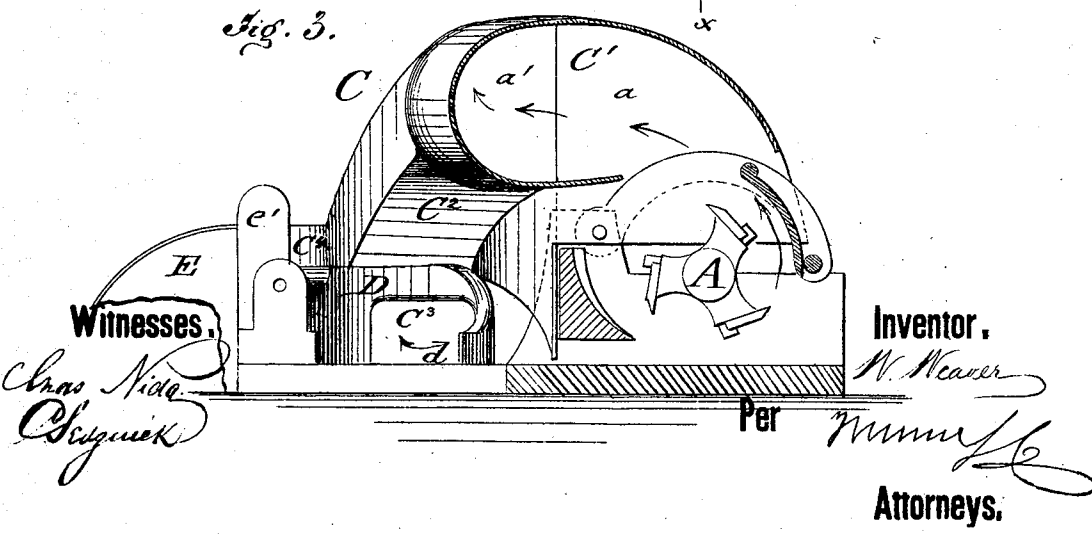
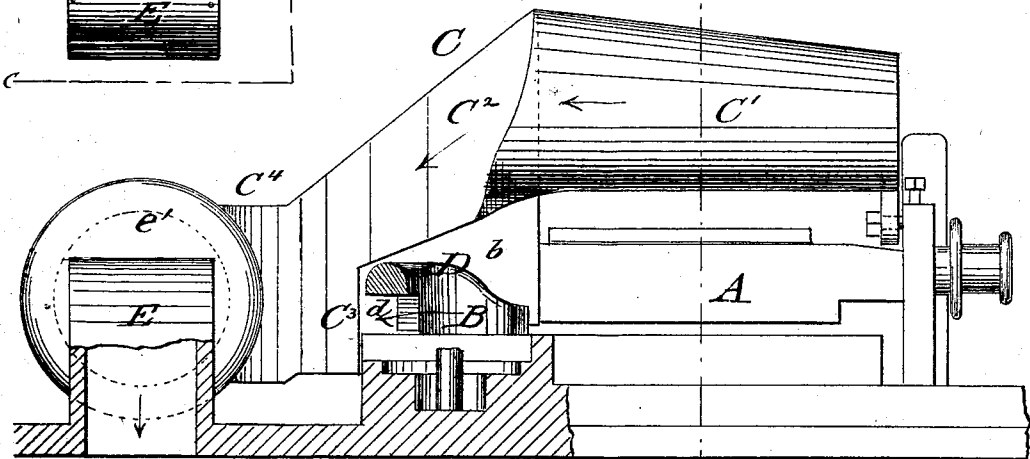
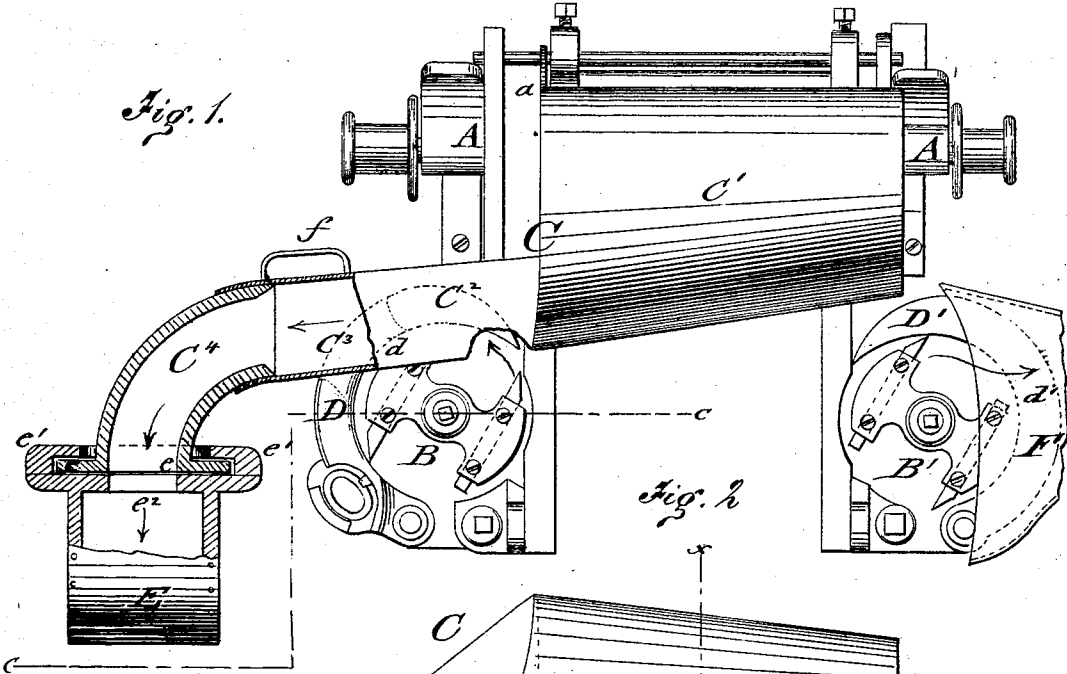


W. WEAVER.

Shaving Conductors for Planing-Machines.

