

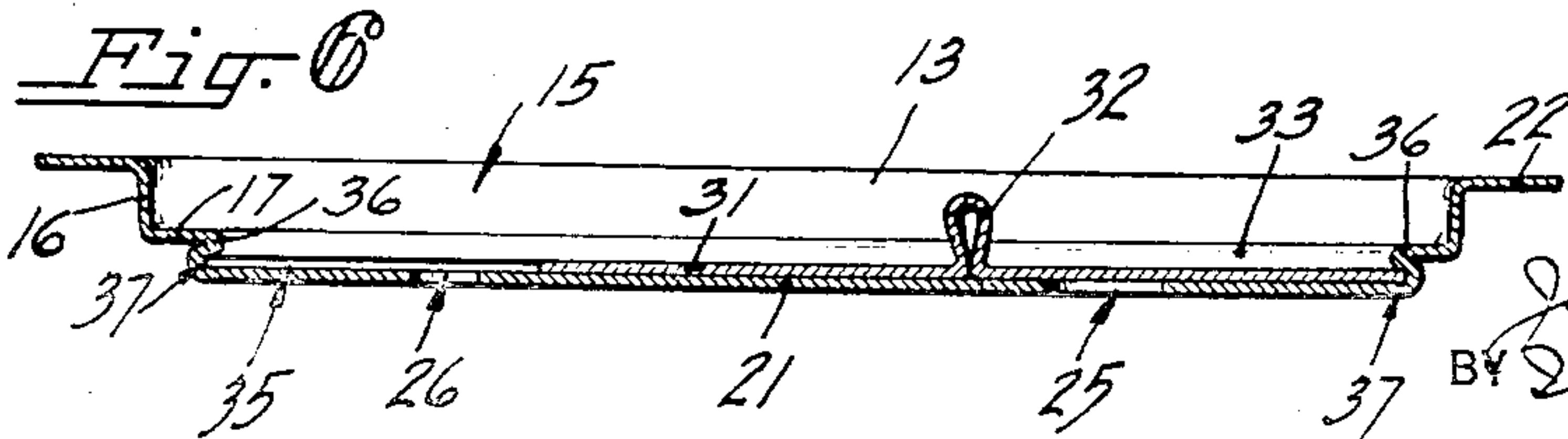
