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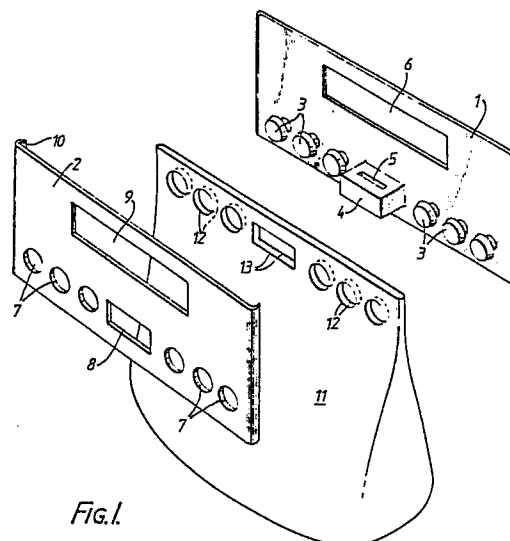
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54 **Security closure and carrying handle for a container.**

57 A security closure is described for use in carrying a container. The closure comprises a first member formed with projections for passing through holes formed in the mouth of the container and a second member for engagement with the first member and the projections thereof to close the mouth of the container and hold it closed. At least one of the members is formed with a carrying handle and one of the members is formed with an apertured portion to receive a tell-tale or security member passing through an aperture in said portion. The apertured portion is located so that the container cannot be opened from the closed position, either without damaging the tell-tale or due to the presence of the security member. The members may be in the form of panels, preferably hinged or one is a panel and the other a rod. The container may be a bag, preferably transparent, or a carrying case.



*Fig. 1.*

## Description

## SECURITY CLOSURE AND CARRYING HANDLE FOR A CONTAINER

This invention relates to a security closure for a bag, case or other container and which cannot be opened without obvious evidence that it has been opened. The closure is particularly suitable for use with a bag for transporting bullion and coins between banks and bullion houses.

According to one aspect of the present invention there is provided a security closure for a carrying container comprising a first member formed with projections for passing through holes formed in the mouth of said container, and a second member for engagement with the first member and the projections thereof to close the mouth of the container and hold it closed, at least one of said members being formed with a carrying handle and one of said members being formed with an aperture portion to receive a tell-tale or security member passing through an aperture in said portion, said portion being located such that the container cannot be opened from the closed position either without destroying said tell-tale or due to the presence of the security member.

In one embodiment of the invention, the closure comprises two panel members adapted to be fitted or clamped together about the mouth of the container. The first panel member is formed with a plurality of first projections and the second panel member is formed with a plurality of first apertures each intended to receive a respective first projection as an interference, force or snap fit. An apertured second projection constituting said apertured portion is formed on one panel member and the other is formed with an aperture to receive such projection. When the panel members are fitted together around or at the mouth of a carrying container the projections on the first panel member are received in the apertures in the second panel member and a tell-tale or security member e.g. a padlock, is inserted in the aperture in the aperture projection. The tell-tale is of such a size or shape that any attempt to disengage the panel members will destroy the tell-tale. Alternatively, the securing member can be such as to prevent disengagement of the panel members.

The two panel members may be separate but are preferably hinged together and are intended to be closed about the mouth of a carrying bag formed with apertures through which the projections on the first panel pass. The carrying handle is conveniently formed by an aperture of appropriate size in each panel member.

In an alternative construction the panels may be attached to opposite sides of the mouth of a carrying case.

In yet a further construction, one of the members is in the form of a panel member and the other is in the form of a rod or the like. The panel member is formed with a series of projections each formed with an aperture aligned with the apertures in the other projections so that the rod or the like can be passed through the apertures to hold the mouth of the

container between the rod and the panel. The rod is formed at one end with an enlarged portion which will not pass through the apertures in the projections and at the other end with an aperture to receive the tell-tale or security member.

In another aspect of the present invention there is provided the combination of the security closure indicated above and a container which may be in the form of a bag the mouth of which is formed with holes to receive the projections, or which may be in the form of a carrying case of rigid or substantially rigid material in which case the closure is in the form of two panels members integral with the closing edges of the mouth of the case.

The panels may be made of plastics, and polypropylene has the required properties of resilience and toughness to provide a reusable closure. However, if desired a more frangible material could be used to provide evidence of tampering.

