



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**15.08.2007 Bulletin 2007/33**

(51) Int Cl.:  
**A47G 25/40 (2006.01)**

(21) Application number: **07425071.3**

(22) Date of filing: **07.02.2007**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR**  
Designated Extension States:  
**AL BA HR MK YU**

(71) Applicant: **Ferrarini, Enrico**  
**57100 Livorno (IT)**

(72) Inventor: **Ferrarini, Enrico**  
**57100 Livorno (IT)**

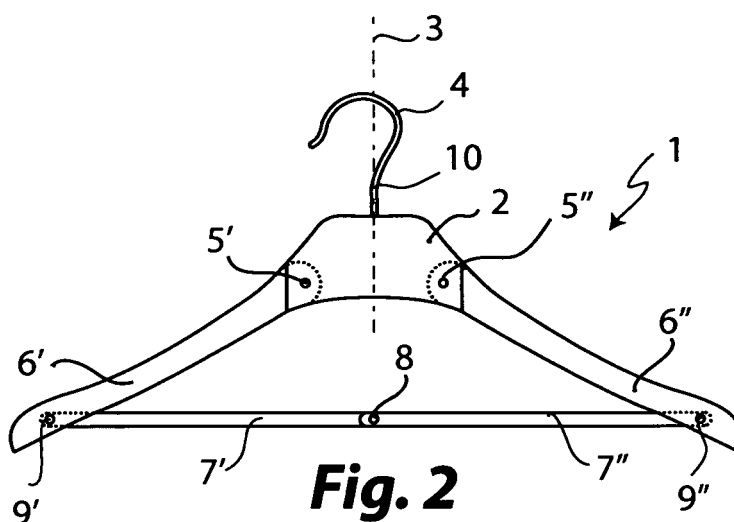
(74) Representative: **Santi, Filippo et al**  
**Barzanò & Zanardo Roma S.p.A.**  
**Via Piemonte 26**  
**I-00187 Roma (IT)**

(30) Priority: **07.02.2006 IT li20060002**

(54) **Dress-hanger with retractable arms**

(57) The present invention concerns a dress-hanger (1) with retractable arms, in correspondence and co-axially to the median axis (3) of which a hook is fixed (4), the structure of said dress-hanger being composed of a

central element (2), symmetrical with respect to said median axis (3), at the extremities of which, symmetrically with respect to said median axis (3), two retractable arms (6', 6''), identical to one another, are respectively hinged, around respective rotation pivots (5', 5'').





## Description

**[0001]** The present invention concerns a dress-hanger with retractable arms.

**[0002]** It is known that different kind of dress-hangers are commonly on trade, differing from each other because of their form, dimension and construction materials.

**[0003]** In particular, it is possible to distinguish between substantially two kinds of dress-hanger. A first kind, more traditional, is devoted to hang shirts, jackets or other peaces of cloth suitable for covering the bust of a wearer. This kind of dress-hanger is comprised of a structure provided with curved arms, symmetrical with respect to the median axis of the dress-hanger and placed in a way slightly sloping as the distance from the median axis increases, so that they approximately reproduce the form of the shoulders of a person. In correspondence of the median axis, the dress-hanger is further provided with a hook, fixed to the rest of the structure of the dress-hanger. Optionally, below the two arms, extending between the two distal ends thereof, a horizontal bar can be present, on which other pieces of clothes can be placed, in particular trousers, bent in two parts each on a different side of the bar, the pieces of clothes thus remaining hang to the bar. According to some more complicated embodiments of this kind of dress-hanger, on the bar can be further provided two pliers, which can be opened on their part facing downward and which are fixed or free to slide along the bar, as a function of the width of the piece of clothes (in particular trousers and skirts) hang to said pliers.

**[0004]** A second kind of dress-hanger is devoted specifically to sustain pieces of clothes by means of pliers, and consequently comprises more simply only a horizontal bar, at the centre of which a hook is provided dividing the bar in two symmetrical arms, on each of said arms being provided pliers, such as those seen with reference to the first kind of dress-hanger.