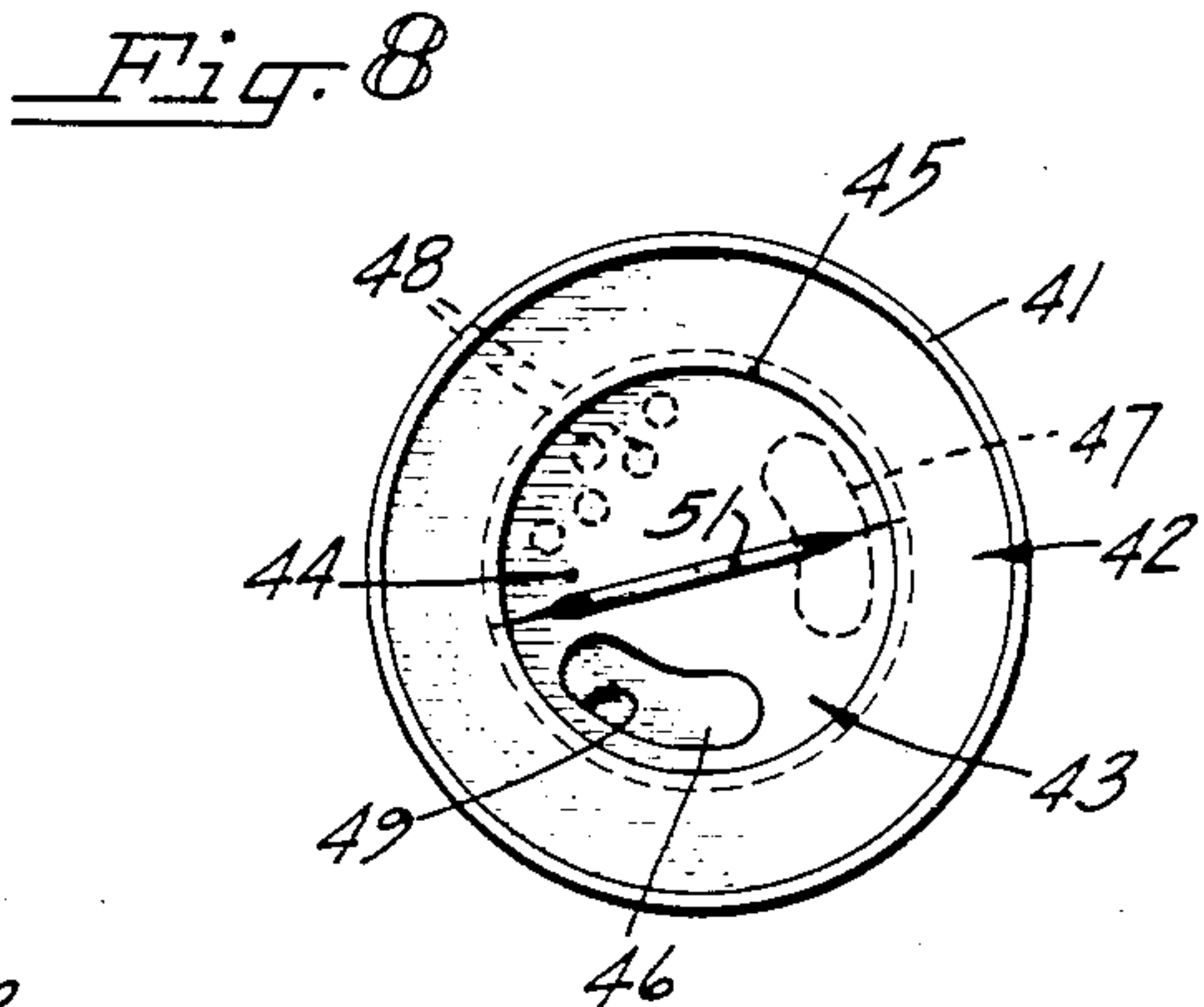
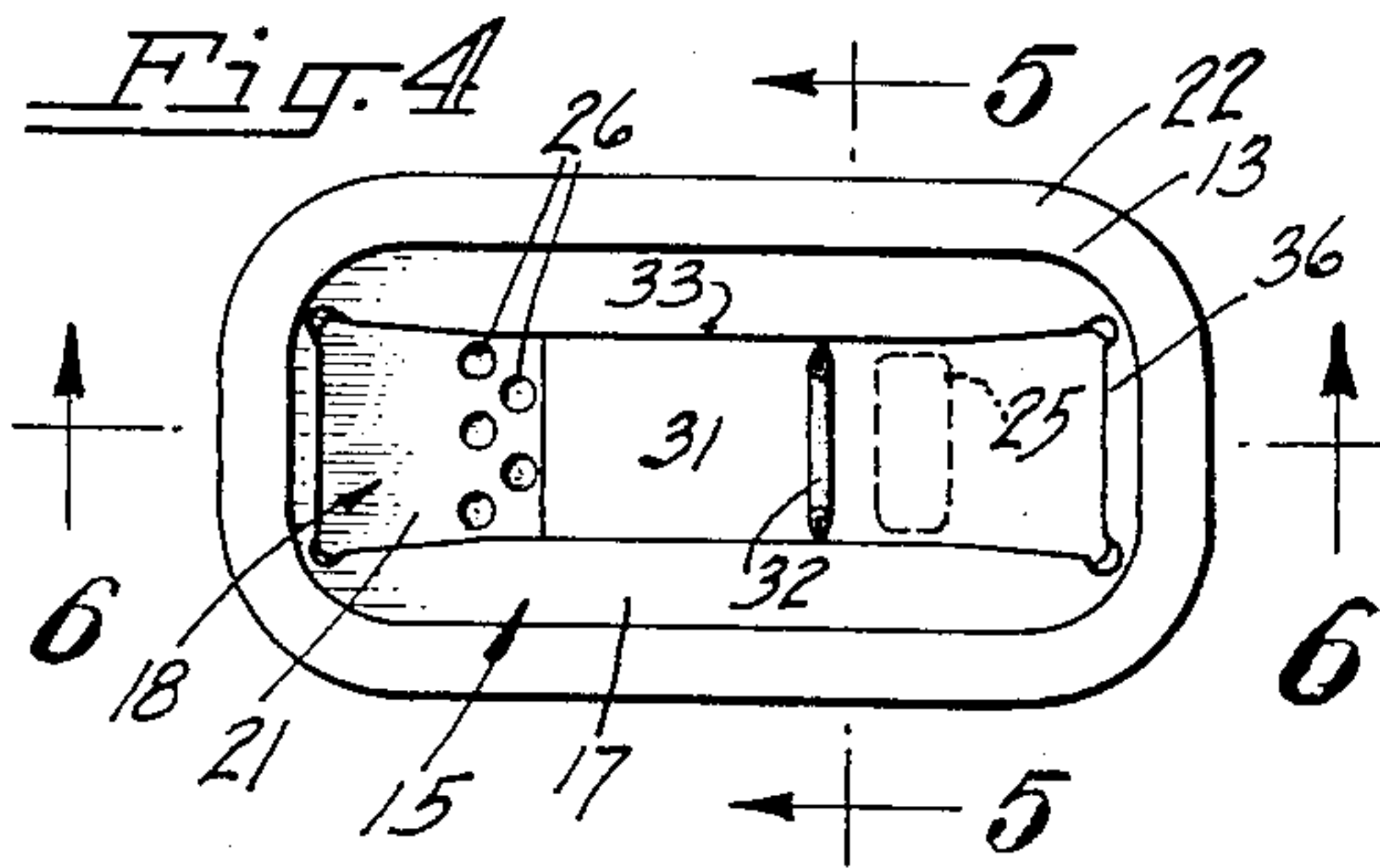
