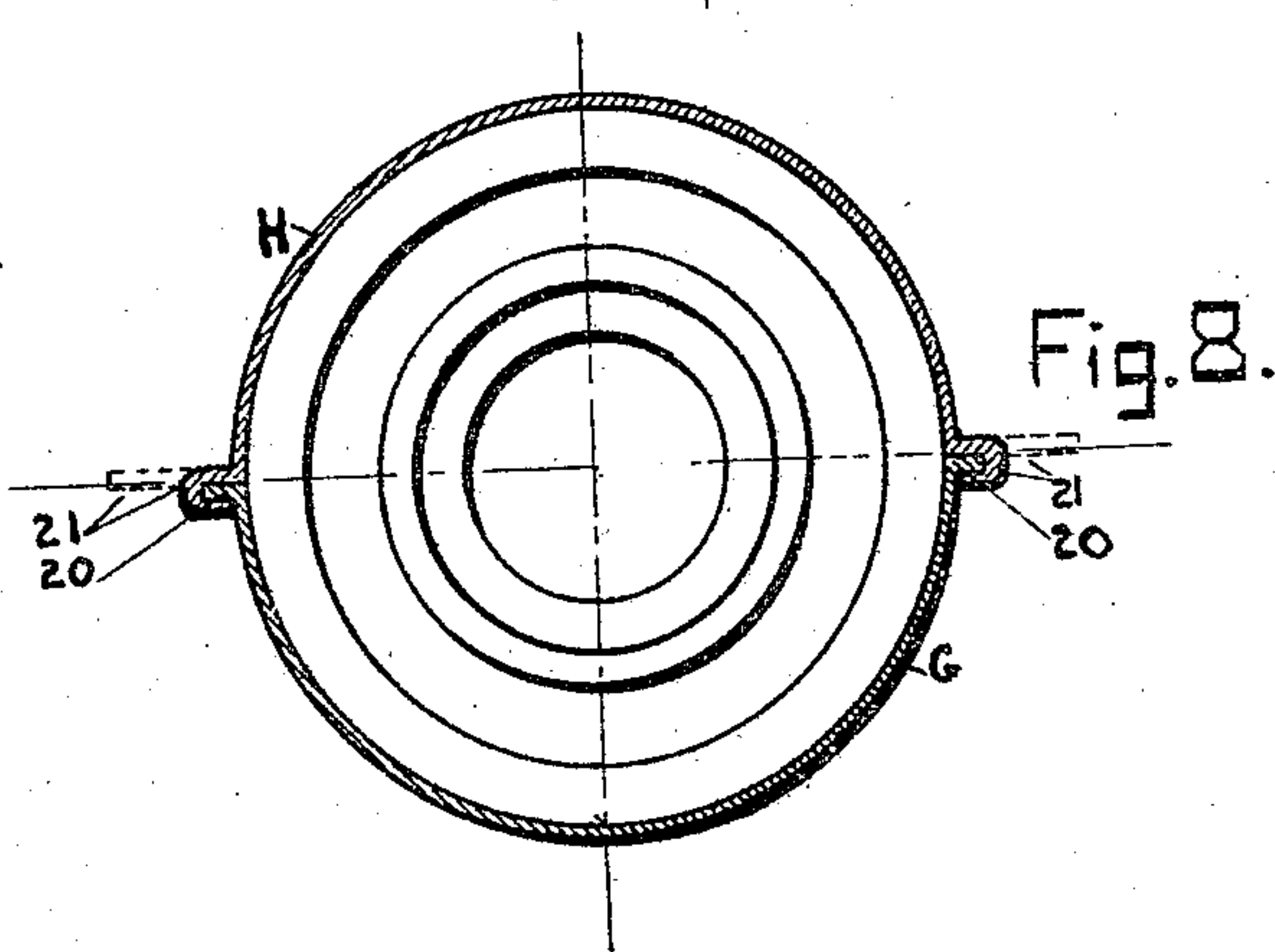
