United States Patent

Klotz et al.

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[45] **Sept. 5, 1972**

[54] **METHOD AND ARTICLE FOR FASTENING SOCKS TOGETHER**

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[52] **U.S. Cl.**.....**24/16,** 248/250 R, 211/113, 24/204, 24/81

[51] **Int. Cl.** **B65d 63/00,** A44b 17/00

[58] **Field of Search**.....24/DIG. 18, 16 PB, 204, DIG. 29, 24/81 CC, 81 AA, 81 A, 81 AG, 17 A, 325; 248/205; 206/56 DF, 80, DIG. 18; 211/60, 113; 2/DIG. 6, 338; 223/85, 87; 128/DIG. 15, 169, 17 D, 171

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[57] **ABSTRACT**

A sock fastener includes a band of tape fastener which can be secured in a loop around a pair of socks to hold the matching sock mates together during laundering. The tape includes hooks thereon facing inwardly of the loop and engaging the socks. The tape is secured in the loop by a piece of tape fastener having loops thereon engaging the hooks.

9 Claims, 7 Drawing Figures

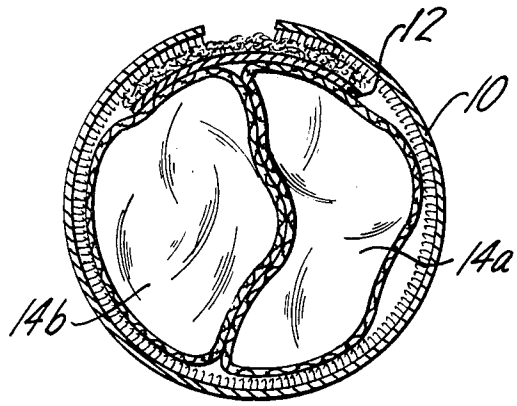


FIG. 1

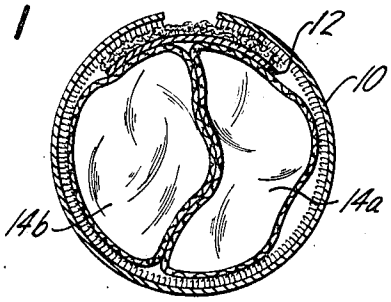


FIG. 3

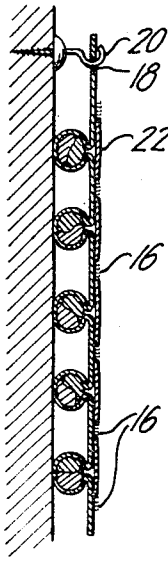
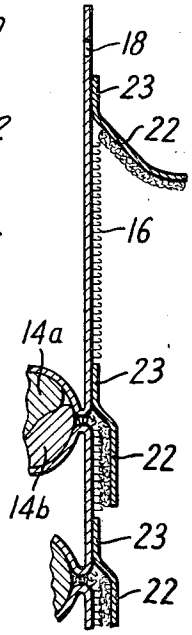


FIG. 4



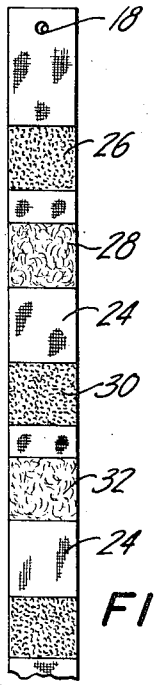
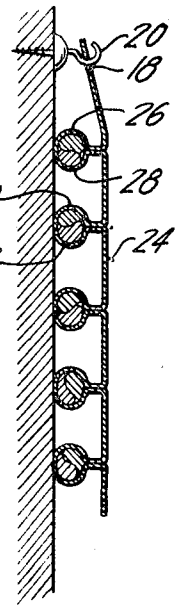


