

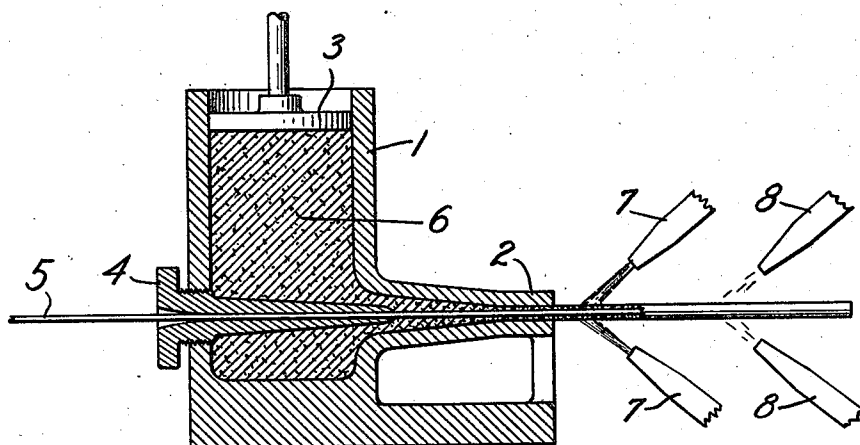
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METHOD OF PRODUCING COATED CORES

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UNITED STATES PATENT OFFICE.

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METHOD OF PRODUCING COATED CORES.

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This invention relates to electric cable and the process of making the same.

The principal deterrent to the extension of central station power service into rural communities is recognized as being the disproportionately high initial cost for line extension. The usual type of construction for reaching rural roads is the pole-line which, of course, is relatively very expensive.

It is the object of this invention to provide a cable and a process of making the same which shall be both cheap and efficient.

In accordance with this invention a mixture of paper pulp and heavy oil, the paper pulp being preferably a stiff compound of chemically and minerally pure dehydrated sulphite pulp, and the oil being preferably petrolatum. The covering may be applied by extruding the same upon the wire by a tubing machine and as it emerges therefrom it is sprayed with a quick drying cohesive, such as ether-shellac, to form a film completely surrounding the wire and coating to hold the pulp in position as it is passing to the lead press or equivalent sheathing machine. Preferably a blast of cold, dry air is applied to the coating after the shellac is applied. A great advantage of the present covering resides in the fact that it is capable of being applied to the conductor through a tubing machine, such as is used by most manufacturers of rubber covered wire and cable, a very much cheaper way than to apply paper in the form of tape, which is slow and expensive and which must be followed by a still slower process of dehydration and impregnation in tanks. The use of petrolatum which does not harden leaves the pulp insulation sufficiently soft so that the covering remains in a plastic condition and the insulation is not impaired when the conductor is subjected to the ordinary bends resulting from normal working, as in the case of paper tape covering.

The method and product will be more clearly understood from the following description taken in connection with the attached drawing which shows schematically the method of applying the coating.

In the drawing, 1 represents a container

preferably of metal and having a nozzle 2 projecting therefrom near the bottom. The mixture 6 of pulp and oil such as petrolatum is introduced into the container and pressure applied in some manner such as by piston 3 to force the mixture through the nozzle 2. A removable plug 4 is inserted in the container diametrically opposite the nozzle and through a longitudinal hole in the plug the wire 5 is slowly drawn. The axes of plug 4 and nozzle 2 should coincide as nearly as possible so that the wire 5 may pass through the container in a straight line and be held at the center of the nozzle.

As the wire passes out of the nozzle 2 some of the pulp and oil mixture which is under the pressure exerted by piston 3 will be forced out with it and will tend to adhere thereto. A series of nozzles 7 is arranged to spray the pulp coating as it leaves nozzle 2 with a quick drying cohesive substance such as ether-shellac, alcohol-shellac, etc. A second series of nozzles 8 is arranged to direct a blast of cold dry air on the coating to dry it and thereby hold the soft pulpy material in position until it reaches the lead press (not shown) where a lead sheath is applied in the well known manner. In some cases it may be desirable to use some form of silicate carried in alcohol or ether through the atomizer jets to prevent the hot lead from distorting the insulating tube where the hot lead strikes it.

Other means may be employed for feeding the mixture to the container and for applying pressure to the mixture than that shown. Applicant's drawing merely shows a very simple method and is not to be limited to the specific means above.

What is claimed is:

1. A process of coating cores which consists in extruding a mixture of pulp and heavy oil on said core, coating the same with a film of cohesive material, and enclosing the whole in a sheath.

2. A process of coating cores which consists in passing said core through a mixture of paper pulp and a heavy oil which is under pressure, coating the adhesive mixture with a film of cohesive material, and enclosing the whole in a sheath.

3. A process of coating cores which consists in extruding, under pressure, a mixture of chemically and minerally pure dehydrated sulphite pulp and a heavy oil, such as
5 petrolatum, coating the same with a film of a quick drying cohesive material, such as ether or alcohol shellac, applying a blast of cold dry air and then enclosing the whole in a sheath.

In witness whereof, I hereunto subscribe
my name this 11th day of February A. D.,
1925. 10

JOSEPH L. RAY.