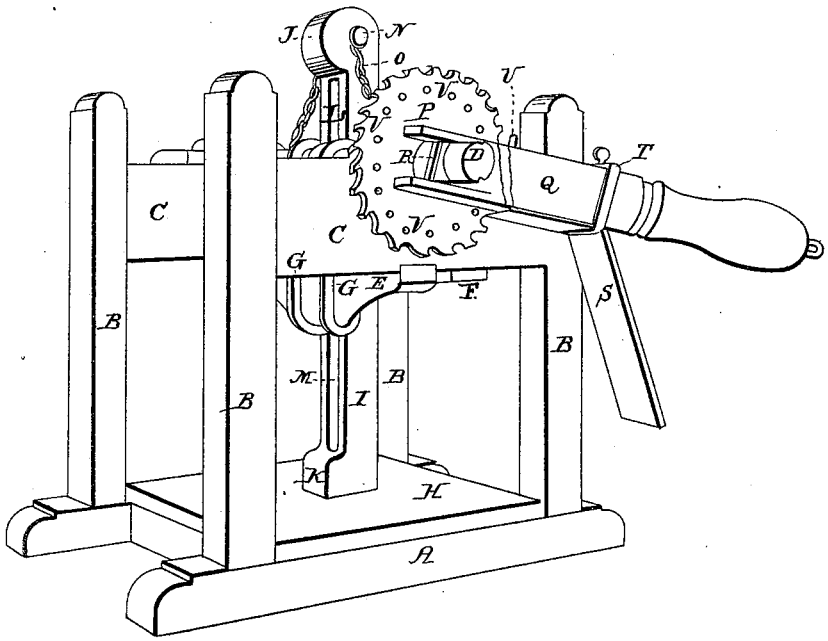
J. Card,

Cheese Press.

No. 7,728. Patented Oct. 22, 1850.

Fig; 1.



UNITED STATES PATENT OFFICE.

JOSEPH CARD, OF FAIRPORT, OHIO.

CHEESE-PRESS.

Specification of Letters Patent No. 7,728, dated October 22, 1850.

To all whom it may concern:

Be it known that I, JOSEPH CARD, of Fairport, in the county of Lake and State of Ohio, have invented a new and useful Improvement in Presses for Pressing Cheese and for other Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification and in which—

Figure 1 is a view in perspective of my improved cheese press. Fig. 2 is a front elevation of the same and Fig. 3 is a vertical section of the windlass and platen rod detached from the frame of the press.

In my improved press the power is applied to depress an upright platen-rod by means of a pair of chains which are wound upon a windlass; the latter is put in motion by means of a lever handle acting upon a ratchet wheel. The raising of the platen rod is effected by means of an elastic strap which is wound upon the windlass in a direction the reverse of the chains and is operated by reversing the motion of the windlass.

In the accompanying drawing A is the base of the press upon which four standards B are erected, these are united in pairs by a pair of side rails C C. The latter support the windlass D, which crosses the side rails and projects at each extremity beyond them. A beam E is secured to the side rails immediately beneath the windlass with which it is connected by links G, so as to sustain the strain upon the windlass and prevent it from springing. This windlass is fitted at one extremity with a ratchet wheel P which is embraced between the forked extremities of a lever handle Q. The latter is secured to the windlass by bolts R in such manner that it can turn freely upon it; a weighted ratchet S is fitted to its under side, which as the lever handle is raised, passes over the inclined faces of the ratchet teeth, but as the lever handle is depressed engages with the teeth and forces the ratchet wheel together with the windlass to turn with the lever handle. The weighted ratchet S is attached to the lever handle by a sliding band T, which can be moved and clamped in a position to bring the ratchet in contact with the teeth of the ratchet wheel or to draw it from them. The face of the ratchet wheel is perforated with a series of holes V to which a removable pin U is fitted, which being inserted in one of the holes above the lever handle forces the ratchet wheel to turn with the handle as it is raised.

The platen rod I, which is shown in section at Fig. 3, consists of a bar of wood of the form represented in the drawing. A groove L is sunk in its face to receive a collar W made fast to the windlass, and an elastic strap M, which is secured at its lower extremity at the lower end of the groove and is made fast at its upper extremity to the windlass by inserting its end in a dove-tailed slot in the collar and securing it there by a wedge A′. The platen rod is guided in a vertical direction by the windlass and stress-beam E at its front side; and at its back by a bar F which crosses the press and is secured to the side rails C. It is guided at its sides by the links G which connect the windlass with the stress-beam. The upper extremity of the platen rod is connected with the windlass by a pair of chains O which, being secured to the opposite sides of the head of the platen rod by a bolt N, are brought downward and wound upon the windlass D to which they are made fast by pins or bolts. The foot of the platen rod is prolonged beneath the windlass, so that the line in which the chains are strained shall pass vertically through the center of the foot.

The operation of the press is as follows: The platen rod is raised to allow the article to be pressed to be inserted beneath it upon the base A. This raising is effected by drawing the ratchet S out of contact with the ratchet wheel and by inserting the pin U in one of the holes V above the lever handle; the latter is then raised and, acting upon the pin, turns the ratchet wheel and the windlass to which the latter is secured. By this turning of the windlass the chains O are given out to allow the platen rod to rise as it is drawn upward by the winding of the strap M upon the windlass. It will be perceived that the chain is wound helically upon the windlass, and that equal portions of it are given out by equal movements of the windlass; whereas the strap is wound upon itself and therefore as the barrel upon which it is wound is continually increasing in diameter as the platen rod rises, hence it is evident that it is absolutely essential that this strap should have the quality of elas-

ticity which allows it to stretch and accommodate itself to the movement of the windlass. When the platen rod has been sufficiently raised the article to be pressed, with a proper press board, is inserted beneath it and the pin is withdrawn from the ratchet wheel to allow the platen rod to descend; when it comes in contact with the press board the ratchet S is brought into action and the lever handle is alternately raised and depressed to turn the shaft D and wind up the chains, thus forcing the platen rod down upon the press board; as the chains are wound up the strap is given out and restores itself by its inherent elasticity to its original length.

The several parts of my press may be made of such materials as the constructor may elect. And the power of the lever handle to turn the shaft may be increased by connecting it with a separate shaft, which is connected with the windlass by a pinion and wheel. A second lever handle may also be adapted to the opposite extremity of the windlass, and thus double the amount of power may be applied to the press.

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

The elastic strap for raising the platen rod, arranged and operating substantially as herein set forth.

J. CARD.

Witnesses:
M. NORRIS,
J. F. SINGLE.