Nov. 2, 1926. 1,605,511

F. H. CHILTON

PULLEY LINE SPACER

Filed Dec. 22, 1924

Fig. 1.

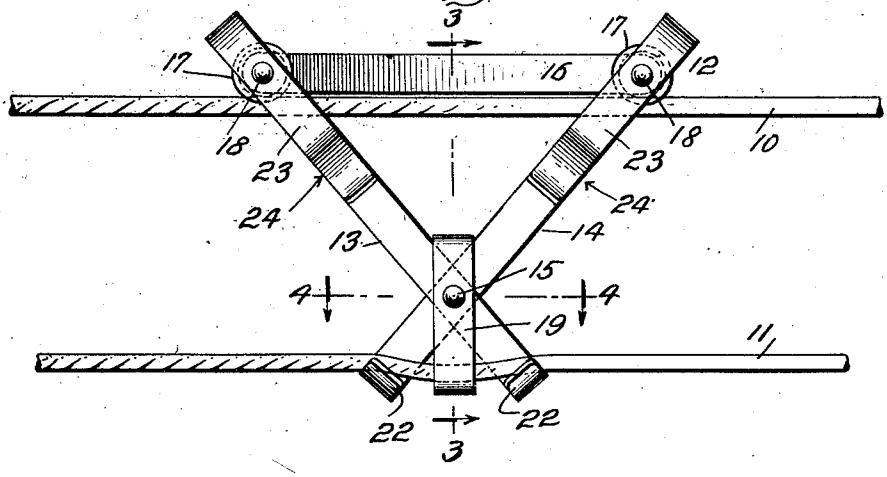


Fig. 2.

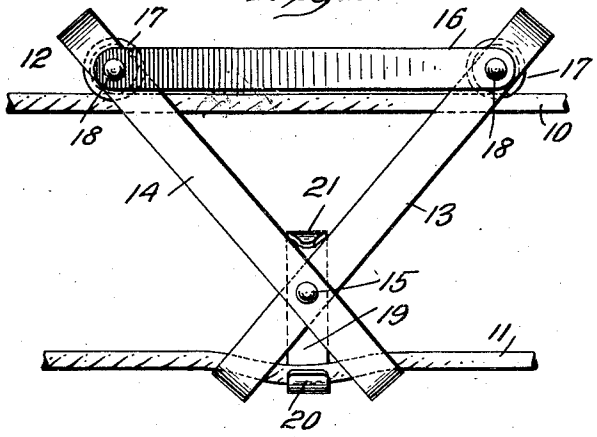


Fig. 3.

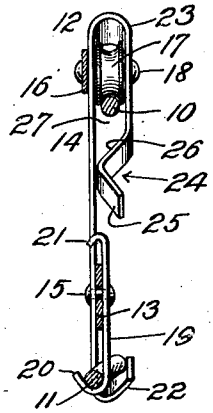
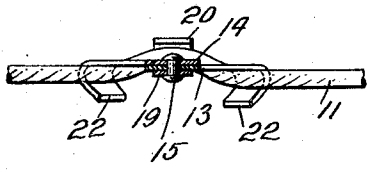


Fig. 4.



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UNITED STATES PATENT OFFICE.

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PULLEY-LINE SPACER.

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The purpose of the invention is to provide a durable and efficient spacer and coupling for the two runs or sections of an endless clothes line of usual character mounted on pulleys, the device of my invention operating to maintain the upper and lower sections of the line properly spaced apart and to effect an equalization of the strain of the hanging clothes upon the entire length of the line.

The spacer of my invention comprises two main bars which are crossed and riveted together and have upper portions of spring hook construction carrying grooved wheels adapted to ride upon the upper run or section of the clothes line, and means for gripping the lower run or section of the clothes line consisting preferably of corresponding upwardly turned open hooks formed on the lower ends of the aforesaid bars and an intermediate short bar having a reversely disposed upwardly turned open hook, the three hooks receiving and holding the lower portion of the line with a bight effect. The aforesaid short bar may be secured in the structure by the same rivet which fastens the crossed bars together. Preferably the upper ends of the crossed bars are connected together by a longitudinal bar disposed above the upper portion of the clothes line and secured at its ends by the rivets which serve as axles for and secure the aforesaid grooved wheels. The two main bars of the spacer are crossed somewhat near their lower ends, and hence the upper ends of said bars are considerably spread apart and so space the supporting rollers that the device becomes very effectively suspended.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Fig. 1 is a front elevation of the spacer of my invention shown applied to a pulley clothes line, a portion only of the clothes line being shown;

Fig. 2 is a rear elevation of the same;

Fig. 3 is a vertical section through the same, taken on dotted line 3—3 of Fig. 1, and

Fig. 4 is a horizontal transverse section through the same taken on the dotted line 4—4 of Fig. 1.

In the drawings 10, 11, respectively, designate the upper and lower runs or sections of the usual pulley clothes line, and 12 denotes the spacer of my invention applied to said line.

My spacer comprises two main oppositely inclined bars 13, 14 which cross each other and are secured together at their crossing point by a rivet 15, a longitudinal bar 16 connecting the upper ends of said main bars, grooved wheels 17 mounted on rivets 18 in the upper ends of said main bars and a lower vertical short bar 19 which is secured in the structure by the aforesaid rivet 15 and is formed at its lower end with an upwardly turned hook 20 and at its upper end with a laterally extending arm 21 which projects between and engages the adjacent edges of the bars 13, 14 in the crotch formed by said bars immediately above the rivet 15.

