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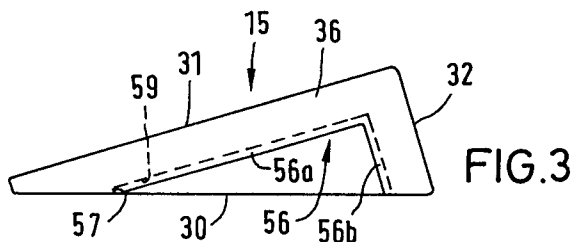
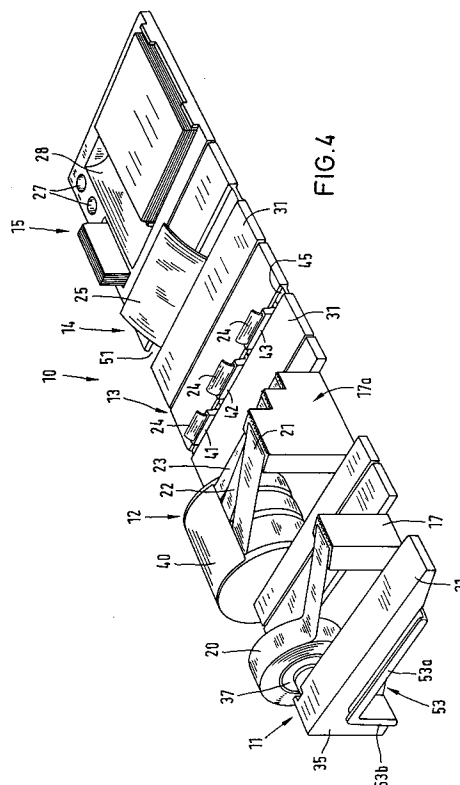
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W-5000 Köln 1(DE)(54) **Modular office desk dispenser.**

(57) A modular office desk dispenser (10) consisting of individual desk bodies (11, 12, 13, 14, 15) with receiving cavities that are defined by perpendicular side walls (35, 36) and may be interconnected at the side walls by means of complementary connecting members, so as to form a line of adjacent desk bodies, is characterized in that at least one desk body (11; 12) is designed as a dispenser for tape rollers (20) or a dispenser for chains of adhesively connected tape sections (24) or dispenser for stacks of adhesively connected papernotes (25), and that the connecting members have L-shaped beads (53, 56) with a hook-shaped profile.

**FIG. 3****FIG. 4****EP 0 496 256 A1**

The invention is directed to a modular office desk dispenser, comprising individual desk bodies with receiving cavities defined by perpendicular side walls, which may be fastened to each other by complementary joining means provided at the side walls, so as to form a line of adjacent items.

A known modular office desk dispenser of this type is described in German Patent 30 31 760 C2. In this case, an elongate prismatic set consists of individual desk bodies that are designed as containers open at the bevelled front side. The receiving cavities of the containers serve to hold loose office materials and other useful items. It is also provided that an insert with an incorporated measuring or display device may be located in the open front side. The containers are interconnected by means of a semi-circular disc at the side wall of one container and a semi-circular opening at the bottom lateral edge of the side wall of the next container. The disc is spaced a little distance apart from the side wall and the opening is adapted to the semi-circular disc such that the container may be plugged onto the semi-circular disc from above which will then engage behind the lateral face of the plugged-on container, maintaining the same in this position. These connecting members are designed such that they allow any container to be taken out of the line in a perpendicular direction. They do not provide a protection against the tilting or the displacement of each individual container of the line that would allow the exertion of tensile forces or pressure on the container without it being disengaged from the set. For this reason, the known modular office desk dispenser is not suited for an assembly of desk bodies with functions, the operation of which exerts forces on the desk body.

Another known device (German Patent 31 48 884) shows the same disadvantages, this device being composed of dismountable cubic basic containers. The interconnection of the basic containers is achieved by means of disc-shaped permanent magnets that are mounted on adjacent side walls of the respective basic containers.

It is the object of the present invention to develop a modular office desk dispenser of the above mentioned kind such that its range of usefulness is widened beyond mere container functions.