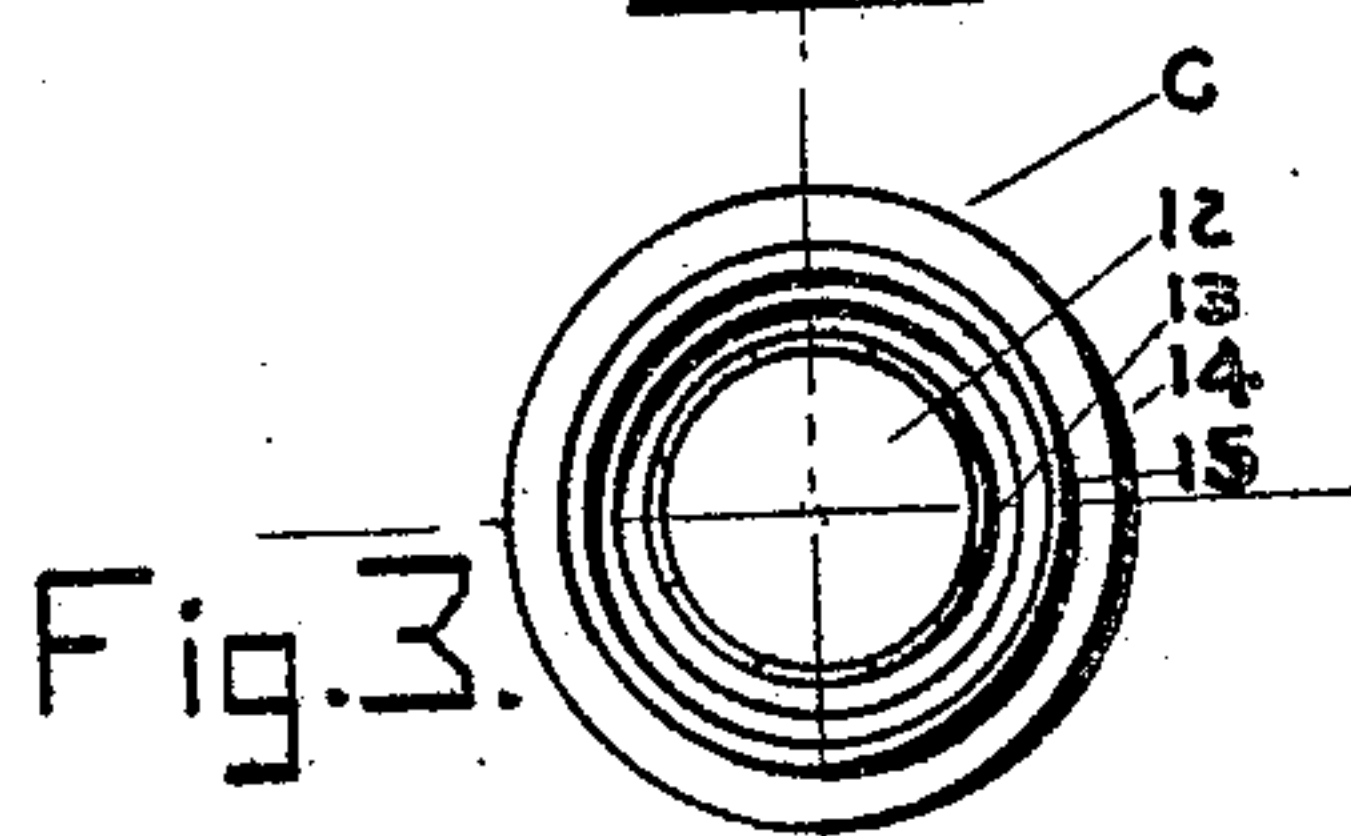
