

A. G. KENT.
CAP FOR BOTTLES AND VESSELS.
APPLICATION FILED AUG. 3, 1908.

955,808.

Patented Apr. 19, 1910.

2 SHEETS—SHEET 1.

FIG. 1.

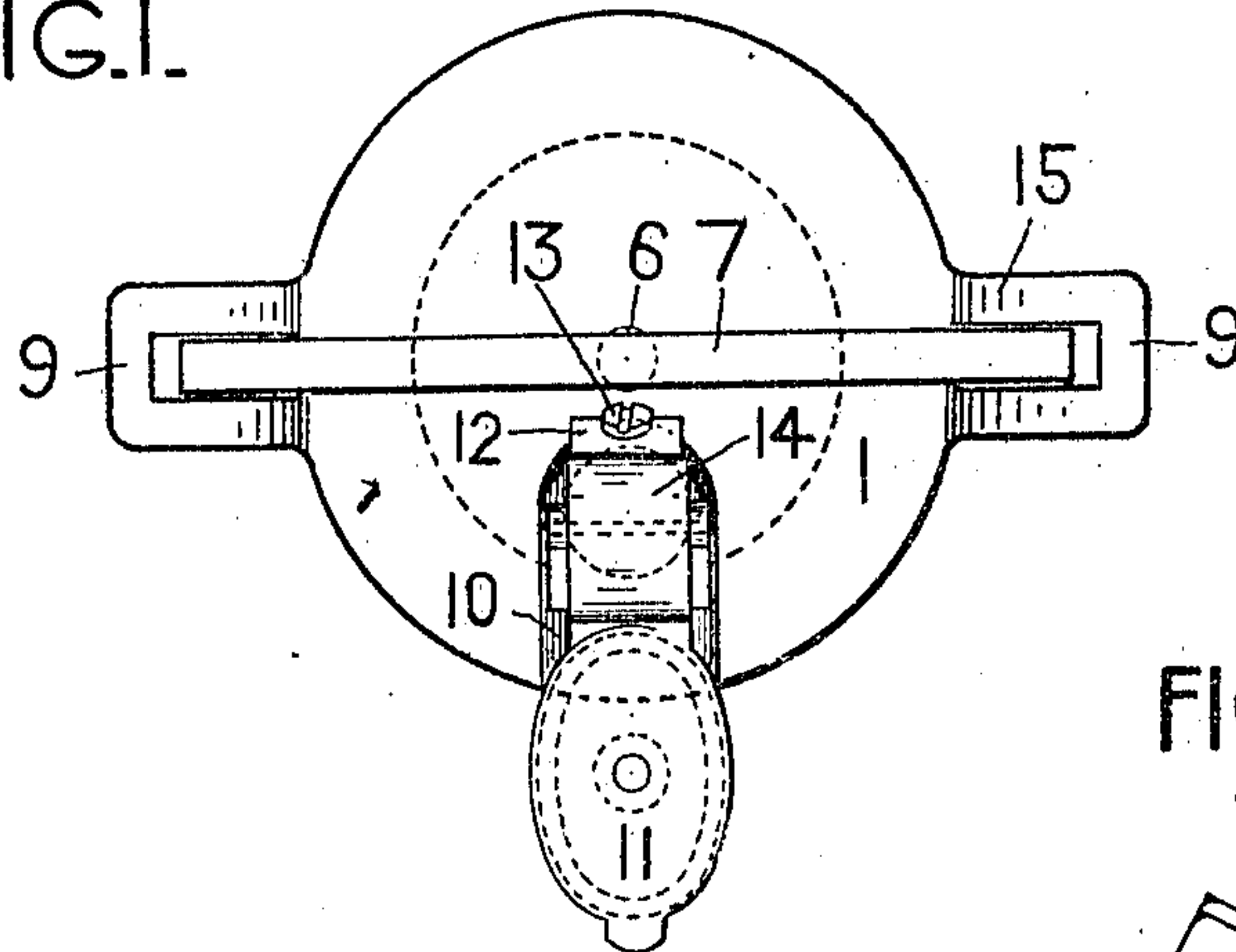


FIG. 2.

