

No. 617,401.

Patented Jan. 10, 1899.

W. M. KINNARD.
PAPER VESSEL.

(Application filed Nov. 15, 1897.)

(No Model.)

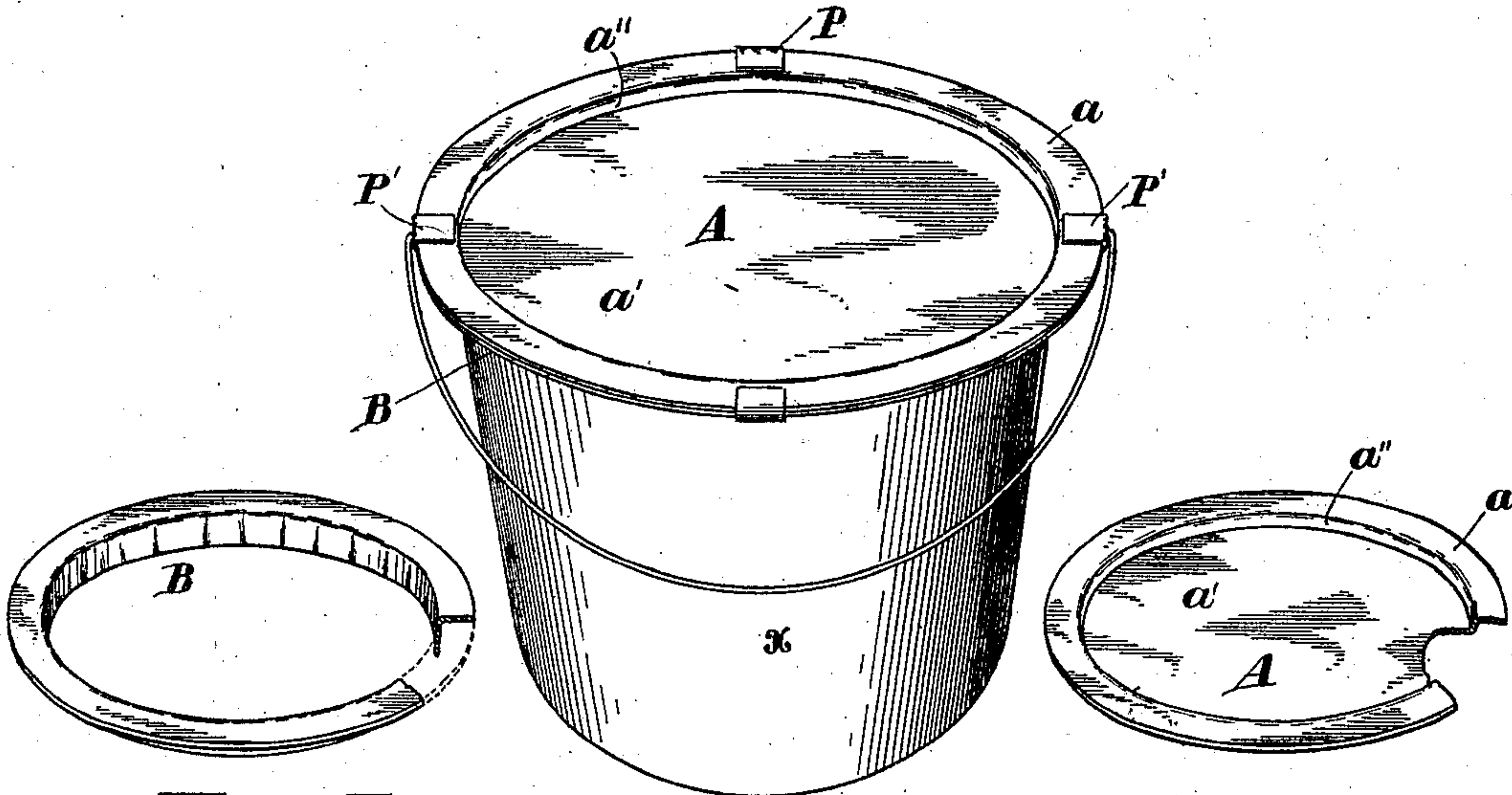


Fig. 2

Fig. 1

