

Oct. 15, 1940.

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2,218,002

SPUTUM CUP

Filed Nov. 3, 1938

2 Sheets-Sheet 1

Fig. 1.

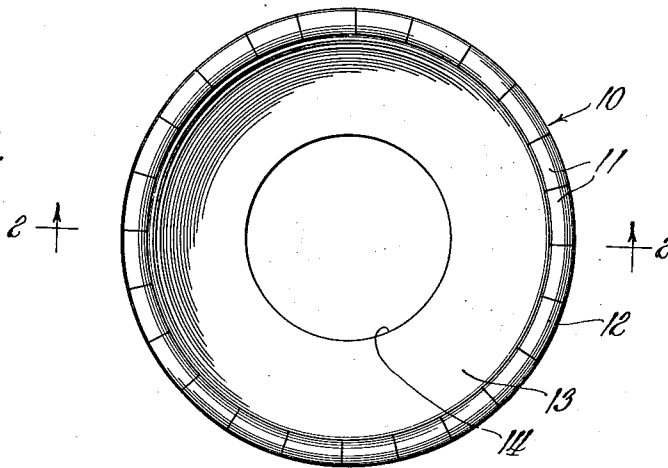


Fig. 2.

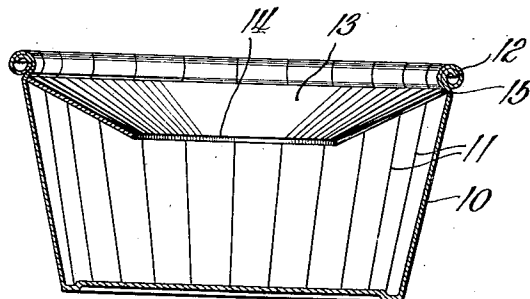
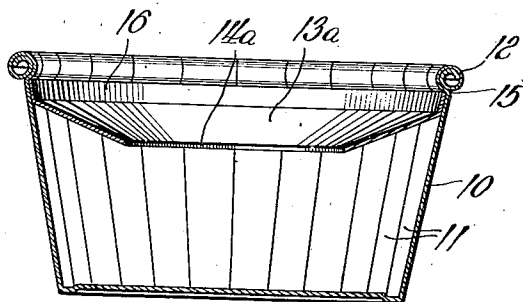


Fig. 3.



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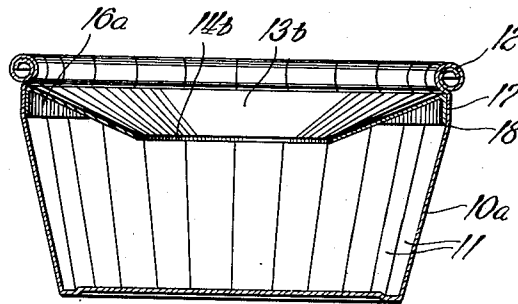
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Fig. 4.



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UNITED STATES PATENT OFFICE

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SPUTUM CUP

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Application November 3, 1938, Serial No. 238,506

4 Claims. (Cl. 4—258)

This invention relates to receptacles, and has to do with sputum cups and analogous devices.

The invention is directed to a sputum cup comprising a cup body and a baffle mounted therein, the body and the baffle having cooperating elements effective for retaining the baffle in position while also providing reinforcing means for the device as a whole, such that it may be constructed of paper and like materials and will have a comparatively long effective life. More specifically, the cup body is provided with a reinforcing bead at its top, which resists radial spreading of the body and assures proper positioning and support of the baffle while providing an abutment confining the baffle against upward movement relative to the body. I provide the baffle with an element cooperating with the body for supporting the baffle therein, while providing an effective reinforcement for the body, forming a seal therewith about the baffle and excluding objectionable lodgment of spittle or other substances above the baffle, and facilitating insertion of the baffle and accurate positioning thereof within the body. Further objects and advantages of my invention will appear from the detail description.

In the drawings—

Figure 1 is a plan view of a sputum cup embodying my invention;

Figure 2 is a sectional view taken substantially on line 2—2 of Figure 1;

Figure 3 is a sectional view similar to Figure 2 but showing a modified form of sputum cup embodying my invention; and

Figure 4 is a view similar to Figure 2 but showing a second modified form of sputum cup embodying my invention.

