



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
21.07.2010 Bulletin 2010/29

(51) Int Cl.:
D06F 57/08 (2006.01)

(21) Application number: **10150781.2**

(22) Date of filing: **14.01.2010**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(72) Inventor: **Miola, Adriano**
35024 Bovolenta PD (IT)

(74) Representative: **Modiano, Micaela Nadia**
Modiano & Partners
Via Meravigli, 16
20123 Milano (IT)

(30) Priority: **19.01.2009 IT PD20090010**

(71) Applicant: **GIMI S.p.A.**
35043 Monselice PD (IT)

Remarks:

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

(54) **Clothes drying rack**

(57) A clothes drying rack (10), which comprises two supporting longitudinal members (11, 12) for two mutually opposite frames (13, 14) which can slide with respect to each other, with mutual sliding means, between a first substantially superimposed configuration so as to form

a single central hanging frame (15) and a second configuration of complete and mutual extraction, both completely available for hanging, supporting means (16) for the clothes drying rack (10) being associated with the longitudinal members.

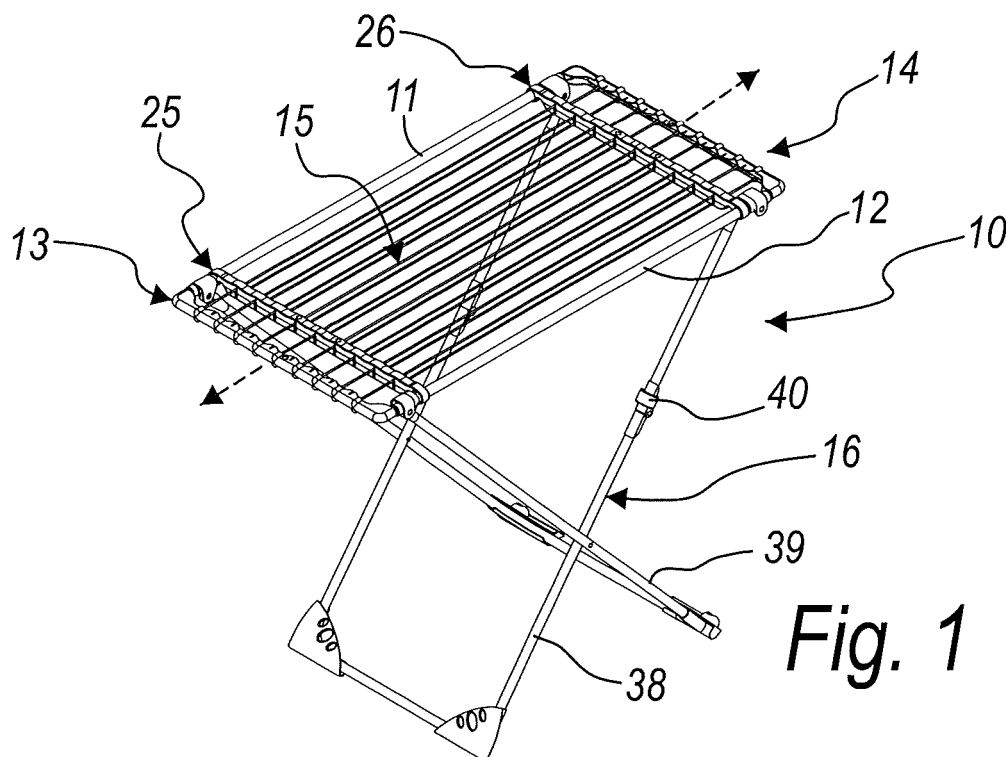


Fig. 1

Description

[0001] Many types of clothes drying rack are currently commercially available.

[0002] Among these, many are of the type that comprises a quadrangular framework, which is constituted by a pair of longitudinal members and a pair of cross-members, between which rod-like elements are arranged which, together with the framework, form a frame for hanging clothes; pairs of folding supporting legs are generally associated with the longitudinal members.

[0003] Clothes drying racks generally have a main frame, which is constituted, together with the rod-like elements, by the longitudinal members and by the cross-members, and two secondary frames, which have rod-like hanging elements which are shorter than the rod-like elements of the main frame (typically approximately half its length), such secondary frames being either hinged at the cross-members and able to fold onto the main frame or extractable from the main frame.

[0004] The two secondary frames allow to use the clothes drying rack in an optimized manner, with a configuration that can be adapted to the load of clothes to be hung.

[0005] Both clothes drying racks with hinged secondary frames and clothes drying racks with extractable secondary frames have the same drawback linked to the limited size of the secondary frames.

[0006] In both cases, in fact, in order to allow the clothes drying rack to maintain its own stable balance even if a single secondary frame is open and loaded, each one of the lateral frames is generally as long as half of the main frame.

[0007] Therefore, these known secondary frames, despite being useful, do not have the same functionality as the main frame, since it is possible to hang on them only small items, such as handkerchiefs, socks, undershirts and the like, but not also sheets, large towels and in general all items which, due to their extent, can be hung only on the main frame.

[0008] The aim of the present invention is to provide a clothes drying rack that is capable of obviating the limitations of the cited clothes drying racks of the known type.

[0009] Within this aim, an object of the invention is to provide a clothes drying rack to the main frame of which an additional frame, larger than known secondary frames, is associated.

[0010] Another object of the invention is to provide a clothes drying rack that is simple to use like known clothes drying racks.

