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Remarks:

Amended claims in accordance with Rule 137(2)
EPC.

(54) PRODUCT DISPLAY DEVICE

(57) A product display device comprises a support (2) from which a plurality of parallel arms (3) extend, each arm carrying a product-carrying hook (7) adjustably positionable on the arm. Each arm may have an elongate

slot (4) therein and the product-carrying hook (7) is then adjustably positioned by means of at least one screw-threaded member (8,9) extending through the slot and fastenable by a nut (10,11).

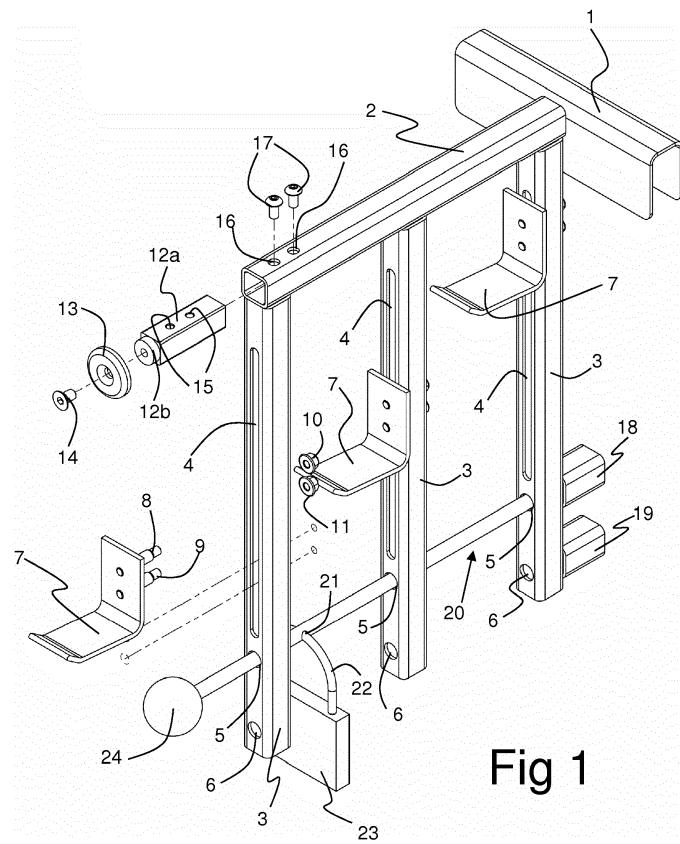


Fig 1

Description**Field of the Invention**

[0001] This invention relates to a product display device, for example for displaying a range of different-sized high-value products such as diamond cutting discs.

Background to the Invention

[0002] Diamond cutting discs are typically supplied in a range of different sizes to fit different power tools and in a range of grades to suit different types of materials or simply of different quality. Conventionally, the different sizes and grades are displayed by mounting them on individual mounting pins or rods, in turn mounted on wall-mounted racks, for example. Since each size and type needs to be displayed separately, this can take up a great deal of retail space, and this is not only costly, but also makes it difficult for the purchaser to locate the correct size and type of blade, and can make theft easier.

Summary of the Invention

[0003] The invention provides a display device characterised by a support from which a plurality of parallel arms extend, each arm carrying a product-carrying hook adjustably positionable on the arm.

[0004] Other features of the invention are set out in the claims.

[0005] The device permits a range of different-sized products to be conveniently and securely displayed for sale in a clear and easy to understand fashion. The prospective purchaser can readily view, touch and feel all the items in the range and select the correct one, while the retail space occupied is kept to a minimum. The device can be easily adapted to accommodate different sizes of product or product packaging, either in steps or infinitely variably. The products can be held securely against pilferage using, for example, relatively simple and cheap locking means such as padlocks.

Brief Description of the Drawings

[0006] In the drawings, which illustrate an exemplary embodiment of the invention:

Figure 1 is an exploded perspective view showing a product display device;
 Figure 2 is a corresponding view to that of Figure 1, but assembled;
 Figure 3 is a view of the device shown in Figure 2, but with products displayed thereon; and
 Figure 4 is a perspective view showing the mounting on multiple display devices in conjunction with a conventional product display.

