S. THOMSON.

Cheese Curd Cutter.

No. 46,735. Patented March 7, 1865.

Fig. 1

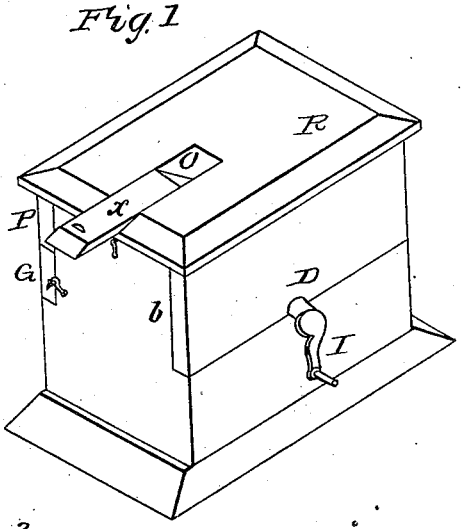


Fig. 3

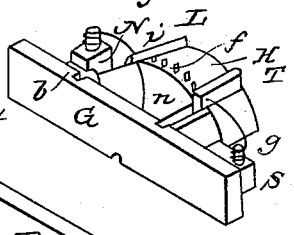


Fig. 4

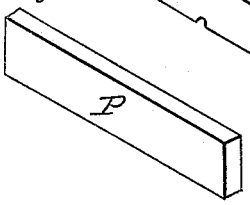


Fig. 5

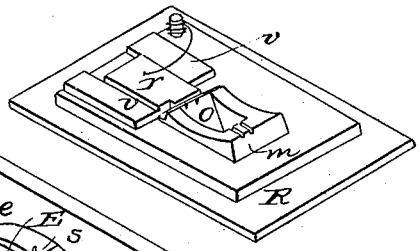
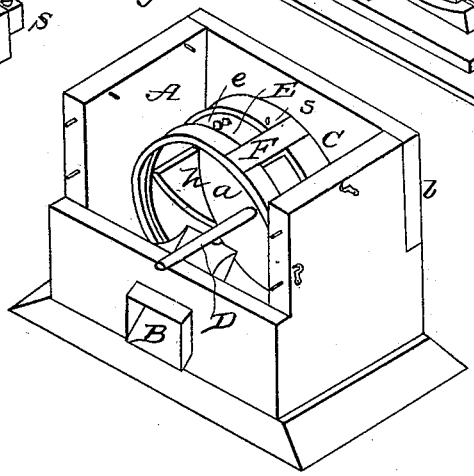


Fig. 2



Witnesses
A. J. Fargo.
James M. Fargo.

Inventor
Sardis Thomson

UNITED STATES PATENT OFFICE.

SARDIS THOMSON, OF MONTEREY, MASSACHUSETTS.

IMPROVED MACHINE FOR CUTTING THE CURD OF CHEESE.

Specification forming part of Letters Patent No. **46,735**, dated March 7, 1865.

To all whom it may concern:

Be it known that I, SARDIS THOMSON, of Monterey, in the county of Berkshire and State of Massachusetts, have invented a new and useful Improvement on a Cheese-Curd-Cutting Machine; and I 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 annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view, the slide *x* being drawn, leaving the aperture open as when about to be operated. Fig. 2 is a perspective view of a part of the oblong case, in which is the hollow cylinder in position. Fig. 3 is a perspective view of the semi-cylinder or bed-piece (slides and fleams) detached from the machine. Fig. 4 is a perspective view of a part of the oblong case. Fig. 5 is a perspective view of the inverted lid of the oblong case.

The same letters have reference to like parts in all the figures.

The nature of my invention consists of an oblong box or case, in which is placed a hollow cylinder, open at one end and revolving upon a horizontal axis, a groove in the exterior periphery of the cylinder, fleams set in the groove, knives upon the periphery of the cylinder and across the groove, throats beneath the knives; a semi-cylinder or bed-piece projecting from the side of the case to the interior of the head of the cylinder, having a radius to allow curd to pass between the interior surface of the cylinder and the periphery of the semi-cylinder into a throat through the semi-cylinder. Upon the semi-cylinder or bed-piece are two slides moving in grooves and projecting above to fit the interior surface of the cylinder, and also fleams against which the curd is forced by cams on the interior surface of the cylinder, which cams, in combination with spiral springs, give an alternately reciprocating motion to the slides. Upon the under side of the lid is a slide, moving in guides and fitting the groove in the cylinder, preventing small pieces of curd from revolving with the cylinder.

The construction is as follows: A, Fig. 2, is the oblong case from which is removed the lid and the removable part of one side. The case may be constructed in any known manner, with lid R and the sides G, P, and *b* removable.

B is a chute directly under the axis and through the side of the case, at an angle of about forty-five degrees, (more or less,) for the discharge of the curd from the machine. C is the hollow cylinder, open at one end, which revolves upon the horizontal axis D; E, the groove in the periphery of the cylinder; *e*, fleams set in the groove.

F is a knife secured across the groove at any desired angle. Under the knife F is a throat leading from the exterior of the groove to the interior of the cylinder. *h* is a cam in the form of a right-angled triangle, being curved to fit the interior surface of the cylinder, and secured to the same with the base against the head of the cylinder and the hypothenuse extending from the head to the open end of the cylinder.

I, Fig. 1, is the crank by which the cylinder C is made to revolve upon its axis. G, Fig. 3, is a part of the side of the case to which the semi-cylinder or bed-piece H is secured, being projected from the side G to the interior of the head *a* of the cylinder C, the periphery of the semi-cylinder fitting the interior surface of the cams *h*. Extending through the semi-cylinder or bed-piece H is a throat, *n*, directly over the axis D and the chute B. The slides T and L (serving to confine the curd upon the semi cylinder H, until forced into the throat *n*) run in grooves in the semi-cylinder, the groove *t* being parallel with the axis D, and the groove *l* should make at least a right angle with the hypothenuse of the cams *h*.

In revolving the cylinder C, the slides T and L are pressed against the side G by the cam *h*, when the spiral springs *g* and *i*, attached to the pins at S and N, return the slides to their position in Fig. 3, giving them an alternately reciprocating motion. *f* are fleams set between the slides in the periphery of the semi-cylinder, the edges of the fleams making the same angle with the hypothenuse of the cams *h* as the groove *l*.

P, Fig. 4, is a portion of the side of the case. G and P may be in one piece.

R, Fig. 5, is the inverted lid of the case; O, the aperture through which the machine receives the curd. *m* is an extension of the aperture O to fit the periphery of the cylinder C; *r*, a slide fitting the groove E, being forced back by the pin *s* to allow the knife F to pass

and again pressed against the groove by the spring *d*. *v v* are guides for the slide *r*.

In operating the machine the curd is placed in the aperture O and falls upon the groove of the cylinder E. In revolving the cylinder the fleams *e* slit the curd vertically, the knife F cuts transversely of the slits, passing the curd through the throat beneath the knife upon the semi cylinder or bed-piece H in oblong pieces, which are forced by the cam *h* upon the periphery of the semi-cylinder and between the slides T and L, against and between the fleams *f*, into the throat *n*, from whence the curd is discharged from the machine through the chute B.

I do not confine myself to any definite number of knives, fleams, or cams, suiting the number to the size of the machine.

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

1. The hollow cylinder, with the groove, fleams, knives, and throats, in combination with the cams.

2. The semi cylinder or bed-piece, with its grooves, slides, springs, and fleams, in combination with the cylinder.

SARDIS THOMSON. [L. S.]

Witnesses:
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