

F. M. MOORE & J. C. ELLIOTT.
CARDING DOFFER AND METHOD OF CONSTRUCTING SAME.
APPLICATION FILED APR. 1, 1911.

1,015,202.

Patented Jan. 16, 1912.

Fig. 1,

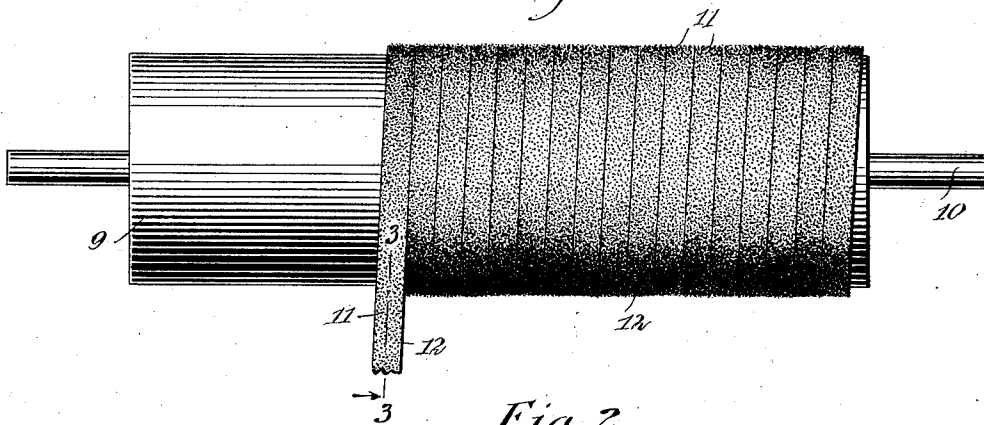


Fig. 2,

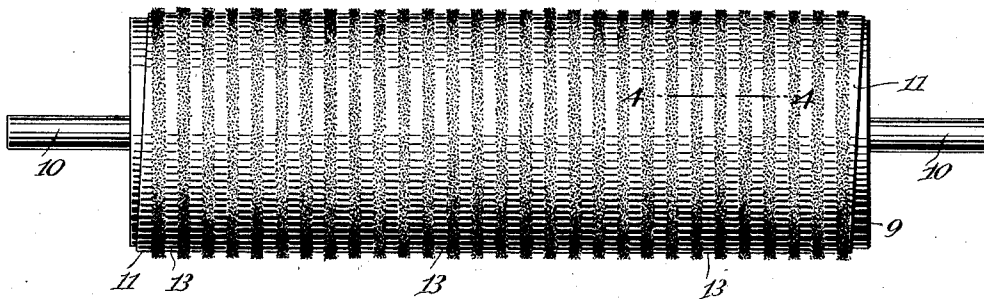
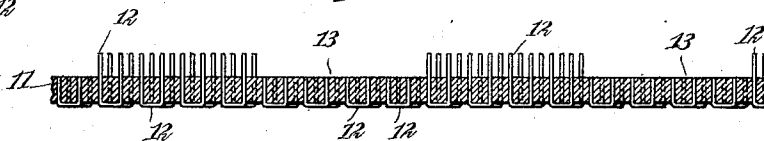


Fig. 3,



Fig. 4.



WITNESSES

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CARDING-DOFFER AND METHOD OF CONSTRUCTING SAME.

1,015,202.

Specification of Letters Patent.

Patented Jan: 16, 1912.

Application filed April 1, 1911. Serial No. 618,321.

To all whom it may concern:

Be it known that we, FRED M. MOORE and JOHN C. ELLIOTT, citizens of the United States, and residents of Oldtown, in the county of Penobscot and State of Maine, have invented a new and Improved Carding-Doffer and Method of Constructing Same, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide a doffer constructed and arranged in such manner as to avoid loosening of the doffer cloth or drum face; to provide a method of forming the carding rings after the carding drum is completely equipped with the combing surface; and to provide a simple and inexpensive doffer.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a side view of a doffer shown in an incomplete condition and during the process of construction; Fig. 2 is a side view of a completed doffer constructed and arranged in accordance with the present invention; Fig. 3 is a detail view in vertical section and on an enlarged scale, showing a fragment of the doffer cloth and the combing members therefor, the section being taken on the line 3—3 in Fig. 1; and Fig. 4 is a detail view on an enlarged scale and in section, taken on the line 4—4 in Fig. 2, of the doffer cloth after the same is filed and prepared on the roller.

In the drawings, and in Fig. 1 thereof, is shown the roller or drum 9 on which the doffer is built. The drum is mounted on a suitable shaft 10 and is trued cylindrically to a desired diameter. Upon the drum 9, in accordance with the present invention, there is spirally wound a clothing 11. The clothing 11 is provided in a narrow strip and is applied as a continuous strip in a spiral wrapping, as shown best in Fig. 1 of the drawings.

As seen in Figs. 3 and 4 of the drawings the clothing 11 is provided with a system of crooked combing wires 12, 12. The wires 12, 12 are inserted through the clothing 11 in a manner well known to the art, and are bent in the manner shown best in Fig. 3, rendering the combs more effective in card-

ing wool or cotton. In applying the clothing 11 the same is glued or otherwise secured to the drum 9 in a manner similar to that at present employed. Using, however, as we do, a continuous strip, a tension is maintained on the said strip which produces an even grasp of the material on the drum 9. If glue is used and a resultant expansion occurs in the clothing, it will be seen that the subsequent contraction due to the drying of the clothing is equal and even throughout the length of the strip, forming thereby a contracting and constricting pressure upon the drum which is equalized throughout the surface thereof.

In the operation of the doffer the friction produced on the combing wires 12 serves to further dry the material although having a tendency to loosen the glue if such be used. Whereas heretofore the loosening of the glue has resulted in releasing the carding rings of the doffer, necessitating the same to be removed therefrom to be rearranged or replaced, in the present instance such result does not occur, the clothing being held in position independent of the glue and due to the fastening of the extreme ends of the clothing strip 11.

The clothing strip, as shown in Fig. 1 of the drawings, is provided with a closely arranged papillæ-like surface formed by the extension of the combing wires 12, 12 to the back through the face thereof. After the clothing is secured on the drum 9 the same is buffed or dressed by means of a suitable emery or other abrasive wheel. After the cylindrical surface is properly trued the papillæ-like surface is removed, as shown best in Figs. 2 and 4 of the drawings, to form spaces 13, 13 useful in the process of carding. It will be understood that the clothing in the spaces 13 may be ground to a thinner diameter thereby deepening the said spaces 13 should this be desired.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. A carding doffer having a continuous clothing strip wrapped spirally on a doffer roll; and a plurality of parallel carding rings formed on said strip, said rings being constructed of carding wire secured in said strip and extended from the surface thereof, and said rings being disposed in planes perpendicular to the axis of said roll.

2. In a carding doffer of the character described, a clothing strip for wrapping spirally on a doffer roll; and a plurality of diagonally disposed raised wire sections,
5 said sections being spaced apart on said clothing strip, each section being disposed on said strip to register with the adjacent sections to form therewith a complete circular ring when said cloth is spirally wound
10 on the carding roll, the plane of the said

rings being perpendicular to the axis of said roll.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRED M. MOORE.
JOHN C. ELLIOTT.

Witnesses:

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