March 16, 1971 C. R. LOUDERBACK 3,570,075

CIRCULAR CLOTHESPIN

Filed March 3, 1969

Fig. 1

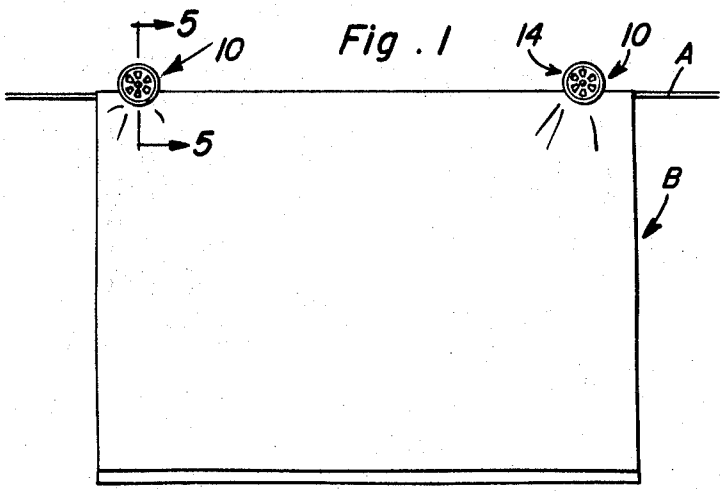


Fig. 2

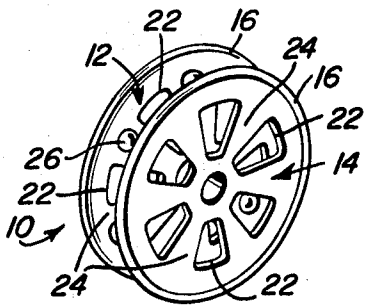


Fig. 3

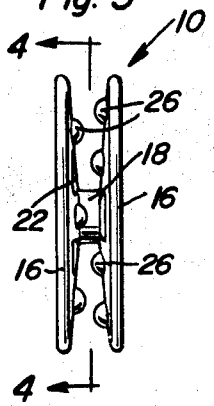


Fig. 4

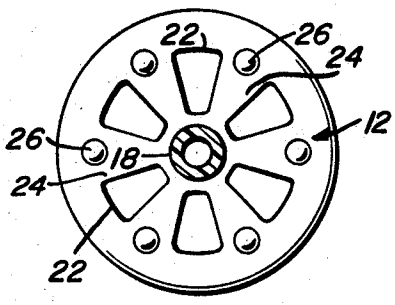


Fig. 5

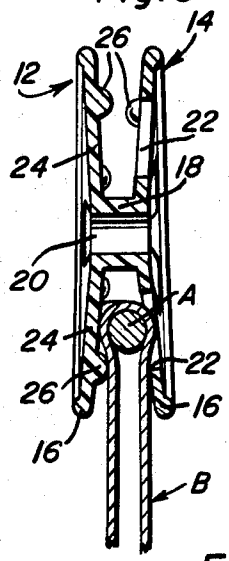


Fig. 6

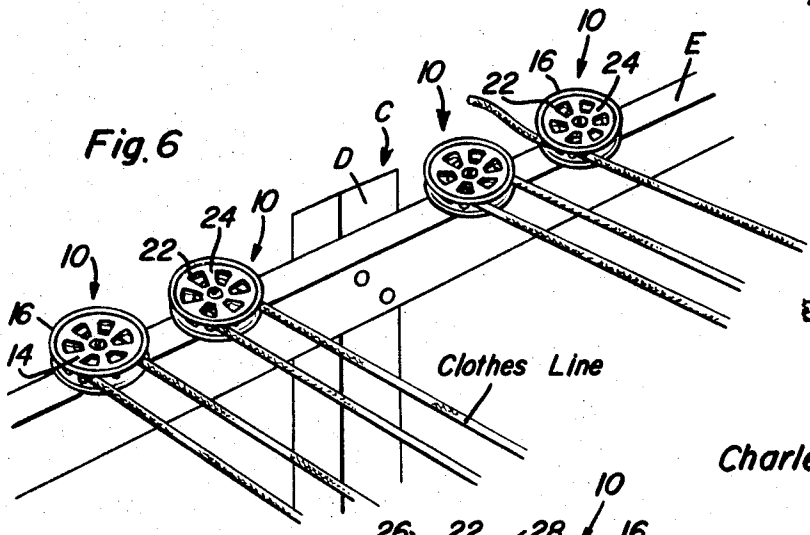


Fig. 7

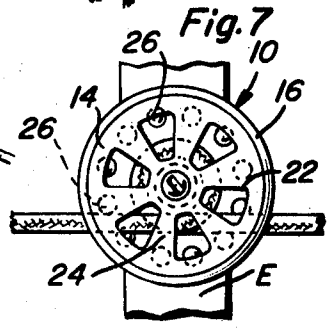
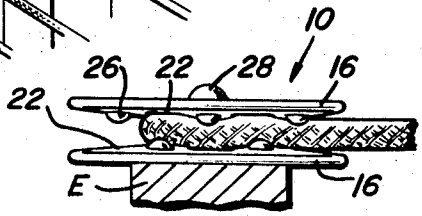


Fig. 8



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CIRCULAR CLOTHESPIN

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ABSTRACT OF THE DISCLOSURE

Although primarily a circular clothespin, the disclosed invention is capable of reliable use for mounting side-by-side clotheslines atop T-shaped outdoor line supports. It is also usable as a Christmas tree ornament and as a component in a toy erection set for children. It comprises a one-piece plastic spool and embodies opposed plastic disks united by a hollow hub. These disks are made of resilient plastic material and are provided with radial spokes and internal bosses which provide line positioning and retaining detents.

This invention relates to certain new and highly useful improvements in a circular-type clothespin, more particularly, an innovation which is structurally and functionally similar to but a worthwhile improvement on the circular clothespin shown in Pat. 3,324,518 granted to me on June 13, 1967.

With reference to Pat. 3,324,518 it will be seen that it comprises duplicate resiliently flexible disks. These disks are disposed in opposed alignment, the outer concave faces being provided with concentric gripping ribs and the inner convex surfaces having distributively arranged staggered semi-spherical bosses. These bosses define tortuous paths and detents for a clothesline and clothes or the like which have been draped over the retentively clamped clothesline. The central portions of these disks are interconnected by a hub or pin having a headed end fittingly retained in a hole provided therefor.

An object of the innovation herein revealed is to structurally, functionally and in other ways improve upon patent 3,324,518 in keeping with the instant disclosure.