This object is solved by the embodiments of the present invention defined in claims 1, 2 and 3. These embodiments are characterized in that at least one desk body is designed as either a tape dispenser, a dispenser for chains of adhesively connected tape sections (tape flags) or a dispenser for stacks of adhesively connected papernotes (Post-it Notes). In all cases, the connecting members have L-shaped beads of a hook-shaped profile.

The L-shaped beads of hook-shaped profile

provided at adjacent side walls of successive desk bodies allow complementary connections that firmly hold the desk bodies together against tensile forces and pressures acting from various directions so that the desk body assembly will reliably hold together when the dispensers are operated. No matter if tape is drawn off the tape roller and severed therefrom, or if adhesively connected tape sections or papernotes are taken from the respective desk body, this desk body will remain standing firmly on the underlying surface, since it is stabilized in its position by the other desk bodies connected thereto through the L-shaped beads. The entire modular office desk assembly with its different dispensers forms a multi-purpose unit of great usefulness that may be assembled according to a user's needs.

The L-shaped beads at the two side walls of a desk body may be provided with oppositely directed hook-shaped profiles so that the L-shaped beads of adjacent desk bodies may be releasably snapped together in a clamped relationship along their complementary hook-shaped profiles. An inner (positive) bead is fittingly overlapped by an outer (negative) bead. The mutual clamping of both legs of the L-shaped beads is effected by a corresponding dimensioning of the hook-shaped profiles.

In a further embodiment of the invention it is contemplated that the L-shaped beads at both side walls of a desk body are provided with hook-shaped profiles orientated in the same direction, and that the L-shaped beads of adjacent desk bodies are clamped together by a channel rail releasably clamped thereon. Advantageously, also the channel rail is L-shaped and is clampingly plugged onto the adjacent hook-shaped profiles of the L-shaped beads of adjacent desk bodies. It is an advantage of this embodiment that, due to the like orientation of the hook-shaped profiles of the beads on both sides of each desk body, the manufacture of the desk bodies is simplified. Moreover, it is advantageous for aesthetic reasons that, with the opening of the hook-shaped profile of the L-shaped bead being directed towards the bottom surface of the desk body, these beads may be smoothly integrated into both side walls of the desk bodies so that the outer side wall of the last desk body in the line will show no visible connecting member.

Suitably, the cross-sectional shape of each desk body is that of a flat rectangular triangle, the hypotenuse of which forms a base. It is provided that the legs of the L-shaped beads extend parallel to the cathetus of this triangle and at a distance therefrom. This design of the desk bodies results in the back surface and, accordingly, the shorter leg of the L-shaped beads extending oblique to the

horizontal base so that two L-shaped beads of adjacent desk bodies, snapped together complementarily, will be firmly wedged together by canting when the line of desk bodies is lifted perpendicularly, thereby ensuring a reliable coherence of the line of desk bodies. A frontward displacement of the desk bodies relative to each other in the direction of the flat side of the desk body is prevented by the rear leg of the inner (positive) bead abutted by the rear leg of the outer (negative) bead. A relative backward displacement is prevented by the fact that the outer (negative) bead is closed at the front end so that it forms an abutment for the front end of the inner (positive) bead.

Embodiments of the invention are schematically illustrated in the drawings in which

- Fig. 1 is a top plan view of a modular office desk dispenser composed of five assembled desk bodies,
- Fig. 2 is a view of the outer side wall of the first desk body in the direction of the arrow II,
- Fig. 3 is a view of the outer side wall of the fifth desk body in the direction of the arrow III,
- Fig. 4 is a perspective view of the modular office desk dispenser of Fig. 1,
- Fig. 5 is a cross section taken through a central and two lateral desk bodies featuring a first embodiment of the hook-shaped profiles of the L-shaped beads, and
- Fig. 6 is a cross section taken through a central and two lateral desk bodies featuring a second embodiment of the hook-shaped profiles of the L-shaped beads.

