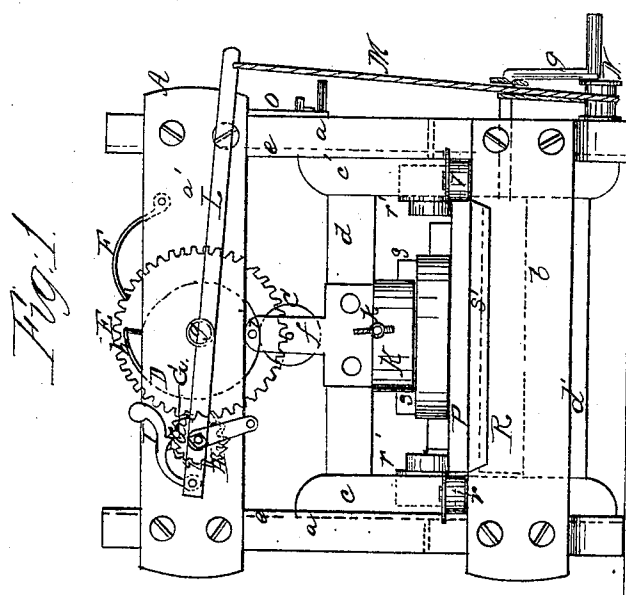
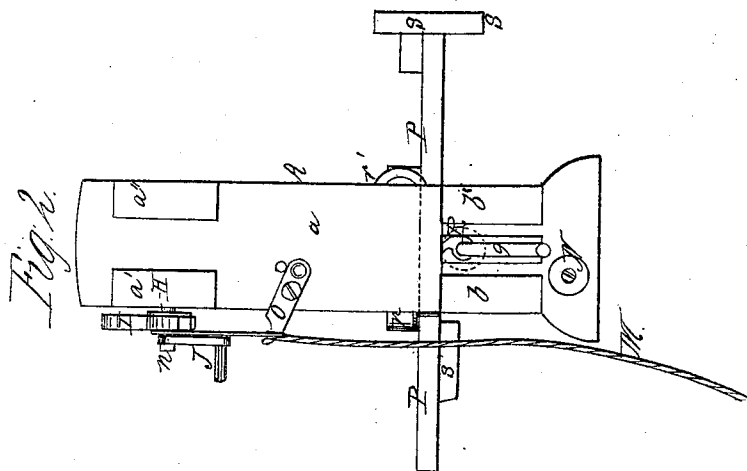


G. R. Comstock,
Cheese Press.
N^o 13,337. Patented July 24, 1855.



UNITED STATES PATENT OFFICE.

GEO. R. COMSTOCK, OF MANHEIM, NEW YORK.

CHEESE-PRESS.

Specification of Letters Patent No. 13,337, dated July 24, 1855.

To all whom it may concern:

Be it known that I, GEORGE R. COMSTOCK, of Manheim, in the county of Herkimer and State of New York, have invented a new and useful Improvement in 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, forming part of this specification, in which—

Figure 1 is a front elevation of the press when in operation. Fig. 2 is an end elevation after removal of pressure.

Similar characters of reference in the several figures denote the same part of the press.

The object of my invention is the removal from beneath the press of the article operated upon, in an effectual, simple, and expeditious manner.

It consists in constructing in the lower portion of a vertically moving gate (the upper cross stile of which forms the presser) a horizontal roughened roller, so situated and arranged relative to the other portions of the press, that when the press is run up after operation, the roller will be in position to carry out the platform and superposed article, by its simple rotation; said moving roller being combined with a series of horizontal and vertical guide rollers on the frame, as, and for the purposes to be set forth; the details of construction and operation being as follows.

The several parts are thus represented in the drawing: A, frame composed of end pieces *a* and cross pieces *a' a'' b b'* or in any other suitable manner; B, gate, composed of vertical stiles *c c'*, and horizontal stiles *d d'* suitably and securely connected; this gate is movable vertically in grooves *e*, of upright *a*, and between the lower cross pieces of the frame A; C, friction roller, supported between plates *f* on top of gate B; D, eccentric, turning with shaft *g*, and having a rim *h* connecting it with plates *f* by reason of the projecting pins *i'* of said plates; E, large cog wheel on shaft *g*; F, pawl of wheel E; G, pinion meshing with wheel E, turning with shaft *n*; H, ratchet on same shaft; I, pawl of ratchet H; J, crank turning shaft *n*; L, lever turning loosely on shaft *n* and carrying pawl I; K, follower, carried up with gate by hooks *k*; P, platform upon which the article to be operated upon rests; R, roughened roller in lower portion of gate, turned

by means of crank Q, the end *a* of frame A being slotted to permit the passage of the crank shaft and admit of its vertical movement during the operation of the press; *r r*, horizontal rollers turning on pins in cross piece *a'*, periphery being in contact with edge of platform P, and a small rim of larger diameter projecting over the platform; *r' r'*, vertical rollers turning upon pins in end pieces *a a*, a portion of smaller diameter than the body of the roller resting upon the platform P, the edges of said platform being against the inner faces of the larger portions of said rollers; *s s'*, stops upon front and rear of platform; M, cord attached to lever L, and when in use passed over pulley N on frame and crank shaft Q; O, rest on frame for lever L when not in use, and capable of being turned up out of the way when necessary.

The operation of the press is as follows. The action of the pressing portion being well known, need not be here given in detail, it being sufficient to state that power applied direct to crank J performs the first portion of the operation and afterward to the lever L, which turns ratchet H through pawl I. When still greater power is necessary the cord M is passed over pulley N and crank shaft Q, and the power applied to the crank. The pulley N being the only fixed portion of the system, the shaft Q will naturally have a tendency to draw toward it and thus aid in depressing the gate simultaneously with the action of the lever.

During the pressing operation it will be seen by Fig. 1 that the roller R has no connection with the platform P. When the operation is completed, the pawls F and I are removed, and the gate run up by turning crank J; the connection of rim *h* of eccentric and pins *i* of plates *f* causing the gate to rise. When the gate reaches the end of its upward movement, the roller R comes in contact with the bottom of the platform P, and it is only necessary to turn the crank Q, to cause the platform and its load to travel outward to the front of the press; the series of rollers *r r' r' r'* guiding its course and preventing tilting. The stops *s* come against the back of the frame when the platform reaches the full extent of its forward movement, and prevent its displacement. With the platform projecting to the front, the necessary arrangements are made for the succeeding pressing operation; when the

roller R carries the platform back until the stop *s'* strikes the cross piece of the frame, and the article is ready for the descent of the gate. The follower K is lifted with the 5 gate by the hooks *h*, if it be so desired—it not, it is carried forward with the platform.

By this construction of press, the same operation which relieves the pressure brings the roller R in position to operate, thus 10 greatly simplifying the operation of the press, by dispensing with a separate adjustment of the platform roller. The rollers *r* and *r'* serve to guide the platform and prevent it from tipping when drawn forward.

15 I am aware that rollers to aid the outward movement of the platform have been used,

but requiring separate adjustments to bring them into action; such therefore I do not claim; but I do claim—

The roller R in the lower portion of the 20 pressing gate, and brought into action by the rising of said gate in the removal of the pressure; substantially as and for the purposes specified.

In testimony whereof, I have hereunto 25 signed my name before two subscribing witnesses.

GEO. R. COMSTOCK.

Witnesses:

GEO. PATTEN,
JAS. D. CLARY.