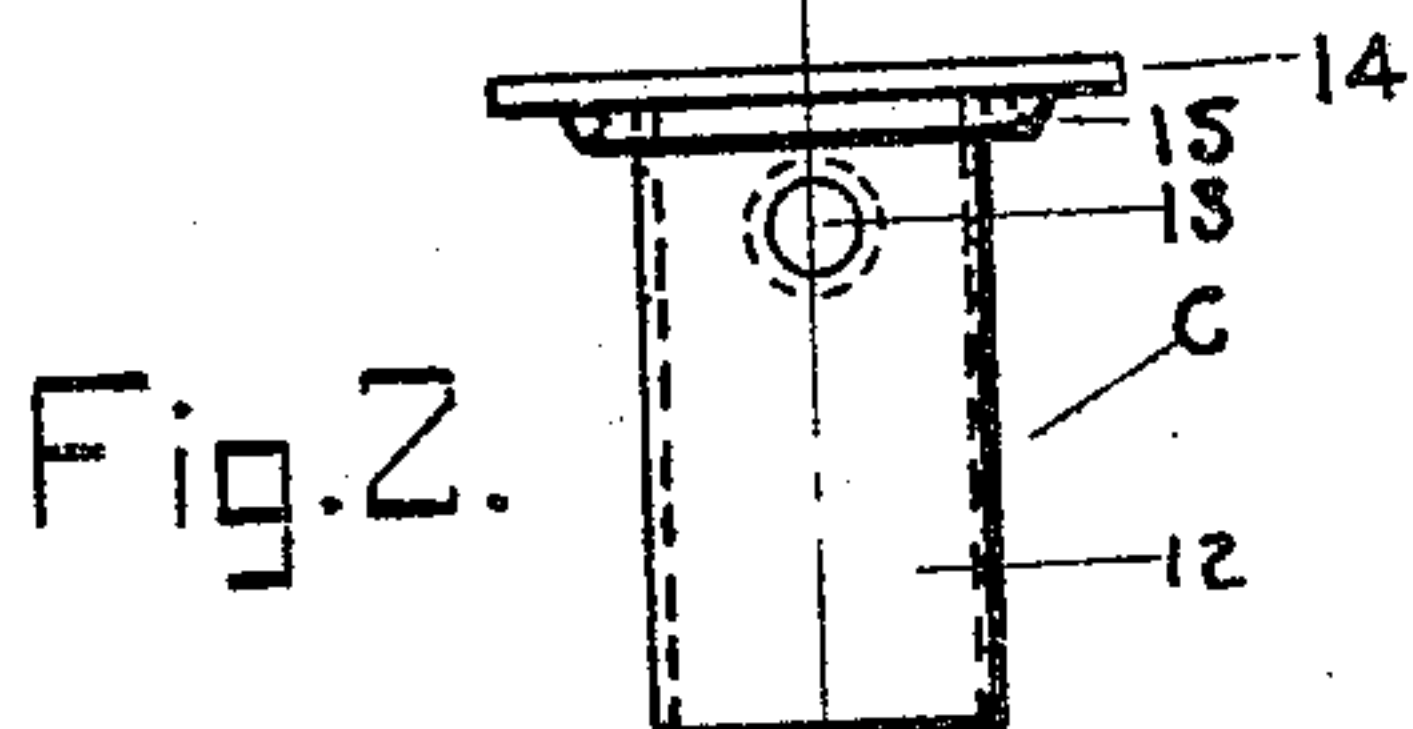
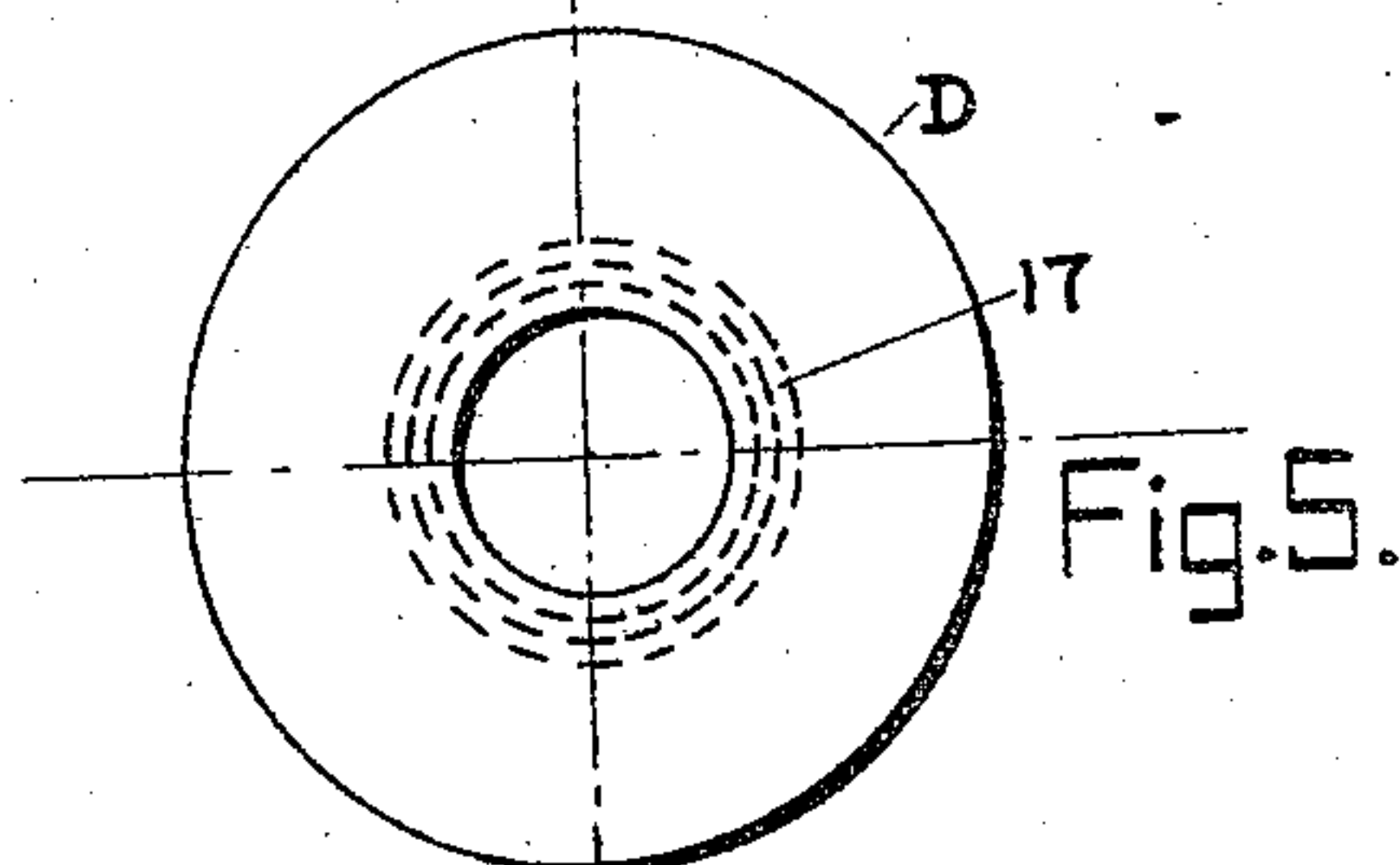
