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(54) **Hairdressing work station**

(57) The invention provides a work station, suitable for a hairdressing salon in which a cabinet has a mirror facing the chair in which the subject sits, a washbasin mounted in a tray which is rotatable from a concealed position in the cabinet to a second position adjacent to the chair, preferably by rotation horizontally. Advantageously, the tray is mounted on a pivot system comprising a pivot plate having a pivot at each end, the first pivot connecting the tray to the pivot plate and the second pivot connecting the pivot plate to the recess in the cab-

inet. Most advantageously, the lower elements of both pivots are hollowed and linked by a passageway through the pivot plate. The waste pipe from the wash basin is preferably connected to the hollow in the first pivot and the second pivot feeds into a waste disposal system, thereby enabling the waste water to flow away from the basin without any unsightly pipework being visible, whilst still permitting the tray to be rotated on both sides of the cabinet.

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Description

[0001] The present invention relates to a hairdressing work station and to a cabinet for use in such a work station.

Background

[0002] Hairdressing salons cater for a range of treatments of human hair, including washing or otherwise processing hair on the head or shaving facial hair therefrom. The range offered depends in part at least on whether the salons are aimed at males, females or both.

[0003] A number of the treatments offered in salons include hair washing or rinsing and this is often accomplished by the person whose hair is being treated hanging his or her head above a basin. The basin is typically located within a horizontal work surface, and the person bends over it. This is not particularly comfortable. If the person were to sit in a chair, which reclined to bring the head of the person close to the basin, there would be relatively little room between the chair and the basin to permit the hairdresser to move.

[0004] It would be desirable to devise a work station for hairdressing salons that provided more space for the hairdresser to move around the chair on which the subject is sitting, and which still enabled the subject to access the wash basin relatively easily. Moreover, a wash basin can be considered to be unsightly and warrants being concealed from view.

[0005] GB759884 (Kohl) discloses a workstation for a hairdressing salon in which the wash basin is mounted in a trolley which can be wheeled towards the chair in which subject is seated. This arrangement does not conceal the wash basin when it is not in use and suffers from the disadvantage of hazardous hoses being trailed across the salon floor.

[0006] JP 7289346 (Watanabe) discloses a work station in which a wash bowl, mounted in a cabinet, is moved on a rail towards the chair on which the subject is seated. The pipework in such an arrangement is potentially unsightly and can suffer from kinking as the bowl is withdrawn from or moved into the cabinet. Moreover, such an arrangement offers relative movement of bowl and chair in only one dimension.

Summary of the Invention

[0007] In accordance with a first aspect of the present invention, there is provided an arrangement suitable for use in a hairdressing salon comprising a work station which comprises:

a vertical outward-facing side panel of a cabinet;
a chair on which can be seated a person seeking his hair to be dressed which is spaced from the cabinet side panel, the side panel having a mirror mounted thereupon which is positioned relative to

the chair such that the person can observe his hair therein;

a tray housing a washbasin which tray is mounted on a pivot within the cabinet and is rotatable horizontally about the pivot from a first position in which the washbasin is concealed within the cabinet to a second position in which the washbasin is positioned adjacent to the chair and capable of receiving water employed to wet hair on the head of the person seated in the chair,
and a water supply which is adapted to direct a flow of water onto hair on the head of a person positioned above the wash basin when the tray is in the second position.

[0008] By mounting the wash basin in a tray, which is capable of being rotated from a position in which the wash basin is concealed within the cabinet, to a second position in which the wash basin is brought into the vicinity of the chair, the work station gains the twin benefits simultaneously of providing greater work space around the chair when the wash basin is not needed, thereby also presenting a neat and tidy appearance for the salon, but also enabling the wash basin to be brought closer to the chair when it is needed. Mounting the tray rotatably offers superior flexibility in the positioning of the wash basin, cabinet and chair.

[0009] In a second aspect of the present invention, there is provided a cabinet containing the features of the work station described above in respect of the first aspect and which with a chair located at a suitable position can form a work station.

