

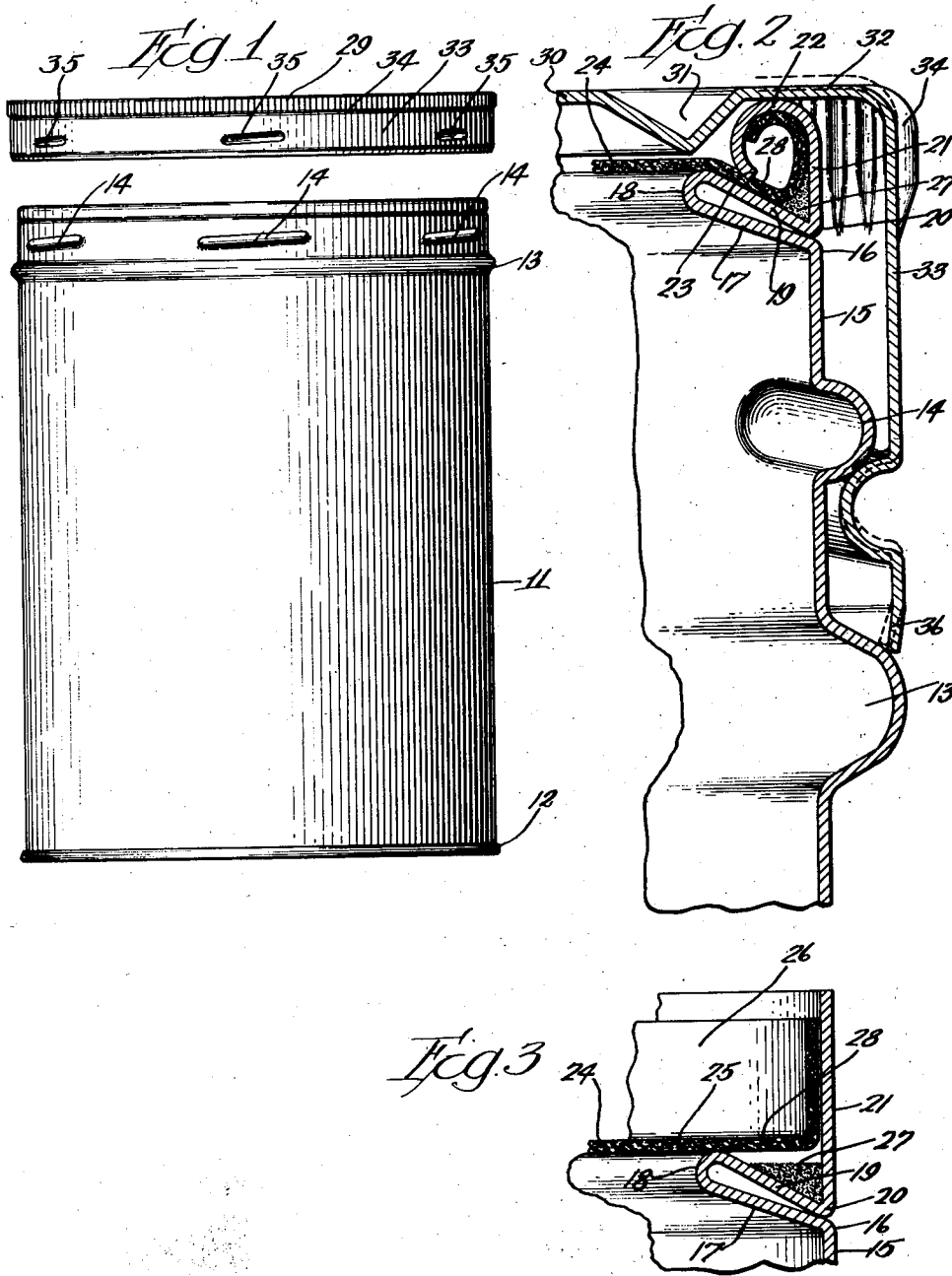
Aug. 26, 1930.

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1,773,947

CONTAINER

Filed June 23, 1928



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CONTAINER

Application filed June 23, 1928. Serial No. 287,866.

