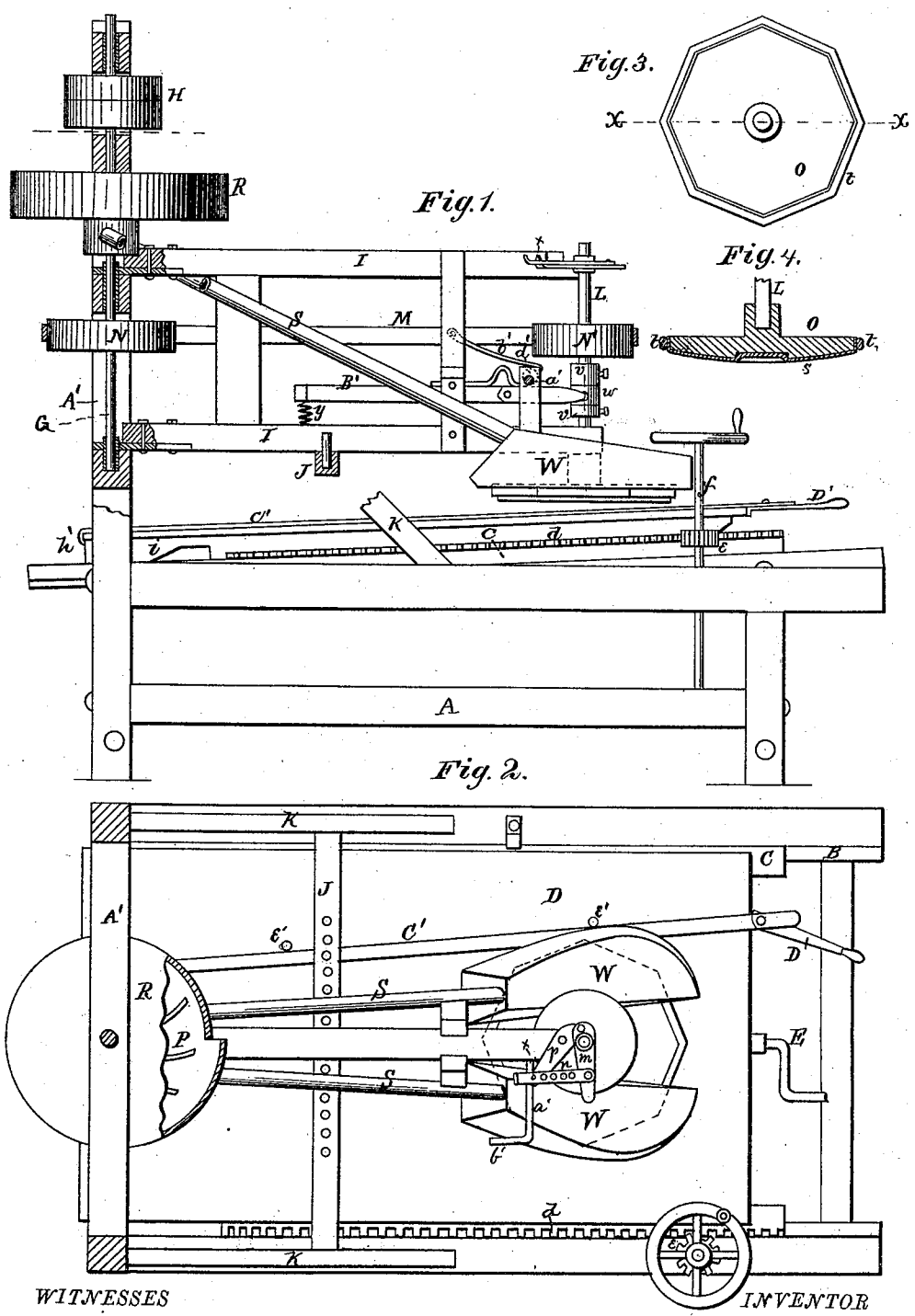


P. BARKER.
SAND PAPERING MACHINE.

No. 178,398.

Patented June 6, 1876.



WITNESSES
Henry N. Miller
C. L. Ewert By

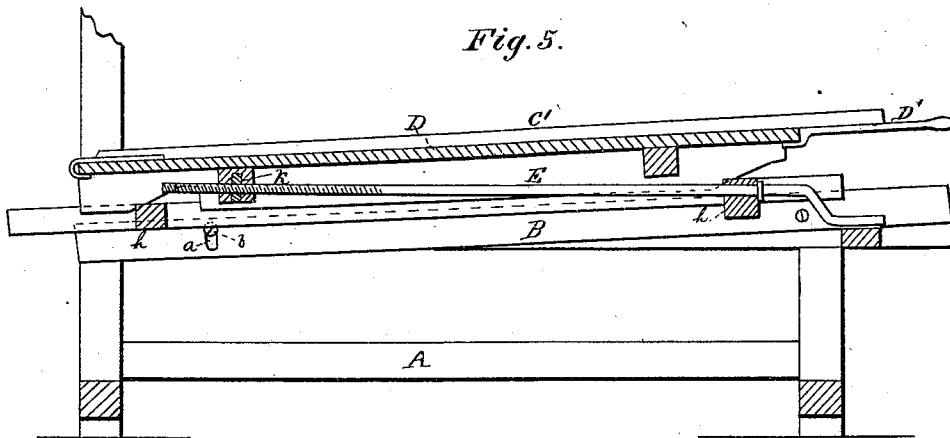
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UNITED STATES PATENT OFFICE.

