A. Broad,

Cutting Shingles.

No. 6,965. Patented Dec. 18, 1849

Fig. 1.

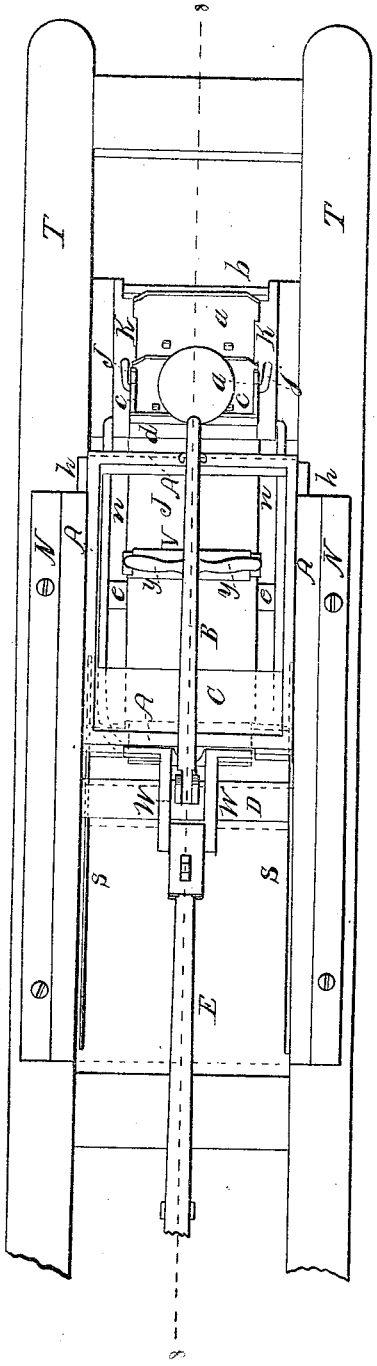
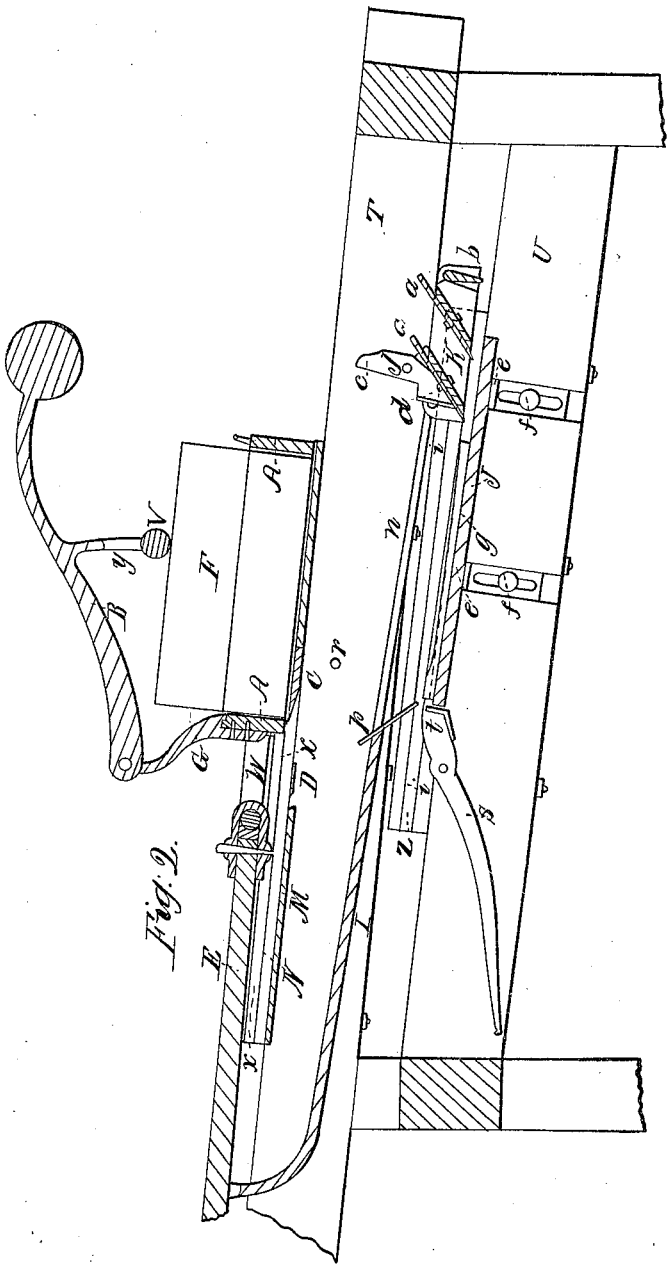


Fig. 2.



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UNITED STATES PATENT OFFICE.

ASA BROAD, OF LOUISVILLE, KENTUCKY.

MACHINERY FOR DRESSING STAVES.

Specification of Letters Patent No. 6,965, dated December 18, 1849.