According to the embodiment shown in Figs. 1 and 4, the modular office desk dispenser 10 is composed of five desk bodies 11, 12, 13, 14 and 15 of triangular cross section which form a straight line. The desk body 11 is designed as a dispenser for a narrow tape roller 20, while the desk body 12 contains three tape rollers 21, 22, 23 of different widths. The desk body 13 is a dispenser for chains of adhesively connected tape sections 24 of different colors that may be used as markers. The desk body 14 is a dispenser for papernotes 25 with an adhesive edge, stacked such that the adhesive edges are alternately positioned on the one or the other side so that upon pulling out one papernote against the action of a spring, the next papernote is moved into a ready position. The fifth desk body 15 is designed as a tray having its higher rear portion provided with an upstanding cornered shelf 26, two holders 27 for pencils and the like and a transverse trough 28. The lower front portion of the desk body 15 has a shallow recess 29

formed therein.

The rear elevated portion of the desk body 11 is provided with an axis 16 rotatably supported in a bearing yoke. The axis 16 bears a hub 37 for receiving the tape roller 20. An inclined upstanding block 17 is fastened in a fork of the desk body at the front end of the lower portion, which has a blade 18 (possibly toothed) provided at its upper end for cutting off sections of tape. The block 17 and the blade 18 are only slightly smaller than the tape, the end of which may be pressed by adhesion onto a supporting surface 19 of the block 17 behind the blade 18 after a section of tape has been cut off.

The desk body 12 is structured similar to the desk body 11. Three tape rollers 21, 22, 23 of different widths are rotatably and independently supported on an axis 16a. The three tape rollers 21, 22, 23 are accommodated in a drum casing and are covered by a partially cylindrical cover 40 which is tiltably mounted on the desk body 12. A block 17a in a fork of the desk body at the lower portion of the desk body 12 has three steps provided in its upper end, the widths of each step and the widths of each blade 18a, 18b, 18c fastened thereon approximately corresponding to the widths of the tapes 21, 22, 23. Preferably, the widest step is the highest one.

The desk body 13 has a cavity for receiving cartridges 41, 42, 43 to be inserted therein which contain tape sections 24 of different colors. Tape sections 24 of one color are interconnected by adhesion to form a chain such that upon pulling out one tape section 24, the next tape section 24 is pulled out and held ready. The dispensing openings of the inserted cartridges 41, 42, 43 are arranged in a longitudinal slot 45 in the upper surface 31 of the desk body 13. The longitudinal slot 45 extends from one end to the other in the centre of the upper surface 31. It is open to the rear end and closed at the front.

The desk bodies 14 and 15, shown in cross section in Figs. 5 and 6, serve to receive respective stacks of adhesively connected papernotes 25 that are accommodated in a cavity 50 adapted to the dimensions of the papernotes 25 and loaded by a spring means such that when pulling out a papernote 25 from a slot 51 in the centre of the upper surface 31 of the desk body 14, 14A, the next papernote 25 releasably adhering to the former papernote 25 by its adhesive edge is pulled out of the slot 51 and held ready for being pulled out. In order to stack as many papernotes as possible in the desk body 14, 14A, the cavity 50 is mainly formed in the higher rear portion of the desk body 14, 14A.

Each desk body 11, 12, 13, 14, 14A, 15 has the cross-sectional shape of a flat right triangle, the

hypotenuse forming a base 30 and the longer cathetus defining the upper surface 31 of each desk body extending obliquely downward from back to front. Preferably, the upper surface 31 and the horizontal enclose an angle of 16° . The shorter cathetus forms the rear side 32 that is rectangular to the upper surface 31. Each desk body 11, 12, 13, 14, 14A 15 is defined by two side walls in the shape of rectangular triangles. Figs. 2 and 3 respectively illustrate views of a left side wall 35 and a right side wall 36 of the desk bodies 11, 12, 13, 14, 15. Both side walls 35 and 36 are of the same size and the upper surface 31, as well as the rear side 31 of each of the desk bodies 11, 12, 13, 14, 15 are in alignment with the edges of the side walls 35, 36, showing no projections. Preferably, the width of all desk bodies 11 to 15 is the same. However, should this be unsuitable because of the desired configuration, as is the case with the desk body 15, any other width may be selected.

