

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 057 427 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
06.12.2000 Bulletin 2000/49

(51) Int Cl.7: **A47B 46/00**, A47B 81/06,
A47B 21/00

(21) Application number: **00201966.9**

(22) Date of filing: **05.06.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Van de Oudeweetering, Frederik Jacob
1411 JE Naarden (NL)**

(74) Representative: **Prins, Hendrik Willem
Arnold & Siedsma,
Advocaten en Octrooigemachtigden,
Sweelinckplein 1
2517 GK Den Haag (NL)**

(30) Priority: **04.06.1999 NL 1012233**

(71) Applicant: **Cascade Handelmaatschappij B.V.
8211 AS Lelystad (NL)**

(54) **Cabinet**

(57) The invention relates to a cabinet, for instance for storing a computer, which cabinet comprises:

- at least one door;
- a slide-out first shelf arranged in the cabinet;
- a second shelf arranged on the door for pivoting be-

tween a vertical and a horizontal position along a hinge line;

wherein
the second shelf is displaceable in the direction of the hinge line such that a side of the second shelf can be placed contiguously against a side of the first shelf.

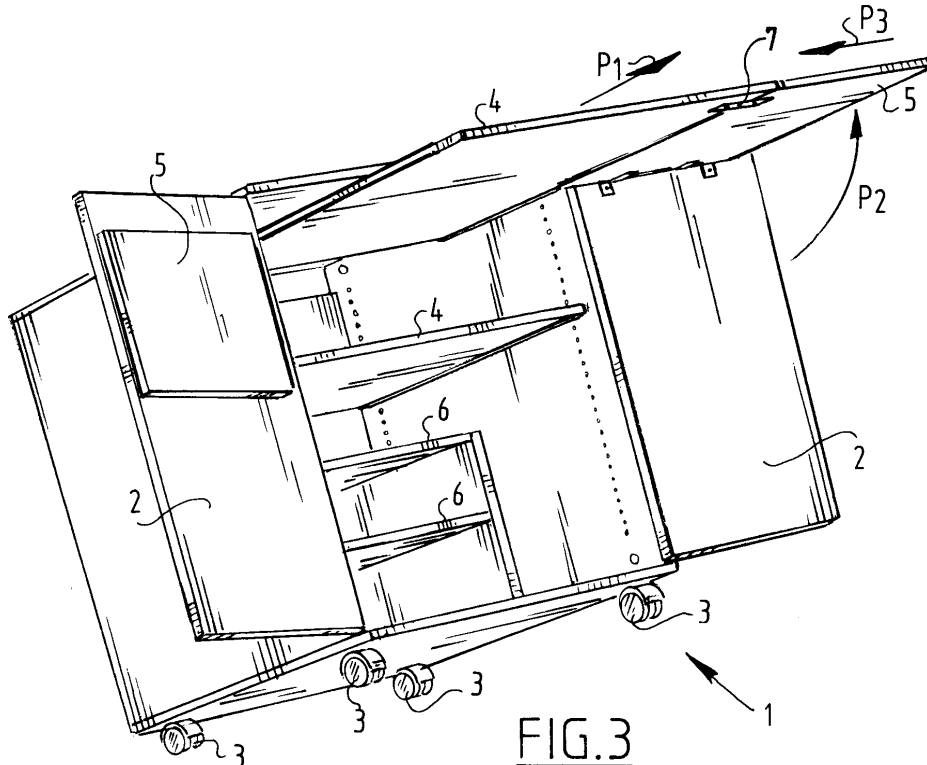


FIG. 3

EP 1 057 427 A1

Description

[0001] The invention relates to a cabinet, for instance for storing a computer, which cabinet comprises:

- at least one door;
- a slide-out first shelf arranged in the cabinet;
- a second shelf arranged on the door for pivoting between a vertical and a horizontal position along a hinge line.

[0002] Such cabinets are already known and are used for instance to store computers. When it is wished to use the computer, the door of the cabinet is then opened, a horizontal shelf is then pulled out of the cabinet onto which for instance the keyboard of the computer can be placed, and a second shelf arranged hingedly on the door is folded upward so that desk space is created next to the keyboard.

[0003] Such a known cabinet could also be used as desk, wherein a work surface can be assembled from the slide-out shelf and the shelf arranged hingedly on the door.

