

Sept. 22, 1970

P. T. DAVISON
MAGNETIC CLOTHESPIN
Filed May 22, 1969

3,529,328

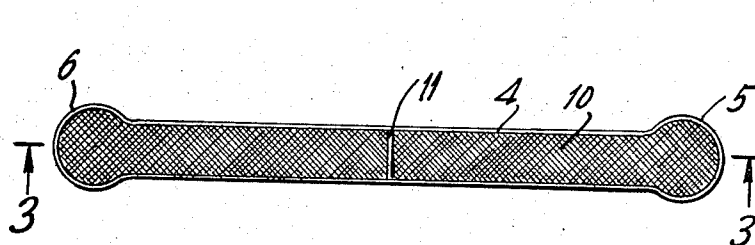
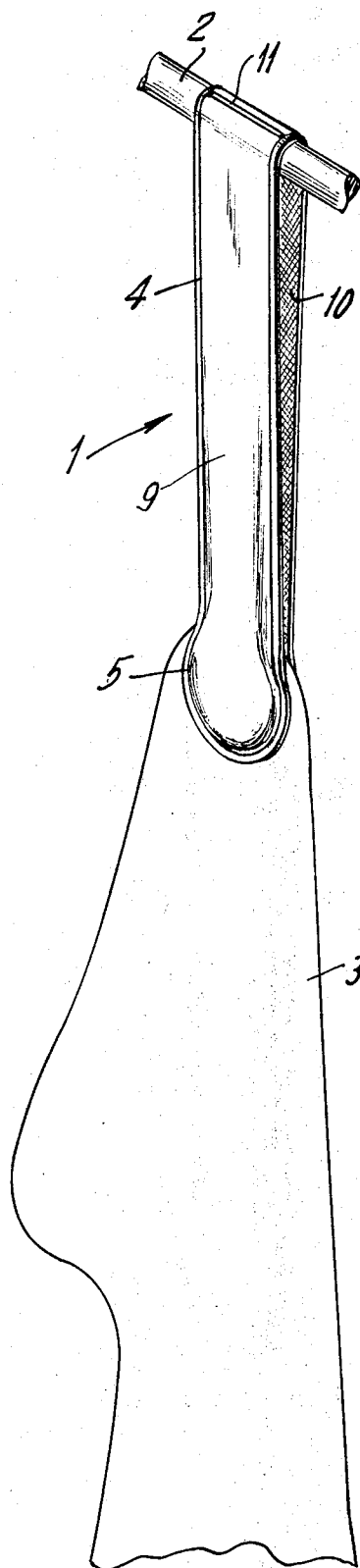


FIG. 2

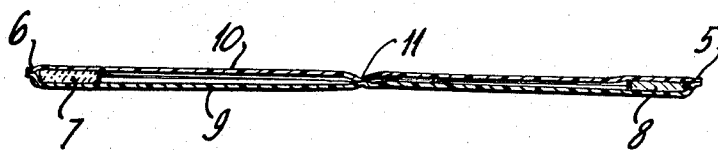


FIG. 3

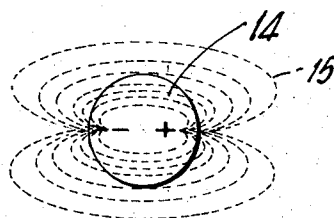


FIG. 4

FIG. 1

INVENTOR.
PATRICK T. DAVISON

BY

Sandor, Hoppwood & Calimafde
ATTORNEYS

1

3,529,328

MAGNETIC CLOTHESPIN

Patrick T. Davison, New York, N.Y., assignor to

Hoz-Pin Corporation, New York, N.Y.

Filed May 22, 1969, Ser. No. 826,909

Int. Cl. A47h 13/00; D06f 55/00

U.S. Cl. 24—137

3 Claims

ABSTRACT OF THE DISCLOSURE

The invention is a magnetically actuated device for supporting ladies' stockings and other light clothing during the drying process. The device is comprised of a strap of flexible material, e.g. plastic, having a magnet at one end and a magnetically attractable plug at the other. In use the strap drapes over a shower rod or the like and the item to be dried is held between the magnet and plug.

BACKGROUND

The device of the invention is in the field of supporting items, such as clothespins, most commonly used to support items of clothing in the hanging position. The invention has particular application in the support of relatively lightweight items of sheer construction, for example, ladies' stockings, which are easily and frequently damaged by ordinary supporting means such as spring actuated or jam type clothespins.

The need for and utility of the device of the invention is perhaps most clearly dramatized by the familiar household scene of a bathroom with ladies' stockings and other delicate articles of clothing (unmentionables) draped over the shower rod, towel racks, and other available protrusions.

It is an object of the invention to eliminate this situation by providing means to support the aforementioned items in an orderly and convenient manner.

It is a further object of the invention to support such items with pressures and surfaces which will not injure the fine fabric of which such items are often made.

An additional object of the invention is to provide an openable and flexible loop by which the retainer may be secured to a great variety of support means.

SUMMARY

The device of the invention is comprised basically of a thin flexible resilient strap, preferably of plastic material, which strap has an inner liner of finely grained material attached thereto, such strap and liner being preferably enlarged at the ends to provide compartments, one of which retains a magnet and the other a magnetizable plug, e.g. a ferrous plug, which is attracted to the magnet. The strap and liner may be advantageously scored laterally at approximately the center thereof giving the device a natural tendency to fold substantially symmetrically, such that the plug will geometrically coincide with the magnet when the strap is folded substantially upon itself.

The invention has the following advantages: it provides sufficient support for items of light to medium weight, while providing a nonabrasive and sensitive touch so as not to harm delicate fabrics; it combines in a single item a retaining means and openable loop means by which the retaining means may be attached to a great variety of elements for support; said elements being either open-ended or closed-looped; and it provides a simplicity of structure which contributes to ease and economy of manufacture.