In order to enable the invention to be more readily understood, reference will now be made to the accompanying drawings, which illustrate diagrammatically and by way of example some embodiments thereof, and in which:-

Figure 1 is an exploded view showing a security closure for use with a carrying bag,

Figure 2 is a perspective view of a modification of the closure shown in Figure 1 in position around the mouth of a carrying bag,

Figure 3 is a cross-section along the line III-III in Figure 2,

Figure 4 is a perspective view of a further modification,

Figure 5 is a view similar to Figure 1 of yet a further modification,

Figure 6 is a perspective view of yet another security closure in use with a carrying bag,

Figure 7 is a perspective view of the mouth of the bag shown in Figure 6 with the mouth open, and

Figure 8 is a plan view of a moulding which can be used as a security closure.

Referring now to Figure 1 of the drawings, there is shown a security closure which comprises a first rectangular panel member 1 and a second rectangular panel member 2. The first panel member 1 is formed with six projections 3 which are substantially mushroom shaped (c.f. Figure 3). The projections are spaced apart equally along the bottom longer edge of the panel on each side of a central parallelopiped shaped projection 4 which is formed with a through slot 5. The panel member 1 is formed with a large aperture 6 which constitutes a handhold.

The second panel member 2 is formed with six circular apertures 7 each of which is intended to receive a respective one of the mushroom shaped projections 3 and a rectangular aperture 8 to receive the projection 4 on the first panel member. The panel member 2 is also formed with a large aperture 9 to register with the aperture 6. The shorter edges of the second panel member are turned in at 10 to embrace

the shorter edges of the first panel member 1 and provide a snap closure when the two panel members are fitted together.

The two panel members are adapted to be fitted together around the mouth of a carrying bag 11 with the projections 3 snap fitting into the apertures 7 and the projection 4 passing through the aperture 8. In order that the bag 112 can be held between the panel members, the mouth of the bag is formed with apertures 12 through which the projections 3 pass and apertures 13 through which the projection 4 passes.

when the two panel members are fitted together a security member or tell tale can be passed through the slot 5 and this may take the form of a padlock or a plastics ratchet moulding that is irreversible and has to be cut to release it. Alternatively, a plastics or other strip which has a security stamping or identification symbol can be adhesively secured through the slot.

Figures 2 and 3 show a modification of the closure shown in Figure 1 and like parts have the same reference numerals. In the modification shown in Figures 2 and 3 the two panel members 1 and 2 are hingedly connected along their longer edges opposite the projections and apertures by a hinge 14 which may be continuous or interrupted and is conveniently formed of the same material as the panel members and integral therewith. Figure 2 also shows a security tell tale 15 in the slot 5.

Figure 4 shows a further modification in which the panel members 1 and 2 are made integral with closing edges of the mouth of a carrying case 16 of rigid material. In this modification it may be desirable to increase the numbers of projections 3 and respective apertures 7 in the panels or possibly to provide more than one projection 4 and respective slot 8 in order adequately to prevent tampering.

In the use of the closures just described, in each case the user will fill the bag or case and, if necessary, appropriately position the bag 11 between the panel members. The two panel members are then pressed together so that the projections 3 engage in the apertures 7, slight pressure being required to snap the closure shut. Thereafter the security member or tell tale is passed through the slot 5 and secured in position.

Any unauthorised attempt to open the carrying container is either prevented by the security member, e.g. a padlock, or results in destruction or defacing of the tell tale.

Figure 5 shows a further modification of the security closure shown in Figure 1 and again like parts have the same reference numerals. In this modification, the projection 4 is formed with a raised portion 17 at its front end, similar to a rifle foresight and the aperture 8 is formed with an extension 18 to receive the portion 17. When the two panel members have been fitted together a security label is applied to the area 19 on the panel 2 so that any withdrawal of the projection 4 through the aperture 8 will cause the raised portion 17 to clip the label, thus providing evidence that the closure had been opened or tampered with. A fresh label would be applied when the closure is re-used or the label could be a

specially printed removable one. It will of course be appreciated that this modification is applicable also to the security closures shown in Figures 2 and 3 and in Figure 4.

While the projections 3 have been shown as mushroom shaped and of circular cross-section and as providing a snap fit in the apertures 7, they could be of any desired cross-sectioned shape and could provide an interference or force fit in apertures 7 of corresponding complementary shape.