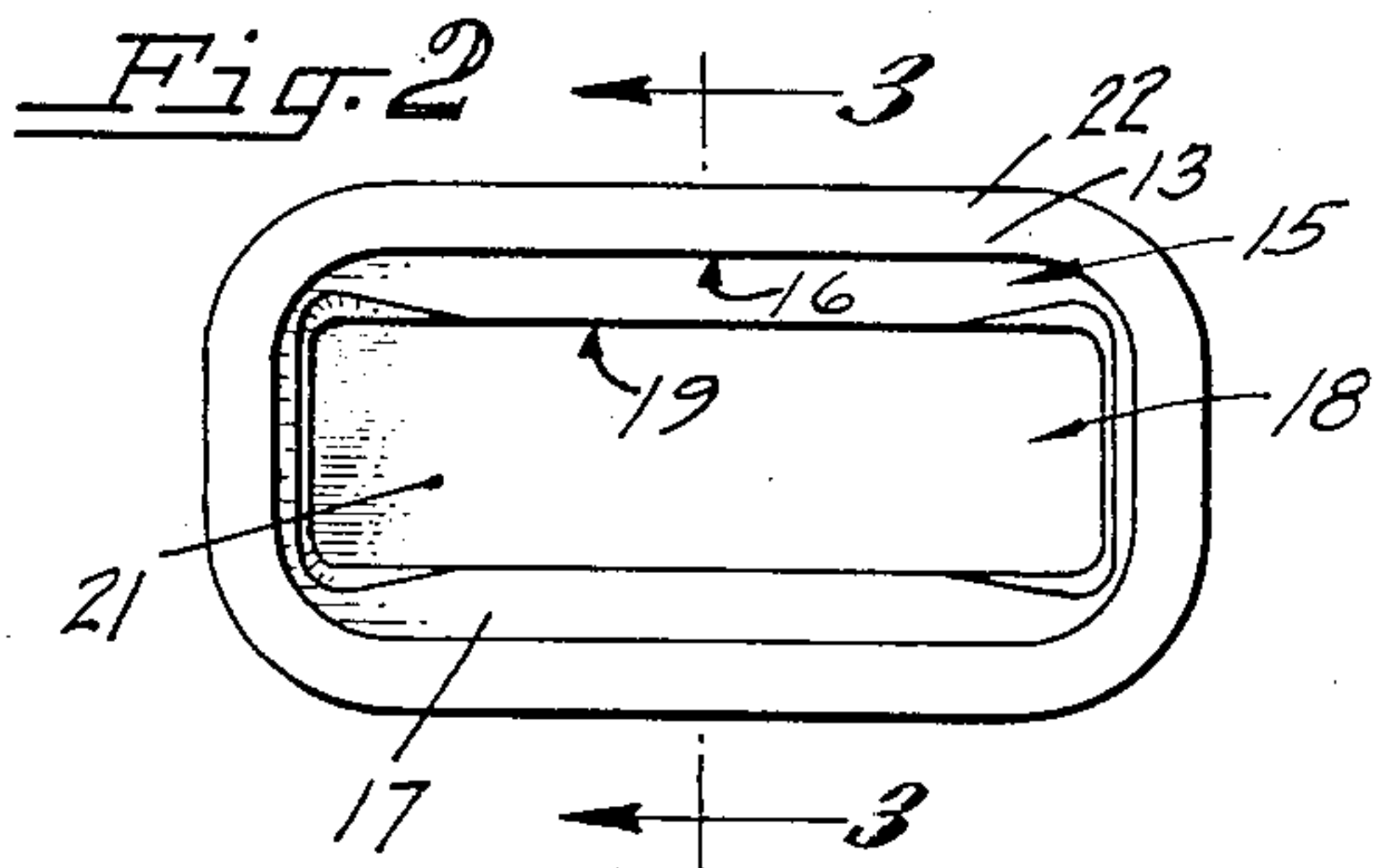