[0011] Another object of the invention is to provide a clothes drying rack that can be compacted easily in the inactive configuration in the same manner as known clothes drying racks.

[0012] Another object of the invention is to propose a clothes drying rack that can be manufactured structurally with low costs, with known technologies and systems.

[0013] This aim, as well as these and other objects that

will become better apparent hereinafter, are achieved by a clothes drying rack, **characterized in that** it comprises two supporting longitudinal members for two mutually opposite frames which can slide with respect to each other, with mutual sliding means, between a first substantially superimposed configuration so as to form a single central hanging frame and a second configuration of complete and mutual extraction, both completely available for hanging, supporting means for the clothes drying rack being associated with said longitudinal members.

[0014] Further characteristics and advantages of the invention will become better apparent from the following detailed description of a preferred but not exclusive embodiment of the clothes drying rack according to the invention, illustrated by way of non-limiting example in the accompanying drawings, wherein:

Figure 1 is a perspective view of a clothes drying rack according to the invention in a first active configuration;

Figure 2 is a perspective view of the clothes drying rack according to the invention in a second active configuration;

Figure 3 is a perspective view of the two mutually opposite frames of the clothes drying rack according to the invention;

Figure 4 is a partially exploded view of a detail of the clothes drying rack according to the invention;

Figure 5 is a top view of a portion of the clothes drying rack according to the invention;

Figure 6 is a sectional view of a detail, taken along the line VI-VI of Figure 5;

Figure 7 is a sectional view of a detail, taken along the line VII-VII of Figure 5,

Figure 8 is a view of a second embodiment of the clothes drying rack according to the invention.

[0015] With reference to the figures, a clothes drying rack is generally designated by the reference numeral 10.

[0016] The clothes drying rack 10 comprises two supporting longitudinal members 11 and 12 for two mutually opposite frames 13 and 14 described in greater detail hereinafter.

[0017] The frames 13 and 14 can slide with respect to each other and with respect to the longitudinal members 11 and 12 with mutual sliding means.

[0018] The frames 13 and 14 can slide between a first substantially superimposed configuration so as to form a single central hanging frame 15, as shown in Figure 1, and a second configuration of complete and mutual extraction, both completely available for hanging, as shown in Figure 2.

[0019] Supporting means 16 for the clothes drying rack 10 are associated with the longitudinal members 11 and 12 and are also described in greater detail hereinafter.

[0020] The two frames 13 and 14, clearly visible in Figure 3, are each formed by a U-shaped tubular element, respectively 17 and 18, which supports a plurality of rod-

like or wire-like components for hanging clothes.

[0021] Such rod-like or wire-like components are constituted, in this exemplifying and non-limiting embodiment of the invention, by a series of metallic rods 19 and 20, which are welded at a first end to the central portion 17a and 18a of the respective U-shaped tubular elements 17 and 18.

[0022] The lateral portions 17b and 17c and 18b and 18c of the U-shaped tubular elements 17 and 18 are designed to be inserted, so that they can be extracted, in the longitudinal members 11 and 12.

[0023] Extraction-preventing stroke limiting means are formed between the longitudinal members 11 and 12 and the corresponding lateral portions 17b, 17c, 18b, 18c and are adapted to prevent complete extraction of the frames 13 and 14 from the longitudinal members 11 and 12; the extraction-preventing means are described hereinafter.

[0024] The metallic rods 19 and 20 are coupled because they are part of a same metallic wire, 21 and 22, that is folded into a U-shape.

[0025] Each sliding cross-member 25 and 26 is composed, in this embodiment, of two half-shells 25a and 25b and 26a and 26b respectively, obtained by molding plastic material.

[0026] The half-shells are mutually fixed by means of screws 44, as shown in Figure 4.

[0027] The mutual fixing of the half-shells, as an alternative, can be provided by interlocking.

[0028] In the embodiment described here, central rods 23 and 24 are independent.

[0029] The mutual sliding means are constituted by two sliding cross-members 25 and 26, which have corresponding sleeves 27 and 28 for sliding on the longitudinal members 11 and 12.

[0030] Each of the two sliding cross-members 25 and 26 comprises locking seats 30 and 31 for the free ends, joined so as to form a U-shape, of the rods 19 or 20 of a first frame and slots 32 and 33 for sliding with respect to the rods of the other second frame.

[0031] Figure 4, and further the cross-section of Figure 6, exemplify how a first sliding cross-member 25 comprises first seats 30 for the free ends 20a of the rods 20 of the second frame 14 and first slots 32 for the sliding of the first cross-member 25 on the first rods 19 of the first frame 13; likewise, the second sliding cross-member 26 comprises second seats 31 for the free ends 19a of the rods 19 of the first frame 13 and second slots 33 for the sliding of the second cross-member 26 on the second rods 20 of the second frame 14.

[0032] The rods 19 and 20 are advantageously arranged so as to be parallel, mutually facing and mutually superimposed with respect to each other in the configuration in which the frames 13 and 14 are closed onto each other, so that hanging is possible also on the single central frame 15 formed by the two frames 13 and 14, which in this first active configuration of the clothes drying rack 10 are superimposed.

[0033] The extraction-preventing means adapted to

prevent complete extraction of the frames 13 and 14 from the longitudinal members 11 and 12, cited above, are shown in Figure 7.