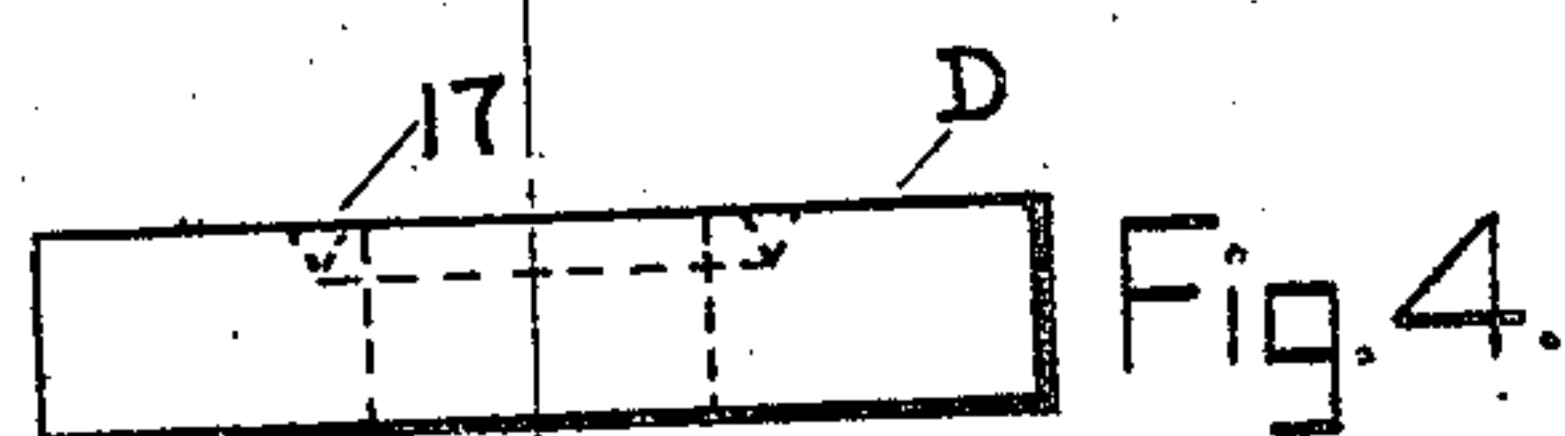
