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㉖ Identification means.

㉗ A means of identifying, for example metal beer kegs comprises an optically transparent plate with an identification strip carrying a bar coding adhered to the back face of the plate. The plate and strip are surrounded by an overlapping peripheral metal frame welded to the beer keg.

IDENTIFICATION MEANS

This invention relates to identification means, and in particular to identification means on containers or receptacles generally. It is more especially, but by no means exclusively, concerned with identification means on metal beer kegs and casks.

The identification of metal beer kegs and casks, hereinafter referred to generally as "barrels", has two important aspects. The first of these is to enable a brewery to keep track of the whereabouts of the barrels of a very considerable stock thereof, and the second is to enable a stolen barrel to be identified as such. The loss of barrels, whether as a result of inadvertence or theft, is a very expensive item in brewery accounts.

At present beer barrels are most usually marked with an identification number stamped into the metal at one end, but this is easily defaced either accidentally or wilfully, and in any case it is easily misread. It is also not suited to modern computer record techniques for which an automatically readable identification is to be preferred. To overcome the latter problems barrels have been bar coded, for automatic reading by a scanning head such as a hand-held probe, with the bar code on an adhesive strip, but such a strip is easily removed and tends to become detached during washing procedures.

The object of the invention is to provide means for identifying containers or receptacles suited to computerised reading methods and providing greater security.

According to the present invention there is

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provided identification means on a container or receptacle comprising a plastics identification plate with identification marking on the inner side face thereof or within the plate, and means for securing the plastics identification plate to the container or receptacle without obscuring the identification marking which can thus be read.

Preferably, the plastics identification plate is secured to the container or receptacle by retention means secured to the latter and overlapping at least part of the periphery of the plastics identification plate.

Preferably, the retention means is a frame member peripherally surrounding the plastics identification plate and overlapping opposed peripheral regions of the latter.

Preferably, the identification means on a metal container or receptacle comprises a pressed metal frame member with a side flange or flanges which fit closely to the container surface and by which the frame member is welded to the container, and a plastics identification plate with identification marking on the inner side face thereof or within the plate, the plate being retained within the frame member which completely encloses a peripheral region of the plate without obscuring the identification marking which can thus be read.

The plastics identification plate is preferably optically transparent and the identification marking preferably is or incorporates a bar coding for reading by an optical scanning head or probe.

However, some form of magnetic marking may be employed in which case the material need not be optically transparent. When such magnetic marking is on the inner face of the plate the latter will be

magnetically transparent, although the plate may incorporate magnetic material such that the magnetic coding is then within the plate itself.

5 Although of particular application to the identification marking of beer barrels, the means of the invention may be employed with other containers such as for example the containers supplied by a brewery for use in association with beer barrels. Such containers may be the CO₂ cylinders which are
10 supplied for the pressurization of beer kegs. The invention is also of application to larger containers such as transport containers and container bodies of vehicles such as railway trucks and wagons.

15 The invention will now be further described with reference to the accompanying drawings which illustrate, by way of example, a preferred embodiment of the invention as applied to the identification marking of a beer keg. In the drawings:

20 Fig. 1 is a top end view of the keg; and
Fig. 2 is a cross-section view on the line II-II in Fig. 1.

25 The keg 1 itself is of entirely conventional form, with a domed end wall 2 having a central pressure neck 3, screw-threaded to receive a closure bung or for connection to a delivery system, and inset with respect to an end ring. The identification means 5 of the invention are welded to the surface of the end wall 2 at a suitable position thereon.

30 The identification means comprise a pressed sheet metal frame member 6 which closely receives a rectangular and optically transparent plastics identification plate 7. A bar code adhesive strip 8 is applied to the back (inner) surface of the plate
35 7, for reading of the coding 8a by an optical reading

head through the plast 7 which is of a shatterproof plastics material such as polycarbonate. This material not only cannot be shattered by blows from a hammer but it is also caustic resistant, scratch proof and acid proof.

