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(54) **Cabinet moulded in one piece**

(57) A cabinet or locker is disclosed moulded in one piece substantially free from discontinuities. Moulding in a polymeric material provides this absence of discontinuity for a useable bedside locker of suitable weight and avoiding wood fungus and rust. Preferably, the cabinet or locker includes a recess, to form a cupboard, adapted to be closed by doors, the doors being detachable for cleaning purposes. It is preferred that the cabinet or locker is moulded with the absence of sharp edges or corners to improve the effectiveness of cleaning

by hand with a cloth, or by steam jet. Bacterial growth may be further reduced by the incorporation of antibacterial additives in the polymeric moulding materials. Indeed it is preferred to mould the cabinet from a bacteria resistant polymeric material, such as 'Microban', which kills bacteria on contact. Conveniently, the cabinet or locker can be produced with an integrally moulded handle which, in conjunction with fitted castors or wheels, facilitates movement of the unit from one place to another. Ideally, the handle can double as a towel rail or the like.

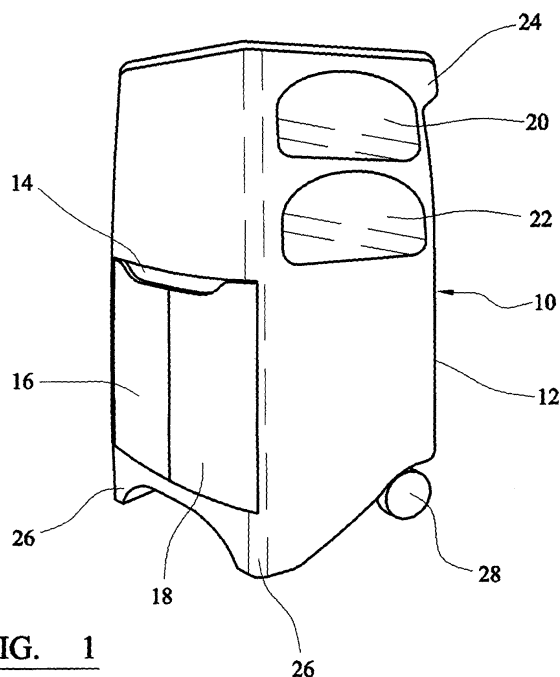


FIG. 1

Description

[0001] This invention relates to a cabinet, and more particularly relates to a cabinet or locker produced substantially without seams which can harbour bacteria or viruses.

[0002] It is a well known problem that patients in hospitals can contract illnesses other than the condition for which they were admitted while resident in the hospital. To combat this, the highest standards of hygiene and cleanliness must be observed.

[0003] It is usual for each patient to have beside his or her bed a cabinet or locker within which to store personal articles. Such cabinets or lockers are normally formed from a multitude of wooden panels joined together by metal fixings, giving rise to cracks and other discontinuities, any of which can be a breeding ground for germs or viruses, wood fungus and rust in the case of ferrous metal fixings.

[0004] The invention seeks to provide a cabinet or locker, suitable for use in a hospital, improved in the above respects.

[0005] According to the present invention, there is provided a cabinet or locker moulded in one piece substantially free from discontinuities.

[0006] Moulding in a polymeric material provides this absence of discontinuity for a useable bedside locker of suitable weight and avoiding wood fungus and rust and is thus the preferred method of manufacturing the cabinet of the invention.

[0007] Preferably, the cabinet or locker includes a recess, to form a cupboard, adapted to be closed by doors, the doors being detachable for cleaning purposes.

[0008] It is preferred that the cabinet or locker is moulded with the absence of sharp edges or corners to improve the effectiveness of cleaning by hand with a cloth, or by steam jet. Bacterial growth may be further reduced by the incorporation of anti-bacterial additives in the polymeric moulding materials. Indeed it is preferred to mould the cabinet from a bacteria resistant polymeric material, such as 'Microban', which kills bacteria on contact.

[0009] Conveniently, the cabinet or locker can be produced with an integrally moulded handle which, in conjunction with fitted castors or wheels, facilitates movement of the unit from one place to another. Ideally, the handle can double as a towel rail or the like.

[0010] Preferably, the cabinet or locker is formed from a thermoplastic material such as polyethylene or polypropylene, although other materials such as nylon, polycarbonate or polyurethane can also be used. However, it is preferred to mould the cabinet from a bacteria resistant polymeric material, such as 'Microban', which kills bacteria on contact.

The preferred method of production is rotational moulding.