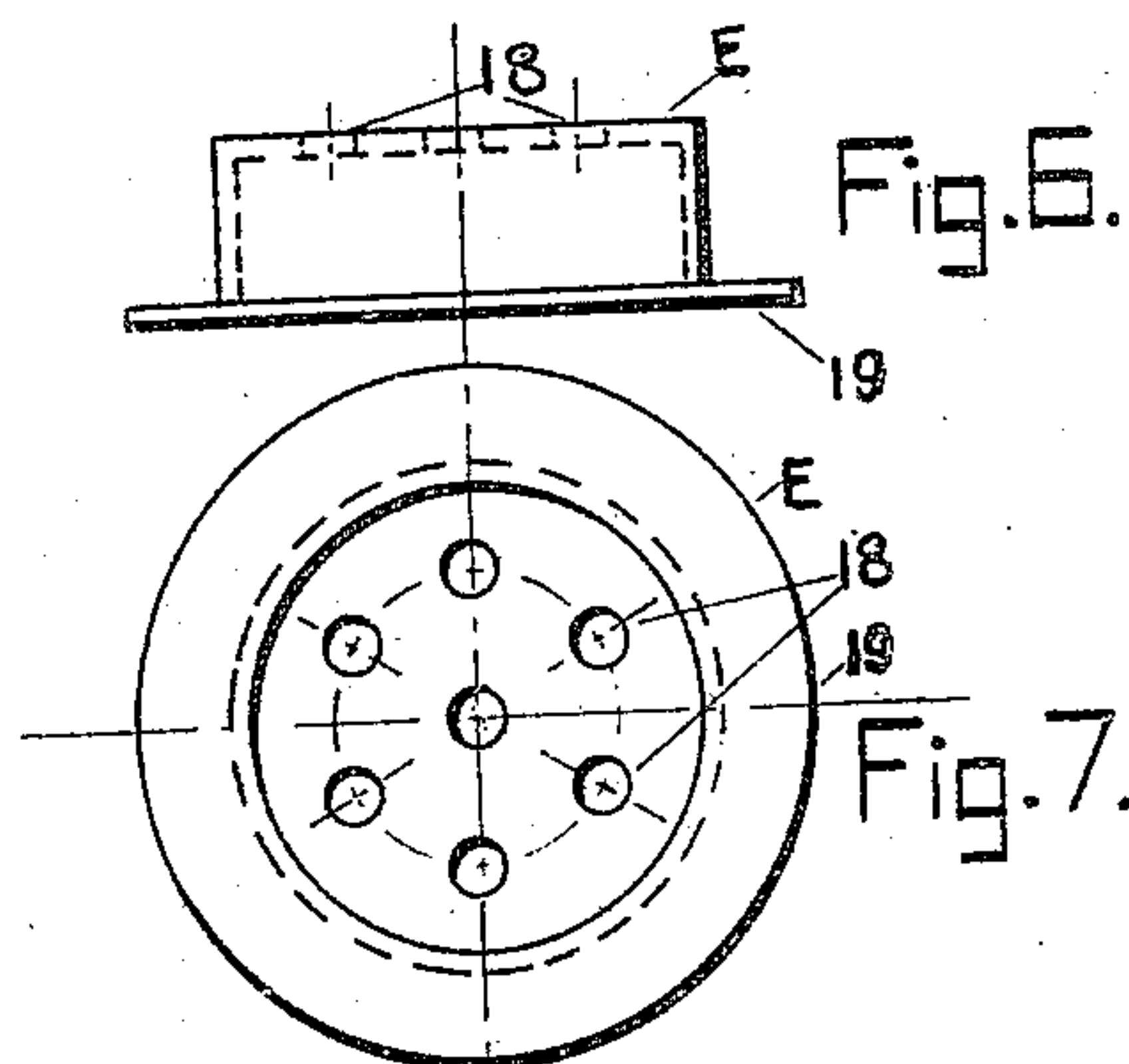
