F. WALLERTZ.

CONTAINER.

APPLICATION FILED SEPT. 22, 1919.

1,393,413. Patented Oct. 11, 1921.

Fig. 1

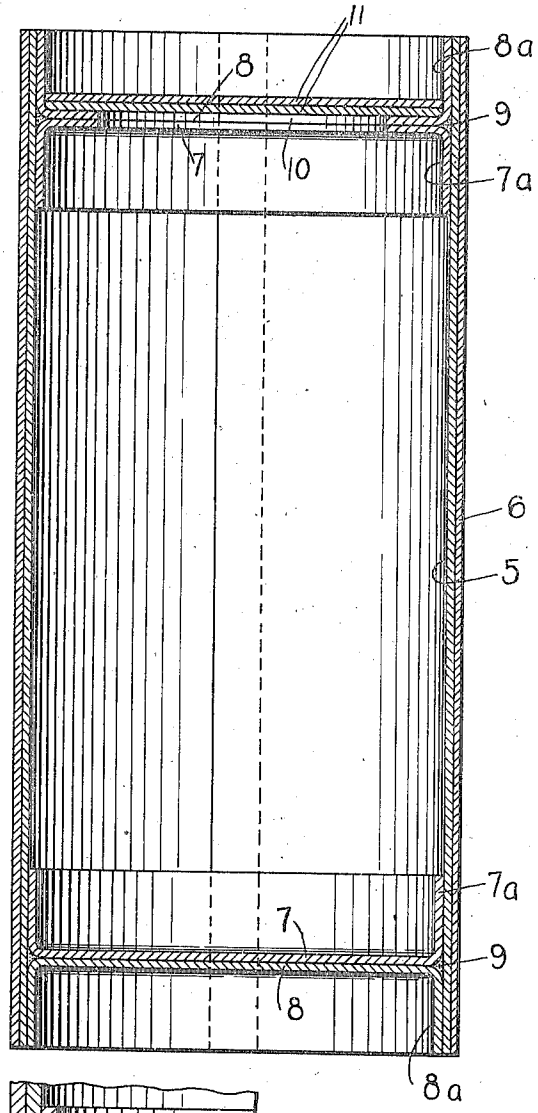
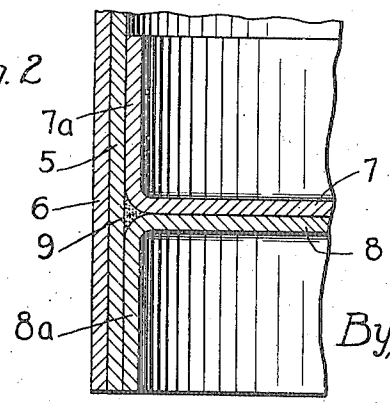


Fig. 2



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UNITED STATES PATENT OFFICE.

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CONTAINER.

1,393,413. Specification of Letters Patent. Patented Oct. 11, 1921.

Application filed September 22, 1919. Serial No. 325,304.

To all whom it may concern:

Be it known that I, FRANK WALLERTZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Containers, of which the following is a specification.

My invention has reference to containers formed of fibrous material or any other suitable or adaptable tissue, such as card-board, straw-board or the like, which when fabricated to the desired shape are impregnated with a suitable substance so as to render them grease-proof and air-tight, and especially suitable for the packaging of articles of food.

More especially my present invention has to do with the fabrication of the end closures of containers that are cylindrical or other shape in cross section. The primary object of this present invention is the provision of means for closing the ends of substantially cylindrical containers that will insure the structure against leakage in the event the end edges of the side or body walls of the container become crushed through accident or otherwise. A further object of this invention is the provision of a bead or shoulder upon the interior of the side or body walls of the container which will function to retain the end closure elements in position and prevent them being forced outwardly, and to this end I provide this bead or shoulder of a material separate from the walls and closures instead of being integral therewith as has heretofore been the usual practice.

I prefer to accomplish the divers objects of my invention by the means and in the manner substantially as hereinafter fully described and as more particularly pointed out in the claims, reference being now had to the accompanying drawings forming a part of this specification, in which

Figure 1 is a vertical central section of a cylindrical container fabricated in the manner of my invention.

Fig. 2 is a fragmental view of the lower left hand corner thereof, drawn to an exaggerated scale for the purpose of clearness.