[0034] Each end of the longitudinal members 11 and 12, one end of the longitudinal member 11 being shown by way of example in Figure 7, is surrounded by a block 35, inside which a transverse pin 36 is inserted which is adapted to form an abutment stroke limit for a shoulder 37 that is formed by a sleeve 38 arranged so as to surround the corresponding end of the lateral portion, 17b as well as 17c, 18b and 18c, of the U-shaped element 17, as well as 18, of the first frame 13 as well as of the second frame 14.

[0035] The hanging means 16 are also hinged to the blocks 35 and in the figures are exemplified by two pairs of legs 38 and 39 which are hinged in a scissor-like fashion and with an articulation 40 to allow folding of a per se known type.

[0036] The supporting means 116, as exemplified in the embodiment of Figure 8, are to be understood as also being possibly pairs of legs 138 and 139 which can be folded along one end onto the clothes drying rack 110, and are also of a known type, as well as other types of legs that are similar and equivalent.

[0037] The operation of the clothes drying rack 10, as well as 110, according to the invention, is as follows.

[0038] From the closed configuration, first configuration with the frames 13 and 14 superimposed (Figure 1), it is sufficient to pull at least one of the two frames 13 and 14 in the direction for extraction with respect to the other frame.

[0039] The extraction of the two frames 13 and 14 can be partial or complete, until two frames 13 and 14 are obtained which are completely available for hanging items to be dried (Figure 2), said two frames substantially doubling the hanging capacity of the single central frame 15 (which occurs when the two frames 13 and 14 are superimposed so as to form the single frame 15 of the first active configuration), without however having cross-members to prevent the hanging of large items such as sheets, curtains, large towels and the like.

[0040] In practice it has been found that the invention achieves the intended aim and objects.

[0041] The invention has in fact provided a clothes drying rack which is provided substantially with two frames 13 and 14 capable of doubling the capacity of the central frame 15 formed by the overlap of the two frames 13 and 14.

[0042] Further, by means of the invention a clothes drying rack has been devised which is as simple to use as known clothes drying racks.

[0043] Moreover, the clothes drying rack according to the invention can be compacted easily in the inactive configuration, in the same manner as known clothes drying racks.

[0044] Not least, the invention provides a clothes drying rack that can be manufactured structurally with low costs, with technologies and systems of a known type.

[0045] The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims; all the details may further be replaced with other technically equivalent elements.

[0046] In practice, the materials used, as well as the contingent shapes and dimensions, may be any according to requirements and to the state of the art.

[0047] The disclosures in Italian Patent Application No. PD2009A000010 from which this application claims priority are incorporated herein by reference.

