with tenons, *e e*, which enter corresponding holes, or mortises *f f*, made in the tops of the vertical posts *g g* of a main frame, C, constructed as represented in the drawings.

The dasher, shown at D, has a tenon, *h*, on the upper part of its rod *i*.

This tenon goes through and extends above the central part of the arch, and is notched, to receive a lever-catch, E, which is pivoted to the top of the arch, such catch and notch serving, with the shoulder

k of the tenon, to hold the dasher-rod in connection with the arch, and thereby support the dasher in a stationary position within the reservoir.

The mouth *l* of the reservoir is provided with a cover, *m*, which has a long slot, *n*, made through it, to receive the dasher-rod, and allow of the reservoir being vibrated.

There is fixed to one side of the reservoir a lever, F. One of the journals of the reservoir passes through the said lever. The same may be said with respect to a joint-pin, or stud *o*, which extends from the side of the reservoir.

This joint-pin goes through a connecting-rod, *p*, near its upper end, such rod, at its lower end, turning on or being applied to the wrist of a bell-crank, *q*, extending from a shaft, *r*.

This shaft goes through the main frame, has bearings in the posts thereof, and is provided, at one end, with a crank, *s*, the whole being as shown in the drawings.

By laying hold of the crank *s*, and revolving it and the shaft *r*, a reciprocating or vibratory motion will be imparted to the churn-reservoir. This motion may also be given to the reservoir by means of the lever F, or by a person laying hold thereof, and moving it up and down. Thus the churn may be worked by one person at the crank and another at the lever. By such means, two children may work the reservoir, when one could not well do it by means of the crank or the lever alone.

I make no claim to a stationary dasher and a vibratory reservoir applied thereto; but

I claim the combination and arrangement of the movable arch, or bail B, separate from the supporting-frame C, with such frame C, the dasher D and the vibratory reservoir A, provided with mechanism for oscillating it, as set forth.

I also claim the combination and arrangement of the working-lever F, with the vibratory reservoir A, and the cranked shaft *r*, and connecting-rod *p*, applied to such reservoir and the supporting-frame C, as set forth.

I also claim the combination and arrangement of the catch-lever E and the mortised movable arch, or bail, with the notched dasher and the vibratory reservoir, to operate together as set forth.

EBENEZER COLEMAN.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.