



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : G09F 1/10, 1/12	A1	(11) International Publication Number: WO 94/14147 (43) International Publication Date: 23 June 1994 (23.06.94)
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(21) International Application Number: PCT/AU93/00621

(22) International Filing Date: 6 December 1993 (06.12.93)

(30) Priority Data:
PL 6204 4 December 1992 (04.12.92) AU

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(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

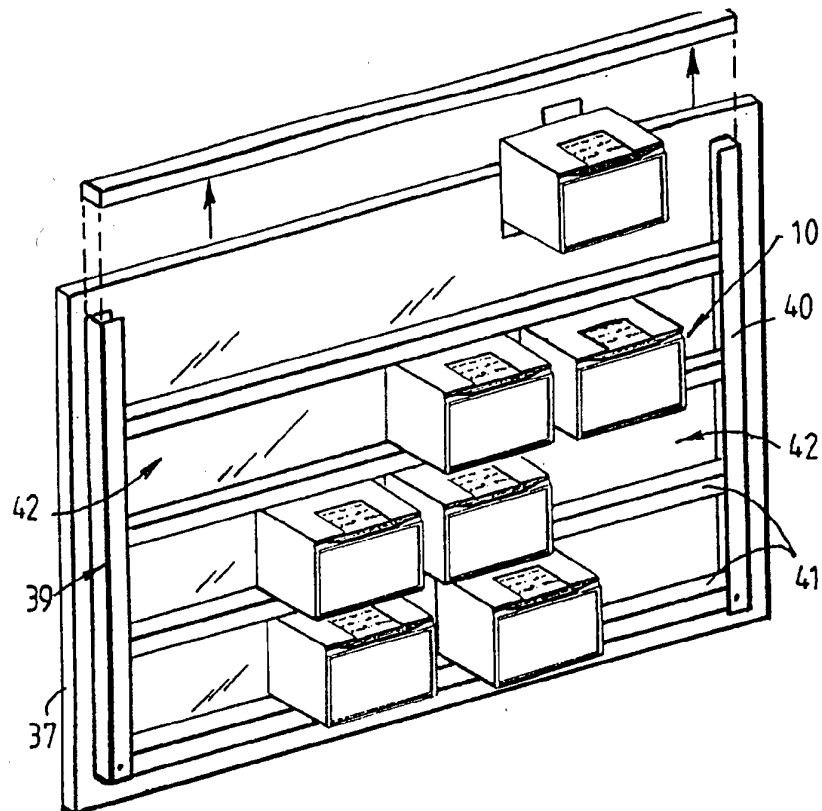
Published

With international search report.

(54) Title: DISPENSING AND DISPLAY APPARATUS

(57) Abstract

Dispensing and display apparatus including a plurality of dispensing units (10) supported to a support structure including a backing board (42) which supports a pair of opposite channel shaped members (40) between which extend a plurality of parallel cross arms (41) whose opposite ends are disposed within the channel shaped members (40). The cross arms (41) may be lifted upwardly to allow the dispensers (10) to be removed for refilling or replacement.



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DISPENSING AND DISPLAY APPARATUSTechnical Field

THIS INVENTION relates to dispensing and display apparatus and in one aspect to apparatus for displaying and
5 dispensing business or professional cards, brochures, pamphlets or other like articles.

Background Art

Many different forms of advertising are employed in commercial enterprises for business promotion purposes.
10 Such forms of advertising may comprise posters, signs or other visible display means which are located in prominent positions, however, such display means are often subject to tampering or defacement so that the advertising effectiveness of such display means is lost or limited.
15 Furthermore, the above forms of advertising are generally relatively expensive. In an alternative form of business promotion, business or professional cards are commonly used, however, such cards are normally only provided on request in a person to person situation and accordingly
20 such cards do not generally provide an active form of advertising.

Disclosure of Invention

The present invention aims to provide apparatus for supporting a plurality of dispensers which may in one
25 aspect be used to display business type cards, or other promotional or advertising material in public places for advertising purposes. The dispensers however are not necessarily limited to use in dispensing such articles. The apparatus of the present invention may also include
30 means for storing and dispensing business or professional cards, brochures or other similar generally planar articles. The present invention also aims to provide an arrangement for supporting a plurality of such dispensing means in a secure manner. Whilst the dispensing
35 apparatus of the invention is particularly suitable for dispensing business cards, brochures or other like articles, it may also be used for displaying and/or dispensing other articles of a generally planar form.