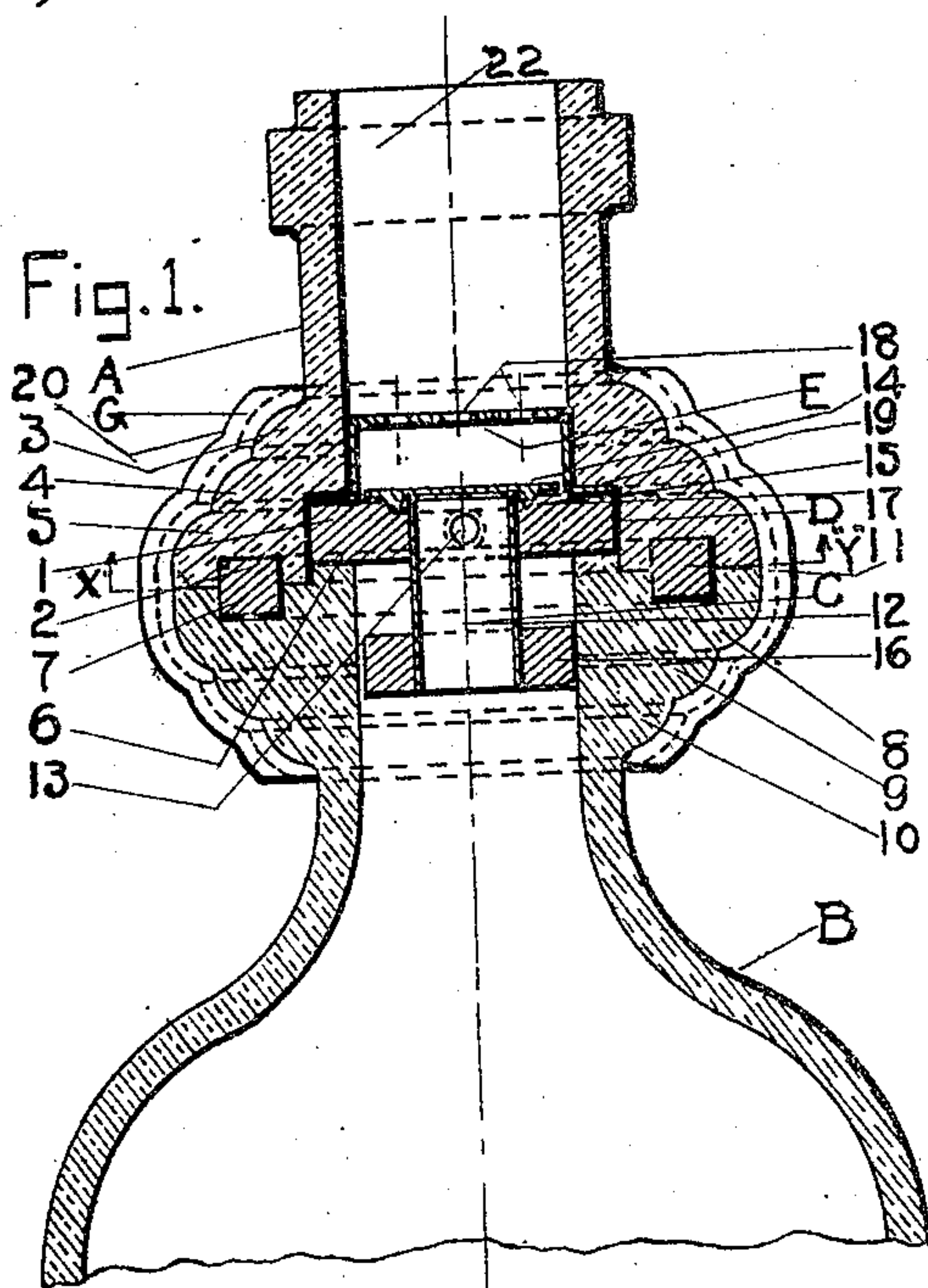