FIG. 5

FIG. 6



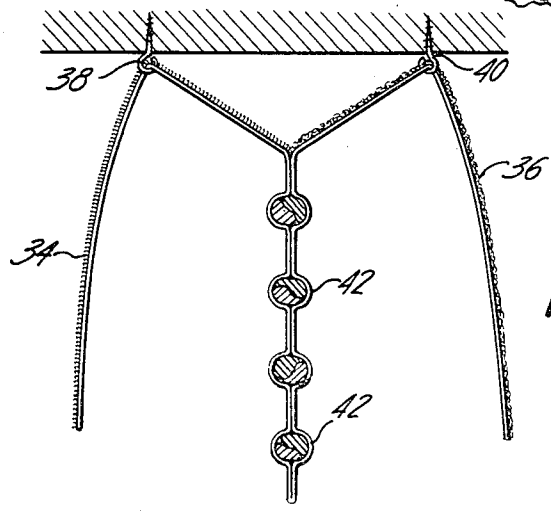


FIG. 7

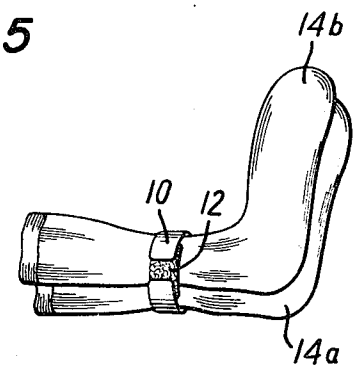


FIG. 2

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METHOD AND ARTICLE FOR FASTENING SOCKS TOGETHER

BACKGROUND OF THE INVENTION

This invention relates to a method and means for holding articles of clothing together during laundering and more particularly to a method and means for holding socks in segregated pairs during laundering to prevent loss of sock-mates and eliminate the task of sorting through the laundry to find matching socks.

Since the advent of the automatic washing machine and the so-called permanent press fabrics, the burden of washing the family's laundry has been considerably reduced. At present, the task which consumes the greatest proportion of the time on washday is sorting and folding the laundry after it has been washed and dried. Particularly in families of many children, the task of sorting and redistributing socks consumes a disproportionate share of the washday time.

Several attempts have been made in the past to relieve the busy housewife of this chore. These prior art efforts generally specify an alteration to the socks themselves. For example, it has been suggested that fasteners such as snaps or hooks and eyes be stitched to each sock by which one sock may be fastened to its mate. It has also been suggested that a loop of thread be stitched to each sock to provide a means of attachment by which the socks could be connected together.

The failure of these prior art solutions to find any substantial acceptance among the general public bears witness to their impracticality. Specifically, the wearer of the socks is reluctant to tolerate bulky unsightly and uncomfortable fasteners sewn to his socks, and the inconvenience of sewing a fastener to each sock or the added expense of buying a pair of socks with fasteners sewn thereto makes the concept equally unattractive to the family provider.

More importantly, however, the use of the prior art sock-holder results in accelerated wear of the socks. The agitation in the washing machine is very vigorous and invariably results in strong forces acting on the articles in the wash load tending to separate and twist them apart. These forces are transmitted between the socks, connected together by the prior art sock holders, at a single point or points, resulting in great stress at those points which causes the socks to rip or be grossly stretched out of shape.

There has, therefore, long been a need for a sock holder that requires no alterations to the socks themselves, and permits the socks to be thoroughly cleaned while being securely, though gently, held in segregated pairs such that no damage is incurred thereby during agitation in the washing machine.

SUMMARY OF THE INVENTION

Accordingly, it is an object of this invention to provide a method and an article for obviating the task of manually sorting and matching laundry.

Another object of the present invention is to provide an article for holding matching pairs of socks together during laundering and drying.

A further object of the invention is to provide a method and an article for holding the socks of each member of a family together in matching pairs to eliminate the task of sorting and facilitate redistribution of the clean laundry to the family members.

