

QUICK-TO-USE CLOTHES HANGER SUITABLE FOR SMALL COLLARS

BACKGROUND OF THE INVENTION

[0001] Technical Field

[0002] The present disclosure relates to the technical field of clothes hangers and, in particular, to a quick-to-use clothes hanger suitable for small collars.

5 [0003] Description of Related Art

[0004] For small-collar clothes, or children's clothes, it is difficult to pass traditional clothes hangers through small collars and it takes a long time to hang the clothes. So it is very inconvenient to use the traditional clothes, and there is also the risk of tearing the clothing.

[0005] There are also some clothes hangers with movable support arms on the market, but
 10 most of their functions are for convenient folding and storage during traveling, and they do not have the function of quickly and conveniently hanging and taking off small-collar clothes. In addition, the structural design of a foldable clothes hanger is complex, and it is impossible to complete the clothes hanging procedures with one hand while the other hand is holding clothes:
 ① folding the hanger; ② passing the hanger through the collar; ③ unfolding the hanger; ④
 15 locking the hanger. So the foldable clothes hanger is not suitable for small-collar clothes.

[0006] In view of this, the present disclosure is intended to provide a quick-to-use clothes hanger suitable for small collars in order to better solve the above problems.

BRIEF SUMMARY OF THE INVENTION

20 [0007] In order to solve the above problems, the present disclosure provides a quick-to-use clothes hanger suitable for small collars, which has simple structure and low cost. By arranging movable arms and a releasing assembly, the clothes hanger can be used to quickly and flexibly hang and take off small-collar clothes.

[0008] The technical solution adopted by the present disclosure is as follows:

25 [0009] A quick-to-use clothes hanger suitable for small collars, comprising a hand-held end, at least one movable arm, a releasing assembly and a returning component, wherein

[0010] the movable arm is mounted on the hand-held end;

[0011] the releasing assembly is mounted on the hand-held end and in linkage with the movable arm to drive the movable arm close to the hand-held end to pass through a small collar;
 30 or to drive the movable arm away from the hand-held end to open and to lock the movable arm to support clothes;

[0012] the returning component is mounted on the hand-held end and connected with the

movable arm and/or the releasing assembly.

[0013] Further, the releasing assembly comprises a release rod and a locking link rod;

[0014] the locking link rod is respectively connected with the release rod and the movable arm to automatically lock the movable arm when the movable arm returns.

5 [0015] Further, the locking link rod is configured as an integrated linkage rod.

[0016] Further, the quick-to-use clothes hanger suitable for small collars further comprises a switch component, arranged on the hand-held end and connected with or in linkage connection with the release rod.

[0017] Further, the hand-held end is provided with a hook and the hand-held end is provided
10 with a wind-proof stopper near an opening of the hook.

[0018] Further, the switch component is provided with an anti-slip structure.

[0019] Further, the switch component is configured as a press button.

[0020] Further, the hand-held end is provided with a fixed arm and the fixed arm is configured to work with the movable arm to support clothes.

15 [0021] Further, two movable arms are provided, and the two movable arms are arranged on a left side and a right side of the hand-held end and are respectively connected with or in linkage connection with the release rod.

[0022] Further, the releasing assembly comprises a movable link rod and a roller, the movable arm is provided with a sliding groove, one end of the movable link rod extends into
20 the sliding groove and pushes against an inner wall of the sliding groove in a movable manner, and the roller is arranged at a joint between the release rod and the movable arm.

[0023] The beneficial effects of the present disclosure are as follows:

[0024] The quick-to-use clothes hanger of the present disclosure comprises a hand-held end, at least one movable arm, a releasing assembly and a returning component, wherein the
25 movable arm is mounted on the hand-held end; the releasing assembly is mounted on the hand-held end and in linkage with the movable arm to drive the movable arm close to the hand-held end to pass through a small collar; or to drive the movable arm away from the hand-held end to open and to lock the movable arm to support clothes; the returning component is mounted on the hand-held end and connected with the movable arm and/or the releasing assembly. The
30 present disclosure features simple structure and reasonable design. In use, a user holds the hand-held end with one hand and presses the releasing assembly so that the releasing assembly is in linkage with the movable arm and the movable arm is driven to close to pass through the small collar quickly. After the user releases the releasing assembly, the movable arm is returned to open by the returning component and the movable arm is locked by the releasing assembly

to hang clothes. In this way, the clothes hanger can be used to hang the small-collar clothes quickly.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

