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(54) **Folding table**

(57) A folding table assembly which is adapted to be mounted on a wall comprises a hanger body (10) having a fixed unit (11) adapted to be mounted on a wall (50), a table plate (20), a joint unit (30) for the table plate be pivoted freely on the hanger body (10) and a support unit (40) for supporting the table plate (20) on the hanger

body (10). When the table plate (20) is opened from the hanger body (10), the support unit (40) supports the table plate (20) and maintains it in a substantially horizontal position. The hanger body (10) may have a plurality of separated cabinets (60) and an illumination unit (80) at an upper part of the body.

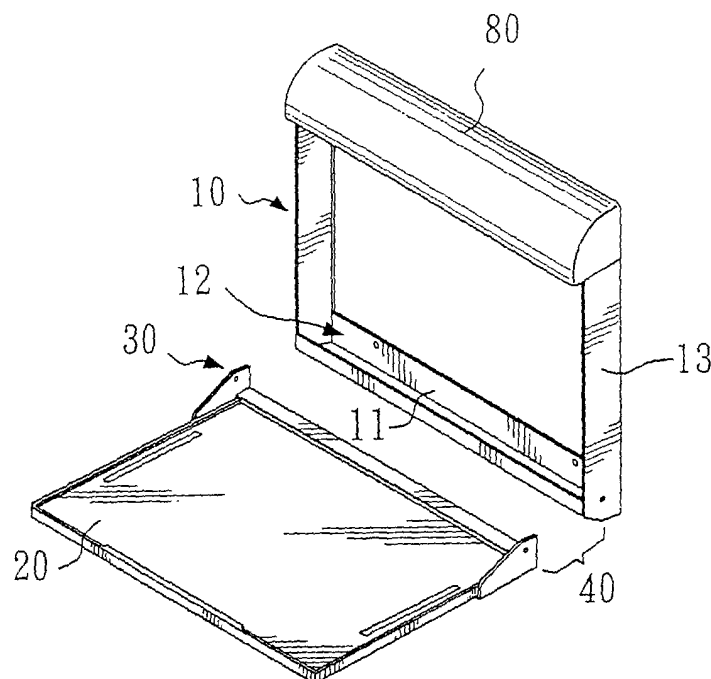


FIG. 1

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Description

[0001] This invention relates to a folding table assembly which is adapted to be mounted on a wall.

[0002] In small houses or hotels the interior space is built to be very limited. Except for the necessary furniture such as beds and wash basins, the remainder is designed to have minimum space requirements. The traditional writing table, desk, or dresser would occupy space as large as a small closet. In limited space interior room space, a desk may be considered necessary to increase an owner's convenience but it may also be treated as space-taking furniture and most families would prefer a dining table instead.

[0003] As above-mentioned, both for the house and/or interior decoration designer, or furniture manufacturers who know too well the necessity of a writing table or desk, owing to their deeply rooted concept and technology, they simply could not reduce the size of a traditional writing table, desk, or dresser. A large number of people also consider the huge rectangular writing table, desk, or dresser to be irreplaceable or that there is no room for improving the final type. Whatever, the traditional and invisible space to be used in the interior space could be used more effectively.

[0004] The present invention aims to provide a folding table which can be hung onto a wall without taking hardly any space in a folded position and which can be opened to form a table surface to be used as a writing table or dresser.

[0005] According to the invention, there is provided a folding table assembly adapted to be mounted on a wall and including:

a hanger body comprising a fixed unit adapted to be mounted on a wall and side walls to form a shallow and hollow box;

a table plate pivotally mounted on the hanger body and arranged, in a closed position, to cover the hanger body; and

a support unit for supporting said table plate and for maintaining it in a substantially horizontal position when the table plate is opened out from the hanger body.

[0006] The folding table according to the invention may further include a snapped-on unit for securing the table plate to the hanger body when the table plate is closed onto the hanger body.

