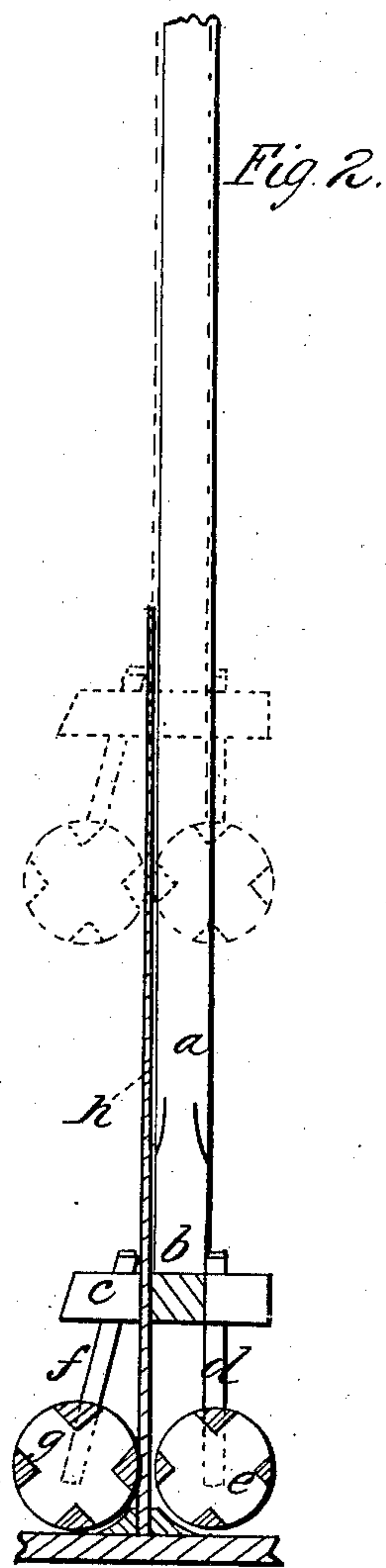
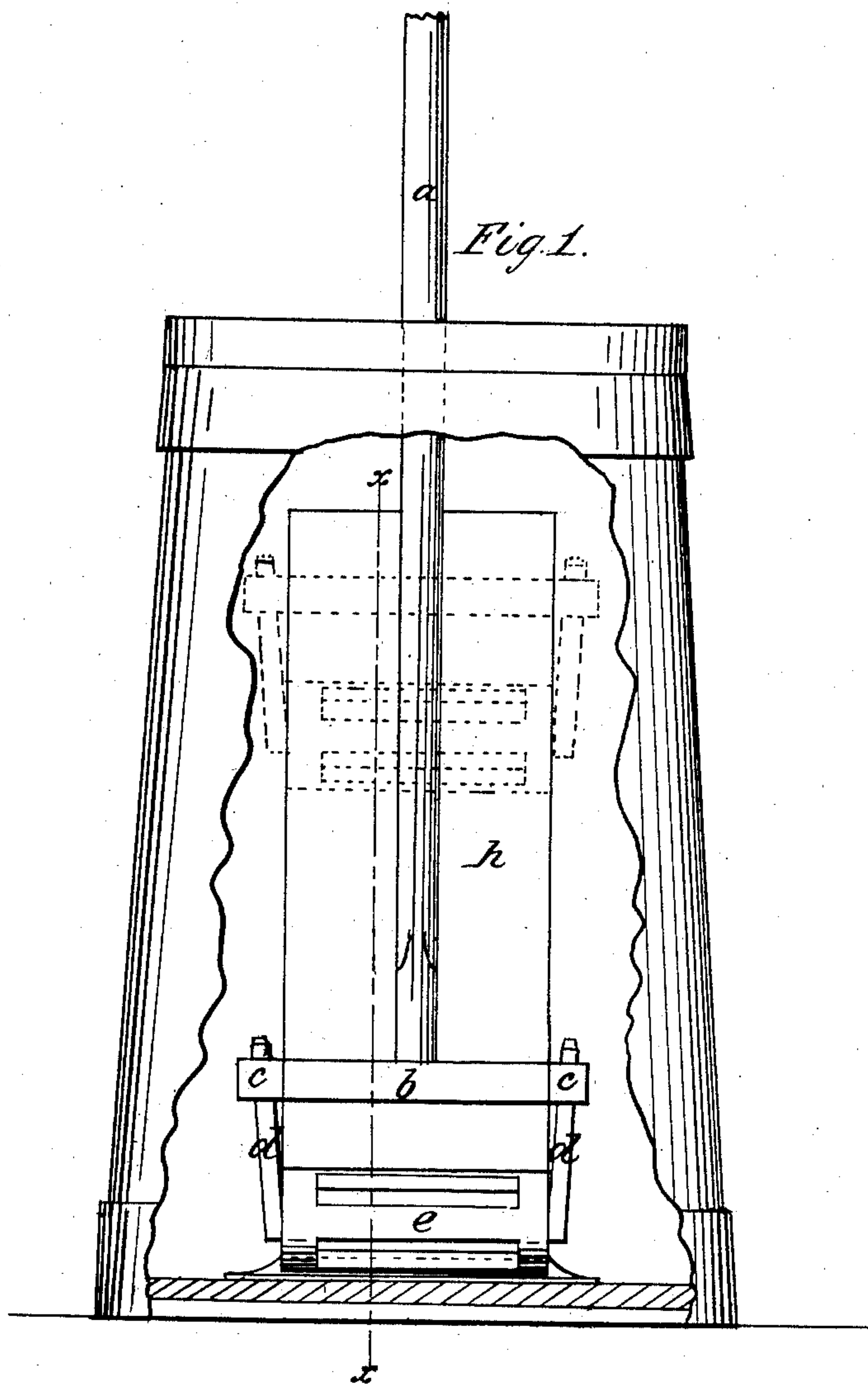