Referring now to Figure 6 of the drawings, there is shown a simplified version of the closure. In this version, there is one panel member 20 which is formed with a large aperture 21 constituting a handhold. The panel is also formed with a series, in this case four, of projections 22, each of which, as shown in the cross-sections to the right of the Figure is either in the form of an apertured projection or in the form of a strap of the panel material pushed out of the plane of the panel, in each case the projections defining a series of aligned apertures or hoops for receiving a rod 23. The rod 23 has a thickened portion 24 at one end and the other end is formed with an aperture (not shown). A security collar 24 can be slid on to the other end of the rod 23 and is formed with an aperture 25 which can be registered with the aperture in the rod whereafter a tell-tale or security member can be passed through the registering apertures.

The security closure shown in Figure 6 is for use with a bag 26, the mouth of which is shown in Figure 7 in an open state. From Figure 7, it can be seen that the mouth of the bag is formed on each side with an upper row of holes 27 and a lower row of holes 28. The spacing between the holes in each row is equal to the spacing of the projections 22.

After the bag 26 has been filled, the mouth is closed so as to bring the holes 27 and 28 on each side of the bag into register. The top of the bag is then folded over, as shown in Figure 6, so that the holes 27 are in register with the holes 28, and the bag is presented to the panel 26 so that the projections 22 are passed through the holes. The rod 23 is then passed through the apertures defined by the projections 22 and secured in place by the security collar 24, whereafter the tell-tale is applied.

The panel members 1 and 2 can be made of any suitable material but are preferably made of polypropylene as this has the necessary resilience and toughness to provide a suitable hinge and snap fitting. Furthermore, it is convenient to form the panels and integral hinge by molding them from polypropylene. However, it would be possible to make the members or at least the projections of a frangible material so that any unauthorised attempt to open the closure would cause the projections to snap off and provide evidence of tampering.

Figure 8 shows a moulding for forming a security closure for a bag. The moulding comprises two panel portions 30 and 31, the panel portion 30 being formed with apertures 32 and the panel portion 31 being formed with U-shaped projections 33. The panel portion 31 also has an integral hand grip 34 of inverted T-section as shown in the cross-sections to the right of the Figure taken along the line VIII-VIII.

On each side of the hand girip 34, the panel portions 30 and 31 are joined by straps 35 which can act as hinges. The moulding can also include a rod 36, shown in broken lines, which is thickened at one end 37 and formed with an aperture 38 at the other. The rod 36 is joined to the panel portion 30 by runners 39 during moulding. These runners can subsequently be removed so that the rod is available for locking the closure.

In the use of this moulding, the two panel portions are folded about the hinges 35, the projections 33 are passed through holes in the mouth of a bag and through the apertures 32, whereupon the rod 36 is passed through the projections and held in place by a security member and/or tell-tale.

When the present closure is used in conjunction with a bag 11 or 26, the bag is conveniently made of plastics material and is preferably transparent so that the contents can be viewed. The bag 11 used with the closure shown in Figures 2 and 3 preferably has a mouth that is slightly narrower than the closure so that the short edges of the panels can be snap closed around it. However, if a gusseted bag is used then it is desirable for holes 12 to be formed in the gusset so that the gusset can be held securely between the panels. The mouth of the bag is desirably reinforced in the region in which the apertures 12 and 13 or 27 and 28 are formed and this may be achieved by gauge banding during manufacture or by folding the mouth of the bag to provide double thickness in this region.

The present closure and bag are suitable for transporting bullion and coin between banks and bullion houses. The present linen bags which are used have the disadvantages that they are not transparent (and banks prefer to see the contents in order to ensure valid coin without opening) and they require new string and crimped closure each time they are used and this closure is said not to be tamper proof.

May modifications of the present closure are possible and while the panels members have been shown and described as being rectangular or somewhat rounded, it will be appreciated that they could be of any desired shape. It will also be appreciated that the projections and, where used, the locking rods can also have different shapes.

## Claims

1. A security closure for carrying a container, comprising a first member formed with projections for passing through holes formed in the mouth of the container, and a second member for engagement with the first member and the projections thereof to close the mouth of the container and hold it closed, at least one of said members being formed with a carrying handle and one of said members being formed with an apertured portion to receive a tell-tale or security member passing through an aperture in said portion, said portion being located such that the container cannot be opened from the

closed position either without damaging said tell-tale, or due to the presence of the security member.

