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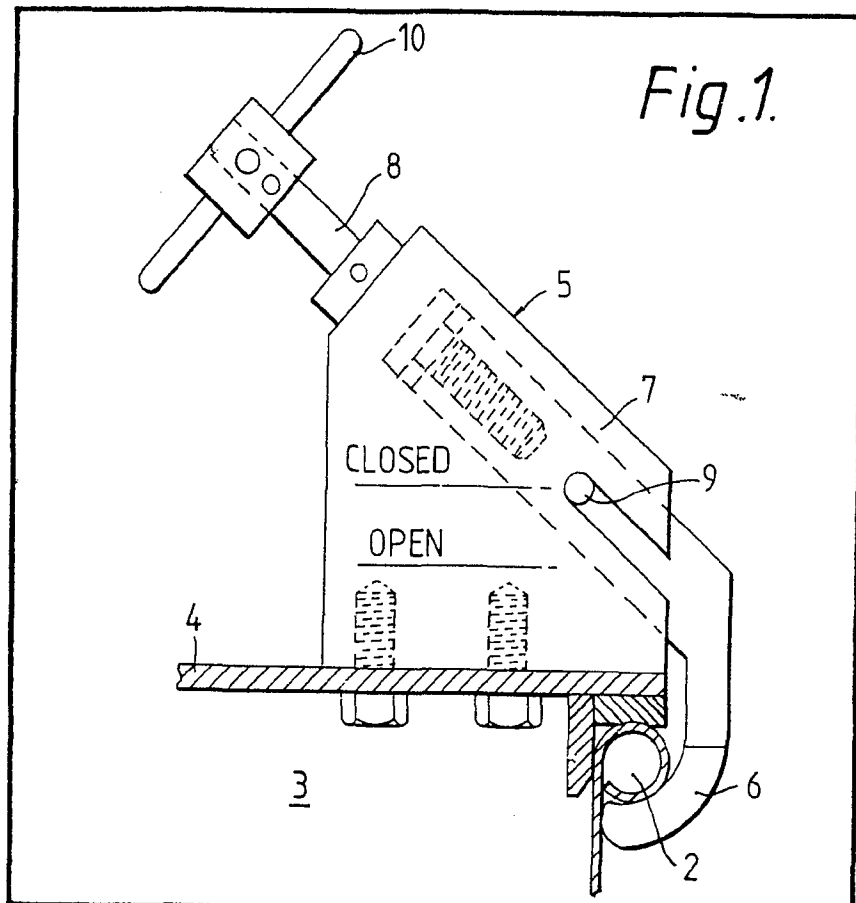
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(54) **Storage Drums for Radio-active Waste**

(57) The lid 4 of a storage drum 3 for radioactive waste is secured by a series of clamps 5 each of which has a hook 6 for engaging rim 2 of the drum. As shown, each clamp has an

indicating means 9 whereby a remote operator can check that the lid is secured to the drum. In a second embodiment, the position of an arm (18), Fig. 3 (not shown), acts as a visual indication as to whether or not the clamp is in engagement with the container rim.



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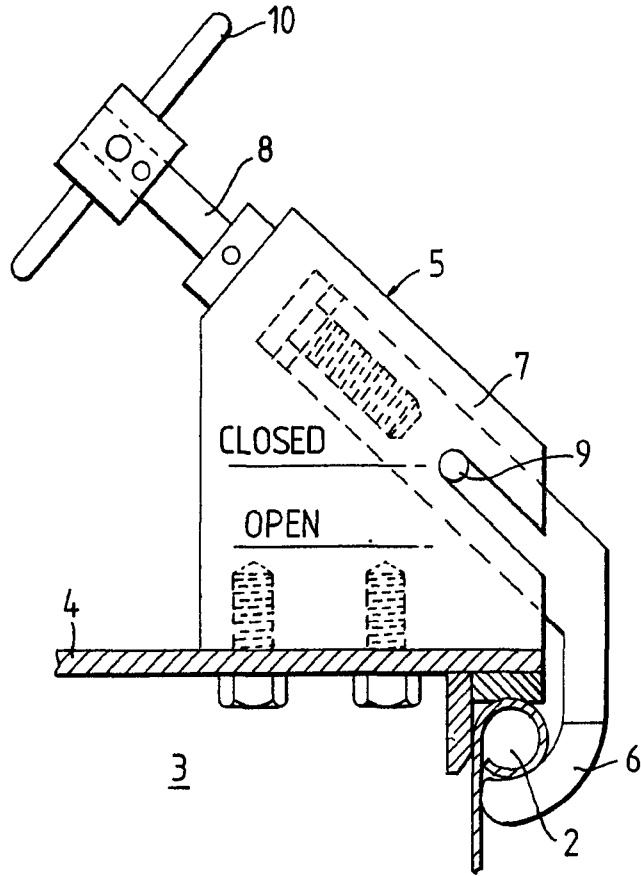


Fig. 1.

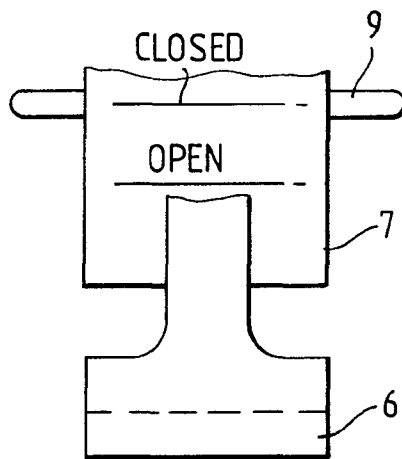


Fig. 2.

