No. 765,982. PATENTED JULY 26, 1904.

J. R. MEYERS.

CHEESE HOOP.

APPLICATION FILED NOV. 2, 1903.

NO MODEL.

Fig. 1.

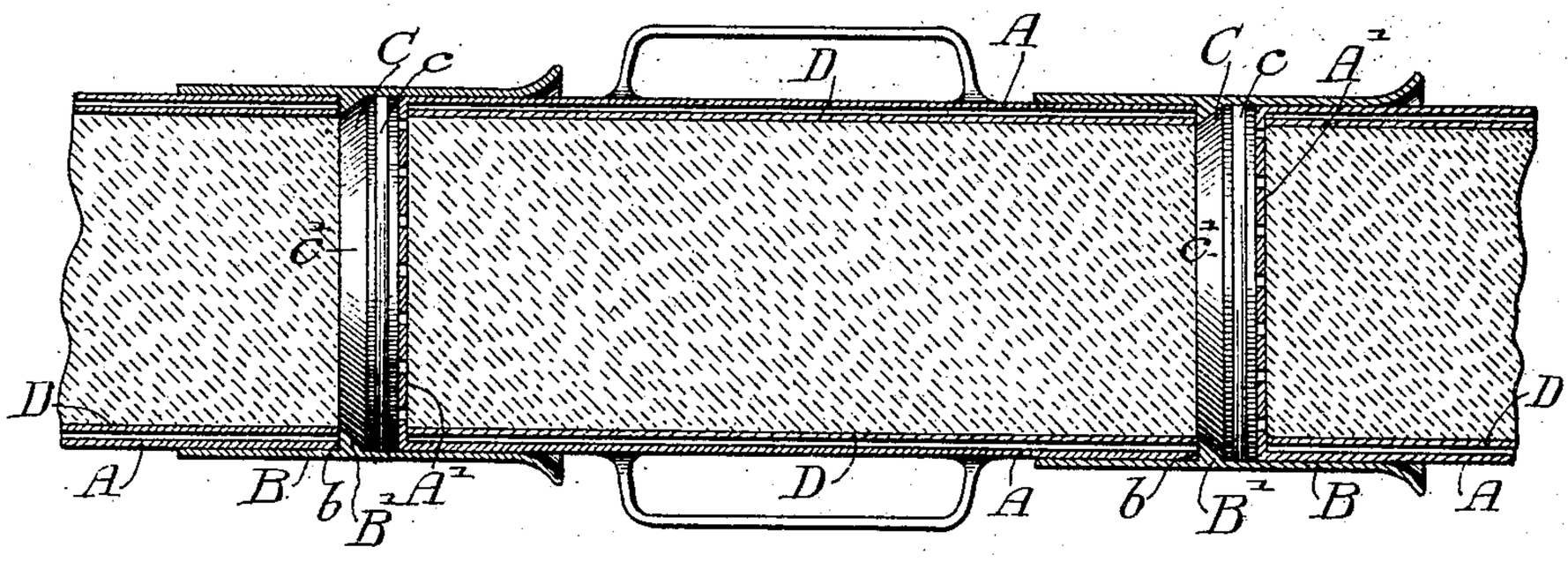


Fig. 2.

