

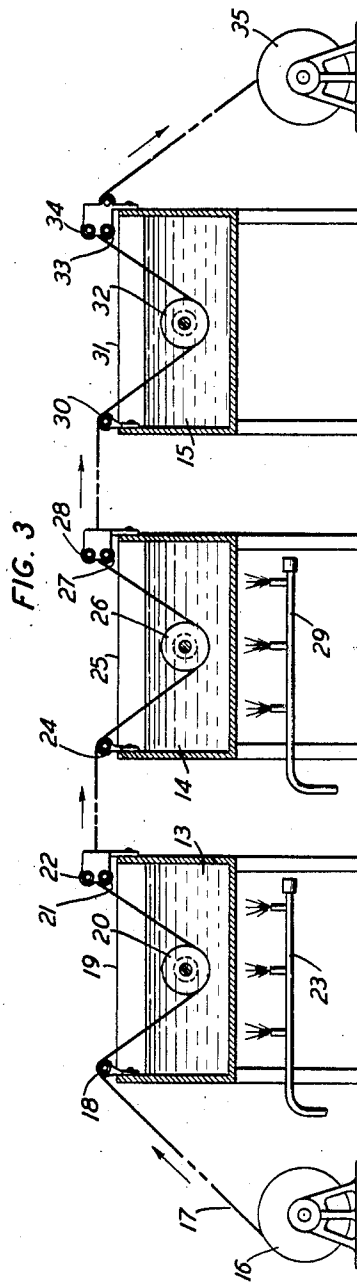
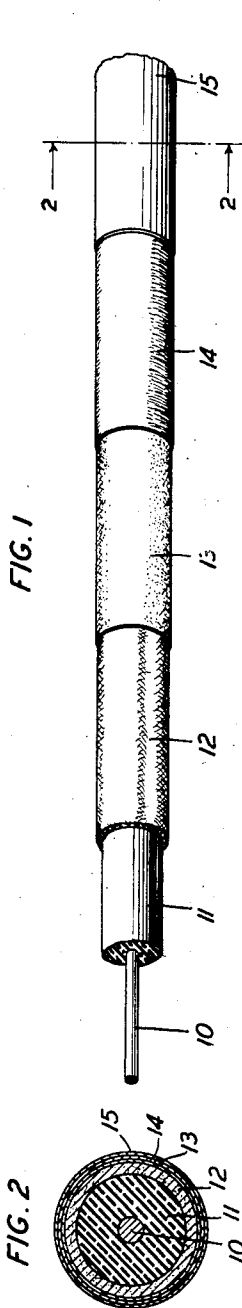
July 16, 1935.

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2,008,277

COATING FOR INSULATED WIRES

Filed June 16, 1933



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2,008,277

COATING FOR INSULATED WIRES

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Application June 16, 1933, Serial No. 676,130

16 Claims. (Cl. 91-68)

This invention relates to insulated conductors and the like, and more particularly to the provision of applying to the fabric jacket of such conductors one or more coatings of a preservative compound.

The object of this invention is to provide a conductor, the fabric jacket of which is first treated with a suitable saturant and upon which is placed a coating of a fire-resisting and weather-proofing compound preferably stearine pitch, having a pigment therein which produces a coating of predetermined color on the jacket of said conductor and which completely masks out the undercoating or saturant, which is usually of a different color. Over this colored coating is placed a thin film of a suitable material which may be either transparent or of a color corresponding to that of the undercoating, this finishing coat serving to prevent the adjacent coils of the wire from sticking and to provide on the conductor a smooth, slick finish.

The invention is fully described in the following specification of which the accompanying drawing forms a part.

Fig. 1 is a detailed view of an electrical conductor illustrating the various coatings thereon;

Fig. 2 is a view in cross-section taken on line 2-2 of Fig. 1;

Fig. 3 is a diagrammatic showing illustrating one suitable way of carrying out applicant's invention.

As shown in Figs. 1 and 2 applicant's finished conductor comprises a central conducting core 10, a rubber or other insulating covering 11 surrounding said core and a fabric jacket 12 over said rubber covering, said fabric jacket 12 being impregnated with a saturant 13, said saturant 13 having a base of asphalt or coal tar pitch. Over this coating of saturant is applied a coating of pigmented stearine pitch over which a final finishing coating of a suitable anti-stick material is applied, for example, an aqueous soap solution such as is shown in the pending application of E. M. Honan, No. 681,330, or the anti-stick compound disclosed in the Young Patent No. 1,327,933, January 13, 1920.

Applicant has illustrated one method of carrying out his invention and has diagrammatically shown apparatus for applying the coating to the insulated conductor.