**[0005]** As a consequence of their conformation, the dress-hangers of this second kind have reduced dimensions with respect to the dress-hangers of the first kind, but are not suitable for sustaining clothes suitable for dressing the bust of a person (such as shirts, jackets or windcheaters).

**[0006]** The dress-hangers of both kinds are further unsuitable for sustaining clothes suitable for dressing at least the bust of a person, which can not be opened on a side and have narrow collar. In fact, in order to arrange this kind of clothes on such dress-hangers it is not possible to make the straps of the piece of clothes rest against the arms of the dress-hanger to this aim appropriately inserted under the piece of clothes passing through the collar, but it is necessary to slip the dress-hangers completely under the piece of clothes, passing through the lower part of the piece of clothes, operation that is much more uncomfortable because of the risk for the hook of damaging the piece of clothes.

**[0007]** It would be much better to have a kind of dress-hanger that can be used for all kinds of clothes, without the need for slipping it entirely (arms and hook) under the piece of clothes.

5 **[0008]** In order to achieve the aims hereinabove, it is proposed according to the present invention to have a dress-hanger which can be slipped under piece of clothes having a narrow collar through the collar itself and at the same time suitable for adequately sustaining said piece of clothes.

10 **[0009]** It is therefore an object of the present invention to realise a device allowing to overcome the limits of the devices according to the known technology and to achieve the technical results previously described.

15 **[0010]** A further object of the invention is that said device can be produced with costs substantially low.

**[0011]** Not least object of the invention is that of realising a device which is substantially simple, safe and reliable.

20 **[0012]** In this context it is developed the solution according to the present invention, the aim of which is that of providing a dress-hanger with retractable arms, which can take a first position, with closed arms, suitable for inserting said arms through the collar of a piece of clothes having a narrow collar and a second position, with open arms, suitable for hanging said piece of clothes.

25 **[0013]** It is therefore a first specific object of the present invention a dress-hanger with retractable arms, in correspondence and co-axially to the median axis of which a hook is fixed, the structure of which is composed by a central element, symmetrical with respect to said median axis, at the extremities of which, symmetrically with respect to said median axis, two retractable arms, identical to each other, are respectively hinged, around the respective rotation pivots.

30 **[0014]** Preferably, according to the invention, said dress-hanger alternatively comprises a horizontal bar, the extremities of which extend between the distal ends of said retractable arms and can slide along said retractable arms, or a horizontal bar, the extremities of which are hinged to the distal ends of said retractable arms, around the respective rotation pivots, and which is divided in two or more semibars, hinged to each other around rotation pivots.

35 **[0015]** Moreover, according to the present invention, said dress-hanger can comprise means of control of the rotation angle of said retractable arms around the respective rotation pivots.

40 **[0016]** The present invention will be now described, for illustrative, non limitative purposes, according to a preferred embodiment, with particular reference to the figures of the enclosed drawings, in which:

- 45 - figure 1 shows a front view of a first dress-hanger with retractable arms according to the present invention, with closed arms,
- figure 2 shows a front view of the dress-hanger of figure 1, with open arms,

- figure 3 shows a front view of a second dress-hanger with retractable arms according to the present invention, with closed arms,
- figure 4 shows a front view of a third dress-hanger with retractable arms according to the present invention, with closed arms,
- figure 5 shows a front view of a fourth dress-hanger with retractable arms according to the present invention, with closed arms, and
- figure 6 shows a front view of the dress-hanger of figure 5, with open arms.

**[0017]** Firstly, with reference to figures 1 and 2, the dress-hanger with retractable arms of the present invention is referred to as a whole with the numeral reference 1, and its structure is composed of a central element 2, in correspondence and co-axially to the median axis 3 of which a hook 4 is fixed. In correspondence of the extremities of said central element 2, symmetrically with respect to the median axis 3, two retractable arms 6', 6'', identical to each other, are respectively hinged, around respective rotation pivots 5', 5'', the rotation axes of which are perpendicular to a same plane tangent to said median axis 3.