In the embodiment of Figs. 1 to 5, each desk body 11, 12, 13, 14, 15 has the edge of one side wall provided with an outwardly directed L-shaped bead 53 arranged at a distance from the upper surface 31 and the rear side 32. The hook-shaped profile of the beads extends over both legs 53a, 53b and is directed upwards and rearward. Thus, an L-shaped hollow rail with a longitudinal channel 54 is obtained that is defined by an outer ridge 55. The two mutually rectangular legs 53a, 53b of the L-shaped bead 53 extend parallel to the upper surface 31 and to the rear side 32 of the respective desk body 11, 12, 13, 14, 15 and are arranged spaced from these surfaces.

Spaced from the upper surface 31 and the rear surface 32, an L-shaped bead 56 with rectangular legs 56a, 56b is formed at the edge of the side wall 36 of each desk body 11, 12, 13, 14, 15 opposite the L-shaped bead 53, the hook-shaped profile of the bead 56 being directed towards the base 30 of the respective desk body. A longitudinal hollow 59 open at its bottom end is obtained that is delimited on the outside by a ridge 58 that is formed by the peripheral area of the straight side wall 36 itself. The two beads 53 and 56 of adjacent desk bodies 13, 14, 15 form complementary connecting members that may be snapped together fittingly, thereby providing a releasable clamping connection between the desk bodies 11, 12, 13, 14, 15.

Since each desk body has the cross-sectional shape of a flat rectangular triangle, the hypotenuse of which forms the base 30, the rear side 32 is inclined and, accordingly, the leg 53b or 56b of the L-shaped bead 53 or 56 is also inclined so that, when lifting a line of assembled desk bodies 11, 12, 13, 14, 15 in a perpendicular direction, the legs 53a, 53b and 56a, 56b that are inclined relative to the horizontal, will get jammed with each

other, which provides an additional protection against an unintentional disassembling of the unit when displacing or lifting the modular office desk dispenser 10.

The closed lower end 57 of the leg 56a of each bead 56 serves as a protection against an unintentional backward displacement of a desk body 11, 12, 13, 14, 15 out of the unit, on which end the lower end 44 of the leg 53a of the bead 53 abuts.

In the embodiment of Fig. 6, the complementary connecting members are not formed by the complementary beads at the respective side walls that may be hooked together, but in this embodiment each desk body 13A, 14A, 15A has both side walls 60, 61 provided with the same L-shaped bead 62 with a downwardly directed hook-shaped profile, the outer ridge 46 of which is formed by the inner and the rear edge of the straight side wall 60, 61. The side walls 60, 61 of adjacent desk bodies 13A, 14A, 15A are placed very closely together and a preferably L-shaped channel rail 63 is plugged onto the ridges 46 from below. The width of the channel 64 of the channel rail 63 is selected such that the channel rail 63 clampingly sits on the ridges 46 of the beads 62. The two lateral parts of the channel rail 63 fittingly engage the longitudinal hollows 65 of the beads 62. Also in this case, the protection against displacement is obtained by the lower end of the channel rail 63 abutting on the closed end of the longer leg of the L-shaped bead 62, as already described in connection with Fig. 3 and reference numeral 57.

It is an advantage of this embodiment of the connecting members that both side walls 60, 61 of each desk body 13A, 14A, 15A seem to be as even as the side wall 36 (Fig. 1).

Claims

1. A modular office desk dispenser consisting of individual desk bodies (11;12) with receiving cavities that are defined by perpendicular side walls and may be interconnected at the side walls (35,36) by means of complementary connecting members (53;56), so as to form a line of adjacent desk bodies,

characterized in that

at least one desk body (11; 12) is designed as a dispenser for tape rollers (20; 21, 22, 23), and that the connecting members have L-shaped beads (53, 56; 62) with a hook-shaped profile.

2. A modular office desk dispenser consisting of individual desk bodies (13) with receiving cavities that are defined by perpendicular side

walls (35,36) and may be interconnected at the side walls by means of complementary connecting members (53;56), so as to form a line of adjacent desk bodies,

characterized in that

at least one desk body (13) is designed as a dispenser for chains of adhesively connected tape sections (24), and that the connecting members have L-shaped beads (53, 56; 62) with a hook-shaped profile.