J. H. BROWN.  
NON-REFILLABLE RECEPTACLE FOR FLUIDS.  
APPLICATION FILED AUG. 10, 1909.

Patented Dec. 28, 1909.

944,313.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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NON-REFILLABLE RECEPTACLE FOR FLUIDS.

944,313.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed August 10, 1909. Serial No. 512,249.

*To all whom it may concern:*

Be it known that I, JACOB H. BROWN, a citizen of the United States, residing at 1524 Madison avenue, city of New York, in the county and State of New York, have invented a new and useful Non-Refillable Receptacle for Fluids, of which the following is a specification.

My invention relates to improvements in non refillable receptacles for fluids and is applicable to the bottling of any fluid of any degree of fluidity or density; and the object of the invention is to preclude the possibility of refilling the receptacle either in the usual manner of filling ordinary receptacles, or by mechanically holding my valve and filling after said receptacle is once properly emptied; thereby preventing the re-marketing of any specific bottled product by other than the true compounders; in the receptacle by them put on sale. To this end I make my receptacle of any appropriate material in two sections;—a reservoir with a valve seat-rest thereto and a neck section; and a clamp for making a unit of the two sections. I use the reservoir section in the initial filling by usual process; a gravity valve arrangement that permits the discharge of liquid on inversion of the receptacle; a shield or guard preventing the manipulation of this valve by mechanical means; and a packing ring to insure a liquid-tight joint all as illustrated in the accompanying drawing in which similar letters refer to similar parts throughout the several views.

Figure 1 is a vertical section of the receptacle with the female clamp section "H" removed; Fig. 2, an elevation of the valve "C"; Fig. 3, a bottom view thereof; Fig. 4, an elevation of the valve-seat "D"; Fig. 5, a bottom view thereof; Fig. 6, an elevation of the valve-guard "E"; Fig. 7, a bottom view thereof; Fig. 8 represents a horizontal section on the line "x—y" with the lower or reservoir section "B", valve "C", seat "D", guard "E", and packing ring "11" removed.

I use a neck section "A" with a mouth 22; annular recesses 1 and 2 formed on the bottom of said neck section, and annular projections of increasing diameter, 3, 4 and 5 respectively on the outer lower portion thereof, a reservoir section "B" with an annular projection 6 and annular recess 7 formed on the top thereof, and annular

projections of decreasing diameter, 8, 9 and 10 respectively on the outer upper portion thereof. The valve "C" of suitable material has a hollow cylindrical body 12, with discharge openings 13, substantially as shown, and a flanged top 14, which has a "V" annular projection 15 on the under side of the flange thereof.

When the valve "C" is placed on its seat "D" the lower end of the valve body 12, is expanded into the valve weight and stop 16. The valve seat "D" consists of a disk of suitable material bored at its center for the valve body 12 to pass through, and has formed on the upper face a "V" annular recess 17 to mesh with the annular projection 15 of the valve top 14. The valve guard "E" is cup shaped and of one piece, though I may make it in other convenient form, with discharge openings 18 on top thereof, and an annular flange 19, formed around the bottom edge thereof.

In the assembling, the reservoir section "B" is filled with any liquid whatsoever; when filled, the valve seat "D" with the valve "C", with weight and stop 16 attached, as previously described, is placed on the annular projection 6; the valve guard "E" is placed with its flange edge concentric with the outside of the valve seat "D" and directly over it; the washer ring 11 is placed in the annular recess 7; section "A" is then placed in position so that projection 6 of section "B" enters its recess 1.

By the use of a special machine designed for the purpose, the male clamp "G" with its flanges 20, and female clamp "H" with its flanges 21,—made of pewter or of such like composition—designed to enshroud the annular projections 3, 4 and 5 of section "A", and 8, 9 and 10 of section "B", substantially as illustrated;—are joined together as shown in Fig. 8.

The projection 6 in section "B" entering recess 1 of section "A" together with the washer ring 11,—preferably made of cork—resting in recess 2 of section "A" and recess 7 of section "B" serve to make the joint of the two sections liquid-tight; while by the nature of the clamping of tapering surfaces, the clamps "G" and "H" firmly fix the neck section "A" onto its seat in the "B" section, making a unit of the two sections.

The receptacle may be marketed with the usual cork and seal at the mouth 22. In



emptying the contents, after the cork and seal is removed, the gravity valve "C" drops in the direction of the mouth 22 of the receptacle, when said receptacle is inverted, allowing the contents an unobstructed flow through the hollow cylindrical body 12, thence through the discharge openings 13 of the valve "C", thence around the periphery of the flange 14 of the valve "C", thence through the discharge openings 18 of the valve guard "E", thence through the mouth 22 of the neck section "A".

