

No. 775,842.

PATENTED NOV. 22, 1904.

H. L. MILLER.  
STRICKLE FOR CARD CLOTHING.

APPLICATION FILED JULY 2, 1904.

NO MODEL.

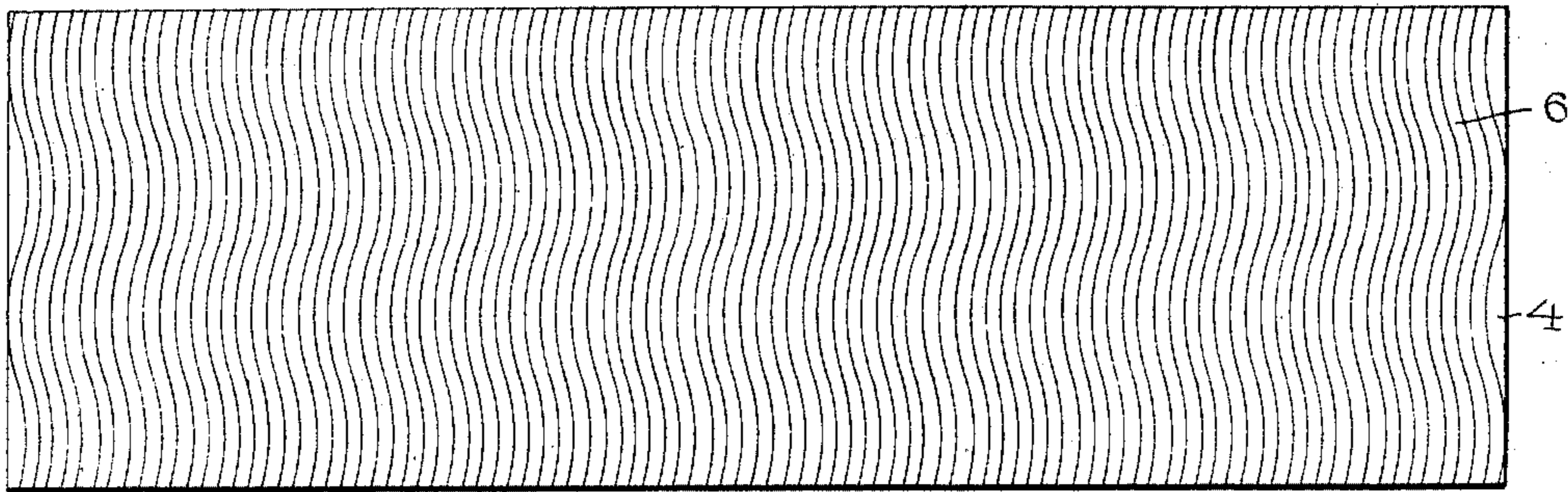


Fig. 1.

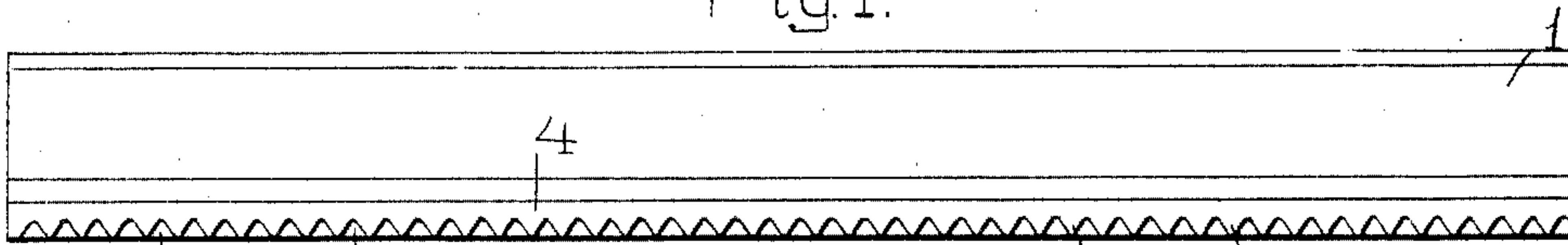


Fig. 2.