Fig. 3

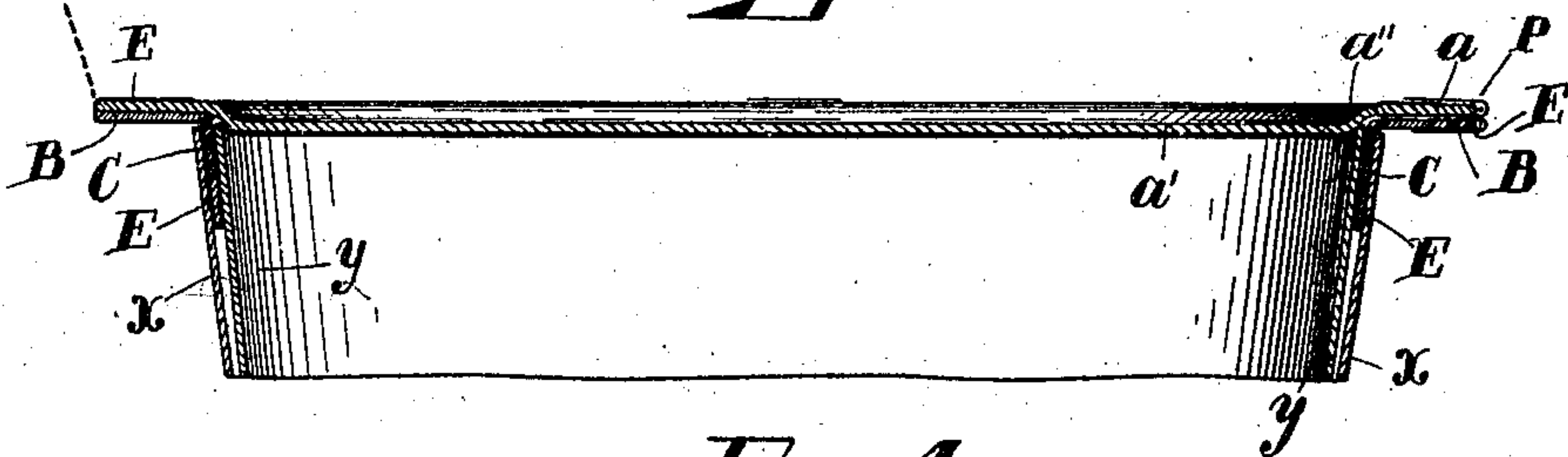


Fig. 4



Fig. 5

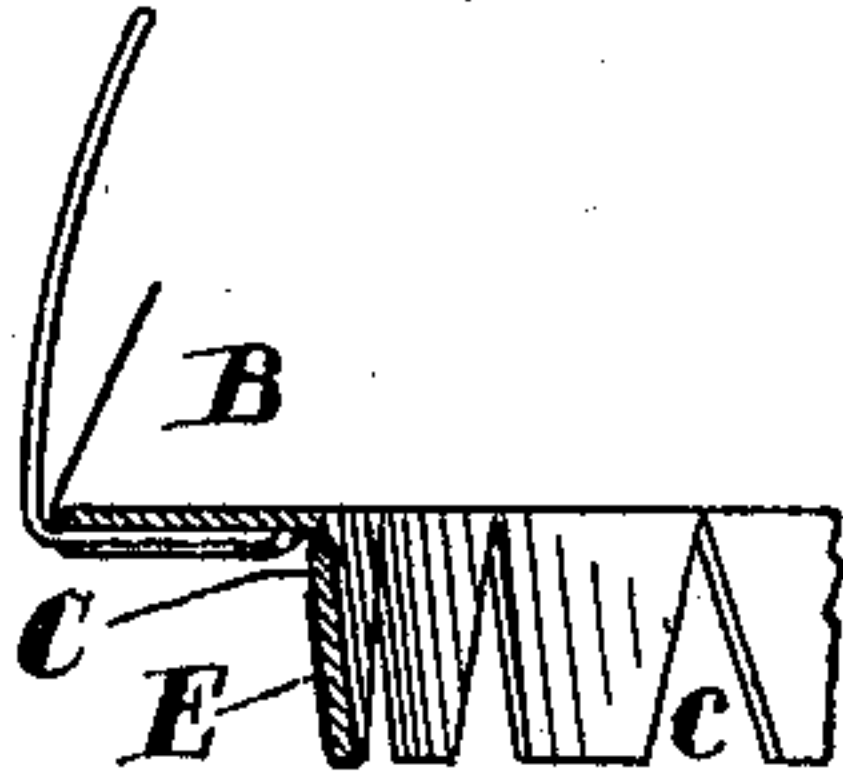


Fig. 6

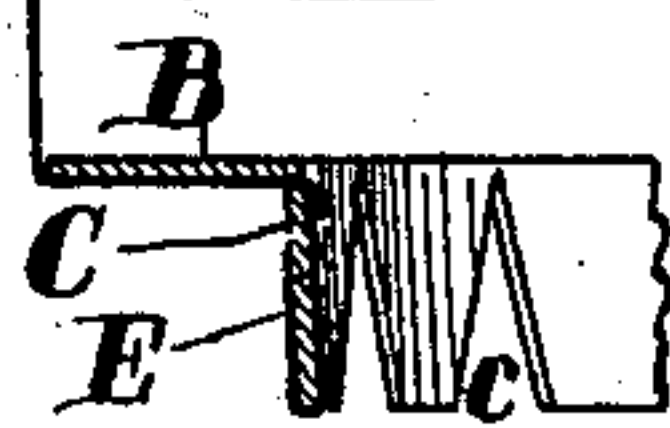


Fig. 7



Fig. 8