The above mentioned and other features and objects of this invention and the manner of attaining them will become more apparent and the invention itself will best be understood by reference to the following description

2

of an embodiment of the invention taken in conjunction with the accompanying drawings, the description of which follows.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the device of the invention as utilized to support a lady's stocking;

FIG. 2 is a plain view of the inside surface of the device in the open position;

FIG. 3 is a cross-sectional view of the device illustrated in FIG. 2 taken along line 3—3; and

FIG. 4 is a schematic illustration of a magnet utilized in the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, a device 1 of the invention is illustrated as utilized to suspend a lady's stocking 3 from a shower rod 2. The device is comprised basically of a strap 4 having enlargements 5 and 6 at opposite ends. A magnet is disposed within end 6 as will be described, and a ferrous plug, 8, preferably of stainless steel, is disposed within end 5. The mounting illustrated in FIG. 1 is achieved by looping one end of the strap over the shower rod, then bringing the ends 5 and 6 together on opposite sides of the stocking 3. With the strap thus disposed, magnet 7 will attract plug 8 with sufficient force to retain a stocking 3 or other relatively light and thin garments therebetween.

FIG. 2 is a plan view of the inside surface of the device of the invention. The figure illustrates the strap body 4 with enlarged circular ends 5 and 6. Ends 5 and 6 are enlarged so that magnet 7 and plug 8 when placed therein will not slide into the body of the strap. The strap is comprised of an outer cover 9 and an inner liner 10, each preferably made of vinyl material. It has been found advantageous to construct the outer cover 9 of vinyl sheet approximately ten thousandths of an inch thick, and to use an inner liner about six thousandths of an inch thick with a four to ten thousandths grain thereon.

The inner liner 10 is heat-sealed to the cover 9 around the peripheral edges thereof, and across the center of the strap forming a score 11 which promotes bending the strap in the center so that ends 5 and 6 will naturally fall together when the device is utilized. The surface of liner 10 is scored or embossed with a fine grain, as above mentioned, which grain increases the friction between the device and the item supported when assembled as in FIG. 1.

FIG. 3 is a sectional view of the device illustrated in FIG. 2. This figure illustrates the position of the magnet and plug within the strap. FIG. 3 illustrates that the ends 5 and 6 of the outer cover 9 are cupped to accommodate respectively magnet 7 and plug 8. This is achieved by sizing the ends 5 and 6 of cover 9 sufficiently large to permit their edges to be bent up and around magnet 7 and plug 8 respectively, prior to sealing to inner liner 10. The effect of this construction is to render the inner surface of the device substantially flat, eliminating protrusions which might tend to snag delicate materials, and also to provide good mating contact between the magnet and the plug. FIG. 3 also illustrates the position and character of score 11. As can be seen, cover 9 is joined to inner liner 10 at score 11; however, outer cover 9 is free to assume a partially curved contour between ends 5 and 6 and score 11. This curve contour naturally results from the protrusions caused by magnet 7 and plug 8, and has the practical effect of rendering the portions of the strap exclusive of score 11 somewhat more rigid, which promotes bending at the score 11 and the consequent fullest possible contact between magnet 7 and plug 8 when ends 5 and 6 are brought together.

The invention thus constructed has great utility in that the strap can be led through or around a great variety of supporting items of almost any size and shape; yet supports ladies' stockings and other items with such a tender or sensitive touch that they may be pulled by the bottom from between the holding ends 5 and 6 of the strap without fear of tearing or snagging. At least one practical advantage of this feature is that the user need not reach up to the holding device of the invention to release the item held thereby, and yet have no fear that the item will be injured when withdrawn therefrom.

FIG. 4 illustrates magnet 14 used in the invention. Magnet 14, found particularly advantageous is one having a ceramic composition, e.g. a ferrite. It is nonrusting and also can be magnetized at one face thereof with a field 15 illustrated in FIG. 4.

While the principles of the invention have been described in connection with specific apparatus, it is to be clearly understood that this description is made only by way of example and not as a limitation to the scope of the invention.

What is claimed is:

1. A magnetic garment supporting device for particular use in drying easily damaged sheer clothing articles comprising a laminated flexible strap of at least two layers, waterproof pockets formed in each end of said flexible strap between said layers, a magnet disposed in one of said pockets and magnetically attractable means disposed in another of said pockets at the opposite end of the strap, whereby said flexible strap may be draped over a supporting structure and the ends thereof brought into adjacent relationship so that the magnetic forces of attraction generated by the magnet are enabled to hold the ends

of the strap in said adjacent relationship and whereby a garment may be held between the ends of the strap.

2. The device of claim 1 wherein at least one of the outer layers of said strap has a grain on the exposed surface thereof to provide a gripping surface at the ends of the strap adjacent the magnet,

and wherein said strap is scored along a line across substantially the center of said strap to provide a location about which the strap has a tendency to bend symmetrically causing said magnet and means to come together when the strap is so bent.

3. The device of claim 2 wherein said laminated strap is comprised of two layers which are sealed around the periphery of the strap, around the periphery of the pockets containing the magnet and means, and at the score line at substantially the center of the strap.

References Cited

UNITED STATES PATENTS

2,319,292	5/1943	Boggs.	
2,448,611	9/1948	Martin.	
3,097,406	7/1963	Yarborough	24—11 XR
3,445,898	5/1969	Goodrich	248—74 XR

FOREIGN PATENTS

12,478	1904	Great Britain.
407,444	8/1966	Switzerland.

DONALD A. GRIFFIN, Primary Examiner

U.S. Cl. X.R.

16—87.2