A. W. Cramer,

Churn Master.

No. 45026.

Patented Nov. 15. 1864.



Witnesses;
Chas. E. Hore,
James T. Graham.

Inventor;
A. W. Cramer
By Thos. P. Cow
ally

UNITED STATES PATENT OFFICE.

A. W. CRAMER, OF BETHANY, PENNSYLVANIA.

IMPROVEMENT IN CHURN-DASHERS.

Specification forming part of Letters Patent No. 45,026, dated November 15, 1864.

To all whom it may concern:

Be it known that I, A. W. CRAMER, of Bethany, in the county of Wayne and State of Pennsylvania, have invented a certain new and useful Improvement in Churn-Dashes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a section of churn giving a side view of dash. Fig 2 is a section of dash through the line *x x*.

My invention and improvement consists in the combination of a frame and rollers with a vertical churn-dash, as hereinafter to be more fully set forth.

a, Fig. 1, is the handle of dash, which is framed into a cross-piece, *b*. Upon each end of the cross-piece *b b* there are framed short horizontal cross-pieces, *c c*, Fig. 2. Into the ends of these two cross-pieces, on one side of dash-handle, are framed two vertical pieces or springs, *d d*, in such a way that the vertical tangent to the circumference of the roller, which is attached to the lower ends of said vertical pieces shall be a little beyond the opposite side of the dash-handle, so that the elasticity of said pieces or springs shall press the roller against the center-board sufficiently for the friction to cause the roller to revolve. Into the other ends of the horizontal cross-pieces *c c* are framed two pieces or springs, *f f*, in such a way that the circumference of the roller *g*, attached to their lower ends, may press against the roller *e* so much that when the center-board passes between them the pressure may be sufficient to cause both rollers to revolve.

The four pieces or springs last described must be made of the heart of hemlock limbs or of some other elastic wood.

The rollers are made of solid cylinders of wood, mortised through with two mortises at right angles to each other, and in about the following proportions: If the roller is six inches long and two and a half inches in diameter, the length of the mortises should be four inches, and their width one inch, and for other sizes about the same proportion between the parts should be preserved. The rollers are attached to the lower ends of the pieces or springs *d d* and *f f* by gudgeons in such a way that they may revolve freely. An ordinary screw will answer the purpose very well, the size of the screw varying with the size of the dash.

The center-board *h* is a thin board as wide as the rollers are long, framed into a foot-piece, which is screwed fast to the bottom of the churn, a little to one side of the center, so as to allow the handle of the dash to pass up through the center of the lid.

I have described the dash as made of wood; but it may be made wholly or in part of metal, if desired.

Operation: The dash is put into the churn in such a way that the center-board may pass between the rollers and along the side of the handle on the same side as the inclined pieces or springs *f*, and may be worked either by hand or by a machine.

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

The combination and arrangement of the handle *a*, cross-piece *b*, cross-pieces *c c*, pieces or springs *d* and *f*, rollers *e* and *g*, with the center-board *h*, substantially as and for the purpose set forth.

A. W. CRAMER.

Witnesses:

P. E. GOODRICH,
P. K. PECK.