

No. 650,949.

Patented June 5, 1900.

J. E. PHILLIPS.
METAL RECEPTACLE.
(Application filed Aug. 9, 1899.)

(No Model.)

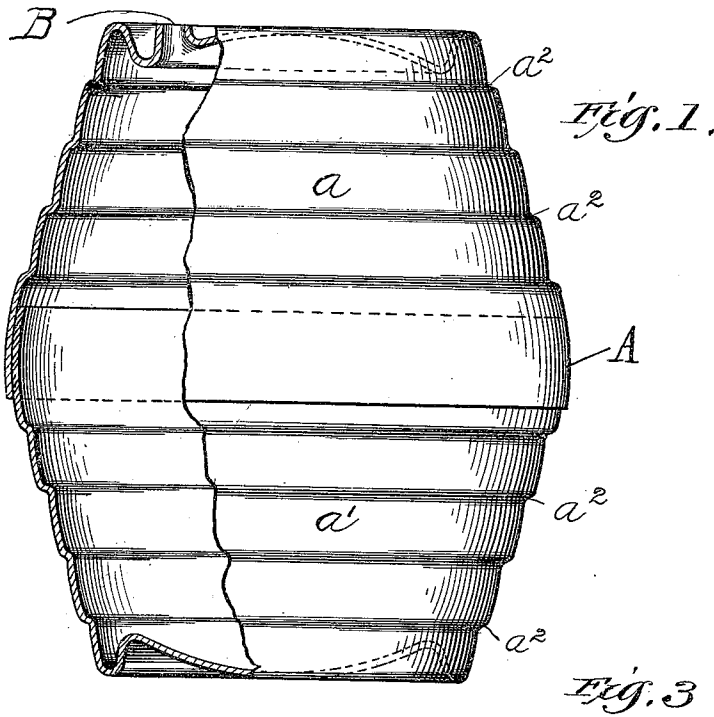
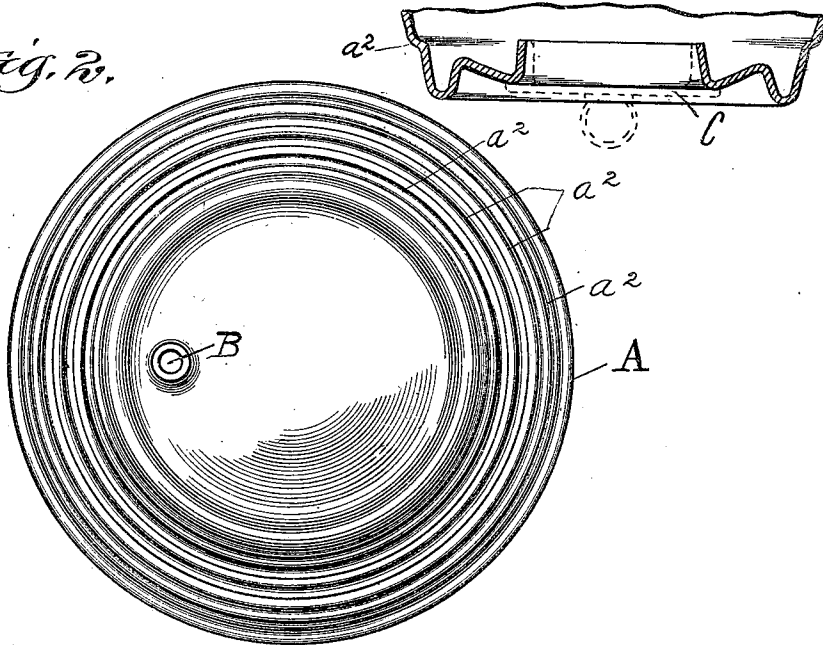


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN E. PHILLIPS, OF JOLIET, ILLINOIS.

METAL RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 650,949, dated June 5, 1900.

Application filed August 9, 1899. Serial No. 726,678. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. PHILLIPS, a citizen of the United States, residing at Joliet, in the county of Will, State of Illinois, have
5 invented certain new and useful Improvements in Metal Receptacles, of which the following is a specification.

Referring to the accompanying drawings, wherein like reference-letters indicate the same or corresponding parts, Figure 1 illustrates one form of my improved device, partly shown in vertical section. Fig. 2 is a plan view of a portion of the parts shown in Fig. 1. Fig. 3 is a sectional view of a modified form
15 of my invention, hereinafter to be more fully described.

The object of my invention is to remedy the defects existing in metal receptacles used for the purpose of transporting commodities
20 usually shipped in barrels or casks; and to that end it consists in providing a receptacle formed of stamped or pressed sheet metal and having the general symmetrical outlines of a cask or barrel.

