(No Model.)

J. DAVIS.

SAND PAPER HEAD.

No. 361,399. Patented Apr. 19, 1887.

Fig. 2.

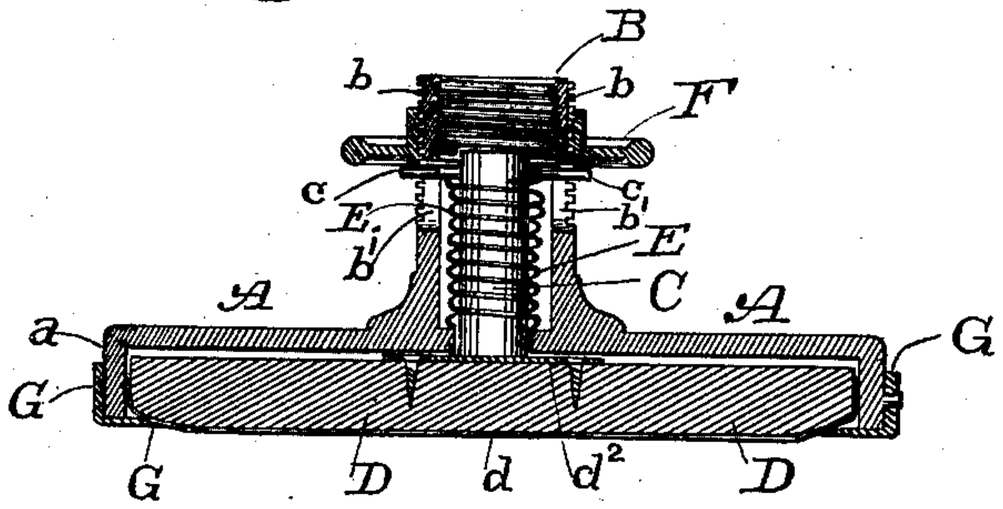


Fig. 1.

