March 6, 1962 W. STEINER 3,023,483

ROPE MADE FROM SYNTHETIC THERMOPLASTICS

Filed March 3, 1959

Fig. 1.

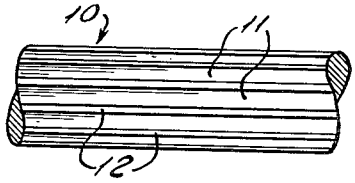


Fig. 2.

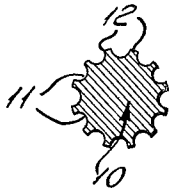


Fig. 3.

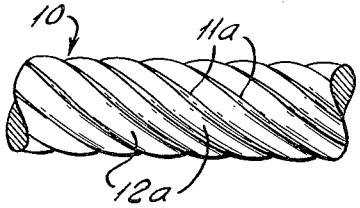


Fig. 4.

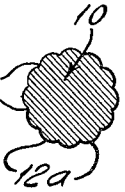


Fig. 5.

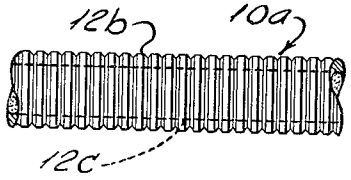


Fig. 6.

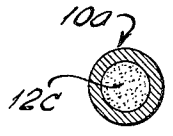


Fig. 7.

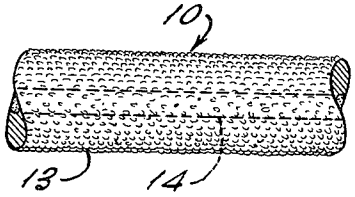


Fig. 8.

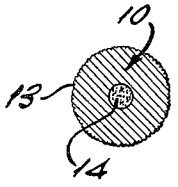


Fig. 9.

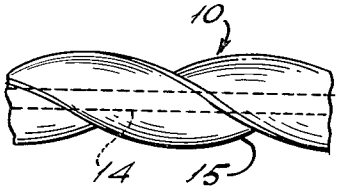


Fig. 10.

Fig. 11.

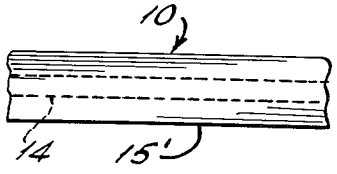


Fig. 12.

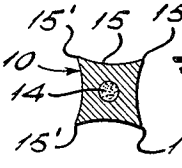


Fig. 13.

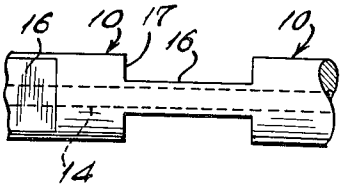
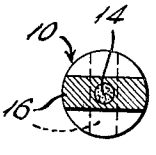


Fig. 14.



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ROPE MADE FROM SYNTHETIC THERMOPLASTICS

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Up till now ropes made from synthetic thermoplastics were all characterized by having a smooth outer surface, the consequence being that the clothes pegs could not grip the rope securely, and therefore had the tendency to slip or slide along the surface of the rope in windy weather.

The object of the present invention is to overcome this difficulty. The invention relates in particular to ropes made from synthetic thermoplastics intended for the purpose of hanging up clothes to dry and is featured in particular by the outer covering surface having good gripping properties.

The accompanying drawing shows various forms of application of the embodiment of the present invention, by way of example only, wherein:

FIG. 1 is a side elevation of a portion of a rope provided with longitudinal parallel grooves;

FIG. 2 is a transverse sectional view of the form of the invention shown in FIG. 1;

FIG. 3 is a side elevational view of a modified form of the invention wherein the outer surface is provided with helical grooves;

FIG. 4 is a transverse sectional view of the form of the invention shown in FIG. 3;

FIG. 5 is a side elevational view of a portion of rope wherein the outer covering is provided with a filling made from loose filaments;

FIG. 6 is a transverse sectional view of the form of the invention shown in FIG. 5;

FIG. 7 is a side elevational view of a form of the invention provided with an inner core of non-stretchable material and with a roughened outer surface;