With the above and other objects in view, the present invention provides a dispensing apparatus including a plurality of dispensers for dispensing articles and support means for said dispensers, said support means 5 including a pair of opposite channels and a plurality of arms extending between said channels, said dispensers being located between respective pairs of said arms.

The articles dispensed by the dispensing apparatus are preferably planar articles such as business 10 cards or the like adapted to be arranged in a stack, and for this purpose each dispenser includes generally hollow housing means adapted to support therein a said stack of articles, said housing means including slot means for the passage of respective said articles from one end of said 15 stack therethrough.

Preferably biasing means are adapted to be associated with the stack of articles in each housing means to urge respective said articles at said one end of said stack to a position to permit dispensing thereof 20 through said slot means.

In one preferred form, the housing means comprises a generally rectangular housing adapted to neatly receive the stack of articles, and the slot means is provided in or defined by the front wall of the housing. 25 Suitably, the slot means is provided adjacent a side wall for example a top or bottom wall of the housing and the biasing means is arranged to urge the stack of articles towards said side wall of the housing.

Preferably, the front wall of the housing 30 terminates short of the side wall thereof to define the slot means. To facilitate dispensing of articles, the wall of the housing adjacent the slot is cut away to permit a finger or fingers of a user to engage the first article in the stack so as to facilitate displacement of the article 35 from the stack and its movement through the slot means. Preferably, the slot means has, at least at the sides thereof, a width substantially the same or slightly greater than the thickness of an article to be dispensed so that

only one article can be dispensed at any one time. The slot may also diverge in width away from the sides thereof.

In one form, the biasing means is in the form of spring biasing means and most preferably, the spring biasing means suitably comprise a pair of springs which extend between a pair of planar members which may be disposed between the stack of articles and the opposite wall of the housing to exert a biasing force on the stack of articles.

10 In a second form, the biasing means may comprise a block of resilient material such as foam plastics. In this form, first and second wedge shaped members may be provided in the housing between the stack of articles and the opposite wall of the housing so that the block of
15 material is compressed in parallelism.

Suitably the rear side of the housing is open to allow loading of the articles and preferably at least the front and/or top wall are formed of transparent material to enable business cards, brochures or the like to be located
20 thereagainst for advertising and identifying purposes.

Alternatively, the front wall of the housing may be provided with a detachable lens or transparent member behind which an identifying card or brochure can be located.

25 The housing is also suitably provided with oppositely directed flanges on the rear side thereof which facilitate their mounting to the support means. Suitably the opposite flanges are complementary so as to permit interlocking with the flanges of adjacent upper or lower
30 housings.

Preferably, the flanges of the housing locate behind the arms of the support means.

The support means is suitably arranged adjacent to a base or backing surface such that when the dispensers
35 are mounted to the support means, access is prevented to the rear of the housings. When the arms are displaced from the channels or moved apart, the housings may be detached permitting access to the rear thereof for refilling thereof

or replacement, addition or removal of respective housings.

The support means is preferably constructed in the form of a grid including a plurality of parallel spaced apart arms which extend between opposite channels.

5 Where a block of resilient material is used for the biasing means for the articles to be dispensed, it preferably abuts against the backing surface to urge the flanges of the housings into engagement with the cross arms so that the dispensers are held firmly in position.

10 Brief Description of the Drawings

In order that the invention may be more readily understood and put into practical effect, reference will now be made to the accompanying drawings which illustrate a preferred embodiment of the invention and wherein:-

15 Fig. 1 is a perspective part exploded view of one form of dispensing unit according to the invention;

 Fig. 2 is a sectional elevational view of the dispensing unit of Fig. 1 showing the dispensing of an article therefrom;

20 Fig. 3 illustrates in perspective view, members for use in the unit of Figs. 1 and 2 for assisting in dispensing of articles therefrom;

 Fig. 4 illustrates a dispensing assembly including dispensing units according to the invention;

25 Fig. 5 is an exploded view of the assembly of Fig. 4;

 Fig. 6 is a view from the rear of interlocking dispensers;

30 Fig. 7 illustrates a further dispensing assembly according to the invention; and

 Fig. 8 is a sectional view along line I-I of Fig. 1.

Description of the Preferred Embodiments

35 Referring to the drawings and firstly to Figs. 1 and 2 there is illustrating a dispensing unit 10 for use in the present invention comprising a hollow generally rectangular box-like housing 11 having top and bottom walls, 12 and 13 respectively, a pair of opposite side

walls 14 and a front wall 15 which terminates at a position spaced from the top wall 12 to define a slot 16 therebetween for the passage of respective flat planar articles 17 therethrough.

