J. C. TALIAFERRO.

FRICTION TOP CAN.

APPLICATION FILED MAY 4, 1912.

1,128,076. Patented Feb. 9, 1915.

Fig. 1.

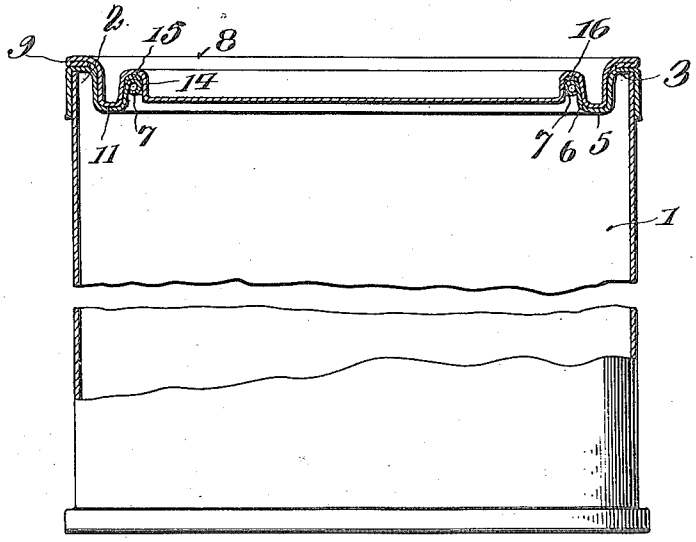


Fig. 2.

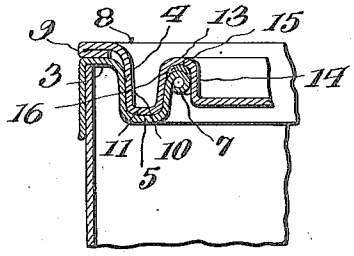


Fig. 3.

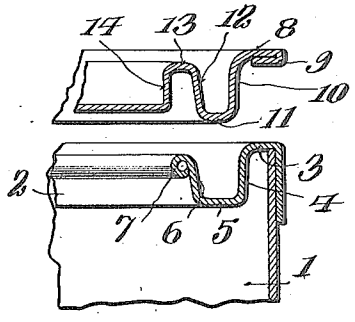


Fig. 4.

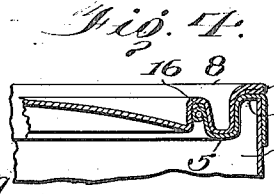
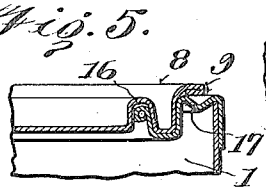


Fig. 5.



Witnesses

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FRICTION-TOP CAN.

1,128,076. Specification of Letters Patent. Patented Feb. 9, 1915.

Application filed May 4, 1912. Serial No. 695,208.

To all whom it may concern:

Be it known that I, JOHN C. TALIAFERRO, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Friction-Top Cans, of which the following is a description, reference being had to the accompanying drawing, and to the figures of reference marked thereon.

The invention relates to new and useful improvements in sheet metal cans, and more especially to what is known in the trade as the friction top can.

An object of the invention is to provide a can of the above type, wherein the cover is held in place on the can top or can body by a plurality of radially spaced friction surfaces, whereby the frictional contact between the cover and the can top is distributed, and the liability of a leak occurring, due to imperfections in the surface of the metal or the forming of the cover and can top, is reduced to a minimum.

A further object of the invention is to provide a friction top can, which is so constructed that the frictional contact between the cover and the top may be distributed at three radially spaced places, whereby the frictional lock between the cover and the top may be made more efficient to prevent leakage through said surfaces.

These and other objects will in part be obvious, and will in part be hereinafter more fully disclosed.

The invention is illustrated in the accompanying drawings, in which,—

Figure 1 is a central vertical section of a portion of a friction top can embodying my invention; Fig. 2 is an enlarged detail to more clearly illustrate the invention; Fig. 3 is a detail section, showing the parts before the friction cover is forced on the top; Fig. 4 is a similar view showing a different form of cover; and Fig. 5 is a similar view showing a different form of top.

In carrying out the invention, I have provided a metal can which consists of the usual can body, to which is attached in any suitable way an apertured can top. This apertured top is formed with an annular depression, which provides two substantially vertical friction walls. The inner edge of the top is preferably rolled or bent downwardly and then outwardly to form a curl, the inner part of which becomes a friction face to aid in holding the cover on the can top. The cover is formed with an inner substantially vertical friction wall, which coöperates with this friction surface on the curl of the can top, and also with an annular depression between the inner friction wall and the edge of the cover, which coöperates with the friction walls formed by an annular depression in the can top.

Referring more in detail to the drawings, the can body is represented at 1, and is preferably of sheet metal. At the upper end is an apertured top 2, provided with a flange, secured in any desired way to the metal can body. This can top 2 has a part 3, which overhangs the can body, bent so as to form an annular depression, which provides a substantially vertical friction wall or seat 4, and a second substantially vertical friction wall or seat 6. These two walls are connected by the metal 5 of the can top, and said walls are concentric and radially spaced. The can top at its inner edge is rolled or bent downwardly and thence outwardly to form a curl or bead 7, which increases the strength of the can top, preventing a collapsing of the top when the cover is forced by pressure onto the friction seats. This curl also forms a third friction contact at its inner face.

