G. L. FREEMAN.

Cheese-Hoop.

No. 214,381. Patented April 15, 1879.

Fig. 1.

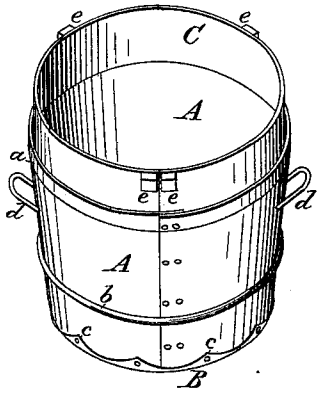


Fig. 6.

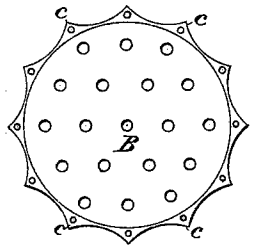


Fig. 3.

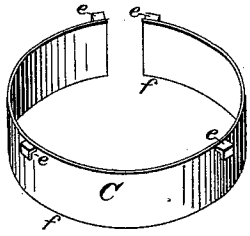


Fig 7.

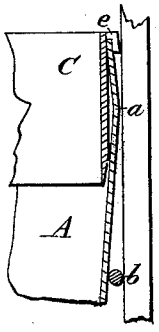


Fig. 2.

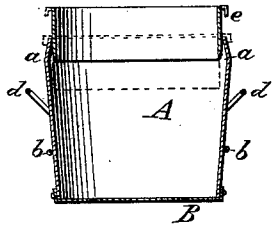


Fig. 4.

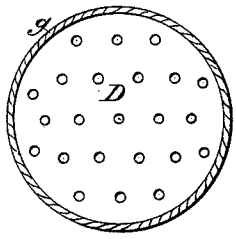


Fig. 5.



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GEORGE L. FREEMAN, OF LITTLE FALLS, NEW YORK, ASSIGNOR TO WHITMAN & BURRELL.

IMPROVEMENT IN CHEESE-HOOPS.

Specification forming part of Letters Patent No. **214,381**, dated April 15, 1879; application filed December 12, 1878.

To all whom it may concern:

Be it known that I, GEORGE L. FREEMAN, of Little Falls, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Cheese-Hoops; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to so improve the hoops and other devices used for retaining a cheese in shape during the operation of pressing, so as to obviate many of the difficulties heretofore encountered in that process, among which may be enumerated the following, viz: the formation of fins and ridges upon the cheese, caused by imperfect fitting of the several parts of the hoop; also, difficulty in its removal from the hoop after being taken from the press; further, the distorted position into which the hoop gets when several of them are used together in a gang-press, owing to a lack of suitable bearing-surfaces; and, finally, the uneven strains on the follower caused by the dropping of one end of the hoop, so that its axial line does not coincide with that of the press.

This invention will be found to obviate these difficulties, giving to the manufacturer a hoop which is equally suitable for use alone or in the gang-press; and the invention consists in certain peculiarities of construction and the arrangement of parts with relation to each other, as will be hereinafter fully described, and then specifically named in the claims.

Figure 1 is a perspective view, showing the hoop with the expanding-bandager in position within it. Fig. 2 is a vertical transverse section through the hoop and bandager. Fig. 3 is a perspective view of the bandager slightly expanded, showing clearly the hooks by which it is prevented from slipping too far into the hoop. Fig. 4 is a side view of the follower with the packing-ring in place about its periphery. Fig. 5 is a diametrical section of the follower and packing-ring. Fig. 6 shows a plan of the bottom of the hoop before its edges are turned up for riveting to the sides of the hoop A. Fig. 7 is a sectional detail view.

In constructing this hoop, the part A is formed of stiff sheet metal, cut to the proper size, and bent into a slightly-tapering tubular shape, the end which is to be left open being slightly larger than the other, so as to allow of the easy ejectment of its contents when desired. The seam by which the ends of this sheet of metal are united to each other is securely soldered or double riveted, or both, so that it shall be able to withstand the strain caused by the expansion of its contents when in the press. That portion of this part of the hoop from the point *a*, near its top, is made tapering inwardly, thus forming a bearing for that end of the hoop at the point *a*, while the bearing-ring *b*, which surrounds the hoop near its bottom, supports the opposite end. The diameter of this ring *b* and that of the hoop at the point *a* being equal keeps the axial line of the hoop always in accord with that of the press in which it is placed, thus preventing binding or unequal pressure upon different parts of the follower.

The bottom of the hoop B is also formed from sheet metal, cut into a scalloped circle, as shown clearly in Fig. 6, in which *c* are the points of the scallops, each pierced by a rivet-hole, through which the rivets pass which secure the bottom to the part A. This peculiar form of bottom allows the edges to be turned up without wrinkling, as it inevitably does when turned up in the ordinary manner, giving the hoop a rough and unfinished appearance. Suitable perforations are also made through the bottom for the escape of whey, as is usual in other hoops used for similar purposes.

Suitable handles *d* are also affixed to the sides of the hoop for the purpose of facilitating its removal from place to place. An expanding-bandager, C, open at one side, and constructed of sheet metal, is provided around its upper edge with the hooks *e*, by which it is prevented from going too far into the hoop when both hoop and bandager are in the press. The lower edge, *f*, of this bandager is made very thin or of wedge-like section, so that as it passes down into the hoop and comes in contact with its sides no

appreciable ridge will be left to mark the cheese, while the inside of the bandager, when inserted in the hoop A, is straight and of equal diameter at both ends, or nearly so.

The follower D is of circular form, and is perforated like the bottom to facilitate the escape of whey. Around this edge is formed a groove for the reception of the packing *g*. This packing may consist of a cord, strip of rubber, or other suitable compressible material, its use being to prevent the curd from passing between the follower and hoop, and thus forming a fin upon the cheese, which would detract from its finished appearance.

The method of using this hoop is as follows: Place a cap cloth or dish smoothly in the bottom of the hoop and a bandage over the bandager, the expansion of which will retain it in position; then put the bandager, with its inclosing bandage, into the hoop, the bandage extending to the bottom of the hoop, while the lower edge of the bandager is inserted therein until the hooks *e* rest upon the upper edge of the hoop A, as shown in dotted lines, Fig. 2; then fill the hoop with curd, placing upon its top a cap-cloth; then put on the follower, with the edge provided with the packing-ring next to the curd, and the whole is ready for the press.

Among the advantages secured by this hoop may be named its simplicity of construction, strength, and lightness; the use within the hoop of a bandage instead of a press-cloth; the ready adjustment and retention in place of the bandage by means of the expanding-bandager; the perfect form given to the cheese, no seams or fins being left upon its surface; the freedom from uneven strains upon either hoop or follower, and the perforated bottom and follower, by means of which the whey readily escapes.

Having thus described the invention, the following is claimed as new:

1. A cheese-hoop, A, provided with the divided bandager C, having hooks *e*, all constructed as set forth.

2. The hoop A, having a tapering lower body and upper part extending inward from a point, *a*, in combination with the divided bandager C, having an inclined lower edge, as set forth.

3. The apparatus for making cheese, consisting essentially of the hoop A, and interchangeable divided bandager C *e*, and follower D *g*, as set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

GEORGE L. FREEMAN.

Witnesses:

WALTER H. WALDRON,

ABRAHAM GEIER.