5 The slot 16 at least at opposite sides of the front wall 15 is slightly wider than the thickness of a single planar article 17 so that only one such article may be dispensed at any one time. The top wall 12 of the unit 10 is provided with a central cut-out portion 18 which extends rearwardly from the leading edge of the wall 12 so that a digit or digits of the users hands may be inserted thereinto to engage the top article 17 of articles suitably arranged in a stack 19 and permit withdrawal of same in the manner shown in Fig. 2. The slot 16 as shown, preferably 15 increases in width from adjacent each end towards a maximum width in the region of the centre of the wall 15 to facilitate dispensing of articles 17 which may have been deflected or arched downwardly due to excessive pressure being applied on the top article 17 in the stack 19.

20 The front wall 15 of the housing 11 is provided with an outwardly extending marginal portion 20 which is provided with opposite slots 21 for receipt of opposite tongues 22 of a transparent member or lens 23. This arrangement serves as a means for identifying the articles 25 17 which are to be dispensed with a single such article 17 being placed between the member 23 and front wall 15 so as to be viewable through the member 23. Alternatively, where the housing 11 is formed of transparent material, an article 17 may be simply placed rearwardly of the wall 15 30 and against the rear face thereof.

The housing 11 is open at its side opposite the front wall 15 so that articles 17 to be dispensed may be inserted in a stack 19 into the interior of the housing 11.

35 Preferably, means are provided to urge the stack 19 towards the top wall 12 of the unit 10 and in one embodiment, such means comprise a block of resilient material suitably a block 24 of foamed plastics material. A wedge shaped member or driver 25 is disposed between the

block 24 and the stack 19 of articles 17 and a further wedge shaped member or driver 26 is seated on the lower wall 13 of the unit 11 so that the block 24 is resiliently compressed between opposed walls 27 and 28 respectively of the drivers 25 and 26 which are substantially parallel to each other. The lower driver 26 also includes a forwardly extending raised abutment portion 29 which engages with the block 24 to prevent rearward movement thereof.

In an alternative arrangement shown in Fig. 6, the resilient block 24 is replaced by a spring biasing arrangement which comprises a pair of spaced planar members 30 and 31 which engage with the stack of articles 19 and bottom wall 13 respectively and which are biased apart by a pair of springs 32. The members 30 and 31 are provided with opposed spigots 33 over which the opposite ends of the springs 32 are engaged. Either of the above biasing arrangements will ensure that the respective top articles 17 in the stack 19 will be urged towards the top wall 12 of the unit so as to permit withdrawal of the respective uppermost articles through the slot 16 whilst the appearance of the top driver 25 at the slot 16 will indicate that the dispensing unit 10 is empty.

For dispensing pamphlets or other similar material, the drivers 25 and 26 of the Fig. 2 embodiment are inverted and reversed as shown in dotted outline in Fig. 2 so that the driver 26 presents a substantially planar area for support of stacked pamphlets. In this arrangement, the portion 29 is directed rearwardly to engage with the block 24 whilst the driver 25 seats on the lower wall 13 of the dispenser unit 11.

The units 11 are also provided with an upper ear or flange 34 which extends upwardly from the rear of the top wall 12 and a pair of lower ears or flanges 35 which extend downwardly from the rear of the lower wall 13 and which are spaced apart a distance substantially the same as the width of the upper flange 34. The upper and lower flanges 34 and 35 facilitate mounting of the dispensing units 11 in a supporting grid and also serve to interlock

adjacent upper and lower units 11 in the manner described below.

A plurality of dispensing units 10 are adapted to be associated in use with a supporting assembly 36 of the type shown in Figs. 4 and 5. This assembly 36 includes a backing board 37 which may be fixed say to a wall surface or comprise a wall surface or any other suitable mounting surface. Alternatively, the board 37 may be supported on a stand. Supported on the backing board 37 is a grid-like frame 39 which includes a pair of channel shaped side frame members 40 and a plurality of transverse frame members or arms 41 located at their opposite ends in the channel shaped frame members 40 and extending therebetween. The frame members 40 extend substantially parallel to each other and are spaced apart so as to define elongated slots 42 of such a width as to neatly receive respective housings 11 therebetween as shown. The lowermost cross arm 41 is fixed to the channel shaped members 40 such as by screws, rivets or the like.

