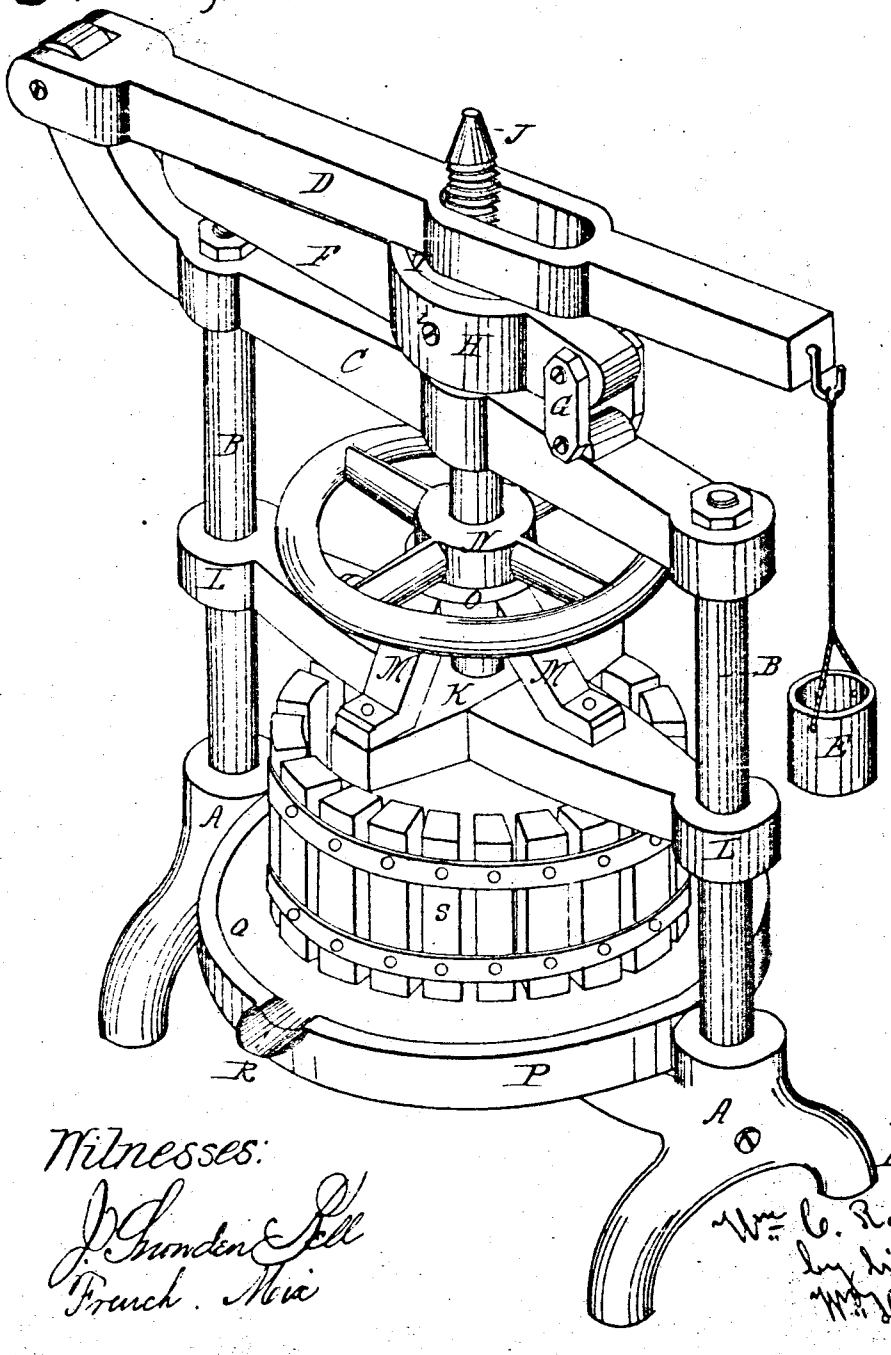
W. C. Ray,

Cheese Press.

No. 38,333. Patented Apr. 28, 1863.



Witnesses:

J. Snowden Bell
Franch. Mein

Inventor

Wm. C. Ray
by his Attorney
Wm. D. Edwin

A.M. PHOTO-LITHO. CO. N.Y. (SEBRING'S PROCESS)

UNITED STATES PATENT OFFICE.

WILLIAM C. RAY, OF REDINGTON, NEW JERSEY.

IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. **38,333**, dated April 28, 1863.

To all whom it may concern:

Be it known that I, WILLIAM C. RAY, of Redington township, in the county of Hunterdon and State of New Jersey, have invented a certain new and useful Improvement in Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which makes part of this specification, and which represents a view in perspective of a press embracing my improvement.

It is the object of my invention to produce a simple and efficient press adapted to the general purposes of the farmer, such as pressing cheese and other articles; and to this end my improvement consists in combining the screw of the press and the nut through which it works with two weighted levers, one of which has both a vertical and a longitudinal movement on its fulcrum, while the other has a vertical movement only, as hereinafter described, by which means the levers will rise when the pressure exceeds the desired limit, instead of further depressing the platen, and thus prevent injury to the press.

In the accompanying drawing the press is shown as resting upon a strong base, A, into which two pillars, B, are inserted. A strong cross-beam, C, connects these pillars firmly together, and is curved upward at one end to form a fulcrum for a lever, D, one end of which is pivoted to it in such manner that the beam can move freely in a vertical plane. A bucket, E, is suspended from one end of this lever, in which weights may be placed in order to give any required degree of pressure upon the platen of the press. Another lever, F, is pivoted to the cross-beam C (on the side opposite the point at which the weighted lever D is pivoted) by means of a link, G, which permits the lever to move freely in a vertical plane, as well as to play endwise on its pivot. The other end of this lever plays in a groove on the under side of the weighted lever, and is thus kept from sliding out of place. The lever is widened and perforated in its center, so as to form a yoke or ring, H. Inside of this ring a nut, I, containing a female screw, is hung so as to swing freely on its pivots *i*. The weighted lever D has a similar yoke in it, but contains no nut. The screw *j* of the press works in the nut I, passing also through the cross-beam C and the yoke of the weighted lever D. The screw J is firmly braced to the platen K of the press, but in such manner as to turn freely without turning the platen. This platen has eyes L on each end, which encircle the standards B, and serve as guides to steady the platen, which is further braced by means of arms M, bolted to it and to a collar, O, in which the screw turns. The screw is rotated by means of a hand wheel, N. The bed P of the press, has a groove, Q, round its edge, to catch any liquids squeezed out by the press, and a discharge-spout, R. The bed-plate may be made removable, if desired. A curb, S, to contain the article to be pressed, is placed loosely on the bed-plate.

The following is the mode of operation of the press: The article to be pressed is placed within the curb and the platen brought down upon it by turning the hand-wheel N. The bucket E is supplied with weights sufficient to produce the pressure desired, and when this is exceeded both the levers are raised by the screw, and thus the danger of breaking the press is avoided. The end-play of the lever F and the oscillation of the nut I prevent the straining or twisting of the screw, which would otherwise ensue. Suitable blocks or followers are placed above the article to be compressed, to prevent the platen coming down on the edge of the curb; but even should it do so the rising of the levers would prevent it from being injured.

Having thus fully described the construction and mode of operation of my improved press, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination of the screw J, pivoted nut I, yoke-lever F, and links G with the weighted levers D, the whole being arranged and operating as described, for the purposes set forth.

In testimony whereof I have hereunto subscribed my name.

WILLIAM C. RAY.

Witnesses:

JAMES EWING,

JACOB R. SHEETS.