More Detailed Description and Preferred Embodiments

[0010] In the present invention, there is provided a work station or arrangement of work stations for employment within a hairdressing salon. However, in practice there are several different operations that are carried out in a salon, and rarely are washing or rinsing operations needed simultaneously by more than a fraction of the users of the salon. Consequently, although it is feasible to employ stand-alone work stations, it is especially desirable to link two or more of them together. This is achievable by linking the side panels of each work station to form the cabinet, sharing the tray carrying the wash basin in common. By employing the work stations together in that way, equipment costs can be controlled, minimising the number of separate wash basins that are needed, and likewise minimising the number of separate waste outlets that are needed for waste water.

[0011] Desirably the side panels in the cabinet are arranged symmetrically. This can offer a number of different patterns, such a polygon with at least three sides, e. g. 3 to 6, or a rectangle in which two side panels are parallel and linked by linking walls, often much shorter than the side panels. Two or more rectangular cabinets can be joined in the vicinity of the tray to form a star or

cross, having for example 3 or 4 arms.

[0012] An important aspect of the present invention is that the tray carrying the washbasin is able to be moved by rotation from a concealed to a working position. A practical way of achieving such movement is for the tray to be pivoted vertically, so that it can rotate in a horizontal plane. This facilitates the placement of the wash basin beside two or more side panels of the cabinet. This is particularly useful in combination with the provision of a recess within the cabinet. Such a recess is desirably suitably dimensioned to receive the tray and has an opening in the or each side panel of the cabinet through which the tray can pass by rotation. Preferably, the walls of the recess are in consequence shaped or positioned relative to the tray so as to permit rotation of the latter. If desired, the side panel of the tray in the vicinity of the washbasin can have a cut-away portion dimensioned so that the subject can rest his head on the side panel of the tray and present his hair above the wash basin. Padding may be provided for the comfort of the user.

[0013] The wash basin preferably has a waste water outlet pipe that is concealed within the tray and cabinet. This is not only aesthetically pleasing, but also avoids the potential hazard of an exterior hose or other outlet means snaking across the floor of the salon. The outlet line more preferably comprises a passageway through the vertical pivot means of the tray. Said passageway in practice has an inlet port to receive an outlet pipe for waste water from the wash basin which is concealed within the tray and an outlet port connected to waste water collection or discharge means that are concealed within the cabinet. Particularly preferably, the inlet port for the passageway is substantially transverse. Most conveniently, the outlet port is axial. The passageway can comprise an axial borehole extending into a solid pivot from the lower end or alternatively be provided using a tubular pivot pin. The inlet port can be provided by drilling radially into the axial bore or the tube.

[0014] The pivot is normally provided within the tray adjacent to one end thereof or physically attached to the end of the tray, and preferably at the end closer to the chair. The location of pivot means relative to the side panels of the tray is at the discretion of the manufacturer of the cabinet. The pivot can be centrally located, i.e. approximately equidistant from both side panels, if desired. However, the recess into which the tray is fitted would need to have a gap between the its end wall and the end of the tray so as to permit horizontal rotation of the tray. This is relatively unsightly and can harbour dirt.

[0015] Accordingly, the pivot preferably comprises a twin pivot system which comprises a pivot plate which is mounted at one end of the tray and two pivots, a first pivot which pivots at one end of the pivot plate and a second pivot which pivots at the other end of the pivot plate. The first pivot rotatably connects the pivot plate to the tray and the second pivot rotatably connects the pivot plate to the cabinet. The twin pivots enable the tray to be rotated to either side of the cabinet, to the one by

rotation of the tray alone, with the pivot plate contacting the end wall of the recess and to the other side by rotation of the linked unit of tray plus pivot plate. Consequently, the length of the recess needed to accommodate the tray is much shorter than if a centrally located single pivot had been employed. This in practice enables a shorter cabinet to be made fulfilling the same functions.