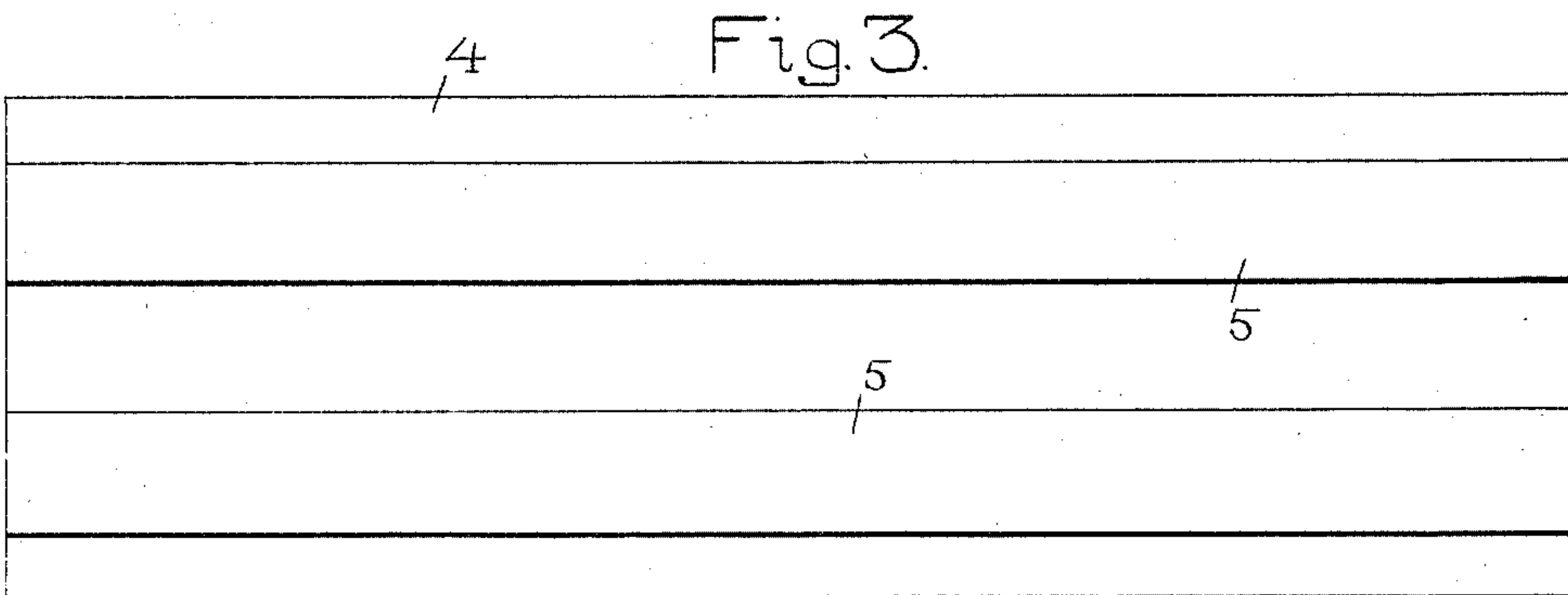


Fig. 3.