Detailed Description of the Illustrated Embodiment

[0007] Referring first to Figure 1, the display device comprises a U-section saddle member 1 for mounting the device on a conventional display bar as illustrated in and described hereinafter with reference to Figure 4. A square-section tube 2 is secured to and extends perpendicular to one side of the saddle member 1 and this in turn has three product support arms 3 secured to and depending downwardly from the tube 2. Each of the product support arms 3 is similarly formed of square-section tube but is provided on opposed faces with an elongate longitudinal slots 4, together with holes 5 and 6, therethrough. Hooked supports 7 are mounted on respective ones of the support arms 3. Each hooked support 7 has a pair of threaded studs 8 and 9 extending from the rear face thereof, and these are passed through the respective slots 4 to extend from the opposed face of the support arm 3, where nuts 10 and 11 are engaged with the stud threads to secure the hooked support in the desired position. It will be seen that the position of the hooked support 7 can be varied by loosening the nuts and sliding the support 7 along the arm 3 over the extent of the slots 4.

[0008] It will be appreciated that, where infinite variability of the positions of the hook members 7 is not required, it would be sufficient to provide a plurality of appropriately-spaced holes along the length of the arms in place of the slots 4 to provide a plurality of alternative fixing points for the hook members 7.

[0009] The open end of the tube 2 can be used, for example to display a sample 33 (Figure 3) of the type of product (disc), and for this purpose is provided with a mount consisting of a mounting block 12 having a square-section portion 12a sized to be a sliding fit within the tube 2 and round-section portion 12b sized to correspond with the central hole in a disc so that the disc can be mounted on it, being held in place by a separate boss member 13 secured by a screw 14 engaging a threaded bore in the end of the mounting block 12. The mounting block 12 also has a pair of threaded bores 15 in one side of the square-section portion 12a corresponding to a pair of holes 16 in the upper face of the tube 2 through which screws 17 are passed.

[0010] The arm 3 which, in use, is nearest to the display surface (wall) is also provided with a pair of short lengths of square-section tube 18 and 19 attached to the rear face thereof to correspond with and surround the holes 5 and 6. These are dimensioned to engage the surface to provide additional support for the device when laden with the products.

[0011] A security bar 20 is provided to prevent unauthorised removal of product. This consists of a rod having a hole 21 therethrough to receive the shackle 22 of a padlock 23. The end of the security bar 20 is provided with a knob 24 to make it easier to grasp, to avoid a pointed projection which could be hazardous to users, and importantly to prevent the unauthorised removal of the smallest diameter discs mounted on the outermost

support.

[0012] Figures 2 and 3 show the assembled device, with the positions of the hooked supports 7 fixed such that different-sized packaged discs 30, 31 and 32, hung on the supports 7 will have their centre holes aligned to enable the security bar 20 to be passed through all of them and then locked in place using the padlock 23 as hereinbefore described. Correct positioning may be achieved, for example, by mounting the largest of the discs and fixing the hook member 7 in position, loosely mounting the other hook members with sample-sized discs on, passing the security bar through the centre holes of the discs and holding the bar level to determine the correct positions of the other hook members 7 and then fastening these. In Figure 3, a sample disc 33 is mounted on the end of the mounting block 12 by means of the boss member 13 and screw 14. This serves to indicate to the prospective purchaser of discs the type of disc held by the particular display device.

[0013] While Figures 1, 2 and 3 illustrate a device having just three arms 3, it will be appreciated that the invention is not limited to any particular number of arms. Figure 4 illustrates three devices 40, 41 and 42 in accordance with the invention, configured to support three, four and five different diameters of product respectively, carried on a conventional product mounting rail 43, which is configured to hook into a slotted display stand (not shown). The saddle members 1 in each case hook over the rail 43 and can be secured in place by grub screws or the like passing through the rear of the saddle members 1 and engaging with the rail so that the device cannot be readily separated from the assembly, rendering pilfering of discs difficult or impossible.

[0014] It will be appreciated that, while square-section tube is illustrated in the drawings, the display device of the invention can be formed using other sections of material, both hollow and solid.

Claims

1. A product display device, **characterised by** a support from which a plurality of parallel arms extend, each arm carrying a product-carrying hook adjustably positionable on the arm.
2. A product display device according to Claim 1, wherein each arm has an elongate slot therein and the product-carrying hook is adjustably positioned by means of at least one screw-threaded member extending through the slot and fastenable by a nut.
3. A product display device according to Claim 2, wherein the screw-threaded member is a stud extending from the rear face of the hook.
4. A product display device according to Claim 1, 2 or 3, wherein the support comprises a member attach-

able to a vertical display surface.