No. 145,375.

Patented Dec. 9, 1873.



UNITED STATES PATENT OFFICE.

WILLIAM WEAVER, OF BURLINGTON, VERMONT.

IMPROVEMENT IN SHAVING-CONDUCTORS FOR PLANING-MACHINES.

Specification forming part of Letters Patent No. **145,375**, dated December 9, 1873; application filed August 30, 1873.

To all whom it may concern:

Be it known that I, WILLIAM WEAVER, of Burlington, in the county of Chittenden and State of Vermont, have invented a new and Improved Shaving-Conductor for Planing-Machines, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, partly in section, of my improved shaving-conductor; Fig. 2, a side elevation, partly in section, on the line *c c*, Fig. 1; and Fig. 3, a vertical transverse section of the same on the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of my invention is to produce an improved shaving-conductor for wood-working machinery, by which the shavings are carried off by the force imparted by the rapid revolutions of the cylinders and side cutters, and transmitted to elevators or other receptacles, whether used with or without suckers or blowers. The conductor, covering the machinery, protects the gearing against the accumulation of shavings, leaves every part of the machine fully within view of the workman, and permits readily any repairing of the same at any desired moment. My invention consists, mainly, of a hood-shaped conductor, adapted in form to a cylindrical planer and side cutter, combined with an extension-casing leading to the opening of the blowers, suckers, or receptacles, and turning in a circular sleeve, so as to be lifted off the machinery. The chip-breaker of the side cutter is suitably enlarged and recessed for the passage of the shavings into the conductor, which may also be arranged separately for the side cutter.

In the drawing, A represents the cylindrical planer; B B', the side cutters, arranged in connection therewith in the usual manner in planing-mills. C is the shaving-conductor, made of sheet-iron or other suitable material, which is arranged in the shape of a gradually-widening conical hood, C¹, above the cylinder A, which hood is open at the bottom to take up and carry along the shavings, which are thrown up with considerable force by the planer, as indicated in Fig. 3. The narrower end may, preferably, be left open, while the wider end is partially closed by a vertical wall,

a, which extends, at the side of the cylinder A, downward, resting on the bearing of the same, and supporting thereby the hood C¹ in its position on cylinder A. A vertical, nearly semicircular, opening, *a'*, in front of wall *a* of the hood, connects with a casing, C², of nearly oblong or other cross-section, whose rear side wall *b* extends also downward, forming a separating-partition between cylinder and side cutter under nearly a right angle with wall *a* of hood C¹. Casing C² passes above side cutter B, and widens into a mouth, C³, which takes up the chips of cutter B. The chip-breaker D is produced for the purpose of adapting the side cutter to the conductor C in larger size, and with a recess, *d*, which tapers toward mouth C³, and conducts the chips of the cutter, through mouth C³, into casing C². The shavings, both of planer and cutter, enter then the quadrantal extension of C⁴ of casing C², which is provided with a circular projecting flange, *e*, which fits into an incasing circular sleeve, *e'*. The whole conductor C may be turned up, by a handle, *f*, into inclined or vertical position in sleeve *e'*, and thereby any repairs, as sharpening of the knives, removing and replacing of side cutters, be attended to. An exit-opening, *e''*, of sleeve *e*, corresponds with the mouth of extension C⁴, while another vertical quadrantal casing, E, connects with sleeve *e'*, carries the shavings through the floor to the receptacle, or to the opening of the sucker or blower, to be conducted off by the same.

The apparatus may be used without suckers or blowers, as the velocity imparted by the cylinder or side cutters carries the shavings sufficiently far beyond the machine, while the working of the suckers or blowers is greatly facilitated by the same.

The chip-breakers D' of the left-side cutter B' is arranged, in similar manner, with a tapering recess, *d'*, and provided with a separate conductor, F, which partly incases the cutter B'. The conductor F leads the shavings off in the manner described, and is arranged for sliding in the connecting-casing, so as to be lengthened or shortened, according to the position of the adjustable cutter B'.

Hitherto the machinery and gearing required boxing up, or a frequent stopping to clear off

the shavings and chips, which produced a great loss of time and prevented the careful surveillance of the different parts of the machinery. This conducting apparatus, however, fully carries off all the shavings, so that no boxing up or protection for the gearing may be required, nor any "blistering" of the boards be possible, and offers at the same time the great advantage of having the cylinders and cutters in full view during work, so that the workman can control the running of the same without inconvenience. The operations of planing-mills and other wood-working establishments can therefore be carried on with greater economy, cleanliness, and dispatch.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. As an improvement in wood-working machinery, the combination of cylindrical planer A and side cutter B with the combined shaving-conductor C, turning in sleeve *e*¹ of casing E, substantially as and for the purpose described.

2. The chip-breaker D of the side cutters, being enlarged, and provided with tapering recess for carrying the chips to the conductor, as set forth.

WILLIAM WEAVER.

Witnesses:

H. K. WEAVER,
JAS. A. HARVEY.