

No. 668,981.

Patented Feb. 26, 1901.

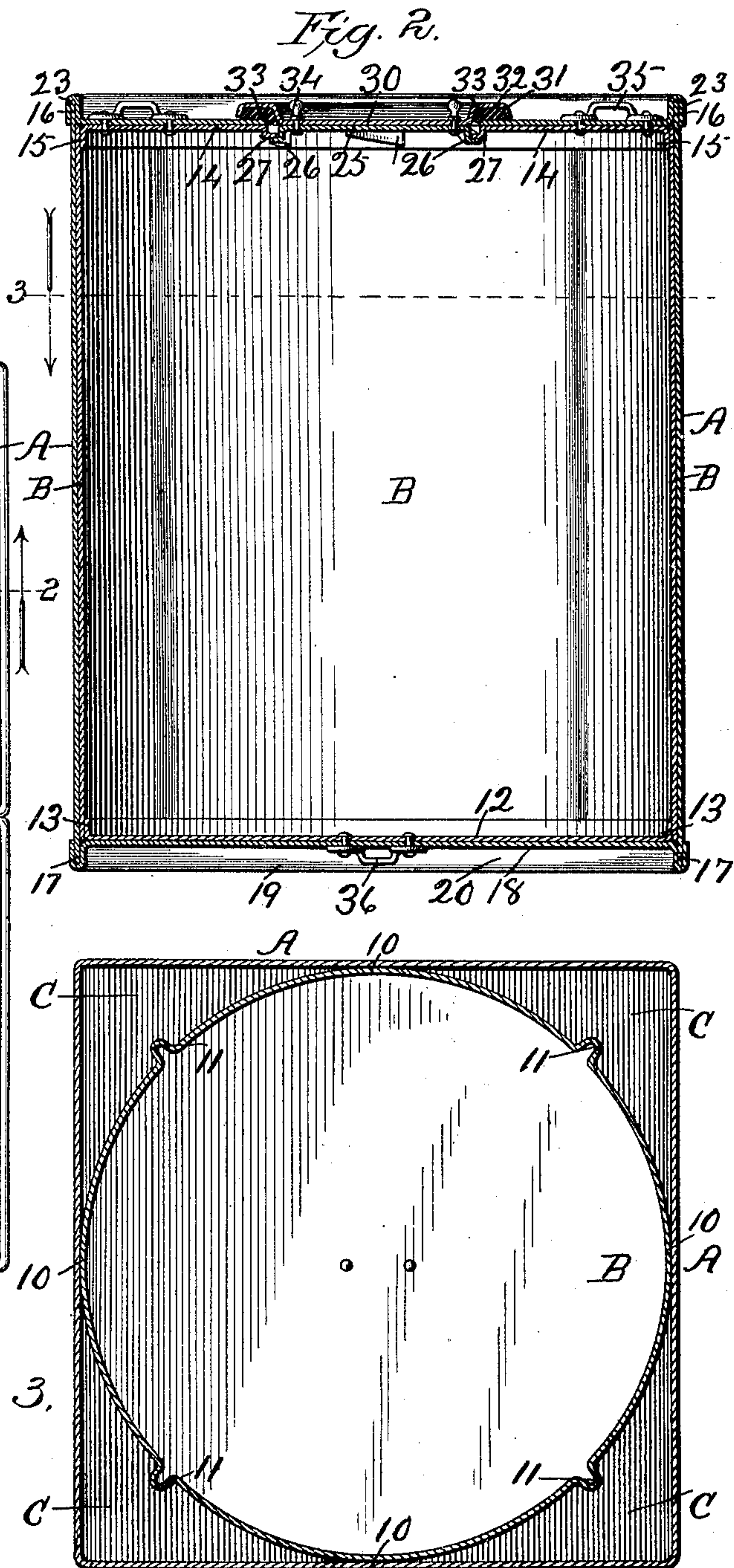