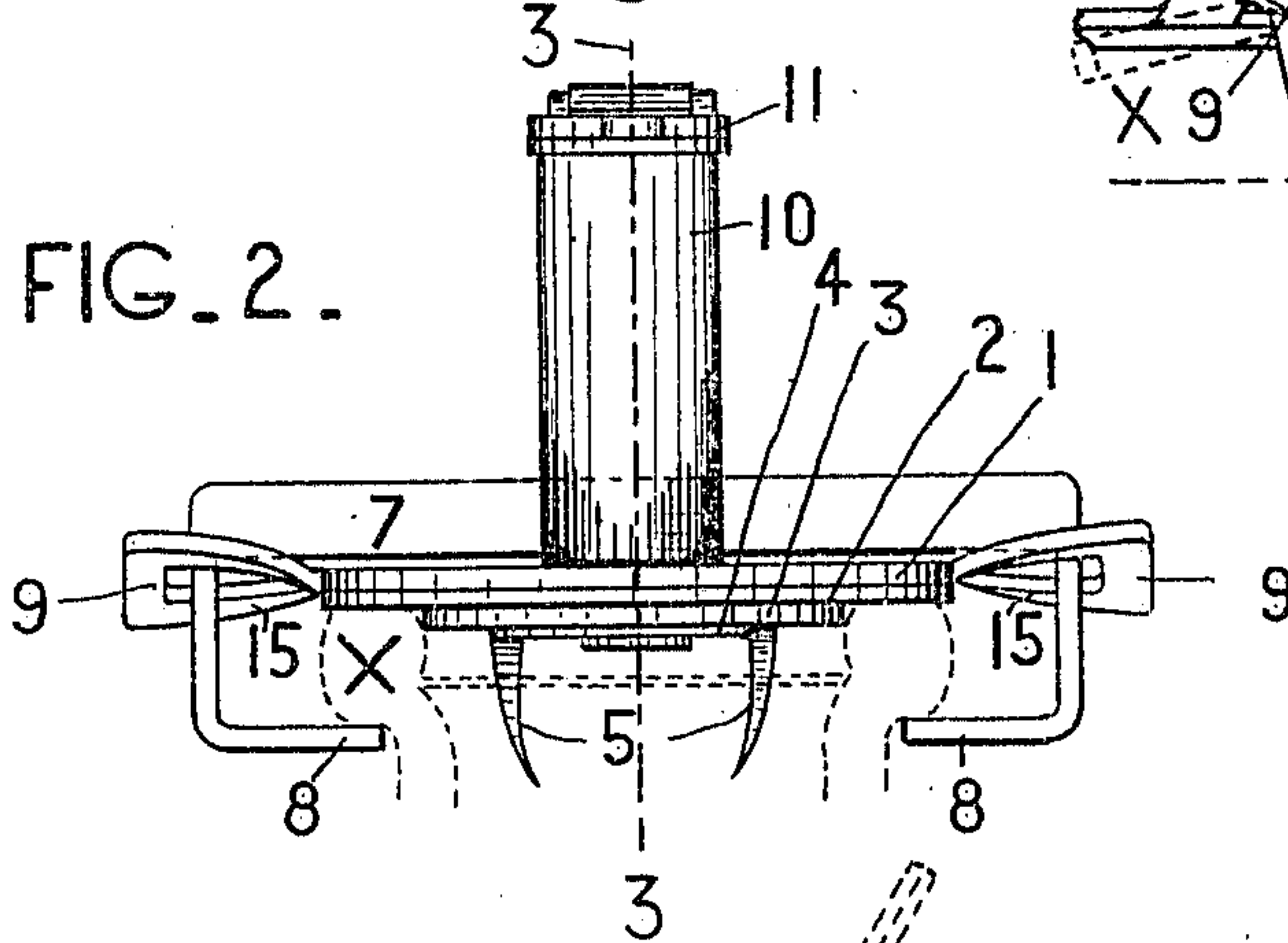


FIG. 3.

