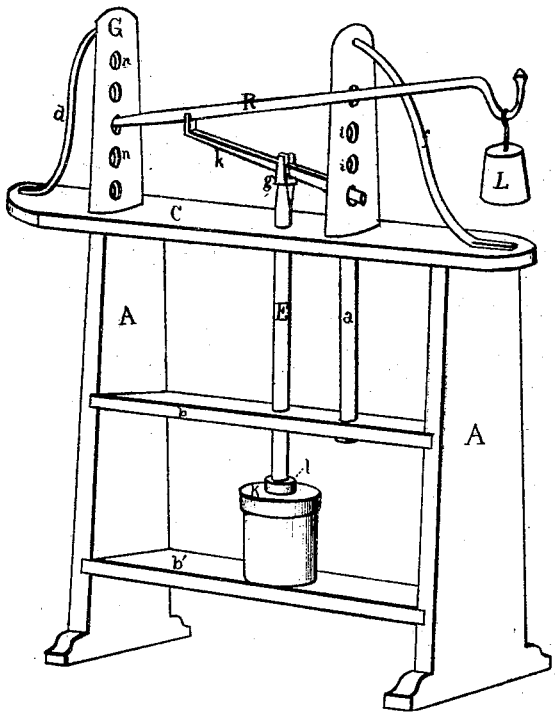
C. L. Haines,

Cheese Press.

No. 113,763. Patented Apr. 18. 1871.



Witnesses.
Chas. Kenyon.
Edwd P. Mast.

Inventor:
C. L. Haines,
Chipman Hosmer & Co.
Attys.

United States Patent Office.

CHARLES L. HAINES, OF NORTH NEWBURG, MAINE.

Letters Patent No. 113,763, dated April 18, 1871; antedated April 3, 1871.

IMPROVEMENT IN CHEESE-PRESSES.

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

To all whom it may concern:

Be it known that I, CHARLES L. HAINES, of North Newburg, in the county of Penobscot and State of Maine, have invented a new and valuable Improvement in Cheese-Presses; 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 drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a perspective view of my invention.

My invention relates to cheese-presses, &c., and consists in the novel arrangement and construction of devices whereby a constant, steady, and powerful pressure is attained at a moderate expense.

A A of the drawing represent two upright standards, of heavy plank or other suitable material, at a proper distance, from each other, having the two shelves, *b* and *b'*, mortised into their inner sides.

On the lower of these shelves, which is also made of heavy material, the cheese or other article which it is desired to press, is placed.

C represents a top platform or shelf, made of heavy material, placed on the upper ends of the uprights A A, and extending beyond them at each end, as shown in the drawing.

About one-third of the distance between the two uprights, on the shelf C, I erect a standard, D, of suitable material, the lower half of which is made in the form of a circular shaft, leaving a shoulder on the standard which rests on the platform C.

The circular shaft *a* penetrates this platform, passing through the shelf *b*, under which it is fastened by a nut, rendering it secure and substantial, and capable of resisting the upward strain of the levers.

To make this upright more secure I attach a brace, *f*, thereto, one end of which is secured near the top of the standard, and the other near the end of the platform or shelf C.

Along the vertical center of this standard I arrange a series of circular holes, *i i*, as shown, the purpose of which is hereafter explained.

Near the other end of the platform C I erect another upright standard G, which, with the exception of the shaft *a*, is similar in all respects to D, having a series of holes, *n n*, and brace *d*.

Through the center of the shelf *b* and the platform C is passed a movable shaft, E, the lower end of which is attached either by screw or pin to the collar *l* of the circular pressing-plate K.

The upper end of this shaft forms a fork, *g*, which serves to receive the short lever *k*.

The body of this lever *k* is square, tapering toward one end. The other end is formed into a short circular toe, to fit the holes *i i*.

The smaller end of the lever is bent upward at right angles to its length, and the top of this upward bend is concave in form, to receive the long lever R.

One end of this lever fits into the holes *n n* in the standard G, the other being bent in the form of a hook, as shown, to sustain the weight L.

To render the description of my invention more clear I will explain the operation of pressing any substance, such as cheese, in the press.

The cheese is placed either on the shelf *b'* or on a block made to receive it, directly under the pressing-plate K, which is lowered upon it, then the toe of the short lever *k* is placed in one of the holes, *i*, lower than the top of the shaft E, and rests on the fork *g*.

Now, by placing a weight at the opposite end of this lever a pressure equal in proportion to the weight used will be obtained; but to obtain a still greater pressure with the same amount of weight I arrange the short lever, as described, to receive the lever R, one end of which I place in one of the holes, *n*, lower than the upright part of the lever *k*, resting the body of the lever in the concave face of this bend, and passing it obliquely beyond the standard D and to the hooked end attaching the weight L, which, acting upon the two levers, *k* and R, placed across the rests *h* and *g*, gives a powerful pressure on the object when only a comparatively small weight is employed.

The length of lever necessary to operate with a small weight is, by this arrangement, turned back upon itself in such a manner as to occupy but small space.

What I claim as my invention, and desire to secure by Letters Patent, is—

In combination, the perforated standards D and G, adjustable combined levers R and *k*, the follower K, presser-shaft E, and weight L, when constructed and arranged to operate in the manner and for the purposes shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES L. HAINES.

Witnesses:

STEPHEN M. SPARROW,
CHARLES A. WHITNEY.