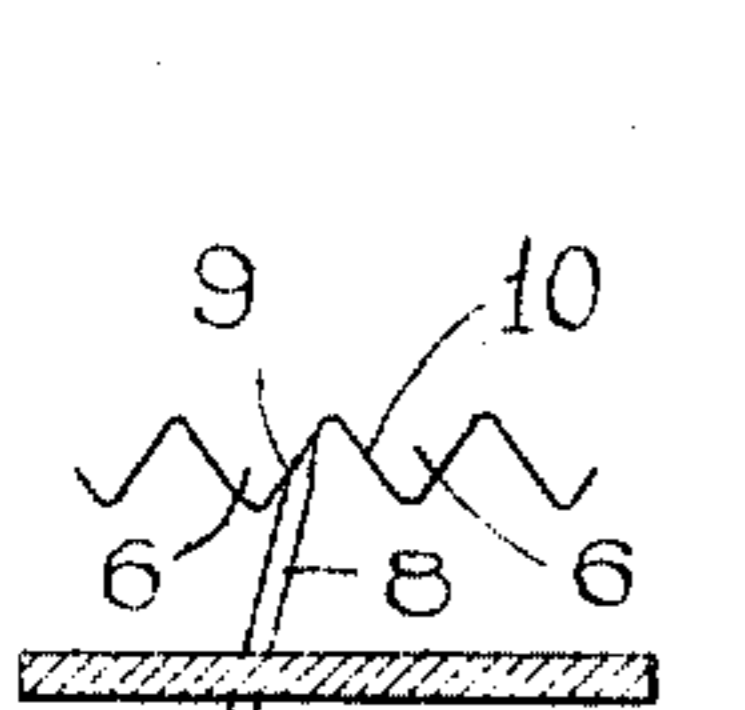


Fig. 5.