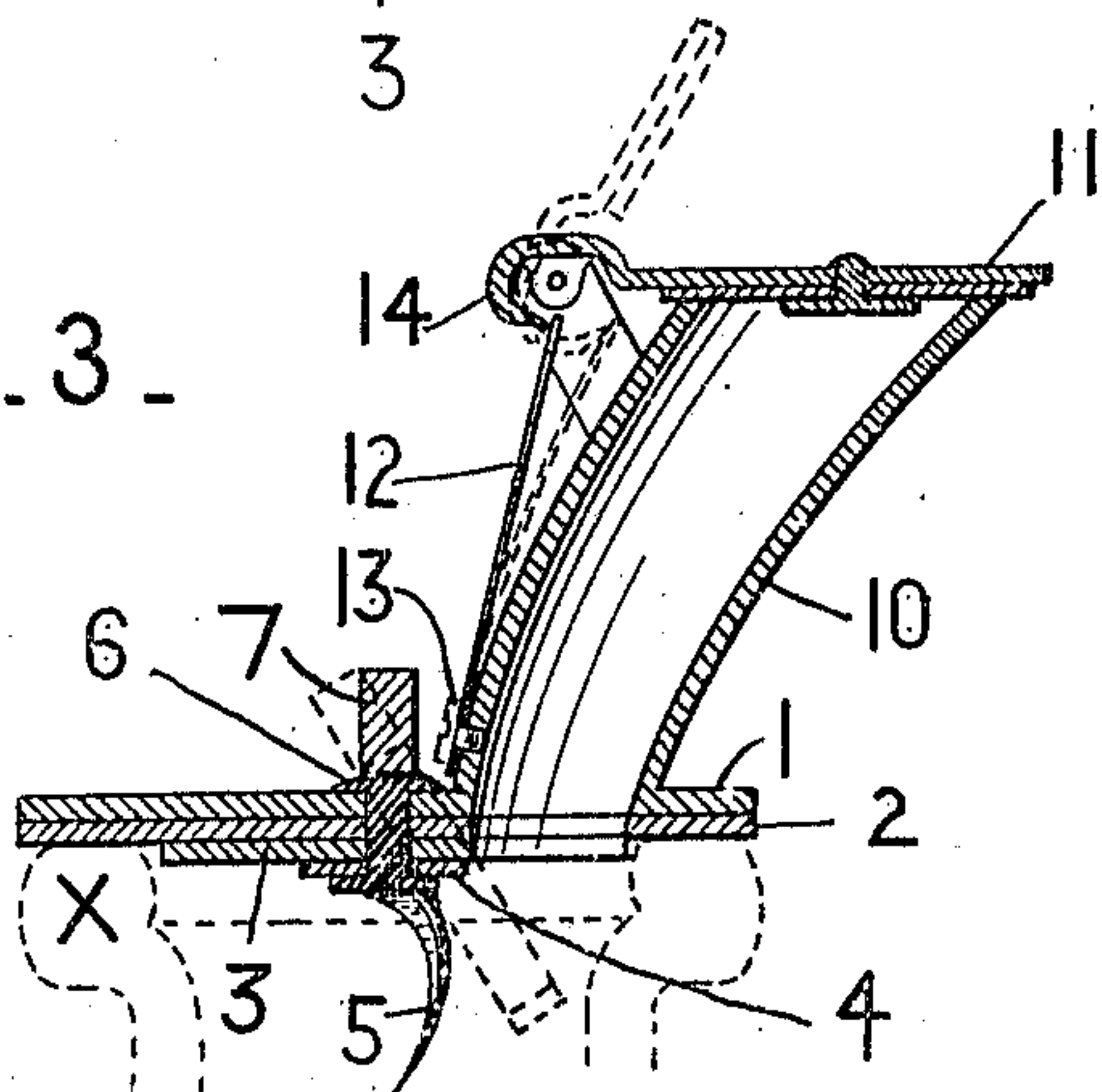
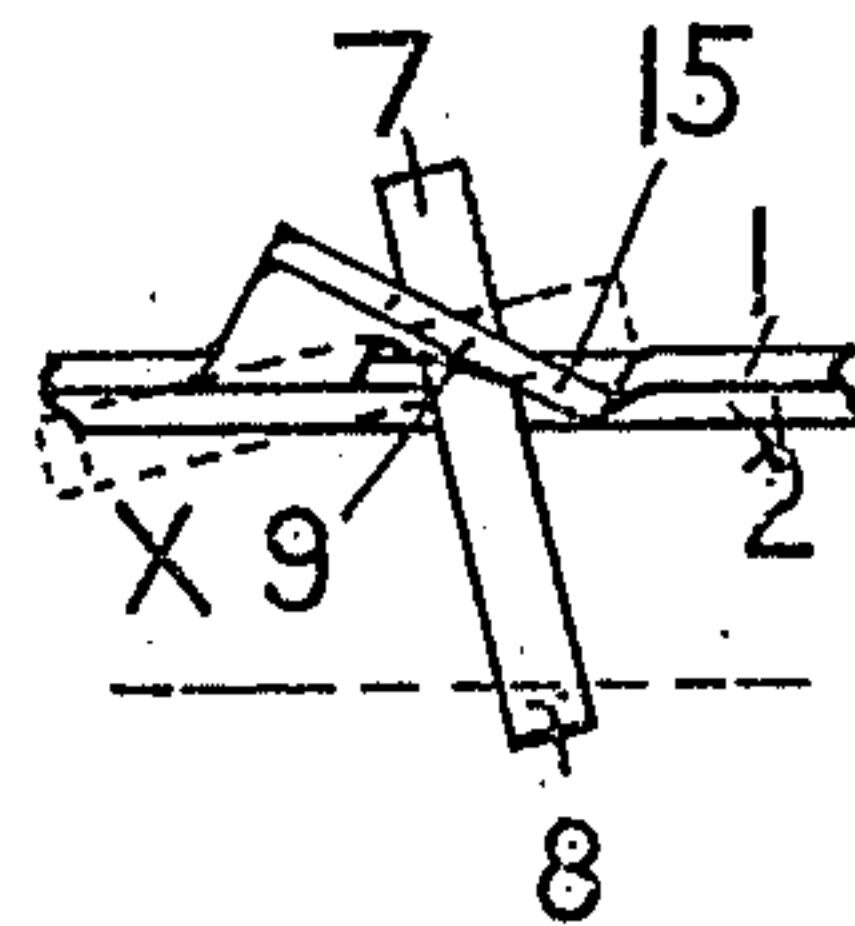


FIG. 4.



