

(No Model.)

J. M. ARNOT.

CLOSING OF BOXES, JARS, CANISTERS, &c.

No. 584,660.

Patented June 15, 1897.

Fig. 1.

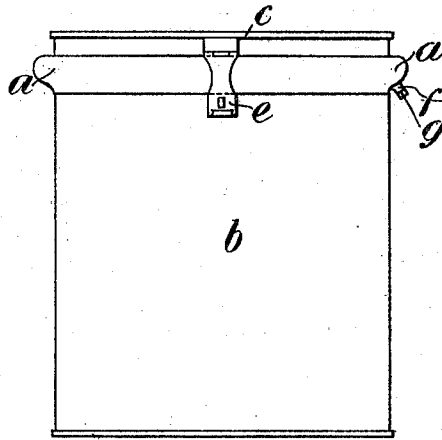


Fig. 2.

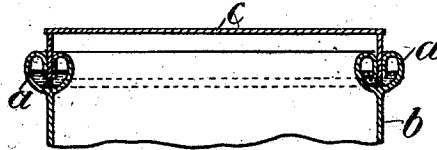


Fig. 3.

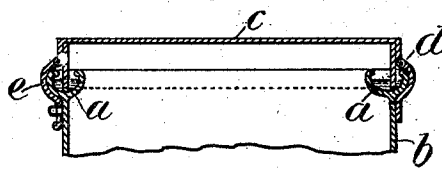
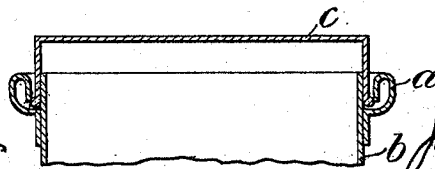


Fig. 4.



Witnesses.

Henry S. Rohrer
L. D. Sturtevant

Inventor.

John Morse Arnot.
By John J. Harsted for his
Attorney.

UNITED STATES PATENT OFFICE.

JOHN MELROSE ARNOT, OF BALLY, INDIA.

CLOSING OF BOXES, JARS, CANISTERS, &c.

SPECIFICATION forming part of Letters Patent No. 584,660, dated June 15, 1897.

Application filed November 7, 1896. Serial No. 611,386. (No model.)

To all whom it may concern:

Be it known that I, JOHN MELROSE ARNOT, F. C. S., a subject of the Empress of India, residing at Bally, Uttarpara, near Calcutta, India, have invented new and useful Improvements in or Connected with the Closing of Boxes, Jars, Canisters, and the Like, of which the following is a specification.

This invention relates to providing an insect-proof and air-tight joint for the lids or covers of boxes, jars, canisters, and the like.

In carrying out this invention I form a channel on the upper edge of the box, jar, canister, or other vessel, such channel being adapted to contain a liquid or powder into which the lower edge of the lid or cover dips, the joint thus formed being not only air-tight, but, what is in some cases even of more importance, it is perfectly insect-proof.

The invention may be carried out in various ways. For example, the lips of the channel may be turned over inwardly to form a spring, so that the lid or cover can be fastened down by simply pushing its lower edge between the lips, and in this arrangement the box, jar, canister, or the like can be inverted without the liquid in the channel escaping; or in an arrangement suitable for domestic purposes the lid is hinged to the box, jar, canister, or the like so that it may be easily opened and closed and be kept closed by a suitable lock or fastening, the channel containing the liquid or powder being formed of such a shape that it will allow of the box or other vessel being tilted considerably out of the vertical position before the liquid or powder would escape.

To enable my invention to be fully understood I will describe the same by reference to the accompanying drawings, in which—

Figure 1 is an elevation of a box or canister made according to my invention and in which the channel containing the liquid or powder forms a spring to receive the edge of the lid. Fig. 2 is a section of the upper part of the box or canister and the lid, and Fig. 3 is a section of a box or canister having a hinged lid. Fig. 4 is a similar section showing a modification.

In the arrangement shown in Figs. 1 and 2, *a* is the channel, formed on the upper edge

of the box *b*, the lips of the channel being turned over inwardly, so as to form a spring, in such a manner that to close the box it is simply necessary to push the lower edge of the lid between the lips, as shown in Fig. 2. A box so closed can be inverted without the liquid or powder in the channel *a* escaping.

In the arrangement shown in Fig. 3 the lips of the channel are not turned inward to form a spring, as in Figs. 1 and 2, but are slightly curved over, so as to allow of the box being considerably tilted without the liquid or powder in the channel escaping. The lid *c* is hinged to the box at *d*, and *e* is a fastening for locking the box when the lid is closed.

In the arrangement shown in Fig. 4 the channel *a*, instead of being formed on the upper edge of the box *b*, as shown in Figs. 1, 2, and 3, is formed or applied externally on the upper end of the box and has its lip *a* also curved or turned over and inward to form a spring to bind against and hold a cover. This arrangement is particularly suitable where it is required to apply my invention to existing vessels.

In all cases a suitable opening is provided in the channel, as shown at *f*, Fig. 1, closed by a cork or other stopper *g* to allow of removing the liquid and clearing out the channel. Any suitable liquid or powder may be used, but it will be obvious that antiseptics and disinfectants can be used with advantage, and by the use of hygroscopic substances the contents of the vessel can be kept dry.

By this invention ants, cockroaches, and other insects, which it is well known can find a way through the very smallest spaces, will be prevented from entering boxes, jars, or other vessels provided with my improved joint, and thereby the damage so frequently done to goods and provisions by these pests will be avoided, and in cases where an antiseptic is employed the entry into the vessel of minute germs would be arrested, which will be of great advantage in many cases.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A box, jar, canister or the like having a channel on its upper edge to receive liquid or

powder the lips of the channel being turned down inwardly so as to form a spring to receive and hold the edge of the lid or cover as hereinbefore described and shown.

5 2. A box, jar, canister or the like provided with a channel formed by turning the metal away from the body of the box, then upward, then toward said body, and finally downward, thus forming a partly-closed channel for the
10 reception of a sealing material, substantially as described.

3. A box, jar, canister or the like provided with a channel formed by turning the metal away from the body of the box, then upward,
15 then toward said body, and finally downward, and with a cover having a flange fitting fric-

tionally said downturned portion; substantially as described.

4. A box, jar, canister, or the like, provided with a channel formed on the upper edge of
20 the box, composed of two lips each turned away from the box-body and from each other, then turned upward, and then bent or turned toward each other and finally turned down-
25 ward, to constitute springs between which the flange of the lid may be held, substantially as described.

JOHN MELROSE ARNOT.

Witnesses:

J. F. BONAR,
DUNCAN MCCALL.