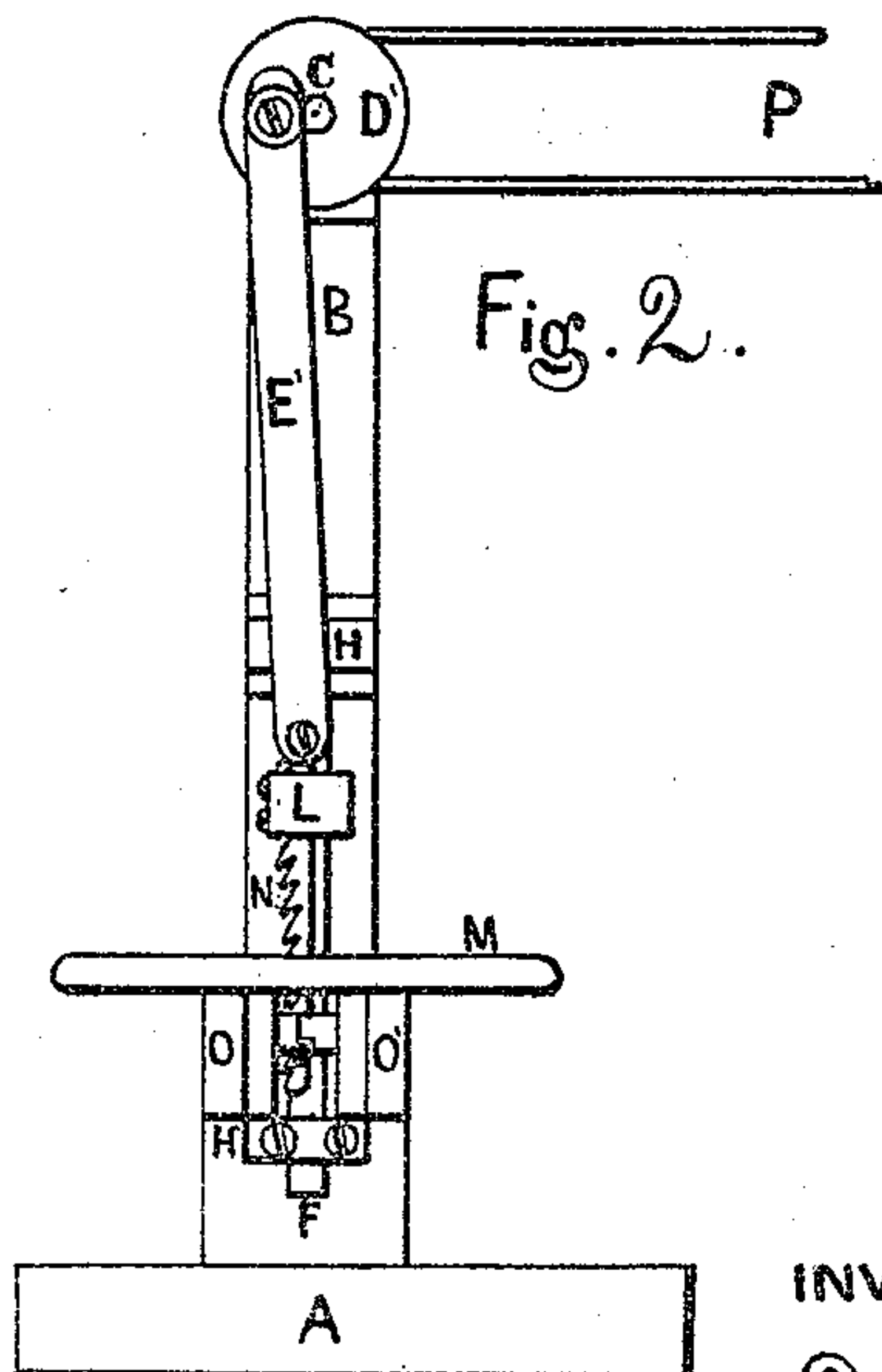
