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CLOTHESLINE PULLEY ASSEMBLY

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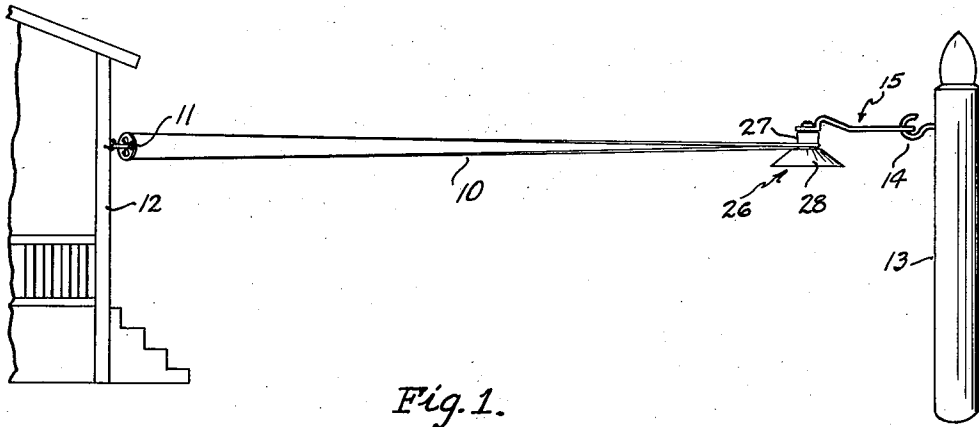


Fig. 1.

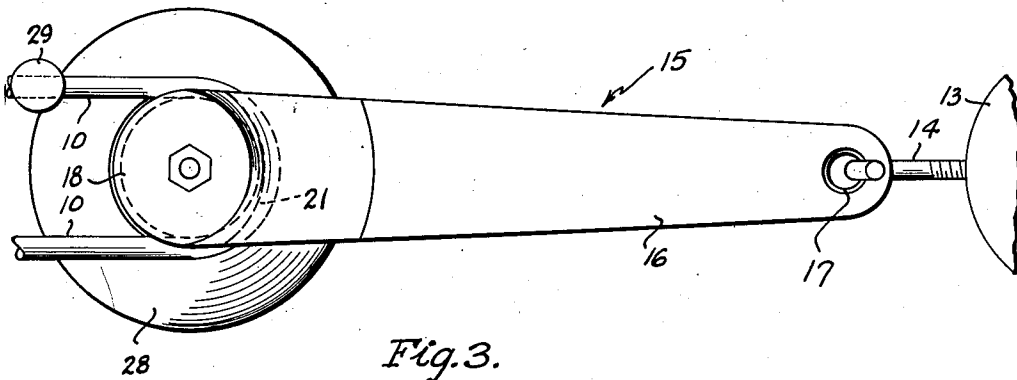
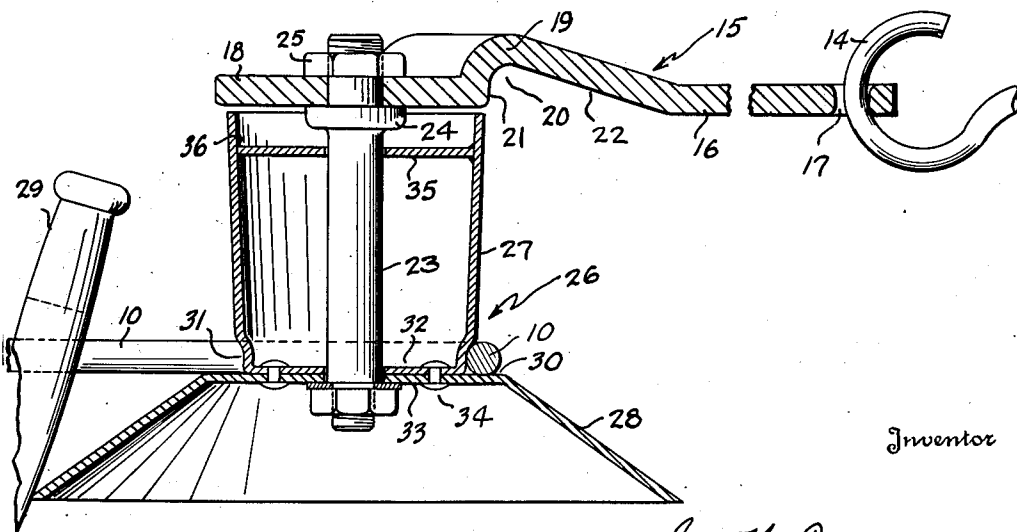


Fig. 3.