Briefly, the adaptation herein shown and while primarily designed and adapted to serve as a circular clothespin, is such in construction that it is capable of reliable use for mounting side-by-side clotheslines atop the crosshead of a T-shaped outdoor line support or prop. Then, too, it is useable for other significant purposes as will be hereinafter more particularly pointed out. To the ends desired, the device, whether it be considered as a circular clothespin or a multipurpose clip, is characterized by a pair of duplicate disks. These disks are made of flexible resilient plastic or equivalent material. These disks are opposed and spaced from and cooperatively align with each other and have axial portions which are integrally united by a relatively short tubular or hollow disk connecting and spacing hub. The inherent resilient properties of the disks function to permit the inner line gripping surfaces to impose and effectually exert gripping pressure upon the coacting surfaces of the line when the latter is positioned and retentively lodged in the space between the disks. The disks have circumferentially spaced openings into which registering portions of the line can be and are buckled and accordingly kinked and thus securely retained against displacment and slippage.

In carrying out the preferred embodiment of the invention, the openings are circumferentially spaced and equidistant and are wedge-shaped and serve to define intervening spokes. Instead of providing a multiplicity of semi-spherical detents over the entire inner faces of the

disks, these detents or bosses are lined up with the outer end portions of the respectively cooperating spokes.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter descirbed and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in elevation showing a fragmentary portion of a supported clothesline, a sheet or the like draped over the clothesline and two of the circular clothespins located in a position to clampingly hold the sheet in place.

FIG. 2 is a view in perspective of the improved circular clothespin, also referred to as a multipurpose clip.

FIG. 3 is an edge elevation of the clothespin.

FIG. 4 is a section taken on the plane of the section line 4—4 of FIG. 3.

FIG. 5 is an enlarged sectional view taken on the plane of the section line 5—5 of FIG. 1.

FIG. 6 is a fragmentary perspective view showing a T-shaped outdoor clothesline prop and how the clips are nailed or fastened atop the crosshead in a manner to supportively retain side-by-side clotheslines.

FIG. 7 is a top plan view which shows one manner in which the clothesline can be coiled and snubbed and retained in place.

And FIG. 8 is an edge view showing how the line is buckled, kinked and clamped between the coacting disks.