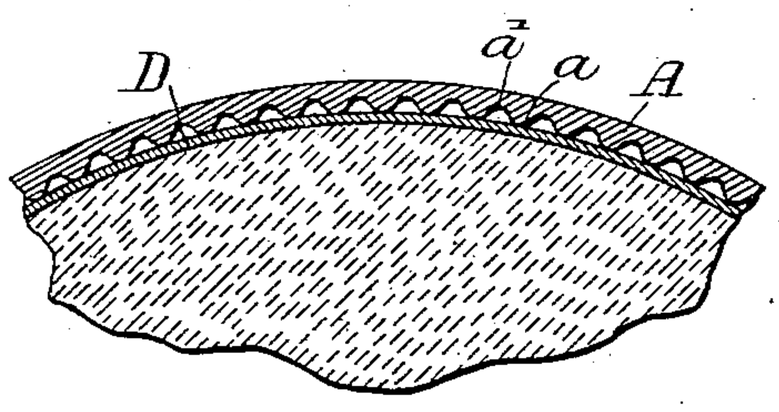
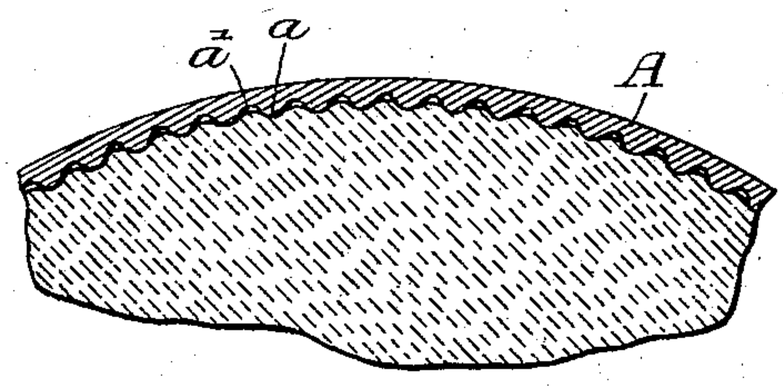


Fig. 3.



Witnesses:-

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UNITED STATES PATENT OFFICE.

JULIUS R. MEYERS, OF CHICAGO, ILLINOIS.

CHEESE-HOOP.

SPECIFICATION forming part of Letters Patent No. 765,982, dated July 26, 1904.

Application filed November 2, 1903. Serial No. 179,590. (No model.)

To all whom it may concern:

Be it known that I, JULIUS R. MEYERS, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, 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 thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved cheese mold or hoop, the same having reference more especially to the construction of the inner surface of the hoop, whereby better results are obtained in the pressing of the cheese.

A cheese-hoop embodying my invention is distinguished from such hoops as heretofore made in having its inner surface ridged or corrugated longitudinally, the ridges or corrugations being small and close together, so that in the pressing operation the bandage or covering which surrounds the curds within the hoop is supported by resting against the ridges of the corrugations, while the channels or grooves between the corrugations afford passages for the drainage of liquid from the curds during the pressing operation.

A mold made in the manner described is adapted for use in connection with the usual cloth covering or bandage heretofore commonly employed and also in connection with a tubular open-ended casing or covering of somewhat thick and relatively stiff or rigid material—such as paper, strawboard, or the like—when the cheese is pressed and cured in such a casing or covering.

In the accompanying drawings, illustrating my invention, Figure 1 is a view in central longitudinal section of a cheese-mold embodying my invention, together with the end portions of two adjacent molds associated therewith during the pressing operation, said figure illustrating the pressing of the curds in a tubular casing or covering of paper or strawboard. Fig. 2 is an enlarged detail cross-section showing a part of the wall of the mold and the casing therein as illustrated in Fig. 1. Fig. 3 is a like section of the same mold when used with a cloth bandage.

As shown in the drawings, A indicates the body of the mold or hoop, which is of tubular form and of uniform internal diameter from end to end. One end of the tubular mold is closed by an end wall A′, which is perforated and is herein shown as made integral with or permanently attached to the side wall of the mold, as heretofore usual in such devices. At its opposite end, or that in which the material is inserted, the mold is provided with a separate tubular ring B, adapted to fit over the end portion of the body A and having between its ends an internal annular rib B′, forming a shoulder *b*, which when the ring is in place on the mold-body fits or bears against the end margin of said body. Within the outer part of the ring B is located a follower C, which is movable endwise therein and through the medium of which pressure is applied to the material within the mold. Said follower C has a larger part *c*, which fits within the ring B, and a smaller part *c′*, which is adapted to enter within the rib B′, so that the flat face of said smaller part may be forced inwardly until it is in line with the shoulder *b*.

As shown in Figs. 1 and 2, a tubular casing D is located within the mold, in which casing the cheese is pressed and which is adapted to form a permanent casing or covering for the cheese. In this instance the inwardly-extending rib B′ on the ring B is made wider than the thickness of the end of the body A, so as to extend over the edge of the tubular casing D.