- 5 [0025] FIG. 1 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in an open state;
- [0026] FIG. 2 is a schematic structural diagram of the clothes hanger in FIG. 1 in a closed state;
- [0027] FIG. 3 is a schematic structural diagram of a clothes hanger in some embodiments of
10 the present disclosure in an open state;
- [0028] FIG. 4 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in an open state;
- [0029] FIG. 5 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in a closed state;
- 15 [0030] FIG. 6 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in an open state;
- [0031] FIG. 7 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in an open state;
- [0032] FIG. 8 is a schematic structural diagram of the clothes hanger in FIG. 7 in a closed
20 state;
- [0033] FIG. 9 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in an open state;
- [0034] FIG. 10 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in an open state;
- 25 [0035] FIG. 11 is a schematic structural diagram of the clothes hanger in FIG. 10 in a closed state;
- [0036] FIG. 12 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in a closed state;
- [0037] FIG. 13 is a schematic structural diagram of the clothes hanger in FIG. 12 in an open
30 state;
- [0038] FIG. 14 is a schematic structural diagram of a clothes hanger in some embodiments of the present disclosure in a closed state;
- [0039] FIG. 15 is a schematic structural diagram of the clothes hanger in FIG. 14 in an open state;

[0040] FIG. 16 is a schematic structural diagram of the clothes hanger in FIG. 14 from another perspective;

[0041] Reference numerals: 1. hand-held end; 2. hook; 12. fixed arm; 2. movable arm; 21. sliding groove; 3. releasing assembly; 31. release rod; 32. locking link rod; 33. movable link rod; 34. Roller; 4. returning component; 5. switch component; A. wind-proof stopper; B. hanging hook.

DETAILED DESCRIPTION OF THE INVENTION

[0042] The technical solution of the present disclosure will be described clearly and completely below in conjunction with the accompanying drawings, and it will be apparent that the embodiments described herein are merely some, not all of the embodiments of the present disclosure. Based on the embodiments of the present disclosure, all other embodiments obtained by those of ordinary skill in the art without creative work fall within the scope of the present disclosure.

[0043] In the description of the present disclosure, it should be noted that the orientation or position relationships indicated by the terms such as "up", "down", "left", "right", "vertical", "horizontal", "inside", "outside", "front" and "rear" are based on the orientation or position relationships shown in the accompanying drawings and are used only for the convenience of describing the present disclosure and simplifying the description, rather than indicating or implying that the device or element referred to must have a specific orientation, be constructed and operated in a specific orientation. Therefore, they should not be construed as limiting the present disclosure.

[0044] In the description of the present disclosure, it should be noted that, unless otherwise expressly specified and limited, the terms such as "mounted", "connected with" and "connect" shall be understood broadly, for example, they may refer to fixed connection, detachable connection, or integrated connection; they may refer to mechanical connection; they may refer to direct connection, or indirect connection by an intermediate medium. For those of ordinary skill in the art, the specific meanings of the above terms used in the present disclosure can be understood according to specific circumstances.

[0045] Embodiment 1

[0046] Referring to FIGS. 1-3, the quick-to-use clothes hanger suitable for small collars according to this embodiment comprises a hand-held end 1, at least one movable arm 1, a releasing assembly 3 and a returning component 4, wherein

[0047] the movable arm 2 is mounted on the hand-held end 1;

[0048] the releasing assembly 3 is mounted on the hand-held end 1 and in linkage with the movable arm 2 to drive the movable arm 2 close to the hand-held end 1 to pass through a small collar; or to drive the movable arm 2 away from the hand-held end 1 to open and to lock the movable arm 2 to support clothes;

5 [0049] the returning component 4 is mounted on the hand-held end 1 and connected with the movable arm 2 and/or the releasing assembly 3.

[0050] Specifically, in this embodiment, the releasing assembly 3 comprises a release rod 31 and a locking link rod 32;

[0051] the locking link rod 32 is respectively connected with the release rod 31 and the
10 movable arm 2 to automatically lock the movable arm 2 when the movable arm 2 returns.

[0052] Further, the quick-to-use clothes hanger suitable for small collars in this embodiment further comprises a switch component 5, arranged on the hand-held end 1 and connected with or in linkage connection with the release rod 31.

[0053] This embodiment features simple structure and reasonable design. It is equivalent to
15 that one end of the clothes hanger is a fixed arm 12 which is arranged as one with the hand-held end. In use, a user holds the hand-held end 1 with one hand and presses the switch component 5 with this hand, and the switch component 5 then drives the release rod 31 to be in linkage with the movable arm 2 so that the movable arm is driven to close to pass through the small collar quickly. After the user releases the switch component 5, the returning
20 component 4 acts so that the movable arm 2 is returned to open. The movable arm 2 is locked by the locking link rod to hang clothes. In this way, the clothes hanger can be operated to hang the small-collar clothes quickly with one hand.

