

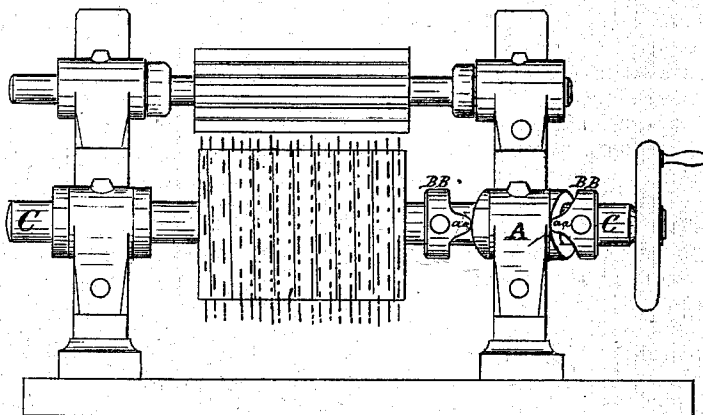
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Devices for Traversing Card and other Cylinders.

No. 139,466.

Patented June 3, 1873.

Fig. 1.



Witnesses.
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UNITED STATES PATENT OFFICE.

FERDINAND HERBOTH, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN DEVICES FOR TRAVERSING CARD AND OTHER CYLINDERS.

Specification forming part of Letters Patent No. **139,466**, dated June 3, 1873; application filed February 20, 1873.

To all whom it may concern:

Be it known that I, FERDINAND HERBOTH, of Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in Wool Carding and Burring, and like Machines, of which the following is a specification:

This invention relates to the construction of a shaft-bearing for wool carding and burring machines, and for such other machines as require a reciprocating motion to be given to their revolving shafts simultaneously with the rotation thereof; the object of this invention being to effect the above-mentioned reciprocating motion of a revolving shaft in the simplest and most efficient manner. For this purpose, therefore, the invention consists in the combination of a shaft-bearing, made as hereinafter described, with certain collars or equivalent studs or pins secured to the shaft, which revolves within said bearing. This bearing differs from those ordinarily made in having its ends cam-shaped or cut in an irregular path, instead of square, or at right angles to its axis. By this construction, when the shaft revolves the studs above referred to in its periphery are kept in contact with the cam-shaped ends of its bearing, and it is thus given, coincident with its revolution, a reciprocating motion in the direction of its axis indefinitely prolonged.

In wool and other carding-machines the object of giving a reciprocating motion to the shafts carrying cards or carding-cylinders is, that by this motion the fibrous materials are more evenly distributed over the surface of the cards, and consequently are given a more uniform texture. Machines heretofore constructed for this purpose have had this reciprocating motion imparted to their shafts by special and complicated devices—by cams fixed to shafts, and working in grooves or forks; by disks fixed to shafts and having

helical threads, in which levers are operated for transmitting motion to other shafts or card-rolls—all these in addition to the shaft-bearings. My invention does away with all these.

A simple bearing, costing no more than any ordinary bearing necessary for the shaft, has its ends cam-shaped or formed in an irregular path. Two studs on the shaft which revolves in said bearing confine the shaft therein, and when it revolves these studs, in combination with the bearing, effect the desired object, namely, the reciprocating motion of the shaft. This bearing, therefore, thus performs a double function, and in a simpler, more certain, more efficient, and cheaper manner than heretofore effected.

In the drawing forming part of this specification, A is the shaft-bearing, having irregular or cam-shaped ends, as above described. B B are collars, having bearing-points *a a* secured to the shaft C. Mere studs or pins may be substituted for these collars, if desired. To the shaft C are secured the card or other cylinders, as heretofore described.

A mere inspection of the drawing fully shows the operation of the machine, when the handle attached to the shaft C is turned.

As my invention I claim—

In a wool-carding or other similar machine, a shaft-bearing, A, constructed in the manner substantially as described, in combination with collars B B, or equivalent pins or studs, secured to a revolving shaft, C, whereby a reciprocating motion is given to the shaft C simultaneously with the revolution thereof, substantially as and for the purposes described and set forth.

FERDINAND HERBOTH.

Witnesses:

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