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GB 2232520 A	GB 1192955 A
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(58) Field of Search
UK CL (Edition R) **A4B**
INT CL⁷ **A47B 55/02**
Online : EPODOC,WPI,JAPIO

(54) Abstract Title
Decorative wall mounted storage unit

(57) A wall mounted storage unit has a door 3 formed by a flexible lamina 7 mounted under tension, which can be adjusted, on a lightweight frame eg of A1. The lamina bears a picture or graphic design 9 and may be translucent, a lamp being provided within the unit to illuminate the rear of the closed door. The body 1 of the unit is of wire and may include wire shelves (1c,1d). Hook-and-loop patches (21,22) are provided to act as a door catch.

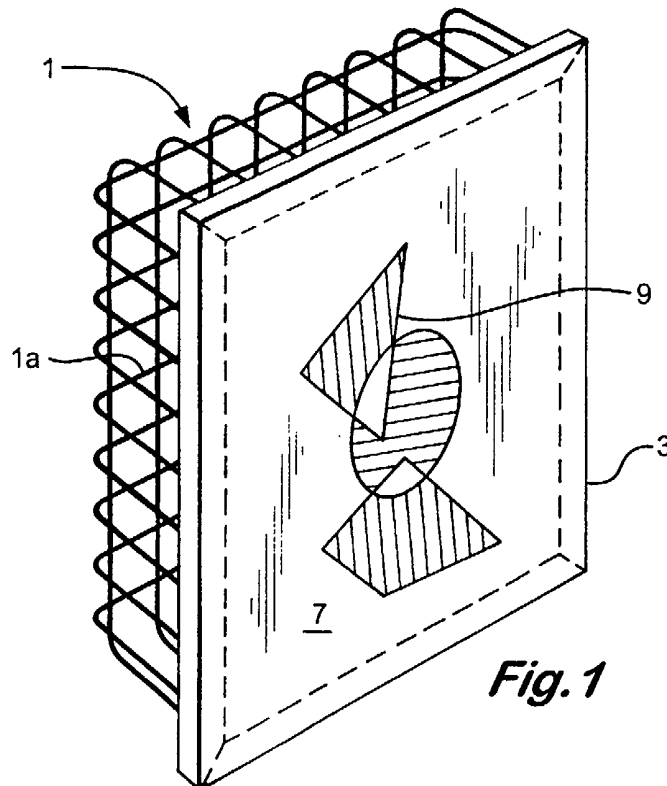


Fig. 1

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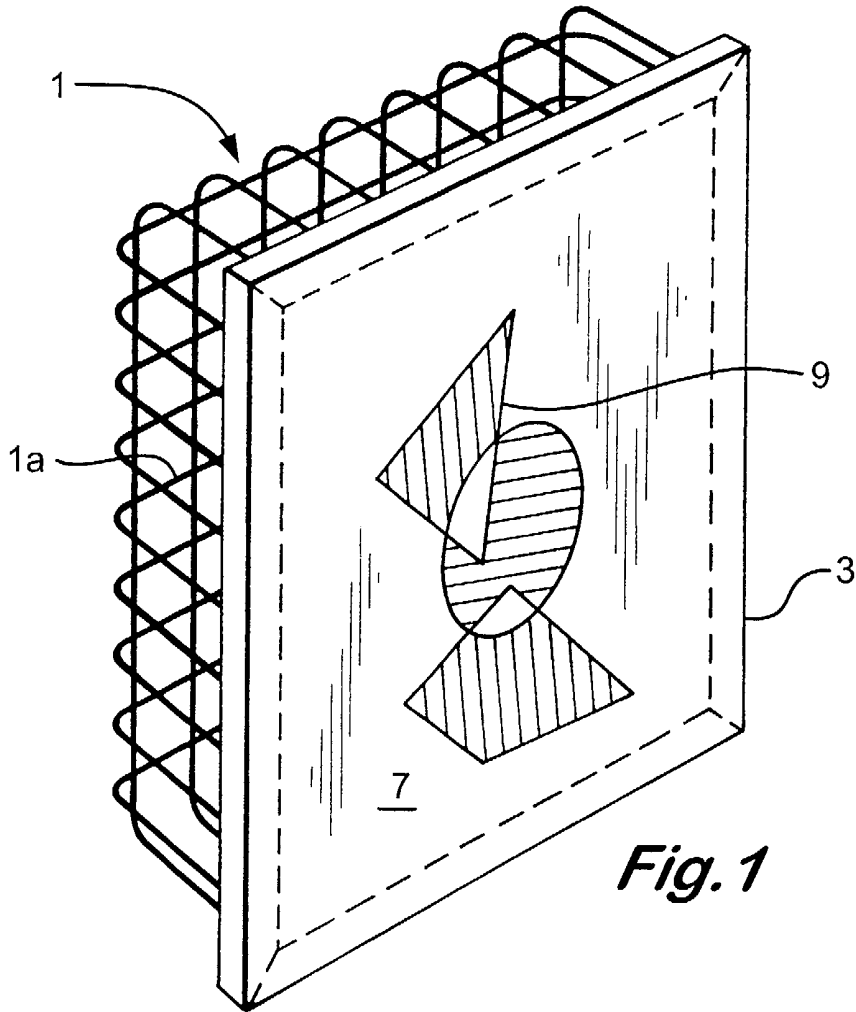