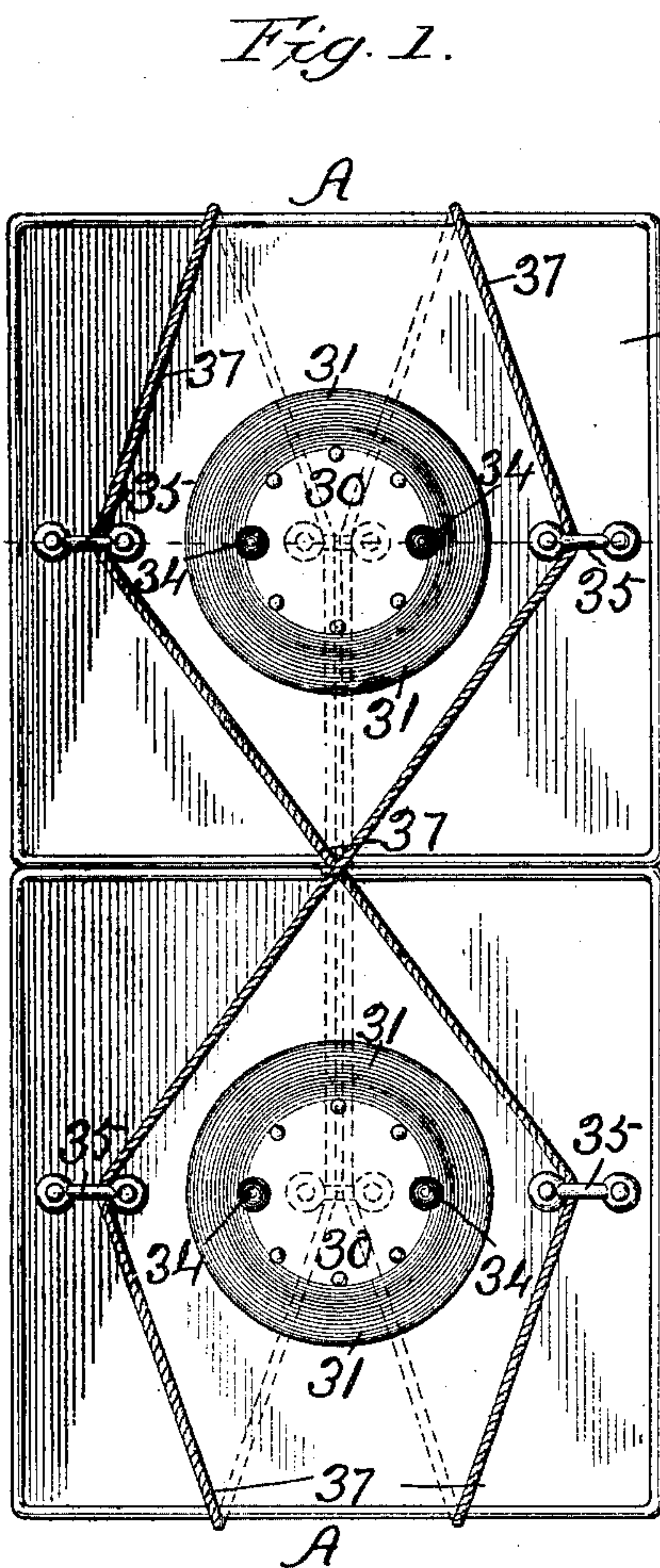
M. COVEL.