The cover 8 has its outer edge bent or folded back, as at 9, to give strength to the edge of the cover, whereby said cover may be pried from the top by engaging a tool underneath said bent or reinforced edge. Said cover is formed with an annular depression, which provides, on its outer face, a friction wall 10, which is substantially vertical and which is so positioned as to engage or lock with the friction seat or wall 4 on the can top. Said depressed portion of the cover also forms a second substantially vertical friction wall 12, which is so positioned as to engage or lock with the friction seat or wall 6 on the can top. The walls 10 and 12 are connected by a metal part 11 of the cover, which serves to hold said friction walls radially spaced for proper coöperation with the friction walls on the can top. Said cover is also formed with a central depression, which provides a third substantially

vertical friction wall 14, which is so positioned as to frictionally coöperate with the inner face of the curl or bead 7 of the can top. The friction wall 14 is held spaced from the friction wall 12 by a metal 13 of the cover. Between the walls 12 and 14 is an annular depression forming a pocket 15, in which a gasket or sealing substance 16 may be placed.

In Fig. 4 of the drawings, I have shown my cover constructed as in Figs. 1 to 3, the central portion of the cover, however, being curved outwardly, thus forming a central dome in the depressed part of the cover.

In Fig. 5 of the drawings, I have shown a can top formed with a depressed portion 17, which facilitates the insertion of a tool underneath the bent or reinforced edge of the can cover.

From the above description, it will be apparent that I have provided a friction top and cover for a can body which includes three radially spaced vertically arranged friction seats or engaging walls, which cooperate to firmly hold the cover on the can top and to prevent any possible chance of leakage by said engaging walls. The annular depression in the top forms two of the vertical walls, and the curled flange or bead 7 on its inner face forms the third friction wall for the top, while the central depression in the cover forms the inner vertical friction wall 14, which coöperates with the frictional wall on the inner face of the bead or flange 7, and the annular depression in the cover forms the other two vertical friction walls which coöperate with the vertical friction walls formed by the annular depression in the top. Where a single friction wall is used for seating a cover, there are likely to be rough places or inequalities in the surface of the metal, which may form an opening sufficient to cause a leak. Where, however, two friction walls are formed, the liability of a leak is greatly reduced, for the reason that any slight inequality or roughness in the surface is less liable to extend throughout both of the spaced friction seats. When a third wall is formed, which is also radially spaced from the other two walls, this liability of leak is reduced to a still further minimum. Furthermore, where a single friction wall is used, the surfaces must be constructed so as to engage each other with a great deal of friction, in order to retain the cover on the can top. Where three spaced friction seats are used, as in the present structure, this frictional pressure can be distributed over the three surfaces, and a much tighter joint formed between the cover and the top, without the excessive frictional pressure required when a single friction seat is used. Furthermore, it will be noted from the above description and the drawings that the vertical wall 14 extends downwardly to a point substantially in line with the bottom edges of the walls 10 and 12, and as a result this vertical wall 14 will engage the inner face of the curl or bead 7 substantially at the same time that the walls 10 and 12 frictionally engage the walls 4 and 6 on the can top. Therefore, the three points of frictional contact are brought together substantially at the same time, and even if the cover is only partially seated, these separate contacting faces will be in engagement and an efficient sealing of the can secured. Furthermore, this substantially simultaneous engagement of the different points of frictional contact causes one wall to reinforce the other and prevent any disarrangement of the walls which might otherwise prevent the proper seating of the cover.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A friction top can consisting of a body portion, a top secured thereto and a cover, said cover having a central depressed portion forming a substantially vertical friction wall, and an annular depressed portion between said vertical wall and the edge of the cover, forming two separated substantially vertical friction walls, said can top having an annular depression therein forming two substantially vertical friction walls adapted to engage respectively the friction walls of the annular depression in the cover, said top at its inner edge being curved downwardly and outwardly to form a curl, the inner face of which provides a friction contact adapted to engage with the inner vertical friction surface on the cover.

2. A friction top can consisting of a body portion, a top secured thereto and a cover, said cover having a central depressed portion forming a substantially vertical friction wall, and an annular depressed portion between said vertical wall and the edge of the cover, forming two separated substantially vertical friction walls, said can top having an annular depression therein, forming two substantially vertical friction walls adapted to engage respectively the friction walls of the annular depression in the cover, said top at its inner edge being curved downwardly and outwardly to form a curl, the inner face of which provides a friction contact adapted to engage with the inner vertical friction surface of the cover, and a sealing material located in one of said annular depressions.

3. A friction top can comprising a body, a top secured thereto, and a cover, said cover having three annular concentric and radially spaced substantially vertical friction walls, the lower edges of which are located in substantially the same horizontal plane, and said top having three frictional contacting faces adapted to frictionally engage respec-

tively and substantially simultaneously the three walls on the cover.

4. A friction top can comprising a body, a top secured thereto, and a cover, said cover having three annular concentric radially spaced substantially vertical friction walls, said top having three frictional contact faces adapted to substantially simultaneously frictionally engage respectively the three walls on the cover.

In testimony whereof, I affix my signature, in the presence of two witnesses.

JOHN C. TALIAFERRO.

Witnesses:

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