Fig. 1

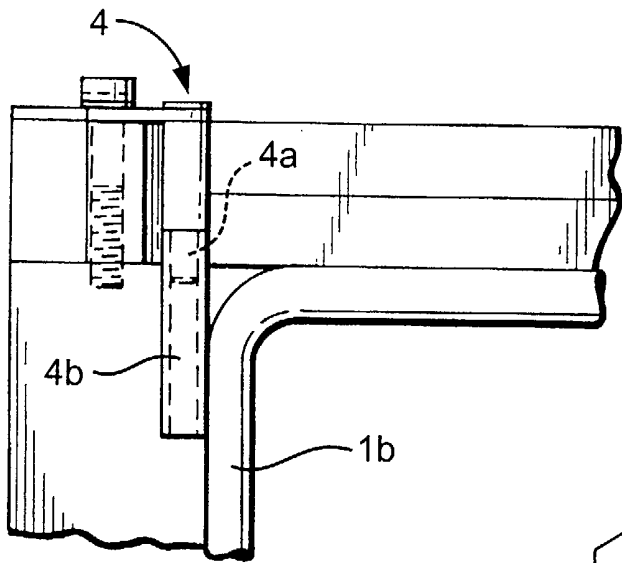


Fig. 6

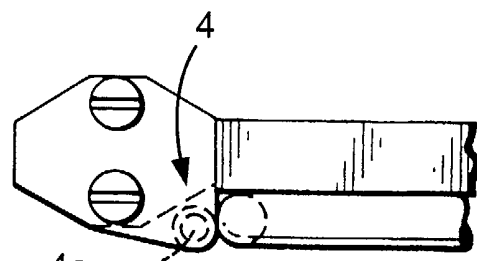
