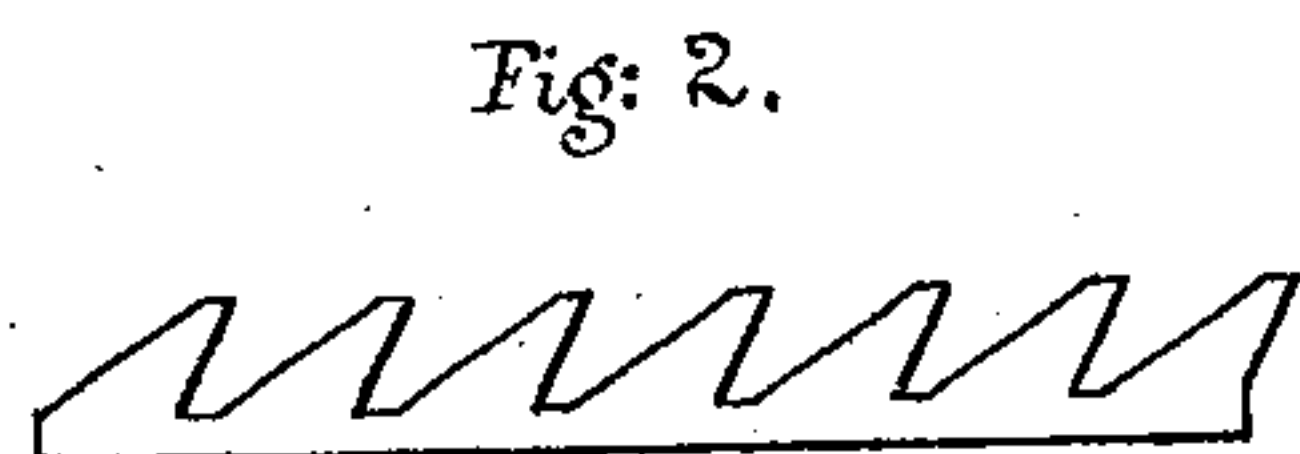
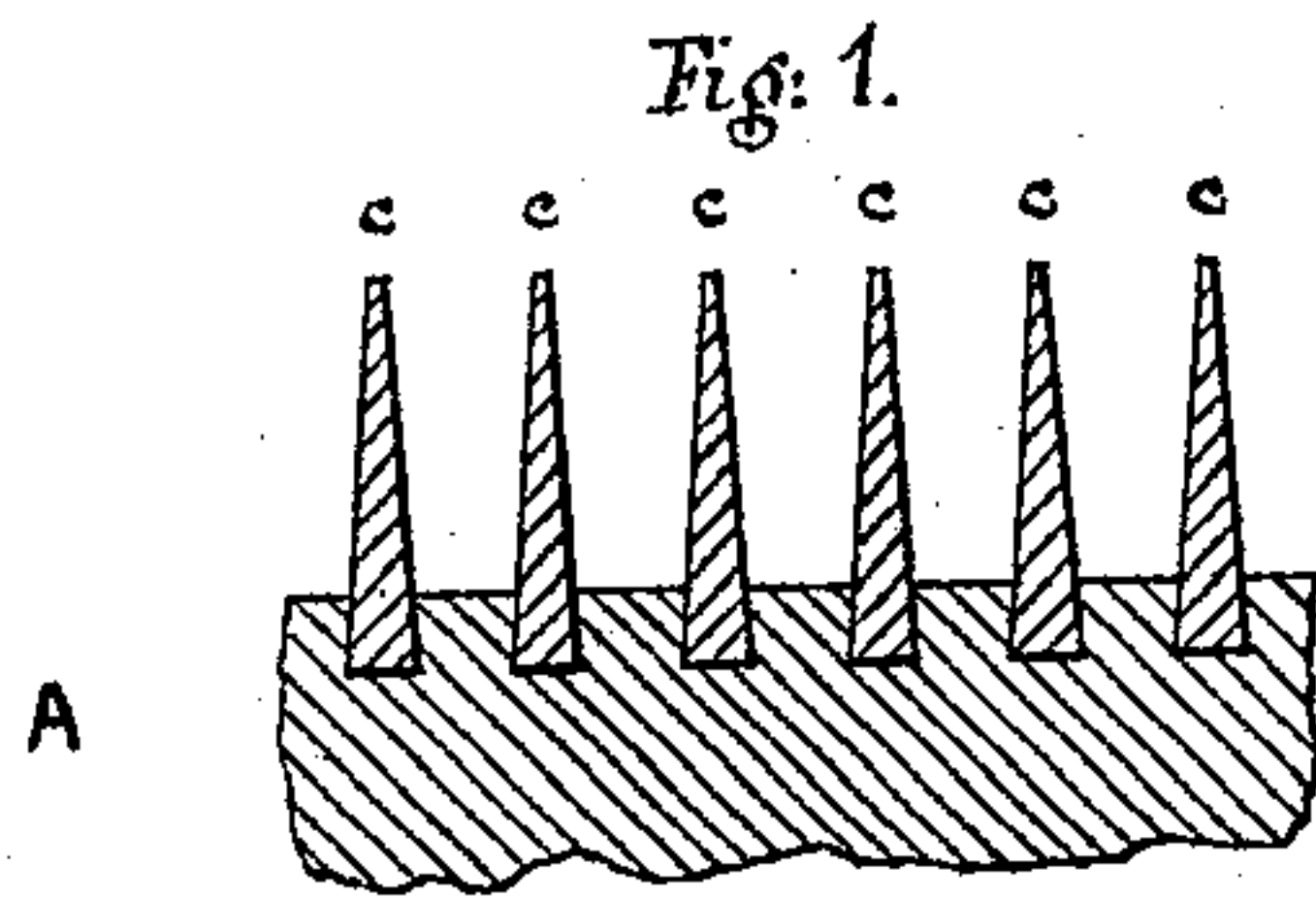