The respective housings 11 of the dispensing units 10 are arranged to extend through the slots 42 so that the dispensing slots 16 of the units 10 are externally accessible. As is apparent in Fig. 2, the upper and lower flanges 34 and 35 abut against respective frame members 41 on opposite sides of the slots 42. Furthermore, the respective flanges 34 and 35 of adjacent upper and lower housings 11 are arranged to interlock in the manner shown in Fig. 6. The units 10 may also be maintained securely in the frame 39 by means of the resilient blocks 24 which as shown in Fig. 2, are of a width greater than the width of the housings 11 so as to resiliently engage with the backing board 37. This will urge the housings 11 forwardly into firm engagement with the frame members 41 and substantially constrain the units 10 against movement. The frame members 41 are of a smaller width than the channels member 40 so that they may be simply slid therebetween from the top of the members 40 as shown in Fig. 5. The housings 11 thus serve to space the transverse members 41 apart

It will be apparent that in the assembled position shown in Fig. 4 access to the rear of the housings 11 is blocked so that tampering with the contents is eliminated. When, however, the members 41 are moved 5 upwardly in the channel members 39 or removed from the channel members 39, the flanges 34 and/or 35 will no longer be positioned behind the members 41 allowing the housings 11 to be removed to permit access to the rear thereof for filling with further articles or for replacement, removal 10 or addition of further units 10. The top transverse member 41' is in the position of Fig. 4 secured by means of screws or alternatively locked in position to prevent access to the units 10.

Preferably, the frame members comprise hollow 15 metal sections suitably aluminium sections as are the channel shaped members 39.

In a further form of the invention, and as shown in Figs. 7 and 8, the channel-shaped members 40 are of increased width and the backing board 37 is located within 20 the channels of the channel shaped members 40 and disposed adjacent the rear flanges 43 of the members 40. The rear flanges 43 of the member 40 may be secured to the backing board 37 by screws or other fasteners 44. The front flanges 45 of the channel shaped members 40 are spaced from 25 the front face of the backing board 37 so as to define therewith channels 46 to receive the cross members 41 in the manner shown in Fig. 7 and 8. The dispensing units 10 are again supported in the manner described above with the flanges 34 and 35 of the housings 11 located behind 30 respective cross members 41 and the resilient foam blocks 24 abutting the backing board 37 to urge the flanges 34 and 35 forwardly into engagement with the arms 41.

In the dispensing apparatus of Figs. 7 and 8, the side channels members 40 are closed at their lower ends by 35 a cross member 47 of similar form to the members 39 whilst a removable member 48 again of similar form is provided to close the top of the channel members 40. The member 48 may be locked to the side channel members 40 by any suitable

locking arrangement such as a padlock 49. Such locks may be provided at each end of the member 48 to lock the member 48 to the opposite channel members 40. Alternatively, the member 48 may be hingedly mounted at 50 to one channel member 40 and lockable through the lock 49 to the other channel member 40.

To remove dispensers 10 for refilling or replacement, the member 48 is unlocked and the cross arms 41 may be simply lifted upwardly to free the flanges 34 or 35 after which the dispensers 10 may be removed. This may be done without fully detaching the arms 41 so that the dispensers 10 may be removed from the front.

Other forms of biasing means such as weights or leaf springs may be provided for applying a loading to the stack of articles and whilst the dispensing units are preferably formed of a plastics material, they may be formed of metal. Similarly the other components of the system may be formed of metal or plastics materials.

Whilst the above has been given by way of illustrative embodiment of the invention, all such modifications and variations thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of the invention as herein defined in the appended claims.

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CLAIMS

1. A dispensing apparatus including a plurality of dispensers for dispensing articles and support means for said dispensers, said support means including a pair of
5 opposite channels and a plurality of arms extending between said channels, said dispensers being located between respective pairs of said arms.
2. A dispensing apparatus according to Claim 1
10 wherein said channels are associated with planar backing means and wherein said dispensers include locating means disposed between said arms and said backing means.
3. A dispensing apparatus according to Claim 2
15 wherein said locating means comprise one or more flanges.
4. A dispensing apparatus according to Claim 3
wherein said locating means comprise flanges extending from
20 opposite sides of said dispensers.
5. A dispensing apparatus according to Claim 1
wherein opposite ends of respective said arms locate within
said channels, said arms being adapted to be detached from
said channels whereby to permit removal of said dispensers.
25
6. A dispensing apparatus according to Claim 2
wherein said channels are defined by channel shaped members
secured to said backing means.
- 30 7. A dispensing apparatus according to Claim 6
wherein said channels include front and rear flanges, said
rear flanges being secured to said backing means and said
front flanges being arranged forwardly of said backing
means.
- 35 8. Dispensing apparatus according to Claim 1 wherein
said dispensers are adapted for dispensing generally planar
articles adapted to be arranged in a stack, each said

dispenser including generally hollow housing means adapted to support therein a said stack of articles, said housing means including slot means for the passage of respective said articles from one end of said stack therethrough,

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9. A dispensing apparatus according to Claim 1 and wherein a block of resilient material is located within said housing means for biasing said planar articles towards said one end of said stack, said material further abutting
10 said planar backing means and urging said locating means into engagement with said arms.