[0016] The pivot plate desirably has approximately the same length as the front to back width of the tray so that the first vertical pivot is locatable adjacent to one corner of the tray between said one end and one of the tray's side panels and the second vertical pivot is locatable adjacent to the corner of said one end with the other side panel. The pivot plate can be directly PivotTable connected to the tray such that the first pivot extends between the tray and the pivot plate or can be pivotally connected via a mounting plate which is securely affixable to the tray. The latter is preferable, because it is easier to manufacture a mounting plate than to suitably mould a tray or adapt a preformed tray. The tray or mounting plate as the case may be houses the first pivot.

[0017] The pivot plate houses at one end a lower mounting for the first pivot and optionally a coaxially aligned upper mounting also for the first pivot, and at its other end is fitted with the second pivot which extends downwardly into a pivot mounting located in the base of the recess. More preferably, the second pivot also extends upwardly into a mounting on the roof of the recess so that the pivot plate has both a bottom and top pivot coaxially aligned. Spring bias means for the pivot pin may be provided to enable the top pivot to be inserted into or removed from its mounting. The pivot plate has a cutaway portion located above the lower mounting for the first pivot or between the lower and upper mountings into which can fit the shaped end of the tray or the mounting plate housing the first pivot. The first pivot may have its pivot pins axially moveable towards each other and be provided with spring biasing to enable the pins to be inserted more easily or removed from their upper and lower mountings.

[0018] The mounting plate may, if desired, extend across the width of the tray, and can comprise a bar located above the pivot plate if there is bottom pivoting only or located within a horizontal recess extending laterally across the pivot plate on its tray-facing side when the latter is both top and bottom hinged.

[0019] In the preferred twin pivot system, both pivots are hollowed, at least in their lower elements. The first and second pivots preferably each have a substantially horizontal inlet port in fluid connection with an axial bore which terminates in an axial down-ward facing outlet port. The outlet port of the first pivot sits within a receiving cup in fluid connection with a passageway, often substantially horizontal in the pivot plate or downwardly inclined towards the second pivot, which is provided by boring or casting a channel in the pivot plate or by interior pipework. The inlet port of the first pivot is in fluid

connection with the wash basin and the outlet port in the second pivot is in fluid connection with a waste disposal system located within the cabinet or to an inlet for a mains drainage system located within the cabinet.

[0020] The mountings for the twin pivots often comprise bearings within in which the pivot pins can rotate.

[0021] The cabinet side panel forming part of a work station is equipped with a mirror at head height opposite to and facing the chair on which a subject sits. The mirror can be surrounded by a circular light or a series of individual lights which assist the hairdresser to dress hair and then subject to see what is being done.

[0022] Preferably the chair is capable of swivelling about a vertical axis and especially desirably, it is capable of reclining. The latter enables the subject to remain in an upright sitting position for hair cutting, but recline closer to a horizontal position for hair washing or rinsing. The combination of the two actions of the chair enables it to be swivelled so that its back, the subject and the wash basin (when the tray is in its second position) are in a line, and the chair can be reclined to bring the head of the subject over the wash basin.

[0023] The or each side panel of the cabinet is equipped with means for washing or rinsing hair. Preferably, such means comprise a water supply mounted on the chair-facing face of the cabinet or within the cabinet. It is especially suitable for the means to further comprise a flexible hose terminating in an outlet such as a spray head. Most preferably the water supply means comprises a means to alter or control the temperature of water supplied so as to bring it to or keep it at a desired temperature for contact with hair. Most desirably, the cabinet has a hollow chamber in which the hose can be stored when not in use and terminating in an aperture through which the hose can pass. The hose is very desirably spring biased so as to be retracted into the chamber when not needed. Such an arrangement is not only a neat and tidy presentation, and therefore appealing to the eye, but also enhances safety by minimising the presence of loose hosing which might cause occupants of the salon to trip or snag on clothing.

