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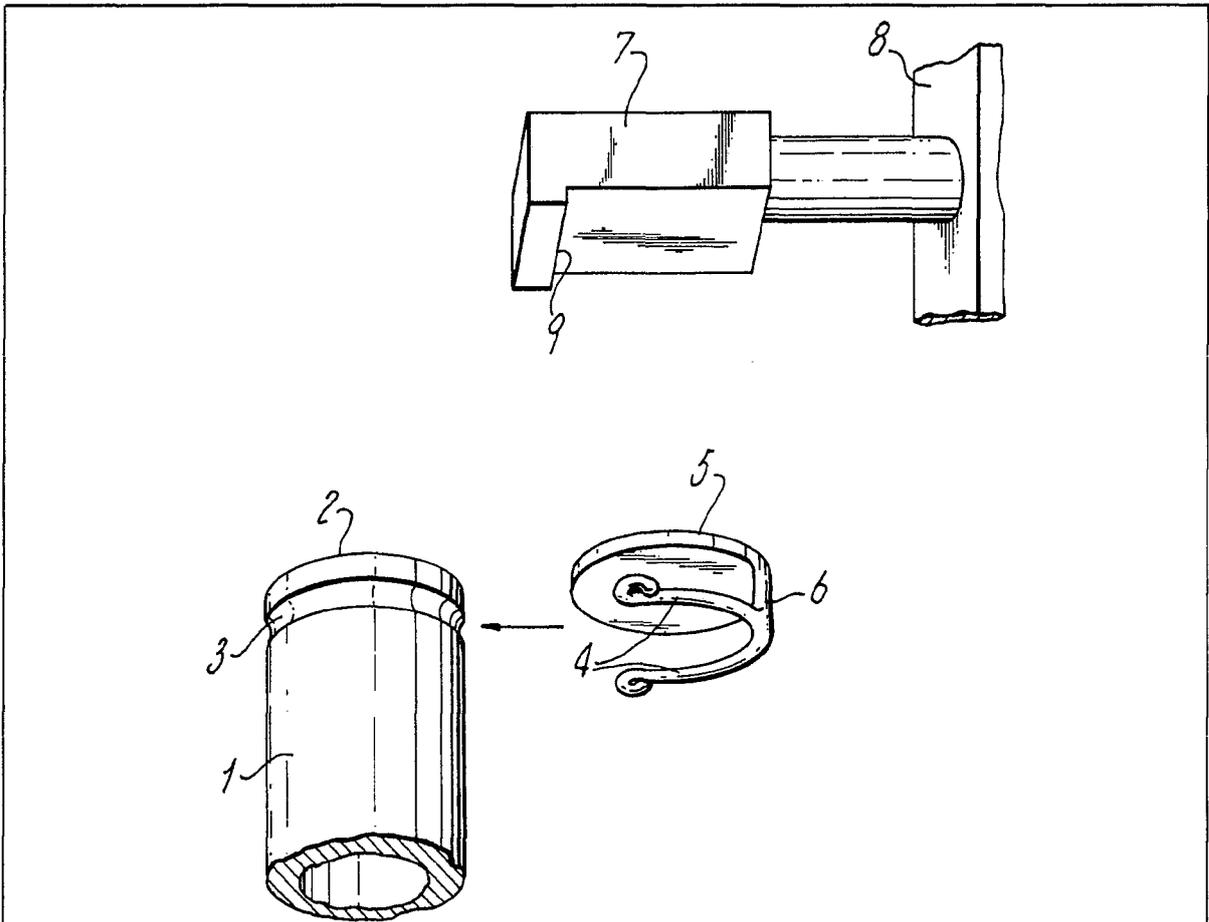
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(54) Magnetisable container closure and means for its removal

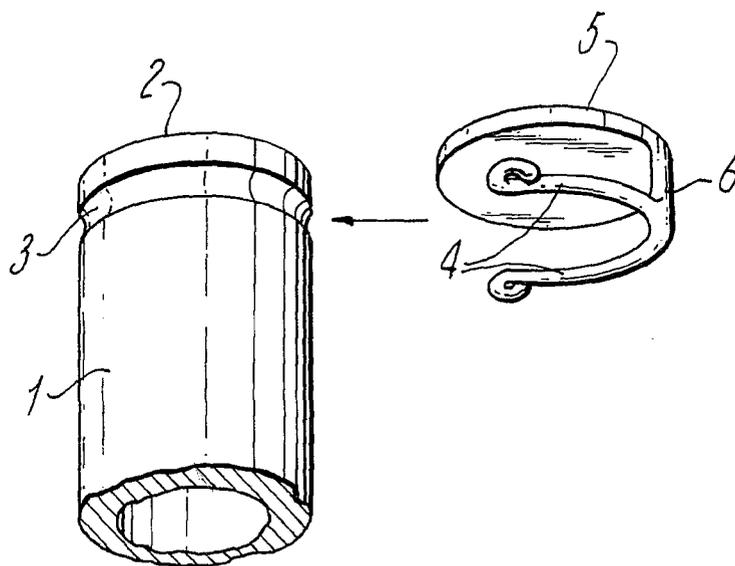
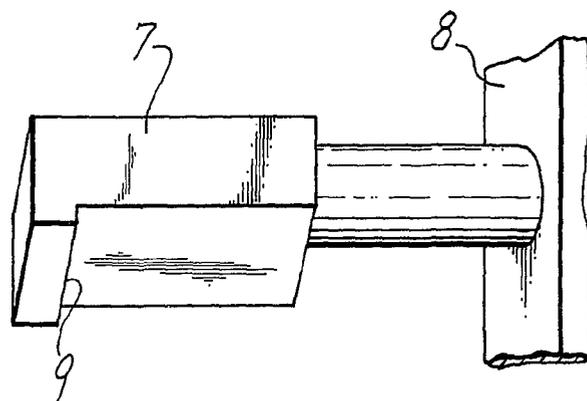
(57) A container (1) has a closed lower end and an open upper end (2), is made of a non-magnetic material such as aluminium, and has a peripheral groove (3) spaced from the open end (2). A disc-like closure (5) is of magnetic material such as ferritic steel, has a pair of spring jaws (4) joined to the disc by a joining member (6) such that when the disc of the closure (5) is in position closing the open end (2) of the container (1), the jaws (4) engage in groove (3) and hold the closure (5) in position. To remove the closure, it is engaged by mag-

