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3,161,210

PLASTIC STRIPS

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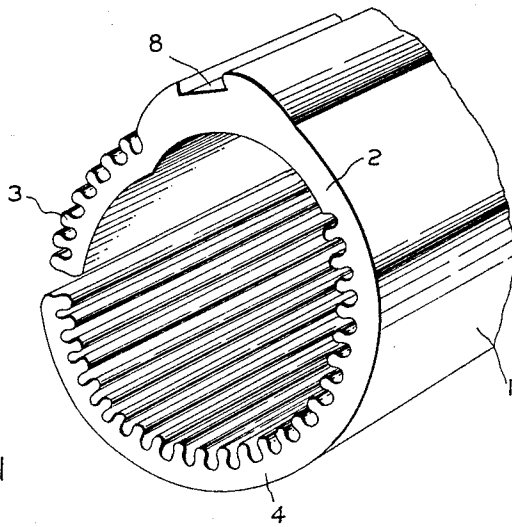


FIG. 1

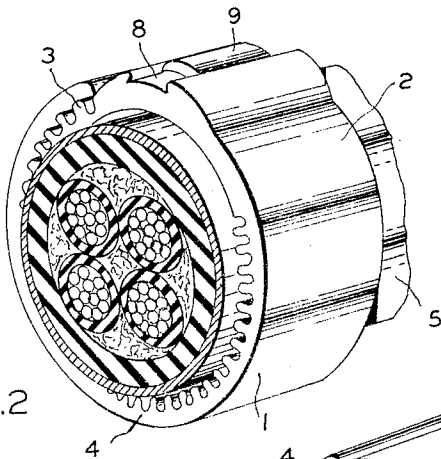


FIG. 2

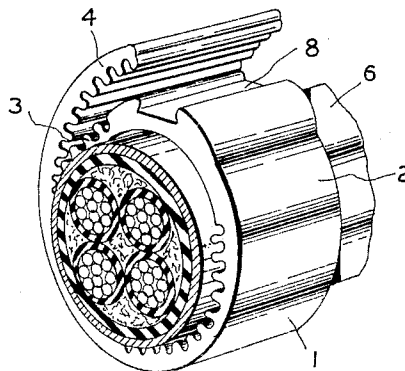


FIG. 3

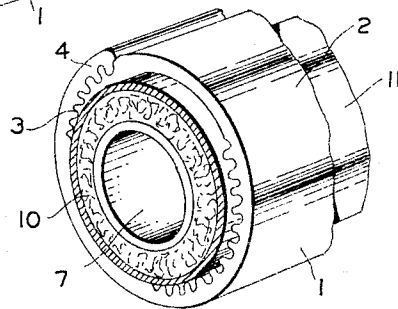


FIG. 4

1

2

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This invention relates to apparatus for covering pipes, conduits, cables and the like (all hereinafter referred to as "pipes") so as to form an insulating, protective and/or ornamental layer therearound, and is particularly concerned with such devices of the kind comprising a strip of resilient material (such as a synthetic plastic material) which is adapted to be wrapped around such pipes in the form of a sleeve. The invention is also concerned with providing such a device in a form which will facilitate identification of a pipe with which it is associated.

Thus, according to this invention there is provided an insulating, protective and/or ornamental cover for pipes and the like, comprising a strip of resilient material formed with a plurality of ribs parallel to its longitudinal edges, adjacent pairs of such ribs being separated by grooves of such dimensions that the said ribs may be snapped into engagement with such grooves, so that the strip may be wrapped around a pipe with the said ribs and grooves parallel to the longitudinal axis of the latter and the ribs near to one longitudinal edge of the strip snapped into engagement with the groove near to the other longitudinal edge thereof.

Preferably, and in accordance with a further feature of the invention, the strip may be so formed that portions may be removed therefrom by tearing or cutting the strip along any of the said grooves therein, so as to fit the cover to pipes of varying diameters.

Conveniently, and in accordance with another feature of the invention, the said strip may be formed with an external dovetail-shaped channel adapted to receive means for identifying a pipe to which the cover is applied.

In order that the invention may be more readily understood, one embodiment of the same will now be described by way of example and with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of a cover according to the invention;

FIGURE 2 is a perspective view of the cover mounted on a relatively thick electrical cable;

FIGURE 3 is a perspective view of the cover mounted on an electrical cable of smaller diameter; and

FIGURE 4 is a perspective view showing a manner in which the cover may be used to insulate a pipe.

Reference numeral 1 designates a strip formed of plastic material, conveniently manufactured by an extrusion process in a substantially annular form and subsequently longitudinally cut so as to form a central portion 2 located between two edge portions 3 and 4, respectively. The edge portion 3 is provided with external ribs separated by grooves, whilst the edge 4 has corresponding interior ribs and grooves. As may be seen from the drawing, said ribs and grooves are arranged parallel to the longitudinal axis of the cable 5 or 6 (FIGURES 2 and 3) or tube 7 (FIGURE 4), respectively. In the embodiment shown in FIGURES 1, 2 and 3, the central portion 2 has an external channel 8 of dovetail-shaped cross-section. This channel may receive a designating or identifying plate, e.g., as shown in FIGURE 2 where a plate 9 formed of a resilient material such as plastic is held in position in the channel 8.

FIGURE 2 shows a cover mounted on an electrical cable 5 the outer diameter of which is such that the outermost rib of the edge 4 of the strip engages the groove of edge 3 located nearest the central portion 2. However, in FIGURE 3 the same cover is shown mounted on a cable of considerably smaller diameter, the projecting part

of the edge portion 4 being subsequently removed; such removal can easily be carried out by cutting or tearing along an appropriate groove.

