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TWINE TREATING MIXTURES AND TWINE TREATED THEREWITH

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This invention relates to yarn or twine treating mixtures and also to yarn or twine treated therewith, particularly hard twisted or braided yarns or twines of flax, other bast fibers, cotton, synthetic fibers or the like intended for use as harness twine in Jacquard mechanisms of looms employed in weaving fancy or ornamented fabrics. In the past, such yarns or twines have been treated with a starch solution to strengthen and reinforce them and, after drying, to coat and polish them with graphite for the purposes of lubrication and resistance to wear. This two-stage treatment was time consuming and did not result in penetration of the twines by the graphite, with the result that rapid wear of the twines took place after breaking down of the coating through abrasion with guides or metal parts of the Jacquard mechanisms.

My invention is directed toward overcoming the above drawbacks. This objective is realized in practice, as hereinafter more fully disclosed, through provision of a combined impregnating and coating preparation with which the yarn or twine can be treated in one operation to strengthen it and at the same time render it more resistive to rapid wear.

In carrying out my invention, I prepare a new treating mixture by mechanically stirring a quantity of colloidal graphite into cold water, and by incidentally adding quantities of a suitable starch or starches, beeswax and/or other waxes.

A mixture produced with ingredients of the following

proportions has given highly satisfactory results in practice.

4 lbs. of colloidal graphite dispersion in 1½ gallons of water.
10 lbs. of potato starch.
10 lbs. of tapioca starch.
4 lbs. of beeswax.
2 lbs. of carnauba wax.
Sufficient water to make 50 gallons.

To treat the yarn or twine, I soak it in the hot mixture of colloidal graphite, starches and waxes until thoroughly saturated, and then after drying and setting of the treating medium, I polish the yarn or twine to provide it with a smooth hard wear-resistant surface.

It is to be understood that I do not consider myself limited to the precise proportions of the ingredients herein given above by way of example, since the proportioning can be varied depending upon the absorptive characteristics of the material from which the yarn or twine is spun, and upon the degree of stiffness and lubrication desired in the yarns or twines.

Having thus described my invention, I claim:

1. A fluid impregnating and coating composition consisting of a mixture of four pounds colloidal graphite, ten pounds of potato starch, ten pounds of tapioca starch, four pounds of beeswax and two pounds of carnauba wax and water in sufficient quantity to render the composition fluent.

2. As a new product of manufacture, polished twine for loom harnesses impregnated and coated with the composition defined in claim 1.

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