WITNESSES:

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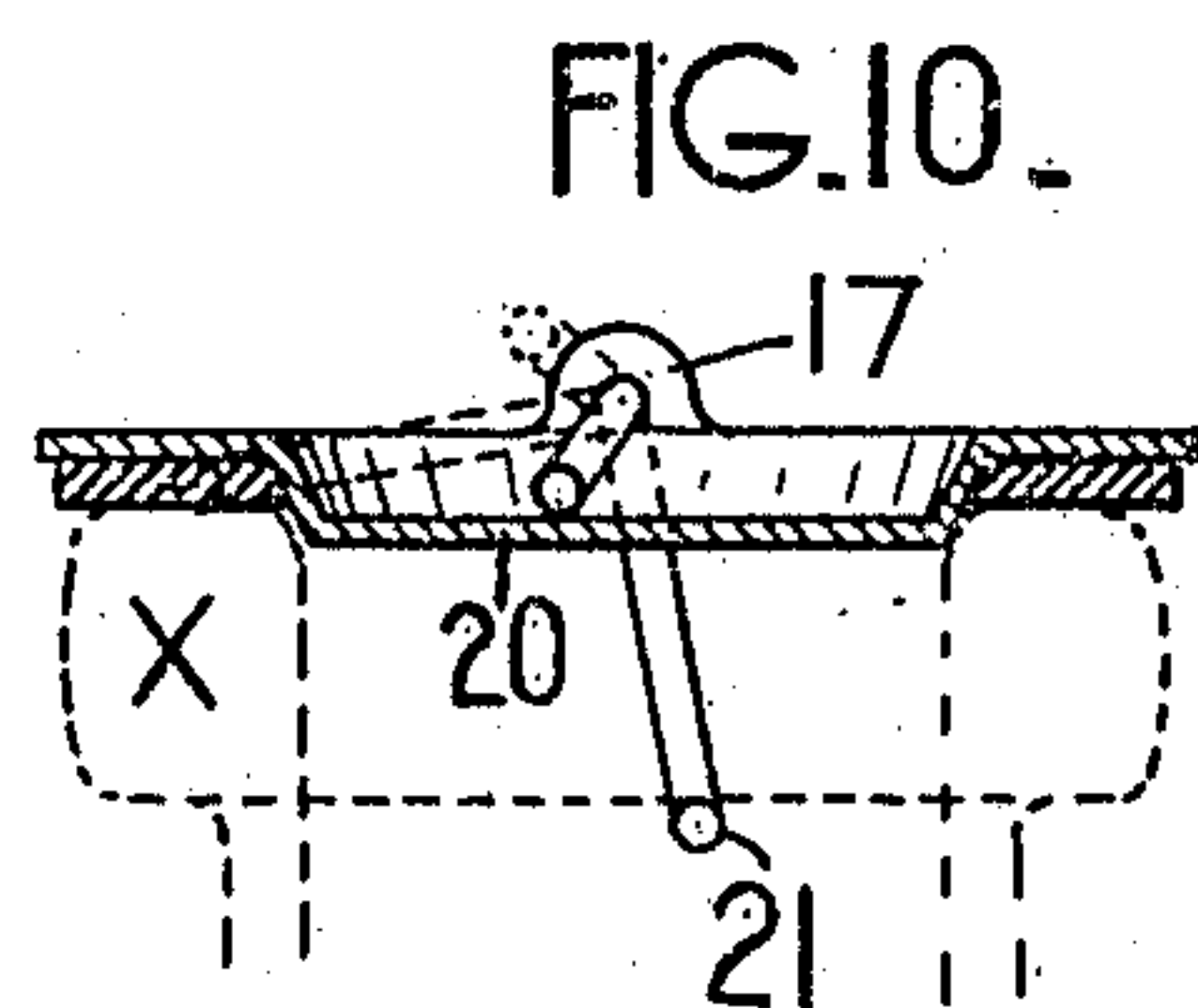