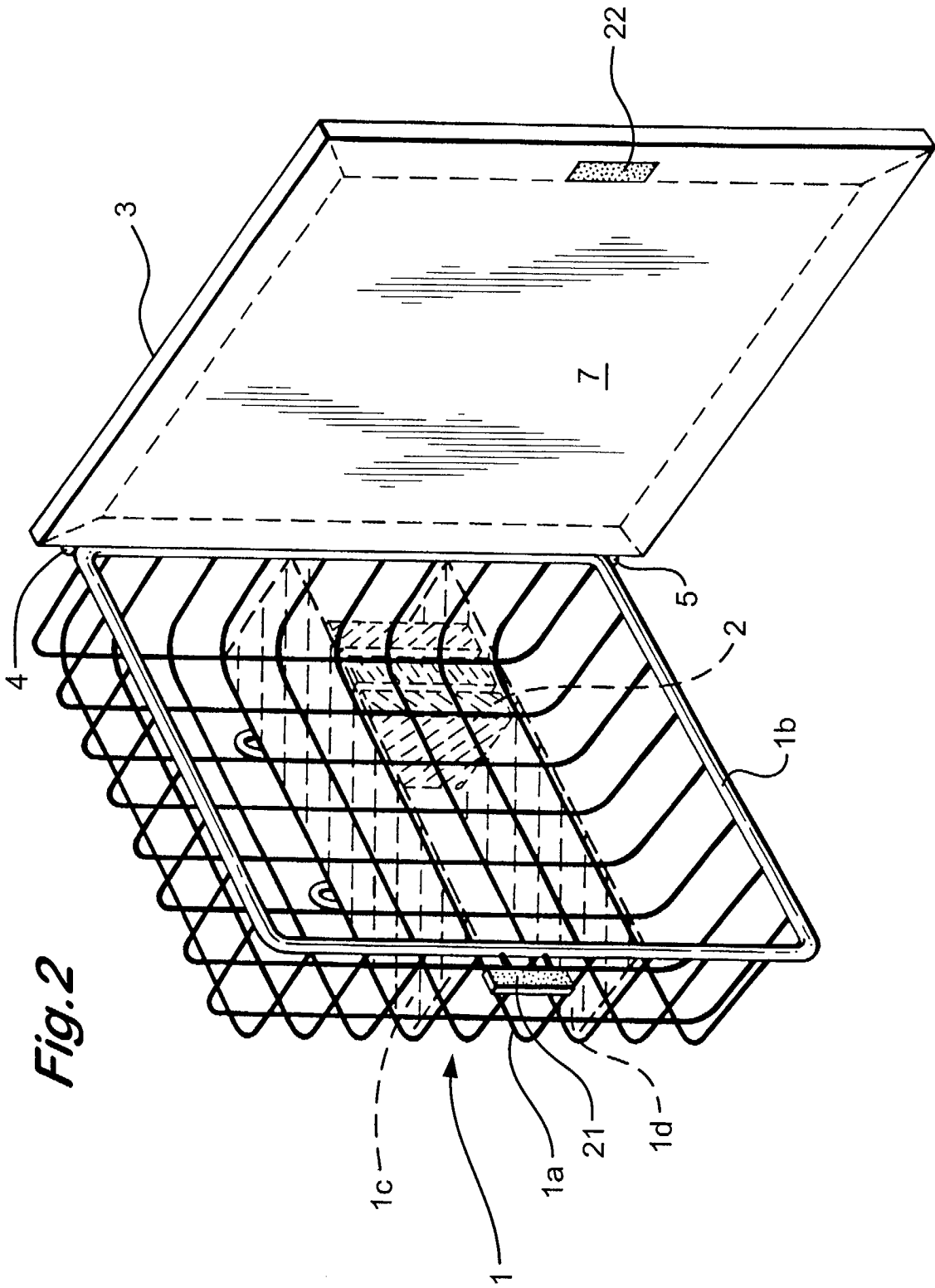
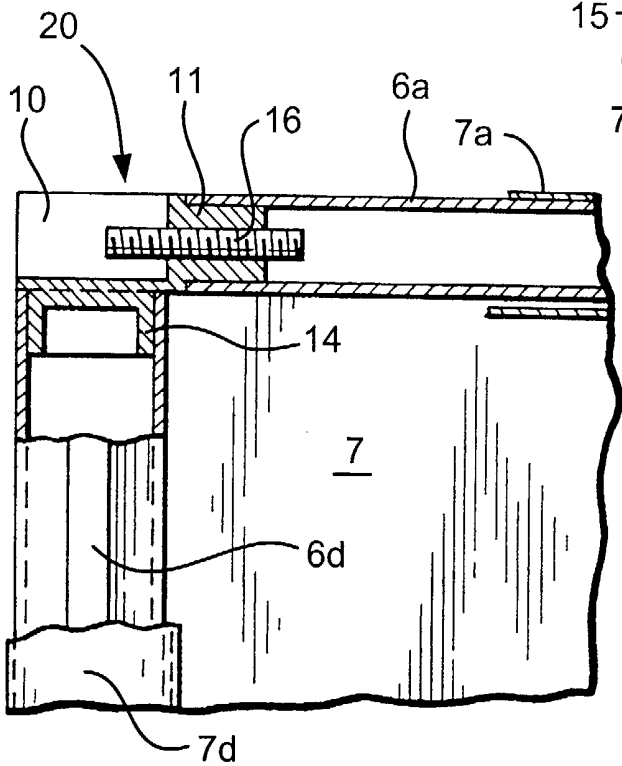
