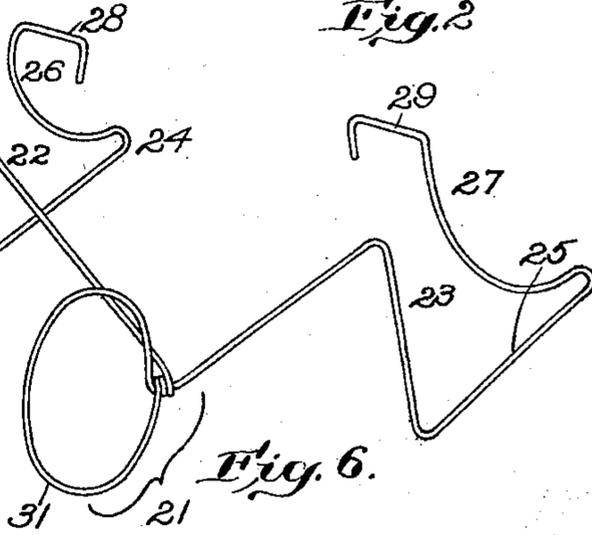
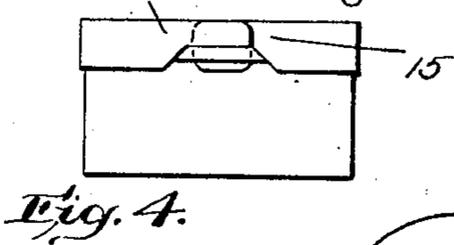
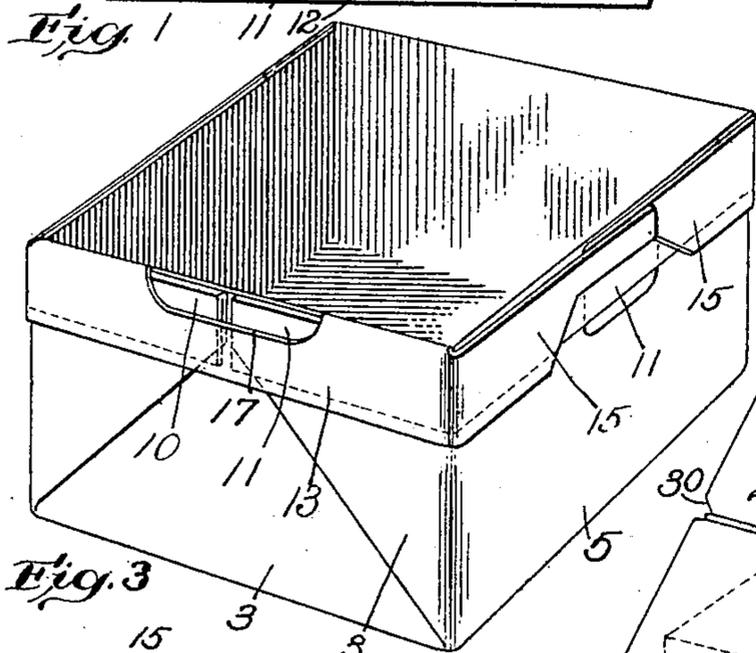
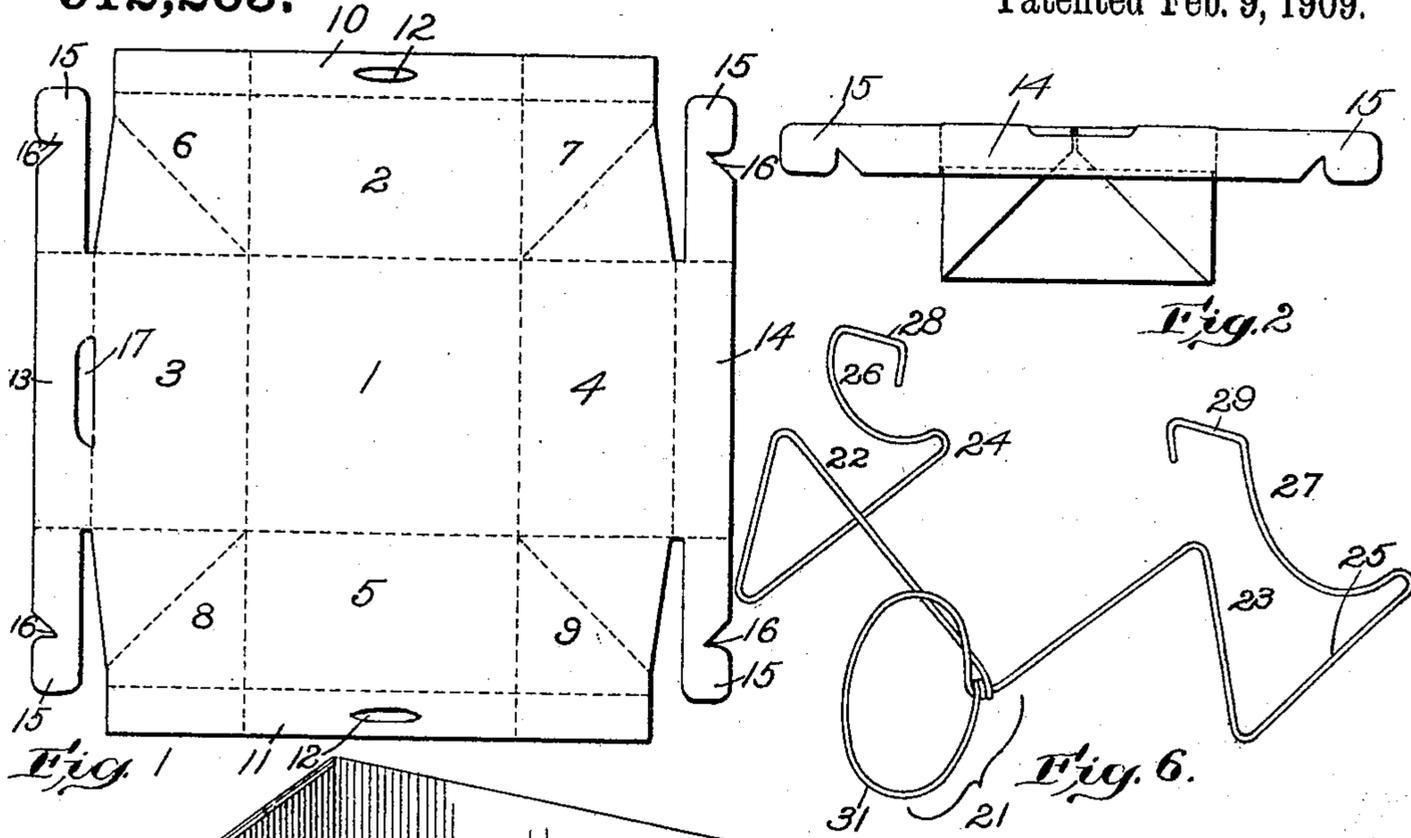