5. A product display device according to Claim 1, 2 or 3, wherein the support comprises a hook engageable on a horizontal bar mounted on a vertical display surface.
6. A product display device according to Claim 4 or 5, wherein the member or the hook has extending therefrom a rod which, in use, has the longitudinal axis thereof normal to the vertical display surface.
7. A product display device according to Claim 6, wherein the arms depend from the rod.
8. A product display device according to any preceding claim, wherein each arm is provided with a hole therethrough, the holes in the arms being aligned whereby a security bar may be passed through the aligned holes and through corresponding holes in the products or packaging therefor, locking means being provided to prevent removal of the security bar from the device.
9. A product display device according to Claim 8, wherein the locking means comprises a padlock engaging in a hole through the security bar.

30 Amended claims in accordance with Rule 137(2) EPC.

1. A product display device, having a support from which a plurality of parallel arms extend, each arm carrying a product-carrying hook adjustably positionable on the arm, the support comprising a member attachable to a vertical display surface or a hook engageable on a horizontal bar mounted on a vertical display surface, wherein the support has a longitudinal axis extending normally to the vertical display surface, in use, and the parallel arms extend downwardly from the support, **characterised in that** each arm is provided with a hole therethrough, the holes in the arms being aligned whereby a security bar may be passed through the aligned holes and through corresponding holes in the products or packaging therefor, locking means being provided to prevent removal of the security bar from the device.
2. A product display device according to Claim 1, wherein each arm has an elongate slot therein and the product-carrying hook is adjustably positioned by means of at least one screw-threaded member extending through the slot and fastenable by a nut.
3. A product display device according to Claim 2, wherein the screw-threaded member is a stud extending from the rear face of the hook.

4. A product display device according to any preceding claim, wherein the locking means comprises a padlock engaging in a hole through the security bar.

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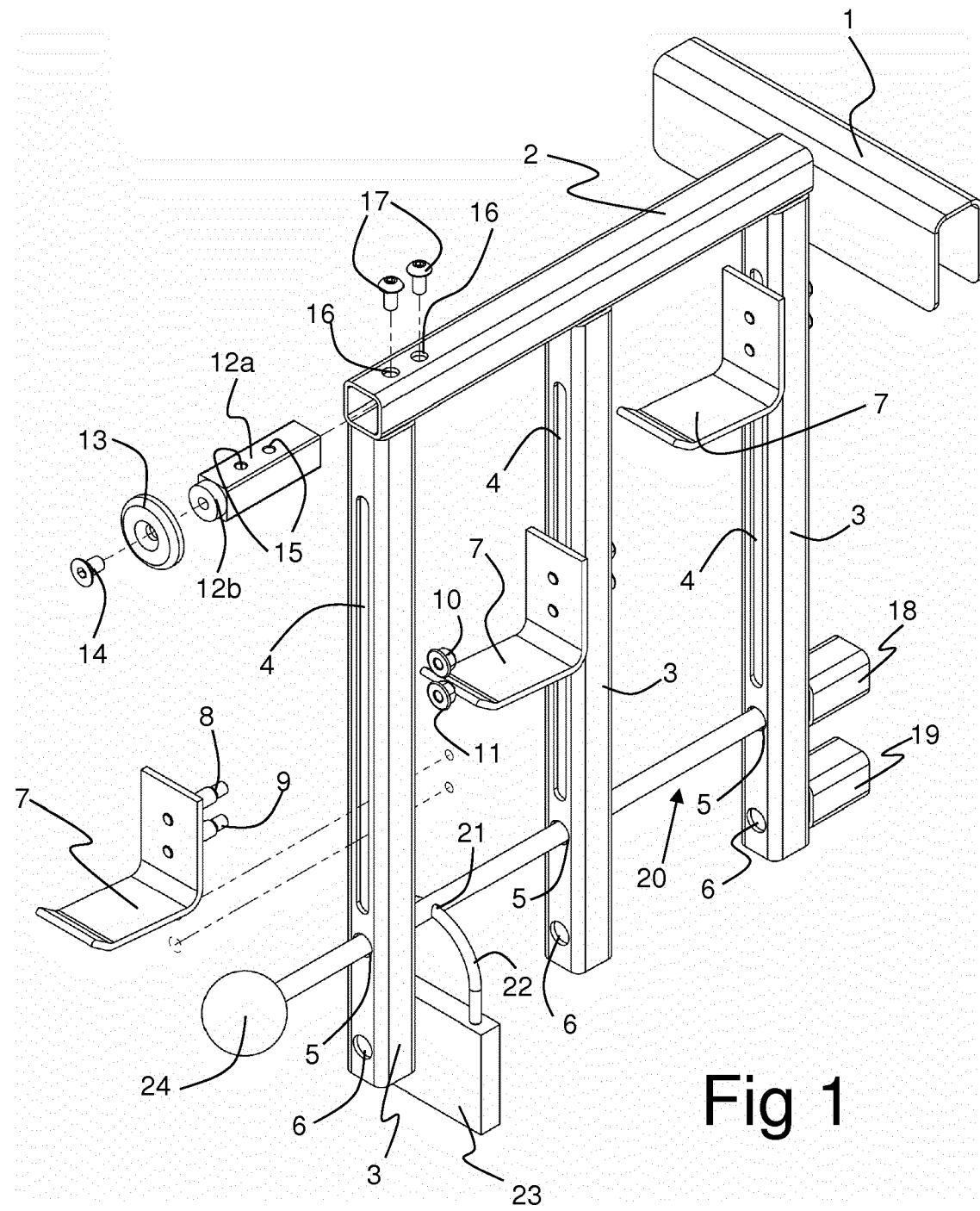