[0007] Preferably, the hanger body has a plurality of separated cabinets in the box. The cabinets can accommodate documents, stationery or books.

[0008] If desired, the hanger body may have a mirror on the fixed unit. The fixed unit could then be used to contain jewelry and cosmetics to fulfil the function of a dresser.

[0009] According to a preferred embodiment, the hanger body includes an illumination set. The illumination unit is desirably located at the upper part of the hanger body.

[0010] The folding table assembly according to the invention preferably further comprises a switch unit for supplying electric power automatically to the illumination unit when the table plate is opened from the hanger body and, when the table plate is closed back to the hanger body, for cutting off the electric power supply. A battery may be connected to the illumination unit.

[0011] Desirably, the illumination unit has a lampshade at least part of which has good transparency.

[0012] According to another embodiment of the invention, the hanger body has a lower part and said table plate has a lower edge; said lower edge of the table plate being arranged to contact the lower part of the hanger body when the table plate is opened.

[0013] In a preferred embodiment of this invention, holes are provided through which screws or pins can be passed. Another feature would be the hanger body to have connected a side plate that connected to the outside of the fixed unit. There would be an inner deep space to be formed by the side plate and the fixed unit that form a shallow box hollow inside such as a flat rectangular box-shaped structure. The hanger body inner has space to have several separated cabinets to contain documents, stationery or books etc.

[0014] The folding table assembly according to the invention may include a snapped-on unit, which could be snapped on the table plate and the hanger body.

[0015] This application of the invention to the interior of architectures would be much more space saving than the traditional type of writing table or desk, it would be open or closed according to the user's request. When it is closed, it could almost become part of the wall. The manufacturing cost of a folding table assembly according to the invention would be much more less than the traditional type of writing table or desk and it is easier to produce and move. One could be easily set up in a house no matter if it is a new or existing residence, it could be DIY on the walkway, on the wall of a certain room, or built into the wall or closet.

[0016] The invention will now be described in detail, by way of example, with reference to the drawings, in which:-

Fig. 1 is an exploded perspective view of one embodiment of a folding table according to the present invention;

Fig. 2 is a perspective view showing the table of Fig. 1 in an assembled condition;

Fig. 3 is a perspective view, similar to Fig. 2, but showing the table in a partially folded position;

Fig. 4 is a perspective view of the other side of the table in a closed position;

Fig. 5 is a side view of the table shown in Fig. 4 and showing the table mounted on a wall;

Fig. 6 is an enlarged view of part of the table shown in Fig. 4;

Fig. 7 is a perspective view, similar to Fig. 2, but showing another embodiment of table according to the invention; and

Fig. 8 is a vertical section through a further embodiment of table according to the invention.

[0017] Referring to the drawings, a folding table assembly according to the invention comprises a hanger body 10 that has a fixed unit 11 and a table plate 20. The table plate 20 has a joint unit 30 to connect the table plate 20 to a fixed unit 11 of the hanger body 10 in a pivotal manner. The joint unit 30, as shown in Figs. 1 to 6, is pivoted at each side of the table plate 20 and the hanger body 10 or, as shown in Figs. 7 and 8, is under the table plate 20 and the hanger body 10 which would make the table plate 20 foldable. The table plate 20 can be pivoted with respect to the fixed unit 11 as indicated by the curved arrows in Figs. 3 and 8. There is a support unit 40 such as an elbow connector as shown in Figs. 7 and 8 or, as shown in Figs. 1 to 6, such as a free beam on which the table plate 20 could be supported by the lower part of the hanger body. In either case, when the table plate 20 is opened, the support unit 40 could support the table plate 20 which maintains the table plate 20 in a level position as shown in Figs. 6 and 8.

[0018] When the fixed unit 11 is fixed on a wall 50 as shown in Figs. 2 and 5, the table plate 20 would become selectively part of the hanger body 10 and serve as a door or a writing table, dresser or a table or cupboard etc. When the table plate 20 is in the closed position, it is a door in a sense but when it is opened downward it becomes a writing table etc. In one embodiment, the fixed unit 11 has preset holes 12 through which screws or pins can be passed in order to aid installation.

