R. KITSON.

CLOTHING FOR MACHINES FOR CARDING, PICKING, &c.

No. 187,537. Patented Feb. 20, 1877.

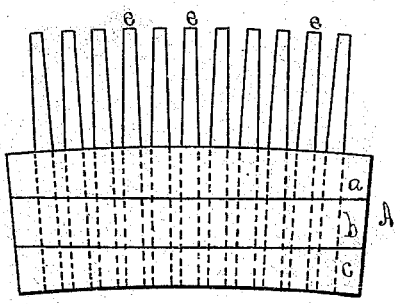

Fig. 1

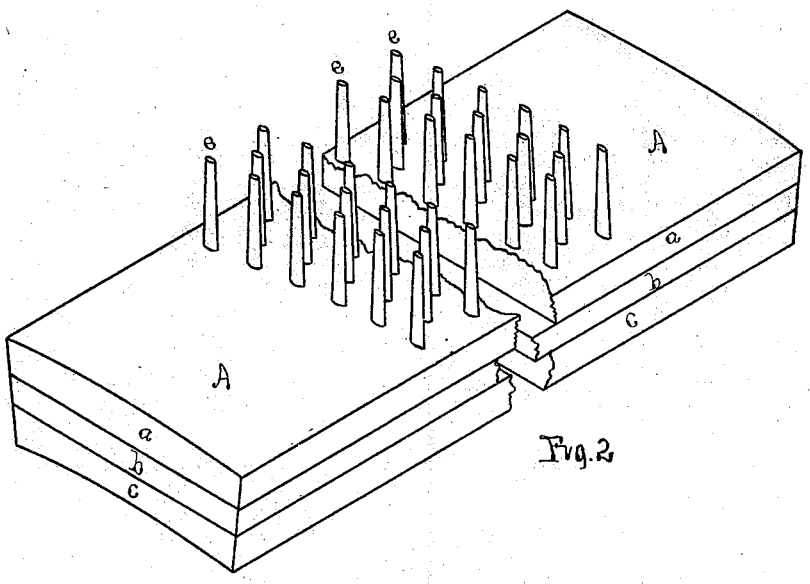

Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD KITSON, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN CLOTHING FOR MACHINES FOR CARDING, PICKING, &c.

Specification forming part of Letters Patent No. **187,537**, dated February 20, 1877; application filed December 15, 1876.

To all whom it may concern:

Be it known that I, RICHARD KITSON, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Clothing for Machines for Carding, Picking, &c., of which the following is a specification:

My invention relates more especially to the clothing for the cylinders of rag-pickers, cards, &c.; and consists in constructing the lags which form the clothing in sections, having the grain of the material of each section in a different direction from the adjacent one, the object being to make these lags much stronger and more durable, and also so that the pins will be held much firmer than when the lags are made of a single strip of material, in the usual manner.

Heretofore these lags have been constructed of a single strip, generally of the best-seasoned beech, and it has been necessary to select only those parts of the boards which, on account of the grain and seasoning, are suitable to be used. Hence, it has been necessary to throw aside as useless a large amount of the wood; and even with the best of beech the lags, owing to the strain on the teeth, caused by the pressure to which the picker or card teeth are subjected, are constantly liable to crack or break longitudinally, and yield around the pins or teeth, and the pins are forced inward or outward through the lags, so that it is necessary to frequently renew this clothing for the cylinders.

My invention is intended to overcome these difficulties, and to provide lags for clothing the cylinder which shall be able to withstand the pressure on the pins, so that the clothing shall last for a much longer time, while at the same time a great part of the wood which hitherto has been useless can be used, and thus a great saving be effected in the quantity of wood required, in addition to a much stronger and more durable lag.

In the drawings, Figure 1 is a vertical section of one of the lags. Fig. 2 shows a part of a lag used on the cylinder of a rag-picker.

A is the lag, which is of about the usual width and thickness, but of two or more longitudinal sections, *a b c*. These sections are glued and pressed solidly together, but are so arranged that the direction of the grain of one of these sections shall be different from that of the adjacent section. The pins *e e e* are inserted, and the lags bolted to the cylinder, in the usual manner.

This method of constructing the lags imparts great strength to them, since the force of the pressure on the pins will not be in the same direction relative to the grain of all the sections, as would be the case when the lag is constructed, in the usual manner, of a single piece, and hence the power of resistance of a lag made in this manner is much greater than that of a lag the grain of which lies in the same direction throughout its thickness.

It is also found that the holding power of the wood is much greater when the lag is constructed in sections having the grain lying in different directions than when the grain lies in one direction throughout the thickness of the lag, and, consequently, the pins will be held much firmer, and will be able to withstand a much greater pressure without being forced inward or outward through the lag in the former case than in the latter. Hence, owing to these advantages, clothing constructed in this manner is capable of being used for a much longer time than has been possible with lags made in the usual manner.

A further advantage of constructing the lag in this manner is, that a large amount of the wood which it has been necessary to throw aside may be used when the lag is constructed in sections, as the wood which, owing to the grain, was wholly unfit for use before may be used with its grain in a direction different from that of the adjacent section.

I claim as new and of my invention—

The lag for the clothing of cylinders, of two or more sections, the direction of the grain of one of these sections being different from that of the adjacent section, substantially as described.

RICHARD KITSON.

Witnesses:

D. HALL RICE,

ALFRED K. GARLAND.