March 13, 1951 L. F. SEAMAN 2,544,967

CLOTHESPIN AND SUPPORT THEREFOR

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Fig. 1.

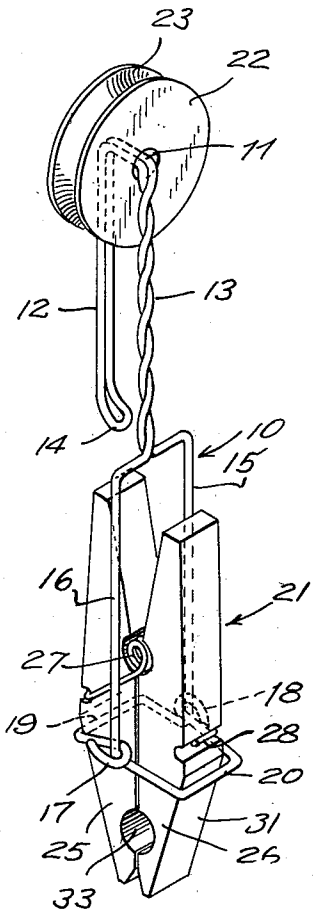


Fig. 2.

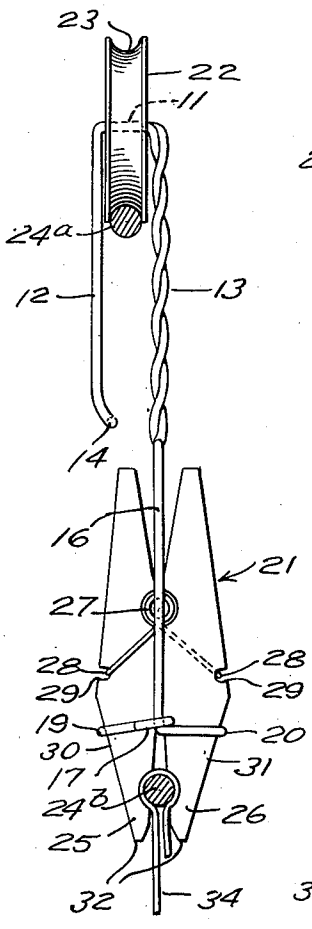
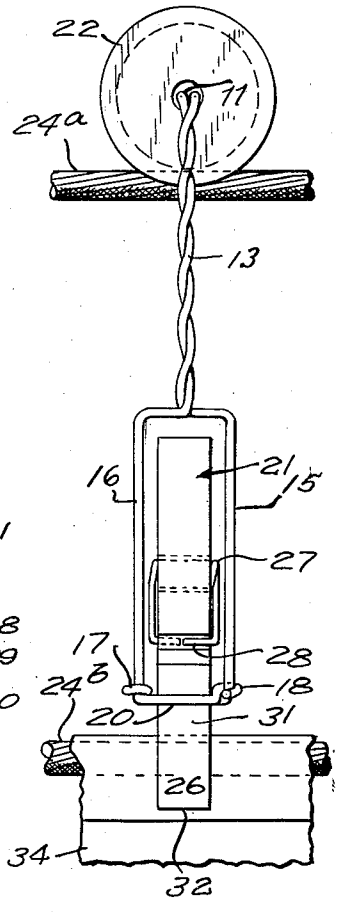


Fig. 3.



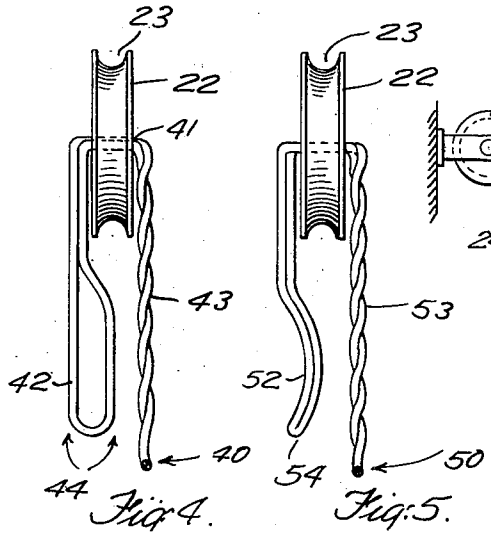


Fig. 4.

Fig. 5.