25 In the accompanying drawings, A is a receptacle of my invention, the same being formed of two parts *a a'*, the part *a'* being telescoped into the part *a* and attached thereto by means of welding or by any other suitable means. Both the parts *a* and *a'* are
30 made with peripheral step-shaped corrugations or ledges *a²*, which ledges act to gather the excess metal created by forming into semibarrel-shaped parts flat pieces of metal and, further and more particularly, act in
35 the place of the hoops customarily employed to strengthen wooden or sheet-metal barrels, said strengthening function being one of the essential features of my invention.

40 I am aware that barrels and casks have heretofore been formed of sheet metal, said vessels being provided with inwardly or outwardly extending S-shaped or U-shaped corrugations. My invention differs essentially
45 and radically from the said prior constructions in that the corrugations formed in the periphery of my barrel or cask are step-shaped—that is to say, the corrugations consist of longitudinally-extending walls or portions
50 and transversely or approximately transversely extending walls uniting the ad-

jacent ends of the said longitudinally-extending walls. This construction has many advantages over the prior U or S shaped corrugations. One of these advantages is that it
55 enables me to form the two parts of my cask or barrel from a flat sheet of metal by means of a male and a female die, which is not possible with either a U or an S shaped corrugation; secondly, these step-shaped corrugations
60 form transversely or approximately transversely extending walls, which produces a series of flanges or walls which receive the lateral strain upon the periphery of the barrel edgewise, which is not true of a U or an S
65 shaped corrugation, and, thirdly, these step-shaped corrugations produce a barrel which is readily washed by flushing the inside thereof, in that there are no double-walled grooves or recesses to catch and hold sediment and
70 dirt, such as is constituted by either a U or an S shaped corrugation.

Where the transversely or approximately transversely arranged walls of the step-shaped corrugations are short, as here shown,
75 it will be readily understood that they do not extend exactly at right angles to the cask or barrel; but it will be readily seen that owing to the fact that these walls are short they present approximately transversely arranged
80 walls, which therefore are sufficiently strong to resist lateral strain upon the periphery of the barrel practically the same as when they are made long and extend exactly transverse the barrel. It will be readily understood by
85 those skilled in the art that the degree of transverse angle given the transversely-arranged walls of these step-shaped corrugations is necessarily regulated by their length. However, the length of these transversely or
90 approximately transversely arranged walls of the step-shaped corrugations can be varied without departing from the scope of my invention, as will be readily understood by those skilled in the art. Attention is also
95 directed to the fact that the longitudinally-arranged walls of the step-shaped corrugations are here shown many times longer than the transversely-arranged walls thereof, and this construction is the preferred form, for it
100 enables me to more conveniently and to more readily form the two parts of the barrel by a

stamping operation from a sheet of flat metal, though this may also be varied without departing from the scope and spirit of my invention, as will be readily understood.

5 As illustrated in Fig. 1, the telescoping or overlapping inner ends of the two parts *a* and *a'* of the barrel are preferably bulged outward between their extremities after they are telescoped, whereby a tight joint is more
10 readily and perfectly accomplished by being afterward welded or otherwise united.

By utilizing the receptacle of my invention a symmetrical vessel of comparatively-light weight is obtained which may be subjected
15 without danger of leakage to great pressure, and therefore may be used even for the purpose of shipment of gases.

It is obvious that the ledges *a''* may be as many and as far apart as desired; that either
20 part *a* or *a'* may telescope the other part; that the heads may be either concave or convex, and that a bung-hole B may be formed in either one or both of the ends, or in the side of the receptacle, at any suitable point, and
25 it is further obvious that in place of a bung-hole a solid fixed head or bottom or, in addition thereto, a removable head or cap C, as illustrated in Fig. 3, may be employed, and it is further obvious that instead of tele-
30 scoping one of the two parts *a* *a'* into the other their edges may be welded together or brought together and there confined by means of a band or other similar and suitable means

without departing from the principle of my invention.

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

1. A sheet-metal cask or barrel composed of two separate truncated cone-shaped portions, the two truncated cone-shaped portions provided with oppositely-projecting step-shaped corrugations, substantially as shown and described.

2. A sheet-metal cask or barrel consisting of two truncated cone-shaped portions, each portion having peripheral step-shaped corrugations, the longitudinally-extending walls of the inner step-shaped corrugations of each portion being relatively longer than the longitudinal walls of the other step-shaped corrugations, and the said longer and inner walls overlapping each other and united together, substantially as described.

3. As an improved article of manufacture a sheet-metal barrel or cask consisting of two truncated cone-shaped portions united at their diverging ends, each portion provided between its ends and their united point with peripheral step-shaped corrugations, substantially as described.

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