These and other objects of the invention are attained by providing a method of holding socks together during laundering which includes wrapping a band of tape fastener loosely around a pair of socks and securing the band in a closed loop so the band gently grips the socks and prevents their axial translation out of the loop.

An article is provided for practicing the method including a tape-fastener which can be wrapped around a pair of matching socks and fastened in a loop of adjustable diameter to secure the socks together during laundering and drying and thereby eliminate the task of sorting after laundering.

DESCRIPTION OF THE DRAWINGS

A more complete appreciation of the invention and its many attendant advantages will develop as the same becomes better understood by reference to the following detailed description when read in connection with the following drawings, wherein:

FIG. 1 is a cross-sectional elevation showing one embodiment of the invention holding a pair of socks;

FIG. 2 is a pictorial view of the embodiment of FIG. 1 holding a pair of socks together;

FIG. 3 is a cross-sectional elevation showing a second embodiment of the invention holding five pairs of socks;

FIG. 4 is a cross-sectional elevation of the embodiment of FIG. 3 showing in more detail the patches secured at one end to the band and holding one pair of socks, partially broken away;

FIG. 5 is a plan view of a third embodiment of the invention;

FIG. 6 is a cross-sectional elevation of the same third embodiment shown in FIG. 3, but here shown in use hanging on a hook and holding five pairs of socks; and

FIG. 7 is a cross-sectional elevation of a fourth embodiment of the invention in use holding four pairs of socks.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, wherein like reference characters designate identical or corresponding parts and more particularly to FIG. 1 thereof, one embodiment of the invention is shown having a band **10** of tape fastener, such as that sold under the trademark "VELCRO," fastened together in a loop by a short fastening patch **12** of tape fastener of the opposite gender. Tape fasteners are a recently developed form of fastener having wide and growing popularity as fastening straps as exemplified in U.S. Pat. No. 3,000,384, and as clothing fasteners. They use two mating strips of fabric tape, one of which, hereinafter referred to as the "hook gender" tape, has an operative surface bristling with a multitude of small, upstanding monofilament hooks and the other, hereinafter referred to as the "loop gender" tape has an operative surface faced with a napped pile of fine threads. When the two tapes are brought together, the hooks embed themselves in the pile, engaging the loops of thread to provide a fastener capable of withstanding shear forces as great as **20** pounds per square inch, yet the tapes separate easily when peeled apart. Moreover, they can be subjected to opening-closing cycles repeatedly without loss of strength or sign of wear. A more

thorough exposition of the structure, manufacture, and use of tape fasteners is found in U.S. Pat. No. 3,009,235.

The article is easily assembled as a unit from a fastening patch **22** of loop gender tape fastener, about 1 inch long and five-eighth inch wide, and a longer band **10** of hook gender tape fastener, about 3 inch long, by pressing the operative surface of fastening patch **12** on the end of the band **10** so that one half the length of patch **12** overlaps the end of the band **10**. The matching members **14***a* and **14***b* of a pair of socks are laid alongside one another and the band is wrapped therearound in a loop to encircle the socks approximately midway along the length thereof, as illustrated in FIG. **2**, by placing the back of the patch **12** against the socks, wrapping the band around them, and pressing the free end of the band **10** against the overlapping, outwardly facing portion of the fastening patch **12**. A continuous loop or ring is thus formed around the socks to securely hold them together during laundering.

It was expected that the band would have to be wrapped tightly around the pair of socks to prevent their becoming loose during agitation in the washing machine and therefore that the portion of the socks within the tight encircling band would not be properly washed. However, it was unexpectedly found that when the band is wrapped, as illustrated in FIGS. **1** and **2**, loosely around the pair of socks with the hooks of band **10** facing inwardly of the loop, that the band could be very loose without the socks becoming disengaged from the loop. The band need be just tight enough to achieve continuous contact between its inside circumference and the socks so that the small hooks of the band gently engage the fabric of the socks and securely hold them against axial translation out of the loop. Thus the socks remain securely held in pairs throughout the washing cycle and all portions of the socks are thoroughly cleaned.

