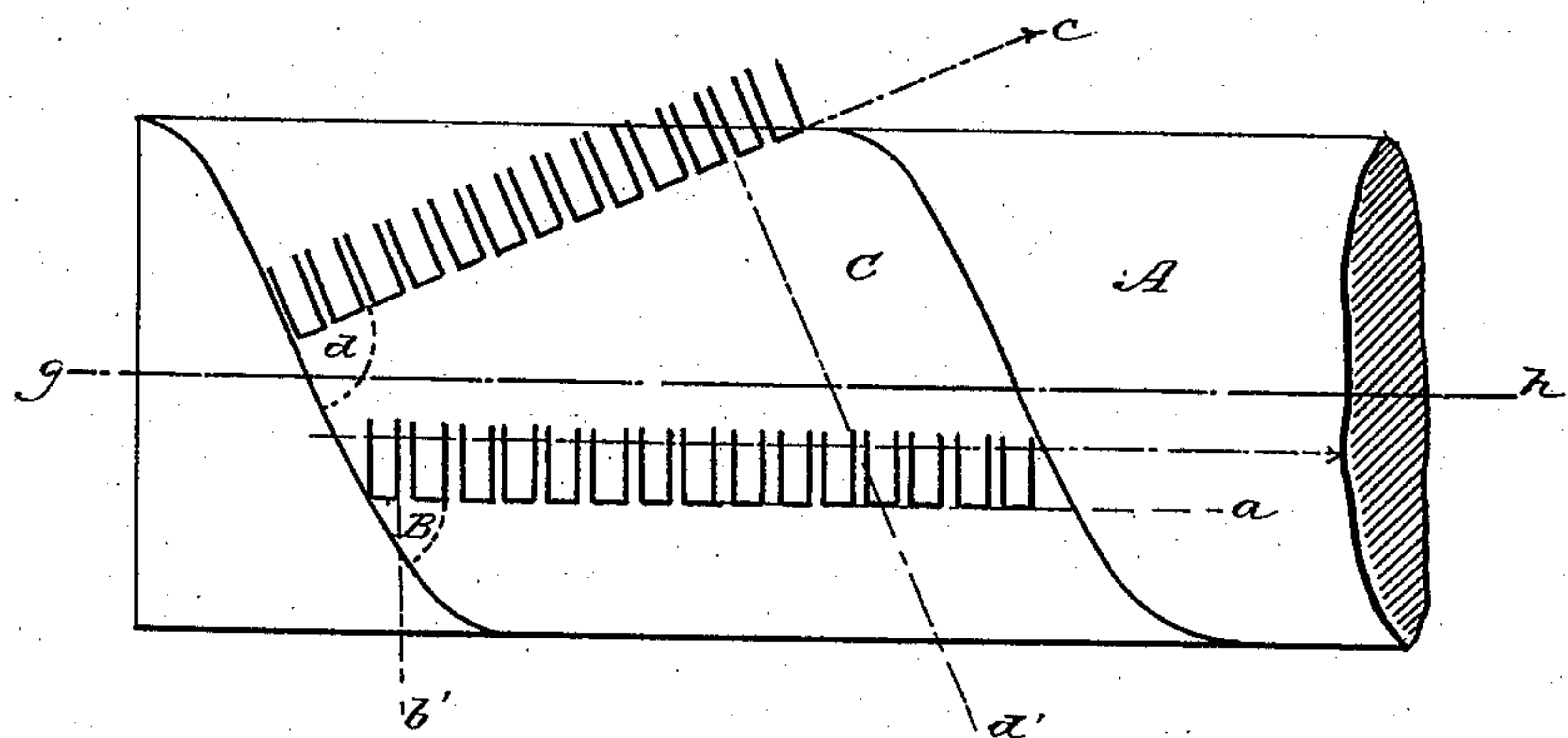


(No Model.)

E. GESSNER.
CARD CLOTHED ROLLER.

No. 364,817.

Patented June 14, 1887.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ERNST GESSNER, OF AUE, SAXONY, GERMANY.

CARD-CLOTHED ROLLER.

SPECIFICATION forming part of Letters Patent No. 364,817, dated June 14, 1887.

Application filed January 27, 1887. Serial No. 225,649. (No model.) Patented in Belgium September 15, 1886, No. 74,548.

To all whom it may concern:

Be it known that I, ERNST GESSNER, of Aue, Saxony, Germany, have invented a new and useful Improvement in Card-Clothed Rollers, of which the following is a specification.

The narrow bands of card-clothing produced by card-setting machines have been heretofore provided with teeth set in rows, which rows were at right angles to the length of the band, their braces or elbows being bent in the direction of the length of the band. When these bands of card-clothing are fixed on rollers by winding them thereon in a spiral or helical line, the transverse rows of teeth are not parallel to the axis of said roller and the elbows and arms of the teeth are not radial to said axis. This oblique position of the cards on the rollers is of disadvantage to the working effect and the resistance of the teeth.

My invention consists in the combination, with a roller, of a strip of card-clothing wound spirally on said roller, said strip having its rows of teeth set obliquely to the length of the strip to compensate for the pitch of the spiral. By this construction the rows of teeth stand parallel with the axis of the roller, and the elbows and arms of the teeth are radial to this axis, thus improving the working effect and enabling the teeth to better withstand the working strain.

In the drawing is represented the side view of a part of a roller or cylinder with a strip or band of card-clothing laid spirally on the same, illustrating both the old arrangement of the teeth and my improvement.

A is the roller, and C is the band of card-

clothing. At *d c* is shown a row of card-teeth disposed, as heretofore, at right angles to the length of the band, the angle at *d* being a right angle. When this band is laid spirally upon the roller A, it is obvious that the row of teeth *d c* occupies an oblique position to the axis *g h* of the roller, the angle of obliquity being indicated by the line *d'*, which angle varies in proportion to the width of the band and the diameter of the roller. This oblique position of the rows and deviation of the arms of the teeth from the radial position is objectionable, as before stated. At B *a* is shown a row of teeth which is applied to the band at an oblique angle to its length, the angle at B being an acute instead of a right angle. When the band with the rows of teeth B *a* is laid spirally upon the roller, it will be seen that the obliquity of the angle of teeth on the band compensates for the pitch of the spiral on the roller and brings the row of teeth parallel to the axis of the roller and the arms of the teeth radial to said axis, as shown by the line *b'*.

Having thus described my invention, what I claim as new is—

The combination, with a roller, of a strip of card-clothing having its rows of teeth set obliquely to its length, and wound spirally on said roller, so as to bring its rows of teeth parallel with the axis of the roller and the arms of the teeth in radial position, substantially as and for the purpose described.

ERNST GESSNER.

Witnesses:

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