**[0018]** The hinge coupling of the retractable arms 6', 6'' allows for the arms the possibility to take different positions around the respective rotation pivots 5', 5''. It is evident that such arms can take a plurality of positions turning between a position of maximum closing, as shown in figure 1, and a position of maximum opening, as shown in figure 2.

**[0019]** In order to coordinate the position of the two retractable arms 6', 6'', i.e. in order to define the positions of maximum opening and maximum closing, and further in order to ensure at any time the symmetry of the retractable arms 6', 6'' with respect to the median axis 3 during their movement from the closed position and the open position, the dress-hanger 1 can comprise elements for controlling the degree of opening of the arms. In particular, according to the embodiment shown with reference to the figures, said elements for controlling the degree of opening of the arms are comprised of a horizontal bar 7, divided substantially in the middle in two semibars 7', 7'', the proximal extremities of which are hinged to each other around a rotation pivot 8 and the distal ends of which are hinged to the extremities of the retractable arms 6', 6'' respectively around rotation pivots 9', 9''.

**[0020]** According to alternative embodiments, the horizontal bar 7 can be divided in a number of semibars greater than two, or can be realised in a single piece, the extremities of which can slide with respect to said retractable arms 6', 6'', or further can be absent.

**[0021]** In a preferred embodiment the opening of the arms can be controlled by means of a suitable system for controlling the rotation angle of the two semibars 7', 7'' around the rotation pivot 8.

**[0022]** In particular, with reference to figure 3, said system is comprised of an extension 11 of the stem 10 of the

hook 4, passing through the body of the central element 2 until it reaches the semibars 7', 7'', to which it is coupled (eventually by means of an articulated joint allowing its rotation around its axis). The extension 11 of the stem 10 can be threaded and the seat inside which the extension pass through the central element can be provided with a lead thread, so that turning the hook 4 around the stem 10, its extension 11 can go down or up with respect to the body of the central element 2, respectively pushing the semibars 7', 7'' downwards, opening the arms 6', 6'', or pulling the semibars 7', 7'' upwards, closing the arms 6', 6''.

**[0023]** Further, the opening degree of the retractable arms 6', 6'' can be determined, even in case the semibars 7', 7'' are not present, by means of other kinds of means for controlling the rotation angle of said arms around the respective rotation pivots 5', 5''. Such control means can comprise, as shown with reference to figure 4, a toothed coupling among a plurality of teeth 12 realised on a circular surface of each of the proximal ends of the retractable arms 6', 6'' having their centre respectively on the rotation pivot 5', 5'' and correspondent teeth 13 realised on the extension 11 of the stem 10 of said hook 4. According to this embodiment, by pushing the stem 10 of the hook 4 downwards the arms 6', 6'' would open up, while pulling it upwards the arms 6', 6'' would close.

**[0024]** In a similar way, on the extension 11 of the stem 10 of the hook 4 a worm screw can be provided, so that the opening of the arms 6', 6'' can be easily controlled by the user of the dress-hanger 1 causing the rotation of said hook 4 around its axis.

**[0025]** Finally, with reference to figures 5 and 6, a further embodiment of dress-hanger according to the present invention is shown, provided with a fastener 14 for blocking the position of the arms 6', 6'' in an open position.

**[0026]** The dress-hangers according to the present invention can be indifferently realised of wood, plastics or metal.

**[0027]** It is evident that the dress-hanger according to the present invention is capable of solving all the technical problems that were addressed to.

**[0028]** All things considered the solution according to the invention allows for achieving the following advantages:

- limiting the overall dimensions of the dress-hanger with respect to the overall dimensions of the traditional dress-hangers, in particular with reference to a large number of dress-hangers to be transported or stored, thanks to the possibility of storing such dress-hangers in closed position;
- easily slipping in and off the retractable arms of the dress-hanger in closed position, through the collar of a piece of clothes, even in case of closed and narrow collar;
- adjusting the overall width of the dress-hanger, simply by controlling the opening degree of the retract-

able arms.