2. A closure as claimed in Claim 1, wherein the first and second members of the closure comprise two panel members adapted to be fitted or clamped together about the mouth of the container, and wherein a first panel member is formed with a plurality of first projections and the second panel member is formed with a plurality of first apertures each intended to receive a respective first projection, one of the panels being formed with an apertured projection and the other with an aperture to receive such projection.

3. A closure as claimed in Claim 2, wherein the first projections are each an interference, force or snap fit in their respective first apertures.

4. A closure as claimed in Claim 2 or 3, wherein the panel members are separate, or are hinged together.

5. A closure as claimed in any one of Claims 2 to 5, wherein the carrying handle is formed by an aperture in each panel.

6. A closure as claimed in Claim 1, wherein the first member is a panel member and the second member is in the form of a rod, the panel member being formed with a series of projections each formed with an aperture aligned with the apertures in the other projections to receive the rod, and the rod having an enlarged portion at one end and an aperture at the other.

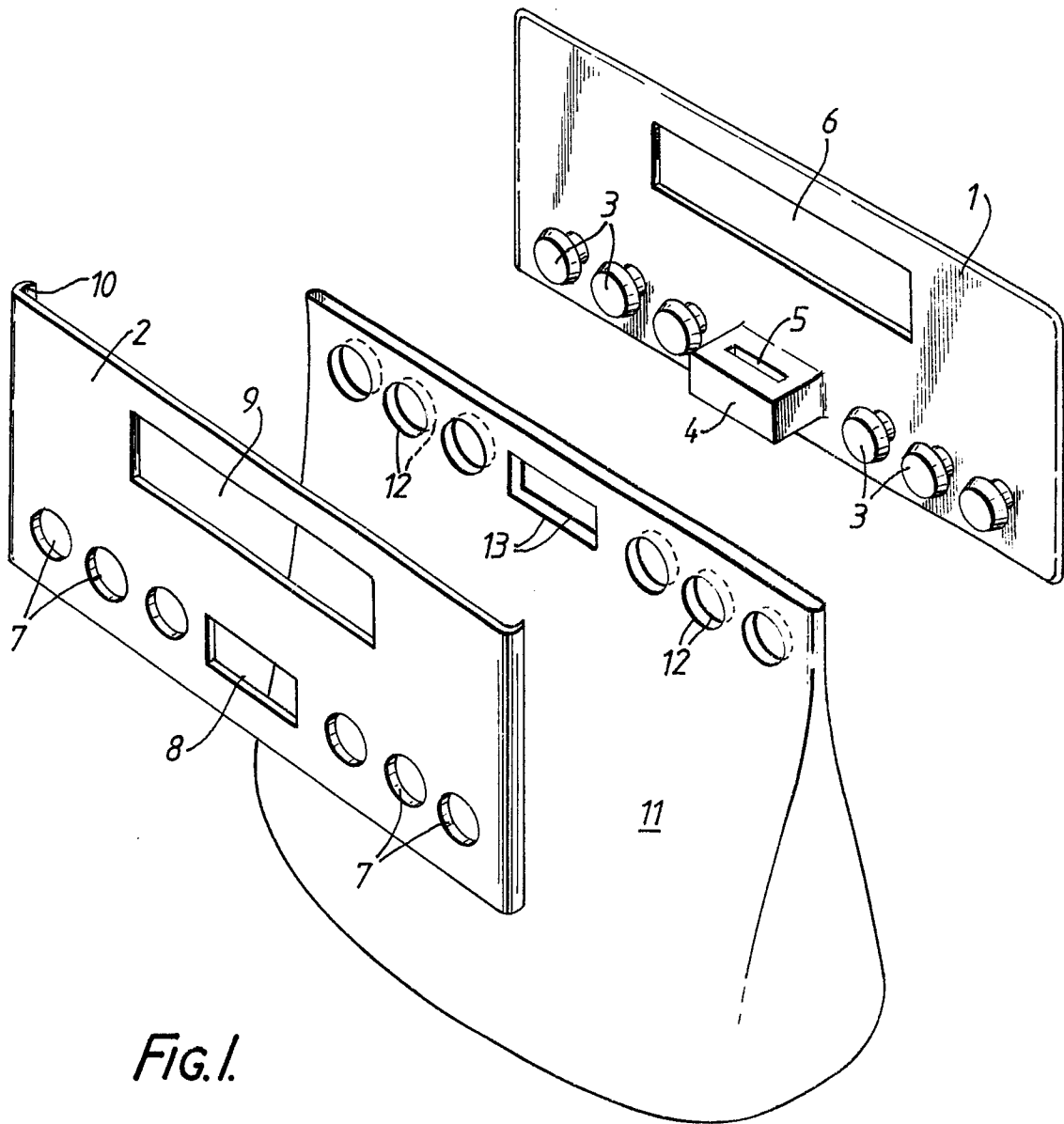
7. A closure as claimed in any one of Claims 1 to 6, wherein the first and second members are made of plastics, such as polypropylene.