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Fig. 2.

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CLOTHESLINE PULLEY ASSEMBLY

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3 Claims. (Cl. 254-190)

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This invention relates to a clothesline supporting means, more particularly to a clothesline pulley assembly, and has for an object to provide such a device particularly for supporting the outer end of a double clothesline in such a manner that the line may easily be shifted when loaded with clothes, but also so that both runs of the line can be used for supporting the clothes and the line will be capable of readily running around the pulley while the clothes are supported on it, without difficulty, and without loosening or displacing the clothespins.

Another object is to provide a structure of this character which may readily adjust itself to different conditions and loads, and which is so constructed that the clothesline will always automatically maintain a proper position on the device for most effective operation.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawing forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In this drawing:

Fig. 1 shows a double clothesline with my improved assembly supporting the outer end thereof;

Fig. 2 is a section of the device on a larger scale and

Fig. 3 is a top plan view on a somewhat reduced scale.

The usual double run clothesline is indicated at 10 running over a pulley 11 of any suitable construction supported at the house on, for example, a post 12 of a porch where the line is easily accessible, and the outer end is supported on a pole or post 13, for example, from any suitable support, preferably a hook 14. The outer pulley assembly comprises a bracket or support 15 comprising a tapered arm 16, preferably a substantially flat strip of metal provided with an opening 17 at its outer end having curved walls to seat over the hook 14, the opening preferably being larger than the hook, so that with its curved walls it is free to rock or oscillate on the hook, not only laterally but also up and down, to accommodate the device to different conditions on the line, as, for instance, should it become slack, or more heavily loaded on one side than the other, or other changing conditions. At its other end, the support 15 is provided with a head portion 18 which is preferably substantially flat, and between this head portion and the arm portion 16 is offset upwardly and transversely curved, as shown at 19, to provide a transverse curved groove 20 and at its forward side with an upright transverse curved shoulder

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21, the opposite wall 22 tapering gradually from the deepest part of the groove to the under side of the arm.

Mounted in this head portion 18 and depending therefrom is a supporting bolt or stud 23 rigidly mounted in the head portion in any suitable manner. A convenient and satisfactory way is to provide the bolt or stud with a head or shoulder 24 spaced from its upper end, seating against the under side of the head portion 18, the portion above this flange being passed through an opening in the head 18 and threaded to receive a clamping nut 25 whereby the bolt may be securely clamped to this head portion.

Mounted to rotate on this bolt or stud is a pulley construction 26 comprising an upper body portion 27 and a lower tapered flange portion 28. The upper body portion 27 is preferably somewhat tapered, with its larger diameter at its upper end, and the flange portion 28 is located at the lower end of this body portion and is substantially frusto-conical in shape so as to taper downwardly and outwardly from the lower end of the body portion. The angle of the taper may vary, but it is preferably from about 30 to about 45 degrees to the horizontal and should be such as to permit the line with clothes on it held by the standard type of clothespin 29 to run around the edge without disconnecting the pins. There is also preferably formed at the upper end of the tapered flange portion 28 a horizontal shoulder 30 which is somewhat larger than the diameter of the lower end of the body portion 27, to thus form a horizontal shoulder or shelf to support the line 10, and prevent it from running down onto the tapered flange 28 as the line slackens. It is also preferred to provide in the lower end portion of the body portion 27 a shallow groove 31 immediately above the shoulder or shelf 30 to prevent the line moving up on this body portion on a small slack in the line, which would permit the pulley to swing downwardly a relatively small amount, but would not retain the line against moving up on the body portion on a much greater dropping of the pulley.

The body portion 27 and the flange portion 28 may be formed in one piece, but a much lighter weight construction is substantially that shown in the drawing, in which the body 27 is a hollow relatively thin metal construction closed at its lower end 32, with the tapered flange portion 28 having a horizontal top wall 33 at the under side of the wall 32 and secured thereto by any suitable means, such as the rivets 34, the flange portion 28 being also of sheet metal, but of proper gauge to provide the proper strength. A disc 35 may be secured in the upper part of the body portion by any suitable means, such for example, as welding to the body portion, as indicated at 36, to provide an upper bearing for the device on

the bolt 23, the lower bearing being provided with the two walls 32 and 33.

