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LIDDED VESSELS
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Fig. 1.

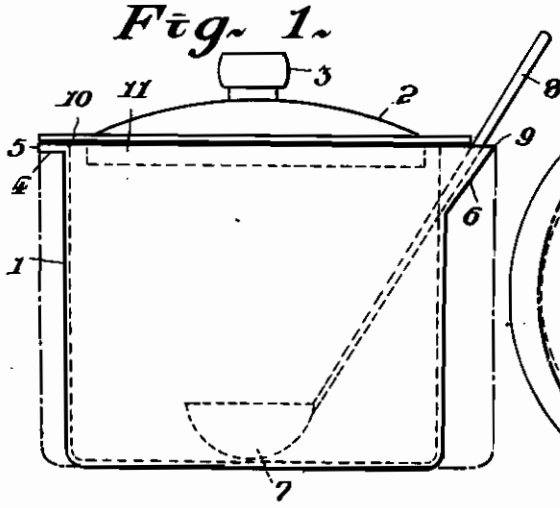



Fig. 2.

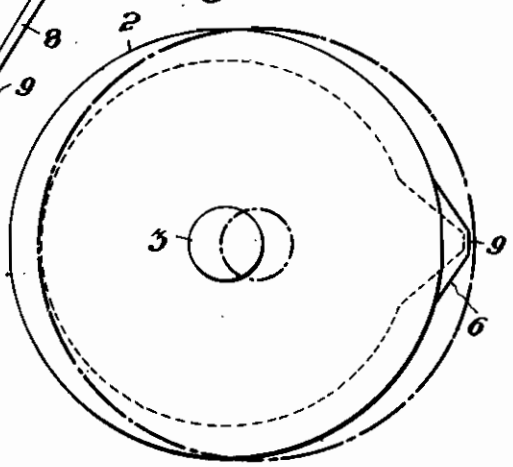



Fig. 3.

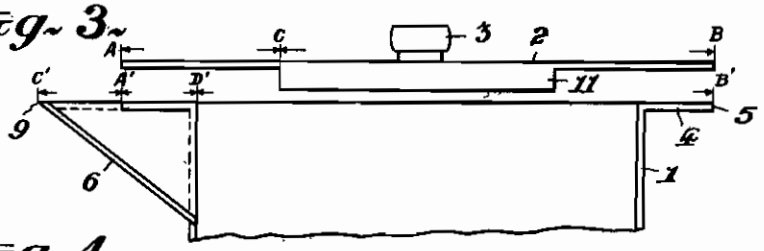



Fig. 4.

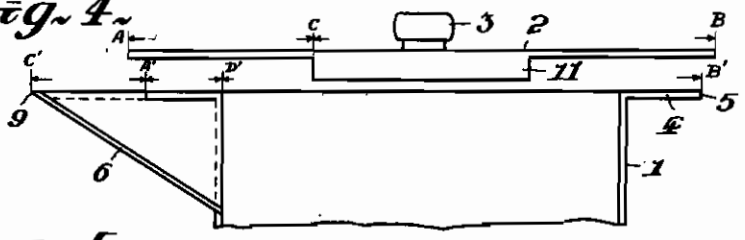
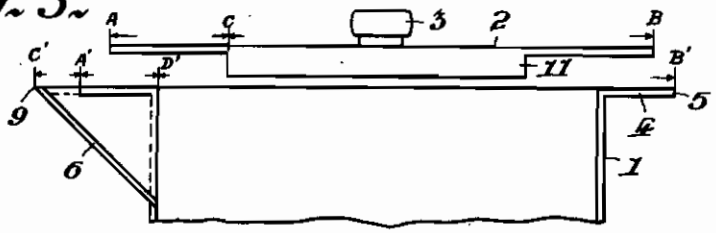



Fig. 5.

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# ALIEN PROPERTY CUSTODIAN

## LIDDED VESSELS

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Application filed March 27, 1939

This invention relates to improvements in lidded vessels and has for its object to provide a lidded vessel adapted to maintain the lid in place to completely cover the opening of the vessel, no matter whether an instrument for taking out the contents in the vessel is put in the vessel with the handle extended out of the vessel or the implement is taken out of the vessel.