8. The combination of a security closure as claimed in any one of Claims 1 to 7 and a container, wherein the container is a bag the mouth of which is formed with holes to receive said projections, and which is preferably reinforced in its mouth region.

9. The combination as claimed in Claim 8, wherein the bag is transparent.

10. The combination of a security closure as claimed in any one of Claims 1 to 7 and a container, wherein the container is in the form of a carrying case of rigid or substantially rigid material and wherein the closure is in the form of two panel members integral with the closing edges of the mouth of the case.

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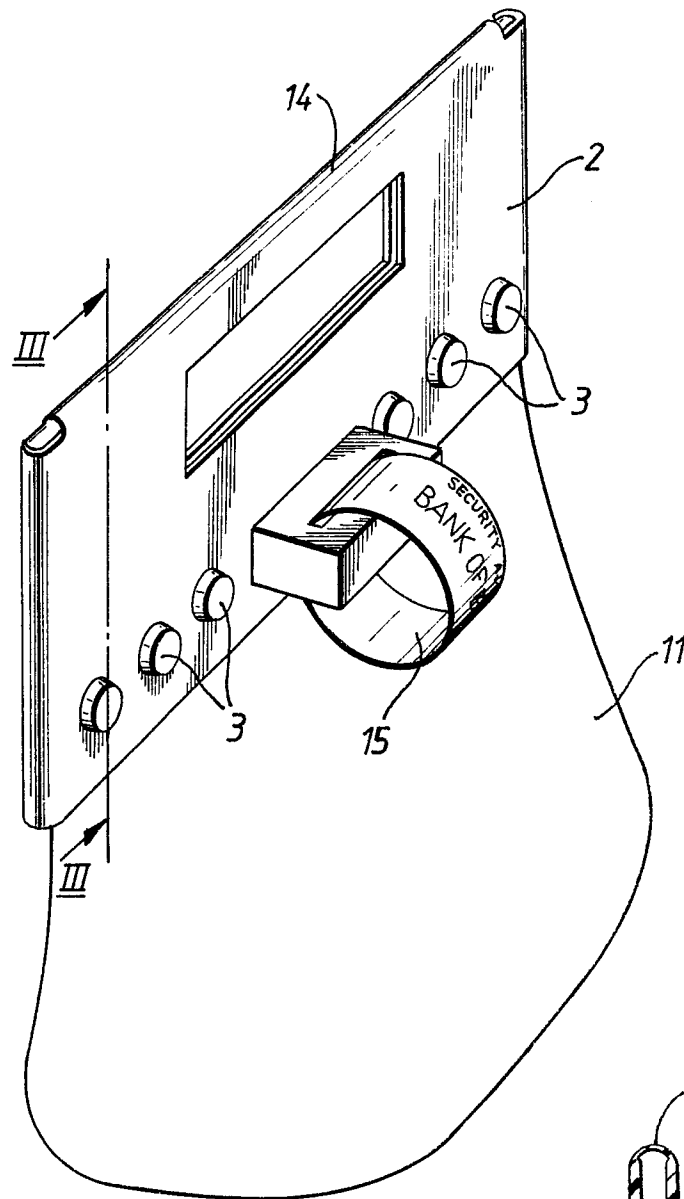


FIG. 2.

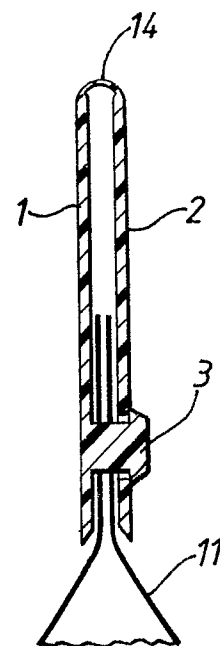


FIG. 3.