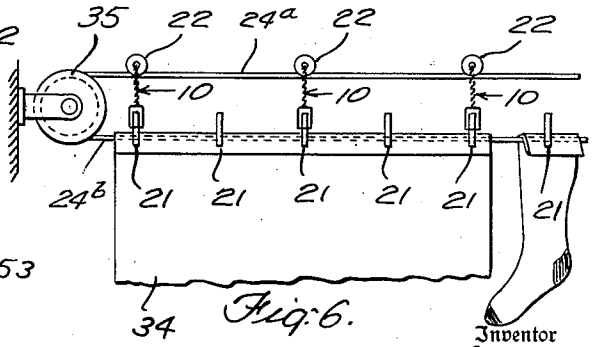


Fig. 6.

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CLOTHESPIN AND SUPPORT THEREFOR

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6 Claims. (Cl. 24—84)

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This invention relates to a clothespin and a support therefor.

An object of the invention is to improve the means for supporting the wash on a clothesline for drying and for reducing the amount of sag of the line.

One of the other objects of the invention is to improve the means for supporting clothing for drying on a double line.

Another object is to provide a clothespin which is adapted for engagement by a frame which will avail of support by the upper line of a pulley-type double washline.

Another object is to provide a clothespin adapted to be engaged and locked by a frame to prevent pinned articles from slipping free of the clothespin jaws.

An additional object is to provide a support bracket for cooperation with a clothespin for combined double-line support of an article of clothing and a clothesline.

A further object is to provide an improved clothespin and support combination for use with a double clothesline, providing the convenience of placing the support wherever desired or required.

A still further object is to provide substantially double-line strength for supporting the load on the clothesline.

Yet another object is to furnish upper line support at any point along the line regardless of the length of any piece of laundry which may be hung on the line as, for instance, a long curtain or sheet hung lengthwise on the line.

In hanging a wash on a clothesline of the pulley type the wash is usually attached by clothespins to the lower line which is then payed out as the wash is attached at the point of access at one end by pulling in the upper line and allowing it to pass around the pulley at the access end, the line passing around another pulley at the remote end of the line. As the line becomes loaded with clothes the lower line has a tendency to sag well below the upper line which tends to stretch and straighten under the tension of the load on the lower line, thereby increasing the sagging of the lower line. A feature of the present invention resides in an improved clothespin support frame which is used in combination with a clothespin to provide support by the upper line for the lower line and the clothing hung thereon so that sagging of the lower line is substantially reduced or prevented.

In the drawing:

Figure 1 is a perspective view of a clothespin and sag preventer;

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Figure 2 is a side elevation of the clothespin and sag preventer mounted on a clothesline;

Figure 3 is a face elevation thereof;

Figure 4 is a fragmentary view illustrating a modified construction for the frame of the sag preventer;

Figure 5 shows a further modification; and

Figure 6 illustrates one method of utilizing the clothespin and sag preventer of the present invention.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring to the drawing, and particularly Figures 1, 2 and 3, the sag preventer comprises a wire frame generally designated by the reference numeral 10. The wire may be galvanized or enameled iron of sufficient stiffness to resist bending under the heaviest load which will be encountered in service. The wire is doubled upon itself and bent substantially into a hook shape at its upper end to provide a short transverse portion 11 and a pair of downwardly extending portions 12 and 13 in spaced parallel relation. Portion 12 comprises the loop provided when the wire was doubled upon itself, the end 14 of portion 12 being turned inward slightly toward portion 13. The two strands of portion 13, which comprises the main body of the frame, may be twisted together as shown to increase the rigidity of the frame.

At its lower end the two strands of wire comprising portion 13 are bent outwardly and then downwardly to provide a pair of spaced side bars 15 and 16 which extend downwardly in spaced parallel relation. The lower ends of side bars 15 and 16 are each bent at right angles and then bent to provide U-shaped portions 19 and 20, the free ends being bent into loops 17 and 18 respectively embracing the bend in the opposite strand. The two U-shaped portions 19 and 20 together form a substantially rectangular socket in which a clothespin 21 may be received.

Grooved traveler wheel 22, similar to a pulley wheel, and formed of wood or metal is pivoted on transverse portions 11 of the wire frame as an axle, the wheel being placed into position before the completion of the bends in the wire. Downwardly extending portions 12 and 13 of the frame extend down along opposite faces of wheel 22 and beyond the edge of the wheel. The groove 23 in the rim of the wheel is of such dimensions that it will ride easily upon a clothesline of standard size as shown in connection with line 24a in Figures 2 and 3. Portions 12 and 13 of the frame serve as guard members to prevent unintentional disengagement of the grooved wheel

from the clothesline. However, it will be apparent that the support frame may readily be positioned on the line by simply hooking portion 12 over the line, this portion guiding the clothesline 24a into the groove of the wheel.