[0019] In another embodiment, there is a snapped-on unit 70, as shown in Figs. 7 and 8, which is pivoted on the hanger body 10 and enables the table plate 20 to be snapped onto the hanger body 10. The snapped-on unit 70 can be varied as described. One kind of spring snapped-on type could be considered as first priority and it must be set up along with the table plate's handle (not shown). When the table plate 20 is to be opened, a finger is depressed to make the snapped piece and the wall 10 to separate while the table plate 20 is to be closed, the table plate 20 is pushed to close the table plate onto the wall 10. No matter the application, it is possible to open and close the table plate 20 by the snapped-on unit 70 easily.

[0020] Fig. 6 is a detailed view of the preferred embodiment for the support unit 40. The table plate 20 by means of the joint unit 30 can be opened and let down as shown by the dotted line. After the table plate 20 has been lowered, the lower inside-edge 21 would make contact with the lower part 15 of the hanger body 10. The table plate 20 is thus formed as a free beam which is supported by the lower part 15 of the hanger body 10.

[0021] In the embodiment shown in Figs. 7 and 8, the fixed unit 11 of the hanger body 10 is surrounded by side plates 13. At the top of the side space for the hanger body 10 is installed an illumination unit 80. The side plates 13 and the fixed unit 11 could be constructed together with an inner deep space to form a flat rectangular box-shaped structure. The hanger body 10 inner deep space has several separated cabinets 60 such as hanging plates and /or bags in which to put documents, stationary, or books etc. The illumination unit 80 has a light shield and part of the light shade should be designed to have good transparency. The light shade can be designed to be varied for different function requirements. The light shield, comprising an upper part 82, a front side 83 and a lower part 84 has its transparent light shade inside which is a light unit 85, which is preferably a furolence light or energy saving bulb etc. When the embodiment of this invention is applied to a desk or writing table, it emphasises up/down lightning, so the light upper part 82 and the front side 83 could use thicker acrylic plate to shadow the light, and the lower part 84 of the light shield must use partially or fully transparent or translucent plate for brightness. On the other hand, when the embodiment is to be used as a dresser, the upper part of the fixed unit 11 should have a mirror 14, as shown in Fig. 8. In this case, the light supply would emphasise the front light to light up a user's face, so the shade transparency would change position, the upper part 82 and the lower part 84 using the thicker acrylic plate to shadow the light while the shade and the front side 83 use the partially or fully transparent or translucent plate to give better lighting.

[0022] As shown in Fig. 7, an on/off switch unit 86, such as a limiter switch, push button switch, or infrared remote reflex switch can be provided which is arranged to switch off the power supply when the table plate 20 is closed up to the hanger body 10. For a better environment and to make the lightning more adaptable, a series manual on/off switch 86 may be provided to control power supply.

[0023] Although certain preferred embodiments of the present invention have been shown and described in detail, it should be understood that various changes and modifications may be made therein without departing from the scope of the invention as defined by the appended claims. Every embodiment cannot possibly be illustrated in detail; the appended claims of the present invention should not be limited in the literal sense of the words.

Claims

1. A foldable table assembly adapted to be mounted on a wall **characterized in that** the folding table assembly includes:-

a hanger body (10) comprising a fixed unit (11)

adapted to be mounted on a wall (50) and side walls (13) to form a shallow and hollow box;

the lower part (15) of the hanger body (10) when the table plate (20) is opened.

a table plate (20) pivotally mounted on the hanger body (10) and arranged, in a closed position, to cover the hanger body (10); and 5

a support unit (30) for supporting said table plate (20) and for maintaining it in a substantially horizontal position when the table plate (20) is opened out from the hanger body (10). 10