As mentioned the frame member 6 is of pressed metal form, with a continuous rectangular side wall 9, a frame section 10 which overlaps a peripheral region of the plate 7 closely to contain same and a continuous edge flange 11 which fits closely to the surface of the end wall 2. The flange 11 is welded to the wall 2, either with a continuous circumferential weld or by a series of welds such as 12 as shown in Fig. 1. In either case the identification means are permanently secured to the keg 1.

The frame member 6 is of a metal compatible with that of the keg 1. Thus with an aluminium keg it will normally be of aluminium, whereas it will normally be of stainless steel when fitted to a stainless steel keg.

The frame member need not be continuous. It may be constituted by separate discrete retaining members engaging and overlapping opposed regions, say two pairs of opposed regions of the identification plate.

In one modification the metal frame member or retaining members is or are secured to the metal container by an adhesive.

The adhesive is preferably but not essentially an elastomer-based compound capable of withstanding temperatures to which the container may be subjected to in cleaning, sterilising and/or storing. Such a compound, moreover, preferably lends itself to coping with any vibration or other movements to which the container might normally be subjected to in handling,

transporting or otherwise.

A second modification, suitable in certain instances, is to rivet the metal frame member or retaining members to the metal container. Such a
5 modification is especially suitable for non-pressurised containers.

In the distilling industry it is customary to store the spirituous liquids for long periods of time, years in fact, in wooden casks and a third
10 modification is concerned with fastening a suitable frame member, of metal, plastics, wood for example, to the wooden casks by nailing or stapling or adhesive as aforesaid.

In all the above modifications the frame closely
15 encloses the identification plate, or the retaining members engage opposed regions of the latter.

It is also envisaged that the identification means may be any convenient form of identification data encapsulated within a plastics plate or body
20 which is directly adhered or otherwise conveniently secured to the metal container, wooden cask or container formed of any other suitable material, for example an inert plastics material.

The frame or retaining members may be omitted
25 the plastics plate 7 with the identification strip 7 as aforesaid or encapsulated within the plate be directly secured to the keg 1 adhesively or by nailing, stapling or rivetting.

It is preferred, however, that there is provided
30 either the aforesaid retaining members or, preferably, the peripheral frame member 6.

CLAIMS:

5 1. Identification means on a container or receptacle comprising a plastics identification plate with identification marking on the inner side face thereof or within the plate, and means for securing the plastics identification plate to the container or receptacle without obscuring the identification marking which can thus be read.

10 2. Identification means as claimed in claim 1, in which the plastics identification plate is adhesively secured to the container or receptacle.

15 3. Identification means as claimed in claim 1 in which the plastics identification plate is nailed, stapled or rivetted to the container or receptacle when the latter is formed of wood.

20 4. Identification means as claimed in claim 1 in which the plastics identification plate is secured to the container or receptacle by retention means secured to the latter and overlapping at least part of the periphery of the plastics identification plate.

25 5. Identification means as claimed in claim 4, in which the retention means comprises retaining members overlapping opposed peripheral regions of the plastics identification plate.

30 6. Identification means as claimed in claim 4, in which the retention means is a frame member peripherally surrounding the plastics identification plate and overlapping opposed peripheral regions of the latter.

7. Identification means as claimed in claim 6, in which the frame member wholly overlaps the periphery of the plastics identification plate.

35 8. Identification means as claimed in any one of claims 4 to 7, in which the retention means,

retaining members or frame member are secured to the container or receptacle, depending on the constitution of the latter, adhesively, or by nailing, stapling or rivetting, or by welding.

5 9. Identification means as claimed in claim 7
or 8, on a metal container or receptacle comprising a
pressed metal frame member with a side flange or
flanges which fit closely to the container surface
and by which the frame member is welded to the
10 container, and a plastics identification plate with
identification marking on the inner side face thereof
or within the plate, the plate being retained within
the frame member which completely encloses a
peripheral region of the plate without obscuring the
15 identification marking which can thus be read.