[0011] Rotational moulding is a process in which plastics material in a powder form is introduced into a mould,

which is then closed and passed into a heating chamber. The mould is rotated about both vertical and horizontal axes while being heated. As the mould heats up, the powder begins to melt and adhere to the inner surface of the mould until a substantially even layer is produced over the entire inner surface of the mould. The mould is withdrawn and, whilst still being rotated, is cooled until the plastic material sets, after which the product can be de-moulded. The walls and doors made by this process are hollow, which provides particular advantages for realising the invention. These include a substantively stiffer structure for the same weight of solid polymer moulded by any other process and the opportunity to obtain still higher stiffness and strength to weight ratios by filling the hollow walls and doors with a suitable foam.

[0012] Relatively complex shapes such as the cabinet or locker of the invention can be produced in a single mould by this method. However, in suitable cases, other moulding techniques, for example injection moulding, could be employed, if desired.

[0013] A secure medicine or personal belongings tray may optionally be provided, adapted to fit in and be locked in place in one or more recesses moulded into the cabinet for the purpose of storage.

[0014] The top of the cabinet may be recessed to receive articles such as water jugs, kidney trays, or the like.

[0015] The invention will be described further, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a cabinet or locker in accordance with the invention;

Figure 2 is a rear view corresponding to Figure 1; and

Figure 3 is a similar view to Figure 2 of a second embodiment of the invention

[0016] Referring to the drawings, a hospital bedside cabinet or locker generally designated 10 is moulded in one piece from a polyethylene plastics material by the rotational moulding method. The cabinet or locker 10 comprises a main body portion 12, having a cupboard recess 14 therein closable by doors 16, 18. The doors 16, 18 are arranged to be clipped in place using the resilience of the chosen polymeric material in the main body 12 of the cabinet or locker 10 so as to be easily de-mountable for cleaning, of both the doors themselves and the interior of the cupboard.

[0017] In addition, two integrally moulded shelves 20, 22 are provided, as well as an integrally moulded handle 24.

[0018] As illustrated, the cabinet or locker 10 has two feet 26, as well as a pair of wheels or castors 28, which, in conjunction with the handle 24, allow the unit to be tilted and wheeled on the castors so as to be moved to

a desired position. Alternatively, the cabinet or locker could be provided with four wheels or castors, one at each corner, all of which are removable for cleaning by virtue of the natural resilience of the polymeric material.

[0019] As illustrated, the cabinet or locker 10 is formed completely without discontinuities such as seams. Moreover, all of the edges around it have no sharp corners where dirt can gather and serve as a breeding ground for bacteria or viruses. The smooth and rounded surfaces facilitate cleaning with a cloth. The cabinet or locker can also be taken away for steam and/or hot water cleaning and sterilisation, for example before a new patient is to use it. The doors 16, 18 are demounted before cleaning, allowing full access to all surfaces of the locker (and of the doors).

[0020] In Figure 3 a second embodiment is illustrated essentially similar in all respects with the addition of a moulded recess 30 in the top surface to receive articles such as jugs, kidney dishes or the like. The back is provided with moulded swages 32 which give additional strength to the construction.

[0021] In addition there is provided a removable tray 34 adapted, in this case, to fit into the upper recess 20, and contain medicines, personal belongings, or the like. A detent 36 controllable by a lock barrel 38 enables the tray 34 to be locked in place in the cabinet. A larger tray may be fitted to the lower recess 22.

[0022] Doors and trays may be produced in the same or a different colour to the cabinet body.

[0023] The cabinet or locker of the invention is considerably more hygienic for use in hospitals than existing lockers and yet is simple and relatively inexpensive to produce as well as being attractive in appearance.

Claims

1. A cabinet or locker moulded in one piece from a plastics material substantially free from discontinuities.
2. A cabinet or locker as claimed in claim 1 including a recess, to form a cupboard, adapted to be closed by doors, the doors being detachable for cleaning purposes.
3. A cabinet or locker as claimed in claim 1 or 2 moulded with the absence of sharp edges or corners to improve the effectiveness of cleaning.
4. A cabinet or locker as claimed in any of claims 1 to 3 moulded from a bacteria resistant polymeric material which kills bacteria on contact.
5. A cabinet or locker as claimed in any of claims 1 to 4 including an integrally moulded handle which, in conjunction with fitted castors or wheels, facilitates movement of the unit from one place to another.