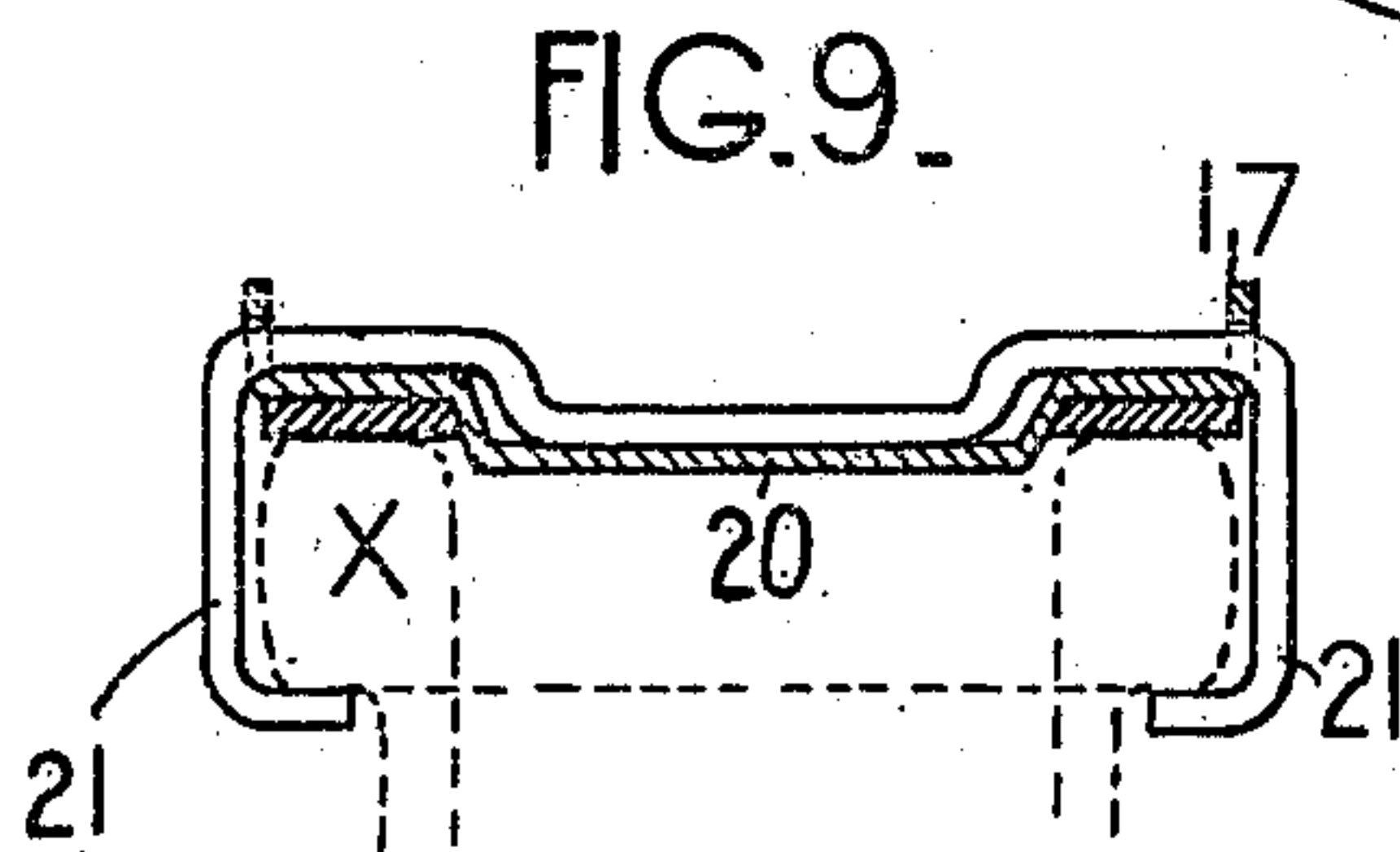
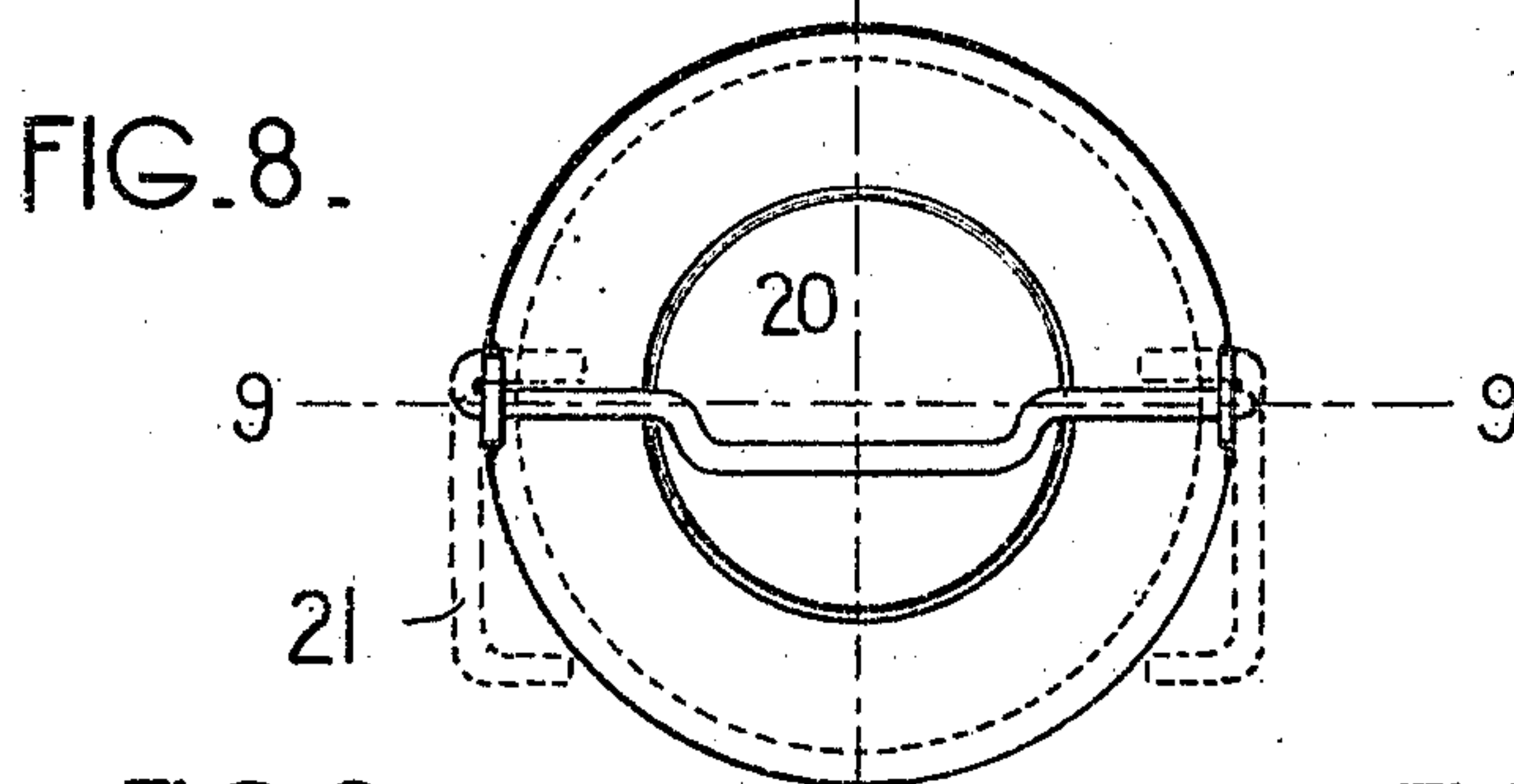