The hoop A is on its inner surface provided with longitudinally-extending ribs and intervening grooves, giving a corrugated form to said inner surface. As shown in the drawings, said ribs and intervening grooves, which are indicated by *a a′*, are of rounded contour, the ribs *a* being convex and the grooves *a′* concave; but this special form is not essential for the carrying out of my invention, although desirable in order to facilitate the cleaning of the interior of the hoop. Said ridges and grooves are small in size and many in number and are not designed to give form to the exterior of the

cheese, which latter after pressing is intended to be practically smooth, as when pressed in an ordinary or internally-smooth hoop. In other words, the exterior surface of the cheese and its bandage or casing are not intended to conform to the shape of said grooves; but the ridges are so close together that in the pressing operation the outer surface of the cheese and the casing or covering or bandage thereon will conform only partially to the shape of said ridges or grooves, or, in other words, will only partially or to a slight extent enter the grooves between said ridges, so that longitudinal passages or spaces will be left along the bottoms of said grooves which form drainage-passages for the liquid pressed from the curds in the pressing operation and which exudes through the bandage or porous casing, and thereby finds its way into contact with the inner surface of the hoop.

When the mold is used for pressing a cheese having a tubular casing or covering of strawboard or like fibrous material, as indicated by D and shown in Figs. 1 and 2, said casing by reason of its stiffness will not be forced to any appreciable extent into the channels between the ridges, while any moisture which passes through said casing is permitted to freely drain from the outer surface of the same through the channels or passages formed by said grooves. When an ordinary cloth bandage is employed, as shown in Fig. 3, the outer surface of the cheese with its cloth covering will conform more closely to the ridges and grooves; but at the same time the pressure will not be sufficient to force the cloth tightly against the surface of the mold in the grooves or channels, so that in this case also spaces or passages will be formed by the said grooves for drainage of the liquid from the outer surface of the cheese.

A particular advantage gained by the employment of the construction described is that it results in the closing or solidifying of the surface which is in contact with the hoop, the surface portion of the cheese becoming very solid and dense, because the ridged and grooved construction of the mold permits the free escape of liquid from the surface portion of the cheese. Moreover, the employment of the construction described prevents the formation of what is known as "pock-marks" on the sides of the cheese, said pock-marks being no doubt due to the presence between the wall of the hoop and the outer surface of the cheese of small globules of butter-fat or of liquid which when the inner surface of the mold is smooth are held or confined thereby, but when it is grooved or corrugated as described are permitted to escape through the passages afforded by the channels between the ridges.

The mold shown is adapted for use in connection with other molds in a gang-press in a well-known manner, and, as indicated in Fig. 1, pressure being applied to the followers C of each mold of the series by the closed end of the body of the adjacent mold, which latter, by reason of the fact that the molds are made of the same size at both ends, may be inserted at the outer parts of the ring B, as shown in the drawings, and will thereby act as a plunger to press or force inwardly the said followers in the pressing operation.

The hoop having a corrugated inner surface as described will preferably be made of cast metal, and its inner surface may be provided with a coating of vitrified enamel or the like. While the mold or hoop shown is of cylindric form and of uniform internal diameter from end to end, yet the form of the hoop may be varied so as to form a sleeve of any desired shape, as of square or brick form or of tapered or conical shape.

The internal ridges and grooves of the hoops will extend in a direction from the open toward the closed end thereof, and the term "longitudinal" as herein used is intended to express this arrangement of the ridges and grooves whatever be the form or proportions of the hoop or mold.

I claim as my invention—

A cheese mold or hoop provided on its inner surface with longitudinal parallel ridges and intervening grooves, said ridges being adapted for contact therewith of the bandage or casing which is inserted in the mold or hoop in pressing the cheese, and being so small in size and arranged so close together as to prevent the bandage or casing being pressed into said grooves to any material extent.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 30th day of October, A. D. 1903.

JULIUS R. MEYERS.

Witnesses:
C. CLARENCE POOLE,
GERTRUDE BRYCE.