[0048] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

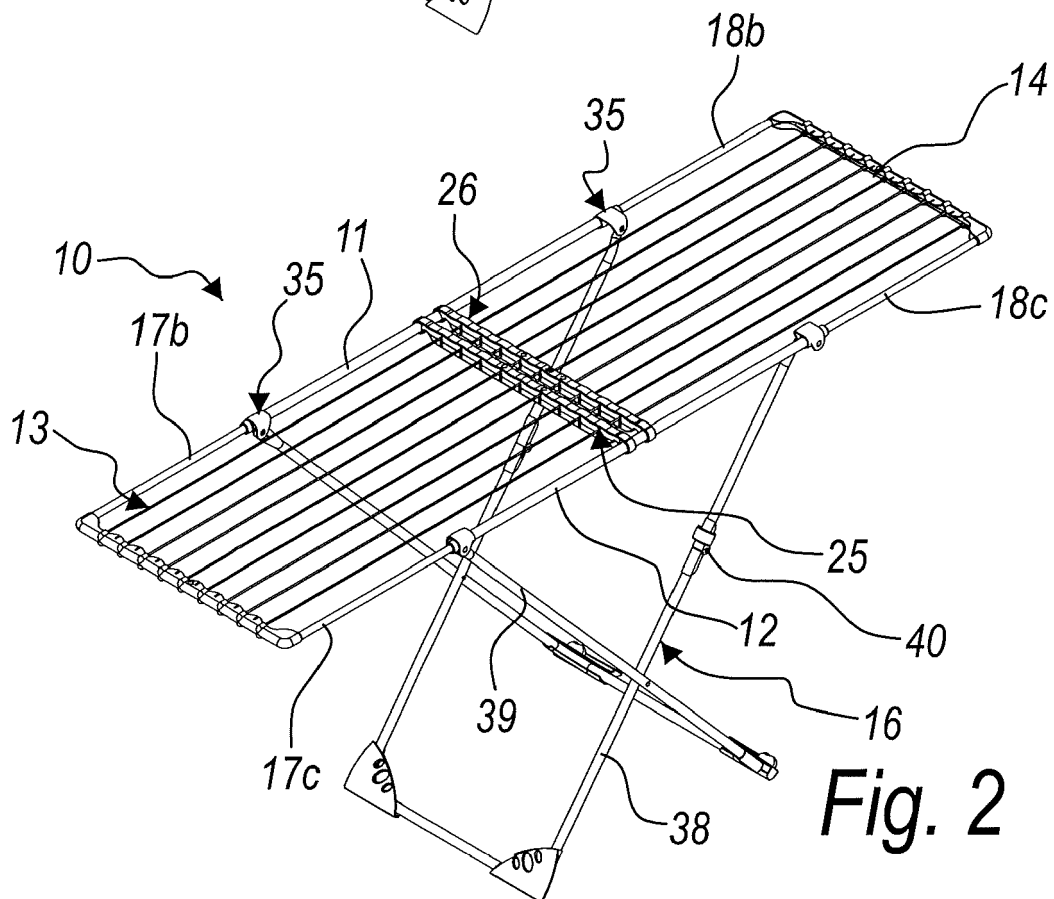
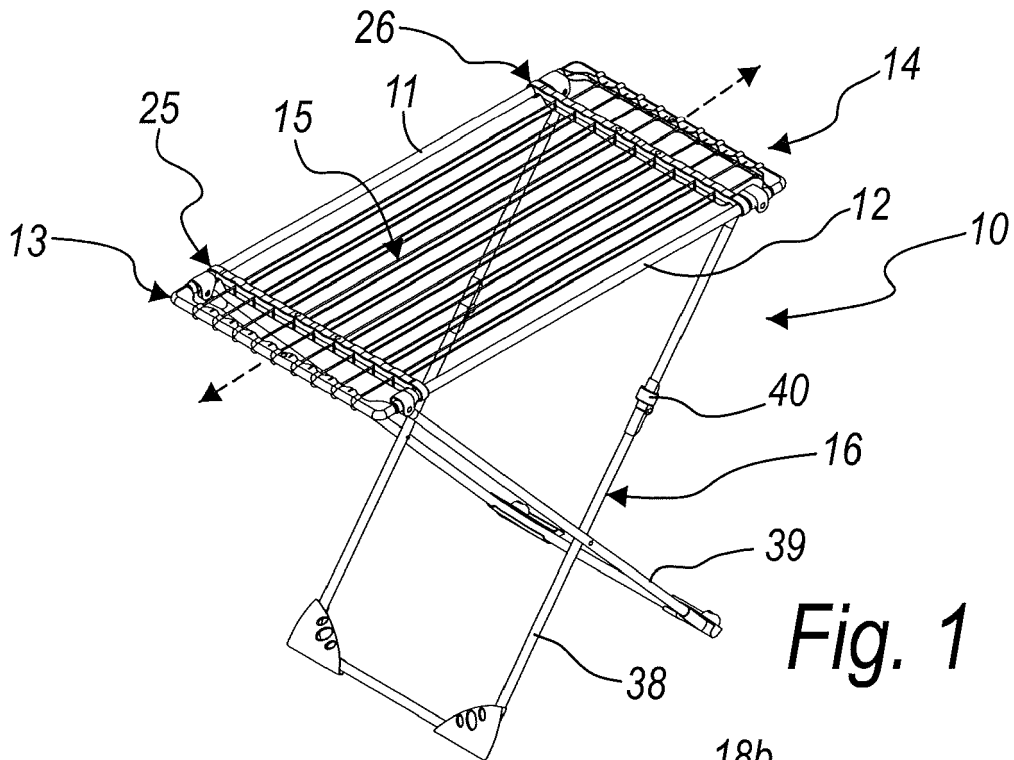
1. A clothes drying rack (10), **characterized in that** it comprises two supporting longitudinal members (11, 12) for two mutually opposite frames (13, 14) which can slide with respect to each other, with mutual sliding means, between a first substantially superimposed configuration so as to form a single central hanging frame (15) and a second configuration of complete and mutual extraction, both completely available for hanging, supporting means (16) for the clothes drying rack (10) being associated with said longitudinal members.
2. The clothes drying rack according to claim 1, **characterized in that** each one of said two frames (13, 14) is formed by a U-shaped tubular element (17, 18), which supports a plurality of rod-like or wire-like components for hanging clothes, lateral portions (17b, 17c, 18b, 18c) of said U-shaped tubular elements (17, 18) being adapted to be inserted, so that they can be extracted, within said longitudinal members (11, 12), between the longitudinal members (11, 12) and the corresponding lateral portions (17b, 17c, 18b, 18c), stroke limiting means being provided for preventing extraction, which are adapted to prevent complete extraction of the frames (13, 14) from the longitudinal members (11, 12).
3. The clothes drying rack according to claim 1, **characterized in that** said mutual sliding means are constituted by two sliding cross-members (25, 26) provided with corresponding sleeves (27, 28) for sliding on the longitudinal members (11, 12), each of the two sliding cross-members (25, 26) comprising locking seats (30, 31) for free ends of rods (19, 20) of a first frame of the two mutually opposite frames, and slots (32, 33) for mutual sliding with respect to rods