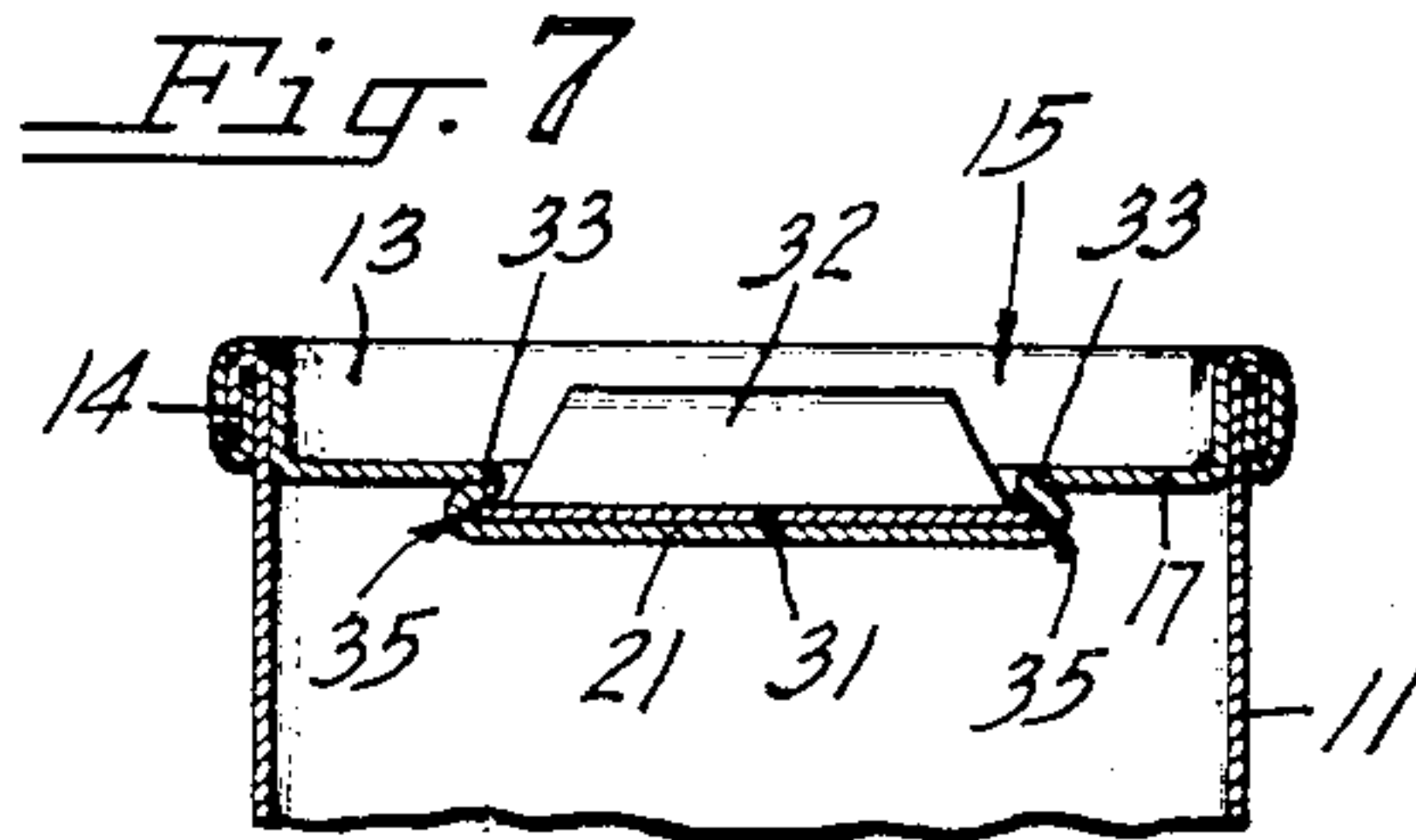
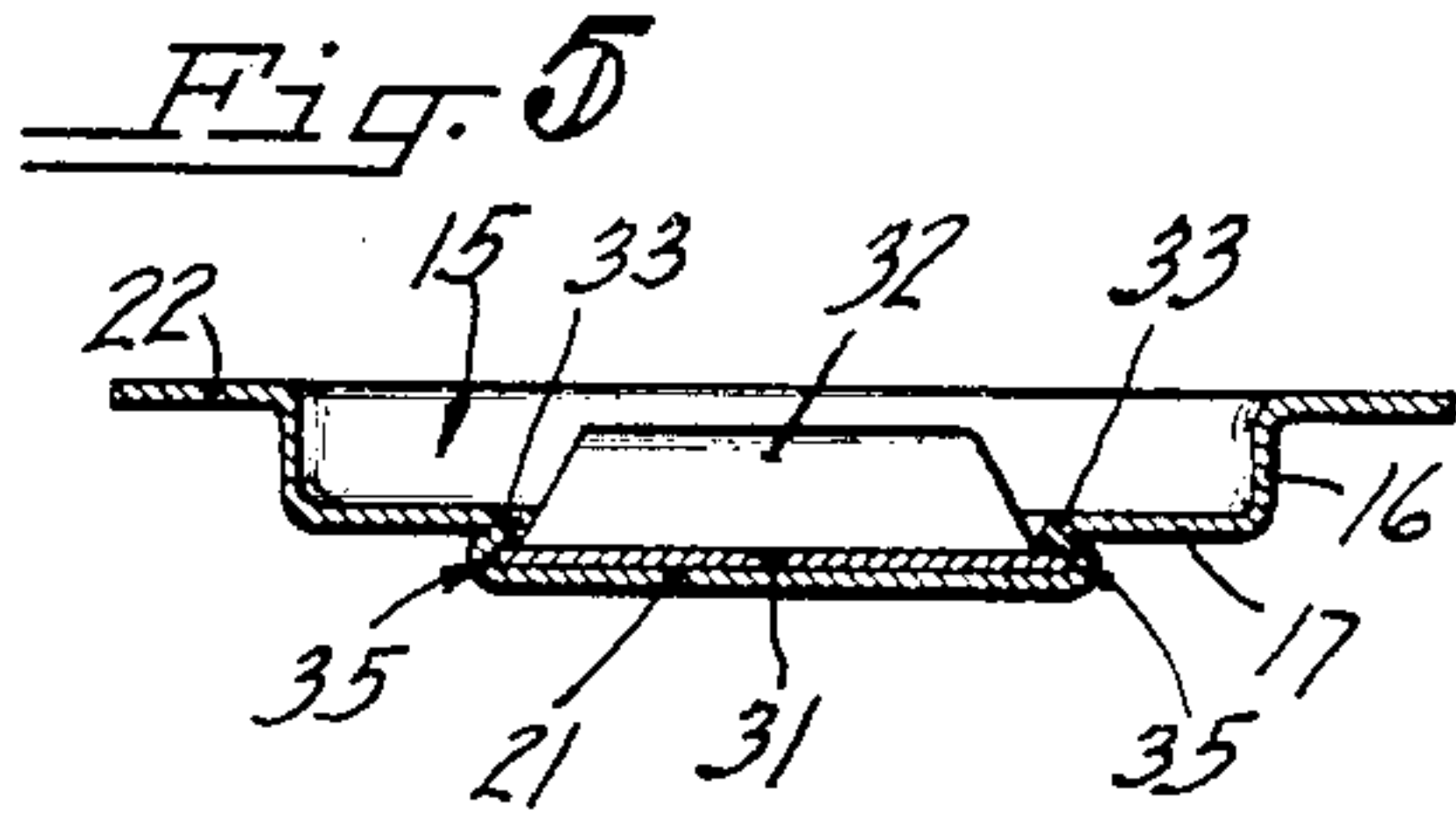