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FIG.1

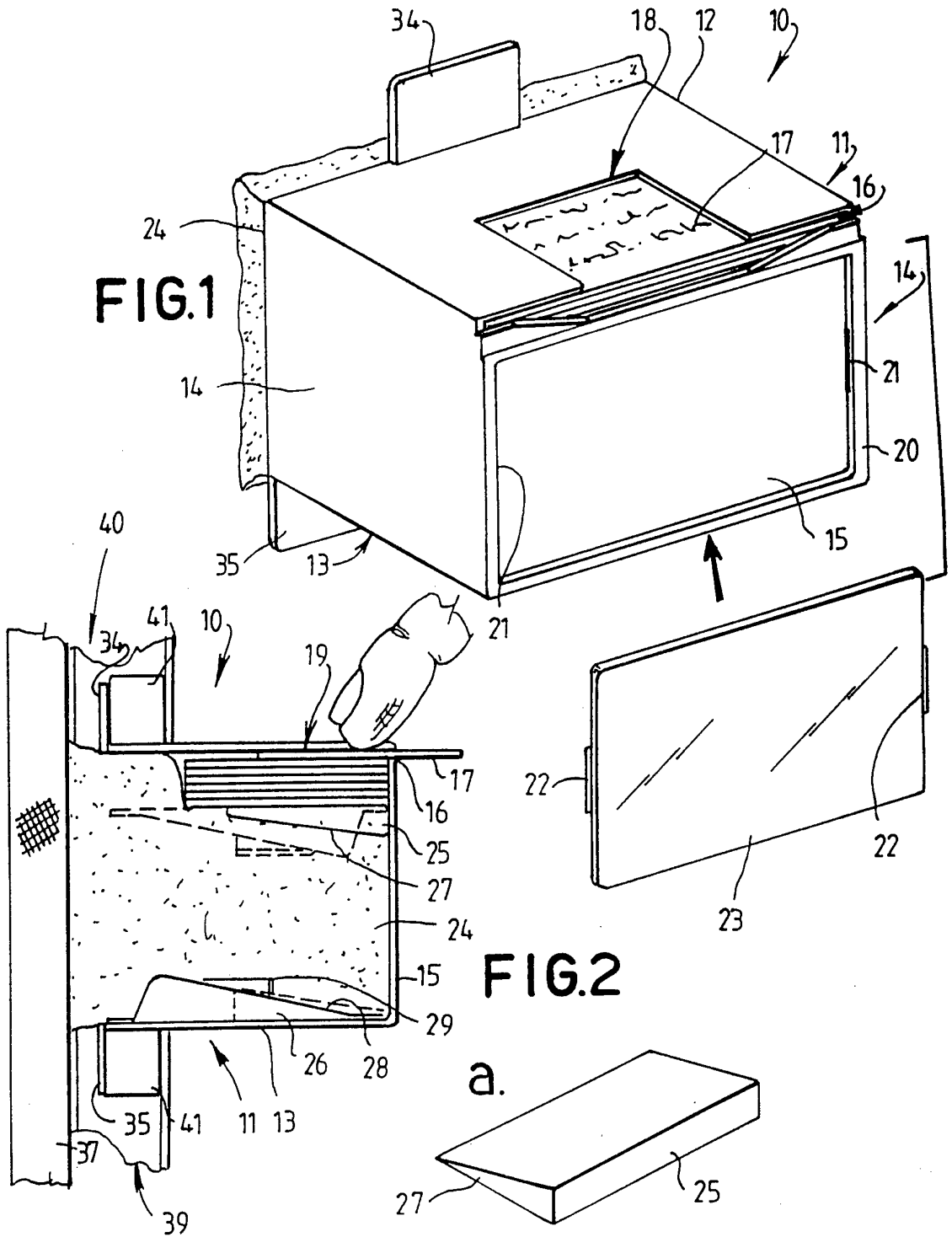


FIG.2

a.

