July 13, 1926. 1,592,779

H. D. PRATT

BARREL

Filed March 28, 1924

Fig. 1

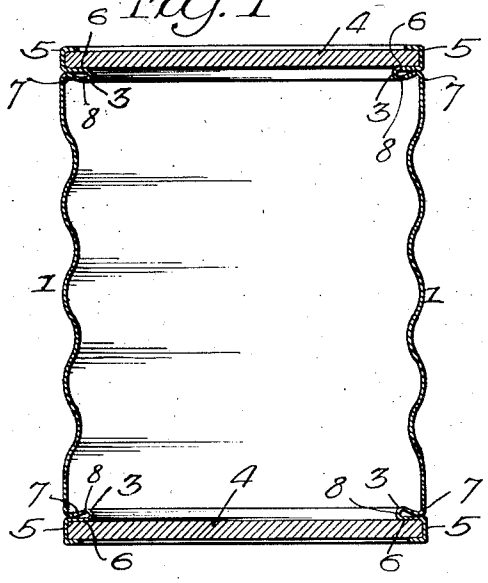


Fig. 3.

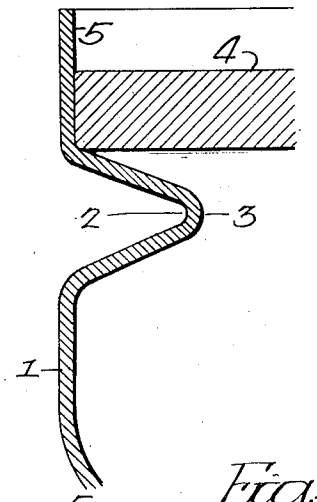


Fig. 2.

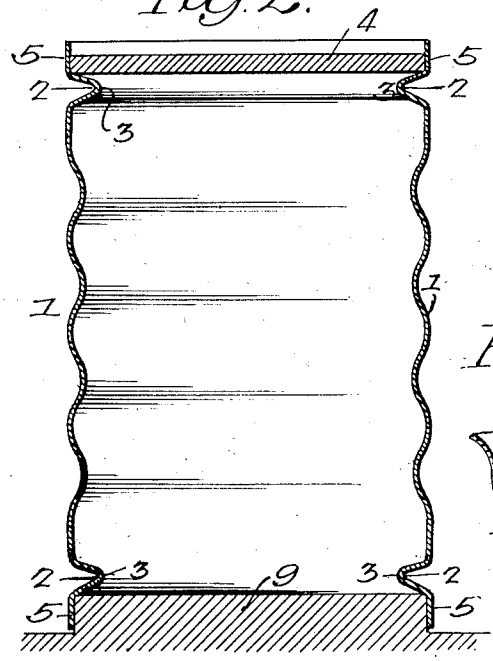


Fig. 4.

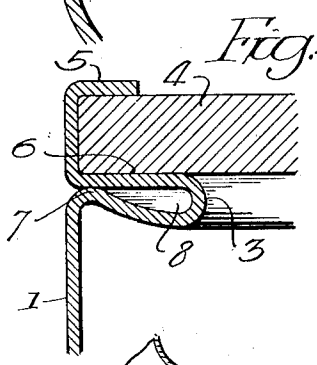
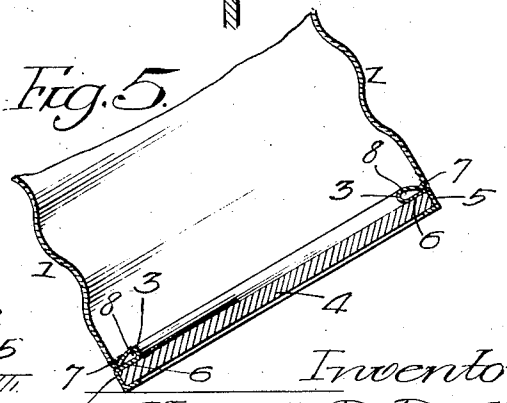


Fig. 5.



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Patented July 13, 1926. 1,592,779

UNITED STATES PATENT OFFICE.

HOWELL D. PRATT, OF LEE, MASSACHUSETTS.

BARREL.

Application filed March 28, 1924. Serial No. 702,634.

One object of my invention is to improve the construction of barrels having a body portion of metal and provided with wooden heads.

A further object of the invention is to design the barrel so that it will not be deformed, or collapsed, when rolled on its lower edge, due to weight of its contents.

A still further object of the invention is to design the body of the barrel so that a comparatively light head can be used.