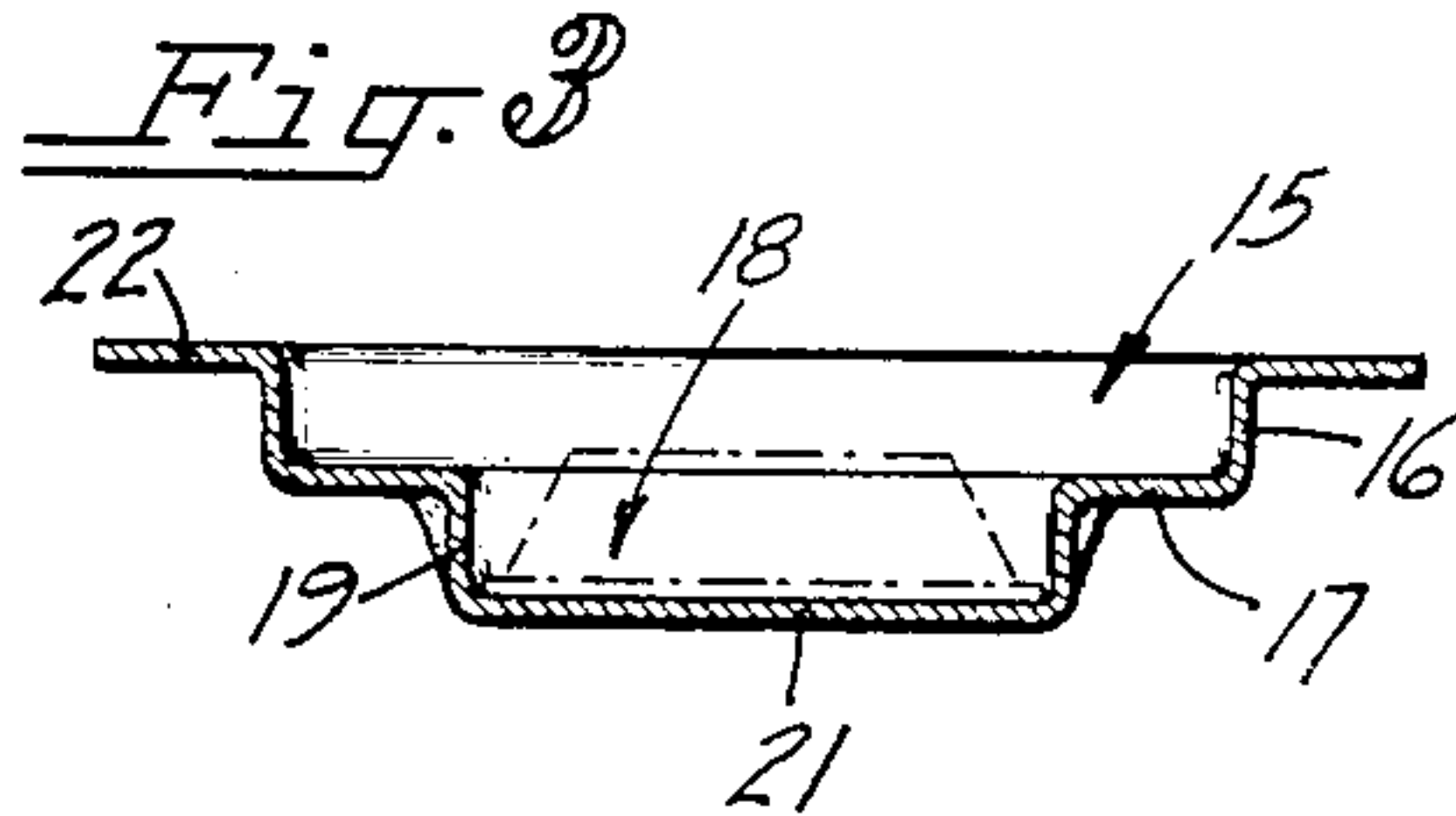
