F. B. McILROY.

TRANSMISSION LINING.

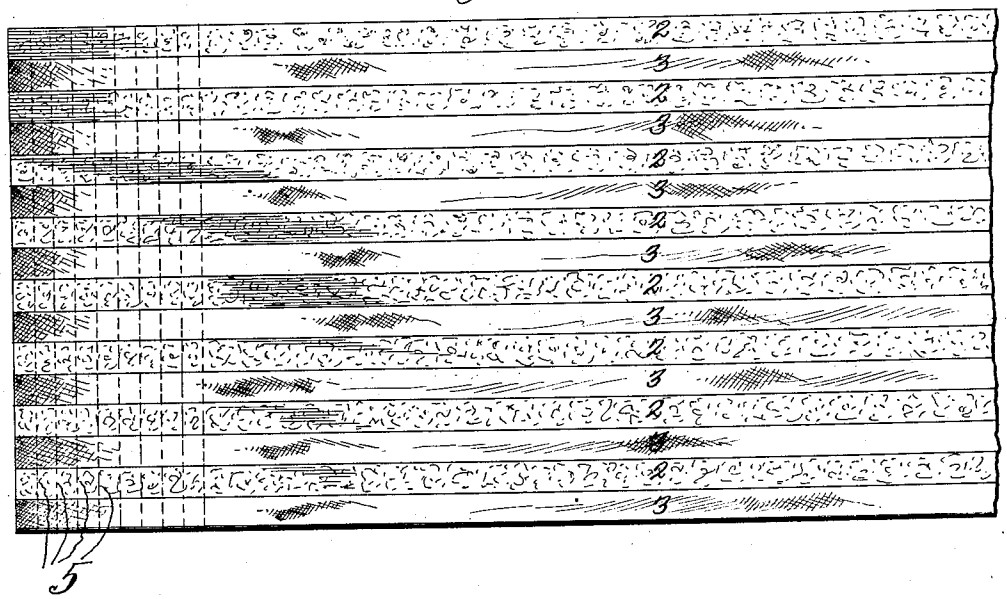
APPLICATION FILED JAN. 23, 1920.

1,406,049.

Patented Feb. 7, 1922.

2 SHEETS—SHEET 1.

Fig. 1



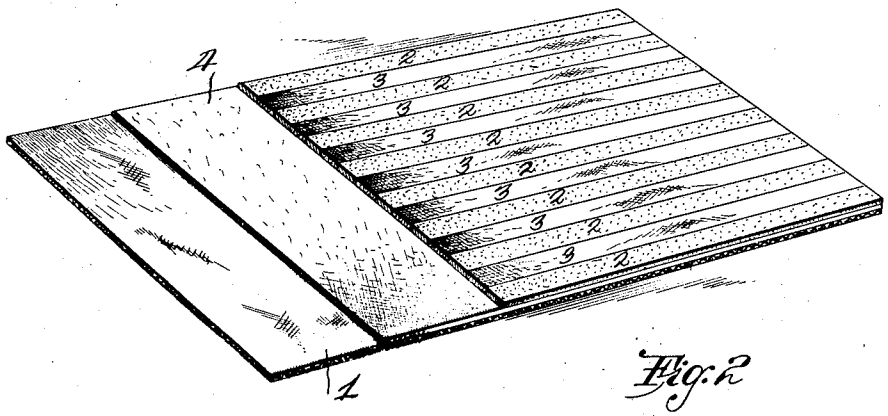


Fig. 2

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2 SHEETS—SHEET 2.

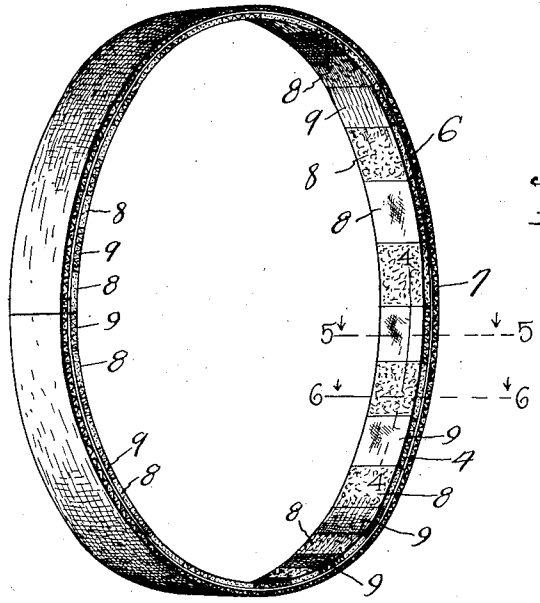


Fig. 3



Fig. 4

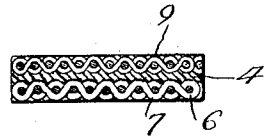


Fig. 5

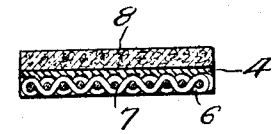


Fig. 6

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UNITED STATES PATENT OFFICE.

