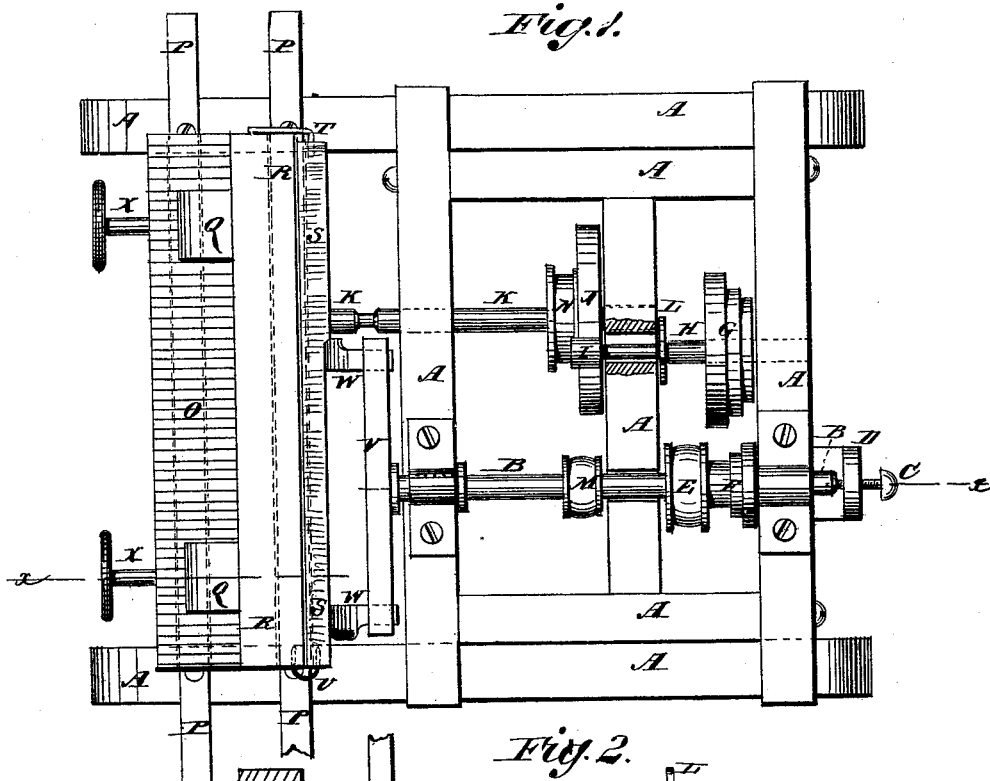


J. A. WEBSTER.  
Planing-Machine.

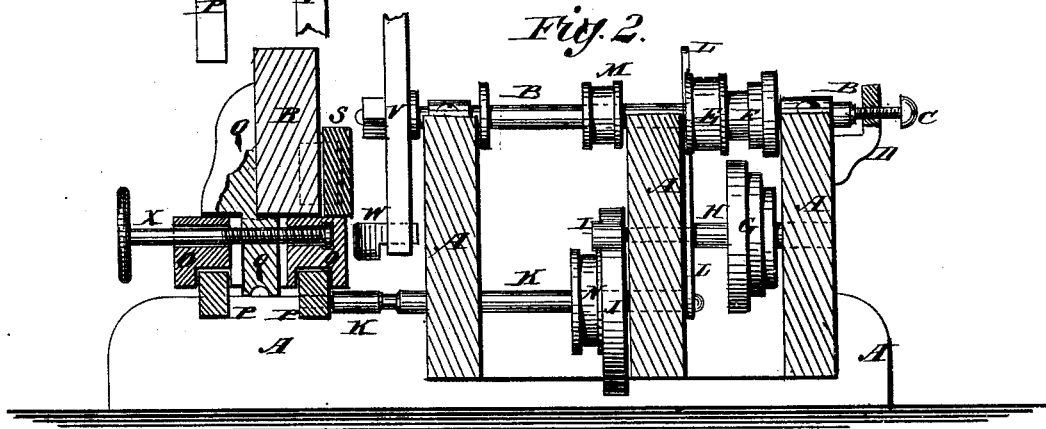
No. 218,349.