[0024] The or each side panel of the cabinet can also be provided with one or more shelves or alcoves on in which the tools of the trade, such as scissors, razors, lotion, shampoo, shaving formulations, hair conditioners, hair lacquers, hair bleaches, or hair colorants can be stored. Any shelf can be fixed, or retractable within a suitably dimensioned hollow chamber having an outward-facing aperture through which the shelf can pass. The or each side panel can be provided with screen, e. g. a TV monitor, on which can be shown entertainment or instructional material.

[0025] The cabinet is in practice normally secured to the floor of the salon. It is advantageously located above a water supply, waste outlet and electricity supply means, so that the respective supplies and waste outlet can be concealed within the cabinet, for example passing through conduits in a hollow cabinet.

[0026] Having described the invention and some preferred embodiments thereof in general terms, specific embodiments will now be described more fully with reference to accompanying Figures 1 to #.

[0027] Figure 1 represents a plan view of a cabinet having two work stations.

[0028] Figure 2 represents a side and end perspective of the cabinet in Figure 1 showing an exposed tray.

[0029] Figure 3 represents a side and end perspective of a cabinet showing the tray not in use.

[0030] Figure 4 represents an exploded three-quarters perspective view of the pivot means for connecting the tray to the cabinet.

[0031] A twin work station arrangement is shown in Figure 1. The cabinet 1 depicted in Figures 1 to 3 comprises two parallel side panels 2a and 2b, each of which has mounted in a central position at head height a mirror 3 which is surrounded by four lights 4 and one end of which is shaped to provide a horizontal recess 5 in which pivots a tray 6 housing a wash basin 7. Side panels 2a and 2b face respectively swivel/recliner chair 8a and 8b respectively. Chair 8a is shown in a reclining position having its backrest 9a tilted down and facing at an angle towards and close to wash basin 7 and its foot rest 10a tilted up and facing away from the wash basin. Chair 8b in an upright position having its backrest 9b and footrest 10b in an upright mode and it faces substantially transversely to the cabinet 1.

[0032] Each side panel 2a and 2b also has a shower head 11 fitting at head height and which is attached through a hose, not illustrated to a water supply means inside the cabinet 1. A retractable shelf 12 is mounted beneath mirror 3 and alcoves 13 are inset in the side panel 2 suitable for housing work objects 14.

[0033] In Figure 3, the tray 6 has a cut-away section 15 in its side adjacent to wash basin 7 which is dimensioned to accommodate the head of a person reclining on chair 8 when tray 6 is in its exposed position.

[0034] The pivoting system shown in Figure 4 comprises a pivot plate 16 having upper and lower bars 17 and 18 joined by a spacing plate 19 of partial width and depth forming a horizontal recess 20 which can accommodate a mounting plate 21 that itself is secured by four bolts 22 onto tray 6. The mounting plate 21 has an up-standing projecting lug 23 which fits a corresponding vertical recess 24 in the upper bar 17 of pivot plate 16 to prevent the mounting plate 21 from over-rotating towards the pivot plate 16.

[0035] The mounting plate 21 is pierced by a vertical bore 25 in which is fitted a first pivot 26 that has an upward blind bore (not illustrated) that passes through a bored lower pin 27 and communicates with a horizontal aperture 28 and a solid upper pin 29. Plate 21 is penetrated from its tray-facing face into bore 25 by a pipe 30 that is connected within tray 6 to the waste outlet (not illustrated) of wash basin 7.

[0036] The upper bar 17 of pivot plate 16 has an up-standing boss 31 and pivot pin 32 of the second pivot

which is capable of fitting rotatably into a bore 33 drilled into the top face of cabinet recess 5, and at its opposite end provides a housing 34 for a bearing for the pivot pin 29 of first pivot 26. The lower bar 18 has a cup drilling 35 adapted to act as a bearing for the hollow lower pivot pin 27 of first pivot 26 and a substantially horizontal passageway 36 (shown in dotted lines) formed within the bar 18 and communicating at its distant end with an axial blind bore 37 that passes through a hollow lower pivot pin 38 that together with pivot pin 32 comprises the second pivot. Hollow pin 38 fits into receiving aperture 39 in the bottom face of cabinet recess 5 that acts as a bearing for the second pivot and communicates with a waste disposal means not illustrated.