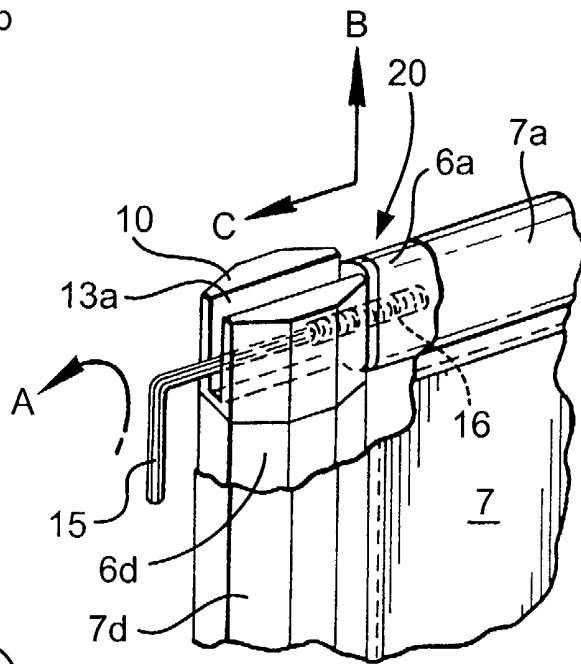
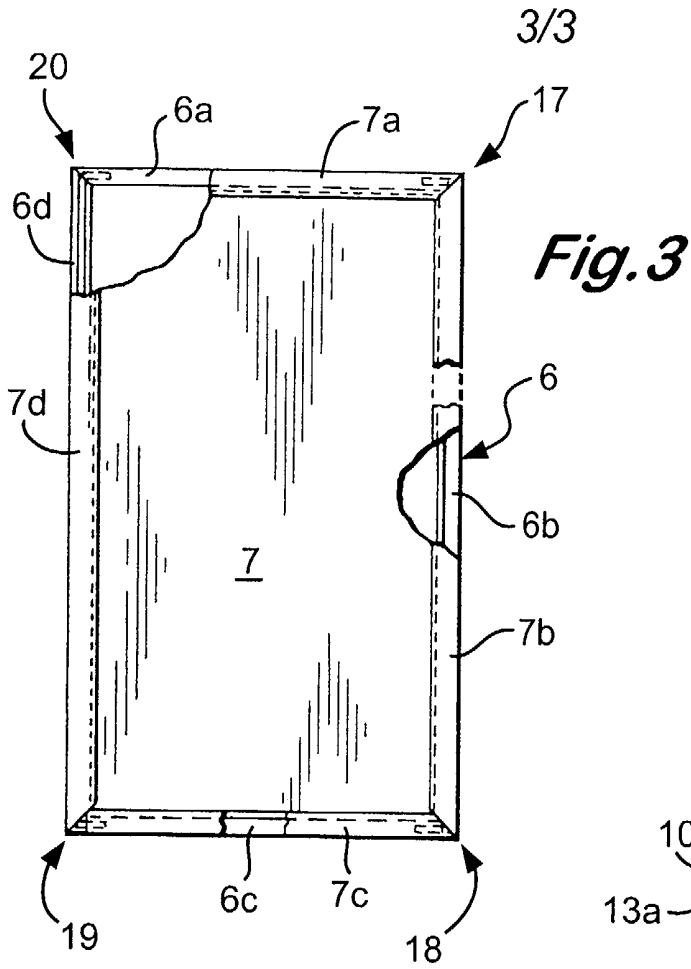