H. J. POTTER.
 SPUTUM CUP.
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912,263.

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UNITED STATES PATENT OFFICE.

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SPUTUM-CUP.

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To all whom it may concern:

Be it known that I, HARRY J. POTTER, a citizen of the United States, residing at Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Sputum-Cups, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

This invention relates to receptacles or cups and more particularly to aseptic sputum cups adapted for use in hospital and sanitariums or the like or which may be conveniently carried in a pocket of the user for use during a brief period.

Cheapness of cost and manufacture may be secured not only by using paper or the like but by forming the cup of a single blank cut to prevent waste material, such paper or other material being if desired treated in any preferred manner to render it liquid proof, such receptacle being designed to be destroyed after having been used for a brief period, preferably by burning to avoid contagion, for which reason the material employed in the manufacture is preferably of a fibrous nature.

In order that the principles of the invention may be more fully apparent I have disclosed one type or embodiment thereof in the accompanying drawing, wherein—

Figure 1 is a plan of the blank from which the receptacle embodying my invention may be formed; Fig. 2 is an end elevation of the blank folded into form excepting that the securing flaps are shown as laterally distended; Fig. 3 is a perspective view of the receptacle complete excepting for the cover and handle; Fig. 4 is a side elevation of the receptacle on a reduced scale showing the manner of fastening the securing flaps; Fig. 5 is a perspective view of the receptacle with the handle in position and the cover tilted upwardly from the receptacle, and Fig. 6 is a perspective view of the form of wire handle preferably employed in this embodiment of my invention.