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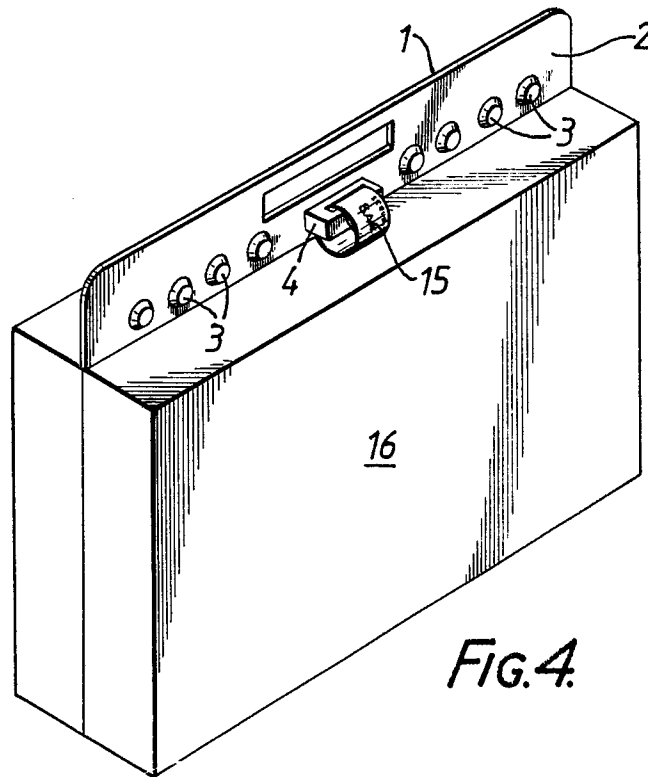


FIG. 4.

