



# UNITED STATES PATENT OFFICE.

ELIJAH BROWN, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, EBEN PEEK,  
AND GILBERT J. BOGART, OF SAME PLACE.

## IMPROVEMENT IN SHAVINGS-SEPARATORS.

Specification forming part of Letters Patent No. **181,404**, dated August 22, 1876; application filed  
July 31, 1876.

*To all whom it may concern:*

Be it known that I, ELIJAH BROWN, in the city, county, and State of New York, have invented a new and Improved Shavings-Separator, of which the following is a specification:

Figure 1 is a vertical section on line *xx* in Fig. 2. Fig. 2 is a longitudinal section on line *yy* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of my invention is to separate the finer from the coarser shavings made in planing-mills and other wood-working machines; and it consists of a screen hung in an inclined position upon two sets of swinging arms, and provided with a divider or frame carrying a number of cross-wires a short distance above the screen. The screen is arranged to take motion from a crank driven by any convenient power, and the divider is arranged to move with the screen, but through a greater space, constantly shifting its position in relation to the screen.

A is a screen or sieve, which is supported by a framing, B. C is a box or chute, formed around the screen, and left open at the lower end *d*. The side pieces *a*, forming part of the frame B, are allowed to project beyond the screen at each end, to receive the swinging arms D D', which are pivoted to the side pieces *a*, and to the hangers *b c*, or any other convenient support. The hangers *b* are longer than the hangers *c*, allowing the screen to pitch downward, so that the open end *d* is

lowest. The swinging arms D are elongated, and connected by joints *e* to the sides *fg* of the divider E, that slides a small distance above the screen. The ends of the rods *fg* slide in the eyes *h i*. Attached to the framing of the screen *j* are cross-bars, connecting the bars *fg*. F is a connecting-rod, that transmits motion from the crank G to the screen. The crank G may be moved by any convenient power.

The shavings are delivered to the upper end of the screen by the ordinary shavings-carrier, or by any other desirable means.

The motion communicated to the screen A by the crank G causes it to move with a lifting and throwing motion, tossing the shavings up, allowing the finer particles to pass through the meshes of the screen; at the same time, the rods *fg* of the separating device, by reason of being connected lower down on the arms D than the screen, receive a greater motion than that of the screen, and thoroughly agitate the shavings, making the separation more complete.

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

The combination of the screen A, swinging arms D D, pivoted to a suitable support, and the divider E, constructed and arranged substantially as specified.

ELIJAH BROWN.

Witnesses:

C. SEDGWICK,  
GEO. M. HOPKINS.