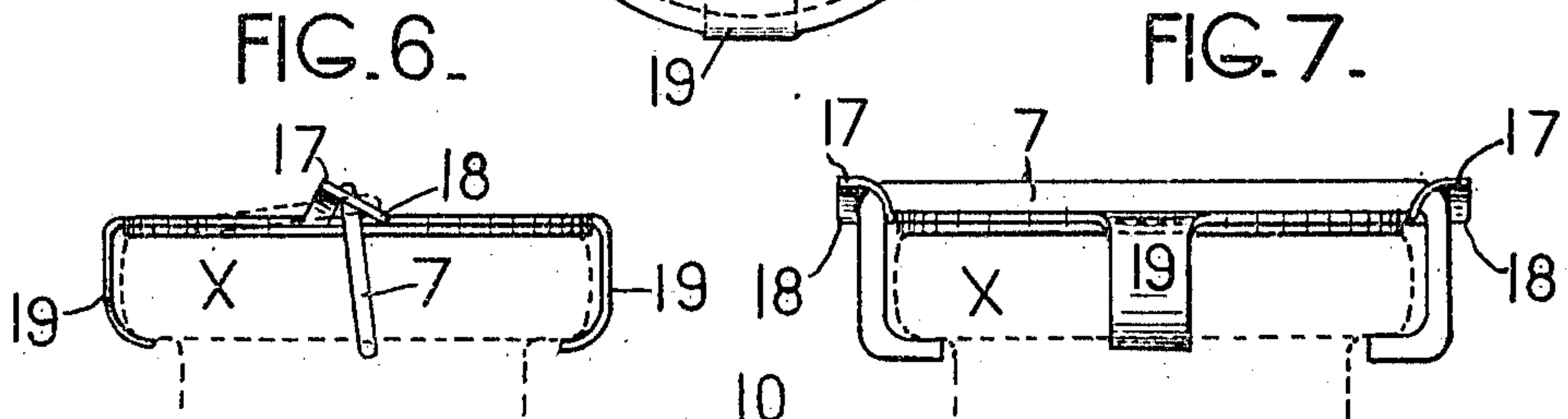
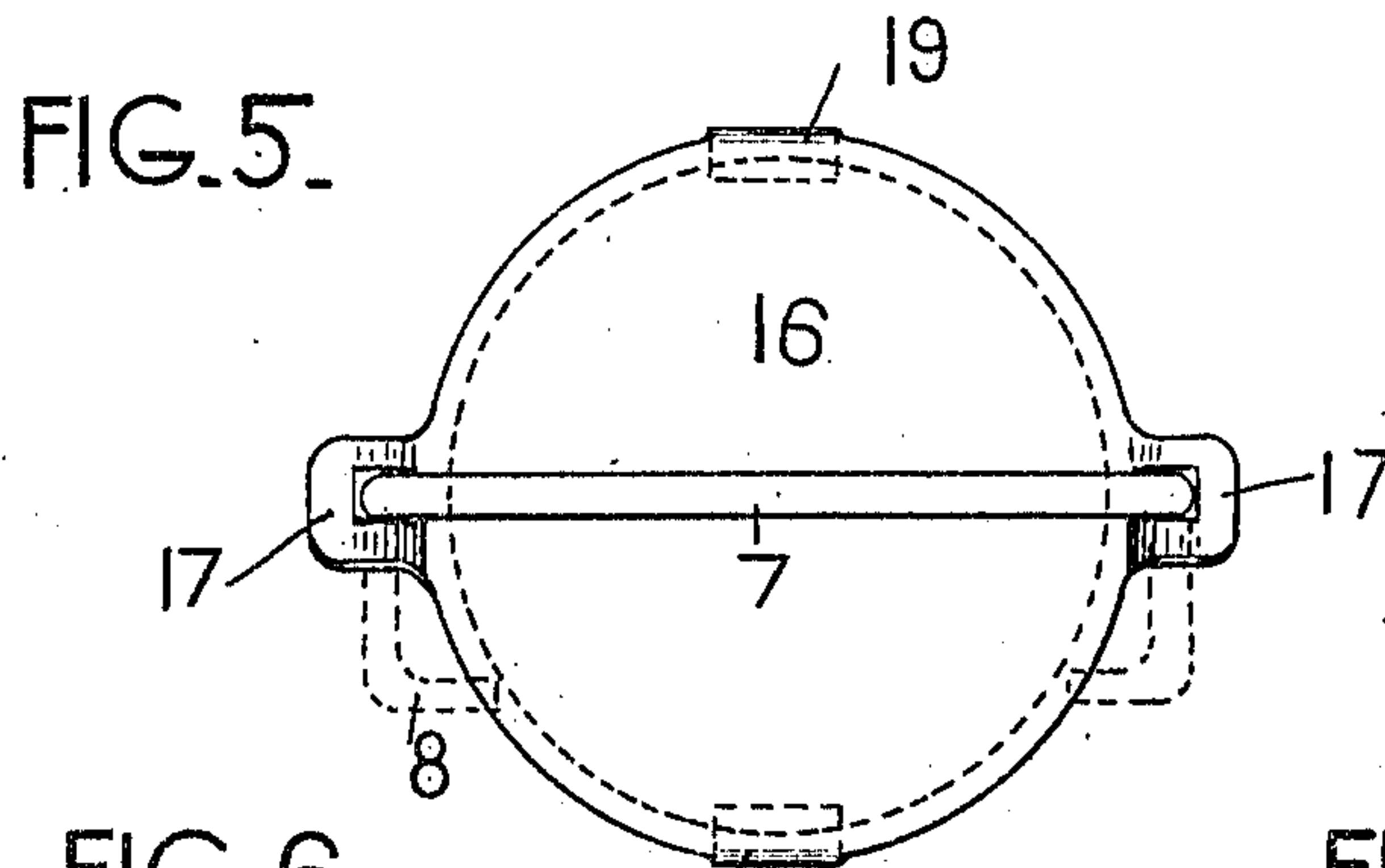
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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CAP FOR BOTTLES AND VESSELS.