In the embodiment shown in FIGURE 4, the strip 1 is mounted on a pipe 7 surrounded by a heat insulating layer 10 which is maintained in position by a sheet 11 of paper or similar material. Around said sheet there is wrapped a cover in accordance with this invention, the presence of which not only considerably improves the appearance of the insulated pipe but also gives a practically complete protection against damage of the interior insulation layer by mechanical forces or moisture. Moreover, the presence of such a sleeve naturally augments the total insulating capacity.

It is to be understood that the embodiments above described and illustrated in the drawings are only intended to clarify the principal idea underlying this invention and that several modifications are feasible as far as the detailed structure as well as the field of use are concerned.

When the cover is formed with a channel 8 as above described for receiving an identifying member, such an identification or designation can be attained by using strips in different colours for different objects. An additional advantage, when the subject of this invention is used as a sleeve around tubes and similar objects, resides in that if it is applied simultaneously with the insulation material it may also serve the purpose of keeping the latter in position, so that the layer 11 shown in FIGURE 4 may be dispensed with. In such cases it may be preferred to manufacture the device in highly elastic plastic material so that it can be stretched round the pipe. Moreover, the groove 8 may also receive other means, e.g. holders for suspending a pipe to which the cover is applied.

What is claimed is:

1. A pipe covering material which is adapted to securely fit around pipes of more than one diameter, comprising:
 - (a) a strip of resilient plastic material having an exterior surface and an interior surface,
 - (b) said strip having two terminal edge portions, each of said edge portions extending along a line which is parallel to the axis of the pipe to be covered,
 - (c) a portion of the outer surface of said strip being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (d) a portion of the inner surface of said strip also being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (e) the number of ribs and grooves on said inner surface being substantially greater than the number of ribs and grooves on said outer surface,
 - (f) the terminal edge portions of said strip being adapted to overlap to a greater or lesser extent depending upon the size of the pipe which one desires to cover to thereby snugly fit around the exterior surface of the pipe,
 - (g) said ribs and grooves on said exterior surface interlocking with the grooves and ribs on said inner surface when said terminal edge portions are overlapped to thereby engage said terminal edge portions and hold them securely in position around the exterior of a pipe,
 - (h) said strip having a thickened central portion intermediate said terminal edge portions,
 - (i) said thickened central portion having on its exterior surface a recessed channel section,
 - (j) said recessed channel section extending generally parallel to said ribs and grooves and having dovetail cross section,
 - (k) said recessed channel section being provided with

- an identifying means which is resiliently and releasably held in said channel.
2. A pipe covering material which is adapted to securely fit around pipes of more than one diameter, comprising:
 - (a) a strip of resilient plastic material having an exterior surface and an interior surface,
 - (b) said strip having two terminal edge portions, each of said edge portions extending along a line which is parallel to the axis of the pipe to be covered,
 - (c) a portion of the outer surface of said strip being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (d) a portion of the inner surface of said strip also being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (e) the number of ribs and grooves on said inner surface being substantially greater than the number of ribs and grooves on said outer surface,
 - (f) the terminal edge portions of said strip being adapted to overlap to a greater or lesser extent depending upon the size of the pipe which one desires to cover to thereby snugly fit around the exterior surface of the pipe,
 - (g) said ribs and grooves on said exterior surface interlocking with the grooves and ribs on said inner surface when said terminal edge portions are overlapped to thereby engage said terminal edge portions and hold them securely in position around the exterior of a pipe,
 - (h) the grooves and ribs on said inner surface which extend beyond the juncture of said terminal edge portions and which are not interlocked with the ribs and grooves of said exterior surface being severable as a surplus marginal section,
 - (i) said strip having on its exterior surface a recessed channel section,
 - (j) said recessed channel section extending generally parallel to said ribs and grooves,
 - (k) said recessed channel section being adapted to receive an identifying means which can be resiliently and releasably held in said channel.
 3. A pipe covering material which is adapted to securely fit around pipes of more than one diameter, comprising:
 - (a) a strip of resilient plastic material having an exterior surface and an interior surface,
 - (b) said strip having two terminal edge portions, each of said edge portions extending along a line which is parallel to the axis of the pipe to be covered,
 - (c) a portion of the outer surface of said strip being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (d) a portion of the inner surface of said strip also being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,

- (e) the number of ribs and grooves on said inner surface being substantially greater than the number of ribs and grooves on said outer surface,
 - (f) the terminal edge portions of said strip being adapted to overlap to a greater or lesser extent depending upon the size of the pipe which one desires to cover to thereby snugly fit around the exterior surface of the pipe,
 - (g) said ribs and grooves on said exterior surface interlocking with the grooves and ribs on said inner surface when said terminal edge portions are overlapped to thereby engage said terminal edge portions and hold them securely in position around the exterior of a pipe,
 - (h) the exterior surface of said strip being provided with identifying means.
4. A pipe covering material which is adapted to securely fit around pipes of more than one diameter, comprising:
 - (a) a strip of resilient material having an exterior surface and an interior surface,
 - (b) said strip having two terminal edge portions, each of said edge portions extending along a line which is parallel to the axis of the pipe to be covered,
 - (c) a portion of the outer surface of said strip being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (d) a portion of the inner surface of said strip also being provided with a plurality of alternating ribs and grooves which extend along lines which are parallel to the axis of the pipe to be covered,
 - (e) the number of ribs and grooves on said inner surface being substantially greater than the number of ribs and grooves on said outer surface,
 - (f) the terminal edge portions of said strip being adapted to overlap to a greater or lesser extent depending upon the size of the pipe which one desires to cover to thereby snugly fit around the exterior surface of the pipe,
 - (g) said ribs and grooves on said exterior surface interlocking with the grooves and ribs on said inner surface when said terminal edge portions are overlapped to thereby engage said terminal edge portions and hold them securely in position around the exterior of a pipe.

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