COMBINED SHIPPING AND STORAGE CAN.

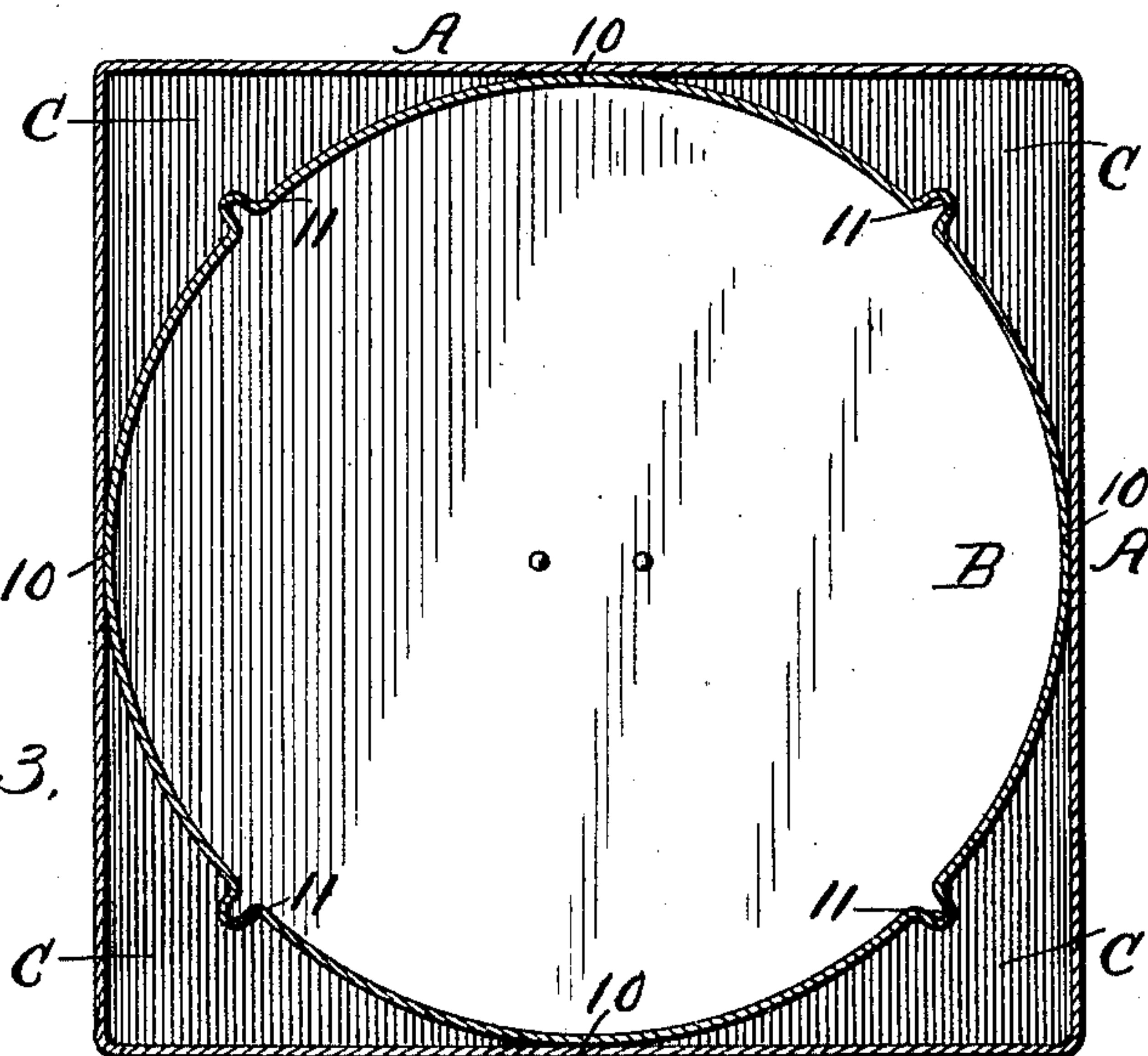
(Application filed Apr. 26, 1900.)

(No Model.)

