W. R. NORRIS.

MATERIAL FOR PULLEY-COVERS.

No. 193,273. Patented July 17, 1877.

Fig. 1.

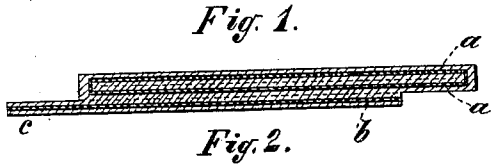


Fig. 2.

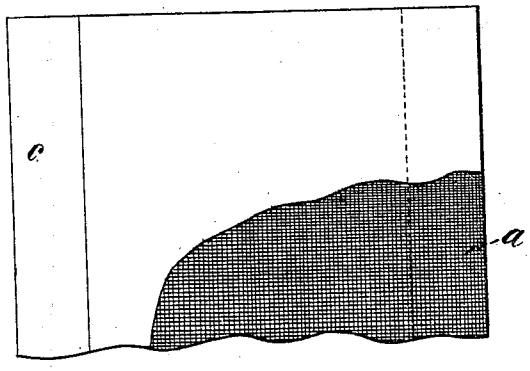


Fig. 3.

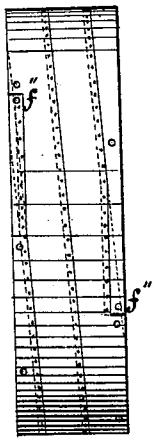


Fig. 4.

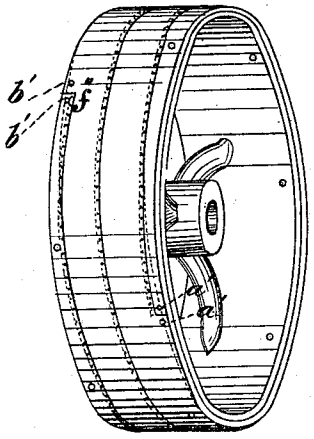
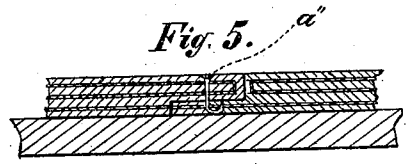


Fig. 5.



Witnesses:

Henry Eichling.

H. Wells Jr.

Inventor:

William R. Norris

per James A. Whitney.

Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM R. NORRIS, OF FORT ANN, ASSIGNOR TO JOHN W. SUTTON, OF NEW YORK, N. Y.

IMPROVEMENT IN MATERIAL FOR PULLEY-COVERS.

Specification forming part of Letters Patent No. **193,273**, dated July 17, 1877; application filed June 15, 1877.

To all whom it may concern:

Be it known that I, WILLIAM R. NORRIS, of Fort Ann, in the county of Washington and State of New York, have invented an Improvement in Material for Pulley-Covers, of which the following is a specification:

The object of this invention is to provide a material for covering pulleys, by the use of which a pulley of any required diameter or width of face may be covered with a uniform thickness of a semi-elastic substance, in order to afford a firmer hold of the belt or driving-band thereon—in other words, to prevent the slipping of the belt or driving-band.

The invention comprises, as a new article of manufacture, the banding composed of combined woven fabric and india-rubber, with nearly or quite parallel edges, one of which, at the inner side of the band, is provided with a laterally-projecting longitudinal lip, while the other of said edges is provided with a longitudinal rabbet, corresponding in size and configuration to the lip at the opposite or first-mentioned edge aforesaid, so that, when the banding is coiled spirally around the face of a pulley or drum, the lip of one coil will fit within the rabbet of the adjacent coil, so that the edges of the successive coils lap upon and bind each other without interfering with the perfect uniformity requisite in the surface of the covering provided to the pulley by the application of the banding.

Figure 1 is a cross-section of the new article of manufacture comprised in my invention. Fig. 2 is a face view and partial longitudinal section, taken flatwise of the article. Fig. 3 is a side view, Fig. 4 is a perspective view, and Fig. 5 a cross-sectional view, representing the manner in which said article is applied, in practice, on pulleys, drums, &c.

The article is composed of a suitable fabric, disposed as shown at *a b* in Fig. 1, this fabric *a b* being embedded in soft vulcanized rubber in a manner that will be readily understood by any manufacturer or maker of "rubber belting," so called. The warp and weft of this fabric run, respectively, lengthwise and crosswise of the material, care being taken to avoid a bias cut, it being important that the fabric should be as nearly as possible non-elastic in the direction of its length.

The disposition of the portion *a* of the fabric with reference to the portion *b* thereof is such as to provide at one edge of the article (called, for convenience of description, "a banding") a longitudinal lip, *c*, and at the opposite edge of said article a rabbet, *d*, the section and size of which corresponds with the section and size of the lip *c*, consequently, when the article or banding herein just described is coiled around the drum or pulley in spiral form, as represented in Fig. 3, the lip *c* on one edge thereof will fit into and occupy the rabbet *d* in the opposite edge of the next adjacent coil, so that the edges of the successive coils overlap each other to bind and retain the edges in proper relation with each other, in order to preserve a practically uniform outer surface to the pulley-cover when complete.

The overlapping edges of the material are cemented together with cement of any suitable kind, and the inner surface of the material, moreover, is in like manner cemented to the surface of the drum or pulley. Nails *a''* are driven through the overlapping edges aforesaid, and, striking the metallic surface of the pulley, are clinched, as represented in Fig. 5; and in addition to the fastening just set forth, the two end portions of the cover, as thus applied, are riveted to the thin edge portions of the pulley, as represented at *a' b'* in Fig. 3.

Any surplus that may project beyond the lateral edges of the pulley in affixing the cover thereto is to be trimmed off coincident with said edges. Furthermore, the aforesaid end portions, instead of being cut straight to a point, are, for a part of their length, made with parallel edges, and fit against a squared shoulder formed in the next adjacent coil, as shown at *f''* in Fig. 3, sufficient width and proper form of material being thus afforded

at the ends to enable the rivets to maintain a firm hold in securing the said ends to the pulley.

What I claim as my invention is—

As a new article of manufacture, the herein-described material for pulley-covers, composed of a suitable fabric embedded in soft vulcanized rubber, and provided at one edge with the lip *c*, and at the other with the rabbet *d*, said lip and rabbet having due proportion to each other, all substantially as and for the purpose herein set forth.

W. R. NORRIS.

Witnesses:

EDWARD HOLLY,

HENRY EICHLING.