In the drawings, similar reference characters are employed to designate the same parts throughout the views, and by reference to Fig. 1, it will be seen the walls of the container are, preferably, formed by coiling or rolling a sheet of fibrous material or tissue of the desired length and width until the ends thereof overlap and provide inner and outer walls 5 and 6. It will be understood that while the walls, shown in the drawing, are of the cylindrical type, round in cross-section, the shape of these walls is not essential to the carrying out of my invention.

It has been the usual practice heretofore, in securing closures in the ends of the cylinder to form beads or corrugations parallel with the end edges of the cylinder. These are usually formed in the material from which the cylindrical walls are fabricated, and frequently when moisture is present these beads or corrugations flatten out and are of no further use in retaining the end closures in position. Also it has been the practice to provide closures formed of disks having cylindrical or lateral flanges extending around their edges, and these disks are inserted into the ends of the cylinders until the edges of the flanges register with the end edges of the walls of the cylinder, in which position they are secured in place by some suitable substance or by mechanical means.

When a container is provided with end caps or closures, similar to those last above described, there is a depressed portion in the ends of the container, and in the event the container is dropped or struck against the ends of its wall the portions extending beyond the closure disks are liable to be caved in or crushed to such an extent that the flange on the disk or a portion thereof will let go from the wall of the cylinder, thus permitting air and moisture to enter the container, as well as a leakage of the contents from the container. It is to overcome these inherent objections that I have designed my present structure.

The bottom closure of my container, preferably, comprises two disks 7 and 8, the former being the inner disk and disposed flat against the face of the outer disk 8. Disk 7 has a cylindrical or lateral flange 7^a around its edge and is inserted into the end of the container shell with flange 7^a positioned inwardly toward the center of the container. Disk 8 is provided with a similar cylindrical or lateral flange 8^a that is positioned outwardly so that when the two disks, 7 and 8, are back to back the outer edge of the cylindrical flange 8^a of the outer disk will register with the outer edges of the inner and outer walls, 5 and 6, of the container shell. These

disks and their flanges are treated with paraffin or other suitable moisture and grease-proof composition prior to being inserted in the end of the shell, or the container may be impregnated with a suitable moisture resisting substance, preferably, of a solidifying or freezing nature after the closure elements have been assembled therewith. Owing to the fact that flanges 7^a and 8^a project opposite to each other a slight space is left between the meeting portions of the flanges and the adjacent wall of the shell. In fabricating the structure just described, a bead 9 of the paraffin or other composition fills this space and provides a secure and dependable shoulder against which both the inner and outer disks abut. It will be noted that should the end of the walls become crushed only the flange of the outer disk 8 would be loosened or damaged, while inner disk 7 would be retained in its integrity with the wall of the shell through the medium of bead 9 and the adherence of the flange 7^a thereof to the wall of the shell.

The manner of closing the opposite end of the container shell is similar in all respects to the closure structure described in connection with the lower or bottom end with the exception that the inner and outer disks 7 and 8 have enlarged openings 10, 10, made therein for the purpose of permitting the filling or emptying of the container. I propose to close these openings by means of flat disks 11, 11, of substantially the same diameter as the inside diameter of flange 8^a of the outer disk, and these disks 11 are secured in place by the use of paraffin or other waterproof and grease-proof substance so that when it is desired to open the container for the purpose of removing the contents, these disks 11 may be withdrawn by loosening them around their edges with a knife or similar tool, and this construction also permits the filling of the container after the upper disks 7 and 8 have been secured in position. In other words, the containers would be fabricated entirely as shown in Fig. 1 of the drawings, with the exception that disks 11 for closing openings 10 would be separate and not secured in position until the container is filled and ready for use.

What I claim is:—

1. A container of fibrous material the longitudinal walls whereof are formed from a blank of suitable dimensions, closures for the ends thereof, each comprising two elements having right angle lateral flanges adapted to contact and assemble with the longitudinal walls of the container; said elements being arranged face to face in juxtaposition with their flanges extending in opposite directions, and a bead of cementitious material disposed at and between the juncture of the flanges of the two closure elements with the walls of the container.

2. A container of fibrous material the longitudinal walls whereof are formed from a blank of suitable dimensions and closures for the ends thereof, each comprising two flanged disks arranged face to face with the flanges disposed in opposite directions upon the interior surface of said longitudinal walls and fixedly secured to said walls.

Signed at Chicago, county of Cook, and State of Illinois, this 29th day of August, 1919.

FRANK WALLERTZ.

Witnesses:
E. K. LUNDY, Jr.,
FLORENCE MITCHELL.