3. A modular office desk dispenser consisting of individual desk bodies (14) with receiving cavities that are defined by perpendicular side walls (35,36) and may be interconnected at the side walls by means of complementary connecting members (53;56), so as to form a line of adjacent desk bodies,

characterized in that

at least one desk body (14) is designed as a dispenser for stacks of adhesively connected papernotes (25), and that the connecting members have L-shaped beads (53, 56; 62) with a hook-shaped profile.

4. The modular office desk dispenser of one of claims 1, 2 or 3, characterized in that said L-shaped beads (53, 56) at both side walls (35, 36) of a desk body (11, 12, 13, 14, 15) are provided with oppositely directed hook-shaped profiles, and that said L-shaped beads (53, 56) of adjacent desk bodies (11, 12, 13, 14, 15) may be releasably snapped together along their complementary hook-shaped profiles.

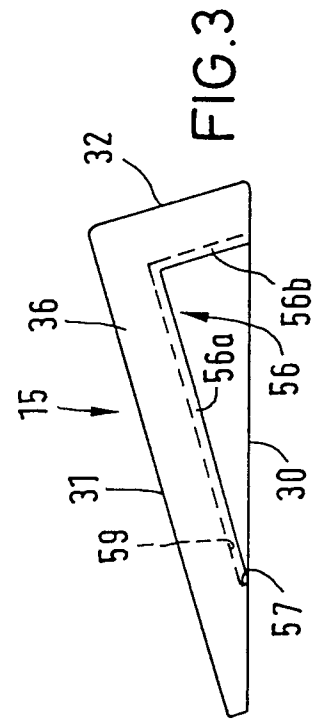
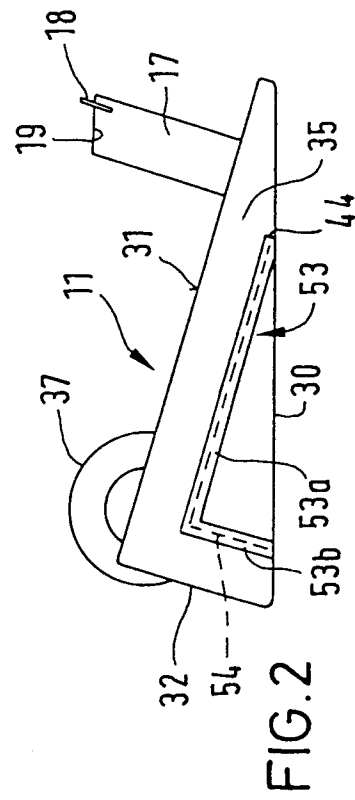
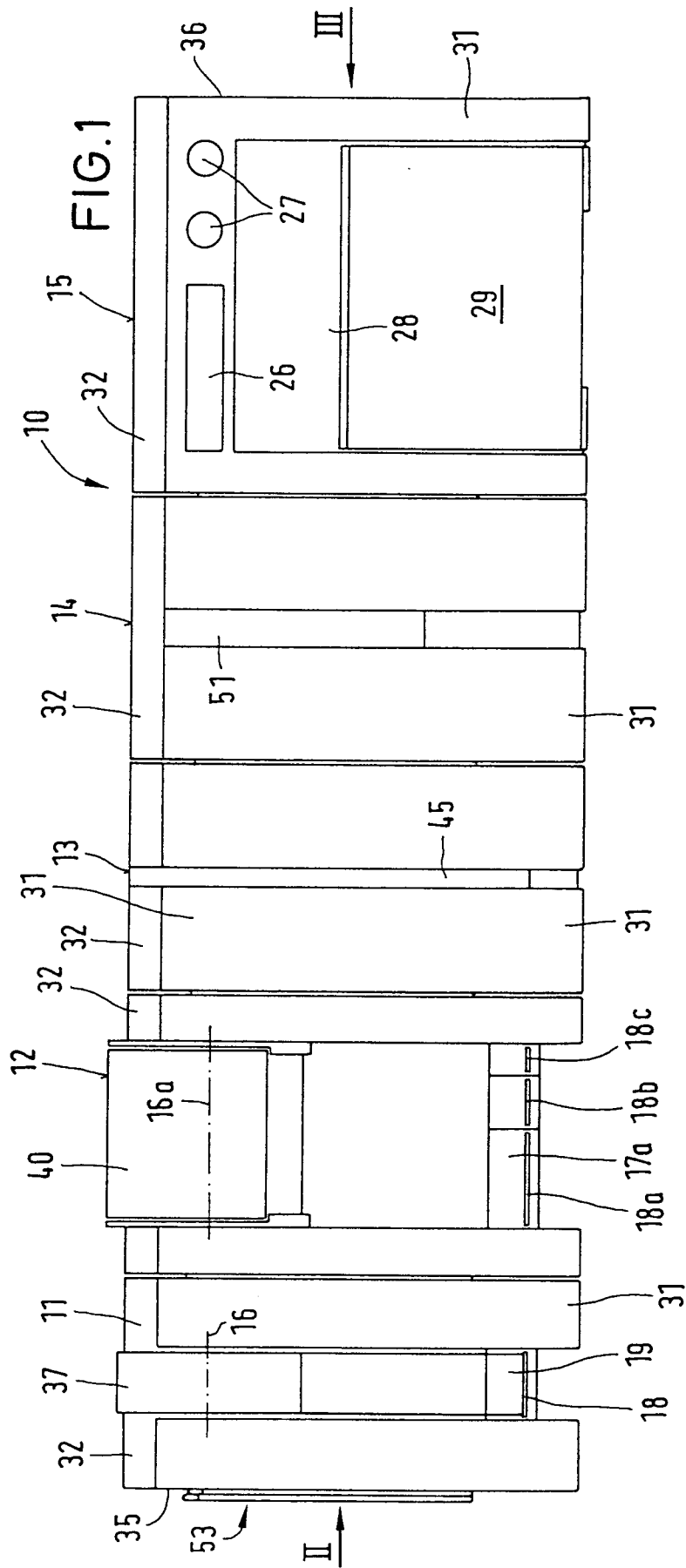
5. The modular office desk dispenser of one of claims 1, 2 or 3, characterized in that said L-shaped beads (62) at both side walls (60, 61) of a desk body (13A, 14A, 15A) are provided with hook-shaped profiles directed in the same direction, and that said L-shaped beads (62) of adjacent desk bodies (13A, 14A, 15A) are clamped together by a releasably snapped-on channel rail (63).

