

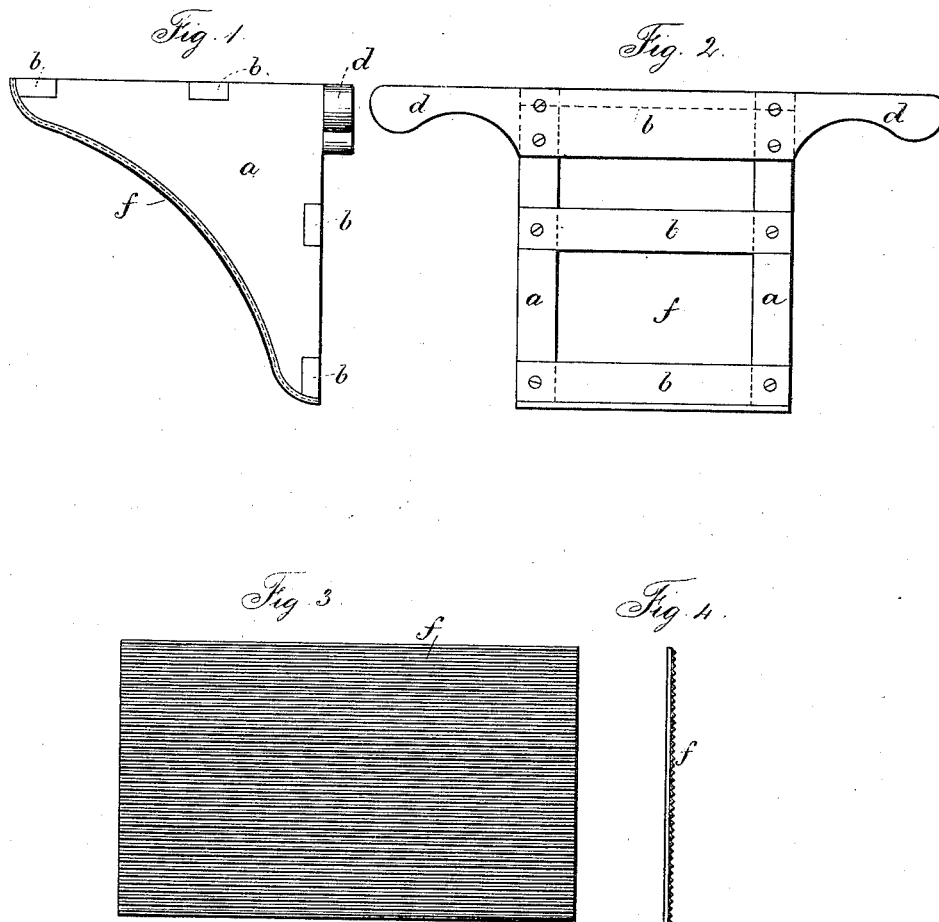
(No Model.)

W. DECKER.

MEANS FOR GRINDING OR FINISHING WIRE CARDS IN
CARDING MACHINES.

No. 302,652.

Patented July 29, 1884.



Witnesses:
J. Staib
Chas. H. Smith

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Wilhelm Decker
per Lemuel W. Perrell

UNITED STATES PATENT OFFICE.

WILHELM DECKER, OF MITTWEIDA, SAXONY, GERMANY.

MEANS FOR GRINDING OR FINISHING WIRE CARDS IN CARDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 302,652, dated July 29, 1884.

Application filed April 25, 1884. (No model.) Patented in Germany June 20, 1882, No. 21,894.

To all whom it may concern:

Be it known that I, WILHELM DECKER, of Mittweida, in the Kingdom of Saxony, German Empire, have invented an Improvement in Means for Grinding or Finishing Fine-Wire Card-Clothing in Carding-Machines, of which the following is a specification.

According to the process and means hitherto in use for adjusting and grinding card-clothing which has been placed around the drum or cylinder of a carding-machine, the teeth of the card-clothing are first brought to a uniform projecting length on the surface of said drum or cylinder by the action of a grinding-drum, which is set in rotary motion while the carding-machine drum or cylinder is also revolving. This process has for its object to remove all small eccentric or concentric inequalities in the surface of the clothing which may have resulted from any cause whatever. This process will, however, produce a deformation at the end of each or nearly of each wire tooth, inasmuch as it will create a burr if the wire teeth end in blunt surfaces; or it will blunt the points of the wire teeth if the latter are pointed.

Now, this present invention has for its object to provide means by which such deformations are removed. I use for this purpose a grinding-plate made of a strong woven material or cloth, the one side of which I cover with a layer of emery of suitable fineness. This layer of emery is by suitable means formed with ribs and intermediate grooves running parallel to each other in the direction of the length of the wove material. These grinding-plates I preferably manufacture of fifty centimeters length by thirty centimeters width. They may, however, be of any suitable dimensions. The grooves or recesses run lengthwise. The grinding-plate may be held in the hand; but I prefer to use the same in connection with a frame to which it is fixed. I have shown such a frame in the drawings, in which—

Figure 1 is an end view. Fig. 2 is a rear view. Fig. 3 represents the face of the grinding-plate, and Fig. 4 is an end view of the same.

The end pieces, *a a*, of such frame are to be cut out in concave shape, so that the grinding-plate *f*, in being secured to these end pieces, also attains a concave shape. The concavity should correspond to the convexity of the largest drum or cylinder of card-teeth to be ground. The end pieces, *a a*, are to be connected by the slats *b b*, and the frame may be provided at its back with handles *d*, for the easier handling or holding the frame during the grinding operation.

In using this instrument for the purpose of grinding or finishing the card-clothing on the drum or cylinder of a carding-machine, the grinding-plate is held in such way that the grooves lengthwise coincide with the direction in which the drum or cylinder revolves. In this position the grinding-plate is moved across the surface of the revolving drum or cylinder, by which action the projecting parts or ribs between the recesses or grooves of the grinding-surface will enter between the row of wire teeth. The ribs will remove the burrs upon the blunt ends of the wire teeth, and will round off the edges of the blunt ends. With pointed wire teeth the effect will be that the grinding will restore the pointing which has become somewhat lost during the first equalizing process.

I claim as my invention—

1. A flexible grinding-plate for grinding or finishing the points of card-clothing upon the drum or cylinder of a carding-machine, composed of emery with longitudinal ribs and grooves upon a backing of cloth or similar flexible material, substantially as set forth.

2. The grinding-plate for card-clothing, composed of flexible material with a corrugated emery surface, and a frame for holding such plate, substantially as specified.

In testimony whereof I have hereunto set my hand this 29th day of March, 1884, in the presence of two subscribing witnesses.

WILH. DECKER.

Witnesses;

HEVEN HOFFMEISTER,
FRANK N. COFFIN.