FIG. 8 is a transverse sectional view of the form of the invention shown in FIG. 7;

FIG. 9 is a side elevational view of a rope of substantially triangular cross-sectional configuration;

FIG. 10 is a transverse sectional view of the form of the invention shown in FIG. 9;

FIG. 11 is a side elevational view of a form of the invention having a square cross-sectional configuration;

FIG. 12 is a transverse sectional view of the form of the invention shown in FIG. 11;

FIG. 13 is a side elevational view of an embodiment of the invention having cut-outs forming narrow ledges in the rope;

FIG. 14 is a transverse sectional view of the form of the invention shown in FIG. 13.

The covering outer surface of the rope **10** made from synthetic thermoplastics, as depicted in FIGS. 1 and 2 is provided with longitudinal parallel grooves **11** between which are formed corresponding ridges **12** which provide a good gripping surface for the clothes pegs, so that any tendency on the part of the latter to slip or slide along the rope is effectively prevented.

The rope shown in FIGS. 3 and 4 differs from the form illustrated in FIGS. 1 and 2 in that its outer covering surface is provided with helical grooves between which are also formed sharp edged ridges **12***a* which assure a good gripping surface for the clothes pegs used to hang up the clothes to dry.

FIGS. 5 and 6 represent a rope made from synthetic thermoplastics used in the main for hanging up clothes to dry, which consists essentially of a comparatively thin walled tube **10***a*, the outer covering surface of which is

provided with sharp edged ridges **12***b* (FIG. 5). The tube **10***a* is provided with a filling made from loose synthetic filaments **12***c*, so that the rope, on the clothes pegs being fixed, is slightly compressed, thus affording a good grip and effectively preventing any tendency on the part of the pegs to slip or slide.

The rope **10** as illustrated in FIGS. 7 and 8 represents a further application of the embodiment of the invention. Here good gripping properties are secured by the outer covering surface of the rope being roughened, so that the protruberances **13** assure a good grip for the clothes pegs, thus preventing any tendency of the latter to slip. In order to prevent undue stretching of the rope, the latter is provided with a core **14** made from material that has no tendency to stretch. The outer covering material being formed of thermoplastic material is relatively stretchable with respect to the non-stretchable center core and better enables a clothespin and like article to safely with increased friction engage the rope **10**.

FIGS. 9 and 10 show a rope **10** made from synthetic thermoplastics and intended for hanging up clothes to dry, the cross section of which is triangular with sharp outer edges. The outer surfaces or faces are concave, so that hollow depressions **15** are formed in the direction of the axis, into which the clothes pegs project on being fixed to the rope, a good grip being thus secured. These hollow surfaces can also be roughened. As seen from the illustration 9 the rope is provided with a twist.

FIGS. 11 and 12 show a rope **10** that differs from the one described above only by its cross section being square instead of triangular. This is equally provided with a core **14** to prevent undue stretching in the longitudinal direction. The hollow concave surfaces **15** form sharp edges at their junction, which give way and are slightly deformed on the clothes pegs being fixed, thus affording a good grip and effectively preventing any tendency of the pegs to slip or slide on the rope. The pegs should be fixed so as to encompass two of the projecting edges **15'**.

FIGS. 13 and 14 show a rope **10** made from synthetic thermoplastics intended primarily for hanging up clothes to dry, in which narrow ledges or cross pieces **16** are spaced along the length of the rope, these ledges being angularly displaced relatively to one another by 90° and abutting on either side on circular stops **17**. The clothes pegs are fixed on the narrow crosspieces **16** and sliding or slipping is prevented by the abutment stops **17**.

These ropes made from synthetic thermoplastics can equally be used to hang up any other goods to dry, such as paper, woven material and so forth.

I claim:

1. A rope comprising in combination a center core made of nonstretchable material, an outer covering about said core made of relatively stretchable synethetic plastic material, said outer covering having a friction inducing gripping surface with narrow ledges formed thereon by substantially semicylindrical cutouts in said outer covering.

2. A rope according to claim 1, wherein said narrow ledges are angularly displaced with regard to one another.

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