Clothespin 21 is a snap type clothespin comprising a pair of snap jaws 25 and 26 formed, for example, of wood or plastic, the jaws being held together and urged toward each other by a wire spring 27 wound into a coil mounted between the jaws and having its ends bent into hooked portions 28 received in grooves 29 on the outer faces of the two jaws. The lower portions 30 and 31 respectively of the outer faces of the jaws 25 and 26 are tapered inwardly toward the working tip 32 of the clothespin. When the clothespin is received in the wire socket aperture formed by loops 19 and 20 the opposed edges of the aperture-forming wire parts embrace the lower tapered portions 30 and 31 of the snap jaws. The point of engagement with the socket is below the pivot point of the jaws which, in the clothespin illustrated is at the coil spring 27, the inner faces of the jaws being beveled away from each other above this point.

It is obvious that variations are possible in the relative positions of coil 27 and notches 29 with respect to the clothespin jaws. For example, notches 29 can be located in tapered portions 30 and 31 of the jaws instead of the position illustrated.

Clothespin jaws 25 and 26 are provided with complementary grooves which together form the mouth 33 of the clothespin. These complementary grooves are shaped, as better appears from Figures 2 and 3, to obtain a good grip on the clothesline 24b. When the clothespin and support are put into use as shown in Figures 2 and 3 the support is hooked over the upper line 24a to place grooved wheel 22 in position on the line and clothespin 21 is lifted partly out of the wire socket and is then snapped over the lower clothesline 24b over which a piece of laundry 34 has been placed for drying, the clothesline 24b and the piece of laundry 34 being entered into the complementary grooves of the mouth 33, as shown. The clothespin is then drawn by the weight of the garment and line 24b into seating position in the wire socket.

The increased downward pull caused by the garment or the clothesline 24b results in increased clamping action of the clothespin jaws 25 and 26 on the garment and line due to the wedging action of jaw faces 30 and 31 in the wire socket. The clothing is effectively locked to the line and the line is effectively locked to the pin by the coaction between the clothespin and the socket 19—20 of the frame and thus the downward pull caused by the clothesline is effectively transmitted to the clothespin 21 as a whole to insure that the inclined or tapered faces 30, 31 are stressed downwardly as viewed in Figures 2 and 3 to increase the wedging action and thus further to tighten the grip of the jaws 26 and 26 on the clothesline and other parts carried thereby. Moreover, the upper line 24a contributes to the support of the lower line and of the wash suspended thereon and prevents bellying or sagging of the lower line.

Figure 4 shows a modified frame construction in which the wire frame 40 is formed of a piece of wire doubled upon itself to provide a loop 44 at the lower end of downwardly extending guard portion 42, the loop being shaped so that the outer wire thereof extends substantially straight down, the loop 44 being bent around in a smooth gradual curve so that the inner wire of the loop is spaced from the twisted body 43 of the frame just enough to permit the clothesline to enter and be guided into the groove 23 in traveler wheel 22. Transverse portion 41 and frame portion 43 are similar to like portions of frame 10.

Figure 5 illustrates a further modification in which the outer wire of guard portion 52 is also curved inwardly so that loop 54 at the bottom of portion 52 is formed of two inwardly curved strands in contact with each other. This provides a hook having a wide mouth spread to permit it to be readily hooked over a line, and a narrow throat to permit entry of the line by slight spreading of the guard portions 52 and 53. The narrow throat prevents the traveller and frame from becoming disengaged from the line due to jarring or bouncing during use.

Figure 6 illustrates one method of using the device of the invention which comprises using support frames 10 and associated clothespins 21 alternately with clothespins 21 which are not accompanied by a support member. As the clothesline 24 is fed outward from the under side of pulley 35 at the access point at one end of the line and the wash is attached to the line the traveler wheels 22 ride out along upper line 24a as the frames 10 are drawn outward by the lower line 24b. When the wash is brought in the reverse travel takes place. Traveler wheels 22 riding on upper line 24a and the frames 10 and associated clothespins 21 afford support for lower line 24b at points sufficiently close together to prevent objectionable sagging thereof.