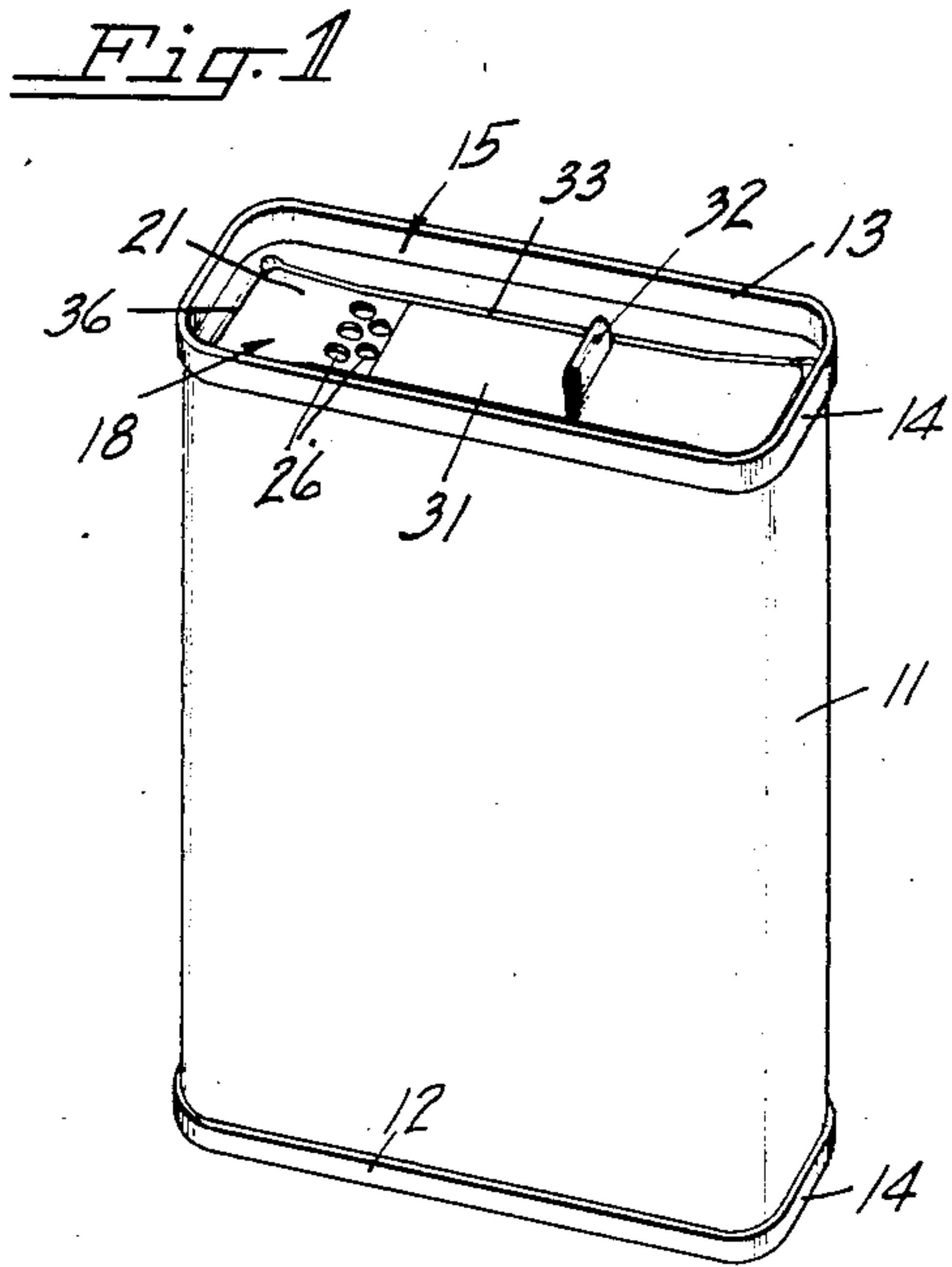
**Dec. 19, 1939.**