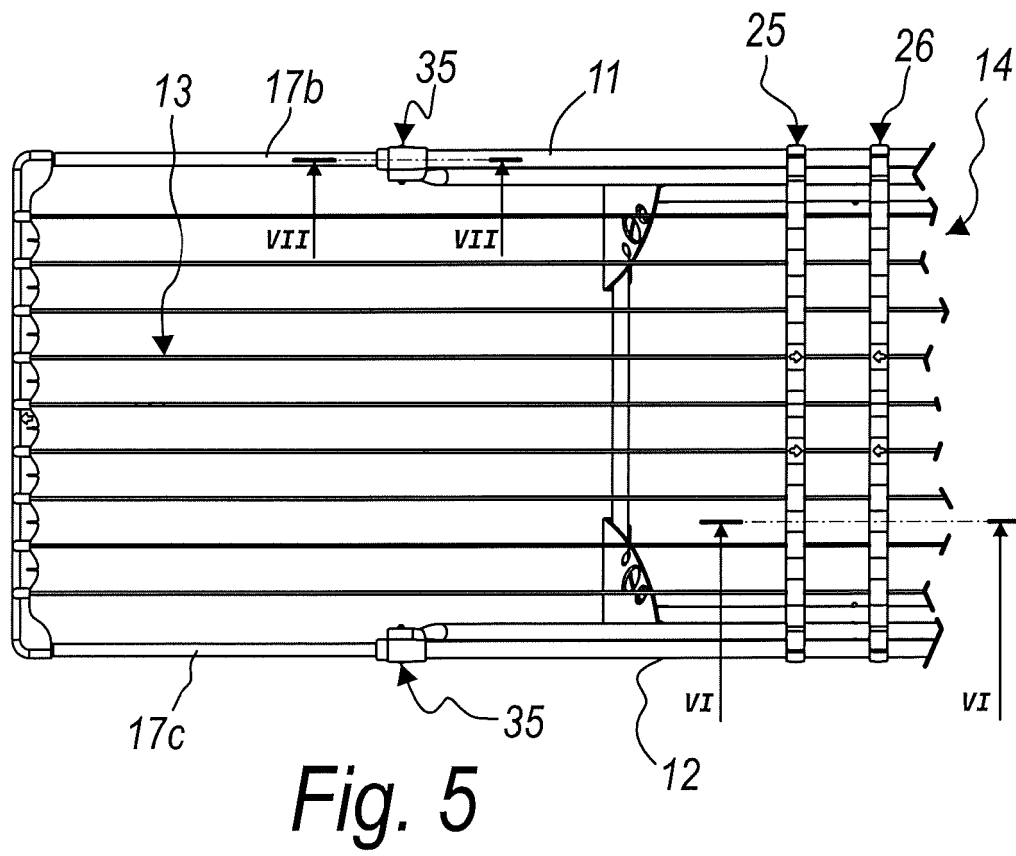
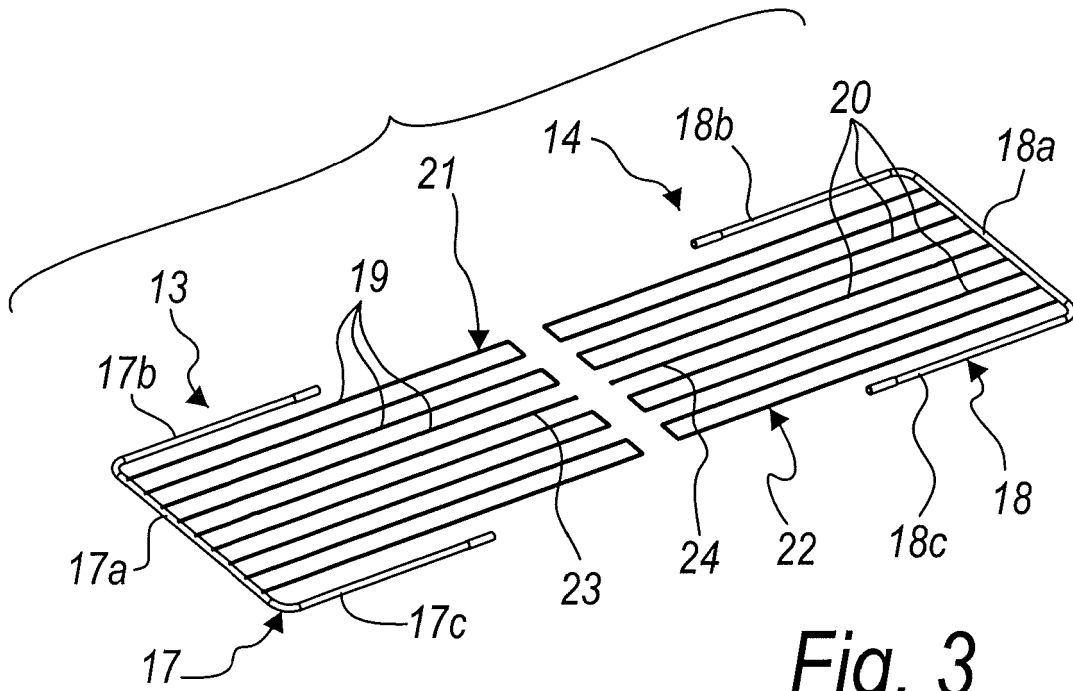
of a second frame of the two mutually opposite frames.

4. The clothes drying rack according to claim 2, **characterized in that** the extraction-preventing stroke limiting means adapted to prevent complete extraction of the frames (13, 14) from the longitudinal members (11, 1) are constituted by a block (35) for each end of the longitudinal members (11, 12), a transverse pin (36) being inserted within each block (35) and being adapted to form an abutment stroke limit for a shoulder (37) formed by a sleeve (38) that is arranged so as to surround a corresponding end of the lateral portion (17b, 17c, 18b, 18c) of the U-shaped element (17, 18) of each frame (13, 14).
5. The clothes drying rack according to claim 3, **characterized in that** each sliding cross-member (25, 26) is composed of two half-shells (25a, 25b, 26a, 26b) obtained by molding plastic material.
6. The clothes drying rack according to claim 5, **characterized in that** said half-shells are mutually fixed by means of screws (44) or as an alternative by interlocking or by other similar and equivalent means.