Referring to that single type or embodiment of my invention here selected for illustration, the blank wherefrom the receptacle is preferably formed may be of cardboard which may, if desired, be suitably treated to render it liquid-proof. The blank is substantially rectangular in contour and is made

with the minimum amount of waste in cutting the same to provide the necessary securing means. The blank comprises a base portion 1, side portions 2 and 5 and end portions 3 and 4 extending therefrom, the adjacent sides and ends united by substantially rectangular corner portions 6, 7, 8 and 9, which are herein indicated as scored along a diagonal thereof, there being a line of scoring between the adjacent portions enumerated. Preferably the sides 2 and 5 and the corner portions 6, 7, 8 and 9 are prolonged to afford reinforcing rims 10 and 11, each of which is provided with an opening 12 preferably elliptical in outline. The ends 3 and 4 are prolonged to form reinforcing rims 13 and 14, each of which has lateral flaps 15 preferably notched along one edge as indicated at 16. Each flap 15 is of substantially the width of the reinforcing rim 13 and 14. Preferably, an opening 17 is formed along the line of union of one of the reinforcing rims as 13 and the side from which it extends. The blank may be scored along the bases of the rims as indicated in Fig. 1. It will be observed that the only waste material is that cut out between the flaps 15 and the adjacent corner portions, and that therefore the receptacle is made with a minimum of waste and yet it presents the maximum amount of reinforcement throughout the upper rim thereof and at the ends of the receptacle.

In folding the blank into form, the sides and ends 2, 3, 4 and 5 are up folded from the base 1, the corner portions being doubled upon themselves along the diagonally scored lines thereof and out folded flatwise against the outer end walls 3 and 4 of the receptacle, each rim 10 and 11 being folded upon the outside of the end wall and the corner portions to which it is attached. In this position of the parts, the upper rim of each of the end walls 3 and 4 receives a triple reinforcement, this being afforded by the folded corner portion of the rims 10 and 11 lying thereagainst. In this position of the parts, the upper edge of each of the side walls 2 and 5 is singly reinforced by the central portion of the reinforcing rims 10 and 11. In order now to lock the receptacle in shape and to further reinforce the upper rim thereof, the rims 13 and 14 are downwardly and outwardly folded upon the upper edge of the ends 3 and 4 as indicated in Figs. 2 and 3, whereby said ends receive a quadruple

reinforcement. The length of the flaps 15 and the position of the notches 16 therein is preferably such that that portion of each flap 15 extending between the notch 16 therein and the end thereof is received in the appropriate opening 12 without slackness. Thus, the upper rim of each of the sides 2, 3 is doubly reinforced. It will be observed that the reinforcing and securing portions of the receptacle are located entirely upon the exterior thereof, so that an uninterrupted surface is afforded on the interior.

A cover may, when desired, be employed in connection with the receptacle. Covers have heretofore been pivotally mounted upon the edge of a receptacle formed from a blank by the provision of a tab or flap rising from the edge of the receptacle and received within a slot in the cover, the cover thus pivoting upon such tab. Such construction is objectionable in that the protruding tab is liable to be broken, thus destroying the uniting means for the receptacle and the cover, and moreover such tab protruding through the cover interferes with the carrying of the receptacle in the pocket or packing of a number of the same compactly. Furthermore such a construction is objectionable in that it weakens the receptacle by reason of the fact that a portion of the receptacle itself is cut out to provide such a tab or tabs and the position of the tabs is restricted or limited to certain portions of the edge of the receptacle, and particularly is this so if the receptacle be formed in the general manner herein indicated, that is to say, by out folding corner portions, 6 and 7, inasmuch as such openings must be located between a corner of the receptacle and the extreme inner limit of such out folding corner portions. In other words, in such prior construction, so far as I am aware, it was not feasible to employ a single tab extending centrally from the upper edge of one of the sides or ends.