J. K. PROCTOR.

Improvement in Wire for the Teeth of Burr-Cylinders, Cards, Feed-Rolls, &c.

No. 132,690.

Patented Oct. 29, 1872.



Witnesses.

Asm McNeill
Wm Howgate

Inventor.

J. K. Proctor

UNITED STATES PATENT OFFICE.

JOSIAH K. PROCTOR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF OF HIS RIGHT TO CHARLES R. LINDSAY, OF SAME PLACE.

IMPROVEMENT IN WIRE FOR THE TEETH OF BURR-CYLINDERS, CARDS, FEED-ROLLS, &c.

Specification forming part of Letters Patent No. 132,690, dated October 29, 1872.

To all whom it may concern:

Be it known that I, JOSIAH K. PROCTOR, of Philadelphia, county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in the Form of Wire for the Manufacture of Teeth or Clothing for Cards, Burr-Cylinders, and other purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

The present invention consists in forming wire for the manufacture of teeth or clothing for cards, burr-cylinders, feed-rolls, and other like purposes in the form of a letter V, or wedge-shaped; the object of which will be readily seen by reference to the accompanying drawing, in which—

Figure 1 is a longitudinal section of a part of a cylinder having teeth or wire set in the same, showing the form of the cross-section of the wire; and Fig. 2 is a side view of a detached piece of wire after having teeth cut in the same.

Similar letters indicate like parts.

A in the drawing represents a portion of a cylinder or roll, in which it is required to set the teeth. C C C C, &c., are cross-sectional views of the wire, having its lower or inner edge considerably thicker than its outer or top edge, the teeth being cut in the thin edge. Grooves are turned or cut spirally in the cylinder of suitable width and of a proper depth to receive the thick edge of the wire, which is next (by means of a suitable device) wound into the said spiral groove, and at the same time is followed by a thin convex-edged roll, which is brought to bear upon the metal of the cylinder directly between the grooves containing the wire toothing, the effect of which is to depress and expand the metal so as to cause it to close over and embrace the thick edge of the wire and thus hold it firm and immovable within the groove of the cylinder.

I am aware that wire has been made for this purpose, having a lip or flange on its lower edge for the purpose of securing it in the above-described manner; but there are several objections to this form of wire, one of which is, that in drawing the wire with the lip or flange it becomes so hardened as to become brittle and liable to break in setting. Another difficulty has been that, in closing the metal of the cylinder over the flange or lip, it necessarily leaves a thin sharp edge of the metal closed over the flange of the wire, which, in case the cylinder is made of cast-iron, (which is usually the case,) the thin edge becomes crumbled away and the wire becomes loose. It is to overcome these and other difficulties that the present form of wire has been produced, and has been found to fully overcome the difficulties in the following manner: First, that the wire does not harden in drawing, and may be readily wound into a small roll without producing the slightest fracture; second, that in closing the metal of the cylinder around the wire for the purpose of securing it in place it has to embrace an even enlargement or taper, which presents no abrupt corners or edges to be closed upon, thus leaving the material, after being closed upon the wire, strong and firm, and will not yield or break away; also, it is found that the teeth which are cut in the above-described form of wire are more readily stripped or cleared of the fibrous material by reason of their being in a tapering form; also, that for the same reason the tooth presents greater strength.

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

The wire for clothing rolls and cylinders constructed as herein described—that is to say, wedge or knife shaped, broad at the base and tapering to the other edge, as specified.

J. K. PROCTOR.

Witnesses:

WM. HOWGATE,
JAS. MCNEILL.