WITNESSES

Sherwood R. Taylor
J. H. Edwards.

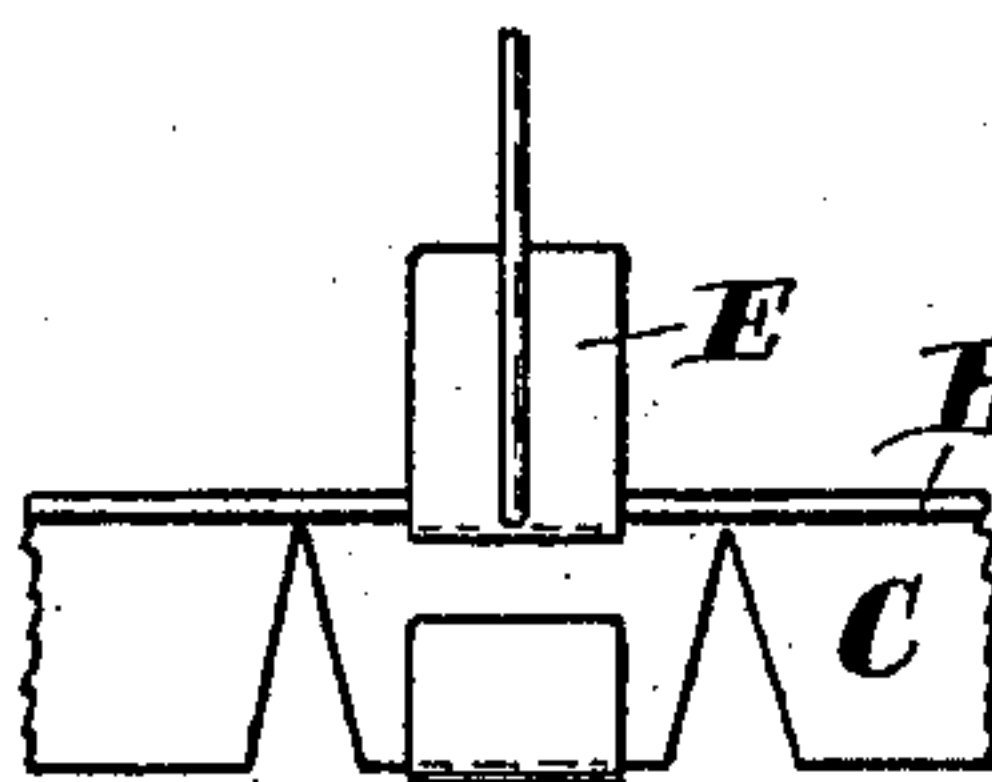


Fig. 9

INVENTOR

W. M. Kinnard,
By Arthur Stem,
his attorney.

UNITED STATES PATENT OFFICE.

