L. STOCKER.

LICKER-IN CLOTH.

APPLICATION FILED MAY 23, 1911.

1,007,900.

Patented Nov. 7, 1911.

Fig. 1.

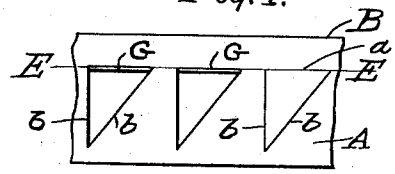


Fig. 2.

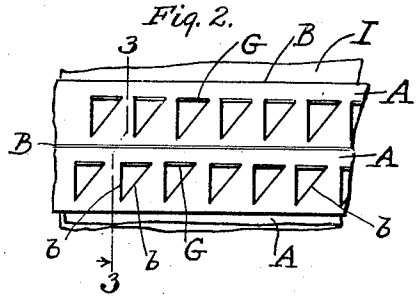


Fig. 3.

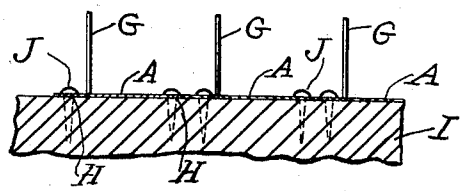


Fig. 4.

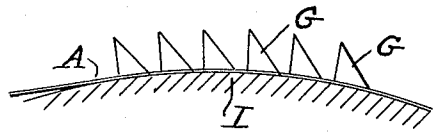


Fig. 5.

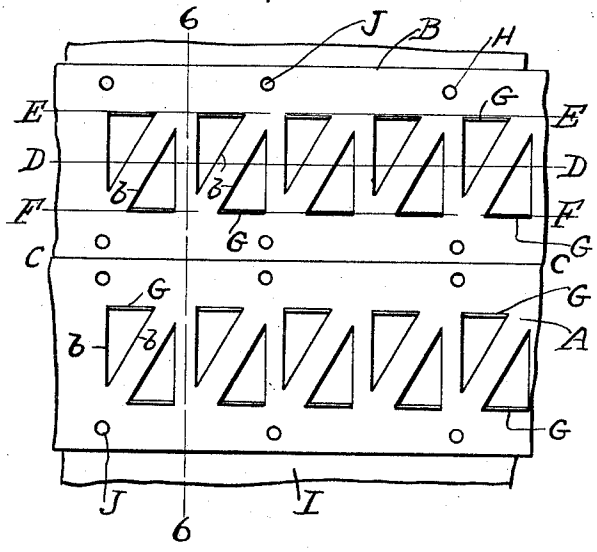
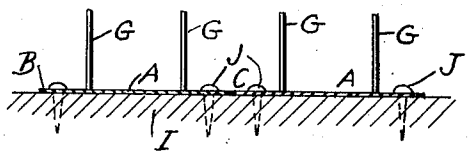


Fig. 6.



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LICKER-IN CLOTH.

1,007,900. Specification of Letters Patent. Patented Nov. 7, 1911.

Application filed May 23, 1911. Serial No. 629,307.

To all whom it may concern:

Be it known that I, LOUIS STOCKER, a citizen of the United States, residing at Grahamton, Meade county, and State of Kentucky, have invented a new and useful Improvement in Licker-In Cloth, of which the following is a specification, reference being had to the accompanying drawing.

My improvement relates to lickerin cloth applied to the cylinders of machines used in the various well-known textile operations.

The object of the invention is to provide a lickerin cloth which may be easily made and easily and accurately applied to the cylinders, have a positive arrangement of teeth, and be strong and durable.

In the accompanying drawings, Figure 1 is a plan of a piece of such cloth having two complete teeth and another which is partially complete; Fig. 2 is a plan showing two pieces of such cloth applied edge-to-edge upon a portion of a roller; Fig. 3 is a section on a line, 3—3, of Fig. 2, looking toward the right, screws being added. Fig. 4 shows a side elevation of one of the pieces of cloth on the cylinder illustrated by Fig. 2; Fig. 5 is a plan similar to Fig. 2 but showing each strip of cloth provided with two rows of teeth; Fig. 6 is a section on the line, 6—6, of Fig. 5.

Referring first to Fig. 1 of the drawings, the cloth consists of a ribbon-like, sheet metal strip having parallel edges and adapted to be wound around a cylinder, either in a plane which is perpendicular to the cylinder axis or spirally. If the latter form, the ribbon-like strip may be of indefinite length, and if the former, a plurality of strips each just long enough to reach around the cylinder can be used. In either case, the turns or coils of the cloth are preferably brought together edge-to-edge, as shown in Fig. 2. On such strip or strips are teeth integral with the strip and standing upright or perpendicular to the strip and parallel to the side edges of the latter. Said strips constitute a broad, flat, and firm base for the teeth located thereon, and said teeth are preferably arranged in rows or planes which are parallel to the side edges of the strip.