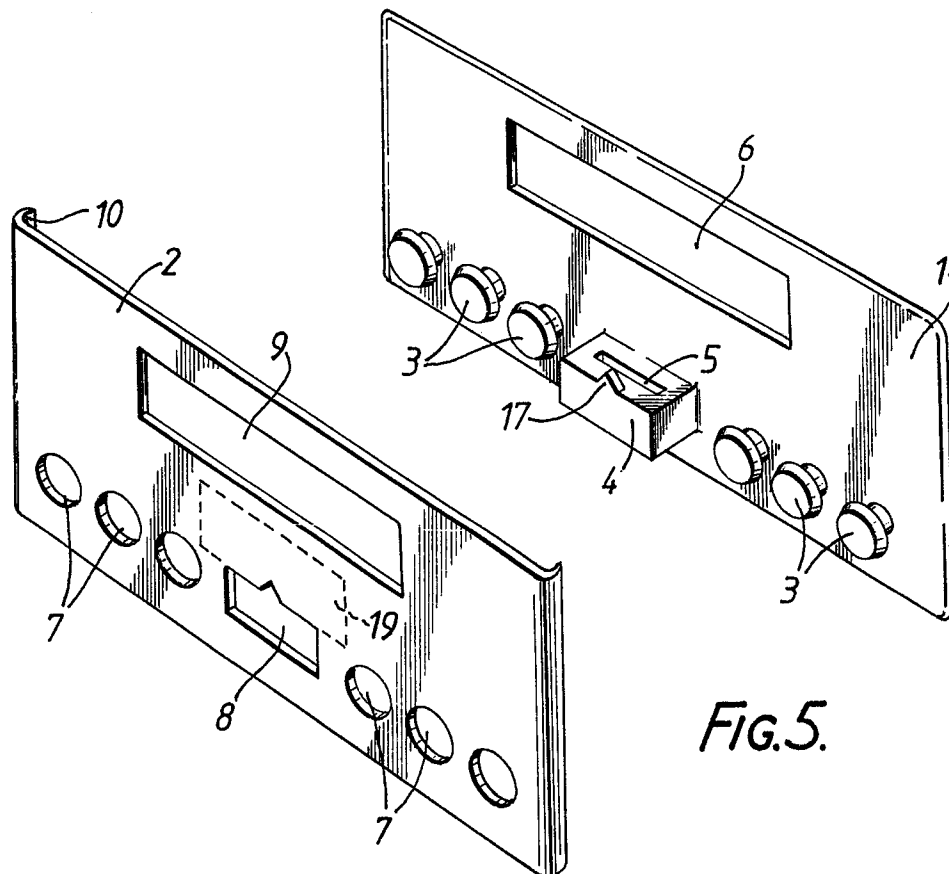
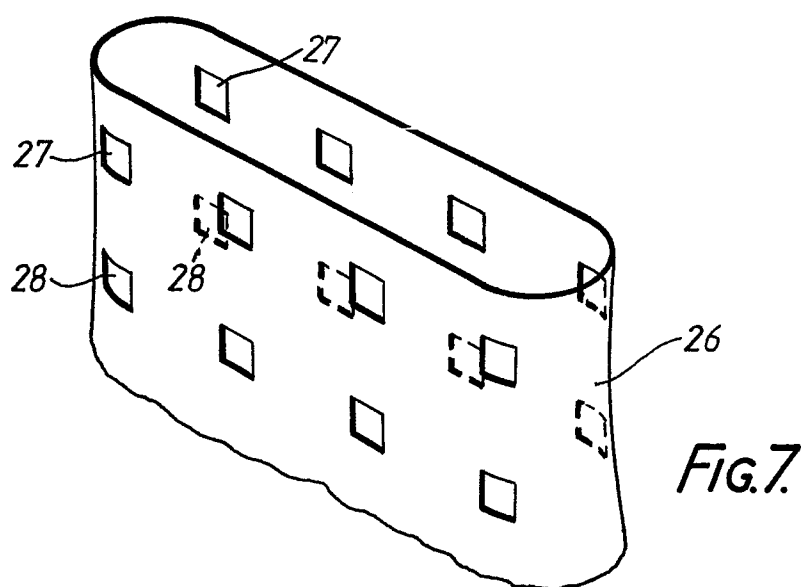
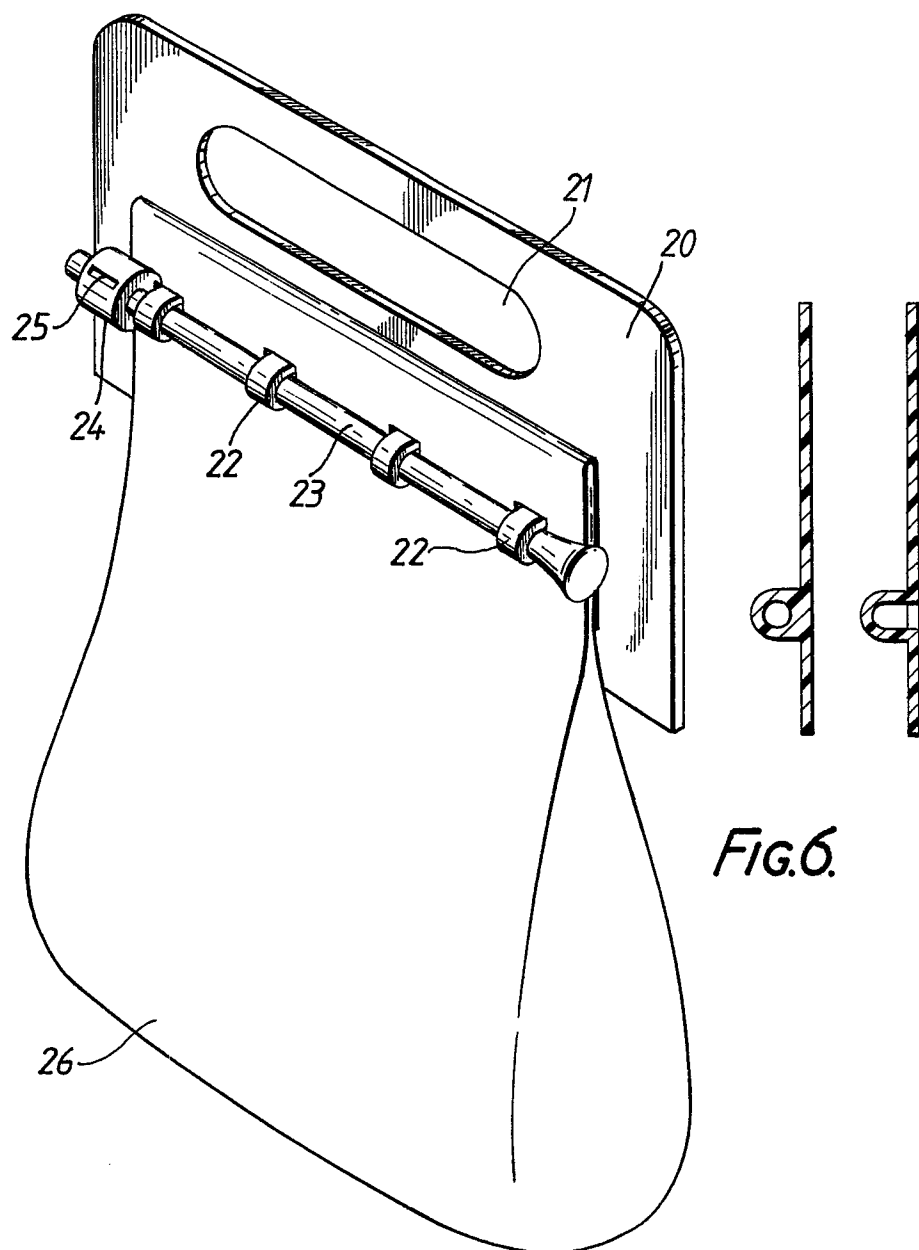