[0004] The known cabinet has the drawback that, as a consequence of the construction of the cabinet and the usually applied hinges for the door, when the first shelf is pulled out and the second shelf arranged on the door is folded up there remains present between the two shelves a space which is usually about the same as the thickness of the shelves of the cabinet.

[0005] It is an object of the invention to obviate the above stated drawback.

[0006] This objective is achieved with a cabinet according to the invention which is characterized in that the second shelf is displaceable in the direction of the hinge line such that a side of the second shelf can be placed contiguously against a side of the first shelf.

[0007] The invention enables the assembly of a work surface which is no longer interrupted by inconvenient gaps. An attractive aesthetic appearance of the cabinet is moreover obtained hereby.

[0008] A preferred embodiment of the cabinet according to the invention comprises a hinge for hinged arrangement of the second shelf on the door, which hinge comprises:

- a hinge pin;
- a first hinge part arranged on the hinge pin for fixing to the door; and
- a second hinge part arranged on the hinge pin for fixing to the second shelf,

which first and second hinge parts are displaceable relative to each other in the direction of the hinge pin.

[0009] The hinging and sliding movement of the shelf fixed to the door can be realized in simple manner with such a hinge. With this hinge the hinge pin functions as both pivot axis and displacement axis. It is of course

possible, instead of such a hinge, to mount a sub-frame with conventional hinges on the door and to arrange the shelf displaceably in slots in the sub-frame. This latter solution is however economically less attractive than the embodiment with the hinge according to the invention.

[0010] A second preferred embodiment of the cabinet according to the invention is characterized by

- two doors arranged on either side of the cabinet, and
- two second shelves, each arranged on a door for pivoting between a vertical and a horizontal position such that in pulled-out position of the first shelf a side of a second shelf can be placed contiguously against said first shelf on either side thereof.

[0011] With wider cabinets it is usual to arrange two doors. It hereby also becomes possible to create desk space on either side of the slide-out shelf. If the cabinet is used to store a computer, a mouse can for instance then be placed on the desk space on the one side, while notes can for instance be placed on the desk space on the other side.

[0012] In another embodiment according to the invention the cabinet comprises locking means for locking the second shelf to the first shelf in the contiguous position.

[0013] When the desk space is being used the second shelf could slide away from the slide-out first shelf, for instance when objects are shifted, whereby the gap is formed once again. For this purpose locking means are arranged according to the invention which prevent the foregoing.

[0014] In a preferred embodiment of the cabinet according to the invention the locking means comprise:

- a pin mounted on the second shelf, extending at a right angle to the hinge line on a main surface of the second shelf; and
- a plate part pivotable on the first shelf parallel to a main surface of the first shelf and having a recess for locking co-action with the pin. The plate part first of all supports the foldable second shelf and the coupling of the plate part to the pin prevents the second shelf sliding away from the first shelf.

[0015] These and other features of the invention are further elucidated with reference to the annexed drawings:

figure 1 shows a perspective view of a cabinet according to the invention with closed doors; figure 2 is a perspective top view of the cabinet of figure 1 with opened doors; figure 3 shows in perspective bottom view the cabinet of figure 1 with opened doors; figure 4 shows in perspective view a part of the cabinet of figure 1; figure 5 shows a second embodiment of the locking

means according to the invention; and
figure 6 shows a third embodiment of the locking means according to the invention.

[0016] Figure 1 shows a cabinet 1 according to the invention. Cabinet 1 has two doors 2, which are shown in figure 1 in closed position. Cabinet 1 further comprises wheels 3, so that the cabinet can be easily displaced.

[0017] When doors 2 are opened (see figure 2), slide-out shelves 4 arranged in the cabinet can then be pulled outward. In addition, the shelves 5 mounted hingedly on doors 2 can be folded upward. A large work surface is thus created which is formed by a slide-out shelf 4 and the shelves 5 folded up on both sides.

[0018] A number of fixed shelves 6 can further be arranged in cabinet 1.

[0019] After a slide-out shelf 4 has been pulled out in the direction of arrow P1 and after shelf 5 has been folded upward in the direction of arrow P2, shelf 5 can be shifted in the direction of arrow P3 toward slide-out shelf 4, whereby a side of shelf 5 comes to lie against a side of shelf 4. Shelf 5 can then be locked to shelf 4 by means of locking means 7.