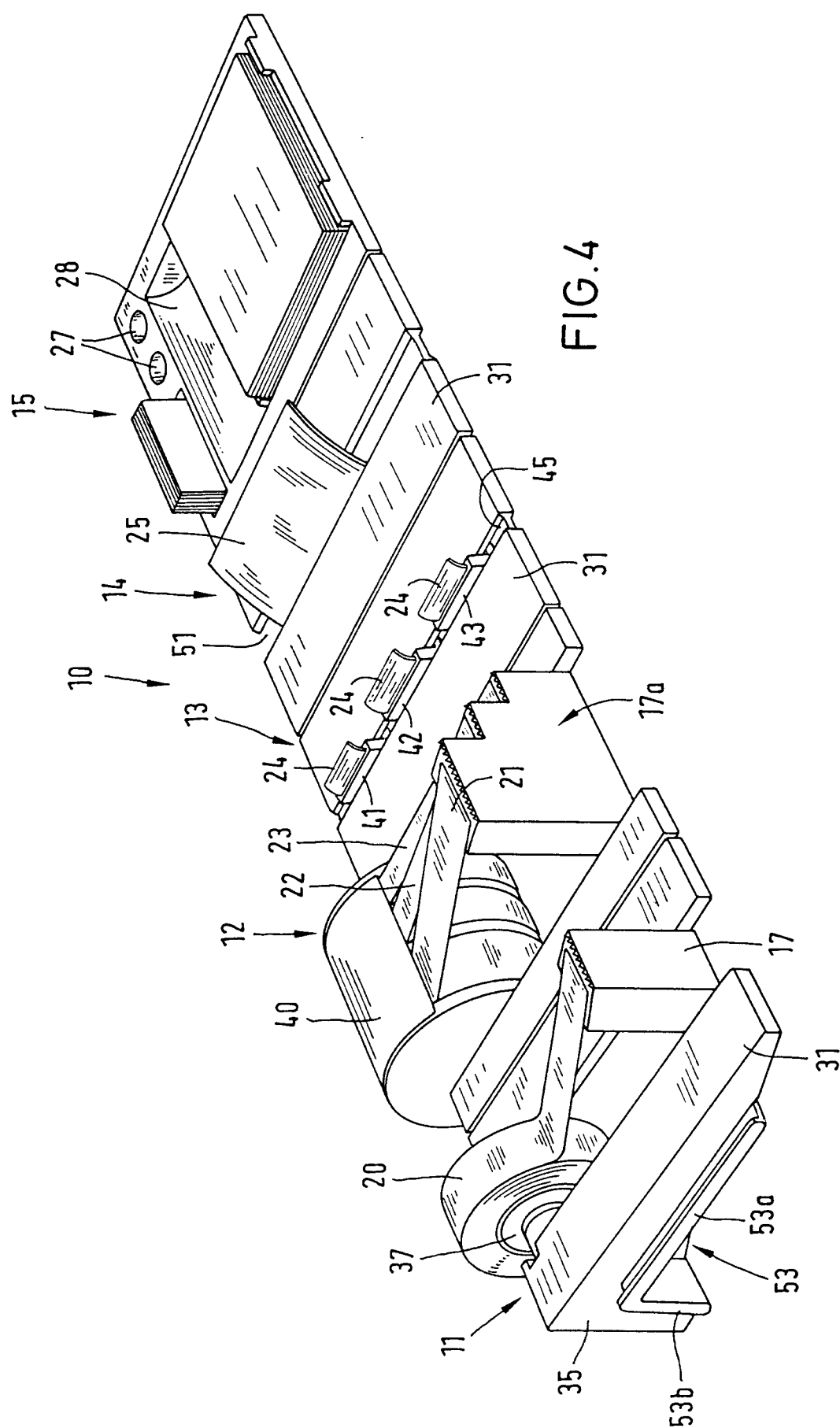
6. The modular office desk dispenser of claim 5, characterized in that said channel rail (63) is L-shaped.