2. A folding table assembly according to claim 1, **characterized in that** it includes a snapped-on unit (70) for securing the table plate (20) to the hanger body (10) when the table plate (20) is closed back to the hanger body (10). 15

3. A folding table assembly according to claim 1 or claim 2, **characterized in that** the hanger body (10) has a plurality of separated cabinets (60) in the box. 20

4. A folding table assembly according to any one of the preceding claims, **characterized in that** said hanger body (10) includes an illumination unit (80). 25

5. A folding table assembly according to claim 4, **characterized in that** said illumination unit (80) is located at the upper part of the hanger body (10). 30

6. A folding table assembly according to claim 4 or claim 5, **characterized in that** it further comprises a switch unit (86) for supplying electric power automatically to the illumination unit (80) when the table plate (20) is opened from the hanger body (10), and, when the table plate (20) is closed back to the hanger body (10), for cutting off the electric power supply. 35

7. A folding table assembly according to any one of claims 4 to 6, **characterized in that** it further comprises a battery connected to the illumination unit (80). 40

8. A folding table assembly according to any one of claims 4 to 7, **characterized in that** said illumination unit (80) has a lamp shade, at least part of which has good transparency. 45

9. A folding table assembly according to any one of the preceding claims, **characterized in that** said hanger body (10) has a mirror (14) on said fixed unit (11). 50

10. A folding table assembly according to any one of the preceding claims, **characterized in that** the hanger body (10) has a lower part (15) and said table plate (20) has a lower edge (21), said lower edge (21) of the table plate (20) being arranged to contact 55