An advantage of the present invention resides in the fact that support of the line can be achieved at any point independently of the presence of large pieces of laundry on the line. As illustrated in Figure 6, for example, the large sheet or bedspread 34 which occupies several feet of the line can be supported along with the line by frames 10 combined with pins 21 located in the center and at the ends of the piece, and clothespins 21 can be used separately at intermediate positions. The presence of laundry on the line does not interfere with the use of the supoprts at any point required.

According to another method of using the device of the invention the traveler wheel is positioned on a single clothesline or on the lower line of a double line and the clothespin 21 is used to support a garment or piece of laundry entirely out of contact with the line. This is useful in the drying of delicate garments in which it is important to avoid contact with any smudge which might be present on a dirty clothesline. It is also useful in special situations to avoid contact with tree branches, to permit use of a line too high for normal easy reach and other purposes which will occur to the user.

While the present invention, as to its objects and advantages, has been described with respect to specific embodiments thereof it is intended that the invention be broadly construed within the spirit and scope of the appended claims.

What is claimed is:

1. A clothes carrier and clothes line supporting device comprising a pair of jaw members, the outer faces of said jaw members being tapered toward their lower ends, a spring attached to said jaws pivotally joining them together and urging their tapered ends together, the adjacent inner faces of the tapered portion of said jaws being provided with opposed reentry slots form-

ing an aperture adapted to receive the lower reach of a clothes line, a grooved wheel adapted to engage and travel on the upper reach of a clothes line and means interconnecting said pulley and the tapered portion of said jaws and including a portion comprising an axle for said wheel and arms projecting downwardly from said axle in substantially parallel relation, said arms having at their lower ends means providing two opposed relatively rigid parts the plane of which is substantially horizontal, the said outer tapered faces of said jaw members resting in engagement respectively with said two relatively rigid parts for coaction therewith to wedge the lower ends of said jaw members toward each other.

2. A device of the character described comprising a frame having an upright arm provided with means at its upper end to engage over and ride along the upper reach of a clothesline and having at its lower end two spaced parallel arms terminating at their lower ends in a four-sided socket the plane of which is at right angles to the plane of said parallel arms, and a clothespin comprising two pivotally connected lever members of the first class having upper end portions forming finger-piece parts that extend respectively to either side of the plane of said parallel arms and having opposed lower portions that project through said socket and that have external opposed faces that are downwardly convergent and together form a wedge with respect to the correspondingly opposed sides of said socket, said lower opposed portions of said two lever members having complementary grooves in their adjacent faces to engage and grip the lower reach of the clothesline so that the downward pull of the latter is transmitted to the clothespin and the opposed lower portions of the latter are wedged toward each other more tightly by the coaction of said convergent faces and the opposed sides of said socket.

3. A construction as claimed in claim 2, in which said two lever members of the clothespin are pivotally connected together by spring means that has two arms respectively engaging said two lever members to urge their lower opposed portions toward each other to effect gripping action thereby, whereby, upon upward movement of the clothespin relative to said socket, the converging opposed faces of said lower portions are displaced out of wedging relation to said socket and said lever members may be manually actuated at their upper opposed finger-piece portions to effect gripping of the lower reach of the clothesline.

4. A construction of the character described comprising a frame having a traveler at its upper end adapted for low-friction engagement with a clothesline and having at its lower end means forming a socket having two opposed parts that fall in a plane at right angles to the line of said frame and that are relatively unyielding in relation to each other, and a pair of opposed gripping-jaw elements having external opposed relatively inclined edge faces seated in said socket with said edge faces in respective engagement with said two opposed rigid parts of said socket and coacting with the latter to wedge said gripping-jaw elements toward each other.

5. A construction as claimed in claim 4, in which said frame comprises two strands of wire twisted together throughout a predetermined length and then extend, by bends, away from each other and downwardly to form two opposed vertically extending arms each of which terminates at its lower end, by bends, in complementary substantially U-shaped portions which together form the aforesaid socket, the free end of each U-shaped portion being secured to the upright arm from which the other U-shaped portion extends, whereby the two bases of said U-shaped portions form the aforesaid opposed parts of the socket and are held against material relative movement.

6. A construction of the character described comprising a frame having means at its upper end for engaging a clothesline, said frame comprising a downwardly extending vertical portion of two strands of wire which, at their lower ends, extend, by bends, into opposed and complementary substantially U-shaped portions the plane of which is substantially horizontal, thereby forming a substantially rectangular socket for receiving a clothespin, the free end of each of said U-shaped portions being looped around the vertical wire from which the other U-shaped portion extends, whereby said two U-shaped portions are held together against material relative separation.

LEWIS F. SEAMAN.

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