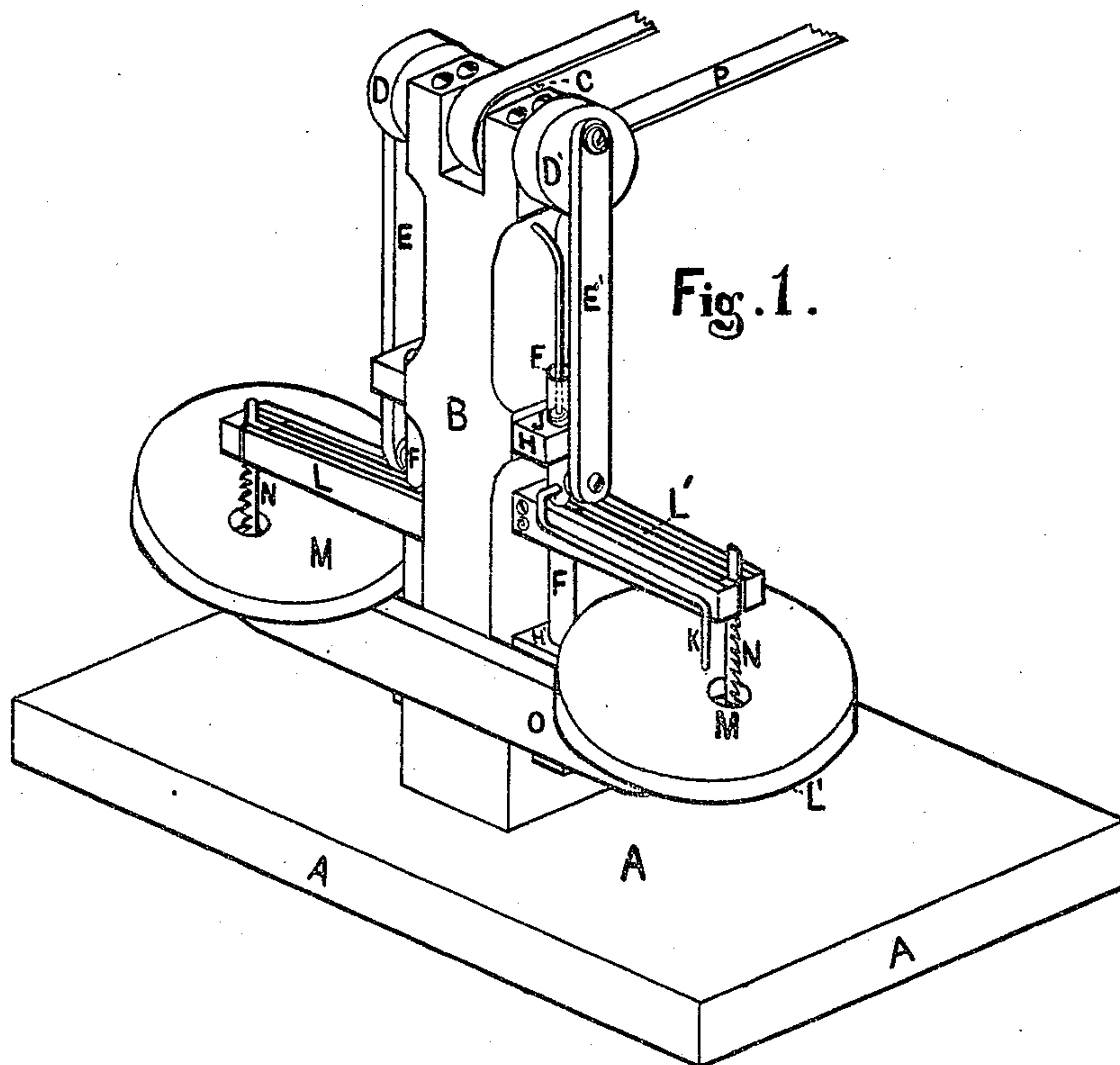


