F. P. PENDLETON.

Wire Clothing for Burring and other Cylinders.

No. 202,370. Patented April 16, 1878.

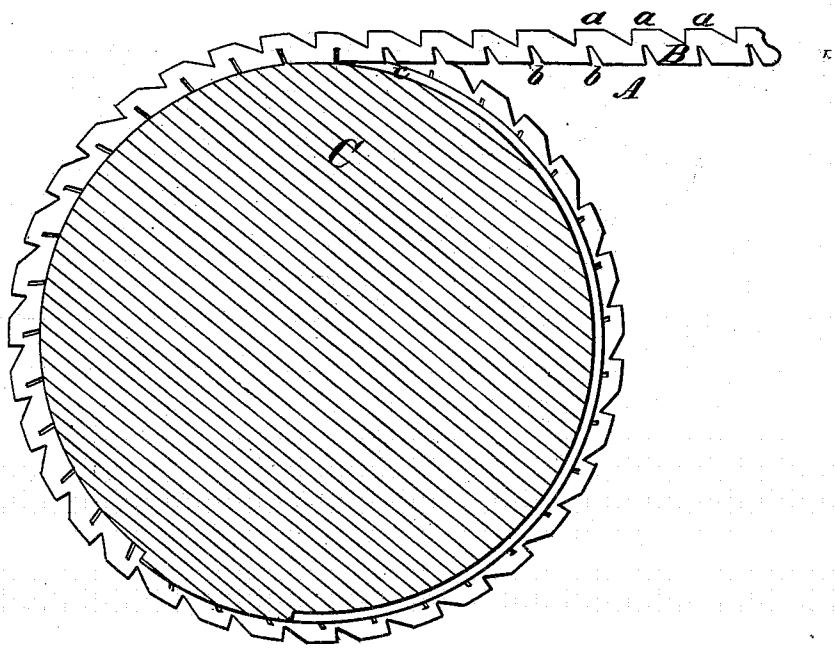

Fig. 1.

Fig. 2

Witnesses

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FRANK P. PENDLETON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WIRE CLOTHING FOR BURRING AND OTHER CYLINDERS.

Specification forming part of Letters Patent No. **202,370**, dated April 16, 1878; application filed August 14, 1877.

To all whom it may concern:

Be it known that I, FRANK P. PENDLETON, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Wire Clothing for Burring and other Cylinders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a transverse sectional view of a cylinder, showing improved wire in course of application. Fig. 2 is a transverse sectional view of the wire.

The object of my invention is to provide steel wire adapted to clothing cylinders for treating fibrous material.

Heretofore, when such cylinders were clothed with steel toothing, the latter was obtained by cutting out steel rings from blanks or sheets—a method that produced a great deal of waste. It was found impracticable to use steel wire for the purpose indicated, as such wire would not stand bending around the cylinder, but would break. Hence, when wire was used for clothing, iron wire had to be adopted, as it would readily bend without breaking.

The disadvantage of the steel rings was the expense which their original construction entailed; the method, also, of fastening them on the cylinder was difficult and expensive. The disadvantage attending the use of iron wire is, that it soon wears out or becomes dull, hence necessitating the reclothing or sharpening of the cylinder.

My improvement is designed to obviate these disadvantages by providing steel wire which will not break when bent over the cylinder, and which may be put on the cylinder in the usual manner of iron wire—namely, by inserting it in spiral grooves formed in the cylinder, and turning in the metal of the latter between the grooves against the base or sides of said wire.

My invention accordingly consists of toothing or wire for clothing cylinders formed of steel, notched or nicked at the base of the teeth or back of the wire, so as to permit the latter to be bent over or around said cylinders without breaking.

Referring to the accompanying drawing, A designates a strand or length of steel wire, having teeth *a a*, of the usual or any suitable construction. B is the base or back of the wire, which is designed to rest in a spiral groove, *c*, formed in the face of a cylinder, C. Said base or back is notched or nicked, as shown at *b*, which permits the wire to be bent around the cylinder without breaking, the metal removed by the notching giving space for that left between the notches to close up without injurious compression or straining.

I have suggested that the wire is to be applied to a cylinder by being introduced into spiral grooves formed in the latter; but it may be put on in any other usual or suitable manner, as by being wound upon the plain face of the cylinder, and held in place by a packing of copper wire or other material.

The special character or shape of wire, as viewed in cross-section, forms no part of my invention, and the same may be triangular, shouldered, or otherwise.

The special shape of the notch in the back of the wire which I esteem best is a flaring or **V** shape, though the same may be varied by making the sides of the notches wholly or partially parallel. In any event, I do not confine myself to any special shape, the essence of the invention consisting in the formation of any notch or nick which will permit steel wire to be bent around a cylinder for treating fibrous material.

I have adopted the word "wire" to designate the subject of my invention, as this is the term by which the toothed metal strip is generally known and called by manufacturers and users.

What I claim as my invention is—

Steel wire or toothing for clothing cylinders for treating fibrous material, notched or nicked at the base or back, substantially as shown and described, so as to permit such wire to be bent around cylinders without breaking, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of August, 1877.

FRANK P. PENDLETON.

Witnesses:
GEO. C. SHELMERDINE,
M. DANL. CONNOLLY.