[0020] Figure 4 shows a perspective bottom view of a part of cabinet 1. In this figure can be seen slide-out shelf 4, door 2, and the shelf 5 mounted hingedly thereon. Shelf 5 is mounted hingedly on door 2 by means of a hinge 8. This hinge 8 comprises a hinge pin 9, first hinge parts 10 which are arranged on hinge pin 9 and on door 2, and second hinge parts 11 which are arranged on hinge pin 9 and which are connected to the foldable shelf 5. Because second hinge parts 11 are displaceable over hinge pin 9 relative to first hinge parts 10, shelf 5 can be shifted in the direction of arrow P3 toward slide-out shelf 4.

[0021] Once foldable shelf 5 has been shifted against slide-out shelf 4, shelf 5 can be fixed to shelf 4 by means of locking means 7. These latter comprise a platelike part 12 which is pivotable parallel to the main surface of slide-out shelf 4 in the direction of arrow P4. Plate part 12 supports shelf 5 and plate part 12 further comprises a recess which co-acts in locking manner with pin 13.

[0022] Figure 5 shows a second embodiment of the locking means, which are designated here with reference numeral 17. These locking means 17 comprise a pin 18 which is arranged in shelf 5 and a bush 19 arranged in shelf 4 in the line of pin 18. By now shifting foldable shelf 5 in the direction of arrow P3 the pin 18 is pushed into bush 19, whereby shelf 5 is locked in its horizontal position. By embodying the bush 19 in for instance plastic, it is possible with correct dimensioning to embody various aspects such that pin 18 is clamped fixedly in bush 19. Unintentional displacement in the direction opposed to arrow P3 is hereby prevented.

[0023] Figure 6 shows a third embodiment of the locking means. These locking means comprise a strip 20 with a substantial Z-shaped cross-section. This strip is arranged on the foldable shelf 5. In the shelf 4 a groove

21 is arranged, in which an edge of the strip 20 engages.

[0024] Although the displacement of a foldable shelf, wherein a gap between two adjoining shelves can be avoided, is described on the basis of a cabinet which is particularly suitable for storing a computer, the construction can of course also be applied to other cabinets, wherein an assembled shelf results from opening a door of a cabinet. This assembled shelf can be oriented both vertically and horizontally and can be arranged either rigidly or rotatably.

Claims

1. Cabinet, for instance for storing a computer, which cabinet comprises:

- at least one door;
- a slide-out first shelf arranged in the cabinet;
- a second shelf arranged on the door for pivoting between a vertical and a horizontal position along a hinge line;

characterized in that

- the second shelf is displaceable in the direction of the hinge line such that a side of the second shelf can be placed contiguously against a side of the first shelf.

2. Cabinet as claimed in claim 1,

characterized by

a hinge for hinged arrangement of the second shelf on the door, which hinge comprises:

- a hinge pin;
- a first hinge part arranged on the hinge pin for fixing to the door; and
- a second hinge part arranged on the hinge pin for fixing to the second shelf,

which first and second hinge parts are displaceable relative to each other in the direction of the hinge pin.

3. Cabinet as claimed in claim 1,

characterized by

- two doors arranged on either side of the cabinet, and
- two second shelves, each arranged on a door for pivoting between a vertical and a horizontal position such that in pulled-out position of the first shelf a side of a second shelf can be placed contiguously against said first shelf on either side thereof.

4. Cabinet as claimed in claim 1,

characterized by

locking means for locking the second shelf to the first shelf in the contiguous position.

5. Cabinet as claimed in claim 4,

5

characterized in that

the locking means comprise:

- a pin mounted on the second shelf, extending at a right angle to the hinge line on a main surface of the second shelf; and
- a plate part pivotable on the first shelf parallel to a main surface of the first shelf and having a recess for locking co-action with the pin.