J. F. PETERS

**2,183,585**

CONTAINER

Filed Aug. 8, 1935



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## UNITED STATES PATENT OFFICE

2,183,585

## CONTAINER

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3 Claims. (Cl. 221—62)

The present invention relates to dredging cans and has particular reference to a slide closed end member for such a can wherein the slide closure and the slide seat for the same are formed in a unique manner, the simple construction of which provides for more uniform sliding and sealing of the parts thereby producing dredging cans easily manipulated to close off all openings and seal the can or to selectively expose certain openings for dispensing purposes. In some respects the instant invention constitutes an improvement on the dredging can disclosed in the William J. Wardell pending application filed October 4, 1934, in the United States Patent Office on Container, and bearing the Serial Number 746,863 Patent No. 2,037,746, April 21, 1936.

An object of the present invention is the provision of a dredging can which is provided with a sliding member retained in sliding condition within the seat or panel of the can end by the provision of collapsed side walls of the panel seat which extend into engagement with the edges of the slide member as overhanging ledges and which retain the slide against displacement and hold it in flat closing position relative to the can end wall to close the can, the slide being easily moved into other non-closing positions.

Another object of the invention is the provision of a dredging can of the character described wherein the sliding member is formed with a finger piece for its easy manipulation which consists of an integral partially bent double fold construction of the body part of the sliding member, the edges of the latter engaging overhanging ledges formed as an integral part of the can end.

Yet another object of the invention is the provision of a rectangular dredging can having a slidable member which is movable back and forward to cover and uncover pouring and sifter openings which are located in a wall of the can end, the can end wall being formed with opposed overhanging ledges for guiding the slide in its movement and for retaining it in operative position.

A further object of the invention is the provision of a round dredging can having an end formed with a circular sunken panel or seat for the reception of a rotatable slide member, the latter being retained against displacement by collapsed sections of the seat peripheral wall which overhangs the peripheral edge of the slide, the position of the slide member within its seat determining the type of dispensing action for the can contents through openings formed in the

can end, there also being one position of the slide where it effects a closure for the can.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a perspective view of a rectangular dredging can embodying the present invention;

Fig. 2 is an enlarged top plan view of the can end in its partially formed stage wherein a sunken panel is provided in the end;

Fig. 3 is an enlarged transverse sectional view of the same taken substantially along the line 3—3 of Fig. 2;

Fig. 4 is a view similar to Fig. 2 illustrating the can end in a further stage of development and also showing a sliding member located for sliding movement within the sunken panel seat, the side walls of the seat having been collapsed to provide overhanging parts for the sliding member;

Fig. 5 is an enlarged transverse sectional view of the same as viewed substantially along the line 5—5 in Fig. 4;

Fig. 6 is an enlarged longitudinal section of the rectangular can end taken substantially along the line 6—6 in Fig. 4;

Fig. 7 is a transverse sectional view of the upper end of a completed dredging can illustrating the assembled can end parts shown in Figs. 4, 5 and 6 and further showing the same united with the can body; and

Fig. 8 is a plan view of a round dredging can embodying the present invention.

The present invention is concerned with a dredging can having a sliding closure member and the first seven figures of the drawing illustrate the invention as it is applied to a rectangular can, while Fig. 8 illustrates the application to a round can. In the former construction the sliding closure member has a longitudinal movement and in the embodiment in the end of a round can it slides within its seat by rotation.

Considering first the rectangular form of can, the drawing illustrates a rectangular body 11 formed either of metal or fibre or other suitable body material and provided with an imperforate bottom or end member 12 and a perforate or imperforate top end member 13 formed of metal or other suitable end material. Both the bottom and top end members may be secured to the body 11 in the usual double seam 14.

The top end 13 of the can is of the usual



sunken panel or dish form required for double seaming with the addition of an inner or central sunken panel. In the first step of drawing such an end as illustrated in Figs. 2 and 3 the end member has the usual sunken panel as at 15 which is surrounded by a peripheral wall 16 which is an integral part of a web 17. This web may be considered as forming the bottom of the sunken panel 15.

A second sunken panel 18 is drawn inside or centrally of the web wall 17 and is surrounded by a wall 19 which merges into a panel web 21. That part of the blank from which the end is drawn and which is not altered in the drawing action remains as a flange 22. It is this flange that is utilized in connecting the can end with the can body as will be hereinafter described.

The web 21 or bottom of the sunken panel 18 is flat and may be partially or completely cut through. When partially cut through any desirable openings may be scored in or the outlines of the openings may be cut through the metal and the metal pressed back. In some products which utilize a dredging can as a container, it is desirable that the full openings be made in the web wall 21 and the piercings be entirely removed.

In the present embodiment of the invention this is done, there being provided a pouring opening 25 (Figs. 4 and 6) and sifter openings 26. These openings 25 and 26 will constitute the dispensing openings through which the contents of the container may be removed when the completed can is used in its dredging can capacity. The kind of product to be dispensed will determine the nature of the openings, a single dispensing opening being adequate for some purposes.

A sliding member 31 is preferably formed from an imperforate strip of sheet metal and is doubled back intermediate its ends to provide a right angled finger piece 32 (Figs. 1, 6 and 7). At this stage of manufacture the sliding member 31 is placed into the inner sunken panel 18 with its wall resting directly on the web 21 and with the finger piece 32 projecting up into the panel section 15.

With the sliding member in assembled position, the peripheral walls 19 surrounding the sunken panel 18 are collapsed or doubled back into the form illustrated in Fig. 5 wherein overhanging ledges 33 are produced. These ledges extend over and engage the peripheral flat edge of the sliding member 31. In the rectangular form now under consideration the opposed longitudinal edges of the slide 31 are confined within guideways 35 which are produced when the overhanging ledges 33 are formed. This reforming of the peripheral walls 19 converts the inner sunken panel 18 into a sliding seat for the sliding member, the overhanging ledges 33 preventing displacement of the slide from the can end. The interengagement of the ledges and sliding member is thus in a plane substantially parallel with the top of the can.