[0054] In this embodiment, referring to FIG. 1 for the schematic diagram of the movable arm 2 in an open state and in this case, the locking link rod 32 locks the movable arm 2 and the
25 clothes can be hung firmly. Referring to FIG. 2 for the schematic diagram of the movable arm 2 in a closed state and in this case, because the movable arm 2 is in the closed state, the clothes hanger can flexibly pass through the small collar to hang the clothes.

[0055] In this embodiment, due to the arrangement of the returning component 4, the movable arm 2 can be conveniently driven to return. For clothes with small support strength
30 requirements, the returning component 4 may also be omitted, but the movable arm 2 needs to be returned manually in use, and the clothes may be hung infirmly and may get loose, causing inconvenience.

[0056] In this embodiment, in order to increase the use convenience, a hook 11 may be arranged on the hand-held end 1. With a simple structure, the hook 11 can be hung more

conveniently than a clip and other structures.

[0057] The quick-to-use clothes hanger in this embodiment can be used widely, almost across all clothes hanger fields, for clothes drying, storage, or supermarket use. Although the movable arm 2 is used for supporting clothes, the releasing assembly 3 can provide strong support and high load bearing after returning and locking, and it is very easy to press a release button for unlocking to take the clothes hanger out. Most importantly, different from the traditional quick-to-release clothes hanger with complex structure and high cost, the clothes hanger provided in this embodiment has simple structure, low cost and strong market competitiveness.

[0058] When using the clothes hanger provided in this embodiment, the user need to hold clothes with one hand and can do the following procedures with only the other hand: ① closing the clothes hanger; ② pass the clothes hanger through a collar; ③ open the clothes hanger; and ④ locking the clothes hanger. The entire use process can be completed in at most 1.2 seconds, while it usually takes 5-6 seconds to use ordinary clothes hangers to hang small-collar clothes, and if the material of the clothes has poor stretch, it will take longer. To take the clothes off the clothes hanger provided in this embodiment, the user only needs to press the releasing assembly 3 and it takes about 0.5 seconds, while it takes 2-3 seconds for the ordinary clothes hangers. Therefore, the clothes hanger in this embodiment can be operated and used more conveniently.

[0059] Embodiment 2

[0060] In this embodiment, the switch component 5 is configured as a switch button for press operation.

[0061] Referring to FIGS. 1-16, in order to prevent slip during pressing, an anti-slip structure may be arranged on the switch component 5. Specifically, the anti-slip structure may be configured as anti-slip lines or a press ring.

[0062] In use, the switching component 5 may be connected with or in linkage connection with the release rod 31, and then extends out of the hand-held end 1 for a pressing operation.

[0063] Referring to FIGS. 1-3 and 7-8, the switch component 5 extends out from the bottom of the hand-held end 1. Referring to FIGS. 4, 5-6, and 9-16, the switch component 5 extends out from the top of hand-held end 1, which makes the pressing operation more convenient and the use quicker. In addition, because the switch component 5 is arranged above the hand-held end 1, this arrangement is suitable for turtleneck clothes. If the switch component 5 is arranged at the bottom of the hand-held end 1, the switch component 5 will sink under the collar and the

user cannot see the switch component 5 when taking the clothes off the hanger, resulting in inconvenient use.

[0064] Embodiment 3

[0065] Referring to FIGS. 4-6, the difference between this embodiment and Embodiment 1 is that in this embodiment, the releasing assembly 3 comprises a movable link rod 33, the movable arm 2 is provided with a sliding groove 21, and one end of the movable link rod 33 extends into the sliding groove 21 and pushes against an inner wall of the sliding groove 21 in a movable manner.

[0066] In this embodiment, the releasing assembly 3 is configured as a movable link rod 33, and the movable arm 2 is provided with a sliding groove 21, so that the movable link rod 33 and the movable arm 2 are in a sliding connection for linkage control. The structure is simple and the operation is convenient, but there is loss in the sliding process.

[0067] Referring to FIG. 6, a roller 34 may be arranged at a joint between the movable link rod 33 and the movable arm 2 to greatly reduce friction, thereby reducing loss during sliding and improving durability.

[0068] Embodiment 4

[0069] Referring to FIGS. 7-9, on the basis of Embodiment 1, two movable arms 2 are provided in this embodiment, and the two movable arms 2 are simultaneously opened or closed for hanging clothes. However, in this embodiment, in use, the two movable arms 2 need to pass through the collar at the same time and align with two sleeves, resulting in a reduction in operation speed. The clothes hanger in this embodiment is not as convenient to use as the clothes hanger in Embodiments 1-3, and in use of the clothes hanger in this embodiment, the release rod 31 needs to be controlled to slide on a midline track, otherwise the movable arm 2 cannot move simultaneously, thereby affecting the use.