10

15

20

25

30

35

40

45

50

55

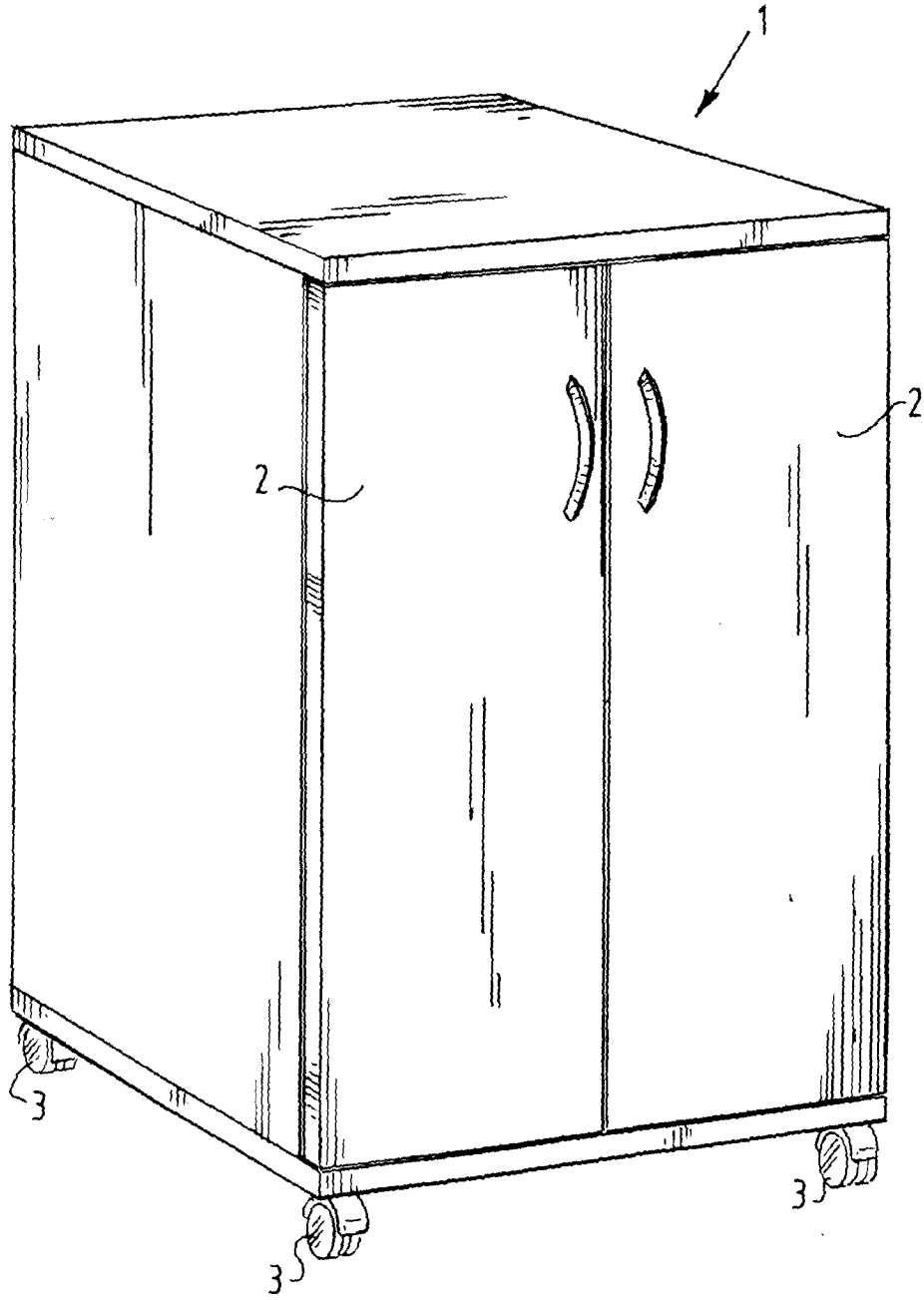


FIG.1

