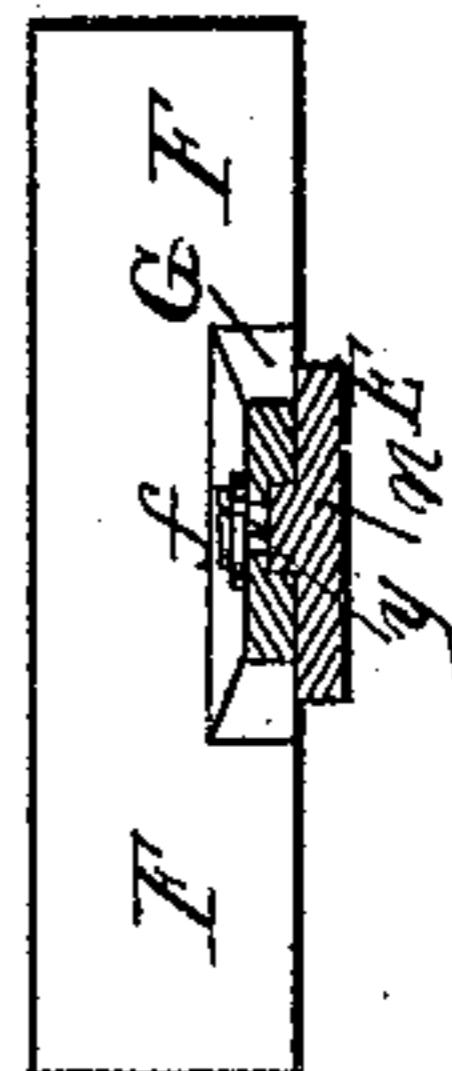
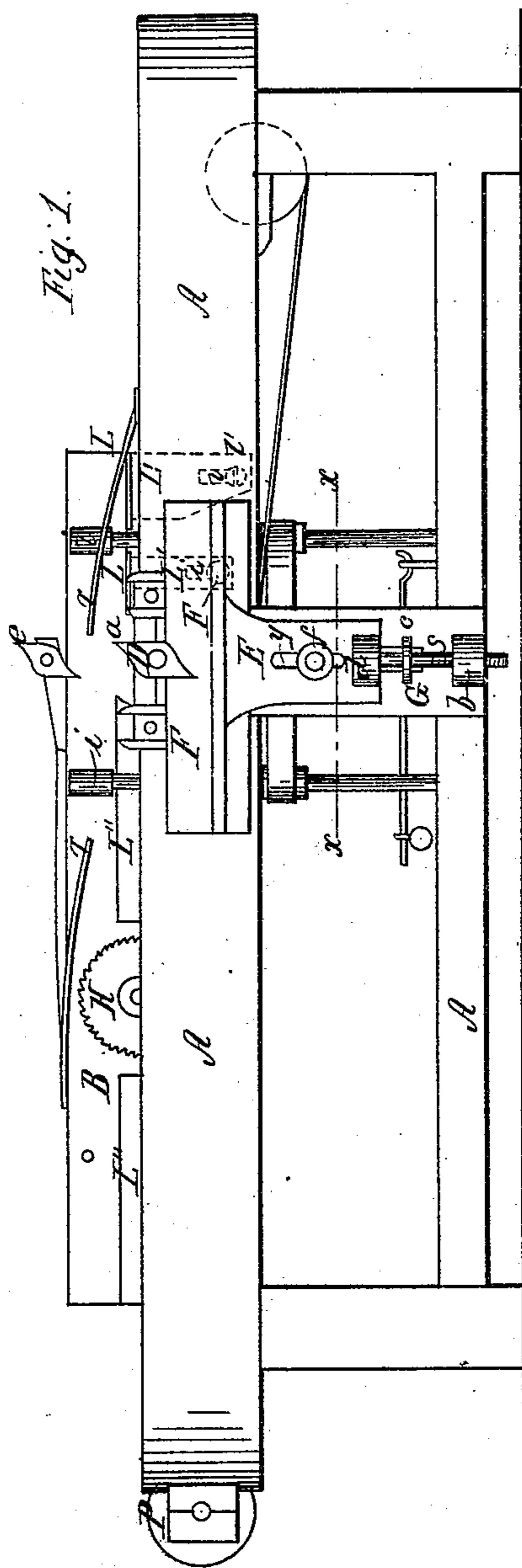


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Planing Mach.

N<sup>o</sup> 85,648.

Patented Jan. 5, 1869.