2 Sheets—Sheet 1.



*Fig. 3.*



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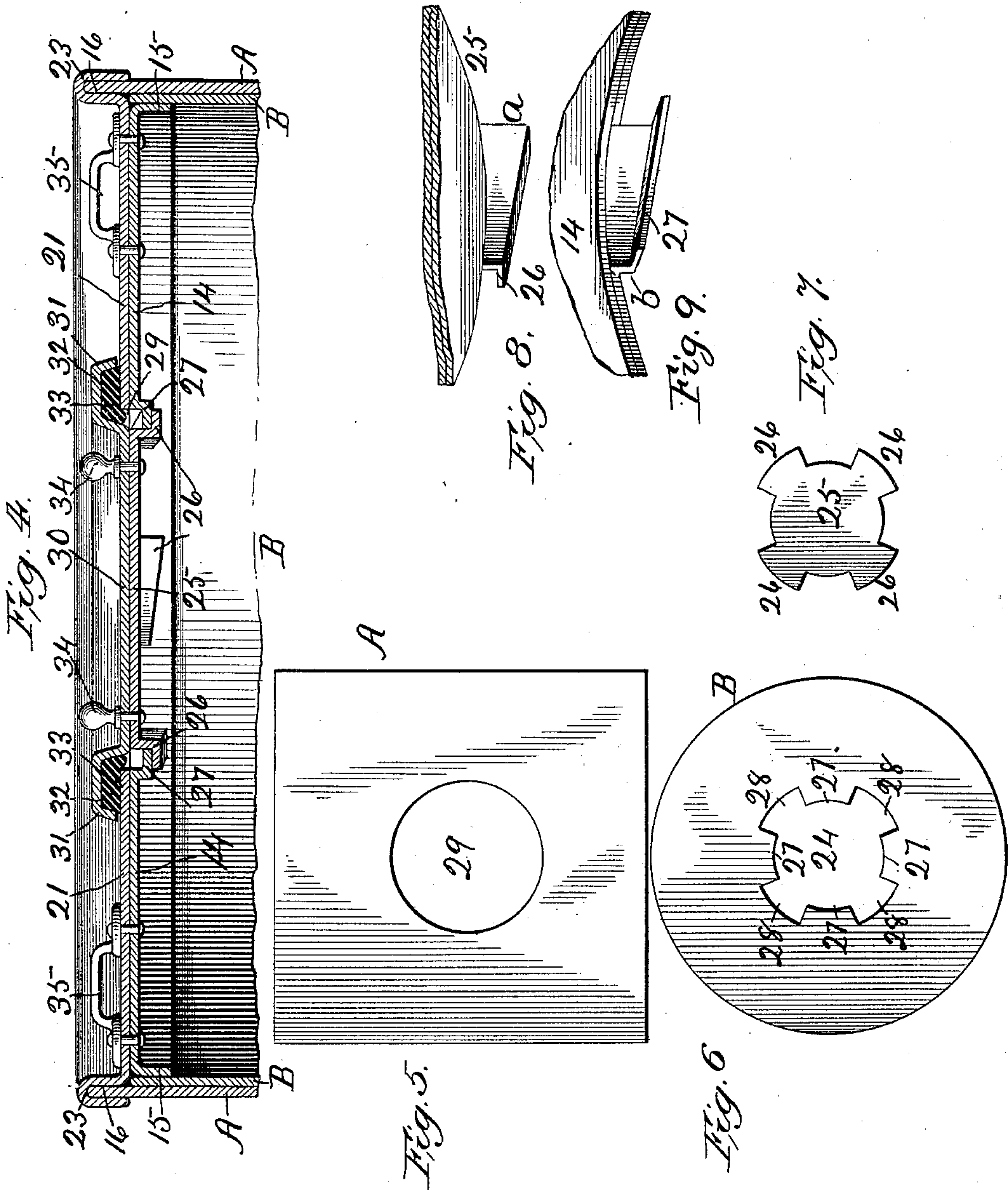
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(No Model.)

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# UNITED STATES PATENT OFFICE.

MILO COVEL, OF CHICAGO, ILLINOIS.

## COMBINED SHIPPING AND STORAGE CAN.

SPECIFICATION forming part of Letters Patent No. 668,981, dated February 26, 1901.

Application filed April 26, 1900. Serial No. 14,386. (No model.)

*To all whom it may concern:*

Be it known that I, MILO COVEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented certain new and useful Improvements in a Combined Shipping and Storage Can; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled  
10 in the art to which it appertains to make and use the same.

This invention relates to improvements in a combination sheet-metal can that is more especially intended for shipping and preserv-  
15 ing food products.