This invention relates in general to an improved container for the packaging and dispensing of rolled oats, peanut butter, popcorn, coffee and a variety of other products.

5 It has more particular reference to sheet metal containers having a frangible seal or fibre drum head at one end in connection with an outer closure of the interrupted thread type.

10 An object of my invention is the provision of a drum head construction which is very simple and inexpensive to make, which is leak-proof, moisture-proof and insect-proof, and which serves as a temporary bottom when the container is filled through the opposite end.

15 Another object of my invention is the provision of a compound lined frangible seal for such a container which is easily assembled while being supported by an inwardly extending or inverted annular bead formed out of the container body.

20 Still another object of my invention is the provision for such a container of a supplementary or outer closure of the interrupted thread type, which is constructed so as to positively exclude all kinds of insect pests, such as weevils which are attracted for instance by rolled oats.

25 Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

30 Figure 1 is an elevation of one form of container embodying my invention with an outer cap or closure shown in dissembled position;

35 Fig. 2 is an enlarged vertical section showing the upper parts of the container in fully assembled position, and

40 Fig. 3 is another enlarged, fragmentary vertical section showing the position and shape of the drum head blank, lining compound and container top before the assembly is completed.

45 To illustrate a preferred embodiment of my invention. I have shown on the drawings

a cylindrical container body 11 of sheet metal having a bottom end 12 double seamed or otherwise permanently secured thereto. It is customary to fill this type of container through the bottom. hence the bottom end 12 is not applied until after the filling of the container has taken place.

55 A short distance below its top edge, the container 11 is provided with an outwardly extending stop bead 13. Just above the stop bead 13, the material of the container body is drawn to provide a series of outwardly extending obliquely arranged beads or interrupted threads 14.

60 The material of the container above these interrupted threads 14 is straight and vertical at 15 and then at a point of bend 16 it extends inwardly and upwardly forming a slanting wall 17, and then continuing upwardly, outwardly and downwardly the material is rebent upon itself to form an inwardly extending or inverted bead 18 and a slanting wall 19. At a point of bend 20, the material of the annular container wall continues straight upwardly to form another vertical wall part 21, which as shown in Fig. 3 is straight to its very top before a drum head (yet to be described in detail) has been finally assembled in place, and is bent inwardly and downwardly to form a curl 22 terminating into a sharp edge 23, as shown in Fig. 2. when the assembly of the drum head with the container has been completed.

65 Reference numeral 24 generally indicates a frangible seal or drum head. It comprises a cup-shaped member of fibre, composition or other suitable material which may be made moisture-proof, grease-proof and leak-proof in any preferred manner. In blank form, it has a flat bottom 25 and a vertical flange 26. The frangible seal 24 may be cut from a web of material in disc form and the straight container top shown in Fig. 3 may then be used as a mold to form the flange 26 as the disc is pushed into the position shown in Fig. 3. When this is done, the bottom 25 of the seal 24 engages and is supported by the top edge of the bead 18, as shown in Fig. 3. The container may then be subjected to the crimping or curling operation. During this op-

eration, the material of the can body above the vertical wall 21 is bent to form the curl 22. This curling operation causes that part of the bottom 25 of the seal 24 which extends outwardly from the point of contact with the top edge of the bead 18, and is designated by reference numeral 28, to conform to the shape of the slanting wall 19, and the flange 26 of the seal 24 follows the general contour of the curl 22. The sharp edge 23 of the curl 22, when the curl 22 has been completely formed, bites into the seal 24 and tends to stretch the seal radially so that its central part is flat and substantially taut.

In order to make an extra tight seal between the drum head and the container body, lining compound or packing 27 of any suitable composition may be employed. The pocket formed by the container parts 19 and 21 lends itself very conveniently as a receptacle for the compound 27 until part of the latter is distributed by the pressure of the curling operation, as shown in Fig. 2.