To all whom it may concern:

Be it known that I, ASA BROAD, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Machine for Making and Dressing Staves, Shingles, &c.; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a top view of the machine, with some of the parts removed, and Fig. 2, is a longitudinal vertical section, in the line *s s* of Fig. 1.

Similar letters indicate like parts in both figures.

The nature of my invention consists in the combination of the several parts of my machine with each other in such a manner that a shingle will be smoothly dressed on its underside and split from the block at one movement of the carriage; which shingle will fall upon a platform and be dressed and beveled upon its upper side during the return movement of the carriage.

The frame of my stave and shingle machine, is constructed of the parts represented in the drawings, united with each other in the usual manner.

A, is the carriage, or bottomless box, in which the block of wood F, is placed preparatory to being converted into shingles or staves; the carriage A, is guided in its movements by tongues *h*, *h*, projecting from its sides, which fit into grooves *x*, *x*, in the bars N, N, that are made fast to the top of the beams T, T, of the frame. The carriage is reciprocated back and forth by the pitman E, which is operated by a crank, or other suitable mechanical contrivance. The carriage A, passes over two platforms (M and H) in its movements; arranged in the positions represented in Fig. 2; the face of the front platform M, being the thickness of a stave or shingle below the face of the rear platform H.

D, is a dressing knife placed a short distance in the rear of the platform M, and elevated above the platform a sufficient height to remove a shaving from the under side of the block F, as it passes over it toward the rear. C, is the splitting knife placed in front of the platform H, which removes a shingle or stave from the block F, during the forward movement of the carriage. The shingle or stave cut off from the block, falls on the platform J, located under the platform H, and its upper side is dressed by the plane bits *a*, *a*, in the head K, during the return movement of the carriage.

The plane head K, is guided and propelled as follows: tongues project from its sides, which fit into grooves *i*, *i*, in the ways Z, made fast to the beams U, of the frame: the bar L has its front end jointed to the under side of the pitman E, and the branches *n*, *n*, at its rear end, are joined to the sides of the plane head.

An inclined plate *p*, is secured at the junction of the branches *n*, *n*, with the bar L, for the purpose of guiding the shingles or staves as they fall from the splitting knife, on to the platform J.

A stop *t*, rises in front of the platform J, against which the end of the shingle *g*, is pressed, while it is operated upon by the plane bits in the head K; the ends of the stop *t*, are made fast to a couple of levers S, which are secured against the inner sides of the beams U, of the frame, by fulcrum pins; the ends of the levers S, that extend downward are of sufficient weight to keep the stop *t*, in the position represented in Fig. 2, until the upper curved ends of the levers are pressed down by the plane head K, which takes place just before the forward bit *a*, reaches the stop; thereby enabling the plane bits to pass over the end of the shingles and remove the shavings from it, without danger of being dulled by the stop.

In front of the forward plane bit *a*, I place a plate *d*, the ends of which are secured to the vertical levers *c*, *c*, that are suspended by the fulcrum pins *j j* rising from the sides of the plane head; just at the moment that the plane head arrives at its extreme forward point of action, the upper end of one of the levers *c*, strikes against a pin *r*,—projecting inward from one of the beams T—, which gives a sudden forward movement to the plate *d*, that serves to throw the shaving clear of the plane bits.

The shingle or stave is thrown off the platform J, by means of the catch *b*, which is hinged to the rear end of the plane head K, in such a manner that it drags over the shingle or stave during the forward movement of the plane head, and catches upon and carries back the shingle or stave, as soon as the motion of the plane head is reversed.

The platform J, is supported by the transverse bars *e*, *e*, the ends of which are bent downward and have slots formed in them, through which pass the set screws *f*, that confine them to the inner sides of the beams U, U, of the frame. This manner of supporting the platform J, allows its front end to be elevated when shingles are to be formed by the machine, for the purpose of enabling the plane bits *a*, *a*, in the head K, to give the requisite bevel to the uper sides of the shingle. When staves are to be formed by the machine, curved plane bits are employed of such a shape as to give the required form to the staves.

G, is a standard rising from the front end of the carriage A, to the upper end of which is jointed the weighted lever B, that bears upon the block F—through the medium of the roller V, and branches *y*, *y*, (as represented in the drawings)—with sufficient force to cause it quickly to descend on to the forward platform M, when the carriage is brought over it, and to prevent the block from springing upward when it is operated upon. In Fig. 1, the platforms M, and H, are removed for the purpose of representing the parts beneath them.

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

The tilting plate *d*, placed in front of the forward cutter *a*, in the head K, in combination with the pin *r*, projecting from the beam T, of the supporting frame, for the purpose of throwing the shavings clear of the cutters, substantially in the manner herein set forth.

The above specification signed this fifth day of February 1849.

ASA BROAD.

Witnesses:
WILLIAM B. BEATTY,
JACOB G. SMITH.