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

1. A clothes drying rack (10), **characterized in that** it comprises two supporting longitudinal members (11, 12) for two mutually opposite frames (13, 14) which can slide with respect to each other, with mutual sliding means (25, 26), between a first substantially superimposed configuration so as to form a single central hanging frame (15) and a second configuration of complete and mutual extraction, so as to substantially double the frame available for hanging, supporting means (16) for the clothes drying rack (10) being associated with said longitudinal members, said mutual sliding means (25, 26) being movable from a position in which they are arranged at the ends of the central hanging frame (15), when the two mutually opposite frames (13, 14) are in the first substantially superimposed configuration, to a position in which they define adjacent ends of the two mutually opposite frames (13, 14), when the two opposite frames are in the second configuration of complete and mutual extraction, said mutual sliding means (25, 26) being arranged, in said second configuration, substantially at the center region of the two supporting longitudinal members (11, 12).





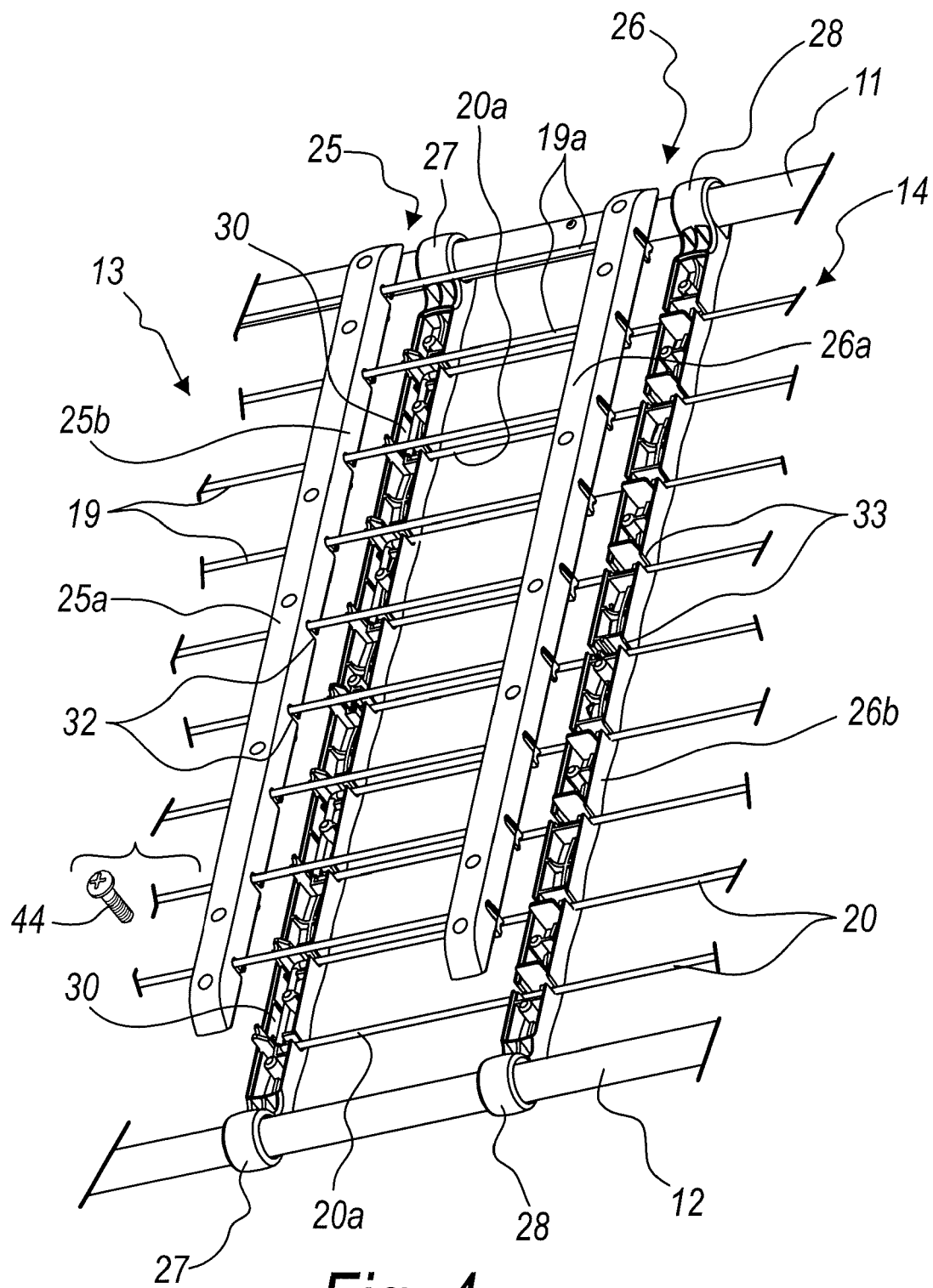
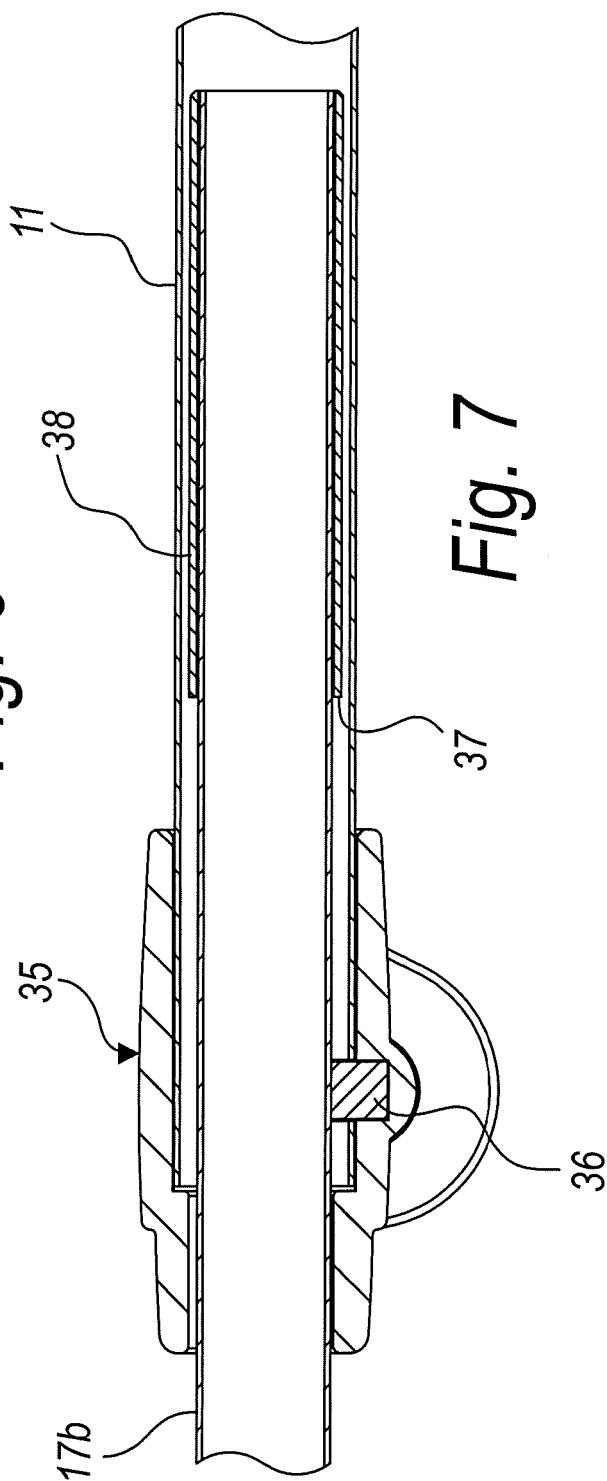
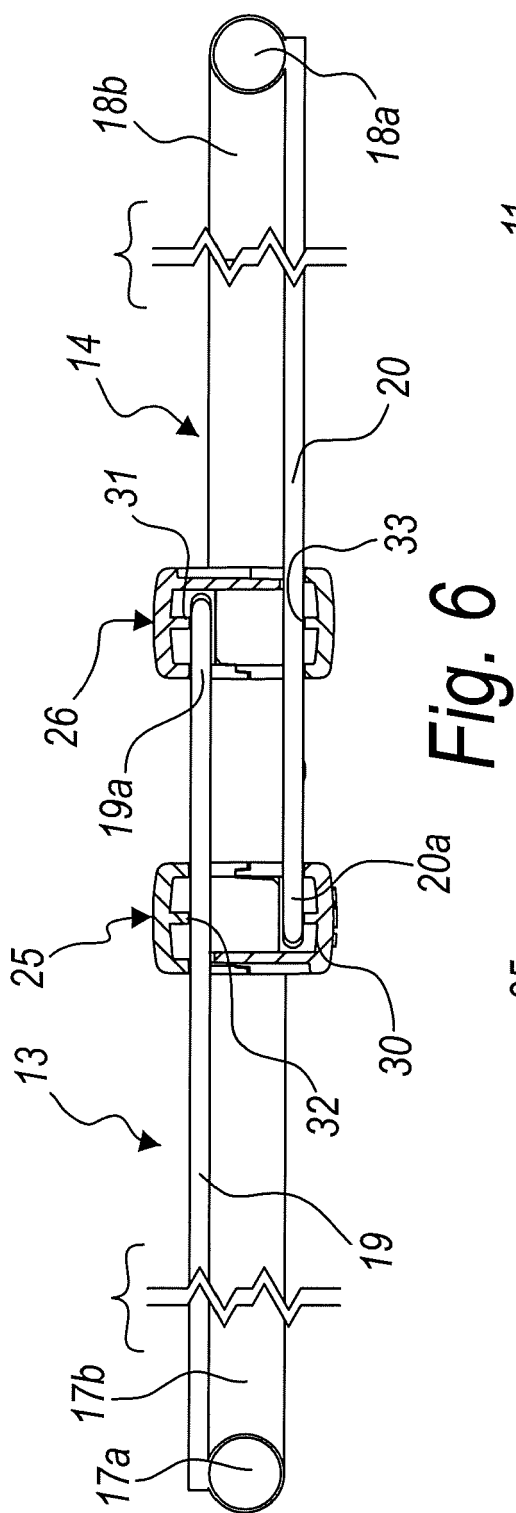