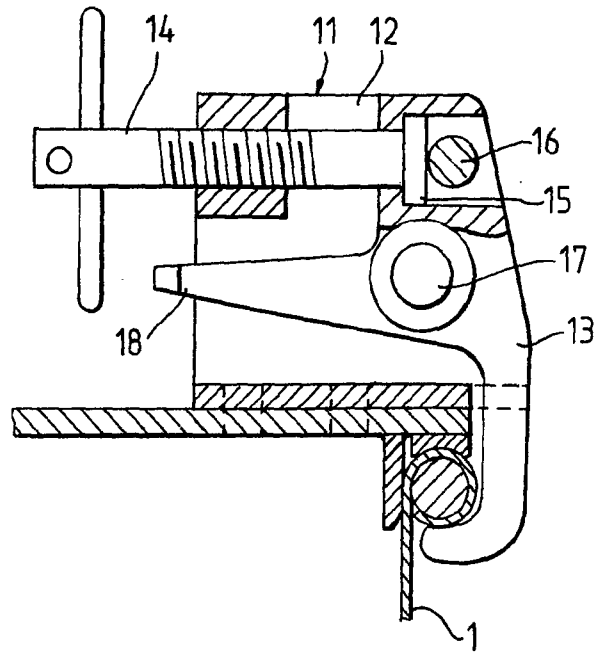


Fig. 3.

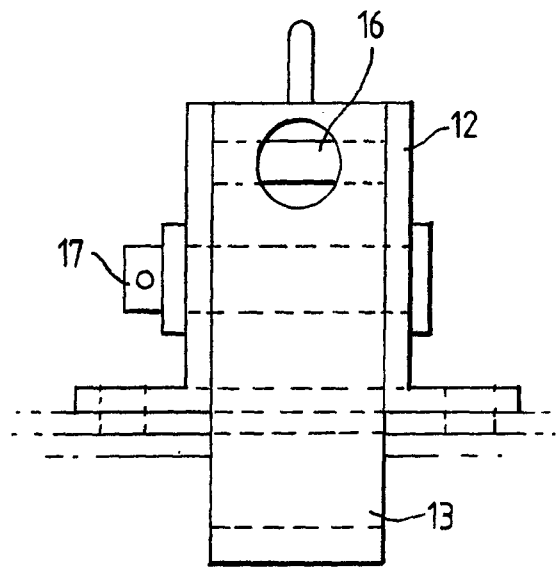


Fig. 4.

## SPECIFICATION

**Storage Drums for Radioactive Waste**

This invention relates to storage drums for radioactive waste.

5 Radioactive waste of low activity can be safely stored in drums provided the closures can be adequately secured to the drums. It is proposed to secure a closure to a drum by means of a series of clamps but the clamps must have three capabilities. They must be readily operable by remote control, they must provide a clear indication to a remote operator that they are fully engaged with the closure and drum and they must be self-locking so that in the event of a drum being dropped the closure remains intact.

15 According to the invention a storage drum for radioactive waste has a beaded rim about a port opening and a closure for the opening carries a plurality of screw-thread clamps, the clamps each having a hook member operable through a drawbolt for engaging the beaded rim and an arm for indicating its position relative to the beaded rim.

25 Two constructional embodiments of the invention are described by way of example with reference to the accompanying drawings wherein,

Figure 1 is a fragmentary sectional side view of a first construction,

30 Figure 2 is an end view of the first construction,

Figure 3 is a fragmentary sectional side view of a second construction, and

Figure 4 is an end view of the second construction.

35 In Figures 1 and 2 there is shown a fragment of a storage drum 1 for radioactive waste the drum having a beaded rim 2 about a port opening 3. A closure 4 for the port opening carries three screw-thread clamps 5 equally spaced about its periphery and each clamp has a hook member 6

45 for engaging the beaded rim. The hook member is slidable in a body member 7 and is capable of being drawn obliquely into engagement with the rim by a captive drawbolt 8. The hook member 6 has a transverse arm 9 which registers with graduations on the body member to indicate clamp open and closed positions. The hook member has a handwheel 10 which is readily engageable by a remotely operated gripper (not shown). When the hook is fully engaged with the beaded rim it is locked against disengagement by dropping.

55 In the construction shown in Figures 3 and 4 the clamps designated 11 each comprise a body member 12 and a pivotable hook member 13. A drawbolt 14 in the body member 12 has a head 15 which rotatably engages a socket in the hook member 13. A transverse pin 16 closes the socket to captivate the head 15 so that by rotation of the drawbolt 14 the hook member is pivotable about a pivot 17 to engage or disengage the hook with the beaded rim. The hook member 13 has an arm 18 which gives a positional indication of the hook to indicate the closed and open positions of the clamp.

**Claims**

1. A storage drum for radioactive waste having a beaded rim about a port opening and a closure for the opening carrying a plurality of screw-thread clamps, the clamps each having a hook member operable through a draw bolt for engaging the beaded rim and an arm for indicating its position relative to the beaded rim.

2. A storage drum substantially as hereinbefore described with reference to Figures 1 and 2 of the accompanying drawings.

3. A storage drum substantially as hereinbefore described with reference to Figures 3 and 4 of the accompanying drawings.