[0037] In operation, pin 26 is pushed into friction fit in bore 25 of mounting plate 21, with aperture 28 at the correct height and alignment to receive pipe 30 and is attached to tray 6. The pins 27 and 29 of pivot 26 are located within the bearing in housing 34 and receiving cup 35 in pivot plate 16 and likewise pins 32 and 38 are located within bearing 33 and 39 in the recess 5. The tray 6 can be rotated through one open face of recess 5 on pivot pins 32 and 38, the pivot plate 16 abutting mounting plate 21. In order to rotate the tray through the opposite open face of recess 5, the pivot plate is rotated until it abuts the inner face of recess 5 and thereafter further rotation of the tray 6 is made using pivot pins 27 and 29. The outflow from the wash basin 7 at all times is able to flow through pipe 30 into hollow pin 27, thence via cup 35 into passageway 36 and out through bore 37 and hollow pin 38 into receiver 39 and thence to disposal.

Claims

1. An arrangement suitable for use in a hairdressing salon comprising a work station which comprises

a vertical outward-facing side panel of a cabinet,
a chair on which can be seated a person seeking his hair to be dressed which is spaced from the cabinet side panel, the side panel having a mirror mounted thereupon which is positioned relative to the chair such that the person can observe his hair therein,
a tray housing a washbasin which tray is mounted on a pivot within the cabinet and is rotatable horizontally about the pivot from a first position in which the washbasin is concealed within the cabinet to a second position in which the washbasin is positioned adjacent to the chair and capable of receiving water employed to wet hair on the head of the person seated in the chair and a water supply which is adapted to direct a flow of water onto hair on the head of a person positioned above the wash basin when the tray

is in the second position.

2. An arrangement according to claim 1 which comprises a plurality of work stations, the side panel in each work station being linked to form a cabinet in which the tray is common to all work stations.
3. An arrangement according to claim 2 in which the work stations are disposed symmetrically around the cabinet.
4. An arrangement according to claim 3 which comprises two linked work stations, the side panel in each being parallel.
5. An arrangement according to any preceding claim in which the tray is rotatable about a vertical axis between the first and second positions.
6. An arrangement according to any preceding claim in which the tray is mounted within a horizontal recess in the cabinet, said recess having an opening in the or each side panel through which the tray can pass.
7. An arrangement according to claim 6 in which the tray has vertical pivot means between its base and the base of the recess.
8. An arrangement according to claim 7 in which the wash basin has waste water drain which feeds through said vertical pivot means.
9. An arrangement according to claim 7 or 8 in which the vertical pivot means comprises a first pivot rotatably connecting the tray to a pivot plate and a second pivot rotatably connecting the pivot plate to the recess.
10. An arrangement according to claim 9 in which the first pivot and second pivot are located at opposite ends of the pivot plate.
11. An arrangement according to claim 10 in which the pivot plate and one end of the tray have the same front to back width.
12. An arrangement according to any of claims 9 to 11 in which the first pivot is housed within a mounting plate that is attached to the tray.
13. An arrangement according to any of claims 9 to 12 in which a waste pipe leading from the wash basin and located within the tray is in fluid connection with an axial hollow in the first pivot having an axial bottom port which in turn is in fluid connection with a passageway formed in the pivot plate positioned beneath the first pivot, said passageway in fluid

connection with an axial hollow in the second pivot having an axial bottom port which in turn is in fluid connection with a waste disposal means.

