D. A. CHURCH.

Cheese Press.

No. 2,072.

Patented May 4, 1841.

Fig. 3

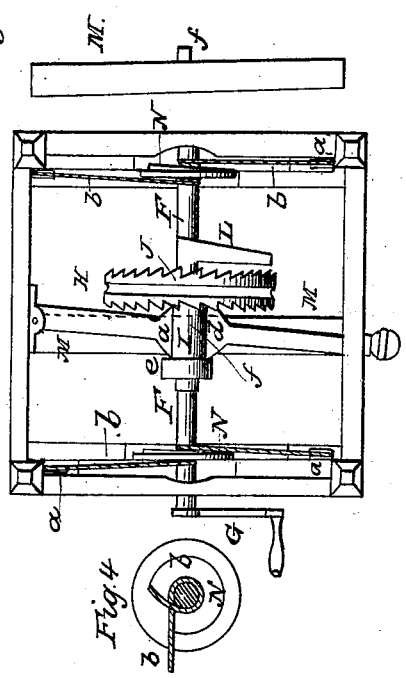
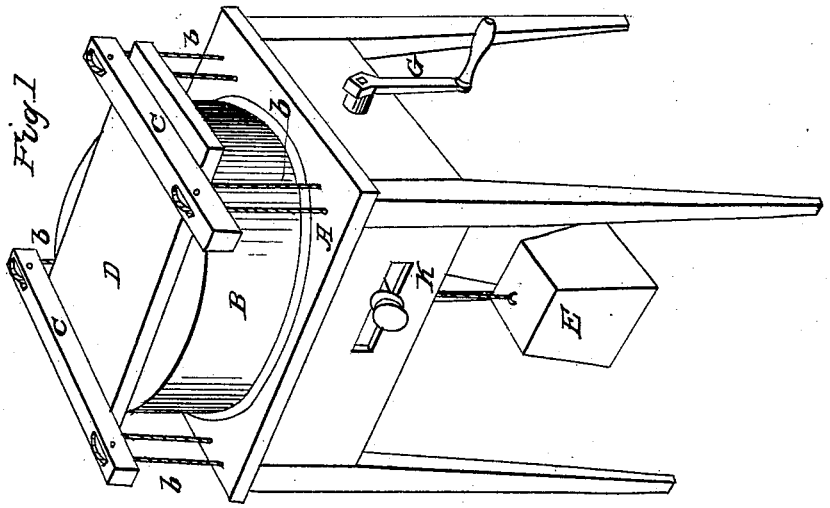


Fig. 2

Fig. 4

Fig. 1



UNITED STATES PATENT OFFICE.

DAMON A. CHURCH, OF FRIENDSHIP, NEW YORK.

CONSTRUCTION OF CHEESE-PRESSES.

Specification of Letters Patent No. 2,072, dated May 4, 1841.

To all whom it may concern:

Be it known that I, DAMON A. CHURCH, of Friendship, in the county of Allegany and State of New York, have invented an Improved Press Intended Principally for the Pressing of Cheese, but Which may also be Applied to the Pressing of Various Other Articles; and I do hereby declare that the following is a full and exact description thereof.

Figure 1 is a perspective view of the table, or frame of my press, upon the top A, of which a cheese B, is represented as being pressed.

C C are two pieces of timber which cross the ends of the follower, or press board D.

The pieces C, C, are furnished with pulleys *a*, *a*, at their ends, around which cords *b*, *b*, are to pass by which they are drawn down, and the pressure effected.

The apparatus, through the intermedium of which the weight E, is made to operate upon the cords *b*, *b*, is, in Fig. 1, hidden by the top and sides of the frame, but is shown in Fig. 2, which is a direct view of the underside of the press.

F, F, is a shaft which is turned when requisite, by the winch G. A double ratchet wheel H, is placed upon a socket, or tube I, which is capable of sliding back and forth, and of turning around upon the shaft F. A groove J, is made around the periphery of the wheel H, within which groove the rope or cord *c*, may coil, the weight E being fastened to one end of the cord *c*, the other end of which is made fast to the periphery of the wheel H. The socket I, carrying the wheel H, is moved back and forth on the shaft F, by means of the lever K, the end by which it is moved being shown at K′, the swelled part *d*, *d*, on the middle of this lever bearing on one side upon the hub of the wheel, and at the other on the collar *e*, of the socket I. An arm L, projects out from the shaft F, and when the wheel is slid over toward this arm, it is locked to the shaft by the entrance of the edge of L, between the teeth of the ratchet wheel; and the shaft and wheel will revolve together.

M, is a piece of timber which stands near to the edge of the ratchet wheel, on its upper side, this piece has a tooth or catch, inserted in it, which takes into the ratchet of said wheel, on the edge toward it, the lever K, is shown in the position in which it stands when the wheel is held by said tooth, in Fig. 2. The piece M, with its tooth *f*, is shown separately in Fig. 3, and by dotted lines in Fig. 2. When this tooth engages with the wheel it is thereby locked to the frame, and the shaft *f*, turns within it, the arm L, being free from the opposite ratchet.

N, N, are two wheels fixed upon the shaft F, onto each of the faces, and near to the periphery of these wheels, one end of one of the four cords *b*, *b*, is fastened, the other end, after passing over the pulleys *a*, *a*, being attached to the frame of the machine. Fig. 4 shows one face of one of these wheels, each of the faces being similar.

F is the shaft, and O, a projection or rise on the face of the wheel, to admit of a perforation in its edge into which the end of the cord is passed and fastened. These cords might be attached directly to the shaft F, but by affixing them near to the periphery, the slack of the cord is more directly taken up than it would be by the shaft alone. The four cords when acting to produce pressure, are wound around the shaft, two of them on the outside of, and two of them within the wheels N, as shown in the drawing.

In using this machine the cheese is placed on the table A, and the board, or follower D, upon it. The pieces C, C, are placed across the ends of D; the rope *c*, of the weight E, is then wound upon the groove J, so that the weight shall hang pendent from its side H. The ratchet wheel is next locked to the tooth *f*, on the piece M. The cords *b*, *b*, are then strained upon the shaft, and the wheel H, shifted over so as to engage with the arm L. A progressive and continuous strain will be thus produced by the action of the weight E, coiling the respective ropes upon the shaft F, as set forth.

Having thus fully described the nature of my press and shown the operation thereof, what I claim therein, and desire to secure by Letters Patent, is—

The manner in which I have arranged and combined the respective parts thereof, so as to accomplish the desired end; that is to say, the manner in which I have combined the double ratchet wheel with the shaft F, the wheels N, N, and the cords winding around said shaft, and passing over the pulleys *a*, *a*, in the movable pieces *c*, *c*; by which combination and arrangement the weight E, which is attached and suspended in the man-

ner described, produces a progressive and continuous pressure upon the cheese or other article to be pressed.

It will be manifest that considerable difference may be made in constructing this machine without departing from the general principle, or mode of action, upon which it is dependent; I do not intend, therefore, to limit myself in this particular, but to vary said machine as I may think proper while I produce the same effect by means substantially the same.

DAMON A. CHURCH.

Witnesses:
THOS. P. JONES,
CHAS. H. CREEGIN.