 10. Identification means as claimed in any one
of claims 1 to 9, in which the plastics
identification plate is an optically transparent
plastics material, so that the identification marking
20 is visible through the plate.

 11. Identification means as claimed in any one
of claims 1 to 10, in which the identification
marking is or incorporates a bar coding for reading
by an optical scanning head or probe for automatic
25 reading of the identification information.

 12. Identification means as claimed in any one
of claims 1 to 10, in which the identification
marking is magnetic in nature.

 13. Identification means as claimed in claim 12
30 in which the plastics identification plate
incorporates magnetic material whereby the magnetic
coding is within the plate itself.

 14. Identification means as claimed in any one
of claims 1 to 12, in which the identification
35 marking is encapsulated within the plastics

identification plate.

15. Identification means on a container or receptacle, substantially as hereinbefore described with reference to the accompanying drawing.

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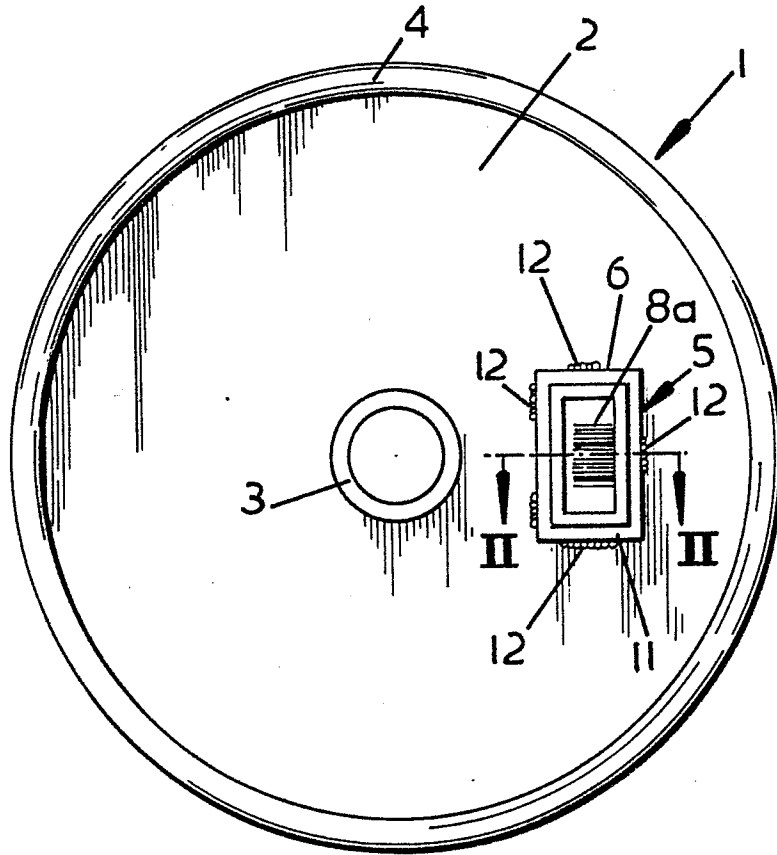


FIG. 1

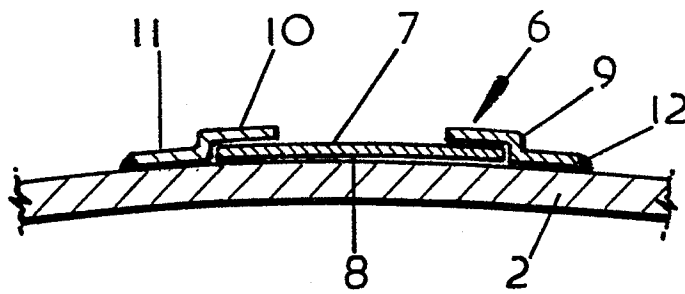


FIG. 2