In Figures 1 and 2 cup body 10 is, in general, of known construction and is formed of paper, being provided with lengthwise extending plait 11. Body 10 flares upward and is provided, at its top, with a reinforcing bead 12 of circular cross section, which bead projects inward of body 10 radially thereof for approximately one half of the diameter of the bead. That provides a rounded inwardly projecting shoulder at the top of body 10. An inverted frusto-conical baffle 13, also formed of paper, and provided with a central opening 14 at its lower base, is disposed within body 10 with the outer edge portion of its upper base engaging the bead 12 and fitting tightly within body 10, in a rounded channel 15 provided by the juncture of the inwardly projecting bead with the top of the body. Bead 12 thus provides an abutment preventing upward movement of baffle 13 relative to body 10, down-

ward movement of the baffle being prevented by its engagement in the channel 15 and the downward taper of the surrounding wall of the body. Bead 12 and the upper base portion of baffle 13 thus cooperate with each other and with the body 10 to position accurately the baffle and retain it within the cup body, while also providing an effective seal about the upper base of the baffle, which prevents leakage of the contents of the cup in the event the latter is tipped over.

In the cup shown in Figure 3, baffle 13^a, having at its lower base opening 14^a, is provided with a circumferential flange 16 projecting upward from its upper base and engaging the inner portion of bead 12, this flange flaring correspondingly to the surrounding wall of body 10 and fitting tightly against this wall. Flange 16 and bead 12 effectively prevent upward movement of baffle 13^a relative to body 10, and relative downward movement of the baffle is prevented by the downward taper of the surrounding wall of the cup body. In addition, flange 16 provides material reinforcement for the upper portion of the cup body, resisting inward distortion thereof and, in conjunction with bead 12, provides highly efficient sealing means about the upper base of the baffle.

In Figure 4 body 10^a flares upward to within a short distance of bead 12, being provided with a relatively narrow straight or cylindrical portion 17 extending downward from the bead. Baffle 13^b, provided with opening 14^b through its lower base, is provided, at its upper base, with a depending circumferential flange 16^a which engages the bead 12 and seats, at its lower edge, against the upwardly flaring portion of body 10^a at the plane of juncture 18 thereof with the straight or cylindrical portion 17. That provides means for accurately positioning the baffle within the body and retaining it in position, while providing an effective seal about the upper base of the baffle, flange 16^a providing an effective reinforcement for the body, in the same manner as flange 16 of baffle 13^a of Figure 3.

In each of the forms shown in Figures 1 to 4, inclusive, the baffle is formed of paper or other suitable material which possesses considerable rigidity and appreciable resilience. Due to its inverted frusto-conical form, the baffle is self centering as it is inserted into the cup and, during insertion, may be compressed or distorted to a certain extent sufficiently to pass through the bead 12, the base portion of the baffle, as it reaches the lower portion of the bead, engaging beneath the latter with a snap action which is effective for accu-

rately positioning the baffle within the cup body, in which position it is retained in the manner previously described.

As has been indicated, changes in construction and arrangement of details of the device of my invention may be resorted to without departing from the field and scope thereof, and I intend to include all such variations, as fall within the scope of the appended claims, in this application in which the preferred forms only of my invention have been disclosed.

I claim:

1. In a sputum cup, an upwardly flaring body provided at its top with an exterior outwardly rolled circumferential reinforcing bead of substantially circular cross section projecting radially inward of said body and resisting radial spreading thereof, the wall of said body below said bead being flat, and an inverted frusto-conical baffle open at its lower base and provided at its upper base with a circumferential flange fitting tightly within said body with its upper end engaging beneath said bead and cooperating therewith and with the contiguous downwardly tapering portion of said body for retaining said baffle in position within said body.

2. In a sputum cup, an upwardly flaring body provided at its top with an exterior outwardly rolled circumferential reinforcing bead of substantially circular cross section projecting radially inward of said body and resisting radial spreading thereof, the wall of said body below said bead being flat, and an inverted frusto-conical baffle open at its lower base and provided at its upper base with an upwardly projecting circumferential

flange flaring upward correspondingly to said body fitting tightly within the latter with its upper edge engaging beneath said bead and cooperating therewith and with the contiguous downwardly tapering portion of said body for retaining said baffle in position within said body.

3. In a sputum cup, a body provided at its top with an exterior outwardly rolled circumferential bead of substantially circular cross section projecting radially inward of said body and resisting radial spreading thereof, said body flaring upward to within a short distance of said bead and the remainder of said body being straight to said bead, and an inverted frusto-conical baffle open at its lower base and provided at its upper base with a straight depending circumferential flange fitting tightly within the straight portion of said body and confined between said bead and the flaring portion of said body for retaining said baffle in position within said body.

4. In a sputum cup, a body provided at its top with an exterior outwardly rolled circumferential bead projecting inward radially of said body and resisting radial spreading thereof, and an inverted frusto-conical baffle open at its lower base and provided at its upper base with a circumferential flange fitting tightly within said body, said body tapering downward from said flange and the latter being confined between and cooperating with said bead and the downwardly tapering portion of said body contiguous to said flange for retaining said baffle in position within said body.

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