J. DUNBAR.

Making Seams in Woven Wire-Work for Paper-Machines

No. 199,359. Patented Jan. 22, 1878.

Fig. 1.

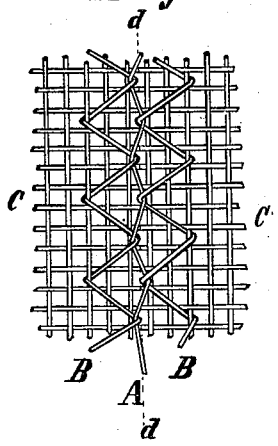


Fig. 2.

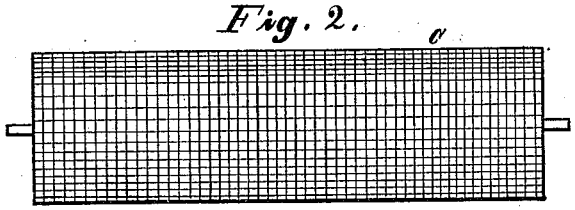
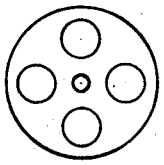


Fig. 3.



Witnesses:

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JOHN DUNBAR, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO WELLINGTON D. STEVENS, OF SAME PLACE.

IMPROVEMENT IN MAKING SEAMS IN WOVEN-WIRE WORK FOR PAPER-MACHINES.

Specification forming part of Letters Patent No. **199,359**, dated January 22, 1878; application filed November 20, 1877.

To all whom it may concern:

Be it known that I, JOHN DUNBAR, of Springfield, county of Hampden, State of Massachusetts, have invented new and useful Improvements in Cylinder and Dandy-Roll Covering, of which the following is a specification:

This invention relates to the woven-wire parts of a paper-machine, and the method of stitching the same to produce a uniform and seamless surface.

Heretofore the method of making the seam has been to bind the edge over and over, and then draw the parts together, with a wire running alternately through these stitches. This method is objectionable, as the wires lie over the cloth, making a ridge on the surface, which leaves a mark on the paper whenever it comes in contact with the pulp. This ridge or seam, being above the surface, readily becomes filled with pulp, which must be removed, causing a stoppage of the machine and consequent loss. To remove this pulp it is necessary to use strong acids, which tend to destroy the covering. It is necessary to use a brush in the removal, thus wearing the same by constant friction.

The object of my invention is to produce a covering for such rolls, and a Fourdrinier whose surfaces which come in contact with the pulp will be seamless and uniform.

The invention consists in the manner or process of making the seam or stitch entirely on the inside.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is an enlarged view of the cloth and seam as it appears from the inside. Fig. 2 is a side view of a dandy-roll, and Fig. 3 is an end view of the same.

The wire-cloth is cut the requisite length; then, instead of binding the edge, as in the old way, I make a series of loops near the edge, usually looping the wires around the third or fourth mesh from the edge, though this distance may vary with different grades of cloth and the use to which it is to be applied. These loops are represented in the drawing by the wires B B, Fig. 1, and are made of a length to come nearly or quite to the edge when drawn tight. I usually make these loops or stitches about four meshes apart; but this distance may vary to suit the circumstances. I do not therefore confine myself to the size or length of the loop or stitch. The ends are then brought together, and the wire A is passed through the loop from side to side, as shown in the drawing, until the whole is secured. The covering is then drawn over the frame in the ordinary way.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new and improved article of manufacture, a cover for cylinders and dandy-rolls for paper-machines, having the seam on the inside, substantially as specified.

2. The process of sewing wire-cloth for paper-machines, of forming a series of loops, B B, on the side which does not come in contact with the pulp, and drawing the same together, substantially as shown.

3. In a cylinder-cover for paper-machines, the wire A and looped wires B B, in combination with woven-wire cloth, all arranged substantially as specified.

4. A seam for wire-cloth in paper-machines, in which the thread does not come to the surface in contact with the pulp except at the points where it is looped around the strand.

JOHN DUNBAR.

Witnesses:
C. P. SMITH,
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