

PATENT SPECIFICATION

(11)

1 556 481

1 556 481

(21) Application No. 43332/76 (22) Filed 19 Oct. 1976

(44) Complete Specification published 28 Nov. 1979

(51) INT. CL.³ D06F 53/00

(52) Index at acceptance
A4U 4F 4P 4T



(54) APPARATUS FOR SUSPENDING ARTICLES OF WASHING

(71) I, LAM HON KIT, a British subject of Flat B8, Botanic Terrace, Block B, 5 Conduit Road, Hong Kong, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to apparatus for use in suspending articles of washing.

According to the present invention there is provided apparatus for use in suspending articles of washing, comprising a beam, a pair of pulleys which can be fixed to the beam at spaced apart locations, a rope, cord or the like which can be engaged with the pulleys to form an endless drive member, and a plurality of carrier members each provided with a portion which can be engaged with the beam in a manner enabling it to be moved along the beam and supported by the beam, each carrier member having means enabling it to be drivably engaged with a run of said endless drive member and being provided with means for gripping an article of washing.

Preferably each carrier member is provided with rollers which can be engaged with the beam.

Preferably the means on each carrier member for drivably engaging the endless drive member comprises a manually actuable clip which can be held in an "off" position whereby the drive member can be moved through the clip and an "engaged" position in which the clip is in gripping engagement with the endless drive member.

The means on each carrier for gripping an article of washing preferably comprises a spring loaded clothes peg.

An embodiment of the invention will now be described, by way of an example, with reference to the accompanying drawings, in which:—

Figure 1 is a diagrammatic perspective

view of the assembled apparatus.

Figure 2 is a diagrammatic perspective view of the component parts of the apparatus.

Figure 3 is a section taken along the line 3-3 of Figure 1.

Figure 4 is a section taken along the line 4-4 of Figure 3.

Figure 5 is a section taken along the line 5-5 of Figure 3, and

Figure 6 is a section taken along the line 6-6 of Figure 3.

The apparatus includes a box-section beam 10 which is provided with a longitudinal slot 11. Preferably the beam 10 is formed of aluminium but it may be formed of any other suitable metal or be formed of plastics material. The beam 10 may be coated with a coating material if necessary. The cross-sectional shape of the beam 10 may also be of any suitable shape but its cross-sectional shape will be chosen so that it will not bend excessively when a full load of wet heavy washed articles are suspended by the apparatus. The beam 10 is formed in two lengths which are interconnected by a hinge 12 so that the lengths can be folded about the hinge 12 to lie one against the other for storage or transportation. One length of the beam 10 is provided at one end with portions 13 which when the two lengths are in alignment overlap the other length and fastening screws 14 are provided to fasten the two lengths together. It will be appreciated that the beam 10 may be formed as a single length or it may consist of three or more lengths. Although not shown, the beam 10 will be provided with means enabling it to be fixed to a support structure above the ground. In use the beam 10 is located in a horizontal position above the ground with the slot 11 lowermost.

The apparatus also includes a pair of pulleys 15 each mounted on a mounting

16 having a portion 17 which can be passed through the slot 11 in the beam 10 and engage the portion of the beam on each side of the slot 11. The portion 17 is provided with a clamp member 18 which serves to clamp the mounting 16 to the beam 10. When the mounting 16 is clamped to the beam 10 the axis of the associated pulley 15 is disposed to one side of the slot 11. A drive member 19 in the form of a rope or cable or the like is provided with a connector 20 which serves to join the ends thereof together.

A plurality of carrier members 21 are provided. Each carrier member 21 consists of a member 22 formed of plastics material and of a width sufficient for it to extend through the slot 11 in the beam 10. At one end of each member 22 there are provided a pair of rollers 23 which when the member 22 is mounted on the beam 10 engage with the beam 10 on each side of the slot 11 and are movable along the beam 10. The member 22 of each of the carrier members 21 is provided with member 24 extending at right angles thereto and on which is hingedly mounted a member 25, the members 24 and 25 together form a clip generally indicated at 26 which can be engaged with one run of the drive member 19. The clip 26 is manually actuated and includes a mechanism 27 whereby when the member 25 is pressed once the clip 26 will engage and grip the drive member 19 and when pressed again will disengage the drive member 19. At the other end of each member 22 there is provided a spring loaded clothes peg 28 which consists of two arms 29 which are loaded by a part-circular plate spring 30 which extends through an aperture 31 in the member 22.