Witnesses;  
Q. F. Mayhew,  
Wm. H. Weeks

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Joseph H. Draper,

J. H. Draper.

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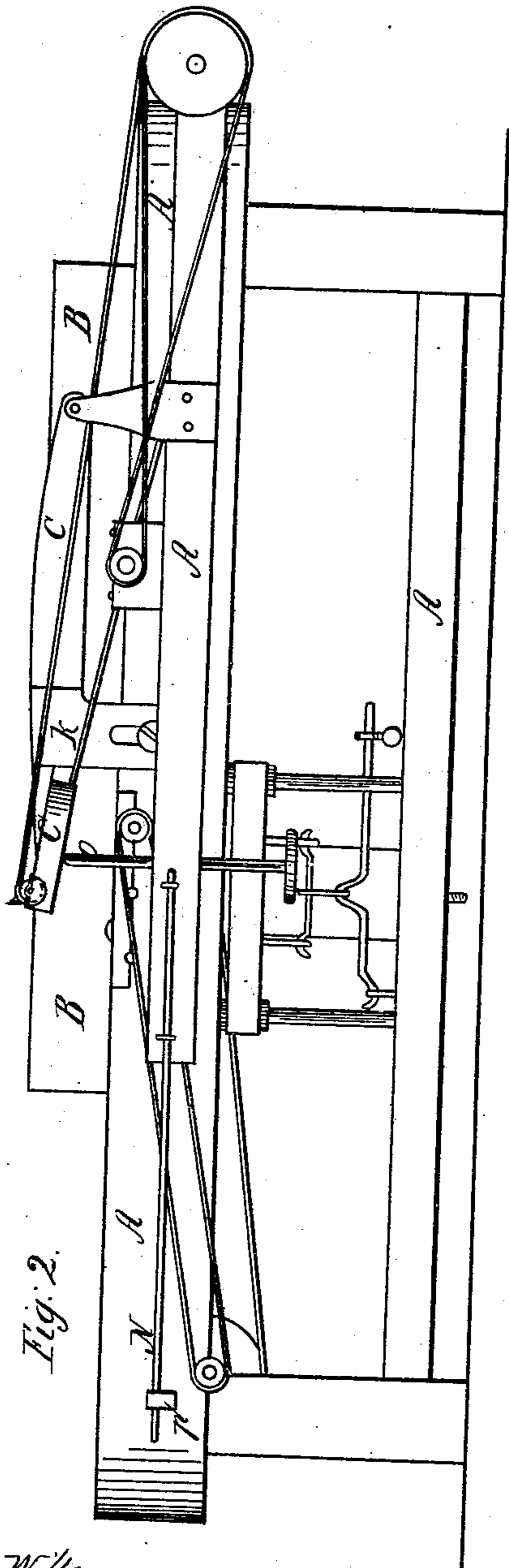


Fig. 2.

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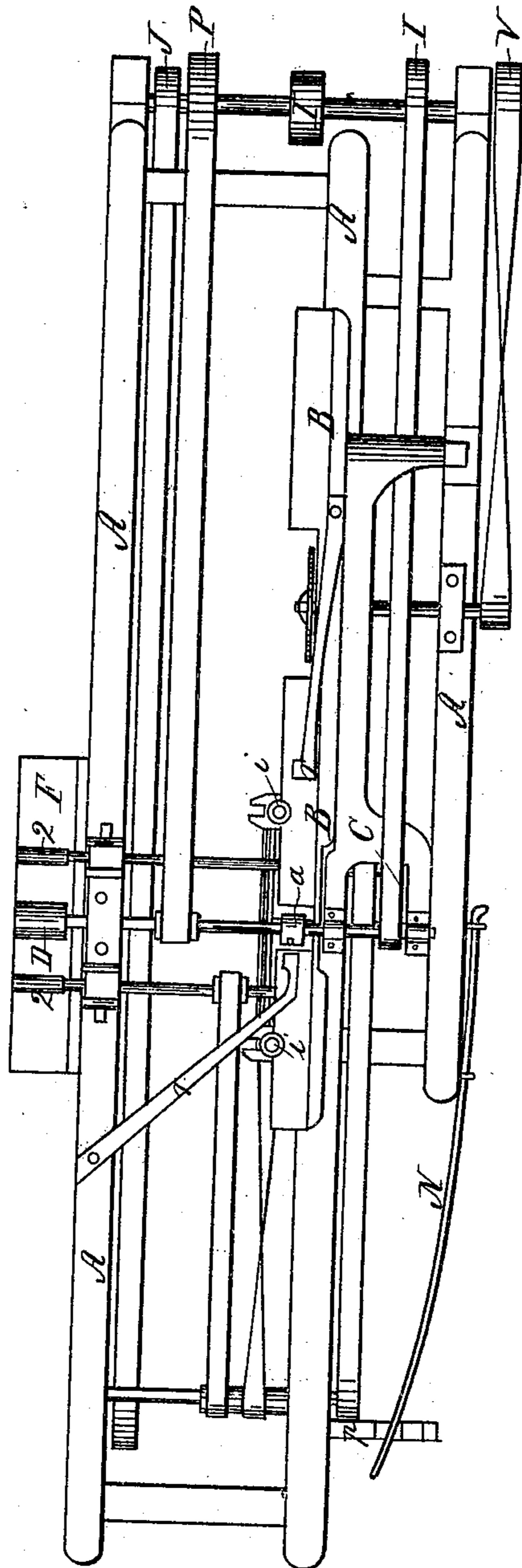


Fig. 3.

Inventor,  
Joseph H. Draper.

# United States Patent Office.

JOSEPH H. DRAPER, OF MOORESVILLE, INDIANA.