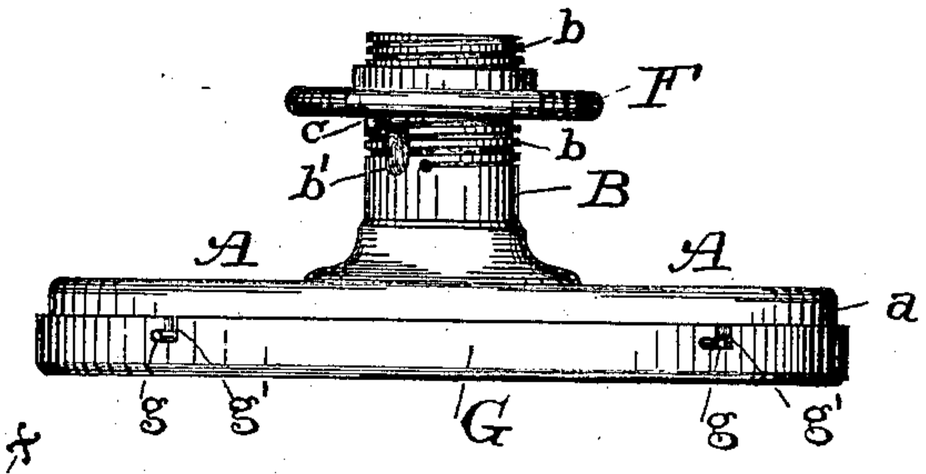
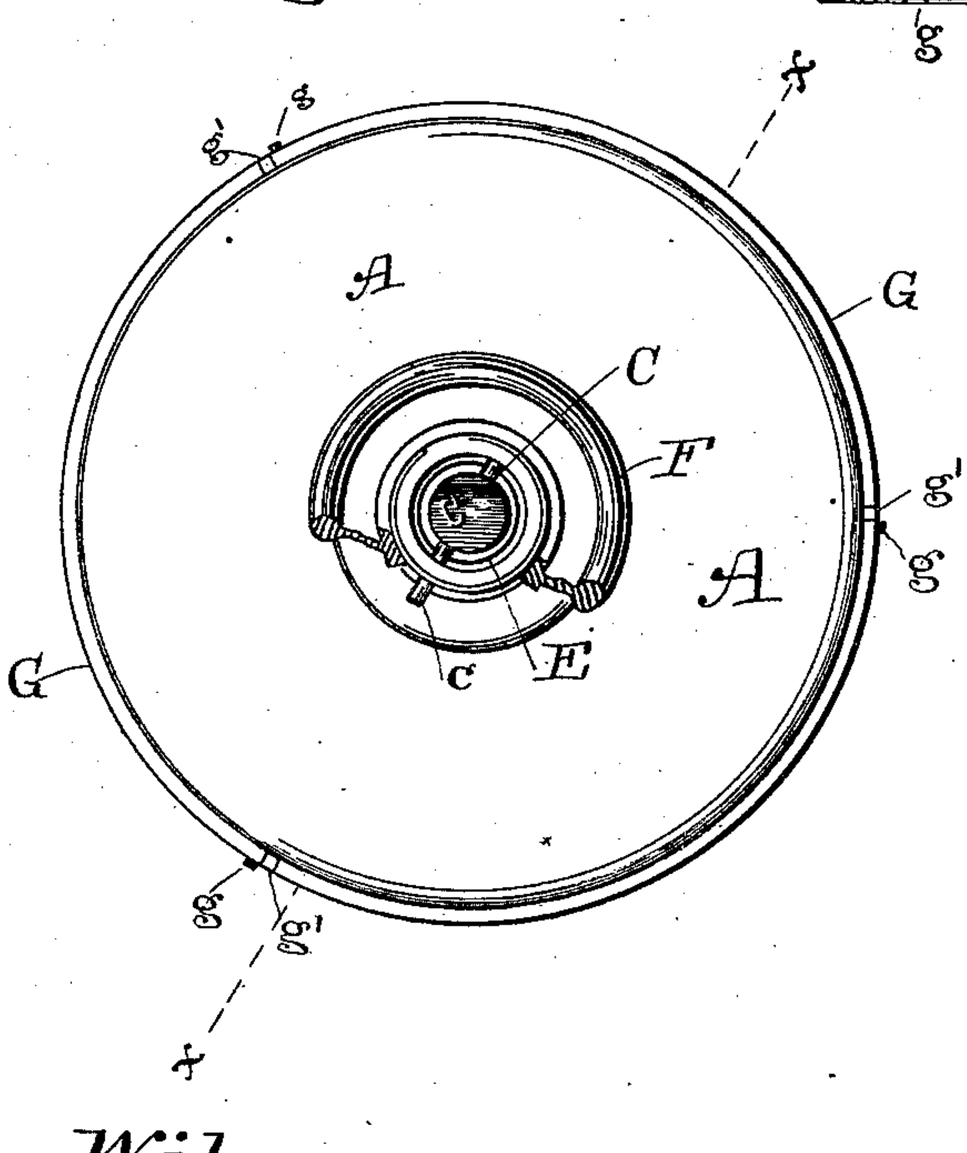


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN DAVIS, OF ALBANY, NEW YORK.

SAND-PAPER HEAD.

SPECIFICATION forming part of Letters Patent No. 361,399, dated April 19, 1887.

Application filed June 19, 1886. Serial No. 205,654. (No model.)

To all whom it may concern:

Be it known that I, JOHN DAVIS, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented a new and useful Sand-Paper Head, of which the following is a specification.

My invention relates to improvements in machines for sandpapering lumber; and the object of my invention is to furnish a sand-paper head which will hold the sand-paper positively in position and prevent the paper from becoming loose or wrinkled when in use, and so arranged that a sheet of sand-paper may be placed into it or removed from it very quickly and easily, being simple in its operation and at the same time inexpensive in its construction. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation; Fig. 2, a section along the line *x x* of Fig. 3, and Fig. 3 is a plan of my machine.