In order to assemble the parts of the apparatus the two lengths of beam 10 are swung about the hinge 12 and fastened together by the screws 14. The beam 10 is then mounted in the position for use. The mounting 16 of one pulley 15 is engaged with the beam 10 and positioned at one end thereof. The clamp member 18 of that mounting 16 is used to clamp the mounting 16 in position. A desired number of carrier members 21, complete with their clips 26 and clothes pegs 28, are then engaged with the beam 10 so that their rollers 23 can run along the beam 10. The clothes pegs are suspended from the bottom of their respective carrier members 21. The other mounting 16 of a pulley 15 is then engaged with the beam 10 and positioned at the other end thereof. The ends of the member 19

are then interconnected by the connector 20 to form an endless drive member which is passed around the pulleys 15. The member 19 is tensioned and the last mounted mounting 16 is clamped to the beam 10. One run of the endless member 19 passes through the open clamps 26. The endless member 19 is then moved by hand around the pulleys 15 to position the connector on the other run of the member 19 close to the pulley 15 located farthest from the point at which loading of articles is to take place. The apparatus is now ready for use.

In using the assembled apparatus all of the carrier members 21 are brought to the end of the beam 10 corresponding to the loading position. The articles of washing are engaged with the pegs 28 and the clamp 26 of the end carrier member 21 is clamped to the endless member 19. The user pulls the endless member 19 with one hand and as the articles spread apart the clamp 26 of the next carrier member 21 is operated to clamp it to the endless member 19 and so on. In order to collect articles from the apparatus the steps of operation are reversed.

WHAT I CLAIM IS:—

1. Apparatus for use in suspending articles of washing, comprising a beam, a pair of pulleys which can be fixed to the beam at spaced apart locations, a rope, cord or the like which can be engaged with the pulleys to form an endless drive member, and a plurality of carrier members each provided with a portion which can be engaged with the beam in a manner enabling it to be moved along the beam and supported by the beam, each carrier member having means enabling it to be drivably engaged with a run of said endless drive member and being provided with means for gripping an article of washing.

2. Apparatus as claimed in claim 1, in which each carrier member is provided with rollers which can be engaged with the beam.

3. Apparatus as claimed in claim 1 or claim 2, in which said means on each carrier member for drivably engaging the endless drive member comprises a manually actuable clip which can be held in an "off" position whereby the drive member can be moved through the clip and an "engaged" position in which the clip is in gripping engagement with the endless drive member.

4. Apparatus as claimed in any preceding claim, in which said means on each carrier for gripping an article of washing comprises a spring loaded clothes peg.

16 having a portion 17 which can be passed through the slot 11 in the beam 10 and engage the portion of the beam on each side of the slot 11. The portion 17 is provided with a clamp member 18 which serves to clamp the mounting 16 to the beam 10. When the mounting 16 is clamped to the beam 10 the axis of the associated pulley 15 is disposed to one side of the slot 11. A drive member 19 in the form of a rope or cable or the like is provided with a connector 20 which serves to join the ends thereof together.

A plurality of carrier members 21 are provided. Each carrier member 21 consists of a member 22 formed of plastics material and of a width sufficient for it to extend through the slot 11 in the beam 10. At one end of each member 22 there are provided a pair of rollers 23 which when the member 22 is mounted on the beam 10 engage with the beam 10 on each side of the slot 11 and are movable along the beam 10. The member 22 of each of the carrier members 21 is provided with member 24 extending at right angles thereto and on which is hingedly mounted a member 25, the members 24 and 25 together form a clip generally indicated at 26 which can be engaged with one run of the drive member 19. The clip 26 is manually actuated and includes a mechanism 27 whereby when the member 25 is pressed once the clip 26 will engage and grip the drive member 19 and when pressed again will disengage the drive member 19. At the other end of each member 22 there is provided a spring loaded clothes peg 28 which consists of two arms 29 which are loaded by a part-circular plate spring 30 which extends through an aperture 31 in the member 22.