In operation, with the line 10 of proper tightness it will run around the groove 31 and on the shoulder 30. As the clothes are hung on either side of the line they may be adjusted outwardly by shifting the line in the usual manner. As they reach this pulley assembly, they can readily pass around it without being detached from the line when held by the standard pins 29. The lower or depending portions of these pins merely engage the rim of the tapered flange 28, as indicated in Figs. 2 and 3, and this flange will merely cause the pins to be tipped or inclined without loosening or disconnecting them from the line, and they will merely pass around the pulley with the clothes without becoming loosened or detached. Sagging of the device by the weight of the clothes or stretching of the line will not cause the line to run down on the tapered flange 28, but it will be supported on the horizontal shoulder 30 and be retained in proper running position on the body portion 27. The taper of this body portion 27 with the largest diameter at the top will tend to cause the line to run downwardly on this body portion so as to automatically locate itself at the lower end thereof unless the outer end of the support 15 with the pulley should drop considerably to cause the line to move upwardly on this body portion. The groove 31, however, will retain this line at the lower end of the body portion for ordinary sagging of the line and dropping of the pulley, but after it has dropped to a certain angle, say about 45 degrees or lower, the line will run up the body portion 27 into the groove 29. This groove supports the line off the pulley and away from its upper edge so that the line cannot jam between the upper edge of the pulley and the support. For best operation, the diameter of the head 18 should be about the same diameter or a little larger than the diameter of the upper end of the body portion 27. If the head portion is narrower than the upper end of the pulley or of a smaller diameter, there is a tendency for the line to get in between and bind between the edge of the pulley and the support when the line becomes slack and the pulley drops or hangs downwardly at an angle from the hook, and the more the tension the tighter it binds, but with the head about the same diameter as the upper end of the pulley and with this groove 20 in the under side of the support, there is no danger of the line becoming jammed or binding between the pulley and the support no matter how far the pulley may sag or at what angle it may drop from the supporting hook 14. As soon as the line is tightened this device will be automatically shifted to the more nearly horizontal position, and the line will automatically move down the pulley to its normal position in the groove 31 and on the shoulder 30. The curved shape of the opening 17 will permit the device to automatically tip sideways at a considerable angle, even up to as much as about 45 degrees on uneven loading of the line; that is, for example, when all the weight is on one run of the line, or with other uneven loading conditions, the device automatically assumes the neutral position to permit effective running of the line and most easy operation. That is, it lets the pulley accommodate itself to strains from different points and different angles. This increases efficiency

of the line and increases its capacity as both sides can be used.

Having thus set forth the nature of my invention, what I claim is:

1. A clothesline pulley assembly comprising a supporting bar provided with means at one end for mounting it on a supporting hook or the like for free lateral and up and down rocking movements, a depending bolt at the other end, a line supporting pulley mounted on the bolt comprising an upright somewhat tapered body portion with the larger diameter at the top, a downwardly and outwardly tapered flange portion at the lower end of the body portion, and said bar including a head portion covering the upper end of the pulley and a transverse curved upward recess in the under side of the bar at the edge of said body portion to receive the line from the body portion and support it on a given dropping of the pulley by sagging of the line.

2. A clothesline pulley assembly comprising a supporting bar provided with means at one end for mounting it on a supporting hook or the like for free lateral and up and down rocking movements, a depending bolt at the other end, a line supporting pulley mounted on the bolt comprising an upright somewhat tapered body portion with the larger diameter at the top, said bar including a head portion at the upper end of the pulley and provided on its under side with an upwardly extending transversely curved shoulder at the edge of said body portion to receive the line from the body portion and support it on a given dropping of the pulley by sagging of the line, and said pulley including a downwardly and outwardly inclined flange portion at the lower end of the body portion provided with an annular shoulder at the lower end of the body portion and of larger diameter than this portion.

3. A clothesline pulley assembly comprising a supporting bar provided with means at one end for mounting it on a supporting hook or the like for free lateral and up and down rocking movements, a depending bolt at the other end, a line supporting pulley mounted on the bolt comprising an upright somewhat tapered body portion with the larger diameter at the top, said bar including a head portion covering the upper end of the pulley and provided on its under side with an upwardly extending transverse curved shoulder at the edge of said body portion to receive the line from the body portion and support it away from the edge of the body on dropping of the pulley by sagging of the line beyond a given amount, a downwardly and outwardly tapered flange portion at the lower end of the body portion, an annular shoulder between the body and flange portions of larger diameter than the body portion to retain the line on the body portion, and the body being provided with an annular groove immediately above the shoulder.

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