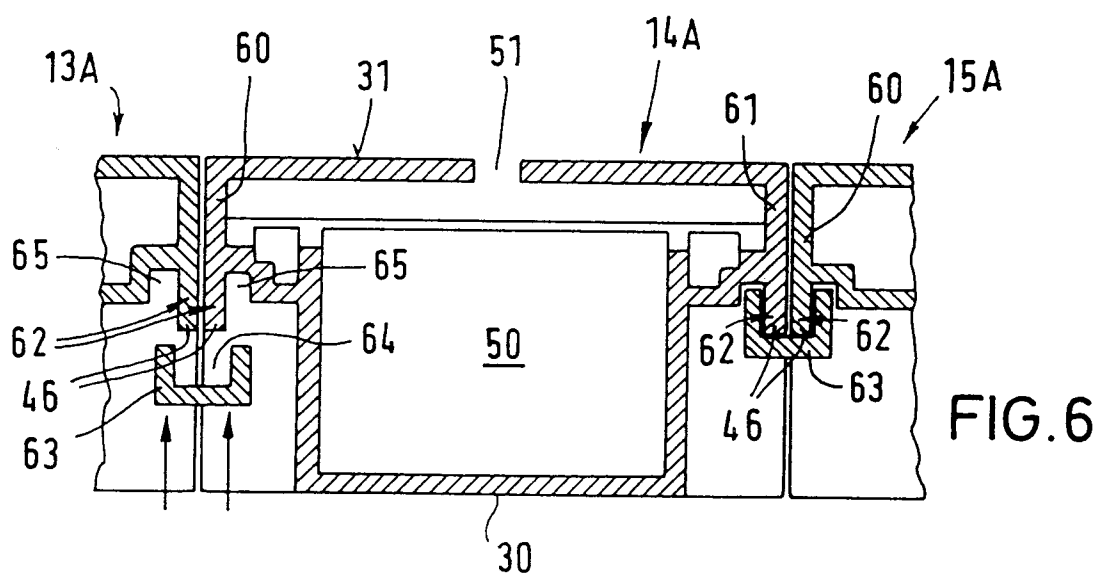
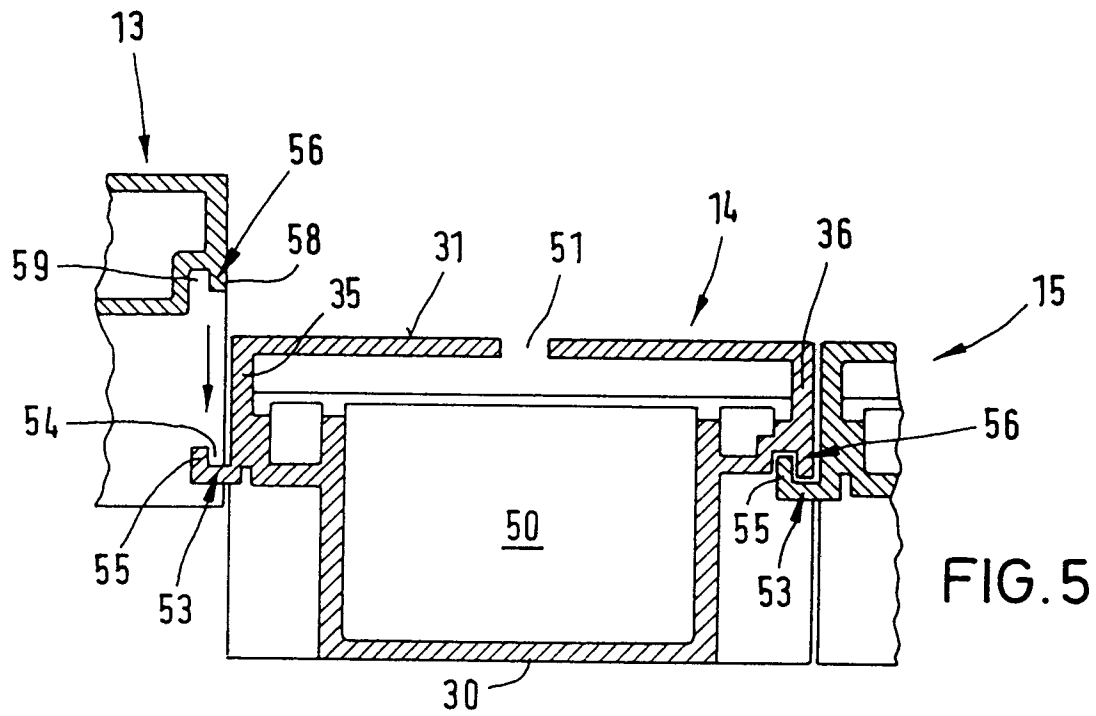
7. The modular office desk dispenser of claim 5 or 6, characterized in that said hook-shaped profiles (62) are directed towards the base (30) of said desk body (13A, 14A, 15A).