In Fig. 3, 16 is a reel having a quantity of insulated conductor 17 thereon which comprises a wire or conductor core 10, a rubber or other insulating covering 11 and a fabric jacket 12. This fabric jacket may be in the form of a cotton braid

or any other suitable material. The insulated braided conductor 17 passes from the reel 16 over the guide roller 18 into the tank 19 which contains the saturant 13, under the sheave 20 mounted in said tank and passes out of the tank between the rollers 21 and 22 which are located at the opposite end of the tank, these rollers serving to remove the surplus saturants from the wire. The tank 19 is heated by the burners 23 or may be heated by any other suitable means which will maintain the saturant 13 at the desired temperature.

The saturant 13 is in the form of a compound having the usual weather-proof property and may comprise a solution having either an asphalt or a coal tar base and is usually black in color. After passing through the tank 19, the saturated conductor 17 passes over the guide roller 24 into the tank 25 which contains the coating compound 14. This coating compound contains a large proportion of stearin pitch pigmented to yield a predetermined color. The wire 17 passes through this solution under the sheave 26 and out of the tank 25 between the rollers 27 and 28, these rollers serving to remove the surplus coating from the wire 17. The tank 25 may also be heated by any suitable means, such as the burner 29, for maintaining the stearin pitch at its proper temperature.

The compound 14 has a base of stearin pitch with a suitable pigment in it to give it the desired color which will completely mask out the black saturant and provide a weather-proof and fire-retardant coating over said saturant and fabric jacket. After the conductor 17 is treated with the coal tar pitch or asphalt saturant 13 and the stearin pitch pigmented coating 14, the conductor is passed over the guide roller 30 into the tank 31 which contains a finishing compound 15, under the sheave 32 and out of the tank between the rollers 33 and 34 which remove the surplus finishing compound and exert a pressure on the finished conductor 17, which then passes onto the take-up reel 35.

The finishing compound 15 may be the anti-stick solution disclosed in the Young Patent No. 1,327,933 or it may be an aqueous soap solution, such as disclosed in the pending application of E. M. Honan heretofore referred to.

If it is desired the finishing compound 15 may have incorporated therein a pigment or dye, this pigment or dye to be the same color as the pigment in the stearin pitch coating 14.

The finishing compound 15 may also have in-

corporated therein a small amount of beta-naphthol to act as a mold inhibitor.

It is to be understood that applicant's improved finish, which employs a pigmented stearin pitch, may be produced in an ivory, and in various shades of green, blue, red, yellow, gray, etc., so as to provide in a multiple conductor, contrasting colors between the various conductors to readily distinguish one from the other.

While the applicant has shown and described certain types of apparatus for applying the various coatings to the insulated conductor and has set forth certain ingredients in the compound, it will be understood that his invention is not limited in these respects and various changes and modifications of the invention herein disclosed may be made within the scope of the appended claims without departing from the spirit of the invention.

What is claimed is:

1. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a suitable transparent material containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

2. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having a coal tar pitch base, to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a suitable transparent material containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

3. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having an asphalt base, to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a suitable transparent material containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

4. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of an aqueous soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

5. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having a coal tar pitch base, to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of an aqueous soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

6. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having an asphalt base, to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket,

and then applying a finishing coating of an aqueous soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

7. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a pigmented soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

8. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having a coal tar pitch base, to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a pigmented soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

9. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having an asphalt base, to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a pigmented soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

10. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a black saturant to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a suitable transparent material containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

11. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a black saturant to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying an aqueous soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

12. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a black saturant to said jacket, then applying a coating of pigmented stearin pitch over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a pigmented aqueous soap solution containing a mold inhibitor over said colored coating to provide a non-sticking finish to said conductor.

13. The process of treating the fabric jacket of an insulated electrical conductor, which comprises, first applying a saturant, having a coal tar pitch base, to said jacket, then applying a coating of a pigmented flame retarding compound over said saturant to mask out said saturant and to color said jacket, and then applying a finishing coating of a pigmented aqueous soap solution containing beta-naphthol over said colored coating to provide a non-sticking finish to said conductor.

14. A jacket for electrical conductors comprising

ing a fabric jacket impregnated with a saturant, a coating of pigmented stearin pitch applied over said saturant to mask out said saturant and to color said jacket and a final coating of a suitable transparent material, having a mold inhibitor incorporated therein, applied over said pigmented stearin pitch coating to provide a non-sticking finish to said jacket.

15. A jacket for electrical conductors comprising a fabric jacket impregnated with a saturant having a cold tar pitch base, a coating of pigmented stearin pitch applied over said saturant to mask out said saturant and to color said jacket and a final coating of a suitable transparent

material, having a mold inhibitor incorporated therein, applied over said pigmented stearin pitch coating to provide a non-sticking finish to said jacket.

16. A jacket for electrical conductors comprising a fabric jacket impregnated with a saturant having a cold tar pitch base, a coating of pigmented stearin pitch applied over said saturant to mask out said saturant and to color said jacket and a final coating of a suitable transparent material, containing beta-naphthol, applied over said pigmented stearin pitch coating to provide a non-sticking finish to said jacket.

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