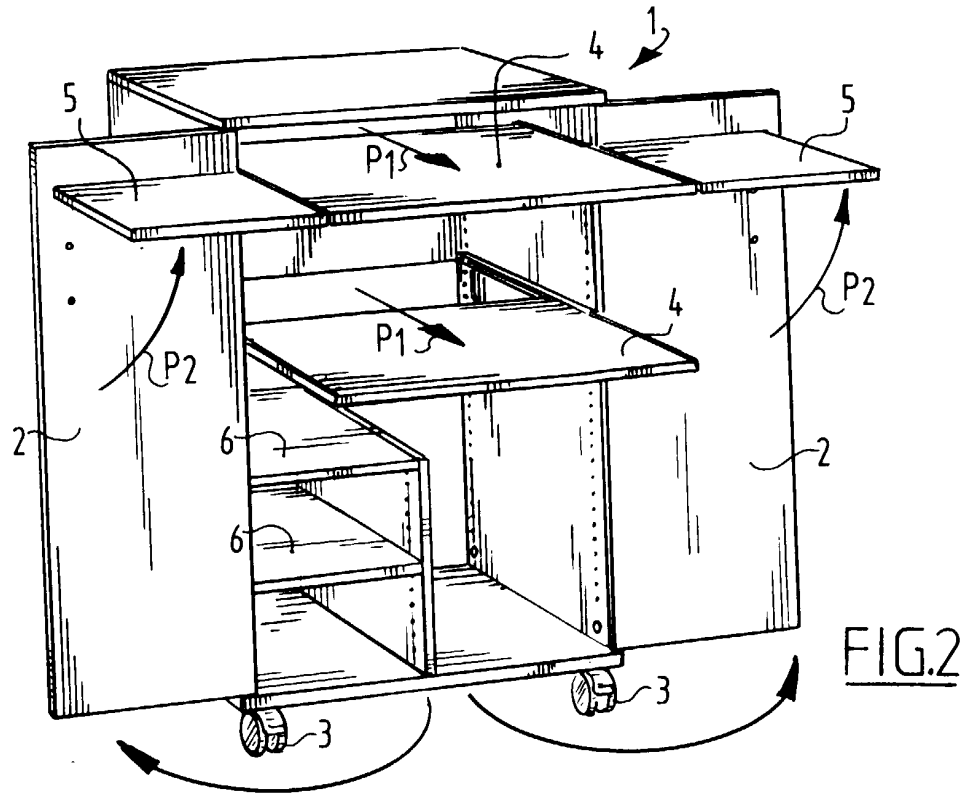


FIG. 2

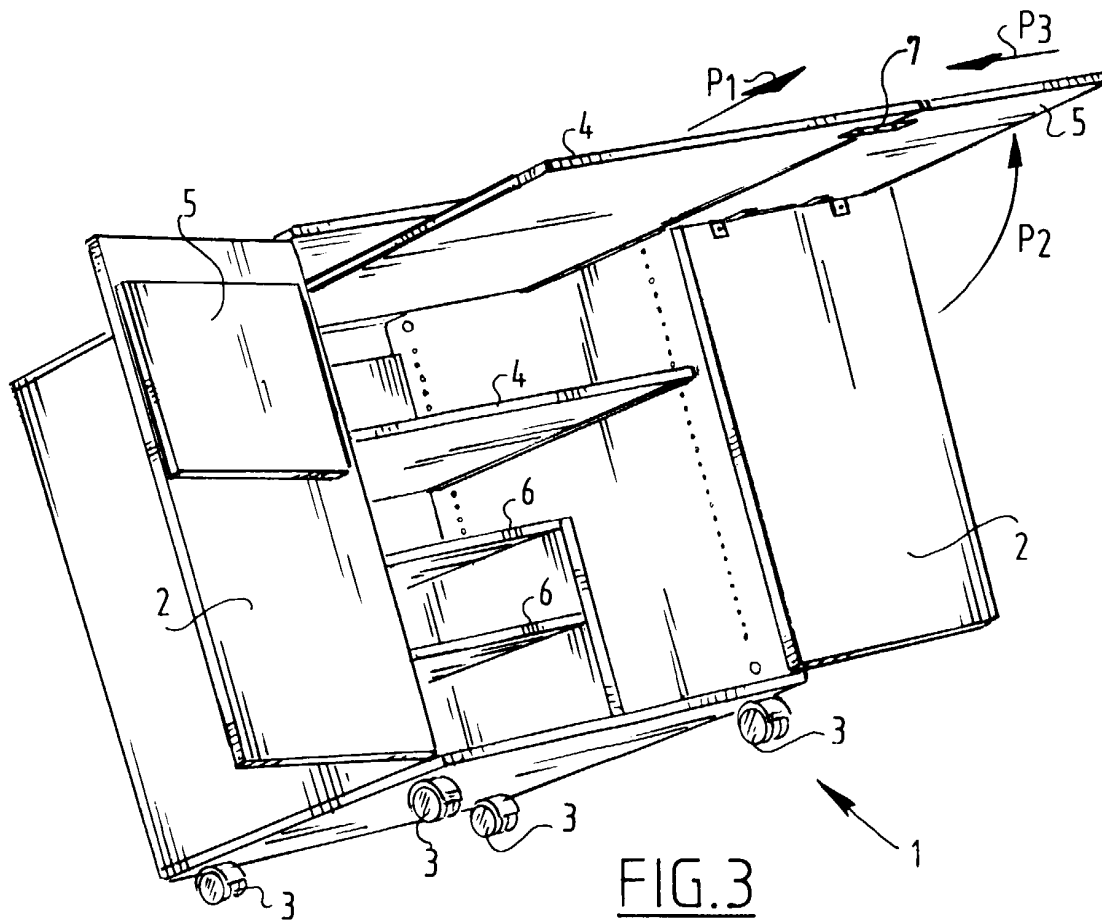