FIG. 5.

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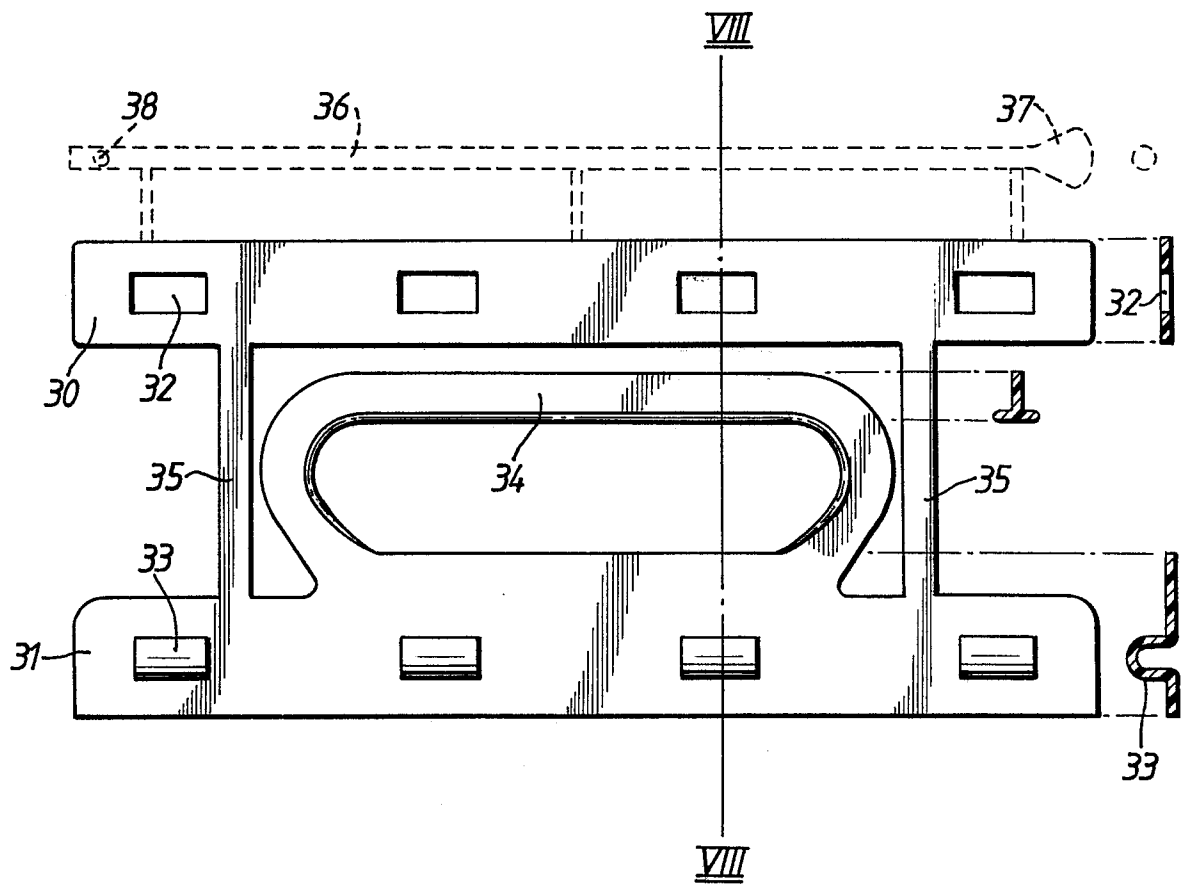


FIG. 8.