

(No Model.)

J. E. BROWN.
CARD LATHE AND GRINDER.

No. 260,835.

Patented July 11, 1882.

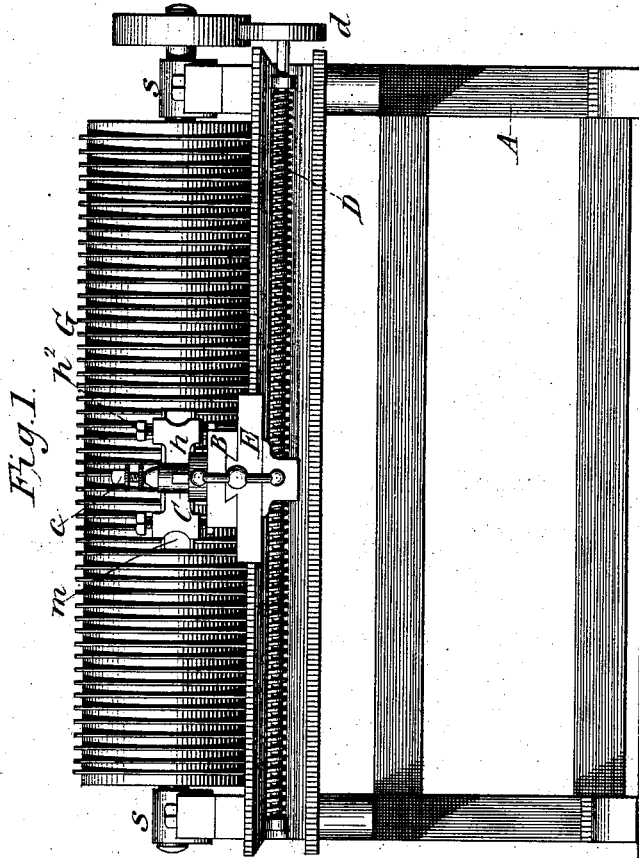


Fig. 1.

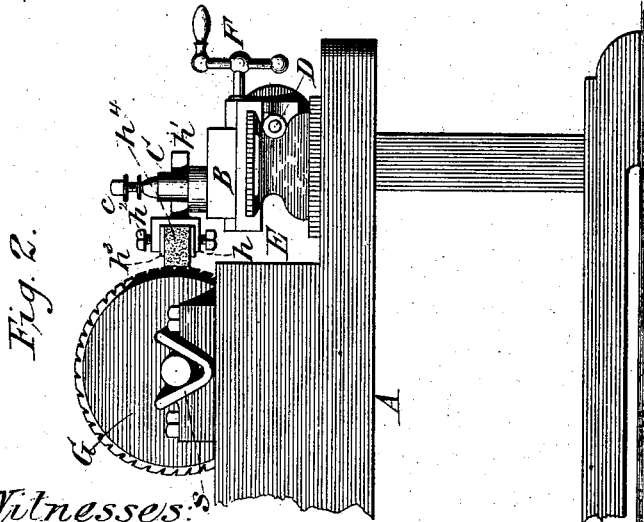


Fig. 2.

Witnesses:
N. P. Dickinson,
M. Doolittle

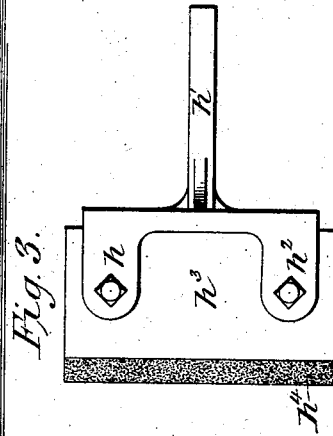


Fig. 3.

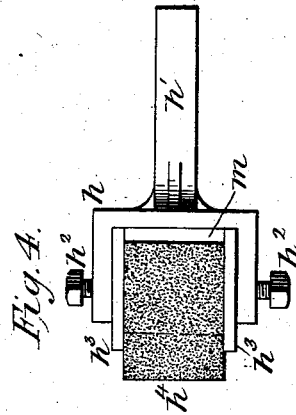


Fig. 4.