Fig. 7





Combined Storage and Decorative Unit

Background of the Invention

5 The present invention relates to a combined storage and decorative unit.

A number of proposals have been made in the past for providing various types of storage unit which are also decorative. For example, it has been known for many years to provide the lid of a storage unit, such as a box or trunk with decoration of one sort or another, such as a graphical design or
10 carving.

It is also known to have wall mounted storage units such as cupboards for various uses, eg kitchen cupboards and bathroom cabinets.

Whilst such known types of storage unit are perfectly adequate and satisfactory in many domestic and even office environments they can prove
15 to be too bulky, heavy and expensive.

The present invention is concerned with providing a product which will be particularly useful where floor and wall space is at a premium, where the product must not be too bulky and where the product must be of relatively low cost.

20 According to the present invention a decorative storage unit comprises:

- (a) a container having means whereby it can be mounted on a wall;
- (b) a door hinged to the container so that in its closed position the
25 door conceals the container when the container is wall mounted and in its open position allows access to the interior of the container; and
- (c) a picture or other graphic display carried by the outer surface of

the door so that when the door is in its closed position, the picture or graphic display is visible.

preferably, the storage unit specified in the immediately preceding paragraph has one or more of the following further features:

- 5 i. the door comprises a flexible lamina member held in tension on a surrounding frame; preferably with the construction as claimed in our co-pending British patent application 99 27 027; and/or
- ii. the storage unit comprises a hollow framework, preferably of wire; and/or
- 10 iii. the door comprises a translucent panel; and/or
- iv. the storage unit houses means for illuminating the interior of the storage unit and the rear surface of the door when the latter is in its closed position; and/or
- v. the outer surface of the door is provided with means whereby
- 15 one of a number of different graphic displays or pictures carried on their own lamina surface may be removably mounted on the outer surface of the door.

The illuminating means or lamp referred to in iv. can also act as a wall light where the container is an open framework and not solid.

How the invention may be carried out will now be described by way of example only and with reference to the accompanying drawings, in which:

20 *Figure 1* is a perspective view of a decorative storage unit constructed according to the present invention with the door closed;

Figure 2 is a view similar to *Figure 1* showing the unit with the door open;

25 *Figure 3* is a front elevational view, partly cut-away, showing the construction of the door shown in *Figures 1* and *2*;

Figure 4 is a perspective enlarged fragmentary view of one of the four

adjustable corner joints of the door of *Figure 3*;

Figure 5 is a front elevational sectional fragmentary view of the corner joint of *Figure 4*;

Figure 6 is an enlarged fragmentary view illustrating the detail of the hinge construction by which the door of the unit is hinged to the wire framework container;

Figure 7 is a plan view of *Figure 6*; and

Figures 1 and 2

The decorative storage unit according to the present invention comprises a hollow wire framework construction container **1** which has a base **1a** and a front frame **1b**. This basic structure may be provided with a variety of different internal support members, such as shelves, designed to suit the storage of differing items within the container.

In this embodiment, these internal support members comprise two wire shelf members **1c** and **1d** on which a number of items, such as video cassettes **2**, may be supported within the container **1**.

The open front of the container **1** is closeable by means of a door **3** which is hinged to the front frame **1b** at **4** and **5**. A catch arrangement is provided to hold the door in its closed position. In this embodiment it comprises two patches of Velcro (Registered Trademark) **21**, **22** mounted on the frame **1b** and door respectively.

Figures 3 to 5

The door **3** has substantially the same construction as that disclosed in our co-pending British patent application 99 27 027, but its construction will now be described in relation to *Figures 3 to 5*.

Essentially the door **3** comprises a metal frame **6** which supports a flexible lamina panel **7** in tension. The panel **7** is typically made from a woven

material and is translucent.

More particularly, the frame **6** is made up of basically four aluminium members **6a**, **6b**, **6c** and **6d** which are adjustably interconnected to each other at the corners of the frame.