WILL M. KINNARD, OF DAYTON, OHIO, ASSIGNOR TO THE KINNARD
MANUFACTURING COMPANY, OF SAME PLACE.

PAPER VESSEL.

SPECIFICATION forming part of Letters Patent No. 617,401, dated January 10, 1899.

Application filed November 15, 1897. Serial No. 658,549. (No model.)

To all whom it may concern:

Be it known that I, WILL M. KINNARD, a citizen of the United States, and a resident of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Paper Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement in slop-proof pails used most generally for delivering at retail and in small quantities oysters and similar articles.

It is important that the vessel be as near waterproof as possible and slop-proof, so as to prevent the contents slopping out. It must be light and so inexpensive as to enable the retail dealer, if necessary, to give it away with the article sold.

The present improvements consist in a new method of attaching the bail, which is applicable to my form of pail and by which the bail is secured to prevent it from being removed without destroying the pail and at the same time leaves a perfectly plain unbroken surface both on the inside and outside of the pail, and also relates to an improvement in the lid, relating to a horizontal flange on the body of the pail and a corresponding horizontal flange on the lid.

In the drawings, Figure 1 a perspective view of the pail with the horizontal flanges on the lid and the pail. Fig. 2 is a perspective view of the flange detached from the pail. Fig. 3 is a perspective view of the lid constructed to fit down upon the flanged top shown in Fig. 1. Fig. 4 is a vertical cross-section of the upper part of the pail. Fig. 5 is a vertical cross-section of the flange. Figs. 6, 7, 8, and 9 are vertical cross-sections of small portions of the flange, showing the method of attaching the bail and the clamps to this form of pail.

Like letters of reference indicate identical parts in all the figures.

The present improvements relate to the same general construction of pail made the subject of my applications heretofore filed, the first being Serial No. 619,408. The pail is constructed with double vertical or sub-

stantially vertical walls. I may use between these two walls a third layer of paper or flexible material extending also across the bottom, as described in my application, Serial No. 637,874, or the inner wall may be corrugated and made in one and the same piece with the bottom, as shown in my application, Serial No. 653,422.

Instead of having the lid fit down within the top or fit down over and embrace the top one feature of my present improvements provides for a lid extending horizontally over the top and beyond the outer edges. In order to provide a base to receive this lid when thus constructed, I arrange a horizontal flange extending around the entire top of the pail. This flange is constructed by cutting with a die from a flat piece of paper or other suitable material a circular piece of a width greater than the width of the intended flange. This strip is then subjected to a die, whereby the inner portion of it is bent down at right angles to the other portion, which remains horizontal. This action produces a circular piece creased around its entire length, the portion outside of the crease remaining horizontal and the portion inside the crease being bent down at right angles. The vertical portion or leg may be corrugated or crimped by the action of this die, or it may be cut away or notched, as shown at *c c*, Figs. 5, 6, 7, 8, and 9. This vertical portion *C* is then inserted between the upper edges of the outer and inner walls *X Y*, as shown in Fig. 4. These walls, being firmly glued or attached together, hold the flange rigidly in position and leave the horizontal portion *B* extending out beyond the top of the pail, presenting a flat or horizontal ring on which the lid is to rest. The manner of constructing this strip with the upright flange notched I have described as perhaps the most simple. It may be constructed, however, by stamping it into the desired shape in which the material will be upset by pressure, so as to take the desired form without notching, or the upright flange may be corrugated, which will prevent buckling, though I prefer either to stamp and upset it or to notch it, thus providing a smoother surface. This lid *A* is then made of a flat piece circular in form and of the same diameter as the flange or ring at the top of the pail, as seen at *A*, Fig. 1. Of course

if it were laid perfectly flat on the top of the ring it would leave a somewhat open joint. In order to make this joint as tight as possible; this flat lid is beveled at a point equal in distance from its edge as the width of the flange C, producing a flange *a*, corresponding in width, shape, and size with the flange C. By subjecting this lid to pressure in a proper ring or mold the center portion *a'* can be pressed down to any desired extent, so as to fit snugly within the upper edges or the mouth of the pail and press outwardly against these edges, forming a close joint. If it is thus pressed down to a sufficient extent, the contents of the vessel in order to escape must first pass between this beveled edge, pressing against the side of the vessel, up, and then outwardly between the entire width of the two flanges *a* and B. It will be seen in Fig. 4 that the bevel *a''* extends downward into the pail and can be made to press firmly against the inside of the upper edges of the pail, thus forming the close joint, as described.