The barrel is intended, primarily, for shipping lime and like material, but it will be understood that it can be used for shipping any material without departing from the essential features of the invention.

In the accompanying drawings: Fig. 1 is a vertical sectional view of the completed barrel; Fig. 2 is a vertical sectional view of the barrel illustrating the process of forming the supporting annular ribs for the heads and securing one head to the barrel; Fig. 3 is an enlarged sectional view of one end of the barrel, showing an annular rib prior to being bent into final shape; Fig. 4 is a view showing a rib bent into final shape; and Fig. 5 is a sectional view of the lower portion of a barrel.

Referring to the drawings, 1 is the body of a barrel made in accordance with my invention and corrugated, in the present instance. A plain cylindrical body may be used, if desired. Near each end of the barrel is a deep, internal annular rib 3. These internal ribs support the heads 4 of the barrel, which, in the present instance, are of wood and generally consist of a number of pieces. The wooden heads fit the flanges 5 at the ends of the barrel. The flanges are of a greater depth than the thickness of the heads so that a head—when in position—as in Fig. 2, is below the end of a flange, and, when the flange is turned over, as shown in Fig. 1, the head is held firmly between the annular rib 3 and the turned over flange.

In making the metallic body of a barrel, the ribs are partly formed, as in Figs. 2 and 3, by making an annular depression 2 in the body near each end thereof. When pressure is applied, the outer edge 6 of the internal flange is flattened to receive a head of the barrel. The other portion of the rib is curved, as shown clearly in Fig. 4, so that the outer edge 7 bears against the outer edge of the portion 6, supporting rigidly the weight of the barrel and load when the barrel is rolled on edge. The inner portion 8 of the rib is in the form of an annular loop, which gives additional strength to the barrel and prevents the head from bending when the filled barrel is rolled on edge.

In Fig. 5, the barrel is illustrated on edge with the body portion thereof resting upon the back of a flange. It will be observed that the loop 3 serves not only to prevent the bending of the head and the crushing of the body but also serves to directly carry a part of the superposed load and thus reduce the strain on the head. It will be further observed that the face of the rib which engages the head is wide and flat, thus providing extended contact with the head, and that the inward turned part of the flange 5 is also wide and flat thus firmly engaging the outer surface of the barrel adjacent the entire periphery thereof. Inasmuch as the head is gripped between two flat faces it is greatly reinforced and the danger of breakage is practically eliminated.

In assembling a barrel, one flanged end is placed over a form 9, Fig. 2, and a head 4 is placed in the opposite end of the body of the barrel and rests upon the partially formed rib 3 at the upper end of the body of the barrel. The lower partially formed flange 3 rests upon the form 9.

The pressure that is applied to turn in the upper flange 5 onto the upper head of the barrel causes the partially formed flanges 3 at both ends of the barrel to collapse from the position shown in Fig. 3 to that shown in Fig. 4. This process completes the formation of the barrel. The head that is secured to the barrel during this process is the bottom head. The opposite end of the barrel is shaped so that, when the barrel is filled, the other head can be placed in position within the flange and upon the formed internal rib, after which the flange can be turned down onto the head.

The barrel hereinbefore described can be manufactured cheaply and the heads can be secured in position and fastened with but little effort. An additional advantage is that although it can be made of comparatively light weight metal, on account of the strengthening effect of the internal loop, it effectually withstands any rough usage to which it is subjected. The construction is especialy adapted for use with wooden

heads, which can be secured firmly to each end of the metal body.

I claim:

1. The combination in a barrel of a sheet-metal body comprising near the respective ends thereof two deep internal integral annular ribs each in the form of an open loop having its peripheral edges in contact with each other to prevent collapsing and to reinforce the lower edge of said barrel when rolled or dropped on said edge, circular heads having their inner surfaces in engagement with the respective ribs, and annular flanges formed on the outer ends of the body and bent inward to firmly engage the outer surfaces of the respective heads adjacent the entire peripheries thereof.

2. The combination in a barrel of a sheet-metal body comprising near the respective ends thereof two deep internal integral annular ribs each in the form of an open loop having its peripheral edges in contact with each other to prevent collapsing and to reinforce the lower edge of said barrel when rolled or dropped on said edge, the outer faces of the said ribs being flat, circular heads having their inner surfaces in engagement with the flat outer faces of the respective ribs, and annular flanges formed on the outer ends of the body and bent inward, the inner face of the said flanges being flat and in engagement with the outer surfaces of the respective heads adjacent the entire peripheries thereof.

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