Fig. 4



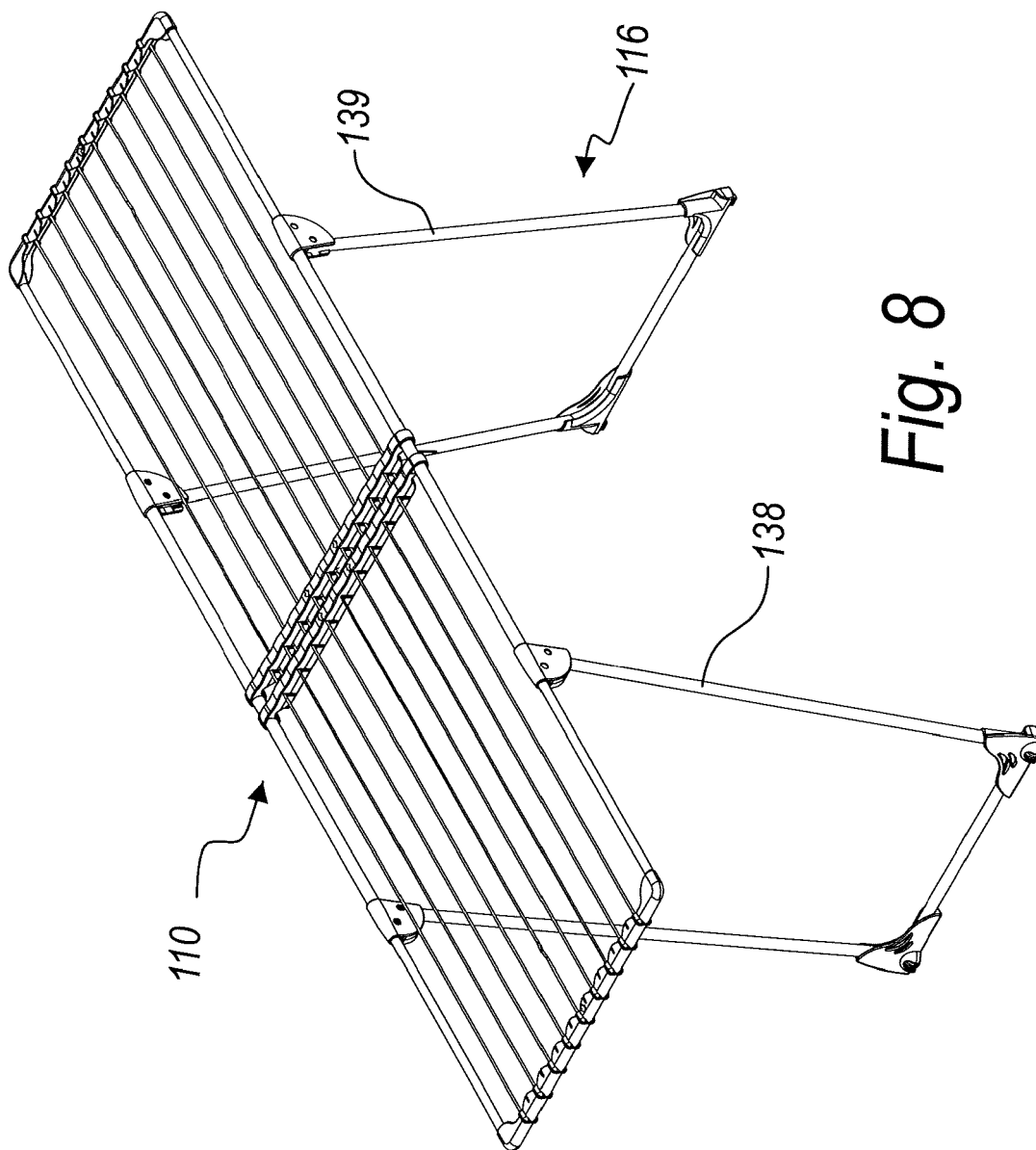


Fig. 8



EUROPEAN SEARCH REPORT

Application Number
EP 10 15 0781

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 609 476 A (LEIFHEIT AG [DE]) 10 August 1994 (1994-08-10) * column 1, line 29 - column 1, line 37 * * column 2, line 12 - column 3, line 12 * * column 3, line 56 - column 4, line 25 * * figures 1-3,7-9 *	1-6	INV. D06F57/08
X	DE 20 2004 011846 U1 (SUPERBETA S P A [IT]) 30 September 2004 (2004-09-30) * paragraphs [0016] - [0019] * * paragraphs [0028] - [0051] * * figures 1-7 *	1-2,4	
X	EP 1 790 767 A (GIMI S P A [IT]) 30 May 2007 (2007-05-30) * paragraphs [0009] - [0033] * * figures 1,2 *	1	
X	DE 20 2008 003345 U1 (CASA SI MARKETING UND VERTRIEB [AT]) 29 May 2008 (2008-05-29) * paragraphs [0015] - [0020], [0025] * * paragraphs [0035] - [0038] * * paragraphs [0041], [0043], [0045] * * figures 1-4 *	1-2	TECHNICAL FIELDS SEARCHED (IPC) D06F
X	EP 0 882 834 A (GARDEN S R L [IT]; ZUMBUEHL & CO HANDELSAGENTUR [CH]) 9 December 1998 (1998-12-09) * column 4, line 1 - column 5, line 19 * * column 7, line 19 - column 7, line 34 * * figures 1-6 *	1-2	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 February 2010	Examiner Weinberg, Ekkehard
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	

1
EPO FORM 1503 03.82 (P04C01)

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

EP 10 15 0781

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.

19-02-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0609476 A	10-08-1994	AT 122416 T DE 59300187 D1	15-05-1995 14-06-1995
DE 202004011846 U1	30-09-2004	NONE	
EP 1790767 A	30-05-2007	AT 455202 T IT PD20050096 U1	15-01-2010 28-02-2006
DE 202008003345 U1	29-05-2008	NONE	
EP 0882834 A	09-12-1998	AT 209718 T DE 59802206 D1 ES 2164393 T3 IT BS970066 U1	15-12-2001 10-01-2002 16-02-2002 04-12-1998

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- IT PD20090010 A [0047]