FIG. **3** shows a second embodiment of the invention including a long band **16** of hook gender tape fastener having formed on one end thereof an eye **18** by which it is hung or suspended from a support such as a hook **20**. A plurality of patches **22** of loop gender tape fastener are stuck to the band **16** at intervals therealong. Patches **22** may be separate from band **16** or they may be permanently joined to band **16** at one end **23** of the patch as more clearly illustrated in FIG. **4**.

In use, each member of the family hangs a band **16** in a convenient location, such as his closet, by means of hook **20**. As he removes his socks in the evening, instead of throwing them in the laundry hamper he forms a loop in the band **16** and encircles the pair of socks within the loop. The ends of the loop are then secured around the pair of socks by means of fastening patch **22**. The next day the next pair of socks is similarly attached to band **16** adjacent and below the first pair by means of another patch **22**. At the end of the week the band will hold an entire week's worth of the family member's socks in a neatly pre-sorted unit. These bands are then laundered and dried as individual units and thereafter redistributed to the family member in the same form, already neatly sorted and ready for return to the bureau drawer. The time spent sorting and distributing socks to the members of a large family is thereby greatly reduced. In extremely large families the tapes could be marked with the name of the family member or could be color coded.

Another embodiment of the invention, illustrated in FIGS. **5** and **6**, is formed as an integral unit having a band **24** formed of a fabric material, such as nylon, on which are formed or attached at intervals therealong several pairs of squares or patches of tape fastener of alternating gender. The top pair consists of a patch **26** of hook gender tape fastener adjacent a patch **28** of loop gender tape fastener. The next pair is disposed a suitable distance along band **24** and consists of a similar pair of patches **30** and **32**. This arrangement is repeated for the full length of the band which may extend one to three feet.

In use, the eye **18** of the band **24** is hung on a hook **20** in the family member's closet as shown in FIG. **6**, in a mode of use similar to that of the embodiment of FIGS. **3** and **4**. The soiled pair of socks is placed between adjacent patches **26** and **28** and the portions of the band **24** on either side of the socks are brought up around the socks and secured in a loop therearound by pressing patches **26** and **28** together. The use of this embodiment of the invention is otherwise identical to that of FIG. **3**.

The fourth embodiment of the invention shown in FIG. **7** uses two continuous bands of tape fastener **34** and **36** of opposite gender connected together at their lower ends. The upper ends of the bands are strung through a pair of spaced eyelets screwed into the lower surface of a closet shelf or the like, and hand down loosely therefrom. The pairs of soiled socks are then placed at the junction of the two bands and a loop **42** is formed around the pair by pressing the bands together on the top side of the pair. The next day, the next pair of soiled socks is similarly secured between the bands in similar manner at a spaced location above the first pair of socks. At the end of the week, bands **34** and **36** will be secured together along their entire length, holding between them the family member's socks in a single convenient unit for washing. After washing and drying, the clean socks are returned in the same unit to the family member for return to his bureau drawer.

All four embodiments securely hold the sock pairs within their loops by means of the gentle engagement of the tape fastener hooks with the fabric of the socks and therefore permit a loose loop to be used which assures thorough cleaning of the material within the encircling band. There is no danger that exposed hooks could snag other delicate laundry in the wash because in all embodiments the hooks are either engaged with the tape fastener loops or are facing inwardly of the loop or ring and engaging the socks. In FIG. **3** the patches **22** holding the loops together around the socks have their ends spaced for clarity of illustration, but in actual use the patches would be made larger so the ends of patches **22** would be adjacent one another, as illustrated in FIG, **4**, and all hooks in the band **16** would be covered by the patches **22**. In the embodiment of FIG. **7** all hooks of band **34** are covered by band **36** since both bands are of the same length. There is therefore, no danger of exposed hooks snagging delicate fabric in the washload or becoming engaged with other bands to become tangled in a knot.