In the present type of my invention, the tab for securing the cover is struck from the cover itself as indicated in Fig. 5, wherein the cover 18 is provided with a tab 19 adapted to be inserted through the slot or opening 17 heretofore described and between the inner wall of the receptacle and the corner portions that are outwardly folded against the outer side of such wall. I am, of course, not restricted to the provision of a single tab upon the cover nor to the central disposition thereof, but such central tab may be more readily formed than a plurality of side tabs and affords a sure movement of the cover, in addition to which fact a firm housing is afforded for the tab between the inner wall of the receptacle and the meeting ends of the out folded corner portions, which themselves are strengthened upon the outside by the downwardly folding rim 13. Moreover a

smooth upper surface is afforded upon the cover, no exposed portion being presented that is liable to be broken. It is within my invention to pivotally mount the cover upon any one of the sides or ends of the receptacle.

In the present type of my invention, I preferably provide a handle which herein not only serves as a means for supporting the receptacle but affords a means which normally maintains the cover closed and yields to permit the opening thereof when the protruding portion 20 of the cover is pressed as indicated in Fig. 5.

A preferable form of handle is indicated in Figs. 5 and 6 and comprises a light spring wire 21 having the triangular portions 22, 23 adapted to be engaged between an end wall of the receptacle and the corner portions folded thereagainst, each triangular portion 22 or 23 being extended as shown to present forwardly extending members 24, 25 and uprising portions 26, 27 terminating in ends 28 and 29, preferably lying upon the upper surface of the cover, the extremities of such ends being, if desired, down turned and extending through perforations in the cover as indicated in Fig. 5. If desired, the cover may be notched as indicated at 30 at opposite edges to receive the portions 26, 27 of the handle. If desired, a loop 31 may be formed in the handle to receive the finger of the user. In Fig. 6 wherein the handle is removed from the receptacle, it will be observed that the outer side of the triangular portions 22, 23 normally flare upward, it hence being necessary to compress or force them toward each other when positioning the handle. Thus, the handle is securely held by the lateral pressure of said side portions of the triangular members 22, 23 against the line of union of the corner portions and the end walls.

The wire of which the handle is preferably formed is preferably highly resilient, so that it readily yields when pressure is applied to the overlying portion 20 of the cover and yet the cover is instantly returned to position after use of the receptacle.

Any suitable handle may be employed in connection with my invention, and the cover may be maintained closed in any suitable manner.

Having thus described one type or embodiment of my invention, I desire it to be understood that although specific terms are used they are employed in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being set forth in the following claims.

1. A receptacle blank comprising a base portion 1, side portions 2, 5 and end portions 3, 4, extending therefrom, corner portions 6, 7, 8 and 9 intermediate said side and end portions, reinforcing rims 10, 11 extending

from said side portions and corner portions, and having openings or slits formed therein entirely within the body portions thereof, and reinforcing portions 13, 14 extending
 5 from said end portions 3, 4 and provided with laterally extending flaps 15 formed as continuations of and in line with the longitudinal extent of the portions 13 and 14 and having portions adapted to engage said
 10 openings 12.

2. A receptacle comprising a base portion 1, side portions 2, 5 and end portions 3, 4 extending therefrom, corner portions 6, 7, 8, 9, intermediate said side and end portions,
 15 reinforcing rims 10, 11 extending from said side portions and corner portions and having openings or slits formed therein entirely within the body portions thereof, and reinforcing portions 13, 14 extending from
 20 said end portions 3, 4 and provided with laterally extending flaps 15 having portions adapted to engage said openings 12, said flaps 15 being of substantially the same width as and forming continuations in line
 25 with the longitudinal extent of the reinforcing rims 13, 14 and having notches 16 therein, the portions of said flaps 15 adjacent the notches 16 therein being adapted to engage the openings or slits 12.

3. A receptacle formed from a single blank and comprising a base, upstanding side and end walls 2, 3, 4, 5, corner portions 6, 7, 8, 9 intermediate said side and end walls, each adapted to be folded along a diagonal thereof
 35 and to be superimposed flatwise upon the outside of an end wall of the receptacle, said end walls having reinforced rims 13 and 14 adapted to be down folded upon the outside of the receptacle, flaps 15 extending from
 40 the opposite ends of the reinforced rims 13 and 14 and in line with the longitudinal extent thereof, rims 10 and 11 extending from said side walls 2 and 5 and having openings or slits formed therein entirely within the
 45 body portions thereof to receive portions of flaps 15.