FRANCIS B. McILROY, OF HAMMOND, INDIANA.

TRANSMISSION LINING.

1,406,049. Specification of Letters Patent. Patented Feb. 7, 1922.

Application filed January 23, 1920. Serial No. 353,617.

To all whom it may concern:

Be it known that FRANCIS B. McILROY, a citizen of the United States, residing at Hammond, in the county of Lake and State of Indiana, has invented certain new and useful Improvements in Transmission Linings, of which the following is a specification, reference being had therein to the accompanying drawing.

The invention relates to linings for transmission brake bands and the like, and has for its object to provide linings of this character comprising a strip of material having adhesively joined thereto alternate inserts of different material, said material being preferably cork and fabric.

A further object is to provide a transmission lining comprising a strip of fabric having adhesively secured thereto alternate rectangular shaped inserts of cork and fabric.

A further object is to form said transmission linings by adhesively securing to a sheet of material strips of material, then severing the sheet at an angle to the strips of material so as to form brake band linings.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawings, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a plan view of a sheet of material formed from strips adhesively joined to a single sheet of material.

Figure 2 is a view in perspective of the sheets as shown in Figure 1, parts being broken away to show the adhesive and solid sheet.

Figure 3 is a perspective of a transmission brake band lining.

Figure 4 is a sectional view taken on line 4—4 of Figure 3.

Figure 5 is a sectional view taken on line 5—5 of Figure 3.

Figure 6 is a sectional view taken on line 6—6 of Figure 3.

Referring to the drawings, the numeral 1 designates a sheet of fabric preferably canvas, to which fabric is joined alternate strips 2 and 3 of cork and fabric by an adhesive 4. Adhesive 4 is preferably a celluloid cement made by dissolving celluloid in acetone and adding gum camphor as a preventative against souring. It has been found that by raising the camphor content of the celluloid, that the cement so formed is water proof and to a great extent impervious to heat, acid or oil. However, it is to be understood that any form of adhesive may be employed.

The sheets having been formed as shown in Figures 1 and 2 they are severed transversely at right angles to the adhesively joined strips as shown by the dotted lines 5 in Figure 1, thereby forming transmission brake lining 6, as shown in Figure 3. Each brake lining when so formed will comprise a fabric band 7 to which is adhesively joined alternate rectangular shaped inserts 8 and 9 of cork and fabric, thereby providing a brake lining for transmissions wherein the cork will provide and have the highest coefficient of friction and at the same time the cork is not materially affected by either excessive lubrication or lack of it and posesses very desirable wearing qualities, by providing rectangular shaped inserts of cork the disadvantage of providing a solid sheet with cork inserts is obviated, said disadvantage being that corks are too brittle to be used with any great degree of success. When applied to a transmission brake band the cork works alone at low or medium pressure as its frictional coefficient is high and at high pressures the fabric inserts also become tightly engaged, therefore the excellent wearing qualities of the combined surfaces. By providing a relatively large proportion of one of the contacting surfaces formed from cork cutting will be prevented, no matter whether there is lubricant present or not.

By forming the linings by cutting the sheets transversely after the strips of material have been adhesively secured thereto, it will be seen that considerable time is saved in forming the lining. It will also be seen that by so forming the lining that the inserts of cork will be securely backed up by the fabric strip 7, thereby holding the inserts of cork and fabric in aligned positions. It will also be seen that by so forming the linings that the transverse edges of the cork and fabric inserts 8 and 9 when the lining is shown in a circle as formed in Figure 3, the inserts will be forced into tight engagement with each other, thereby preventing the fracturing of the cork inserts adjacent their transverse edges.

The invention having been set forth what is claimed as new and useful is:—

1. A brake lining comprising a strip of material having secured thereto alternate inserts of different materials extending entirely across the strip.

2. A brake lining comprising a strip of material having adhesively secured thereto inserts of different materials, said inserts being of substantially the same width as the strip of material, said inserts have their engaging edges extending transversely of the strip of material.

3. A brake lining comprising a strip of fabric having adhesively secured thereto engaging inserts of fabric and cork, said inserts being of substantially the same width as the strip of fabric, said inserts having their engaging edges transversely disposed.

4. A brake lining comprising a stip of fabric having adhesively secured thereto engaging inserts of cork and fabric, said inserts being rectangular in shape and having their engaging edges transversely disposed.

5. A brake lining comprising a strip of fabric having adhesively secured thereto inserts of cork and fabric, said inserts being rectangular in shape and of substantially the same width as the strip of fabric.

In testimony whereof I hereunto affix my signature.

FRANCIS B. McILROY.