Fig 1

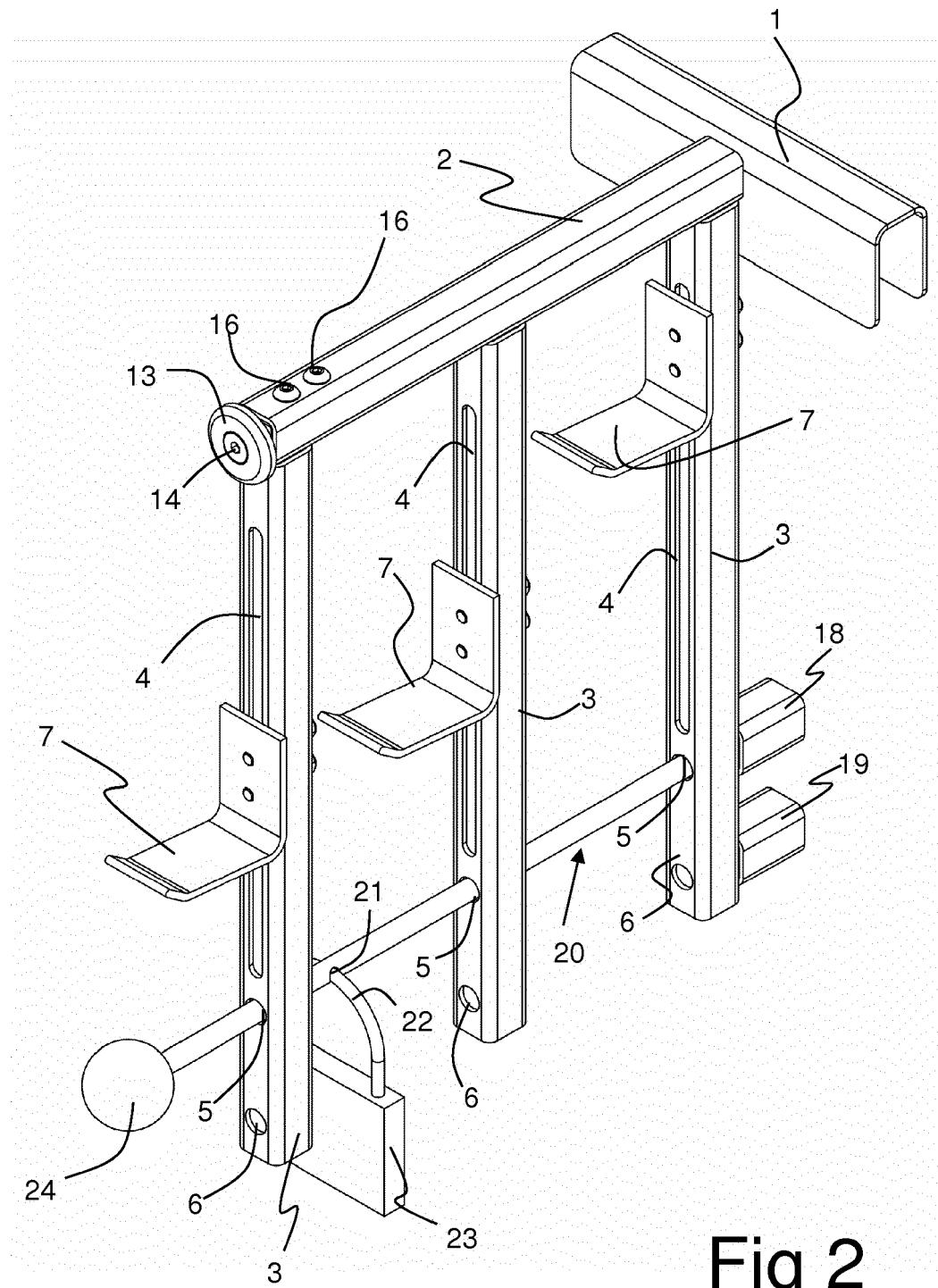


Fig 2

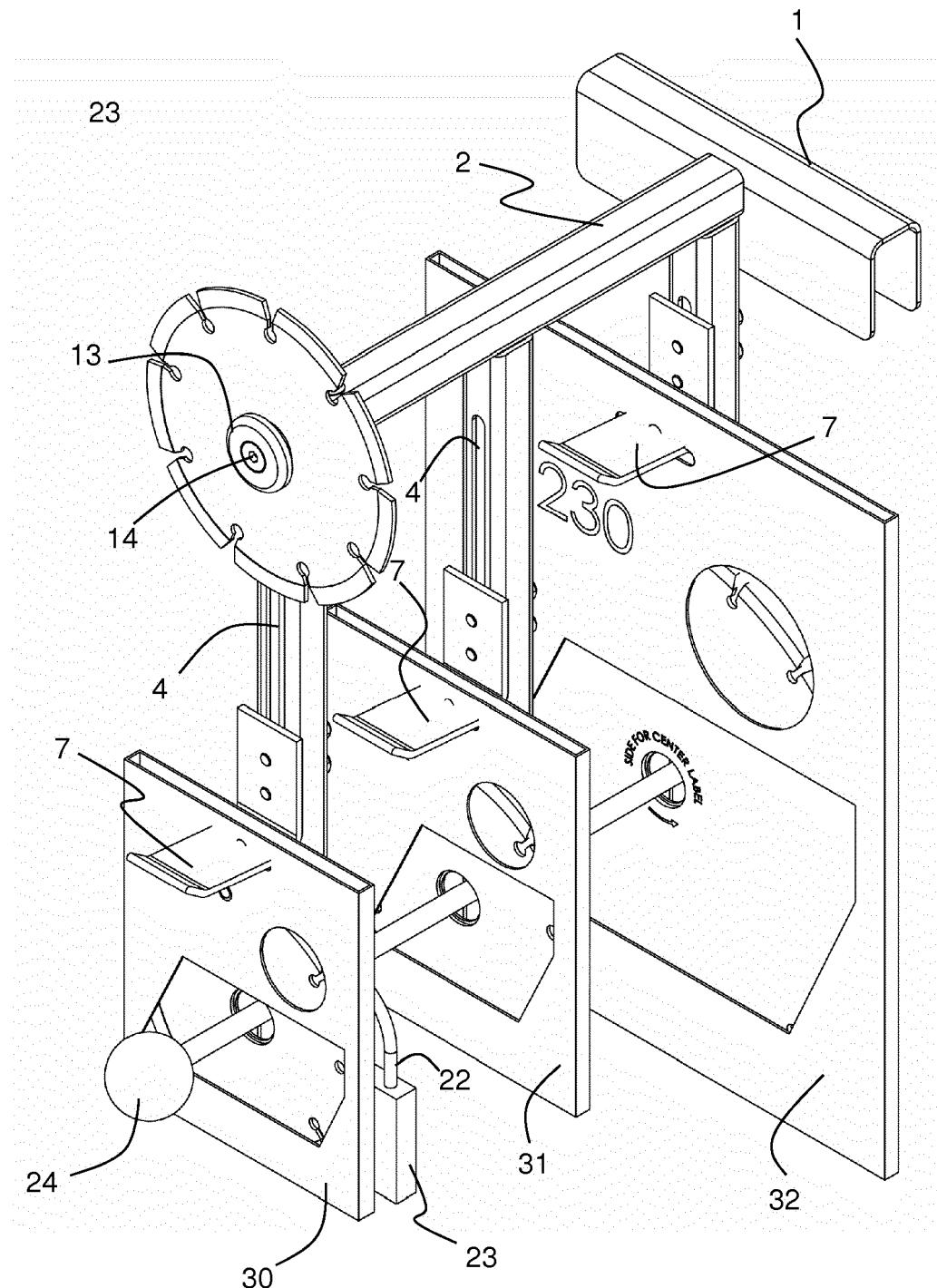


Fig 3

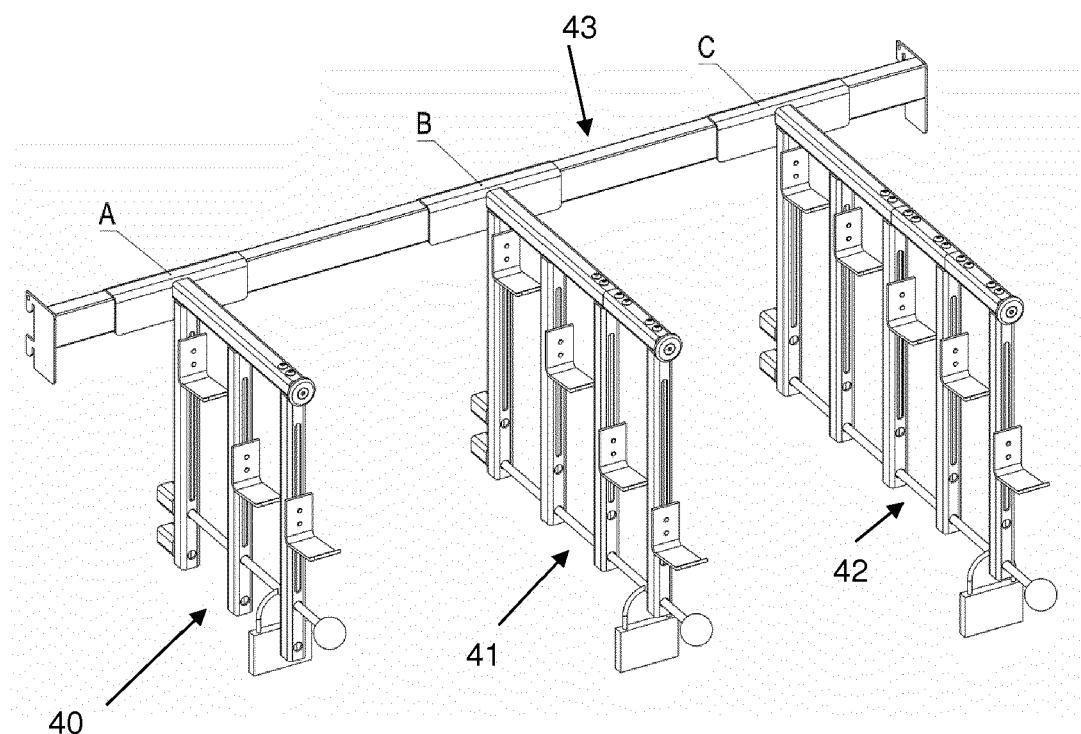


Fig 4



EUROPEAN SEARCH REPORT

Application Number

EP 17 20 1459

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DOCUMENTS CONSIDERED TO BE RELEVANT			
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10	X US 6 681 940 B1 (CASH MICHAEL J [US] ET AL) 27 January 2004 (2004-01-27) * column 2, line 7 - column 4, line 5; figures 1-5 *	1,4,6,7	INV. A47F5/08
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20	X US 2007/068887 A1 (RICHARD NAWROCKI JOHN [US]) 29 March 2007 (2007-03-29) * paragraph [0008] - paragraph [0112]; figures 1-25 *	1,4,6	
25	X EP 0 508 601 A1 (LANCASTER COLONY CORP [US]) 14 October 1992 (1992-10-14) * the whole document *	1,4,6	
30	X DE 100 05 090 A1 (ROEDIGER FRANK MICHAEL [DE]) 9 August 2001 (2001-08-09) * the whole document *	1	TECHNICAL FIELDS SEARCHED (IPC)
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50	1 The present search report has been drawn up for all claims		
55	Place of search The Hague	Date of completion of the search 9 March 2018	Examiner Kohler, Pierre
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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			

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

EP 17 20 1459

5 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.

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