PELEG BARKER, OF RACINE, WISCONSIN.

IMPROVEMENT IN SANDPAPERING-MACHINES.

Specification forming part of Letters Patent No. **178,398**, dated June 6, 1876; application filed February 25, 1876.

To all whom it may concern :

Be it known that I, PELEG BARKER, of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Sandpapering-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a sandpapering-machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation of my sandpapering-machine. Fig. 2 is a plan view of the same. Figs. 3 and 4 show the construction of the disk on which the sand-paper is held. Fig. 5 is a longitudinal section of the frame, with carriage and table.

A represents the main frame of my machine, constructed in any suitable manner to receive the various working parts. On the inside, along each side of the main frame, is a rail, B, pivoted near its front end, and adjusted up and down near the rear end by means of a screw, *b*, passing through a slot, *a*, in the rail, into the side piece of the frame. On the rails B B rides a frame or carriage, C, carrying the table or bed D, said carriage being moved backward and forward by means of a rack-bar, *d*, secured to one side of the carriage, and a pinion, *e*, on an upright shaft, *f*, having a suitable hand-wheel or crank on its upper end. On the under side of the table or bed D, at each side, are inclines *i i*, to ride over cross-bars *h h* in the carriage C, to adjust the height of the table relative to the carriage by means of an elongated screw-rod, E, and nut *k*, as shown. At one end of the main frame A rises a vertical frame, A', in the center of which is the vertical driving-shaft G, receiving its motion from any suitable power by means of a belt passing around the pulley H at or near the upper end of said shaft. On the shaft G is placed a horizontally-swinging frame, I,

which extends over the table D, and is supported on a cross-bar, J, secured to the inclined braces K K, which steady the upright frame A'. The lower arm of the frame I extends a little farther than the upper, and through this projected end of the lower arm is passed a shaft, L, the upper end of which has its bearing in a pivoted arm or lever, *m*, adjusted and held by means of a perforated arm, *n*, pivoted to said lever, and held on a pin, *x*, on a stationary arm, *p*, projecting from the frame I. The shaft L is rotated by means of a belt, M, passing around a pulley, N, on the main shaft G, and another pulley, N', on the shaft L. On the lower end of the shaft L is secured the disk O, which is made in polygonal shape, and has its under face convex, as shown. By the polygonal form of the disk O the sand-paper *s* may be folded over the edges thereof without puckering, and be held by means of a correspondingly-shaped band or ring, *t*. On the shaft L are fastened two collars, *v v*, and between the same is a loose collar, *w*, in which are placed the prongs of the forked front end of a lever, B', pivoted in the frame I. The inner or rear end of this lever is drawn downward by means of a spring, *y*, thus throwing the front or outer end upward, which carries with it the shaft L and disk O. In suitable bearings attached to the frame I is placed a shaft, *a'*, with a crank or handle, *b'*, at one end, and on this shaft is an eccentric, *d'*, directly over the outer end of the lever B', so that by turning the shaft the eccentric *d'* will press the outer end of the lever downward, and carry with it the shaft L and disk O. As soon as the eccentric *d'* is turned away from the lever B' the spring *y* raises the shaft L and disk O. On the upright main shaft G is secured a fan, P, revolving within a stationary case, R, from which latter two draft-tubes, S S, extend forward and downward, terminating in two hoods, W, at the periphery of the disk O, thereby getting the draft just where it is most wanted.

The article to be sandpapered is placed on the bed D, against two pins, *e' e'*, and held by means of an adjustable bar, C'. This bar has a hook, *h'*, at one end, and a bent lever, D', at the other end, by means of which it may be adjusted and held at any desired point, to secure the article to be sandpapered on the

table. In the under side of the disk O is a central recess, as shown in Fig. 4, which avoids any rings being formed on the work, which would be the case if the disk had a dead-center that would not cut.

By the use of the adjustable rails B one end of the bed or table on which the material is to be smoothed or polished is slightly inclined, in order to bring said material precisely in line with one side of the slightly-conical face of the wheel or disk, leaving the shaft of said disk perpendicular.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sandpapering-machine, the combination, with the main frame A, of the adjustable side rails B B', pivoted at one end, and movable up and down at the other end, movable carriage C, and adjustable table D, substantially as and for the purposes herein set forth.

2. The combination of the shaft L with disk O, pivoted lever *m*, perforated movable arm *n*, and arm *p*, with pin *x*, substantially as and for the purposes herein set forth.

3. The combination, with the shaft L and disk O, of the stationary collars *v v*, intermediate collar *w*, lever B', with spring *y*, and shaft *a'*, with eccentric *d'*, substantially as and for the purposes herein set forth.

4. The combination, in a sandpapering-machine, of a movable bed, an adjustable shaft capable of being placed at any angle desired with the bed, and a convex disk secured on said shaft, as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 15th day of February, 1876.

PELEG BARKER. [L. S.]

Witnesses:

BYRON B. BLAKE,
CHAS. S. BURE.