J. O. ELLINGER.

BARREL OR KEG.

APPLICATION FILED SEPT. 10, 1914.

1,197,923.

Patented Sept. 12, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

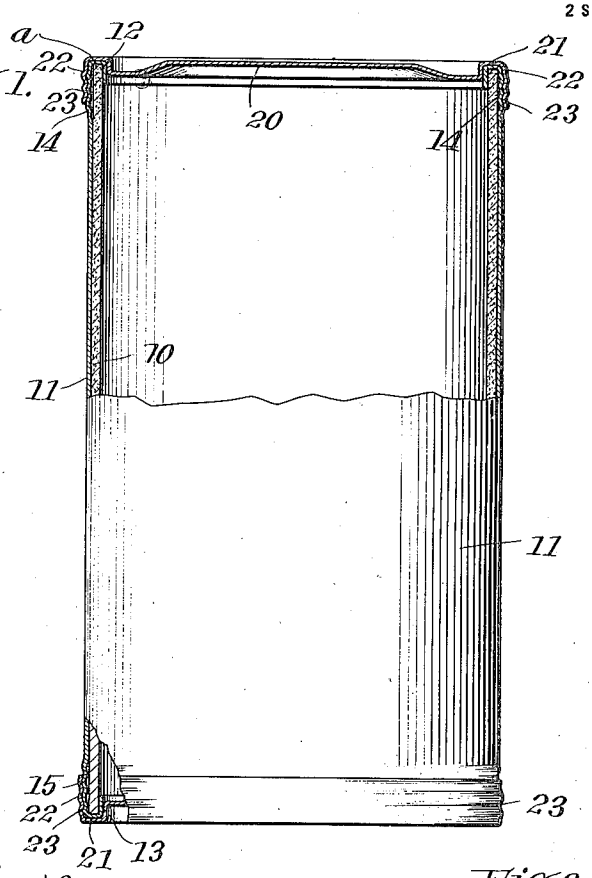


Fig. 2.

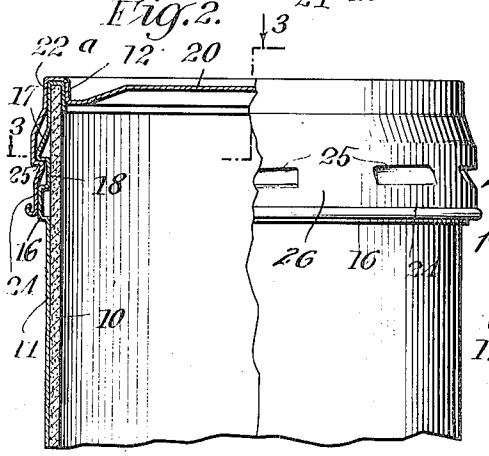
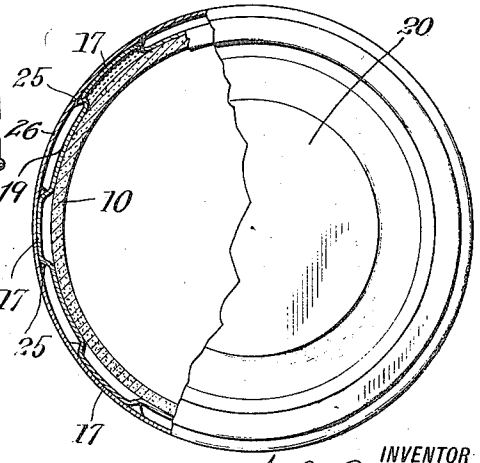


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

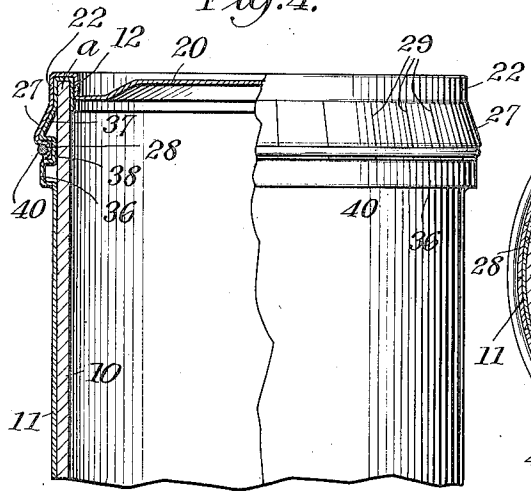


Fig. 5.

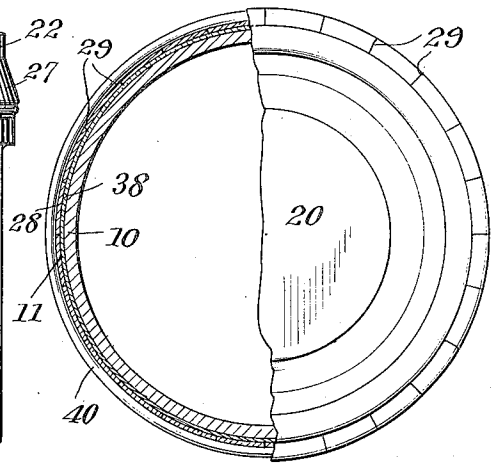


Fig. 6.