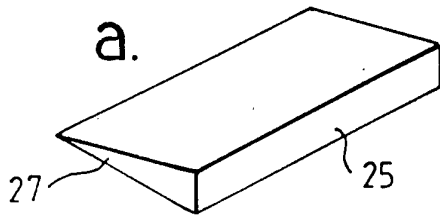
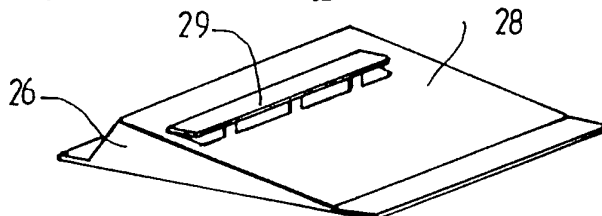


FIG.3

b.



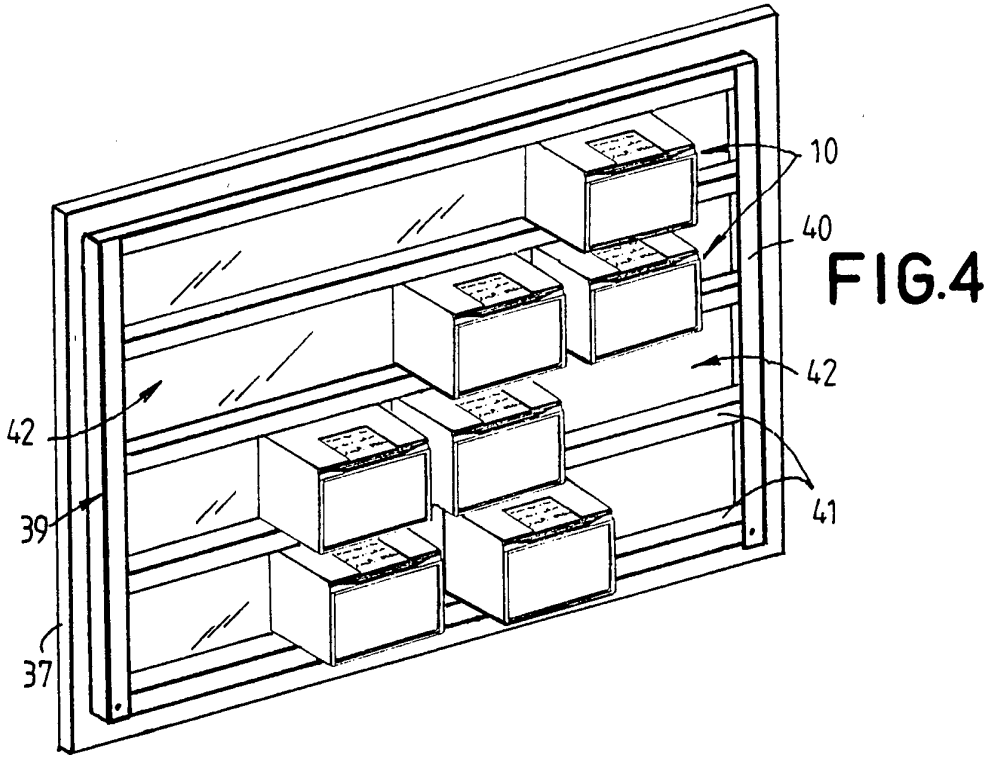


FIG. 4

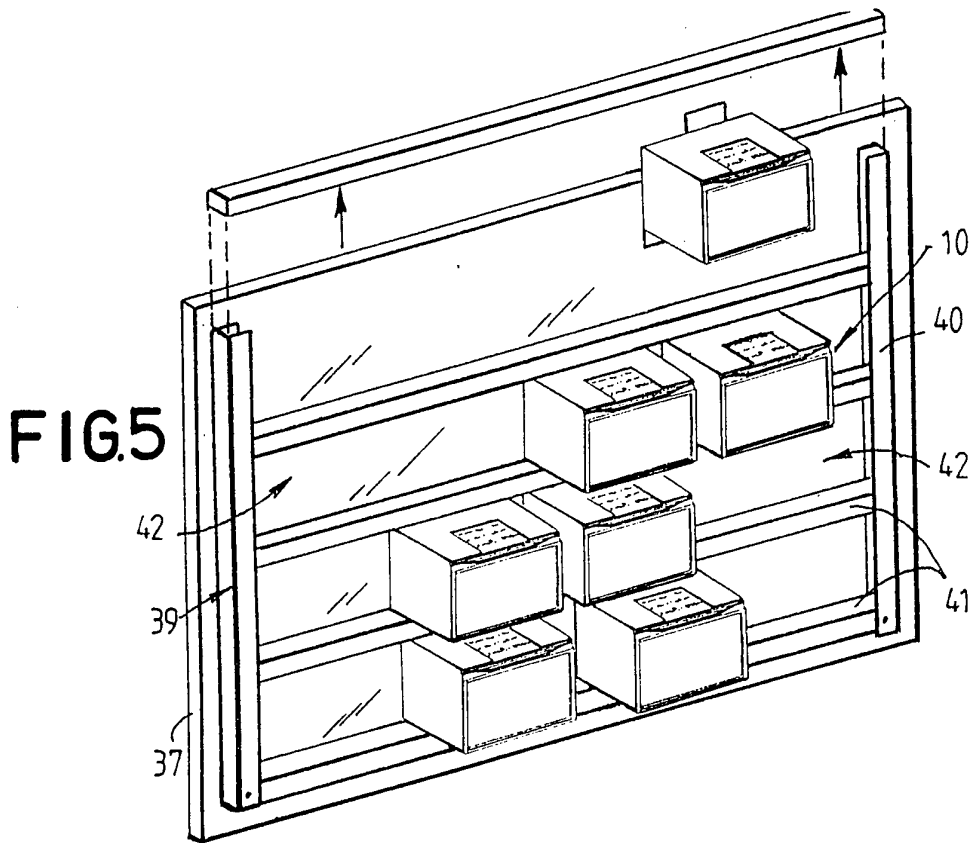


FIG. 5

3/3

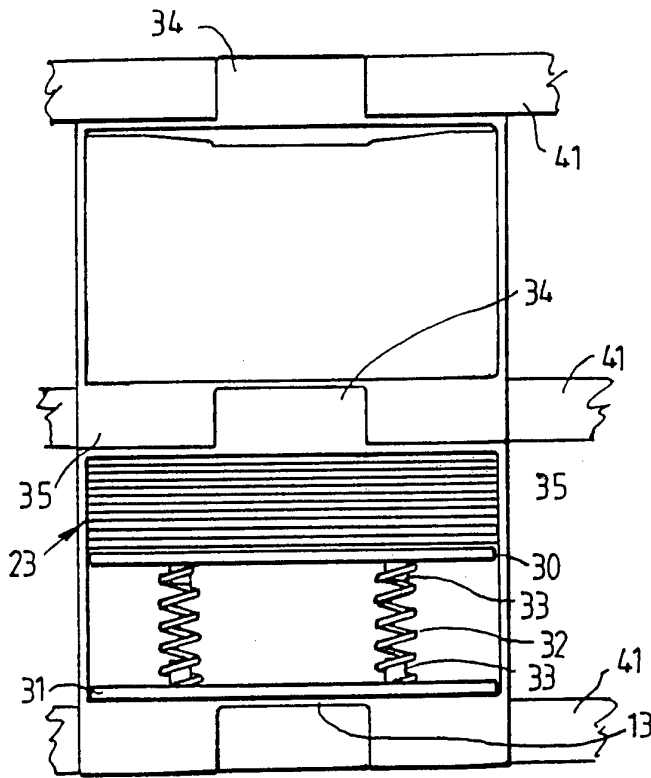


FIG. 6

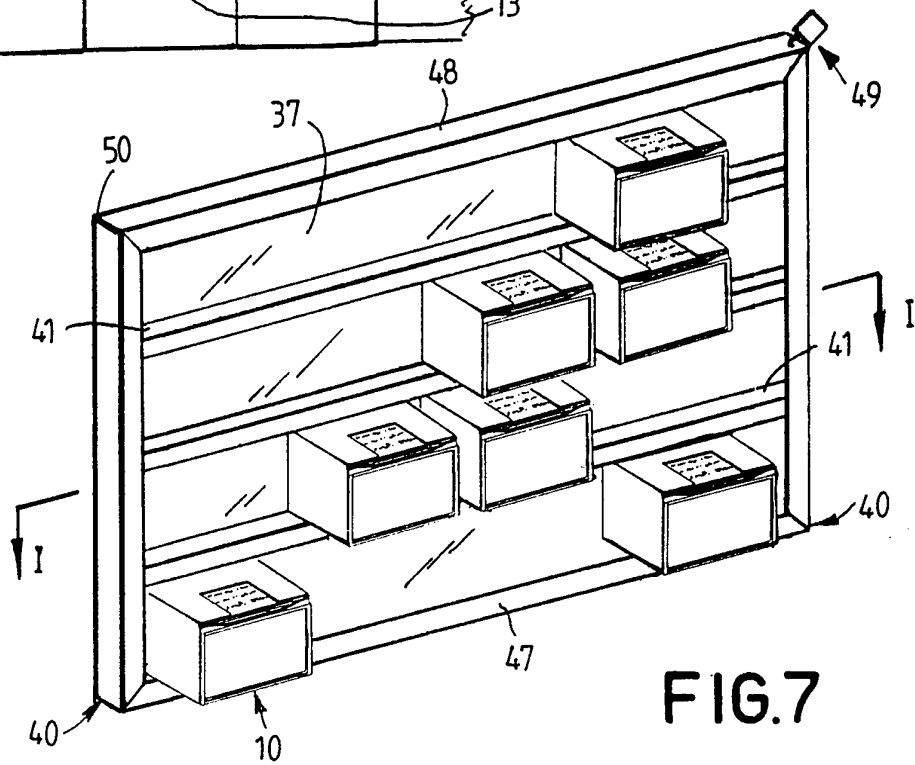


FIG. 7

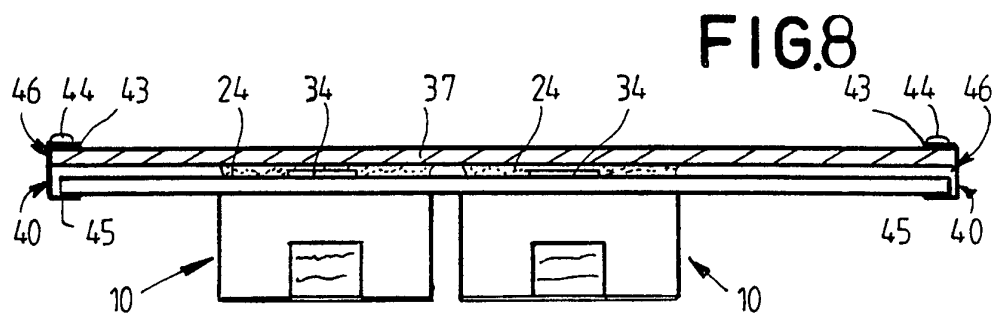
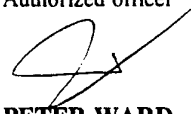


FIG. 8

A. CLASSIFICATION OF SUBJECT MATTER Int. Cl. ⁵ G09F 1/10, 1/12 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC : G09F 1/10, 1/12 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU : IPC G09F 1/10, 1/12, A47F 1/-, 5/- Electronic data base consulted during the international search (name of data base, and where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X,Y	WO,A, 89/04129 (GLENMEAD PTY LTD) 18 May 1989 (18.05.89) Figures	1-9