14. An arrangement according to any of claims 7 to 13 in which the pivot means have both upper and lower pivot points. 5
15. An arrangement according to any preceding claim in which the or each water supply comprises a flexible hose terminating in an outlet. 10
16. An arrangement according to claim 15 in which the or each hose is extendable out of and retractable into a housing therefor in the cabinet. 15
17. An arrangement according to any preceding claim in which the or each chair is capable of being tilted such that the head of the person in the chair is positioned beyond the end of the chair back. 20
18. An arrangement according to claim 17 in which the tilt of the chair and its spatial relationship to the tray in its second position are such that the head of the person can rest on the tray above the wash basin. 25
19. An arrangement according to any preceding claim in which the or each side panel includes means for drying hair. 30
20. An arrangement according to claim 19 in which the means for drying hair comprises a supply of hot air, optionally from a common heater.
21. A cabinet suitable for use in a hairdressing salon comprising:- 35

a vertical outward-facing side panel which is capable of forming part of a work station which further comprises a chair on which can be seated a person seeking his hair to be dressed which spaced from the side panel, the side panel having:- 40

a mirror mounted thereupon which is positioned relative to the chair such that the person can observe his hair therein, 45

a tray housing a washbasin which tray is mounted on a pivot within the cabinet and is rotatable about the pivot horizontally from a first position in which the washbasin is concealed within the cabinet to a second position in which the washbasin would be positioned adjacent to the chair and capable of receiving water employed to wet hair on the head of the person seated in the chair, 50

and a water supply which is adapted to direct a flow of water onto hair on the head of a person positioned above the wash basin when the tray 55

is in the second position.

22. A cabinet according to claim 21 which comprises a plurality of such vertical outward facing side panels which are linked together and has a common tray.
23. A cabinet which is substantially as described herein with respect to any one of claims 3 to 20.

Fig.1.