With the receptacle standing on its bottom, my gravity valve is in the closed position shown in Fig. 1, and any liquid poured into the mouth 22, cannot enter the reservoir section "B", nor can any liquid be made to enter the reservoir section "B" when valve "C" is forced back into its closed position as by an attempt at infusion under pressure with the receptacle inverted. It is evident that if the valve "C" could be held open, the reservoir section could be filled; to offset this possibility I use valve guard "E" substantially as described to prevent access to the valve through the only channel available, viz:—the mouth 22.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

1. In a non-refillable receptacle for fluids the combination of a reservoir section and neck section with external annular projections of decreasing diameter, decreasing from the line of jointure, with clamps to make a unit of the two sections, substantially holding a valve apparatus between them.

2. In a non-refillable receptacle for fluids the combination of a reservoir section and neck section, with external annular projections of decreasing diameter, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus between them.

3. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing ring for liquid-tightening the joint, with external annular projections of decreasing diameter, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus of gravity design between them with a valve seat having a "V" annular recess on the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge

openings around the circumference of the hollow cylindrical body thereof, adjacent to the flanged top, with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents.

4. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing ring for liquid-tightening the joint, with external annular projections of decreasing diameter, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve seat having a "V" annular recess on the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge openings around the circumference of the hollow cylindrical body, adjacent to the flanged top, with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents, and a valve guard to prevent the manipulation of the valve after the receptacle is assembled.

5. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section, with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing ring for liquid-tightening the joint, external annular projections of decreasing diameter to the reservoir section and the neck section, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve seat having a "V" annular recess on the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge openings around the circumference of the hollow cylindrical body adjacent to the flanged top; with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents, and a valve guard to prevent manipulation of the valve after the receptacle is assembled, having discharge openings on the top thereof.

6. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section, with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing



ring for liquid-tightening the joint, with an annular projection to the reservoir section entering an annular recess in the neck section of sufficient depth to hold between the 5 annular reservoir projection and the shoulder of the annular recess in the neck section, the valve seat and valve guard; with external annular projections of decreasing diameter, decreasing from the line of jointure, 10 with male and female clamps enshrouding and clamping them, substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve seat having a "V" annular recess 15 on the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge 20 openings around the circumference of the hollow cylindrical body, adjacent to the flanged top, with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event 25 of dense fluidity of contents, and a valve guard to prevent manipulation of the valve after the receptacle is assembled, having discharge openings in the top thereof.

7. In a non-refillable receptacle for fluids 30 the combination of a reservoir section and a neck section with a recess in the bottom of the neck section and top of the reservoir section to hold a cork washer or packing ring for liquid-tightening the joint; with an an- 35 nular projection to the reservoir section entering an annular recess in the neck section of sufficient depth to hold between the annular reservoir projection and shoulder of the annular recess in the neck section, the 40 valve seat and guard; external annular projections of decreasing diameter to the reservoir section, and the neck section, decreasing from the line of jointure, with male and female clamps enshrouding and clamping 45 them, substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve seat having a "V" annular recess in the top thereof, a valve with a hollow cylindrical 50 body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge openings around the circumference of the hollow cy-

lindrical body adjacent to the flanged top, 55 with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents, and a valve guard to prevent manipulation of the valve after the 60 receptacle is assembled, having discharge openings on the top thereof, and a flanged rest around the bottom thereof.

8. In a non-refillable receptacle for fluids, the combination of a reservoir section and 65 a neck section, with a recess in the bottom of the neck section and top of the reservoir section to hold a cork washer or packing ring for liquid-tightening the joint; with an annular projection to the reservoir section 70 entering an annular recess in the neck section of sufficient depth to hold between the annular reservoir projection and shoulder of the annular recess in the neck section, the 75 valve seat and the flanged rest at the bottom of the valve-guard; external annular projections of decreasing diameter to the reservoir section, and the neck section, decreasing from the line of jointure, with male and 80 female clamps enshrouding and clamping them, substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve 85 seat having a "V" annular recess in the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular recess of the 90 valve seat, and discharge openings around the circumference of the hollow cylindrical body adjacent to the flanged top, with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of 95 contents, and a valve guard to prevent manipulation of the valve, after the receptacle is assembled, having discharge openings on the top thereof, and a flanged rest around the bottom thereof, to admit of the guard 100 being held in position by the combination as illustrated and described.

In witness whereof I have hereunto set my hand the seventh day of August, 1909.

JACOB H. BROWN.

Witnesses:

SYLVIA BROWN,  
NETTIE PIERMONT.