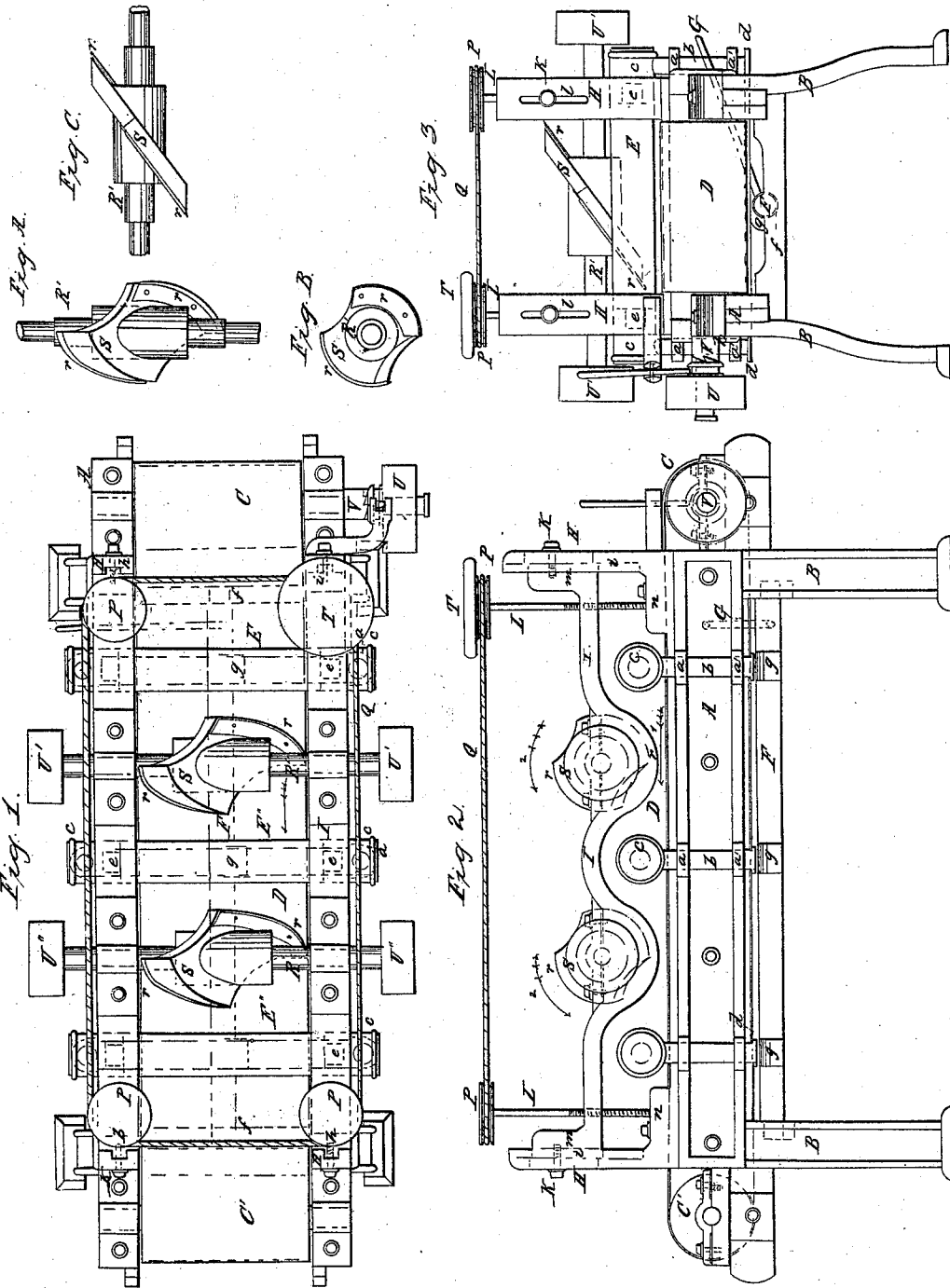


E. Webber, Wood Planing Machine.

No 10,871.

Patented May 2, 1854.



UNITED STATES PATENT OFFICE.

ELBRIDGE WEBBER, OF GARDINER, MAINE.

ROTARY PLANING-KNIFE.

Specification of Letters Patent No. 10,871, dated May 2, 1854.

To all whom it may concern:

Be it known that I, ELBRIDGE WEBBER, of Gardiner, in the county of Kennebec and State of Maine, have invented a new and
5 useful Improvement in Rotary Knives and Stocks of Machines for Planing Lumber; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings,
10 forming part of this specification, in which—

Figure A is a top view of the stock and knife, and the shaft to which the stock is
15 secured. Fig. B is an end view of the same. Fig. C is a side view, showing the construction of the knives.

Similar characters of reference in the several figures denote the same part.

20 The nature of my invention consists in combining peculiarly formed knives, hereafter to be described, with oblique elliptical cutter stocks, and in arranging the same as will be set forth, for the purpose of planing
25 lumber.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawing R' represents the shaft on
30 which the cutter stock rotates; this stock S which is an oblique elliptical segment as shown in Fig. C, is secured to the said shaft R' so as to make an angle of 45° with its axis, and has bolted to its opposite diagonal elliptical sides, the knives *r*, which have
35 the same curve as the sides of the stock to which they are bolted, and have their cutting edges slightly turned up as shown in Fig. C. The effect of this construction and
40 arrangement is by the rotation of the shaft R' to produce a double spiral cut of the knives from the central line toward the edges of the board.

The operation of my improved knives and

stock is as follows. The position of the
45 knives with respect to the thickness of board to be dressed, is first regulated by the vertical movement of the bearings of the shaft R', care being taken that the elements of the cylinder containing the edges of the
50 knives, shall be kept parallel to the bed of the machine. The shaft R' is then rotated by any suitable gearing, and the board fed to the cutters by an endless band or other-
55 wise. The toe of one of the knives first meets the board at its central line, and each point of that knife from toe to heel successively cuts the board from that line toward the edge of the board, making a spiral
60 drawing cut. As the heel of the first knife leaves the board the toe of the knife on the opposite diagonal elliptical side of the stock meets the board at the above mentioned central line, and that knife cutting
65 as described for the first knife, leaves the board as the toe of the opposite knife again meets the central line; the revolution of the stock producing a double spiral drawing cut, from the central line of the board toward its edges; the continued rotation ef-
70 fectually and smoothly dressing the board. One or more stocks may be used in planing, according to the degree of smoothness required, as the first cutter will remove the rough and each succeeding cutter impart the
75 finish.

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

The combination of the knives *r* with the stock S, constructed, arranged and operated
80 substantially as herein set forth.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

ELBRIDGE WEBBER.

Witnesses:

GEO. W. WAITT,
C. DANFORTH.