6. A cabinet or locker as claimed in claim 5 wherein the handle doubles as a towel rail or the like.

7. A cabinet or locker as claimed in any of claims 1 to 6 produced by rotational moulding.

8. A cabinet or locker as claimed in any of claims 1 to 7 additionally including a secure medicine or personal belongings tray may adapted to fit in and be locked in place in one or more recesses moulded into the cabinet for the purpose of storage.

9. A cabinet or locker as claimed in any of claims 1 to 8 wherein the top of the cabinet is recessed to receive articles such as water jugs, kidney trays, or the like.

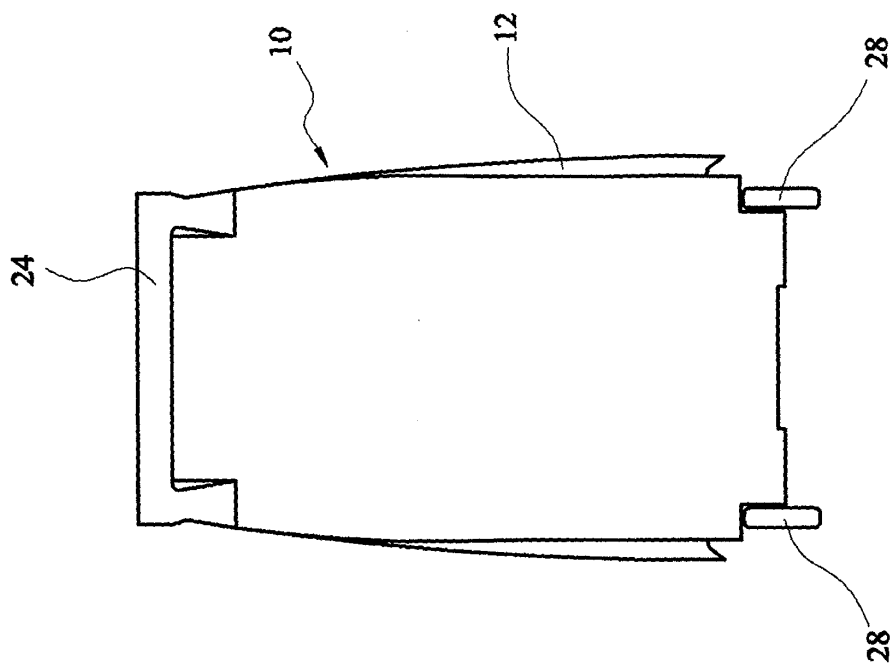


FIG. 2

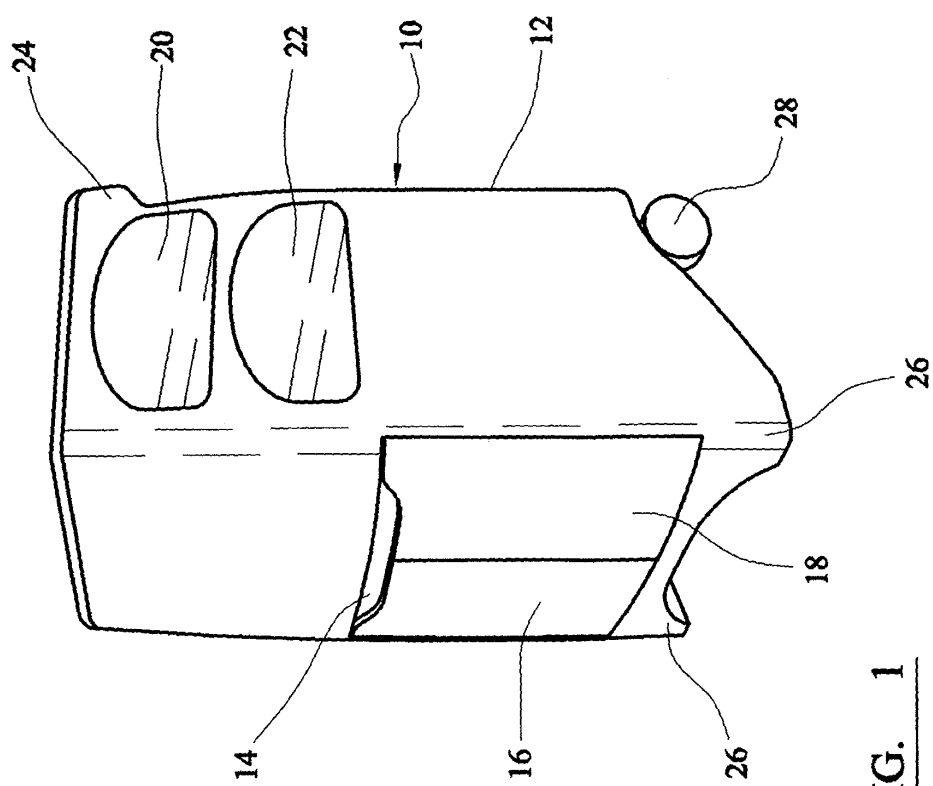


FIG. 1

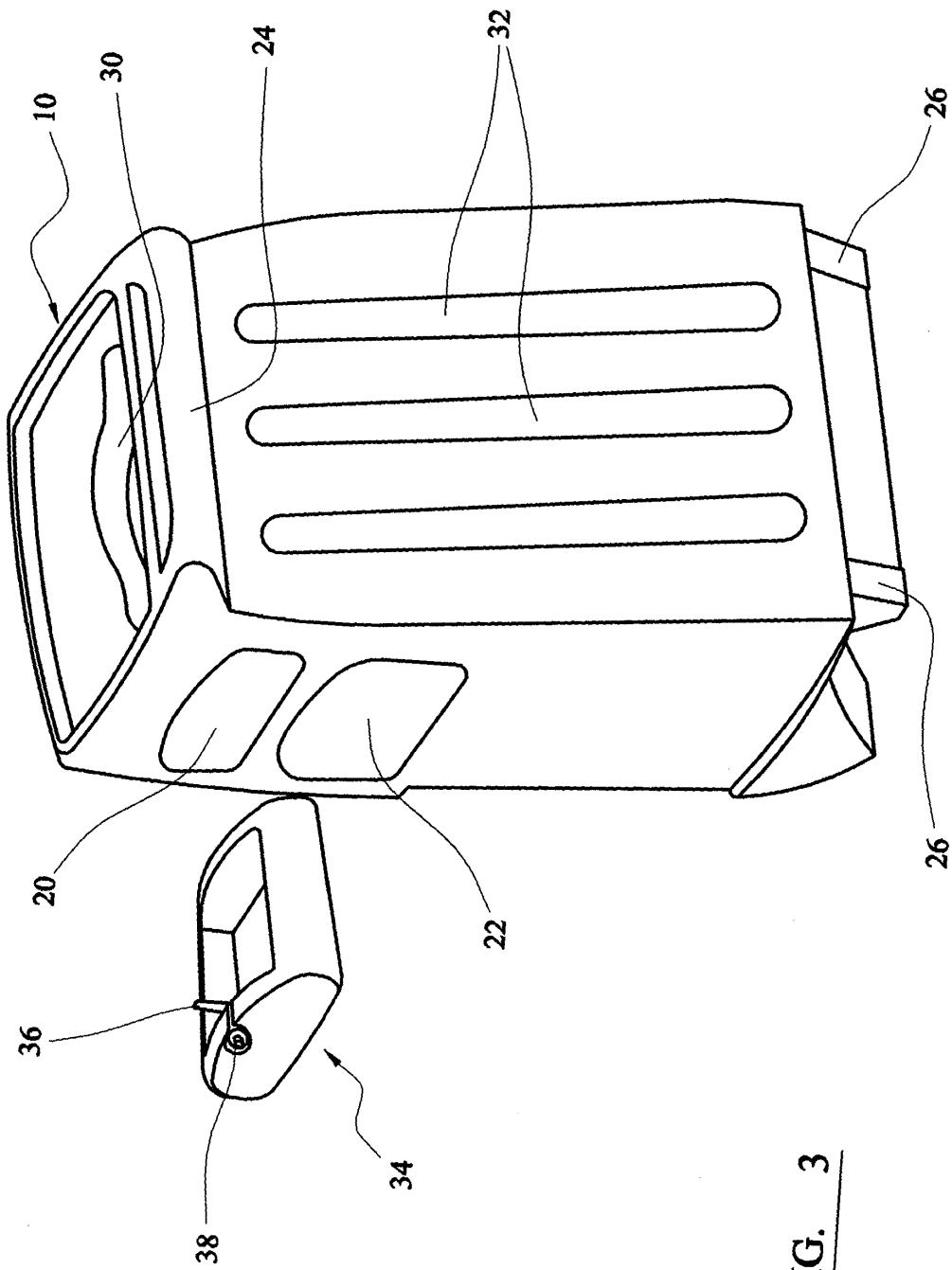


FIG. 3