Obviously numerous variations and modifications of the above described species will occur to those skilled in the art in the light of this disclosure and prior art. For example, in FIG. 4 the patches **22** may be reversed and adhered to band **16** at end **23** with the operative mapped surface facing outwardly and with the free end extending upwardly instead of downwardly as illustrated. In use, the free end of patch **22**, normally not stuck to the hooks of band **16**, would be doubled over backward to contact and hold the portion of band **16** constituting the end of the loop to form the closed loop. It is contemplated, therefore, that the invention may be practiced otherwise than specifically described herein while remaining within the scope of the appended claims which define the invention.

I claim:

1. A method of holding socks together during laundering, comprising:

arranging a pair of socks in matching sock mates;

loosely encircling said pair of socks with a band of tape fastener having hooks substantially covering one face thereof, with said band disposed around said socks with said hooks facing inwardly of said loop and gently engaging said socks around substantially the entire interior circumference of said loop to prevent axial translation thereof out of said loop; and

securing said band in a loose closed loop around said pair of socks with a piece of tape fastener having loops substantially covering one face thereof by engaging a portion of said hooks of said band of tape fastener with a portion of said loops of said piece of tape fastener.

2. The method defined in claim **1**, wherein: said piece of tape fastener comprises a short patch of said piece of tape fastener separate from said band and having a length approximately one third the length thereof.

3. The method defined in claim **1**, further comprising:

laying a second pair of said socks together;

loosely wrapping a portion of said band adjacent to said first wrapped pair of socks around said second pair of socks;

securing said portion of said band around said socks with a second piece of tape fastener to form a second loose encircling loop around said second pair of socks to hold them together; and

repeating said laying, wrapping, and securing steps for as many pairs of socks as said band will hold.

4. The method defined in claim **3**, wherein:

said wrapping step comprises completely encircling said socks with said band to form a closed loop; and

said securing step comprises pressing a piece of tape fastener against the adjacent ends of said closed loop and disposing the end of said piece adjacent and contiguous to the ends of the next adjacent piece, whereby the hooks of said band will be completely covered along the entire length thereof with said socks and said pieces.

5. A method of holding matching sock mates together in pairs during washing and drying, comprising:

hanging an elongate band of hook gender tape fastener in an easily accessible location;

laying a pair of soiled matching sock mates together;

wrapping portions of said band around said soiled sock mates with the hooks of said band facing inwardly toward said socks;

securing said portions of said band around said mates with a piece of loop gender tape fastener to form a loose encircling loop around said mates and in continuous contact therewith around the entire inside circumference of said loop;

repeating said laying, wrapping and securing steps until said band holds as many pairs of said matching socks as desired;

washing said band along with its load of pre-sorted matched socks in a washing machine; and

drying said band along with its load of matched socks.

6. An article for holding socks together in pairs during washing and drying, comprising:

fabric means for forming a loop loosely encircling said socks;

means for securing the ends of said loop together to form a closed ring around said socks;

hook means connected to said fabric means around substantially the entire interior surface of said loop for cooperating with said securing means and for gently holding said socks within said loop against axial translation therefrom, said hook means comprising a multitude of minute hooks projecting from said fabric means inwardly of said loop, and

a multitude of minute loops projecting from said securing means for releasably engaging said hooks on said fabric means to effect said securing of said loop ends.

7. The article defined in claim **6**, further comprising: means at one end of said fabric means defining a hook eye whereby said article may be suspended from a hook.

8. The article defined in claim **7**, wherein said fabric means comprises a band between one and three feet in length, and said securing means comprises a plurality of separate fastening patches connected at one end thereof to said band of intervals therealong to form a plurality of separate loops.

9. The article defined in claim **8**, wherein said patches completely cover said band to preclude said hooks from snagging delicate fabrics in the wash load.

* * * * *