Reference numeral 29 designates an improved supplementary outer cap or closure of the interrupted screw thread type. It comprises a central part 30, an annular recess or channel 31, an outer horizontal part 32 and a depending skirt 33. The skirt 33 includes a corrugated or knurled annular part 34 which provides a roughened finger-hold for the easy application and removal of the closure. Below the knurled annular part 34 the material of the skirt is drawn to provide inwardly extending obliquely arranged beads or threads 35 which correspond in number and location with the threads 14 of the container 11 but are relatively shorter and are adapted to engage the threads 14 to lock the cap in place when the cap is fully applied.

The cap 29 is made with the lowermost annular part 36 of the skirt bent slightly inwardly as shown in dotted lines in Fig. 2. When the cap 29 is only partially applied, that is to say, when the threads 14 of the body and the cooperating threads 35 of the cap have not been fully engaged, the cap 29 assumes the position shown in dotted lines in Fig. 2, the edge of the part 36 resting lightly against the curved part of the stop bead 13. When, however, the cooperating, interrupted threads of body and cap begin to engage each other, the cap is gradually tightened downwardly, the edge of the inwardly bent part 36 is forced downwardly over the convex surface of the stop bead 13 by the wedging action of the cooperating threads; the bend 36 is slightly straightened out, the metal of the skirt being somewhat resilient, and the result is a constant annular pressure of the edge of part 36 against the convex surface of the bead 13 which makes a continuous metal-to-metal contact between these parts and prevents any foreign matter from entering the container when the screw cap is

fully applied. This is an especially desirable condition when the frangible seal has been once broken and the contents of the container are consumed intermittently.

By foreign matter is meant dust and dirt, and in the case of a container filled with rolled oats or similar food products, insect pests such as grain weevils, which seem to be attracted to this type of food, are positively shut out by the construction of my improved container.

It will be manifest that the container just described provides a drum head of sturdy construction and one which will permit, as is sometimes desirable, that the contents placed in the container through the bottom, be compacted under pressure.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A container comprising, in combination, a body having near its top an inwardly extending bead forming a supporting shoulder, a frangible seal adapted to rest against said shoulder, and a lining material disposed between said shoulder and said seal, said body having its top edge curled upon said seal to permanently hold the same against said shoulder.
2. A container comprising, in combination, a body having near its top an inwardly extending bead forming a supporting shoulder, a frangible seal adapted to rest against said shoulder, and a lining material disposed between said shoulder and said seal, said body having its top edge curled upon said seal to permanently hold the same against said shoulder, a part of said body below said bead being formed with interrupted screw threads, and a threaded cover adapted to engage said threads.
3. A container comprising, in combination, a body having near its top an inwardly extending bead forming a supporting shoulder, a frangible seal adapted to rest upon said shoulder, a lining material disposed between said shoulder and said seal, said shoulder forming a pocket for the lining material, said body having its top edge curled upon said seal to permanently hold the same against said shoulder.
4. A container comprising, in combination, a body having near its top an inwardly extending bead forming a supporting shoulder, a frangible seal adapted to rest upon said shoulder, said body having its top edge curled upon said seal to permanently hold the same

against said shoulder, and a lining material disposed between said shoulder and said seal and between said curl and said seal.

5 A container comprising, in combination,
a body having near its top an inwardly extending bead forming a supporting shoulder,
a frangible seal adapted to rest against said shoulder, said body having its top edge curled upon said seal to permanently hold the same
10 against said shoulder, a part of said body below said bead being formed with interrupted screw threads, and a threaded cover adapted to engage said threads, said cover having its lowermost annular edge bent inwardly
15 against said body to make a yielding insect-proof contact therewith.

6. A container comprising, in combination, a body having near its top an inwardly extending bead forming a supporting shoulder,
20 a frangible seal adapted to rest against said shoulder, said body having its top edge curled upon said seal to permanently hold the same against said shoulder, a part of said body below said bead being formed with interrupted
25 screw threads and a threaded cover adapted to engage said threads.

7. A container comprising, in combination, a body having near its top an inwardly extending bead forming a supporting shoulder,
30 a frangible seal adapted to rest against said shoulder, and a lining material disposed between said shoulder and said seal, said body having its top edge curled upon said seal to permanently hold the same against said lining material.
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