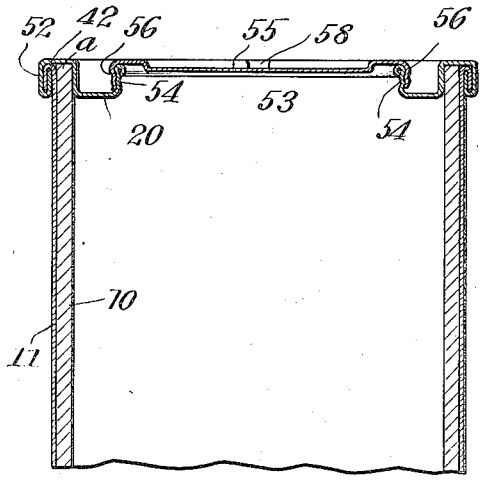
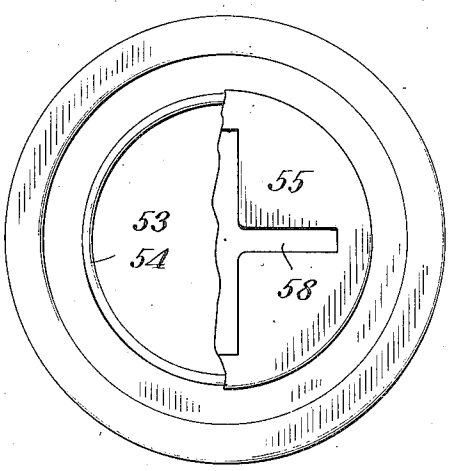


Fig. 7.



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JULIAN O. ELLINGER, OF NEW YORK, N. Y., ASSIGNOR TO W. TYSON ROMAINE, OF NEW YORK, N. Y.

BARREL OR KEG.

1,197,923. Specification of Letters Patent. Patented Sept. 12, 1916.

Application filed September 10, 1914. Serial No. 861,003.

To all whom it may concern:

Be it known that I, JULIAN O. ELLINGER, a citizen of the United States, and a resident of the borough of Manhattan, city and State of New York, have invented certain new and useful Improvements in Barrels or Kegs, of which the following is a specification.

One of the objects of the invention is to construct the body of the barrel or keg of two materials, one preferably being veneer and the other sheet metal. These two materials are so arranged that the veneer is inside of the sheet metal, the former being under compression and the latter under tension.

Another object of the invention is to so construct the top of the barrel and the cover thereof that the cover may be quickly and securely held in place yet may be readily removed without it or the body of the barrel being destroyed.

Other objects will appear from the hereinafter description.

Referring to the drawings, in which the same reference character indicates the same part in the several views—Figure 1 is a side elevation partly in section of one embodiment of the invention. Fig. 2 is a side elevation partly in section of one end of the keg showing a different construction of cover and means for securing the cover to the body of the keg. Fig. 3 is a top plan view partly in section on line 3 of Fig. 2. Fig. 4 is a side elevation partly in section showing another embodiment of the cover and means for securing the same in place. Fig. 5 is a top plan view partly in section of Fig. 4. Fig. 6 is a longitudinal section showing another construction of the cover and means for securing it in place. Fig. 7 is a top plan view of the construction shown in Fig. 6.

The part marked 10 reperesents a cylinder of veneer forming part of the body of the barrel and 11 is the cylindrical shell of sheet metal, preferably steel, surrounding the same. This shell is rolled and the meeting edges are connected by riveting, welding or any other suitable means and the cylinder of veneer is so placed within the shell 11 that the veneer is under compression and the shell is under tension, thus causing the two members to fit snugly together. The relation between the sheet metal shell and the veneer lining is such, due to the fact that the shell is turned over the edge of the veneer body that under the action of strains tending to produce stresses of tension and compression, the shell will act in tension, while the veneer body acts in compression. The analogy is similar to that of reinforced concrete where the steel embedded in the concrete under stresses due to bending will take up the tension, while the concrete takes care of the compression. This arrangement makes a light but quite rigid construction which will resist all ordinary blows and wear and tear. The metal shell is longer than the body of veneer and the ends 12 and 13 thereof in the constructions shown in Figs. 1 to 5 inclusive, are turned over the edges of the veneer to reinforce the same.

In the construction shown in Fig. 1, the metal shell at each end of the barrel is provided with screw-threads 14 and 15.

The cover consists of a sheet metal disk 20 stamped in substantially the shape shown in Fig. 1, which is provided with a recess 21 to receive the edge of the body of the barrel, and the downwardly turned flange 22 is provided with screw-threads 23 which, when the cover is in place, mesh with the screw-threads 14 or 15 on the body of the barrel. The cover on each end can readily be put in place by screwing it on the body, or removed by unscrewing it.