The bars 13, 14 are alike in structural features, each bar being bent laterally at its lower end to form an upwardly turned hook 22, and each bar at its upper end being formed with a downwardly extending hook member 23 having at its lower end an inward bend 24 furnishing inwardly inclined converging walls 25, 26, as shown in Fig. 3. Each hook member 23 is formed by a bending operation from the material of which its bar is formed, and hence is integral with the bar. Between the bars 13, 14 and their respective hook members 23 are formed spaces 27 having upper parallel walls between which the grooved wheels 17 are secured on the rivets 18 and which spaces receive the upper portion 10 of the clothes line, as shown in Fig. 3. The bends 24 in the hook members 23 serve to substantially close the entrance to the spaces 27 and hence the line 10 is not likely to by accident escape from said spaces. The hook members 23 are of sufficient length below the rivets 18 to spring or yield outwardly to a sufficient extent when the clothes line is forced by the bends 24 and into the spaces 27. The inclined surfaces 25 of the bends 24 facilitate the entrance of the clothes line into the spaces 27 or in other words facilitate the application of the spacer to position on the clothes line. The inclined surfaces 26 of the bends 24 facilitate the detachment of the spacer from the clothes line when it may be desired to remove the spacer therefrom. When the spacer is on the clothes line, the wheels 17 may ride freely on the portion 10 thereof, there being no binding action between the spacer and said portion 10 of the clothes line.

The bar 16 extends lengthwise of and

closely over the portion 10 of the clothes line, and said bar serves to tie the upper ends of the bars 13, 14 together and to cooperate with the rivet 15 in maintaining a fixed relation of the bars 13, 14 throughout to each other.

The bars 13, 14 cross each other in their lower portions so as to allow considerable spread at the upper end of the spacer and to bring the lower ends of said bars reasonably close together. The hooks 22 at the lower ends of the bars 13, 14 extend laterally in the same direction from the bars, while the hook 20 on the bar 19 extends laterally therefrom in a reverse direction. The hooks 22 incline downwardly and inwardly on converging lines, while the hook 20 is horizontal. The portion 11 of the clothes line has an inward and downward bend formed in it from the upper outer edges of the hooks 22 to the oppositely extending and lower hook 20, as shown in Figs. 3 and 4. The clothes line cannot ride upwardly between the bar 19 and the bars 13, 14, there being insufficient space for it to do so, and hence the line has a bight formed in it which serves to lock the lower end of the spacer to the part 11 of the clothes line. The lower end of the spacer is compelled therefore to have a fixed relation to the lower portion 11 of the clothes line, while the upper portion 10 of the clothes line may travel freely through the upper portion of the spacer. The purpose of the bar 19 is, therefore, to cooperate with the lower ends of the bars 13, 14 in maintaining a bight in the lower portion 11 of the clothes line of a character to prevent that portion of the line from sliding freely through the spacer. The purpose of the arm 21 on the bar 19 is by its projection between the bars 13, 14, to prevent said bar from having any swiveling action on the rivet 15.

The spacer 12 hangs evenly on the upper portion 10 of the clothes line and in view of the wide separation of the wheels 17 the spacer has no objectionable tilting action on the line. The spacer may be applied to the clothes line by forcing the portion 10 of the line by the bends 24 and into the spaces 27 formed by the hook members 23, after which the lower portion 11 of the clothes line may be applied to the hooks 20, 22, the spacer then being in operative position. The general method of using spacers on pulley clothes lines is well understood and the benefits to be derived from the use of efficient spacers are well known.

In my construction, the several bars hereinbefore referred to are of sheet metal and riveted together, and hence the spacer is of durable character.

I do not limit my invention to all the details of form and construction hereinbefore described, since I am aware that some of these details may be varied or modified without departure from the spirit of my invention and within the scope of the appended claims.

What I claim as my invention and desire to secure by Letters-Patent, is:

1. A pulley clothes-line spacer of the character described, comprising two oppositely inclined bars which cross each other and are riveted together, means for detachably locking the lower end of the spacer to the lower run of the clothes line and grooved wheels carried by the upper ends of said cross bars to rest upon the upper run of the clothes line, said bars at their upper ends having folded over hook members forming, with the main portions of the bars, spaces receiving said wheels and the upper run of the clothes line.

2. A pulley clothes-line spacer as claimed in claim 1, in which the grooved wheels are mounted on rivets extending through the upper ends of said bars and said hook members, and in which the upper ends of said bars are connected together by a longitudinal bar whose ends are secured on said rivets.

3. A pulley clothes-line spacer as claimed in claim 1, in which the means for locking the lower end of the spacer to the lower run of the clothes line comprise upwardly turned hooks on the lower ends of said bars and a rigid bar extending vertically between the lower ends of said crossed bars and having on its lower end an upwardly turned hook reversely disposed to the other hooks, said three hooks being adapted to receive the lower run of the clothes line and form a bight therein firmly engaging the line with the lower end of the spacer.

4. A pulley clothes-line spacer as claimed in claim 1, in which the lower ends of said hook members have inward bends closing the lower ends of said spaces and affording inwardly converging surfaces to facilitate the application of the spacer to and its removal from the line, the lower ends of said hook members being capable of being sprung outwardly to admit the line to said spaces and permit the withdrawal of the same thereform.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 21st day of November, A. D. 1924.

FRANKLIN H. CHILTON.