In order to assemble the parts of the apparatus the two lengths of beam 10 are swung about the hinge 12 and fastened together by the screws 14. The beam 10 is then mounted in the position for use. The mounting 16 of one pulley 15 is engaged with the beam 10 and positioned at one end thereof. The clamp member 18 of that mounting 16 is used to clamp the mounting 16 in position. A desired number of carrier members 21, complete with their clips 26 and clothes pegs 28, are then engaged with the beam 10 so that their rollers 23 can run along the beam 10. The clothes pegs are suspended from the bottom of their respective carrier members 21. The other mounting 16 of a pulley 15 is then engaged with the beam 10 and positioned at the other end thereof. The ends of the member 19

are then interconnected by the connector 20 to form an endless drive member which is passed around the pulleys 15. The member 19 is tensioned and the last mounted mounting 16 is clamped to the beam 10. One run of the endless member 19 passes through the open clamps 26. The endless member 19 is then moved by hand around the pulleys 15 to position the connector on the other run of the member 19 close to the pulley 15 located farthest from the point at which loading of articles is to take place. The apparatus is now ready for use.

In using the assembled apparatus all of the carrier members 21 are brought to the end of the beam 10 corresponding to the loading position. The articles of washing are engaged with the pegs 28 and the clamp 26 of the end carrier member 21 is clamped to the endless member 19. The user pulls the endless member 19 with one hand and as the articles spread apart the clamp 26 of the next carrier member 21 is operated to clamp it to the endless member 19 and so on. In order to collect articles from the apparatus the steps of operation are reversed.

WHAT I CLAIM IS:—

1. Apparatus for use in suspending articles of washing, comprising a beam, a pair of pulleys which can be fixed to the beam at spaced apart locations, a rope, cord or the like which can be engaged with the pulleys to form an endless drive member, and a plurality of carrier members each provided with a portion which can be engaged with the beam in a manner enabling it to be moved along the beam and supported by the beam, each carrier member having means enabling it to be drivably engaged with a run of said endless drive member and being provided with means for gripping an article of washing.

2. Apparatus as claimed in claim 1, in which each carrier member is provided with rollers which can be engaged with the beam.

3. Apparatus as claimed in claim 1 or claim 2, in which said means on each carrier member for drivably engaging the endless drive member comprises a manually actuable clip which can be held in an "off" position whereby the drive member can be moved through the clip and an "engaged" position in which the clip is in gripping engagement with the endless drive member.

4. Apparatus as claimed in any preceding claim, in which said means on each carrier for gripping an article of washing comprises a spring loaded clothes peg.



11

5. Apparatus as claimed in any preceding claim, in which each pulley is provided with a mounting which includes a clamp for clamping it to the beam.
- 5 6. Apparatus as claimed in claim 5, in which the axis of each pulley is displaced to one side of the clamp.
7. Apparatus as claimed in any preceding claim, in which the beam is of box-section.
- 10 8. Apparatus as claimed in any preceding claim, in which the beam is formed in at least two lengths hinged one to the other, means being provided for fastening the lengths together in end-to-end relationship.
9. Apparatus as claimed in any preceding claim, in which the beam is formed of aluminium.
10. Apparatus for use in suspending articles of washing, substantially as hereinbefore described with reference to the 20 accompanying drawings.

For the Applicant,
D. YOUNG & CO.
Chartered Patent Agents
9 & 10 Staple Inn
London WC1V 7RD

Printed for Her Majesty's Stationary Office by The Tweeddale Press Ltd., Berwick-upon-Tweed, 1979
Published at the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.



* C L M S *