Y	US,A, 4471885 (MUCCIARONE) 18 September 1984 (18.09.84) Figures	1,9
Y	US 4465208 (BUBAN et al) 14 August 1984 (14.08.84) Figures 1,2	1,9
Y	US,A, 3397818 (REY) 20 August 1968 (20.08.68) Figures	1,9
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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Date of the actual completion of the international search 7 March 1994 (07.03.94)		Date of mailing of the international search report 23 March 1994 (23.03.94)
Name and mailing address of the ISA/AU AUSTRALIAN INDUSTRIAL PROPERTY ORGANISATION PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No. 06 2853929		Authorized officer  PETER WARD Telephone No. (06) 2832129

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate of the relevant passages	Relevant to Claim No.
Y	US,A, 3393831 (STEWART) 23 July 1968 (23.07.68) Figures	1-9
A	AU,A, 24420/77 (ISOPOL A.G.) 26 October 1978 (26.10.78)	1-9
A	AU,A, 31552/77 (ALLADIN INDUSTRIES, INC) 21 June 1979 (21.06.79)	1-9
A	AU,A, 88070/91 (COX et al) 28 May 1992 (28.05.92)	1-9

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU 93/00621

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
WO	8904129	AU	25591/88	CA	1323603	GB	2232659
		NZ	226861	US	5123551		
US	3397818	GB	1154656				
AU	31552/77	DE	2757802	FR	2377179	GB	1578870
		IT	1091738	JP	53088455	SE	7800366
		US	4131203				
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