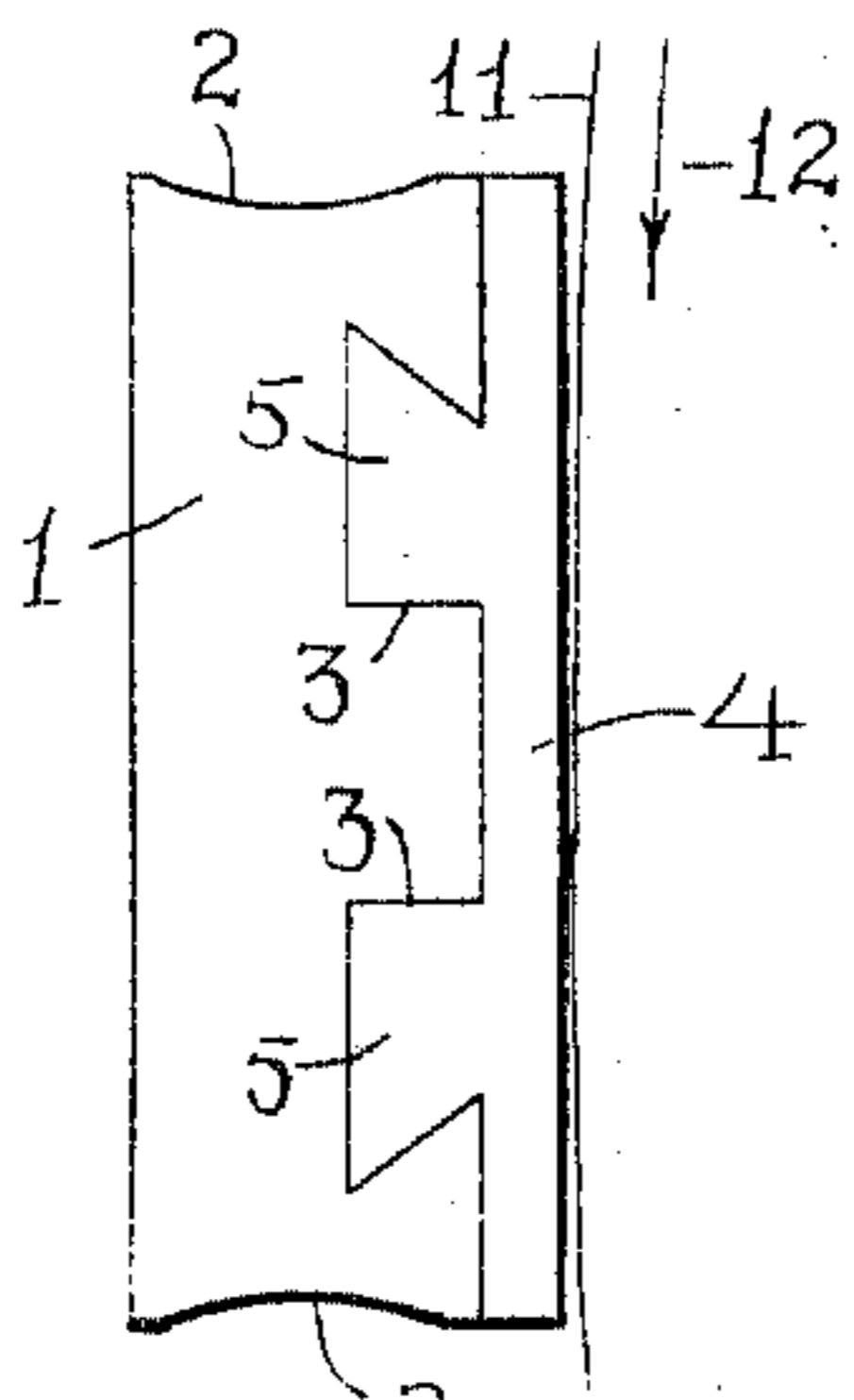


Fig. 4.

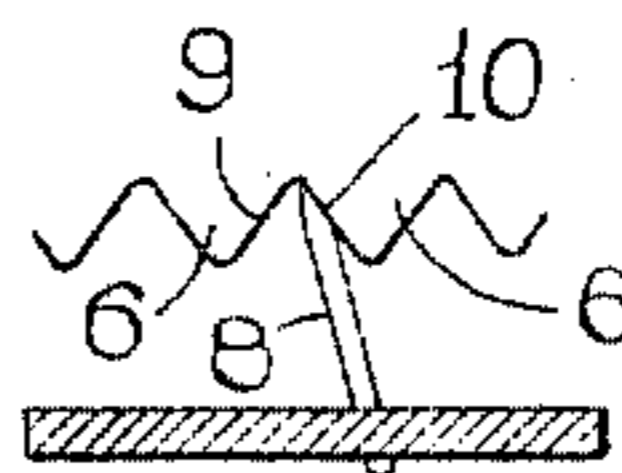


Fig. 6.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## STRICKLE FOR CARD-CLOTHING.

SPECIFICATION forming part of Letters Patent No. 775,842, dated November 22, 1904.

Application filed July 2, 1904. Serial No. 215,118. (No model.)

*To all whom it may concern:*

Be it known that I, HORATIO L. MILLER, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in a Strickle for Card-Clothing, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 represents a front or face view of my improved strickle. Fig. 2 is a side view. Fig. 3 is a rear view of the abrading-plate. Fig. 4 is an end view, and Figs. 5 and 6 are diagrammatic views illustrating the action of the abrading-plate upon the teeth of the card-clothing.

Similar reference-figures refer to similar parts in the different views.

The object of my present invention is to provide a strickle by which the teeth of card-clothing carried upon a rotating cylinder may be uniformly and accurately ground, so as to produce a pointed tooth, and by which the bur necessarily formed upon the end of the teeth when the same are ground by the action of a grinding-drum will be removed.

The strickle embodying my present invention belongs to that class which comprises a corrugated or ribbed abrading-plate adapted to be held in the path of the card-teeth as they are carried upon the surface of a revolving cylinder. Strickles of this class have heretofore been known in which the abrading-plate was provided with a series of triangular ribs and intermediate triangular grooves running parallel to each other and parallel with the plane of rotation of the revolving card-clothed cylinder, but in strickles of this character the abrading-plate requires to be removed longitudinally along the card-clothed cylinder or in a line parallel with the axis of the cylinder. The longitudinal movement of the strickle in a line parallel with the axis of the revolving cylinder was for the purpose of bringing opposite sides of the card-tooth alternately against the sides of the triangular ribs, so as to produce a pointed tooth, the movement of the strickle in one direction grinding one side of the tooth and the movement of the strickle in the opposite direction grinding

the opposite side of the tooth. The amount of grinding upon each side of the tooth by this method was determined by two factors—first, the length of time the strickle was being moved in each direction, which determined the period of time each side of the tooth was being ground, and, second, the rapidity with which the strickle was moved which determined the pressure of the abrading-rib against the side of the tooth. It is difficult to maintain these two factors uniform and the operation of grinding a cylinder with a strickle of this class requires considerable skill in the manipulation of the ribbed abrading-plate.

