No. 702,106. Patented June 10, 1902.

L. D. LEWIS.

VENTILATED BOX.

(Application filed Jan. 15, 1902.)

(No Model.)

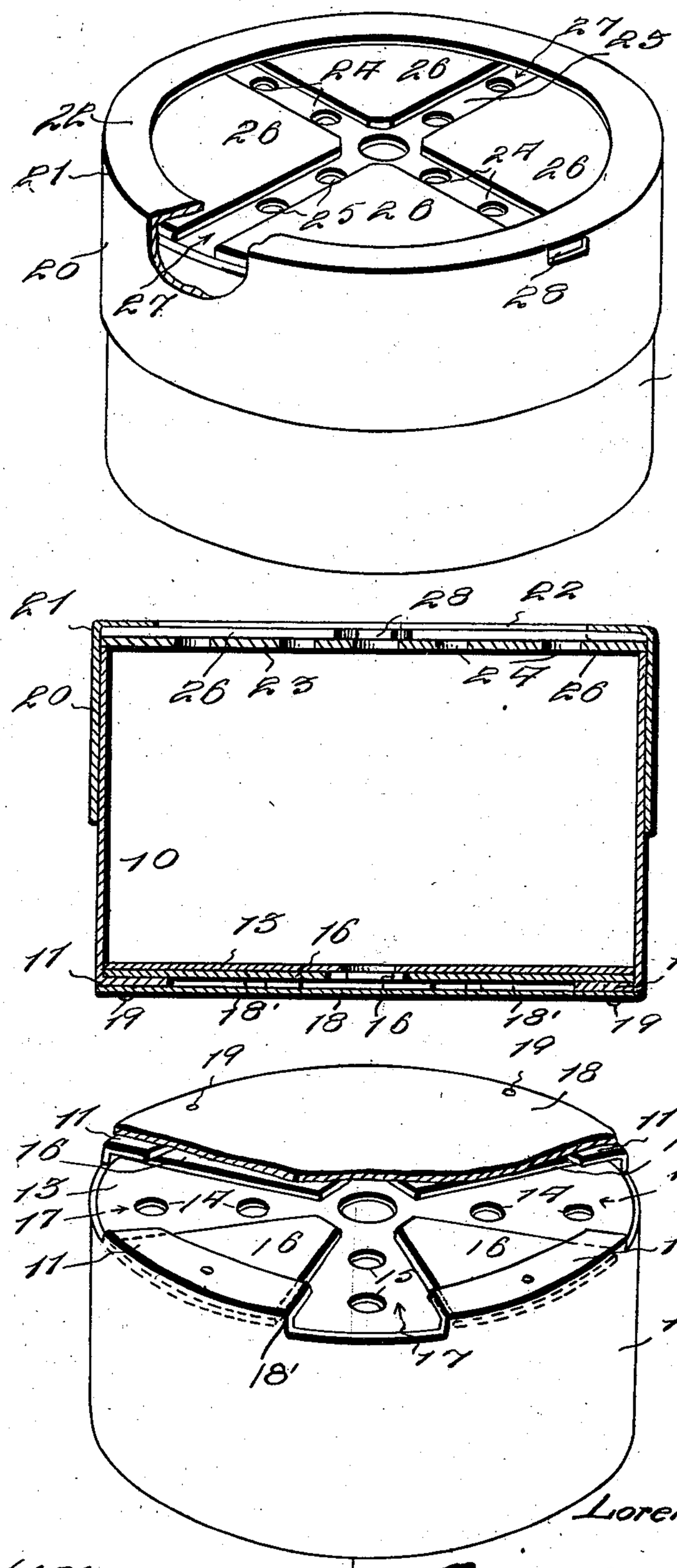

Fig. 1.

Fig. 2.

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

LORENZO D. LEWIS, OF ADAMS, NEW YORK.

VENTILATED BOX.

SPECIFICATION forming part of Letters Patent No. 702,106, dated June 10, 1902.

Application filed January 15, 1902. Serial No. 89,906. (No model.)

To all whom it may concern:

Be it known that I, LORENZO D. LEWIS, a citizen of the United States, residing at Adams, in the county of Jefferson and State of New York, have invented a new and useful Ventilated Box, of which the following is a specification.

This invention relates to ventilated boxes, and more especially to boxes to be used as cheese-boxes.

The object of the invention is to provide a box having a ventilated top and bottom which is protected against grit and dust from entering therein and which will permit air to enter at both ends when packed or piled one on top of the other.

Figure 1 of the accompanying drawings represents a perspective view of this improved box closed ready for use, a portion thereof being broken out to show the ventilating-channel at one end thereof. Fig. 2 represents a vertical section thereof. Fig. 3 represents a perspective view of the box proper inverted, the outer plate being broken away to show the interior arrangement of the ventilating-channels.

The same reference-numerals indicate corresponding parts in all the figures.