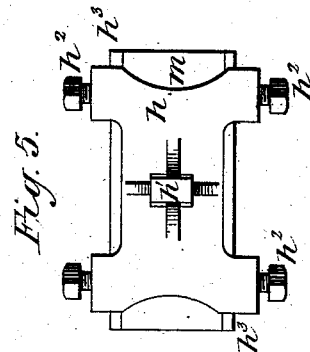


Fig. 5.

Inventor:
John E. Brown,
By his Atty.
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UNITED STATES PATENT OFFICE.

JOHN E. BROWN, OF WESTFORD, ASSIGNOR OF ONE-HALF TO FREDERICK G. SARGENT AND ALLAN C. SARGENT, OF GRANITEVILLE, MASS.

CARD LATHE AND GRINDER.

SPECIFICATION forming part of Letters Patent No. 260,835, dated July 11, 1882.

Application filed March 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. BROWN, of Westford, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Card Lathes and Grinders, of which the following is a specification.

My invention relates to machines for grinding card or burring cylinders; and the objects are to provide a mechanism which will grind a card or burr-picker cylinder perfectly without the use of grinding-cylinders, and to provide such mechanism with a holder into which a block of grinding material can be put and held and supported in operative position while the grinding process is being carried out. I accomplish these objects by the mechanism shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a card-lathe. Fig. 2 is an end elevation. Fig. 3 is a top plan view of the holder seen in Figs. 1 and 2 removed from the machine. Fig. 4 is a side view of the same. Fig. 5 is a back view of the holder and grinding-block.

A is the frame of the machine, upon which is mounted the traverse mechanism on which the tool-block B is placed. This block carries the tool-post C.

D is a traverse-screw operated by the hand-wheel *d*, which is made with sufficient width of face to permit of its being used as a belt-pulley, if it is desired to drive it by power.

E is the traverse-block on which the tool-block is placed. This traverse is provided with a downward flange through a threaded opening in which the traverse-screw passes, so that whenever motion is given to the screw the block will have imparted to it a traverse movement.

F is a crank driving a screw, which engages with the tool-block and moves it when turned at right angles to the traverse-screw.

G is a burr-cylinder placed in position in the lathe ready for grinding. This cylinder is removed from its machine, together with its shaft and pulleys, and placed in the lathe, being supported in the lathe-frame by the V-shaped bearings *s* fixed on the frame. The cylinder is rotated by passing a belt over its pulley from some convenient driving-shaft.

H is a grinding-tool composed of the holder *h*, provided with the shank *h'* and set-screws *h²*, supporting-plates *h³*, and grinding-block

h⁴. This grinding-tool is held in place by inserting its shank in the tool-slot in the tool-post and fastening it in place by the set-screw *c* in the same manner as ordinary lathe-tools are generally held.

The block *h⁴* is composed of emery formed into a mass in the ordinary manner in which such blocks are formed for polishing or grinding for hand use. The supporting-plates prevent the set-screws from crushing the block and permit of its being used for a greater length of time, because, when worn away by continued use, it can be moved out so as to bring a fresh portion into use, while it will be held with equal firmness by the set-screws and supporting-plates, which, being held apart at their back edges by the plate *m*, will firmly grasp the block and hold it so long as much of any remains, for the bearing-surface of the plates is sufficient to perfectly hold the block even when it is worn into a thin sheet which extends back between the plates but a very small distance, perhaps not more than a small part of the distance back toward the set-screws, as indicated by the dotted line in Fig. 4.

As the block would be liable to break when subjected to the pressure of the set-screws without the plates, it could not be used so economically without them, and in no case could it be advanced to supply new portions for grinding-surface after the rear edge came to the line of the set-screws. As the card-lathe is a machine now very generally in use to true up card-cylinders before the clothing is put on, I provide, with slight expense, a device for grinding which for many purposes answers as well as the more elaborate grinding mechanism now in use.

What I claim as new and of my invention is—

1. The combination of a traverse-screw, traverse-block, tool-post, tool-block, and a grinding-tool composed of an emery block held in a holder supported by the post, substantially as described.

2. The grinding-tool H, composed of the holder *h*, having the shank *h'*, the plates *h³*, set-screws *h²*, separating-plate *m*, and emery block *h⁴*, substantially as described.

JOHN E. BROWN.

Witnesses:

LEPINE C. RICE,
N. P. OCKINGTON.