By way of introduction to the description of the details it is to be reiterated that the device shown, described and claimed is primarily designed and adapted for use as a clothespin as brought out for example in FIGS. 1 and 5. For this reason it is referred to for the most part as a circular clothespin but is to be construed as a clip or a line holder as the case may be.

Regardless of the manner or more of use the device is preferably made of moldable commercial plastics or requisite flexible and resilient properties. In fact, it is of one-piece construction and is designated, generally stated, by the numeral **10**. As is evident in particular in FIG. 5, the device comprises a pair of duplicate opposed spaced and cooperatively aligned disks one of which is denoted by the numeral **12** and the other one by the numeral **14**. These disks may, if desired, be slightly concavo-convex. The outer marginal surface of each disk is provided with an endless encircling and reinforcing bead **16**. The axial hub is denoted at **18** and is integral with coacting axial portions of the respective disks and is open at its respective ends as denoted at **20**. Each disk is provided with equidistant circumferentially spaced wedge-shaped openings **22** which define intervening wedge-shaped radial spokes **24**. The inner narrower ends of the openings are adjacent but spaced from the hub. The outer wider ends of the openings are spaced inwardly from the encompassing beads **16**. Each spoke is provided adjacent its outer end and on its interior surface with a semi-spherical complemental boss **26** which constitutes a detent. Six spokes, openings and bosses are shown. The bosses can be said to be also circumferentially equidistant and in a single row in the manner evident in the views of the drawing.

With this construction the device **10** can be used as a circular clothespin on a clothesline A supporting a sheet or the like B which is draped over the clothesline and which is accordingly held in the manner illustrated with particularity in FIG. 5.

The device has other uses which need not be particularly stressed here but lends itself to feasible and practical use in the manner shown in FIG. 6 wherein it is employed as a line holder. The clothes prop structure is here denoted by the letter C. The post or prop is denoted at D and the crosshead at E. The devices are nailed or other-

wise mounted and fastened as at **28** atop the crosshead.

It will be evident that whether the device is used as in FIG. 5 or FIG. 6 the wedge-shaped openings function to buckle and kink the line as brought out in FIG. 8 which assists in placing and clamping the line between the respectively cooperable disks.

The manner in which the device is constructed and preferably used is clear from the views of the drawing and the detailed description. Accordingly, a more extended description is thought to be unnecessary.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A one-piece line embracing friction-gripping and retaining clip comprising a pair of duplicate disks made of flexible resilient material, said disks being opposed, spaced and cooperatively aligned with each other and having corresponding axial portions integrally united by a relatively short connecting and disk spacing hub, the inherent resilient properties of said disks functioning to permit the inner line gripping surfaces to impose and effectually exert gripping pressure upon the coacting surfaces of a line when retentively lodged in the space between said disks, said disks having circumferentially spaced openings into which registering portions of the line can be and are buckled, kinked and retained against slippage, said openings being equidistant and wedge-shaped and serving to provide equidistant circumferentially spaced spokes between the respective openings, the openings and spokes which are embodied in one disk being out of line with the complemental and coordinating openings and spokes in the other disk and being positioned in a staggered relationship for effective line kinking and slip-resisting results, the inner narrow end portions of said openings being proximal to but spaced outwardly from

adjacent peripheral surfaces of said hub and the outer relatively wide ends of the openings being spaced inwardly from the encircling outer marginal edge portions of said disks.

2. The gripping and retaining clip defined in and according to claim **1**, and wherein each outer marginal edge embodies a firm but bendably yielding endless reinforcing bead.

3. The gripping and retaining clip defined in and according to claim **2**, and wherein the interior surface of the outward end portion of each spoke is provided with an integral inwardly projecting semi-spherical line positioning and retaining boss, the bosses on the respective disks being circumferentially spaced and cooperatively staggered.

4. The gripping and retaining clip defined in and according to claim **3**, and wherein said hub is hollow, the ends of said hub being unobstructedly open for nailing and other purposes.

5. A one-piece plastic clothespin comprising a pair of duplicate flexible resilient disks disposed in spaced apart parallel alignment and having corresponding axial portions integrally joined by a short rigid tubular open-ended uniting and disk spacing hub, the outer marginal edge of each disk having an endless encircling and reinforcing bead, each disk also having circumferentially spaced openings and intervening radial spokes, each spoke having an outer end provided on an interior surface with an inwardly projecting integral boss, said openings and also said spokes being wedge-shaped in side elevation, said bosses being semi-spherical, being individually located at the respective outer ends of said spokes and constituting line and clothes positioning and retaining detents.

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JOHN PETRAKES, Primary Examiner