Similar letters refer to similar parts throughout the several views.

A represents a disk, generally constructed of metal, which has attached to it or formed upon it the cylindrical tube B. The tube B has screw-threads *b b* cut upon its exterior surface, and has two slots, *b' b'*, cut through its sides, in which slots the pin or bolt *c* moves. The disk A has a rim, *a*, extending around its periphery and projecting below the horizontal portion of the disk.

Underneath the disk A, and surrounded by the rim *a*, I place a round block, D, having its lower surface beveled or rounded off at its edge, in order that the block when held along the edge shall extend below the other parts of the machine throughout the greater part of its lower surface, as shown in Fig. 2. I place around the lower surface of the block D a covering of cloth or canvas, *d*, which I fasten to the block in any suitable manner. At or near the center of the block D, I attach to it a plate, d^2, which carries the vertical bolt C. The bolt C, I place in the tube B. Around that part of the bolt C that extends above the horizontal portion of the disk A, I place the spring E. The lower part of the spring E rests upon projection of the disk A, within the tube B, and the upper part presses against the pin *c*, which passes through the bolt C and the slots *b' b'* in the tube B.

Around the tube B, and meshing with the screw-threads *b b*, I place the hand-wheel F, which, when screwed downward toward the disk A, comes in contact with the pin *c c*, and causes it to move the bolt C, and therefore the block D, downward, and the spring E becomes compressed.

On the sides of the rim *a* of the disk A, I place the projecting pins *g g g*. I have a removable rim, G, which fits around the rim *a*, and has a flange on its under side, which overlaps rim *a* and the beveled portion of the edge of the block D. I cut in the rim G slots in the form of an L, arranged to conform in position with the projecting pins *g g g* on the rim *a*.

To place my sand-paper head in condition for use, I place on the inside of the removable rim G a sheet of sand-paper. I then place the rim G around the rim *a*, the pins *g g g* fitting into the slots *g' g' g'*, and then giving the rim G a turn, the pins *g g g* move into the horizontal portion of the L-shaped slots, and the rim G is fastened to the rim *a*. I then turn the hand-wheel F, which forces the block D against the sheet of sand-paper, and its edges press the sand-paper tightly against the flange on the rim G, which holds the paper positively in position, and the block being beveled along the edges where the flange overlaps the block the remaining portion of the lower surface of the block D presses the sand-paper below the other portions of the machine, and thus causes it to come into contact with the work. When the hand-wheel F is operated in the opposite direction, the spring E causes the bolt C to follow the hand-wheel, and that draws the block D toward the disk A and loosens the sheet of sand-paper, and the rim G may then be readily removed and another sheet of sand-paper substituted for the worn out one.

My machine holds the sand-paper firmly in position, and affords an unwrinkled surface. It is very simple in its construction, and can be adjusted for use very quickly, the removal or insertion of a piece of sand-paper being the work of but a moment.

What I claim as new, and desire to secure by Letters Patent, is—

1. In sand-paper heads, the combination of

the disk A, having formed upon or attached thereto a tube, B, provided with slots *b' b'*, and screw-threads *b b* on its surface, with the block D, carrying the bolt C, placed within the tube B, and having a pin, *c*, passing through the bolt C and the slots in tube B, with the spring E, and hand-wheel F, substantially as described, and for the purpose set forth.

2. In sand-paper heads, the combination of the disk A, having formed upon or attached hereto a tube, B, provided with slots *b' b'*, and screw-threads *b b* on its exterior surface, with the block D, having the bolt C attached thereto, the bolt C, placed in the tube B, and having a pin, *c*, passing through it and through the slots in tube B, with the spring E placed around the bolt C, with the hand-wheel F meshing with the screw-threads *b b* on the tube B, and with the removable rim G to be placed around the rim *a*, substantially as described, and for the purpose set forth.

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