8. The modular office desk dispenser of one of claims 1 to 7, characterized in that said L-shaped beads (53, 56; 62) are integrated into the side walls (35, 36; 60, 61) of said desk body (11, 12, 13, 14, 14A, 15).

9. The modular office desk dispenser of one of claims 1 to 8, characterized in that each desk body (11, 12, 13, 14, 14A, 15) has the cross-sectional shape of a flat rectangular triangle, the hypotenuse thereof forming a base (30), and that the legs of the L-shaped beads extend parallel and in a distance to the cathetus of said triangle.









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EUROPEAN SEARCH REPORT

Application Number

EP 92 10 0558

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.5)
X	US-A-4 429 796 (SUSSMAN) * column 1, line 1 - column 4, line 49; figures *	1-4, 8	B43M17/00
Y	---	9	
Y	FR-A-2 572 028 (DE PHILY) * page 2, paragraph 3; figure 1 *	9	
A	---	3	
A	FR-A-1 493 467 (MIDANI) * page 1, right column, paragraph 1 * * abstract; figures *	1, 2	
A	---		
A	US-A-4 406 368 (HERMES) * column 2, line 65 - column 5, line 47; figures *	1-9	
A	---		
A	FR-A-2 319 563 (THE SUPERIOR INSULATING TAPE) * page 3, line 38 - page 4, line 2; figures 1, 6 *	1	

			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B43M B65H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 MAY 1992	Examiner PERNEY Y.
CATEGORY OF CITED DOCUMENTS			
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		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	