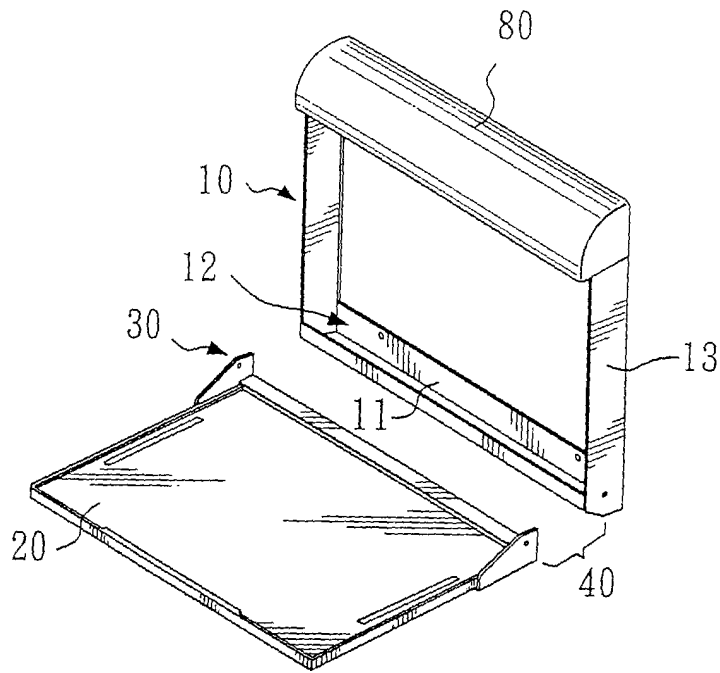


FIG. 1

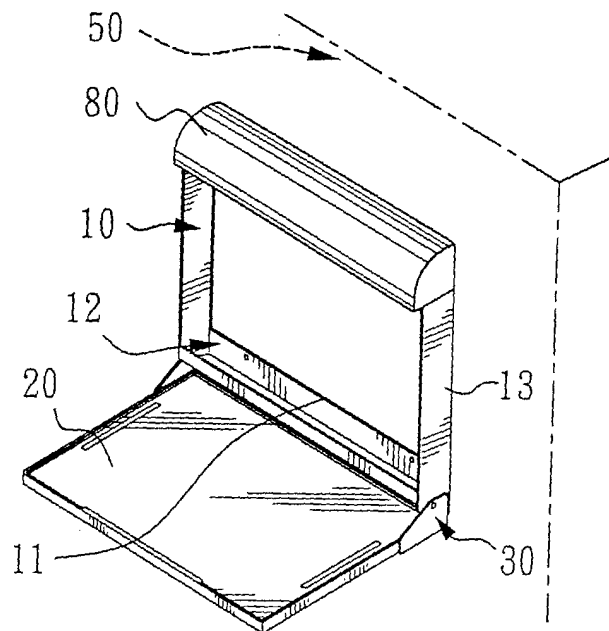


FIG. 2

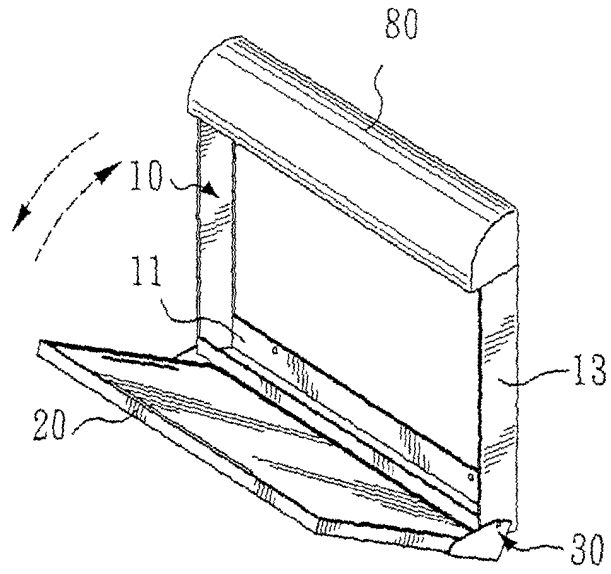


FIG. 3

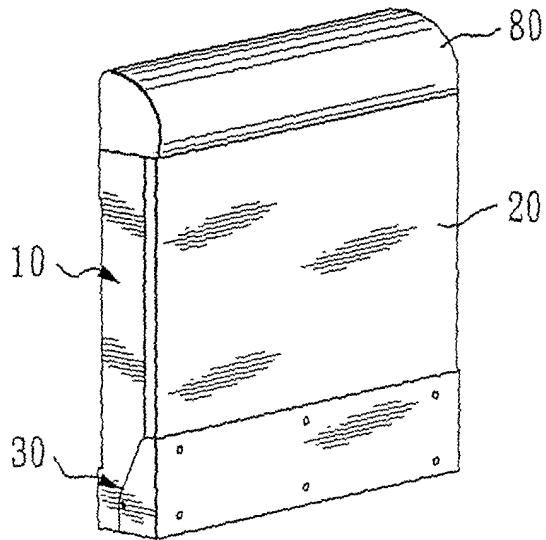


FIG. 4

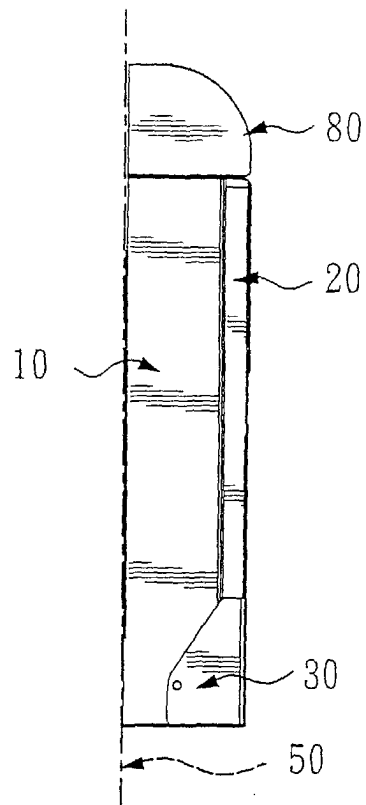


FIG. 5

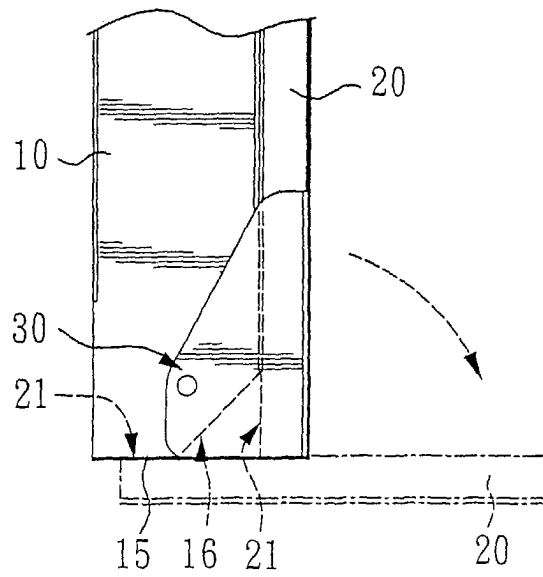


FIG. 6

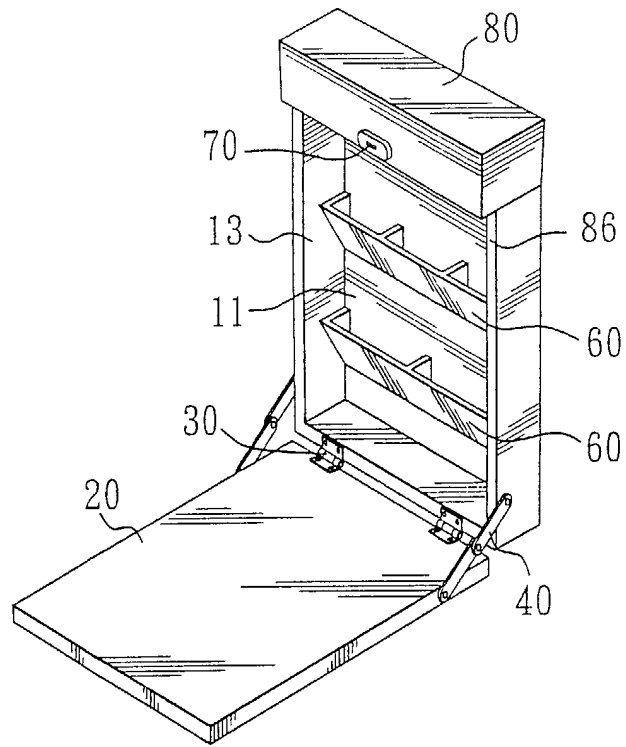


FIG. 7

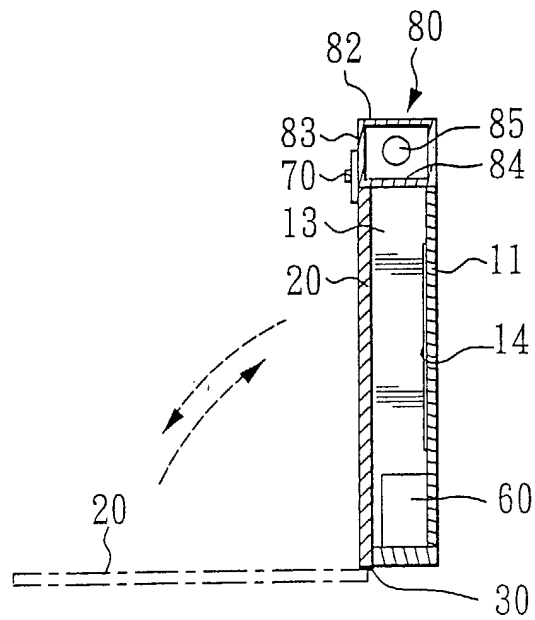


FIG. 8



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EUROPEAN SEARCH REPORT

Application Number
EP 03 25 4191

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
MUNICH	2 December 2003	Klintebäck, D	
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EPO FORM 1503.03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 03 25 4191

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