A is the strip. The teeth, G, G, are formed by cutting slits, *b*, *b*, into two sides of a triangle whose base, *a*, is in a line, E, which is parallel to the side edges of the strip, as shown in the right hand portion of Fig. 1. The portion of the metal freed by the forming of the slits *b*, *b*, is bent upward and outward toward the adjacent edge, B, until said portion is perpendicular to the plane of said strip, as shown in the left hand portion of Fig. 1. In this position, said portion constitutes a tooth, G, resting upon and supported by a flat and broad base formed by the body of the strip, A. The three teeth in Fig. 1 constitute a row of teeth which are in a plane, which is perpendicular to said strip and parallel to the side edges of said strip. In Fig. 2, two and in Fig. 3, three such pieces of cloth, A, A, are laid side by side upon a portion of a roller or cylinder, I, and these pieces are shown of equal transverse dimensions and having the same relative location of the teeth, G, with reference to the side edges of the strips or pieces of cloth. This brings the rows of teeth parallel to and equi-distant from each other. The strips, A, may be secured to the cylinder in any suitable manner, as by means of glue or by means of nails, J, extending through the holes, H, into the cylinder I.

In Figs. 5 and 6 each of the pieces of cloth has two rows of teeth, said rows being parallel to each other and to the side edges of the pieces or strips of cloth. On the upper strip in Fig. 5, D, is a line extending midway between and parallel to the side edges, B and C, of the strip. E, is a line midway between the line, D, and the edge, B, of the strip. F, is a line midway between and parallel to the middle line, D, and the edge, C, of the strip. A row of teeth, G, is formed on the line, E, and another row of teeth, G, is formed on the line, F, the triangle in which said teeth were formed being between the lines, E and F, and the tri-angles of one line alternating with those of the other line, so that the teeth of one row alternate with the teeth of the other row. And thus we have a plurality of teeth arranged in two planes which are parallel to each other and perpendicular to the body of the strip, A, and parallel to the side edges of said strip. And since the distances between the middle line, D, and the side edge, B, and the distance between the middle line, D, and side edge, C, are equal, and the line, E, being midway between the middle line, D, and the side edge, B, and the line, F, being midway between the said line, D, and the side edge, C, it follows that the lines, E, F, and D, divide the strip, A, into four equal and parallel, longitudinal spaces, and

that the two such spaces between the lines, E and F, are together equal to the sum of the spaces extending between said lines, E and F, and the two edges of the strip. Hence, when two such strips are laid side by side with their edges meeting, the spaces between adjacent rows of teeth will be the same, for the distance from the plane of any row of teeth to the next adjacent plane or row of teeth, in either direction, will reach across two of the longitudinal spaces into which the strips, A, are divided by the lines E, D and F. This makes possible the forming of uniformly-spaced rows of teeth, G, around the cylinder, I, by merely accurately fitting the strips against each other. This uniformity of spacing is desirable for the sake of attaining uniformity in work and also to adapt the cylinder to receive between its rows of teeth other teeth supported by some other portion or member of the machine for doffing or other purposes.

My improved cloth is adapted to be formed rapidly and economically with automatic machines having cutting and forming members for cutting the slits, *b*, *b*, and bending the resulting free pieces into position to become teeth, G.

The strip consituting the cloth may be easily applied to the cylinder in accurate and firm manner. The body of the strip constitutes a base for supporting the teeth, G. And such base is relatively wide and therefore makes a strong support for the teeth and minimizes the effect of inaccuracies in the face of the cylinder or in the strip.

I claim as my invention:

1. A sheet metal lickerin cloth comprising a flat, parallel-edged base and teeth integral with said base and located in a plurality of planes which are perpendicular to said base and parallel to and intermediate the side edges of said base, the spaces between the edges of the base and the planes adjacent said edges together having a width equal to the space between two such planes, substantially as described.

2. A sheet metal lickerin cloth comprising a flat, parallel-edged base and teeth integral with said base and located in a plurality of planes which are perpendicular to said base and parallel to and intermediate the side edges of said base, the space between the edges of the base and the planes adjacent said edges being of equal width and together having a width equal to the space between two such planes, substantially as described.

In testimony whereof I have signed my name, in presence of two witnesses, this 14th day of April, in the year one thousand nine hundred and eleven.

LOUIS STOCKER.

Witnesses:
B. E. YATES,
O. MARIUM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."