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2,910,753

CLOTHESPIN

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Application January 25, 1957, Serial No. 636,355

1 Claim. (Cl. 24—138)

This invention relates to clothespins and more particularly to clothespins of the one piece resilient type which exerts a spring like grip on the article to be hung.

A principal object of the present invention is the provision of an improved clothespin composed of resilient material such as plastic or the like and of generally circular configuration having no projecting legs or other protuberances and wherein the clothes or line gripping portions of the pin are confined entirely within the area defined by the outer periphery of the pin.

Another object of the invention is the provision of a clothespin of the above character wherein the area between the outer periphery of the pin and the gripping portion is cut out to provide space permitting the pins to be stacked on the fingers during clothes hanging and which provide a readily engaged handle for removing the pins from the clothes line when the wash is dry.

Another object of the invention is the provision of a clothespin which depends for its gripping action on the resilience of an outer ring suitably slotted with inwardly projecting clothes engaging jaws which may be joined by an inner ring and wherein the outer ring alone or in conjunction with the inner ring exerts a spring like closing action on the jaws to clamp the clothes to the line with a force that increases as the pin is moved downwardly onto the line.

Still another object of the invention is the provision of circular easily handled clothes pins which are capable of being neatly packaged in tubular containers for shipment, for display in retail establishments, or for storage at their place of use.

Still another object of the invention is the provision of clothespins which may be readily left on the clothesline after the clothes have been removed.

Other objects and their attendant advantages will become apparent as the following detailed description is read in conjunction with the accompanying drawings wherein:

Fig. 1 is a front elevation of one embodiment of the clothespin of the present invention;

Fig. 2 is a sectional view taken substantially on the line 2—2 of Fig. 1.

Figs. 3, 4 and 5 are front elevational views respectively of second, third and fourth embodiments of the present invention.

Referring particularly to Fig. 1 there is shown a clothespin 10 which may be made of plastic or other suitable material, having a ring-like outer portion 12 provided with a slot 14 having opposed camming surfaces 16 forming an entrance for a clothes line between two opposed jaw members 18 which project inwardly into the circular area 20 defined by the inner walls of the ring member 12. Integrally connecting the upper or inner ends of the jaw members 18 is an inner ring 22 defining a circular opening 24 which is connected to the exterior of the pin by way of the slot 14. Each jaw is correspondingly notched as at 26 and 28 to provide opposed grip-

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ping surfaces when the pin has been forced downwardly over clothes on a clothesline.

The space 20 between the outer and inner rings 12, 22 provides a finger grip or handle for manipulating the clothespin and in addition this space permits the rings to have a spring-like flexibility tending to return the jaws to the position of the drawing when spread apart by being forced onto a clothesline. It will be apparent that because of the length of the lever arm between the top of the pin and the entrance to the slot 14, less force will be required to spread the jaws sufficiently for the clothesline to be accommodated in the outer notches 28 than it would be for the line to be engaged in the inner notches 26. Consequently, holding pressure of the jaws increases as the pin is moved down over the line and there will be substantially greater holding power when the clothes are engaged on the line in the inner notches 26 than in the outer notches 28. It will be observed that not only does the outer ring provide spring like flexibility for the jaws but spring action is exerted adjacent the point of entrance of the line and clothes thus tending to prevent a permanent jaw spread at this point which normally occurs after prolonged use in clothespins of the usual type having outwardly extending legs.

The opening 24 defined by the inner ring 22 can be used to stack the pins of the invention on the fingers when clothes are being hung and also can serve as a means for supporting the pins on the line after the clothes have been removed. In addition the inner ring can be used as a handle for removing the pins from the line. In order to accommodate the fingers it should be understood that the opening 24 can have any convenient size.

The embodiment of the invention shown in Fig. 3 is substantially the same as that shown in Fig. 1 except that only a single notch 30 is provided in shorter jaws 32 and an inner ring 34 joining the jaws 32 is therefore located nearer the bottom edge of the outer ring 36. Thus a considerably larger cutout space 38 is provided between the inner and the outer rings to accommodate the fingers of the user, particularly where it may be desired to stack several pins on the fingers when clothes are being hung. Additionally by having the inner ring nearer the outer ring greater force is required to open the jaws and consequently there is provided greater gripping power of the jaws on the clothes than in the embodiment of Fig. 1.

In the embodiment shown in Fig. 4, the outer ring 40 and the arrangement of the jaws 42 are substantially the same as in the previous embodiments except that the jaws are not provided with an inner ring connecting their inner ends. As in the previous cases, the ring 40 exerts its spring action at the point of entrance of the clothesline to prevent a permanent spread in the jaws after prolonged use. The jaws 42 in the embodiment of Fig. 4 are provided with respective inner and outer notches 44, 46 and, as in the case of Fig. 1 and for the same reasons, greater gripping power is exerted by the inner notches 44 than by the outer ones 46.

The embodiment disclosed in Fig. 5 is substantially the same as in Fig. 1 except that here the inner ring 50 is concentrically disposed with respect to the outer ring 52 thus providing a lever arm intermediate the lengths of the arms in the embodiment of Figs. 1 and 3 and with a correspondingly intermediate force being exerted by the jaws on the clothes.

From the above description the manner of use of the clothespin of the present invention should be apparent. The invention provides a compact substantially circular clothespin having gripping jaws which are resiliently urged to clothes gripping position by the action of either one or two spring-like rings with one of the springs act-

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ing at all times on a point adjacent the entrance to the clothes-receiving jaws and the second ring, where used, acting on the opposite end of the jaws to provide assured spring-like gripping action of the jaws on the clothes. Furthermore, with the arrangement described, an increased gripping action is achieved as the jaws are forced over the clothes and line to insure retention of even heavy wash on the line. In addition, convenient finger engaging spaces are provided which serve either as means for stacking the pins on the fingers during hanging or as handles to remove the pins from the dried clothes. In addition, the opening afforded by the inner ring, where used, or by a single outer ring afford convenient means for storing the pins on the clothes line when not in use. It should also be noted that with a circular configuration afforded by the pins of the present invention, they are susceptible of being packaged in tubular form where they provide attractive displays on retail counters. It should be apparent that the pin of the invention is susceptible of various modifications without, however, departing from the scope and spirit of the appended claim.

What is claimed is:

A plastic clothespin comprising a flat circular resilient ring having an outer peripheral face and an inner peripheral face defining a circular opening and having a

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slot extending from the outer peripheral face through said ring, a pair of opposed notched jaw members each integrally joined at one end to the inner peripheral face of said ring on opposite sides of said slot and defining therewith a line-gripping passage extending inwardly into said circular opening defined by said inner peripheral face of said ring, a second resilient ring having an outer peripheral face and an inner peripheral face defining a circular opening of less size than said first opening and having a diameter greater than the width of said passage, said second ring having a slot extending from the outer peripheral face through said ring, the opposite ends of said jaw members being integrally joined to said second ring on opposite sides of the slot extending therethrough.

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