In the operation of developing the far-away Alaskan gold-fields the problem of packing, shipping, and preserving provisions has been proven by experience to be a serious one, as  
20 it was soon discovered that the ordinary can or vessel would not successfully stand the rough usage to which articles of this character are necessarily subjected and at the same time properly protect and preserve the con-  
25 tents of the packages against atmospheric changes, and especially the sudden extreme changes of temperature. Again, the packages of provisions are often accidentally dumped in the water by the upsetting of a  
30 boat or from other causes and the provisions lost, as the ordinary packages or cans usually sink beyond recovery. Another objection to the ordinary can is that when once opened it cannot be again hermetically sealed, and that  
35 portion of the contents not removed for immediate use soon spoils.

The object, therefore, of this invention is to provide a can or vessel that will obviate the objections entertained and in addition there-  
40 to provide certain conveniences and advantages not found in the ordinary structure.

This improved can is intended as a receptacle for all kinds of perishable provisions, whether in a dry or natural state, or for fruit,  
45 vegetables, and meats prepared in the usual manner preparatory to being canned.

In the accompanying drawings, Figure 1 is a plan of two cans lashed together for transportation. Fig. 2 is a vertical section on line 2,  
50 Fig. 1, looking in the direction indicated by the arrow. Fig. 3 is a horizontal section on

line 3, Fig. 2. Fig. 4 is a broken-away vertical section through the top part of the receptacle and on a larger scale from that shown in Fig. 2. Fig. 5 is a plan of the outside  
55 square can. Fig. 6 is a plan of the inside cylindrical or round can. Fig. 7 is a plan of a closing locking-plate corresponding to the opening in Fig. 6, and Figs. 8 and 9 are enlarged broken-away details of the closing and  
60 locking features.

The vessel structure is of a double character, comprising the outside square can A and the inside round or cylindrical can B, rigidly se-  
65 cured together and providing the chambers or dead-air spaces C between the inside corners of the inclosing square can and the adjacent exterior surfaces of the inclosed round can. The chambers will prevent the pene-  
70 tration and absorbence of moisture when the contents of the package are of a dry nature, such as flour or the like. The chambers will also render the can structure buoyant, so that it will readily float in the water and be  
75 easily recovered in case of an accident. The double structure is also much less liable to be ruptured by the action of frost when the contents are partially of a liquid nature. In combining a square and a round can in the  
80 manner shown the walls of the two cans come together on four sides, as at 10, which greatly adds to the strength and durability of the structure as a whole and divides the air-spaces. The round inside can is provided lon-  
85 gitudinally with a number of hollow crimps or ribs 11, projecting outwardly and preferably located about in line with the corners of the outside square can. This rib feature provides for expansion and contraction and lessens the liability of injury to the structure  
90 from extreme changes of temperature.

One of the objects is to provide a permanent receptacle that can be used over and over again, either for shipping or for holding  
95 goods in storage. Therefore it is intended to make the article strong and durable.

The bottom 12 of the inside can is provided with the annular upturned inside flange 13, which forms a close bearing with the inclos-  
100 ing wall of the lower end of the can. This bottom is rigidly soldered or brazed in place and forms a perfectly tight joint. The top



14 of the inside can is provided with the interior downturned flange 15, solidly secured in position like the similar bottom part.

The body of the outside square can is of a greater length than that of the inside can and extends above the top thereof, as at 16, and below the bottom end, as at 17, as shown in Figs. 2 and 4.

The bottom 18 of the outside can is crimped to form the U-shaped edge or border 19, into which the lower end of the body is fitted and ends, as shown in Fig. 2. This brings the bottom of the outside can solidly against the bottom of the inside can and provides a recess 20 below the outside bottom, the weight of the can structure being supported on the continuous edge 19.

The top 21 of the square can is provided with a recess 22, inclosed by a crimped inverted U-shaped edge or border 23, with which the upper end of the outside can-body engages, Figs. 2 and 4. It will be understood that the top and bottom of the outside can are tightly and rigidly secured in place and present a border edge of three thicknesses of metal and forms a very substantial structure capable of supporting considerable weight and standing a good deal of rough usage without serious injury.