[0070] Specifically, the clothes hanger in Embodiments 1-3 is provided with a fixed arm 12, and in use, the fixed arm 12 passes through one sleeve firstly, and then the movable arm 2 passes through the collar and then through the other sleeve. However, in use of the clothes hanger in this embodiment, the release rod 31 needs to be controlled to slide on the midline track, otherwise the movable arm 2 cannot move simultaneously, thereby affecting the use.

[0071] Embodiment 5

[0072] On the basis of the above embodiments, referring to FIGS. 10-16, In this embodiment, the switch component 5 is arranged above the hand-held end 1, and the locking link rod 32 is connected with the movable arm 2 and the release rod 31 in a movable manner respectively, and the release rod 31 is in linkage connection with the switch component 5. In use, the switch

component 5 is pressed and then the release rod 31 is driven to rotate, thereby achieving the linkage control over the movable arm 2. Because the switch component 5 is arranged above the hand-held end 1, this arrangement is suitable for turtleneck clothes. If the switch component 5 is arranged at the bottom of the hand-held end 1, the switch component 5 will sink under the collar and the user cannot see the switch component 5 when taking the clothes off the hanger, resulting in inconvenient use.

[0073] In addition, in this embodiment, as shown in part A in FIG. 16, a wind-proof stopper may be provided near an opening of the hook 11. The wind-proof stopper is integrally formed on the whole clothes hanger to play a windproof role, thereby preventing the clothes hanger from falling during the process of hanging or taking off clothes and improving practicality.

[0074] In addition, in this embodiment, as shown in part B in FIG. 16, a hanging hook may be arranged on one side of the fixed arm 12, and in other embodiments, a hanging hook may also be optionally arranged at an appropriate position on the hand-held end 1 and/or the fixed arm 12, so that another clothes hanger can be hung on the hanging hook, thereby improving the storage practicability.

[0075] The above embodiments only describe several implementations of the present disclosure, and their description is specific and detailed, but cannot therefore be construed as limiting the scope of the present disclosure. It should be noted that those of ordinary skill in the art may further make variations and improvements without departing from the concept of the present disclosure, and these all should fall within the scope of the present disclosure. Therefore, the scope of the present disclosure shall be based on the appended claims.

CLAIMS

What is claimed is:

1. A quick-to-use clothes hanger suitable for small collars, comprising a hand-held end, at least one movable arm, a releasing assembly and a returning component, wherein
 - 5 the movable arm is mounted on the hand-held end;
the releasing assembly is mounted on the hand-held end and in linkage with the movable arm to drive the movable arm close to the hand-held end to pass through a small collar; or to drive the movable arm away from the hand-held end to open and to lock the movable arm to support clothes;
 - 10 the returning component is mounted on the hand-held end and connected with the movable arm and/or the releasing assembly.
2. The quick-to-use clothes hanger suitable for small collars according to claim 1, wherein the releasing assembly comprises a release rod and a locking link rod;
 - 15 the locking link rod is respectively connected with the release rod and the movable arm to automatically lock the movable arm when the movable arm returns.
3. The quick-to-use clothes hanger suitable for small collars according to claim 2, wherein the locking link rod and the release rod are configured as integrated linkage rods.
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4. The quick-to-use clothes hanger suitable for small collars according to claim 2, further comprising a switch component, arranged on the hand-held end and connected with or in linkage connection with the release rod.
- 25 5. The quick-to-use clothes hanger suitable for small collars according to claim 4, wherein the hand-held end is provided with a hook and the hand-held end is provided with a wind-proof stopper near an opening of the hook.
6. The quick-to-use clothes hanger suitable for small collars according to claim 4, wherein
 - 30 the switch component is provided with an anti-slip structure.
7. The quick-to-use clothes hanger suitable for small collars according to claim 4, wherein the switch component is configured as a press button.

8. The quick-to-use clothes hanger suitable for small collars according to claim 5, wherein the hand-held end is provided with a fixed arm and the fixed arm is configured to work with the movable arm to support clothes.
- 5 9. The quick-to-use clothes hanger suitable for small collars according to claim 5, wherein two movable arms are provided, and the two movable arms are arranged on a left side and a right side of the hand-held end and are respectively connected with or in linkage connection with the release rod.
- 10 10. The quick-to-use clothes hanger suitable for small collars according to claim 1, wherein the releasing assembly comprises a movable link rod and a roller, the movable arm is provided with a sliding groove, one end of the movable link rod extends into the sliding groove and pushes against an inner wall of the sliding groove in a movable manner, and the roller is arranged at a joint between the release rod and the movable arm.