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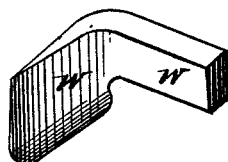
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JAMES A. WEBSTER, OF SOUTH BOSTON, VIRGINIA.

## IMPROVEMENT IN PLANING-MACHINES.

Specification forming part of Letters Patent No. **218,349**, dated August 5, 1879; application filed May 19, 1879.

*To all whom it may concern:*

Be it known that I, JAMES ANDERSON WEBSTER, of South Boston, in the county of Halifax and State of Virginia, have invented a new and useful Improvement in Planing-Machines, of which the following is a specification.

Figure 1 is a top view of my improved machine. Fig. 2 is a cross-section of the same, taken through the broken line *x x*, Fig. 1. Fig. 3 is a detail perspective view of one of the cutters or knives.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish attachments for sawing-machines, the use of which will change a sawing-machine into a planing-machine at a small expense, so that the timber may be sawed or resawed and dressed upon the same machine, producing a machine very convenient for small shops.

The invention consists in the combination of the saw-mandrel provided with pulleys, and cross-bar having cutters, the movable shaft provided with a pulley and friction-roller, and the feed-shaft provided with the friction-roller and pulley, with the frame, the carriage, and the driving mechanism, as hereinafter fully described.

A represents the frame-work of a sawing-machine, to the upper part of which are attached the bearings for the saw-mandrel B. The mandrel B is held against longitudinal movement by a set-screw, C, which passes through a bracket, D, attached to the frame A in such a position that the forward end of the said screw may rest against the outer end of the said mandrel.

To the mandrel B is attached a pulley, E, to receive the driving-belt, and a pulley, F, having faces of different diameters, to receive a belt which passes around a similar pulley, G, attached to the shaft H. The shaft H revolves in bearings attached to the frame A, and to its inner end is attached a small friction-pulley, I, which acts upon a larger friction-pulley, J, attached to the feed-shaft K.

The inner end of the shaft H is moved to throw the pulley I into and out of gear with the pulley J by means of a lever, L, through a longitudinal slot in which the said shaft H

passes, and the lower end of which is pivoted to the frame A. To the driving-shaft B is also attached a pulley, M, to receive a band which also passes around a pulley, N, placed upon the feed-shaft K, and which is designed for use for running the carriage back for making another cut when the friction-pulleys I J have been thrown out of gear.

One or the other of the pulleys M N should be connected with its shaft by a clutch, which clutch is not shown in the drawings, so that the back feed and the forward feed can be thrown into and out of gear alternately, as required.

The forward end of the feed-shaft K is designed to be provided with a gear-wheel to mesh into a toothed rack attached to the carriage O, to give a forward and back motion to the said carriage. The gear-wheel and toothed rack are not shown in the drawings. The carriage O moves forward and back upon ways P, attached to the frame-work A, as it is acted upon by the feed mechanism.

Q are the head-blocks, the lower ends of which enter cross-slots in the carriage O, and have screw-holes formed in or nuts attached to them to receive the hand-screws X, swiveled to the said carriage O, so that the said head-blocks may be moved in or out to adjust them as the size of the timber to be operated upon may require.

To the forward sides of the head-blocks Q is attached a plank, R, for the timber to rest against while being planed.

S represents a stick of timber to be planed, which is placed upon the inner part of the carriage O, rests against the plank R, and is secured at one end by a toothed plate, T, attached to the plank R, and at the other end by a U-shaped dog, U, driven into it and into the end of the said plank R.

To the forward end of the saw-mandrel B is rigidly attached a cross-bar, V, to the ends of which are attached the cutters or knives W, which operate upon the timber S as the said mandrel B is revolved.

The timber S may be further secured in place by rollers resting against its forward side, in front and rear of the cutters W, but which are not shown in the drawings.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

The combination of the shaft B, provided with the pulleys M E F and the cross-bar V, having cutters W, the shaft H provided with the pulley G and friction-roller I, and the shaft K, provided with the friction-wheel J and pul-

ley N, with the frame A, the carriage O, and the driving mechanism, substantially as and for the purpose set forth.

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Witnesses:

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