In the construction shown in Fig. 2, the shell 11 is provided with a stamped up annular rim 16, and outside of the rim are stamped up the interrupted thread portions 17, leaving a space 18 between the rim 16 and the interrupted thread 17. In this embodiment of the invention the flange 22 is downwardly extended so that the edge 24 thereof rests against the rim 16 when the cover is in place. This flange is also provided with a series of interrupted thread portions 25 which mesh with the interrupted thread portions 17 on the body of the barrel.

To secure the head in place it is slipped over the end of the barrel so that the thread portion 25 thereof will seat in the blank portions 19, between the mutilated thread

portions 17 on the shell 11, with the said thread portions 17 between the blank portions 26 of the cover. The cover is now given a partial turn whereby the thread portions 25 will move under the thread portion 17, as shown in Fig. 3, and as these thread portions in each case are on an incline, the cover will be securely locked in position and held tightly onto the body of the keg. A reverse motion will disengage the thread portions and permit the cover to be readily removed.

In the construction shown in Fig. 4, the shell 11 forming the body is also provided with the rim 36. The shell is also provided with another rim 37 and there is formed thereby an annular seat 38. The downwardly extended flange 22 of the cover is shaped at 27 to correspond with the shape of the rim 37, and the edge 28 thereof is turned in to fit in the annular seat 38. The parts 27 and 28 of the downwardly extended flange 22 of the cover are slotted at 29. To place and secure this cover on the body of the barrel, it is first placed over the edge of the barrel and then pressed down whereupon the inturned edge will snap in the annular seat 38, the slots 29 permitting this to be readily accomplished. When the cover is in place a piece of wire may be put around the inturned edge 28 and twisted tightly to prevent the cover from being accidentally removed. To remove the cover it is only necessary to remove the wire 40 and pull the inturned edge 27 out of the seat 28 by suitable means, whereupon the cover may be slipped from the body of the barrel.

In the construction shown in Fig. 6, the edge 42 of the shell and the periphery 52 of the cover 20 are overlapped as shown. In this construction the cover is provided with an opening 53, and with an upturned screw-threaded flange 54 surrounding said opening. A cap 55 is provided which has a down turned screw-threaded flange or rim 56 which meshes with the screw-threaded flanges 54. The barrel is closed or opened by screwing or unscrewing the said cover 55. To permit this to be readily accomplished the said cover is provided with the depression 58 to receive a suitable tool or wrench.

It will be noted that in all of the constructions the edge *a* of the body of the barrel extends beyond the cover. By this construction any sudden or hard blow on the edge of the barrel will be transmitted and taken up by the composite body of the barrel, and therefore, there is less liability of the barrel becoming injured. The turned over edge of the metal shell 11 also protects the edge of the veneer body, and when the blow is received on the edge of the barrel, the metal shell is put under tension longitudinally and the thrust is taken up by the turned over part 12, and thus the edge of the veneer body or cylinder is prevented from being crushed or bent.

The rim 36 in the construction shown by Fig. 4 protects the edge of the cover seated in the annular channel 38 from the upward or outward blow and therefore prevents the cover from being accidentally unseated. The said annular seat 38 also receives the twisted ends of the securing wire 40 so that the rims 36 and 37 serve to protect the hand of the user of the barrel from being scratched or cut on the twisted ends of the wire bale.

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

1. A barrel consisting of a cylindrical body portion of fibrous material and a cylindrical metal portion surrounding the other portion, the edges of the metal portion being turned over the edges of the fibrous portion, the fibrous portion being under compression and the metal portion under tension, a cover consisting of a disk having an up-turned rim to form a seat to receive the edge of the body portion having the metal portion turned there-over, the said cover having a downwardly projecting flange and a co-acting means on the body of the barrel and the cover to secure the two together.

2. A barrel consisting of a body formed of an integral cylinder of veneer and a shell of sheet metal surrounding and in contact with the same, the veneer cylinder being under compression and the metal shell under tension.

3. A barrel consisting of a cylindrical body portion of fibrous material and a cylindrical metal shell surrounding the fibrous material, an edge of the metal shell being turned over and clamped against the inner side of the body of fibrous material, the former being under compression and the latter under tension, a cover for the barrel, said cover having engaging means, and engaging means on the body whereby the cover is secured in place on the body.

4. A barrel consisting of a body formed of a cylinder of veneer and a shell of metal surrounding the veneer cylinder, the ends of the sheet metal being turned over the ends of the veneer cylinder, the shell being provided with an interrupted thread, a cover of sheet metal having a downwardly projecting flange, said flange being provided with an interrupted thread which engages with the interrupted thread on the shell.

5. A barrel consisting of a body formed of a cylinder of veneer, a shell of sheet metal surrounding the veneer, the ends of the shell being turned over the ends of the veneer, the shell being provided with an annular rim, an interrupted thread, a sheet metal cover having a downwardly extend-

ing flange, and a recess to receive the end of the body portion of the barrel, said downwardly projecting flange being provided with an interrupted thread to engage the interrupted thread on the body portion, the outer edge of the flange resting on said rim.

In witness whereof I have hereunto set my hand at borough of Manhattan, city and State of New York, this 18th day of August, 1914.

JULIAN O. ELLINGER.

In presence of—
ETHEL D. BARON,
JOHN J. RANAGAN.