**[0029]** The present invention was described for illustrative, non limitative purposes, according to its preferred embodiments, but it has to be understood that any variations and/or modifications can be made by the persons skilled in the art without for this reason escaping from the pertinent scope of protection, as defined according to the enclosed claims.

5

10

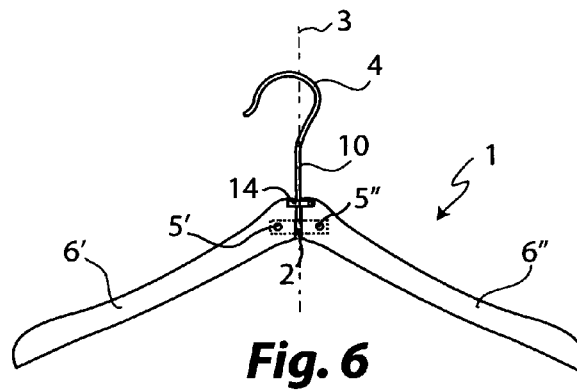
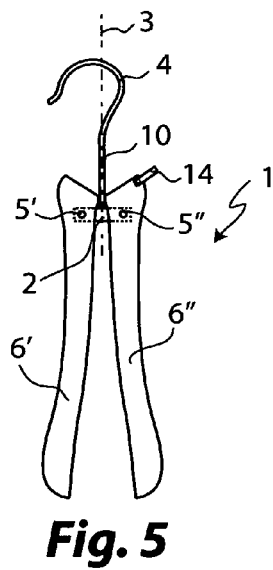
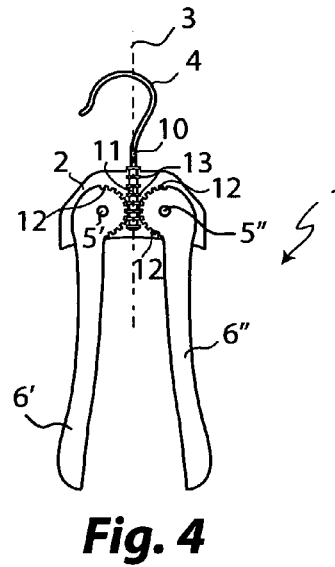
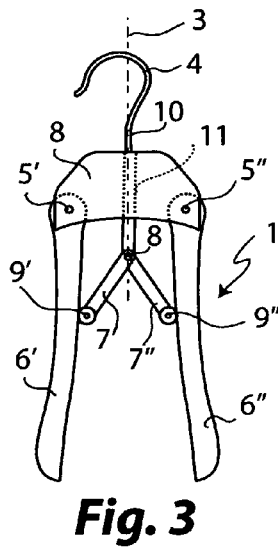
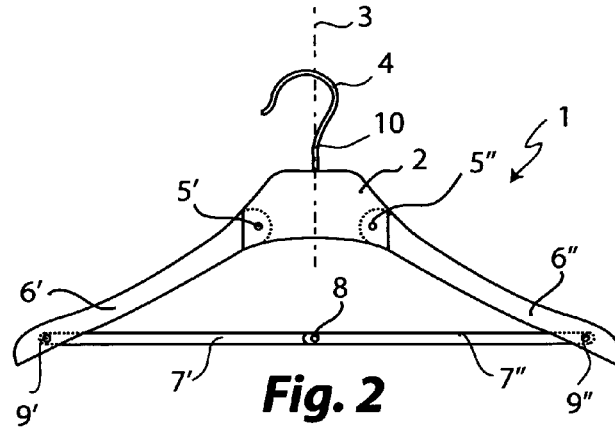
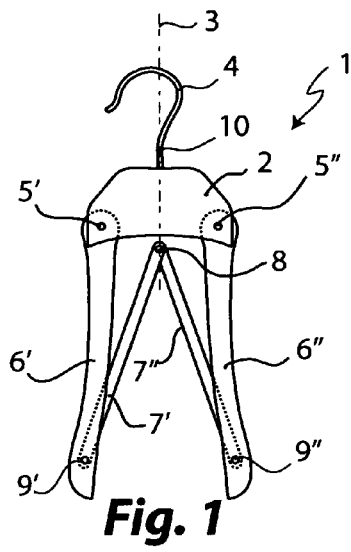
## Claims