It is one of the objects of my invention to obviate the necessity of longitudinally moving the strickle across the surface of the card-clothed cylinder, and I accomplish this object by means of a strickle constructed as hereinafter described, the novel features being pointed out in the annexed claims.

Referring to the accompanying drawings, 1 denotes a holding-block, preferably of wood, having its upper and lower edges concaved, as at 2 2, to enable the block to be more readily held by the operator. One side of the block is provided with longitudinal grooves 3 3, which are slightly undercut or dovetailed, and to the grooved side of the block I apply an abrading-plate 4, preferably made of any suitable compound containing ground emery and molded into the desired form of the plate. A convenient method of constructing the abrading-plate is to form it of some vulcanizable material containing ground emery, thereby enabling it to be molded in a semiplastic state and afterward vulcanized. The abrading-plate 4 consists of a plate of substantially the same area as one side of the holding-block 1, provided on its back or rear side with longitudinal ribs 5, fitting the longitudinal grooves 3 of the holding-block. Upon the face of the abrading-plate 4 I form a series of ribs 6, extending transversely across the face of the abrading-plate 4 with intervening grooves 7. The ribs 6 are preferably triangular in cross-section and are separated by corresponding triangular grooves. Instead of extending straight across the face of the plate 4 the ribs 6 cross the plate transversely and

in a serpentine line, as represented in Fig. 1, so that when the strickle is supported upon any convenient rest and held stationary in a position to receive the points of the teeth of the card-clothing in the triangular groove 7 each tooth in passing across the plate 4 will be deflected to the right and to the left by the curvature of the groove. The deflection of the card-tooth is illustrated in the diagrammatic views Figs. 5 and 6, Fig. 5 showing a card-tooth 8 deflected toward the right, so as to bring the side of the tooth against the inclined side 9 of one of the abrading-ribs 6.

In Fig. 6 the card-tooth 8 is represented as being deflected toward the left, and as being ground upon the opposite side of the point by the inclined side 10 of the abrading-rib 6. My improved strickle is held stationary while the card-clothed cylinder revolves, with the serpentine ribs held in the path of the revolving card-teeth, while the latter are being carried around by the cylinder in a curved path 11, Fig. 4, and in the direction of the arrow 12.

By the use of my improved strickle the deflection of the card-tooth is caused by the curvature of the ribs 6, and the amount of pressure of the side of the tooth against the abrading-rib is determined by the velocity of the card-clothed cylinder, and as these are both fixed factors the resulting grinding of the tooth is rendered uniform. I strengthen the abrading-plate 4 by forming upon the rear side two longitudinal integral ribs 5 5, preferably placed about midway between the center of the plate and its outer edges, and I utilize these ribs for attaching the abrading-plate to the holding-block 1 by inserting them

lengthwise into the undercut or dovetailed grooves 3.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a strickle for card-clothing comprising an abrading-plate having a flat surface provided with a series of curved ribs extending transversely across the flat surface of said plate.

2. As an article of manufacture, a strickle for card-clothing consisting of a block adapted to be held by hand, an abrading-plate having a flat side, serpentine ribs extending transversely across the flat side of said abrading-plate and means for attaching said block and plate.

3. As an article of manufacture a strickle for card-clothing comprising an abrading-plate having a flat side provided with a series of ribs triangular in cross-section and extending in curved lines across the flat side of said abrading-plate.

4. A strickle for a card-cylinder consisting of a grooved holding-block, an abrading-plate provided with a longitudinal rib adapted to enter the groove in said block, and a series of curved ribs on the exposed face of said plate.

5. A strickle for a card-cylinder consisting of a holding-block having concaved edges and a longitudinal groove on one of its sides, an abrading-plate having a longitudinal rib entering said groove and a series of curved ribs on its exposed face.

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Witnesses:

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