netic means (7) mounted for example on a wall (8) and having a step (9) such that when the container (1) is moved laterally away the closure (5) is retained by the magnetic means (7) aided by the step (9) and thereby the closure (5) becomes removed from the container (1).



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SPECIFICATION

Removable closures for containers

5 This invention relates to containers and removable closures therefor, and has particular, though not exclusive, application to containers and closures whose employment is such that application and removal of the closure of a
10 container has to be effected by remote operation. An example of such an application is the employment of containers for storage of radioactive samples or specimens.

15 According to the invention, a container and removable closure therefor is constituted by a container body of a non-magnetic material, a removable closure for the container of a magnetic material, and resilient means associated with the closure and engageable with the
20 container body whereby it is held in its container-closing position against normal handling stresses being however removable by engaging the closure with magnetic means to retain it against movement whilst a separating force
25 is applied to the container to bring about movement relative to the closure with the effect of removal of the container from the closure.

30 The magnetic means may additionally have a step which assists in preventing movement of the closure when the container is moved laterally relative thereto.

35 The container preferably is cylindrical and has a peripheral groove spaced from an open end for engagement therewith by suitably shaped spring jaws of a disc-like closure member for the open end, the jaws being spaced axially from the disc by an amount corresponding to the spacing of the said groove
40 from the open end of the container.

A constructional example will now be described with reference to the accompanying drawing, wherein the sole Figure is a fragmentary exploded perspective view.

45 Referring to the drawing, we provide a container 1, made from non-magnetic material such as aluminium, the upper end only of which is illustrated, having a closed lower end (not shown) and an open upper end 2. There
50 is a peripheral groove 3 of either V- or rounded section which can be engaged by spring jaws 4 secured to a disc-like closure 5 for the open end 2 of the container 1, the spacing of the jaws 4 by virtue of the joining
55 member 6 corresponding to the spacing of the groove 3 from the open end 2 of the container 1, so that when the jaws 4 engage resiliently with the groove 3, the open end 2 is closed by the closure 5, and is held in
60 closed position against normal handling stresses. The closure is made from a magnetic material such as ferritic steel.

To remove the closure 5 from the container 1 by remote operation, the container 1 is
65 grasped by remotely operated tongues (not

shown) and moved into a position in which the closure 5 engages the underside of a magnet 7 (either permanent or electromagnetic) secured to a wall 8 or other fixture. The
70 magnet 7 has a step 9 against which the closure is made to abut. The tongues are operated to move the container sideways, away from the wall or other fixture, so that the closure slides off the end 2 of the container 1, being prevented from sideways movement by a combination of magnetic attraction between magnet 7 and closure 5 and mechanical prevention by the step 9. Because
75 the container 1 is of non-magnetic material, there is no attraction between it and the magnet 7.
80

CLAIMS

1. A container and a removable closure
85 therefor, constituted by a container body of a non-magnetic material, a removable closure for the container and of a magnetic material, and resilient means associated with the closure and engageable with the container body
90 whereby the closure is held in its container-closing position against normal handling stresses, the closure however being removable by engaging it with magnetic means to retain it against movement whilst a separating force
95 is applied to the container body to bring about movement relative to the closure with the effect of removing the container from the closure.
2. A container and a removable closure
100 therefor according to claim 1, wherein the said magnetic means has a step which assists in preventing movement of the closure when the container body is moved laterally relative thereto.
- 105 3. A container and a removable closure therefor according to either of claims 1 and 2, wherein the container body is generally cylindrical externally with however a peripheral groove spaced from an open end for engagement therewith by suitably shaped spring jaws
110 of a disc-like closure member for the said open end, the jaws being spaced axially from the disc by an amount corresponding to the spacing of the said groove from the open end
115 of the container body.
4. A container and a removable closure therefor, substantially as hereinbefore described with reference to the drawings.