

UNITED STATES PATENT OFFICE.

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PULLEY COVERING.

No Drawing.

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The present invention relates to an improved article of manufacture which is more particularly adapted for use as a covering for the traction surface of a belt pulley.

After making extensive research, in the field of invention relating to pulley construction, I have found that practically all pulleys in use today, allow a certain amount of slipping of the belt over the surface, especially when the belt is not properly adjusted or is too loose.

This is objectionable as it permits a loss of power and makes it necessary to provide belt tighteners, and to keep the belt comparatively tight at all times. It follows also, that this is objectionable because a tight belt causes undue wear on the bearings and shafts, and this decidedly shortens the life of the parts.

What I propose, is an especially treated fabric covering for the traction surface of a pulley, the improved article having many advantages in that it will last a long time and will prevent the belt from slipping, thereby conserving 25% to 30% of the power, obviating the necessity of running the belt too tight, and eliminating the use of belt dressings, such as are injurious, to the belting material.

The novelty of the invention resides more particularly in a special compound which is provided for coating a fabric backing composed preferably of an open mesh muslin.

In accordance with the foregoing statement, the principal element of the product is the muslin. Secondly, there is the special liquid coating compound provided for coating the opposite surfaces of the muslin in order to produce a product such as operates as an efficient covering for the pulley surface.

The compound embodies substantially eight ingredients or constituents. These will be listed in order that they may be clearly understood.

First, I employ gum arabic, which is obtained from a species of acacia and this particular element is employed for use as a masticatory.

Secondly, I employ ground glue, which is used because of its tenacious properties and further for the reason that it will adhere and stick readily to either, iron, or steel.

Third, I employ isinglass, which is used for hardening the composition and which is advantageous in that it possesses certain tenacious or sticking qualities.

Fourth, I use, alum, employed for the purpose of hardening the composition.

Fifth, I employ sal soda for its cleansing properties, for its ability to prevent dust and dirt from accumulating in the composition, and because of its smoothing qualities.

Sixth, I employ, flour which is used for providing a body and a base and because of its ability to suspend and to cause the other ingredients to be better distributed.

Seventh, I employ sugar to prevent the composition from becoming brittle, and to prevent it from cracking and breaking after it is applied to the cloth.

Finally, I employ lampblack, which is used for coloring and to retard the heat which is produced by the friction of the belt running against the covering.

It is preferable to use the following quantities to about eighty square yards of unbleached muslin:

	Pounds.
Gum arabic.....	4
Ground glue.....	15
Alum.....	1
Lampblack.....	1
Isinglass.....	1
Flour.....	12
Sugar.....	4
Sal soda.....	1

The above ingredients in the proportions stated, are mixed together in approximately 8 gallons of water, and are boiled until all of the ingredients become thoroughly intermingled and dissolved.

Then, the composition while still in a warm liquid state, is applied to both sides of a highly porous stretch of unbleached muslin through the medium of an appropriate brush. It is easy to spread and the cloth absorbs it quite readily. Assuming that the entire eighty square yards of muslin has been coated, it will be obvious that it must be allowed to stand until it becomes dry.

The drying process takes from ten to twelve hours. When finished, the product simply looks like the cloth which has been painted black. Of course, the large piece is stripped or cut into smaller pieces such as

will be appropriate for mounting on the particular pulleys by hand.

Care should be exercised in applying the covering to the surface of the pulleys. To
5 begin with, the surface of the pulley must be perfectly clean. In fact, it is advisable to clean it with gasoline. Then the coated piece of cloth is put into hot water for a period of
10 twenty seconds or so, and it is quickly removed and wrapped around the surface of the pulley, so as to prevent an air space between the pulley and the covering. The edge of the covering should be lapped about two inches.

15 Obviously, the covering must be thoroughly dried before the belt can be applied thereto. As stated it takes ten to twelve hours for this to dry. The belt, running over the covering, causes it to become very hard and the ingredients employed in the
20 covering have no injurious effects upon the belt whatever. In fact, the result is advantageous in that it prevents slipping of the belt. It allows also the belt to be run comparatively loose while obtaining sufficient
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traction. This eliminates wear and tear on the bearings and journal.

It is believed that by considering the description in connection with the drawings, a clear understanding of the invention will
30 be had. Therefore, a more lengthy description is thought unnecessary.

Having thus described my invention, what I claim as new is:—

As a new product of manufacture, a
35 covering for the surface of a pulley, said covering comprising a backing member of unbleached muslin, and a liquid coating for said muslin, possessing adhesive properties
40 for causing the muslin to stick to the surface of the pulley when applied and for subsequently producing tenacious belt traction, said coating comprising gum arabic, four
45 pounds; ground glue, fifteen pounds; alum, one pound; lampblack, one pound; isinglass, one pound; flour, twelve pounds; sugar, four pounds; and sal soda, one pound.

In testimony whereof I affix my signature.

ANTON SCHWIEREN.