955,808.

Specification of Letters Patent.

Patented Apr. 19, 1910.

Application filed August 3, 1908. Serial No. 446,635.

To all whom it may concern:

Be it known that I, ARTHUR G. KENT, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Caps for Bottles and Vessels, of which the following is a specification.

This invention relates to caps for bottles and vessels, and has for its object the closure of a bottle, jar or other vessel, after its seal has been broken, and during the time that its contents are in the course of being consumed.

In the drawings:—Figure 1 is a top view showing the cap attached to a milk bottle; Fig. 2 is a side view of the same; Fig. 3 is a section on the line 3—3 of Fig. 2; Fig. 4 is a partial side view of Fig. 2 from either right or left; Figs. 5–7, inclusive, are, respectively, a top and side views, at angles of ninety degrees, of a modification; and Figs. 8–10, inclusive, are, respectively, similar views of another modification.

The plate 1, which may be of any suitable material, closes the bottle, the gasket 2 excludes the air, and the disk 3 serves to center the cap, and also another purpose presently to be explained. Still another disk 4 is shown, below the others, that carries downwardly projecting, curved prongs 5, whose function is to pierce and withdraw the paper seals frequently used with milk bottles and other vessels when their contents are expected soon to be removed. These prongs are portions of the disk 4 itself, that are formed by cutting into the disk on each side and then bending down the tongues so formed.

Referring first to the construction shown in Figs. 1–4, inclusive, the plate 1, gasket 2, centering disk 3, and prong-carrying disk 4 are all fastened together like one piece by the central bolt 6. The cap is removably locked to the vessel by a spring clamp that consists of the band 7 that passes transversely across the top of the cap, to hold it down, and has at each end an elastic arm 8 that extends downwardly and then inwardly, as shown in Fig. 2, to engage beneath the rim X of the bottle, or beneath a suitable flange on the vessel. The clamp is assembled with the cap by passing the arms 8 through the ears 9, respectively, their inwardly turned ends preventing their withdrawal. A spout 10 with a lid 11 may be added to the cap, and in the

construction shown, the lid is normally closed by a flat spring 12, attached to the back of the spout at 13, extending up parallel therewith and engaging an arm 14 on the lid. When the cap is locked upon the bottle, the horizontal, elastic arms 8 spring down so that they pass beneath the rim or flange of the vessel, and their tension holds the cap in place. In order to lock the cap in place, the arms are rocked beyond the vertical, central plane of the vessel, as shown by dotted lines in Fig. 3, till they encounter the stops made by bending down the sides 15 of the ears 9. The spring clamp being now under tension is held by its own resiliency against the stops, and to be released must be turned forcibly back beyond the central, vertical plane of the vessel. And if the distance between the opposing ends of the arms is slightly less than the exterior diameter of the vessel, the arms will spring toward each other after they have been forced beyond the widest part of the vessel, and that will help to lock the cap in place. Again, a stop is also provided to prevent the cap from being forced to one side by the lateral pressure applied to the arms when they are moved beyond the central, vertical plane of the vessel, or by the pull of the elastic clamp. This is the second function of the disk 3, and is performed by engaging the inner edge of the vessel.

Figs. 5–7, inclusive, show a cap 16, without a spout, that is locked to the vessel X by the same spring clamp 7, which as before passes through perforated ears 17, and, as in the construction previously described, the ears 17 are bent down at 18 to stop the arms from passing too far beyond the central, vertical plane of the vessel. But here, instead of employing the disk 3 to center the cap and hold it in place, downwardly-projecting and inwardly-turned, oppositely-placed spring ears are attached to the cap, or made integral with it. These ears spring apart as the cap is slid over the vessel from one side, and extending under the rim or flange at the top help to lock the cap in place.

In the modification shown in Figs. 8–10, inclusive, the cap is depressed centrally at 20, to fit down into the mouth of the vessel, and serves the function of the centering disk 3 shown in Fig. 2. A portion of the wire clamp, that passes over the cap is offset so that it engages the top of the cap and

so stops the spring arms after they pass the central, vertical plane of the vessel.

What I claim is:—

1. A cap for closing vessels, comprising a
5 plate adapted to close the mouth; a spring
clamping band, having downwardly-extending, inwardly-directed arms adapted to engage a circumferential flange on the vessel, and adapted to swing on the plate to move
10 the arms toward and from the vertical, central line of the plate; and a stop on one of said parts, adapted to engage the other to prevent the movement of said clamp after its arms have passed the central, vertical
15 plane of said vessel; substantially as shown and described.

2. A cap for closing vessels, comprising a
plate adapted to close the mouth; a spring
20 clamping band, having downwardly-extending, inwardly-directed arms adapted to engage a circumferential flange on the vessel, and adapted to swing on the plate to move the arms toward and from the vertical, central line of the plate; a stop on one of said
25 parts, adapted to engage the other to prevent the movement of said clamp after its arms have passed the central, vertical plane of said vessel; and a second stop on the plate adapted to engage the vessel to resist dis-

placement of the plate; substantially as
shown and described. 30

3. A cap for closing vessels, comprising
a plate adapted to close the mouth; a spring
clamping band, having downwardly-extending, inwardly-directed arms, separated from
35 each other by less than the central diameter of the vessel at the point of engagement, and adapted to swing on the plate to move the arms toward and from the vertical line of the plate; and a stop on one of said parts,
40 adapted to engage the other to prevent the movement of said clamp after its arms have passed the central, vertical plane of said vessel; substantially as shown and described.

4. A cap for closing vessels, comprising 45
a plate, having the perforated ears 9 that are turned downwardly at one side, and the band 7 extending transversely across said cap, down through the said perforations and inwardly to engage the vessel, and adapted to
50 swing on the plate and within the ears in order to move the arms toward and from the vertical line of the plate; substantially as shown and described.

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Witnesses:

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