Letters Patent No. 85,648, dated January 5, 1869.

## IMPROVEMENT IN PLANING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, JOSEPH H. DRAPER, of Mooresville, in the county of Morgan, and State of Indiana, have invented a new and useful Combined Flooring, Sticking or Moulding, and Siding-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable skilled artisans to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

My invention consists in making a part of the table that supports the lumber in its passage through the machine, and in front of the cutter-heads or matcher-heads, adjustable; also in the manner of adjusting the table of the moulding-cutter heads, so that by the construction the table is adjusted at any desired height, and firmly held in place.

Figure 1 is a front elevation of the machine;

Figure 2 is a rear elevation;

Figure 3 is a plan or top view of the same; and

Figure 4 is a cross-section of the adjusting-devices of the moulding-table.

Similar letters of reference indicate like parts in the several figures.

A is the frame-work of the machine, to which all the other parts are attached.

The flooring-machine consists of the bed or guide-plate B, attached to the rear top rail of the frame; the adjustable arm C, in which the tongueing-head *e* is hung; the grooving-head *a*, on the same shaft with the sticker or moulding-bits D; the feed-rolls *i i*, with their tension-device; and the requisite pulleys and belts for driving the cutter-heads and feed-rollers, which will be hereafter described.

The board runs through the flooring-machine on edge, and the flange of the guide-plate B, upon which the edge of the board rests, is made so that the edge of the board rests upon it, both before and behind the cutter-heads, as it passes through the machine, the rear portion of the flange being raised to compensate for the portion of the edge of the board that is cut away by the grooving-head *a*, on the under side.

The upper or tongueing-head, *e*, is hung in the adjustable arm C, so that it may be adapted to boards of various widths.

The arm C is adjusted by means of the screw O, and is held in position by a set-screw, through the slotted plate *k*.

The grooving-head *a* is fixed upon the same shaft with the sticker or moulding-head D, and is driven by the same belt.

The board is held firmly down upon the flange of the guide-plate B by the springs *r r*, and is fed through the machine by the feed-rolls *i i*.

That part of the flange L, of guide-table B, that is in front of the matcher-heads, is made adjustable, so

that it is always as much lower, or out of line with the fixed part of the flange after passing the matcher-heads, as the board is wider before being matched than it is after it is matched and brought to a width, and is made so by means of the slotted plates L' L' with the holding-screws *l'* working in slots *l*, so that the adjustable flange L can be adjusted to any desired position, with relation to the matcher-heads and the stationary part of flange L'.

The tension of the feed-rolls is regulated by the spring-lever N, one end of which catches in a hooked rod, attached to the middle of a cross-rod or bar, the ends of which rest against the upper journals of the feed-roll shafts, the other end of the spring-lever being held at any required tension by the notched bar *p* that holds it.

The upper journals of the feed-roll shafts run in slotted bearings in the usual manner.

It will be seen that the position of the flooring cutter-heads, in the upper part of the machine, is such as to render them easy of access for the purpose of adjusting or removing the bits.

The sticker or moulding-portion of the machine is made in the usual manner, D being the cutter-head, and 2 2 the feed-rolls; the only difference in the construction here shown, and that in common use, being in the adjustable table on which the lumber rests.

The stock E, or upright to which the table F is attached, has a groove at the back to receive a tongue, M, on the upright bar or post G, to which it is attached, and on which it slides vertically as a guide.

The table is adjusted by means of a screw, S, on the top of which the lower end of the stock rests.

A set-screw *v*, through a slot in the stock E, secures the table in position.

The siding or resawing-machine, for sawing weatherboarding with one thick and one thin edge, consists simply of the saw H, set at the proper inclination, using the same guide-plate, B, and feed-rolls, *i i*, as the flooring-machine.

When resawing boards into siding, the flooring-bits may be removed, and square-edged bits put in their stead, for the purpose of dressing the edges of the board as it runs through the machine.

When using the flooring-machine, the saw H is to be removed.

Power, to drive the machine is applied to pulley I, on the same shaft with which are pulleys J P S V.

Pulley J belts to a counter-shaft, at the opposite end of the machine, from which belts drive the feed-rolls of both the flooring and sticking-machines.

Pulley P belts to the sticker-cutter-head shaft, on which is also the grooving-head of the flooring-machine.

Pulley S belts to the tongueing-head *a*, hung in the adjustable arm C; and

Pulley V belts to the saw-mandrel.

It will be seen that the arrangement of the machine is such as to employ belts of considerable length, whereby the parts running at high speed are actuated with greater certainty, and with less liability to slip, and not requiring to be so tight as short belts, are less liable to heat the journals.

Having thus fully described my invention,

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

1. The adjustable part, L, of the table or guide B,

when arranged to be adjusted in the manner and by the means for the purpose described.

2. The combination of the upright stock E with groove and slot *y*, guide M, screw S, nuts *b d*, with the holding-screw *f*, and table F, all arranged to operate together, for the purpose substantially as described.

Witnesses:

JOSEPH H. DRAPER.

WM. H. WEEKS,  
O. F. MAYHEW.