5 The rectangular flexible lamina of fabric **7**, is mounted between the two longitudinal frame members **6b**, **6d** which are contained in pockets **7b**, **7d** formed in the longitudinal sides of the fabric.

 The shorter transverse ends of the fabric lamina panel **7** have pockets **7a**, **7c** formed in them which on the transverse frame members **6a**, **6c** respectively.

10 The ends of the longitudinal frame members **6b**, **6d** and transverse frame members **6a**, **6c** have adjustable corner connections **17**, **18**, **19** and **20** by which those ends can be connected to one another and also by which the tension in the fabric lamina panel **7** may be adjusted.

15 The corner connections are adjustable to in effect increase or decrease the overall peripheral length of the frame and to thereby adjust the tension of the flexible lamina panel **7**.

 These adjustable corner connections are shown in more detail in *Figures 4* and *5* and are substantially the same as the arrangements disclosed in our above mentioned earlier patent application and described in relation to *Figures 4* and *6* of that patent application.

20 Each of the four adjustable corner arrangements comprises a cam member **10**, which fits into the open tubular end of a longitudinal frame member **6d**, and an end cap **11** which fits in the end of an adjacent tubular transverse frame member **6a**.

25 The cam member **10** consists essentially of an inclined cam surface **13**, which is integral with a spigot member **14**, the latter being a force-fit into

the end of the tubular longitudinal frame member **6d**.

The cam surface **13** is provided with a slot **13a** through which an Allen key **15** may be inserted to engage the end of a captive screw **16** which is threaded into the end cap **11**.

5 The captive screw **16** is normally inserted fully within the member **11** so that the left-hand end of the screw, as viewed in *Figure 5*, is flush with the left-hand end of the member **11**.

 After the frame members have been located in the respective pockets **7, 7a, 7b, 7c** and **7d**, the end of the screw member **16** is engaged by the
10 Allen key **15** and rotated, as indicated by the arrow *A* in *Figure 4*, so as to make it progressively emerge from the member **11** and contact the cam surface **13**, as shown in *Figure 5*.

 As the screw **16** is progressively drawn out of the member **11**, the left-hand side of the screw **16** will ride up the cam surface **13** which will have the
15 effect of moving the transverse frame member **6a** in the direction of the arrow 'B' and the frame member **6b** in the direction of the arrow 'C' to thus tension the flexible material **7** forming the door.

 By adjusting each of the screws **16** associated with each of the four corner arrangements **17, 18, 19** and **20** of the frame, the overall tensioning of
20 the material flexible lamina **7**, can be effected.

 The lamina panel **7** has applied to its front surface a graphic design or picture **9**.

Figures 6 and 7

 In addition to the adjustable corner connections previously described,
25 the adjustable frame **6** is provided with two hinge arrangements **4** and **5** as previously mentioned, these being shown in more detail in *Figures 6* and *7*.

 Each of the hinges **4** and **5** comprises a male member **4a, 5a** and a

female member **4b**, **5b** respectively.

The female members **4b**, **5b** consist of internally threaded tubes welded to the metal front frame **1b** of the wire container **1**.

5 The front surface of the flexible lamina panel **7** is provided with a graphic design or picture **9** which can be applied to the panel in a number of ways.

The preferred way of applying the graphic design or picture **9** is by screen printing, but it could be hand painted. In the latter case the unit shown in *Figure 1*, when sold, could have sold with it a painting kit. This kit could
10 comprise a number of designs (eg in the form of stencils or transfers) and the necessary colouring materials such as paints, so that the purchaser can select and execute the graphic design or picture of the purchaser's choice.

The graphic design or picture can also be applied to the front surface of the lamina panel **7** in other ways. For example, the adjustable frame **6**
15 could be provided with means whereby pre-printed graphic designs or pictures (typically a poster) could be detachably secured to the front surface of the panel **7**.

The unit of the present invention could be sold to the end user ready assembled, or as a kit for self assembly. In the former case, the door **3** would
20 already have been assembled, ie the assembly steps described and illustrated with reference to *Figures 3 to 5* would have been carried out by the supplier.