At the same time two opposed end overhanging ledges 36 (Fig. 6) are formed and pockets 37 are also provided beneath the overhanging ledges 36. When the slide member 31 is moved to either extreme end of its seat, its advancing or forward end enters into the adjacent pocket 37 as best illustrated at the right hand side of Fig. 6. When the slide is in this position the opening 25 is covered and the openings 26 are exposed. When the slide is moved toward the left as viewed in Figs. 4 and 6 its opposite end, which then becomes the forward end, engages beneath the left hand shoulder 36 and slips into the pocket 37.

When the assembled can end and sliding closure have been produced, as just described, the same may be united with a can body by the usual double seaming operation. The flange 22 of the can end is then incorporated in the double seam 14 and this provides the necessary tight connection with the can body 11.

The can may be filled prior to this seaming of the prepared and assembled can end 13 to the can body 11, or if desired the can may be filled from its bottom after the top end 13 has been united with the body. Following this latter procedure the bottom 12 is finally seamed in place on the filled can.

When the slide member 31 is in the position disclosed in Figs. 1, 4 and 6, the sifter openings 26 are uncovered and this opens up the interior of the can. The can is then in condition for use in sifting its contents through such openings in the usual manner.

When the slide is in the opposite position the sifter openings 26 are covered and the pouring opening 25 is exposed at which time dispensing of the can contents may be had through the pouring opening. In the middle position of the slide both pouring and sifter openings 25, 26 are covered and since the overhanging ledges 33 of the can end hold the sliding member in tight engagement with the wall of the can end, the can is then effectively closed.

In the form disclosed in Fig. 8 wherein a circular can is used the same general type of sliding member and seat within the can end is used. In this construction the can end, designated by the numeral 41, is provided with an outer sunken panel 42 and a second or inner central panel 43. The latter provides a seat for a rotatable sliding member 44.

The side walls of the inner panel 43 are also collapsed in the same manner as the side walls 19 of the rectangular type already fully described. A continuous overhanging ledge 45 is formed during the collapsing and this ledge engages with and overlies the peripheral edge of the slide member 44 and retains it in rotatable sliding position upon the can end 41. A web wall 46 of the inner sunken panel 43 may be cut through with one or more dispensing openings.

In the Fig. 8 there is disclosed a kidney-shaped pouring opening 47 and a plurality of round sifter openings 48 which may be cut through the web wall 46 either partially or completely to provide the desired openings for the can. In the can shape under consideration (Fig. 8) the slide member 44 is provided with a kidney-shaped hole 49. The body of the slide is also bent or looped along its diameter to provide a finger piece 51.

By manipulation of the sliding member (which is effected by rotation thereof through the medium of the fingers applied to the finger piece 51) the slide opening 49 is brought into register with the end pouring opening 47 to effect a pouring of the can contents. Or the opening 49 may be located over the sifter openings 48 in which position the can will be in condition for sifting of its contents. In between the pouring and sifter opening positions, the slide member 44 has a middle or closing position, this being the position indicated in Fig. 8. At such time the can is closed, the slide member covering both dispensing openings 47, 48.

It will be understood that registering openings could also be made in the rectangular sliding member 31 if desired in the same manner as



just described for the opening 49 of the round can form.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A dredge top can, comprising a drawn metal end member having an outer and an inner sunken panel vertically spaced apart by an inwardly projecting continuous peripheral wall integral with said panels and overhanging said inner panel for the greater portion of the marginal area of the latter, the bottom wall of said inner sunken panel having a dispensing opening and providing a seat, and a flat slide member located on said seat and movably retained within said inner sunken panel by frictional engagement with the lower surface of said overhanging continuous peripheral wall, whereby in one position the said slide closes the can by covering said dispensing opening and in another position uncovering said opening to permit dispensing of the can contents.
2. A dredge top can, comprising a drawn metal end member having outer and inner rectangular sunken panels vertically spaced apart by an in-

wardly projecting continuous peripheral wall integral with said panels and overhanging said inner panel for substantially the entire longitudinal extent of the latter, the bottom wall of said inner sunken panel having a dispensing opening and providing a seat, and a flat rectangular slide member located on said seat and slidably retained within said inner sunken panel by frictional engagement with the lower surface of said overhanging continuous peripheral wall, whereby in one position the said slide closes the can by covering said dispensing opening and in another position uncovering said opening to permit dispensing of the can contents.

3. A dredge top can, comprising a drawn circular metal end member having outer and inner circular sunken panels vertically spaced apart by an inwardly projecting continuous peripheral wall integral with said panels and overhanging substantially the entire periphery of said inner panel, the bottom of said inner sunken panel having a dispensing opening and providing a seat, and a flat disk member located on said seat and rotatably retained within said inner sunken panel by frictional engagement with the lower surface of said continuous overhanging peripheral wall, whereby in one position the rotation of said disk closes the can by covering said dispensing opening and in another position said disk exposes said opening to permit dispensing of the can contents.

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