Heretofore, it is usual to put an implement, such as spoon, dipper, ladle and scoop, for taking out the contents, such as liquid and other substances, particularly things to eat and drink, in a vessel and put a lid thereon with the handle extended out of the vessel over its lip or flange, the lid being partially raised to some extent at a part of its edge to leave a space open, or to put the implement in its entirety in the vessel without extending the handle out of the vessel and put the lid thereon, when it is inconvenient to leave the implement somewhere out of the vessel because of some contents clinging to the implement. In the former case, flies, insects, or dirts in the atmospheric air are liable to enter in the vessel through the said open space, and in the latter case, the handle of the implement which may be unclean will be in contact with the contents in the vessel, so that in both cases the contents will be made foul to be at a disadvantage. According to the invention, this disadvantage may be eliminated.

The accompanying drawings illustrate by way of example embodiments of the invention, in which:

Fig. 1 is a side view of a lidded vessel with a lid with a dipper put in the vessel with the handle extended out of the vessel;

Fig. 2 is a plan view of the same, but the dipper being removed;

Figs. 3, 4 and 5 are diagrammatical views of the upper parts of the lidded vessel in aid of illustrating how the dimensions of the spout of the vessel and the annular projection on the under side of the lid must be determined.

Referring to Figs. 1 and 2, 1 represents a vessel and 2 a lid with a knob 3. The lid is shown as being of a diameter as the same as the diameter of the outer edge 5 of the lip or flange 4 of the vessel 2, though the diameter of the lid may be larger or smaller to some extent than the diameter of the outer edge of the flange of the vessel. The vessel is formed with a spout 6, the top edge of which is flush with the upper surface of the flange 4, for permitting the handle 8 of a dipper 7 to extend out of the vessel through it while the dipper is put in the vessel.

The spout is so sized as the radial distance between the outermost edge 9 of the spout 6 and the outer edge 5 of the flange 4 is not larger than the radial distance between the outer edge 5 of the flange 4 and the inner edge 10 thereof on the inside of the vessel. The lid 1 is formed on the under side with an annular projection 11 concentrically therewith, the diameter of which is so selected as one half of the difference between the diameter of the lid and the diameter of the annular projection is equal to the radial distance between the outermost edge 9 of the spout 6 and the inner edge 10 of the flange 4, or larger than that, but not exceeding twice the radial distance between the outer edge 5 and the inner edge 10 of the flange 4.

In order that the determination of the dimensions of the spout of the vessel and the annular projection of the lid may be more clearly understood reference is made to Figs. 3, 4 and 5, in which the same numerals as the reference numerals in Figs. 1 and 2 refer to the similar parts, and the length AB represents the diameter of the lid, the length A'B' the outer diameter of the lip or flange of the vessel, the length AC one half of the difference between the diameters of the lid and the annular projection, the length A'D' the radial distance between the outer and inner edges of the flange of the vessel and the length C'A' the radial distance between the outer edge of the flange of the vessel and the outermost edge of the spout.

According to the invention, when the diameter of the lid is equal to the outside diameter of the flange of the vessel, as shown in Fig. 3, the following conditions must be met:

$$C'A' \leqq A'D', \text{ and}$$

$$AC \geqq C'D', \text{ but} \leqq 2A'D'$$

when the diameter of the lid is larger than the outside diameter of the flange of the vessel, as shown in Fig. 4, the following conditions must be met:

$$C'A' \leqq A'D' + (AB - A'B'), \text{ and}$$

$$AC \geqq C'D', \text{ but} \leqq 2A'D' + (AB - A'B')$$

when the diameter of the lid is smaller than the outside diameter of the flange of the vessel, as shown in Fig. 5, the following conditions must be met:

$$C'A' \leqq A'D' - (A'B' - AB), \text{ and}$$

$$AC \geqq C'D', \text{ but} \leqq 2A'D' - (A'B' - AB)$$

Thus, it will be seen that the vessel according to the invention enables the lid to completely cover

the opening of the vessel, with the exception of the passage of the handle of a dipper in the spout, when the dipper is put in vessel with the handle extended out of the vessel, as shown by the solid line in Fig. 2, and by the displacing the lid until the shoulder of the annular projection abuts against the inside of the vessel adjacent the spout so as to cover the opening of the spout when the dipper is taken out of the vessel, as shown by the dash and dot line in Fig. 2.

The invention is not intended to be limited to the exact forms herein described for purpose of illustration, but should be understood to cover modifications and variations thereof within the scope of the appended claims, for example, in place of the annular projection on the under side of the lid, a number of suitable lugs or projections may be provided on the circular line in the coincidence with the circumference of the said annular projection, and the outside of the body of the vessel may be of various forms, such for example as shown by the dash and dot lines in Fig. 1.

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