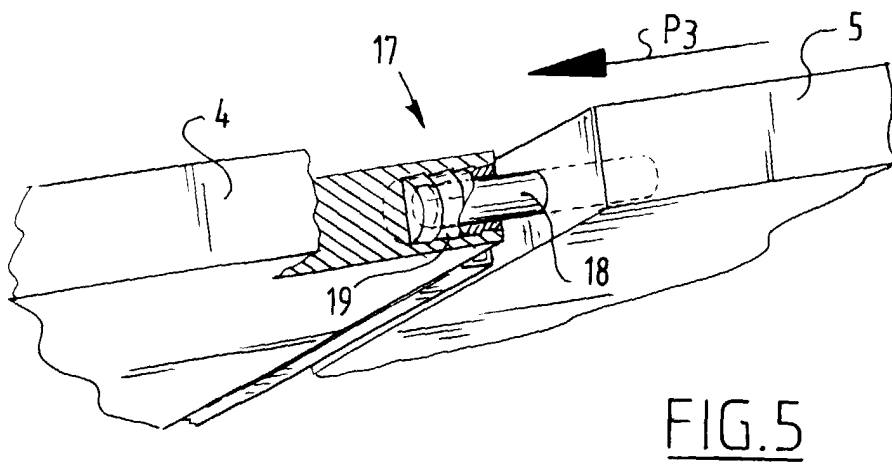
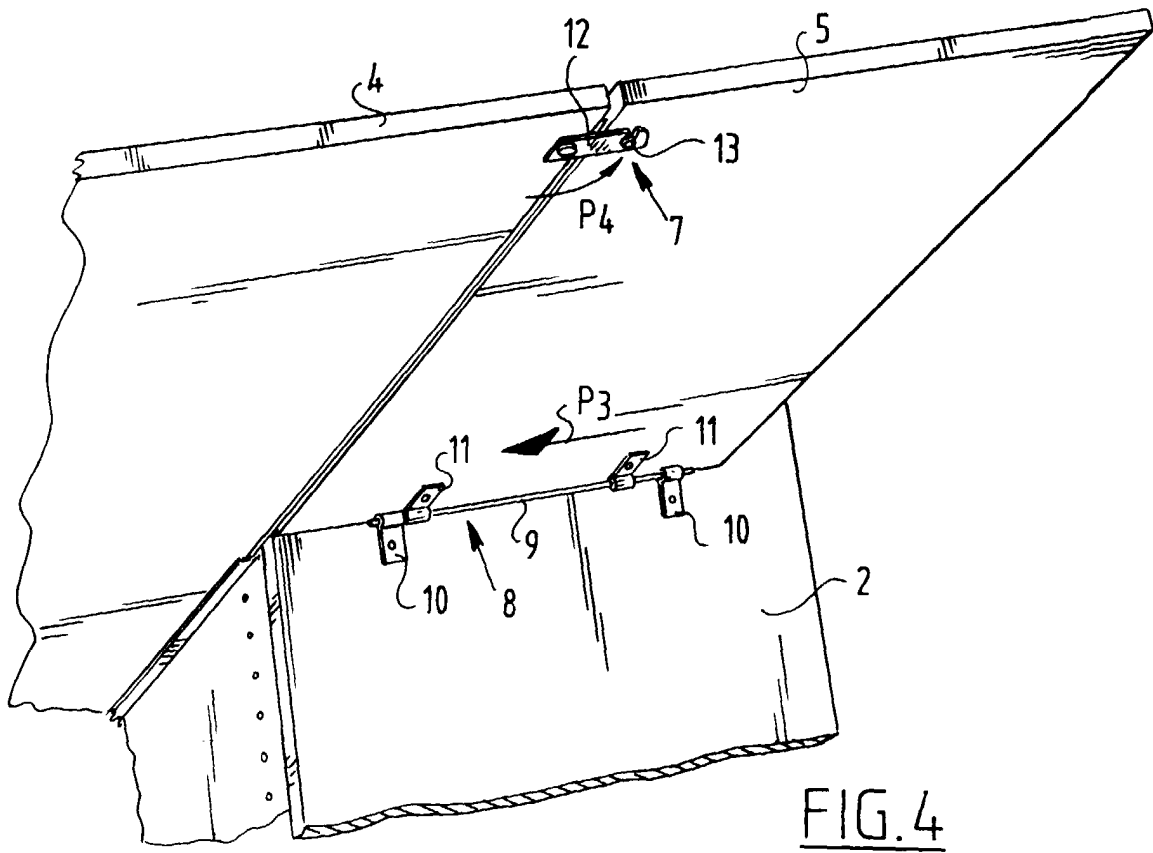