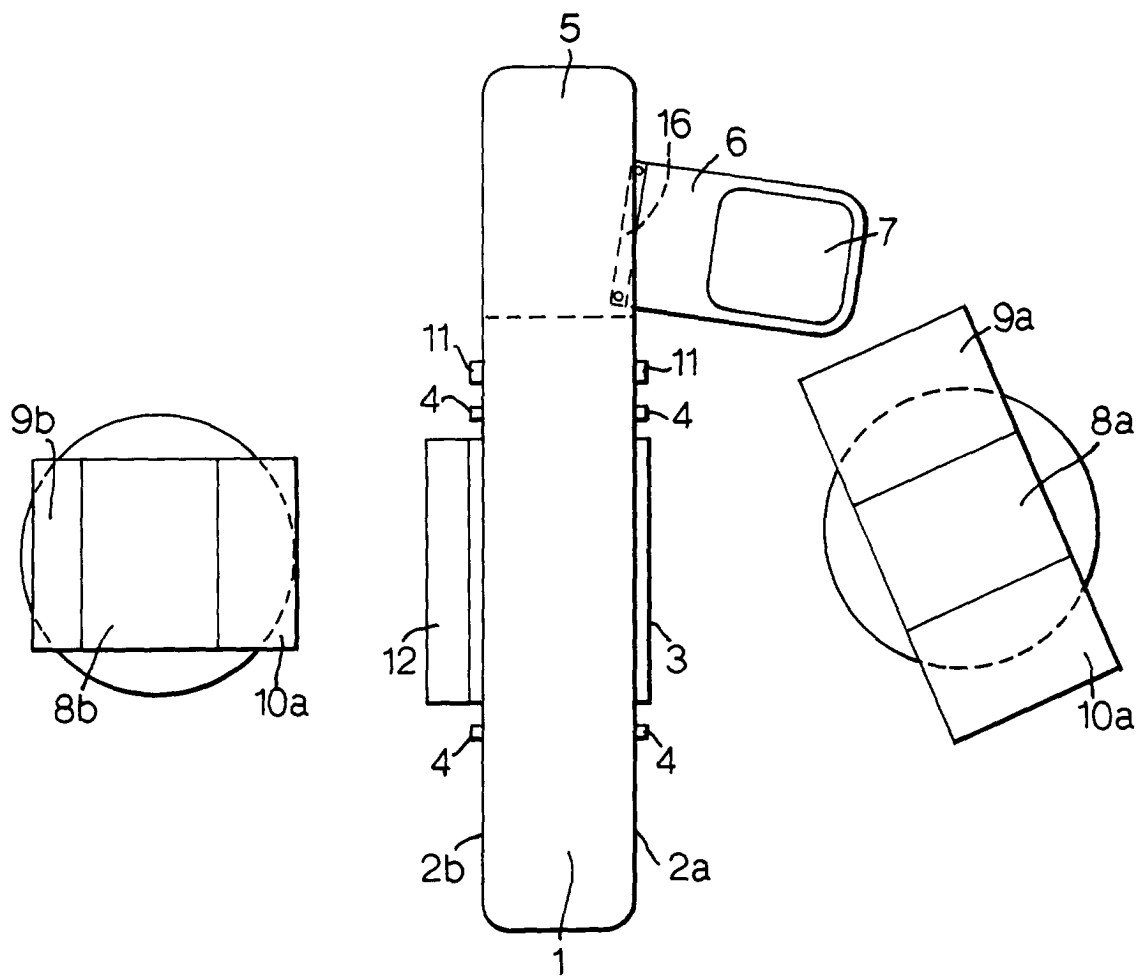


Fig.2.

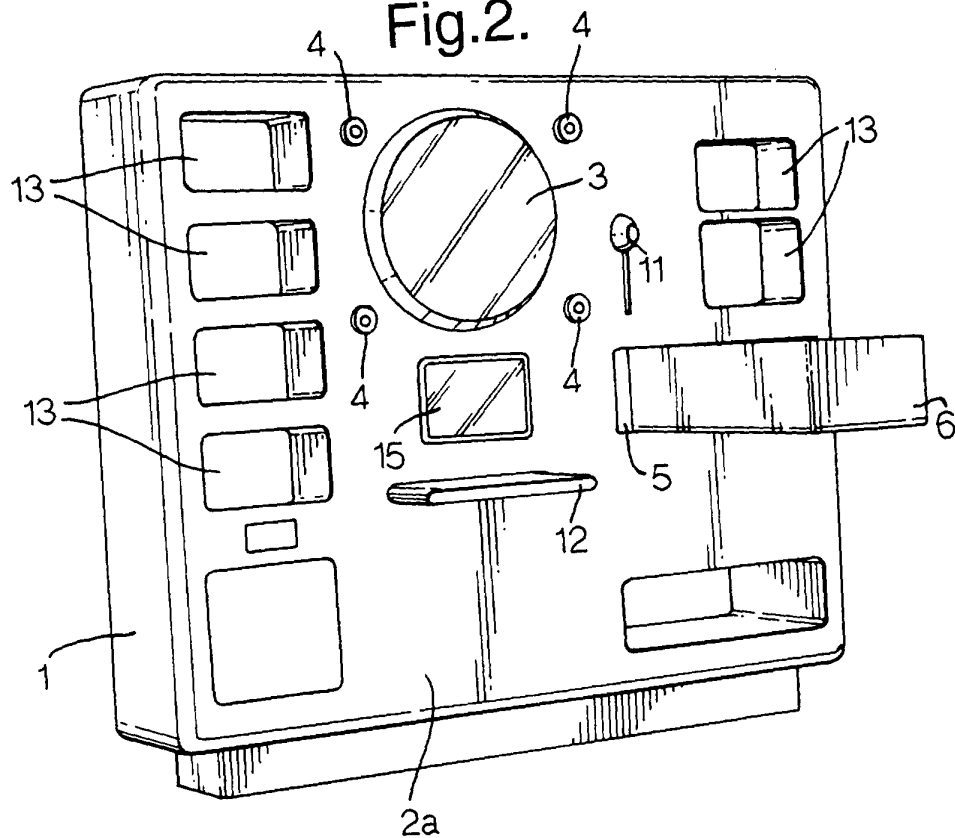


Fig.3.