In order to fasten the lid in place, I use clamps, preferably of tin or other sheet metal, which are seen at E, Figs. 4, 6, 7, 8, and 9. This clamp may be fastened through the outer wall or through the flange, or both, and consists of a strip of sheet metal inserted through the outer wall and bent upon itself and then extending upward against the outer wall until it reaches the top and then bent at a right angle, leaving a horizontal extension, which may, when the lid is put in place, be bent upward and around the edge of the lid and clamped down firmly in place, or this locking-strip may be attached to the flange C, as shown in Figs. 6, 7, 8, and 9, so that when the flange is inserted between the walls there will be the horizontal extension to be bent around and over the flange of the lid, clamping it in place. When this method is used, there is no break or slit in the outer wall or the inner wall to receive this clamping-strip, as it is entirely hidden between the walls with the upright portion of the flange. In order to form a hinge for the lid, a similar strip of metal is inserted through the edge of the horizontal flange of the lid, as shown at P, Figs. 1 and 4, corresponding in location with a similar strip attached to the body of the pail, either by means of the perpendicular flange or the wall of the pail. The ends of both of these strips are passed through and clamped around the opposite sides of a wire link, thus forming a hinge and permitting the lid to be thrown back or swung in any desired position. Where this form of flanged lid is used, the bail is attached, preferably, by inserting the ends of the wire bail through the metal strips on opposite sides, as shown at P', Fig. 1. By this arrangement and construction I provide a pail that is very economical to make and very simple in construction. Any number of pails will nest one within the other. The lids turned back will also nest, the lid itself being beveled, so that the

central portion of it fits down within the top of the pail, and the flange extending over and resting upon and clamped to the horizontal flange makes a substantially close joint between the lid and the pail. It is neat in appearance and strong in its construction.

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

1. A pail or vessel circular in horizontal cross-section provided with double walls, and provided at its upper edges with a horizontal flange extending between and beyond the walls of said vessel, in combination with a lid, the central portion or the body of said lid extending down within the circular flange and the edges or outer portion of said lid consisting of a horizontal flange corresponding in size and shape with the flange on the vessel, to fit snugly upon the same, substantially as and for the purpose described.

2. A pail or vessel circular in horizontal cross-section and provided at its upper edges with a horizontal flange extending beyond the walls of said vessel, in combination with a lid the central portion or the body of said lid extending down within the circular flange and the edges or outer portion of said lid consisting of a horizontal flange corresponding in size and shape with the flange on the vessel, to fit snugly upon the same, provided with locking-clamps to hold the same in place, substantially as and for the purpose described.

3. A paper vessel circular in horizontal cross-section having double walls and an angle-strip, one wing of which is inserted between the upper edges of these walls, the other wing forming a horizontal flange extending beyond said walls, said angle-strip carrying flexible metal clamps for fastening the lid or the hinge substantially as and for the purpose described.

4. A paper vessel circular in horizontal cross-section and provided at its upper edges with a horizontal flange extending beyond the walls of the vessel, and a lid having a corresponding flange to fit upon the same in the manner described, the same being provided with flexible metal clamps for locking the lid in place and at the same time to receive the ends of the bail for carrying the vessel, substantially as and for the purpose described.

5. A paper vessel circular in horizontal cross-section and provided with double walls and at its upper edges with a horizontal flange extending between and beyond the walls of the vessel, and a lid having a corresponding flange to fit upon the same in the manner described, said lid and said flange being both provided with flexible metal strips inclosing the two sides of a wire link to form a hinge, substantially as and for the purpose described.

WILL M. KINNARD.

Witnesses:

GEORGE HEIDMAN,
H. G. EDWARDS.