This method of ventilating may be applied to boxes of any desired shape, and as shown in the accompanying drawings a cylindrical box 10 is provided, with a correspondingly-shaped top member 20 fitting down thereover. The lower end of the box 10 is provided with inwardly-projecting angular flanges, as 11, having spaces formed between them. The bottom of this box is preferably formed of an inner plate 13, having two rows of perforations, as 14 and 15, crossing each other at right angles and provided on its outer face with four sectors, as 16, disposed between the rows of perforations and forming channels, as 17, and an outer plate 18. This false bottom 13 is disposed in said box 10 with the edges thereof flush with the bottom edge of the box and having the channels, as 17, disposed opposite the cut-out portions or places between the flanges, as 11. These flanges, as 11, are fastened to the sectors, as 16, by gluing, riveting, or in any other suitable manner. An imperforate bottom plate 18 is disposed on the outside of the box-bottom and secured to the flanges, as 11, in any desired manner, preferably by rivets, as 19, passing through the plate 18, the flanges, as 11, the sectors, as 16, and the false bottom or inner plate 13. The plate 18 is left unattached at the points opposite the channels, as 17; but it may have rivets passed therethrough and through the plate 13 to secure them together and which would not interfere with the entrance of air through said channels. The bottom plate 18 being imperforate prevents any grit or dirt of any kind from entering the box should it be placed on a dirty floor or on the ground, while at the same time it permits the air to enter at the sides between it and the plate 13 through the channels, as 17, formed by the sectors, as 16, and the flanges, as 11, disposed thereover, which hold the two plates 13 and 18 away from each other. Peripheral openings, as 18′, are formed between the cut-away bottom edge of the box 10 and the plate 18, which communicate with the channels, as 17. The sectors, as 16, are preferably cut off at their inner ends, and the central perforation in the plate 13 is preferably made considerably larger than the other perforations, as 14 and 15, to permit a larger quantity of air to enter the center of the box.

The top 20 is preferably made cylindrical in form and slightly larger in diameter than the box 10 to enable it to fit down over said box 10. This top is preferably made in the form of a cylindrical rim 21, having an inturned peripheral flange 22 and a plate 23, having two rows of perforations, as 24 and 25, crossing each other at right angles, the central perforation being made larger than the others. The outer face of the plate 23 has segments or sectors, preferably four in number, as 26, disposed thereon between the rows of perforations, as 24 and 25, and secured to said plate in any desired manner, preferably by gluing. This plate 23 is secured in said rim 21, inside the flange 22, in any suitable manner, preferably by gluing the flange to the sectors, as 26, when the top is made of paper or cardboard and by soldering when made of metal. The sectors, as 26, being spaced apart, form channels, as 27, over the rows of perforations, as 24 and 25, which extend under the flange 22 and communicate

with the openings, as 28, formed in the periphery of the rim 21 at its juncture with the flange 22. When packed or piled one above the other, the imperforate bottom plate 18 of one box rests on the flange 22 of the box below it, and air enters freely through the openings, as 28, and passes through the channels, as 27, and into the box through the perforations, as 24 and 25. These perforations in the top and bottom of the box while permitting air to enter from the exterior also permit moisture contained in the box to pass out to the atmosphere in a reverse manner.

This form of box is especially adapted to be used as a cheese-box, as it allows the moisture from the cheese to escape, which, if retained in the box, causes the cheese to become bitter.

These boxes may be made of any desired material, such as stiff paper, pasteboard, sheet metal, or any other suitable material.

I claim as my invention—

1. A receptacle provided at one end with a transverse channel forming a wall offset from the end face of the receptacle and provided at intervals with perforations, substantially as described.

2. A receptacle provided at one end with transverse channels having peripheral openings communicating with the same, said channels forming walls offset from the end faces of the receptacle and provided at intervals with perforations, substantially as described.

3. A receptacle provided at one end with rows of perforations and having pieces arranged between the rows and forming channels extending inward from the outer edges of the receptacle, substantially as described.

4. A receptacle having its ends formed of perforated channeled plates, and provided with inturned flanges engaging said plates, said receptacle having peripheral openings communicating with said channels.

5. A receptacle having perforated channels formed in its opposite ends and provided with peripheral openings communicating with said channels, and an imperforate plate disposed over one of said channeled ends.

6. A receptacle having one end thereof provided with two rows of perforations crossing each other at right angles, segments disposed between said intersecting rows of perforations, and forming channels, and an inturned flange on said receptacle extending over said segments and provided with openings formed at its juncture with said receptacle, said openings communicating with said channels.

7. A receptacle having one end thereof composed of a plate having rows of perforations crossing each other at right angles, sectors disposed between said intersecting rows of perforations, and forming channels, and an imperforate plate disposed over said end and attached thereto, said receptacle having peripheral openings communicating with said channels.

8. A receptacle having the bottom thereof formed of a perforated channeled inner plate, sectors disposed on said plate between said channels, said receptacle having a flange extending inwardly and engaging said sectors, and an imperforate plate disposed over said parts and attached thereto, and a perforated channeled cover adapted to fit over said receptacle.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LORENZO D. LEWIS.

Witnesses:

T. F. SAUNDERS,

F. J. LOCKWOOD.