The inside can is provided in the top end with a filling aperture or opening 24 of the peculiar outline shown in Fig. 6. A plan of the corresponding cut-out part forms an insertible locking-closure 25, which is illustrated in Fig. 7, and a broken-away exaggerated perspective of the same is shown in Fig. 8. The can-closure 25 is provided with a number of angle locking projections 26, disposed at intervals in its circumference.

Fig. 9 is a similar view to that of Fig. 8 and shows the corresponding locking projections 27 in the edge of the aperture in the inside can. The locking projections on both parts are inclined longitudinally, Figs. 4, 8, and 9, and are adapted to wedge together in closing the aperture in the top. In locking together, the end *a*, Fig. 8, of the locking projections 26 engages with and passes under the end *b*, Fig. 9, of the companion projections 27, and the more the closure is turned the greater will be the wedging or clamping action in hermetically sealing the can. When inserting the can-closure, the locking projections 26 pass through the recesses 28 in the edge surrounding the aperture in the top of the can and are then turned in the right direction to engage the companion projections on the adjacent part. The closure is removed by turning it back until the projections and recesses are coincident.

The outside square-can top, Fig. 5, is provided with the circular aperture 29, the diameter of which equals the greatest diameter of the aperture in the inside can and is in line therewith.

An overhanging cap 30 is rigidly secured to the locking-closure 25. The angle edge 31

of this cap is provided in the under side with an annular groove 32 for the reception of a packing ring or gasket 33, as shown in Figs. 2 and 4. This packing-ring is clamped between the edge of cap 30 and the top surface of the outside can surrounding the filling-aperture and forms a hermetically-sealed joint as the closure is turned into its locking position.

The posts 34 provide for the use of a bar or stick in getting sufficient leverage in closing and opening the can. These posts are below the top edge of the can and do not interfere with the placing of one can on top of another. This arrangement provides a can or vessel that may be used indefinitely for general purposes, and when used for certain kinds of food products a portion can be taken out as needed and the can tightly closed again as often as may be necessary and the portion remaining be preserved in a good condition. The outside cans being square, they pack in closely and solidly and no space is wasted, as with round cans.

As a matter of convenience for certain kinds of transportation a lashing connection is provided whereby two or more cans may be temporarily connected together—as, for instance, two cans may be lashed together loosely, so as to be swung over the back of a pack-animal or carried over the shoulders of a person. The means provided for this purpose consists of a pair of metal loops 35, rigidly secured to the top of the cans, and a companion loop 36, secured to the bottom of the cans. A suitable cord or rope 37 is then rove through these loops in the manner indicated in Fig. 1, when the cans are to be secured together closely and prevent the same from shifting or twisting off sideways with reference to each other. As shown, two loops are secured to the top of each can and located at opposite sides, while but one loop is used on the bottom, and that is placed in the center, midway on a line between the companion loops on top. This disposition of the loops and the means of running the lashing-cord may be varied as circumstances may require. A number of cans may be lashed together and towed through the water, and especially across streams, when other means for transportation are not available.

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

1. A double vessel structure, comprising an outside can and an inside can rigidly secured together; divided air-spaces being provided between the adjacent surfaces of the dual structure, substantially as described.

2. In a double vessel structure, the combination with an outside square can, of an inside cylindrical can, rigidly secured thereto, the body-walls of said structure coming together on the respective sides and dividing the inside corner-spaces into separate air-chambers, substantially as described.



3. A vessel structure, comprising a square can and a cylindrical can inclosed thereby, said cans being rigidly secured together, the inside can being provided vertically with crimps or ribs in line with the corners of the outside can, substantially as described.

4. A double vessel structure, comprising an outside can and an inside can rigidly secured together and provided with filling-apertures in line with each other, the longitudinally-inclined locking projections, formed under the edge of the aperture in the inside

can, and a can-closure, provided with corresponding projections and adapted to engage said locking projections with a wedging action in hermetically sealing the can structure, substantially as described. 15

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

MILO COVEL.

Witnesses:

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