E. WHITE.
Scroll Sawing-Machines.

No. 148,340.

Patented March 10, 1874.



WITNESSES.

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EDWIN WHITE, OF LAWRENCE, MASSACHUSETTS.

IMPROVEMENT IN SCROLL-SAWING MACHINES.

Specification forming part of Letters Patent No. 148,340, dated March 10, 1874; application filed May 9, 1873.

To all whom it may concern:

Be it known that I, EDWIN WHITE, of Lawrence, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Scroll-Sawing Machines, of which the following is a specification:

My invention relates to that class of saws which are driven by means of a pitman, which communicates an up-and-down motion to the same; and it consists in the combination of the following-described mechanism: An upright post having journal-boxes fitted to receive a shaft, upon each end of which is fitted a balance-wheel provided with a wrist-pin, to the upper end of which is connected a pitman, its lower end being connected to the saw-frame or arms, and to the other balance-wheel is connected a pitman in exact similar manner, so that when one of the wrist-pins is at the top, the opposite one is at the bottom, the pitmen being connected with the saw-frame or arms in like manner, so that by the revolutions of the balance-wheels one saw-frame or arms are carried upward at the same time the opposite ones are carried downward, and vice versa, thus counterbalancing each other, and with but little extra expense or space over a single one, and without any jar or shaking of the operative parts, thus allowing lumber to be cut with ease and facility.

I connect the arms, to which the saws are attached, to a sliding metal tube fitted in suitable bearings, so as to slide up and down freely. These arms are constructed of several pieces of wood placed side by side, and made to clamp the tube firmly by means of set-screws or screw-bolts. I also arrange a fixed piston in the top of the sliding tube, thus forming a blower to remove the sawdust from the material being sawed.

Figure 1 is a perspective view of a self-balancing double saw embodying my invention. Fig. 2 is a plan view of one saw and its connecting mechanism.

A is the bed of the machine, to which is rigidly affixed the upright post B, to the upper end of which is connected a shaft, C, journaled in the usual manner, upon each end of which are balance-wheels D D'. To these balance-wheels are connected pitmen E E', by wrist-pins, in the usual manner. The lower ends of these pitmen are jointed to the sliding

metallic tube F, which plays up and down freely through boxes H H'. A piston, J, fits into the upper end of this tube, and connected to the side of this sliding tube is a small bent tube, K, for blowing the dust from the material being sawed; also, the arms L L' are connected to this tube, being constructed of two or more flat strips, are attached to the tube by passing each side of the same, and clamped thereto by set-screws, so as to admit of their being adjusted thereon. Between the outer ends of these arms L L' is connected the saw N, in the usual manner. This saw plays up and down through the table M, a suitable opening being provided for that purpose. Beneath this table are affixed guides O O', between which the outer end of arm L' slides when the saw is in motion. (See Fig. 2.) Connected to the upright post B, beneath table M, is a box, H', through which the lower end of the sliding metallic tube F has a bearing, which is intended to keep the saw and arms in proper position, when in use, against any pressure upon the saw tending to displace it. This box H' acting in conjunction with guides O O' for this purpose, a similar guide is to be used for the upper arm. Motion is communicated to these double self-balancing saws by a belt, P, passing over a pulley upon the shaft C at the center of the top of the upright post B.

It will be observed that the saws N and the mechanism connected therewith upon either side of the post B are exactly similar, the only differences being in connecting the two mechanism in such a manner that when one saw is passing downward the other upon the opposite side is passing upward, and vice versa, equally balancing each other at all points.

Having thus described my invention, what I claim is—

The combination of the upright post B, shaft C, balance-wheels D D', pitmen E E', metal tubes F F', guides O O', arms L L' L L', constructed of two or more flat strips and clamped to the tubes F F' by means of set-screws N, and table M, when constructed, combined, and arranged substantially in manner described, as and for the purposes set forth.

EDWIN WHITE.

Witnesses:

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WM. H. TOWERS.