FIG. 3



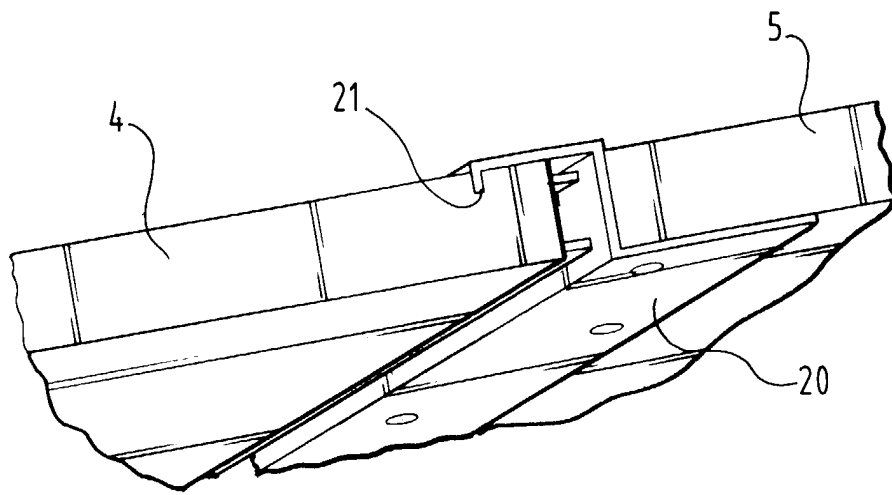


FIG. 6



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 20 1966

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	DE 195 24 130 A (ALGEMA GMBH FAHRZEUG UND MASCH) 9 January 1997 (1997-01-09) * column 1, line 37 - line 62; figures 1,2 * ---	1	A47B46/00 A47B81/06 A47B21/00
A	DE 197 10 038 A (ELSTER GUENTHER) 1 October 1998 (1998-10-01) * abstract; figures 1,2,5 * ---	1	
A	US 4 243 281 A (EGGER PAUL R) 6 January 1981 (1981-01-06) * abstract; figures 1-3 * ---	1	
A	EP 0 172 762 A (BREDY S A) 26 February 1986 (1986-02-26) * abstract; figures 1-4 * * page 4, paragraph 3 - paragraph 4 * ---	1	
A	FR 2 452 898 A (MEUBLES MODULAIRES TRANSFORMAB) 31 October 1980 (1980-10-31) * page 3, paragraph 4 - page 4, paragraph 2; figures 1,2 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A47B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 September 2000	Examiner Jones, C
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 20 1966

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

08-09-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19524130 A	09-01-1997	NONE	
DE 19710038 A	01-10-1998	NONE	
US 4243281 A	06-01-1981	NONE	
EP 0172762 A	26-02-1986	FR 2567378 A	17-01-1986
FR 2452898 A	31-10-1980	NONE	

EPO FORM PC/459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82