1. Dress-hanger (1) with retractable arms, in correspondence and co-axially to the median axis (3) of which a hook is fixed (4), **characterised in that** its structure is composed of a central element (2), symmetrical with respect to said median axis (3), at the extremities of which, symmetrically with respect to said median axis (3), two retractable arms (6', 6''), identical to each other, are respectively hinged, around respective rotation pivots (5', 5''). 15 20
2. Dress-hanger (1) according to claim 1, **characterised in that** it comprises a horizontal bar (7), the extremities of which extend between the distal ends of said retractable arms (6', 6'') and can slide along said retractable arms (6', 6''). 25
3. Dress-hanger (1) according to claim 1, **characterised in that** it comprises a horizontal bar (7), the extremities of which are hinged to the distal ends of said retractable arms (6', 6''), respectively around rotation pivots (9', 9''), and which is divided in two or more semibars (7', 7''), hinged to each other around rotation pivots (8). 30 35
4. Dress-hanger (1) according to any of the previous claims, **characterised in that** it comprises means for controlling the rotation angle of said retractable arms (6', 6'') around the respective rotation pivots (5', 5''). 40

45

50

55





European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 07 42 5071

| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DE 199 00 567 A1 (WIEDEMANN TONI [DE])<br>13 July 2000 (2000-07-13)<br>* figures 12-15 *<br>* column 3, line 42 - column 6, line 2 *<br>----- | 1,4                                            | INV.<br>A47G25/40                          |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US 3 040 941 A (JOSEPH VARGO)<br>26 June 1962 (1962-06-26)<br>* the whole document *<br>-----                                                 | 1,3                                            |                                            |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FR 1 002 069 A (THUILLIER<br>EUGENE-HIPPOLYTE)<br>3 March 1952 (1952-03-03)<br>* the whole document *<br>-----                                | 1,3,4                                          |                                            |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DE 198 22 097 A1 (GAVRILOV DIMITRI [DE])<br>25 November 1999 (1999-11-25)<br>* column 2, line 33 - line 45 *<br>* figures *<br>-----          | 1                                              |                                            |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CH 275 374 A (CROSAZZO VITTORIO [IT])<br>31 May 1951 (1951-05-31)<br>* page 1, line 24 - line 37 *<br>* figures *<br>-----                    | 1,4                                            | TECHNICAL FIELDS<br>SEARCHED (IPC)<br>A47G |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US 2 881 965 A (PAUL FETKO)<br>14 April 1959 (1959-04-14)<br>* figures 1,2 *<br>* column 1, line 57 - column 2, line 15 *<br>-----            | 1,2                                            |                                            |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US 2 418 870 A (CROWDER FREDRICK A)<br>15 April 1947 (1947-04-15)<br>* figures 1,6 *<br>* column 2, line 5 - line 8 *<br>-----                | 1-3                                            |                                            |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               |                                                |                                            |
| Place of search<br>The Hague                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                               | Date of completion of the search<br>7 May 2007 | Examiner<br>van Overbeek, Kajsa            |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                                                                                                               |                                                |                                            |

2

EPO FORM 1503 03.82 (P04C01)

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

EP 07 42 5071

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.

07-05-2007

| Patent document<br>cited in search report |    | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|----|---------------------|----------------------------|---------------------|
| DE 19900567                               | A1 | 13-07-2000          | NONE                       |                     |
| US 3040941                                | A  | 26-06-1962          | NONE                       |                     |
| FR 1002069                                | A  | 03-03-1952          | NONE                       |                     |
| DE 19822097                               | A1 | 25-11-1999          | NONE                       |                     |
| CH 275374                                 | A  | 31-05-1951          | NONE                       |                     |
| US 2881965                                | A  | 14-04-1959          | NONE                       |                     |
| US 2418870                                | A  | 15-04-1947          | NONE                       |                     |

EPO FORM P0459

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