Preferably, and as illustrated in *Figure 1*, the lamina panel **7** which acts as a hinged door to the wire container **1** is of substantially larger area
25 than the front opening of the wire container so that when the panel is hinged closed it will conceal the wire container not only when the unit as a whole is viewed centrally or at right angles to the wall on which the unit is mounted but

also when viewed obliquely.

Although the invention has been described with reference to the embodiment shown in the drawings in which the container **1** and the hinged door lamina panel **7** are rectangular, both the container and the hinged door lamina panel **7** could be other shapes, the key feature being that when the panel is hinged closed it substantially conceals the container which is between it and the mounting wall.

A key feature of the unit of the present invention is that it is of lightweight construction. This is achieved by (a) having the storage part of the unit constructed from relatively thin, but strong metal wires thus making it light in weight and (b) by having the hinged door to the unit comprising a relatively light frame on which is mounted a tensioned flexible lamina panel which again is light in weight.

The unit described with reference to the accompanying drawings is particularly useful in rooms (both domestic and commercial/office) which are small and therefore offer extremely limited capacity for housing storage units.

Claims

1. A decorative storage unit comprising:
a container having means whereby it can be mounted on a wall;
5 a door hinged to the container so that in its closed position the door
conceals the container when the container is wall mounted and in its open
position allows access to the interior of the container; and
a picture or other graphic display carried by the outer surface of the
door so that when the door is in its closed position, the picture or graphic
10 display is visible.
2. A unit as claimed in claim 1, in which the door comprises a
flexible lamina member held in tension on a surrounding frame.
- 15 3. A unit as claimed in claims 1 or 2, in which the container
comprises a hollow framework.
4. A unit as claimed in claim 3, in which the framework is made of
wire.
- 20 5. A unit as claimed in any previous claim in which the door is
made of translucent material.
6. A unit as claimed in any previous claim in which the container
25 houses means for illuminating the interior of the storage unit and the rear
surface of the door when closed.

7. A decorative storage unit substantially as hereinbefore described with reference to and as shown in the accompanying drawings.



INVESTOR IN PEOPLE

Application No: GB 0022540.9
Claims searched: ALL

Examiner: R E Hardy
Date of search: 15 December 2000

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.R): A4B

Int CI (Ed.7): A47B (55/02)

Other: Online : EPODOC,WPI,JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
Y	GB2232520 A BLAKECARE : See the Figures, note half-silvered mirror 20 and lamps 44	5,6
Y	GB1192955 A W LONDON IRON : See the Figures, note p.2 lines 87-88	3,4
Y	GB0612635 A PUTTICK : See the Figures, note p.3 lines 76-82	3,4
Y	GB0512530 A LOCKER : See the Figures	5,6
Y	EP0551058 A TENNHALL : See the Figures, note panel 5 and lamps 15	5,6
Y	EP0337902 A INTERNAT CONCEPTION : See the Figures, note mirror 3 and lamps 6	5,6
Y	FR2261143 A VILBOU : Note especially the reference to doors at p.2 lines 1-2	2
X Y	US5992070 A BIRNBAUM : See the Figures, note col 3 lines 47-49, col 5 lines 34-38 and col 5 line 66 - col 6 line 4	X:1-3,5,6 Y:2-6
X Y	US5678906 A Riestra : See the Figures	X:1-3 Y:2-6

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



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Application No: GB 0022540.9
Claims searched: ALL

Examiner: R E Hardy
Date of search: 15 December 2000

Category	Identity of document and relevant passage	Relevant to claims
X Y	US5588725 A FRANK : See the Figures, note decoration 50	X:1-3 Y:2-6
X Y	US5368378 A CURTIS : See the Figures, note col 3 line 35 onwards	X:1-3 Y:2-6
Y	US4759143 A POMERLAU : See the Figures, note tensioned vinyl sheet 36	2
X Y	US3930702 A PICHOWICZ : See the Figures, note col 2lines 13-14	X:1-3 Y:2-6

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.