4. A sputum cup formed from a single blank, one of the upright walls thereof having a down folded reinforcing rim provided
 50 with an opening formed longitudinally of the line of union of such rim and wall, and a cover having a tab struck therefrom and adapted to be inserted in such opening to form a point of pivotal connection between
 55 the receptacle and the cover.

5. A receptacle formed from a single blank comprising a base and up standing sides and ends, corner portions integral with and intermediate said sides and ends
 60 and adapted to be folded upon diagonals thereof and to be superimposed flatwise against the outer face of an upright wall of the receptacle, the upper edge of one of said walls against which the corners are adapted
 65 to be superimposed having a down folding

rim provided with a slot therein longitudinally of the line of union of the rim and the wall, and a cover provided with a tab struck therefrom and adapted to be inserted in said
 70 opening and between said wall and said diagonally folding corner portions.

6. A receptacle formed from a single blank, one of the upright walls thereof having a down folded reinforcing rim having
 75 a centrally located opening formed longitudinally of the line of union of such rim and the wall, and a cover having a tab struck therefrom between opposite edges thereof and adapted to be inserted in such opening.

7. A receptacle formed from a single
 80 blank comprising a base, side and end walls, corner portions 6, 7, 8 and 9 integral with and intermediate said side and end walls and adapted to be folded along diagonals thereof and to be superimposed flatwise against op-
 85 posite end walls of the receptacle, reinforcing rims 10, 11 extending from the side walls and corner portions, reinforcing rims 13, 14 extending from the end walls 3, 4, and having securing flaps 15 laterally extending
 90 therefrom, said reinforcing rims 10 and 11 having openings 12 to receive the end of the flaps 15, an opening 17 being formed along the reinforcing rim 13, and a cover having a
 95 tab 19 struck therefrom and adapted to be inserted in said opening 17 and between an end wall of the receptacle and the superimposed diagonally folded corner portions.

8. A receptacle comprising a base and upstanding walls and corner portions adapt-
 100 ed to be superimposed flatwise against certain of said walls, a cover mounted upon an upstanding wall of the receptacle and having an operating extension and a handle having
 105 portions adapted to be engaged between said superimposed corner portions and the adjacent wall and having spring extensions adapted to engage the cover to permit the opening thereof and tending normally to
 110 close the same the handle grasping portion being located adjacent the handle operating extension of the cover.

9. A receptacle provided with a cover upon an upstanding wall of the receptacle and
 115 having an operating extension and a handle of spring material detachably and frictionally connected with said receptacle and having extensions engaging the cover thereof to permit the opening of the cover but tend-
 120 ing normally to close the same, the handle grasping portion being located adjacent the handle operating extension of the cover.

10. A receptacle provided with a cover mounted upon an upstanding wall of the
 125 receptacle and having an operating extension and a handle having spring extensions adapted to engage the cover to maintain the same normally closed, the handle grasping portion being located adjacent the
 130 handle operating extension of the cover.

11. A receptacle having up standing walls and corner portions adapted to be superimposed against an up standing wall, a cover mounted upon an upstanding wall of the
5 receptacle and having an operating extension, and a detachable handle of spring material for the receptacle comprising the triangular portions 22, 23, the forward extensions 24, 25, the upright portions 26, 27,
10 and the ends 28, 29, and the cover 18 where- with said ends engage, said handle tending normally to maintain the cover closed, the handle grasping portion being located adjacent the handle operating extension of the
15 cover, the portions 22 and 23 of the cover being between an upstanding wall and corner portions of the receptacle superimposed thereagainst.

12. A receptacle provided with a cover
20 mounted upon an up standing wall of the receptacle and having an operating exten-

sion and a handle having a spring portion engaging the body of the cover to maintain the same normally closed, the handle grasping portion being located adjacent the
25 handle operating extension of the cover.

13. A receptacle provided with a cover hinged upon an upstanding wall thereof, and a wire handle having a spring end portion thereof engaging a side edge of the
30 cover and portions intermediate the ends of the wire engaged with but readily detachable from the receptacle, thereby permitting the ready disconnection of the handle from the receptacle. 35

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

HARRY J. POTTER.

Witnesses:

M. H. Lowy,

IRVING U. TOWNSEND.