

UNITED STATES PATENT OFFICE.

EMMETT COOPER, OF THERESA, NEW YORK.

IMPROVEMENT IN CHEESE-PRESSES.

Specification forming part of Letters Patent No. **214,107**, dated April 8, 1879; application filed October 30, 1878.

To all whom it may concern:

Be it known that I, EMMETT COOPER, of Theresa, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Gang Cheese-Presses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being made to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a top-plan view. Fig. 2 is a horizontal section. Fig. 3 is an end view, and Fig. 4 is a detached view of one of the hoops.

This invention relates to improvements in the class of cheese-presses in which a series of hoops, bandaging-rims, and their followers are used; and the invention consists in a novel construction of hoop to be used in connection with a bandaging-rim. It further consists in a novel construction and arrangement of pressing mechanism, all as will be hereinafter fully described.

To enable others skilled in the art to make and use my invention, I will now proceed to describe the exact manner in which it is carried out.

In the drawings, A represents a rectangular frame, supported upon legs *a*. This frame is provided with a bottom or trough, A', for receiving and discharging the whey, said bottom or trough being loosely mounted on the cross-pieces that connect the legs on opposite sides of the frame, so that the bottom or trough can be raised or lowered, as desired.

The top edges of the longitudinal sides of the trough A' are beveled inwardly, and provided with metallic plates *a'*, upon which the hoops rest. The top edges of frame A are also provided with longitudinal metallic plates B, connected at one end by metallic cross-plate B'.

The hoops C are made substantially straight, but smaller at the bottom to telescope with each other, and each hoop is provided with two auxiliary rims, D E. The lower or bottom rim, D, is secured solid or fast to the inner side of the hoop C, and is made wedge-shaped in cross-section, the top edge forming a shoulder, *d*, to hold the bandage-cloth at the proper height and support the bandaging-rim E; and the lower edge, *d'*, is made sharp, to prevent the cheese from being obstructed when it is to be

taken out of the hoop. Said sharp edge can be soldered to the hoop, if desired, to make the surface at that point smooth, for more fully insuring the cheese not adhering at that point when desired to be removed.

The bandaging-rim E can be provided with a catch to hold the rim together at the top edge, when the bandage is put on to keep it in shape, after which it is to be inserted in the main hoop, the bandage being held by wedge-shaped rim and bandaging-rim, so as to fill it with curd within the hoop.

Each of the hoops is provided with a perforated follower, F, the head-block F' forming a follower for the first hoop, each follower being applied to the hoop after it is filled with curd, to hold it therein when the hoop is tipped or turned down to slide against the preceding hoop. The bottoms of the hoops are also perforated to let out the whey.

The mechanism for exerting the pressure is composed of a follower, G, and nut H, respectively provided with grooved projections or cross-pieces *g h*, which engage with the longitudinal metallic plates B, secured on top of the frame A, the inner top edges of the sides of the frame being cut away for that purpose.

The follower and nut are connected together by a screw-bolt, I, said bolt being provided with a ratchet-wheel, J, and a lever, K, provided with a pawl, *k*, journaled thereon, for turning said bolt. The follower and nut are adjustably secured upon the frame in any desired position by means of the pins *b* and the series of holes *b'* in the metallic plates B and sides of the frame A. The projections of the nut H can be provided with recesses *i*, into which the pins *b* fit, to prevent the frame from spreading.

The small ends of the cheese-hoops are raised level or horizontal with the top or large ends by means of half-round sheet-iron bands, which allow the hoops to lie perfectly level or straight in the frame, thus permitting them to telescope with each other without having to raise their lower or bottom ends, and without being easily pressed upward out of the frame.

In using the press, the bandage and bandaging-rim are applied to the hoop in the manner above described, and the hoops then filled with curd and set on the trough in the frame

of the press, and the followers then applied to the hoops. The end hoop is then tipped down sidewise and pushed up to the head-block or follower F'. The next hoop is then tipped down and pushed up to the bottom of the first one, and each succeeding hoop tipped down and pushed up to the preceding hoop, until all of the hoops desired are in the press. The follower and screw are then adjusted on the frame until the follower comes in contact with the bottom of the last hoop, the pins *b* being then inserted in the holes *b'* just back of the nut. The screw-bolt is then turned through the medium of the ratchet-wheel, pawl, and lever, which presses the hoops, so that the bottom of each hoop telescopes with its succeeding hoops and against its follower.

I do not wish to be understood as claiming, broadly, in the present case the combination of an adjustable follower and nut connected by a screw-bolt, as this is shown in a previous patent granted to me April 4, 1876; but

What I do claim is—

1. The hoop C, constructed substantially straight, and smaller at the bottom, and provided with the interior wedge-shaped rim D, in combination with the bandaging-rim E,

substantially as and for the purpose herein shown and described.

2. The hoop C, constructed substantially straight, and smaller at the bottom, and provided with the interior wedge-shaped rim D, in combination with the bandaging-rim E and perforated follower F, substantially as and for the purpose herein shown and described.

3. In a cheese-press, the combination of an adjustable grooved follower, G, an adjustable grooved nut H, and an intermediate connecting screw-bolt, I, whereby said follower, nut, and screw-bolt are adjustable together on the main frame independently of the screw-bolt adjustment, substantially as and for the purpose herein shown and described.

4. In a cheese-press, the combination of the frame A, provided with the perforated metallic plates B B, follower and nut G H, respectively provided with grooved projections or cross-pieces *g h*, the screw-bolt I, and turning mechanism, substantially as and for the purpose herein shown and described.

EMMETT COOPER.

Witnesses:

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