

(No Model.)

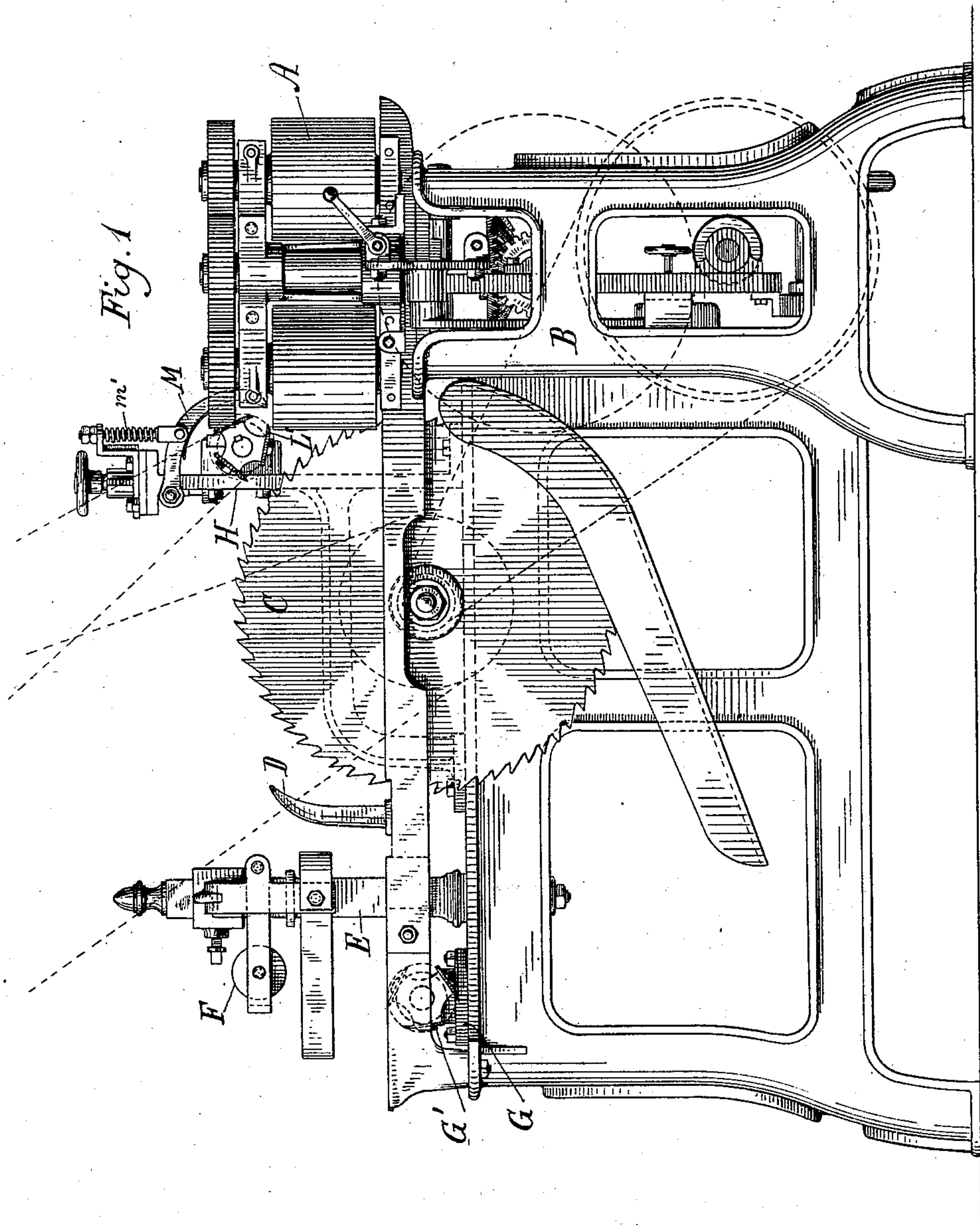
2 Sheets—Sheet 1

R. B. JONES & G. F. WETHERELL.

RESAWING MACHINE.

No. 272,445.

Patented Feb. 20, 1883.



Witnesses:
Jno H. Elliott
W H. Elliott

Inventor:
Richard B. Jones
and George F. Wetherell
By Pierce & Fisher
Attorneys.

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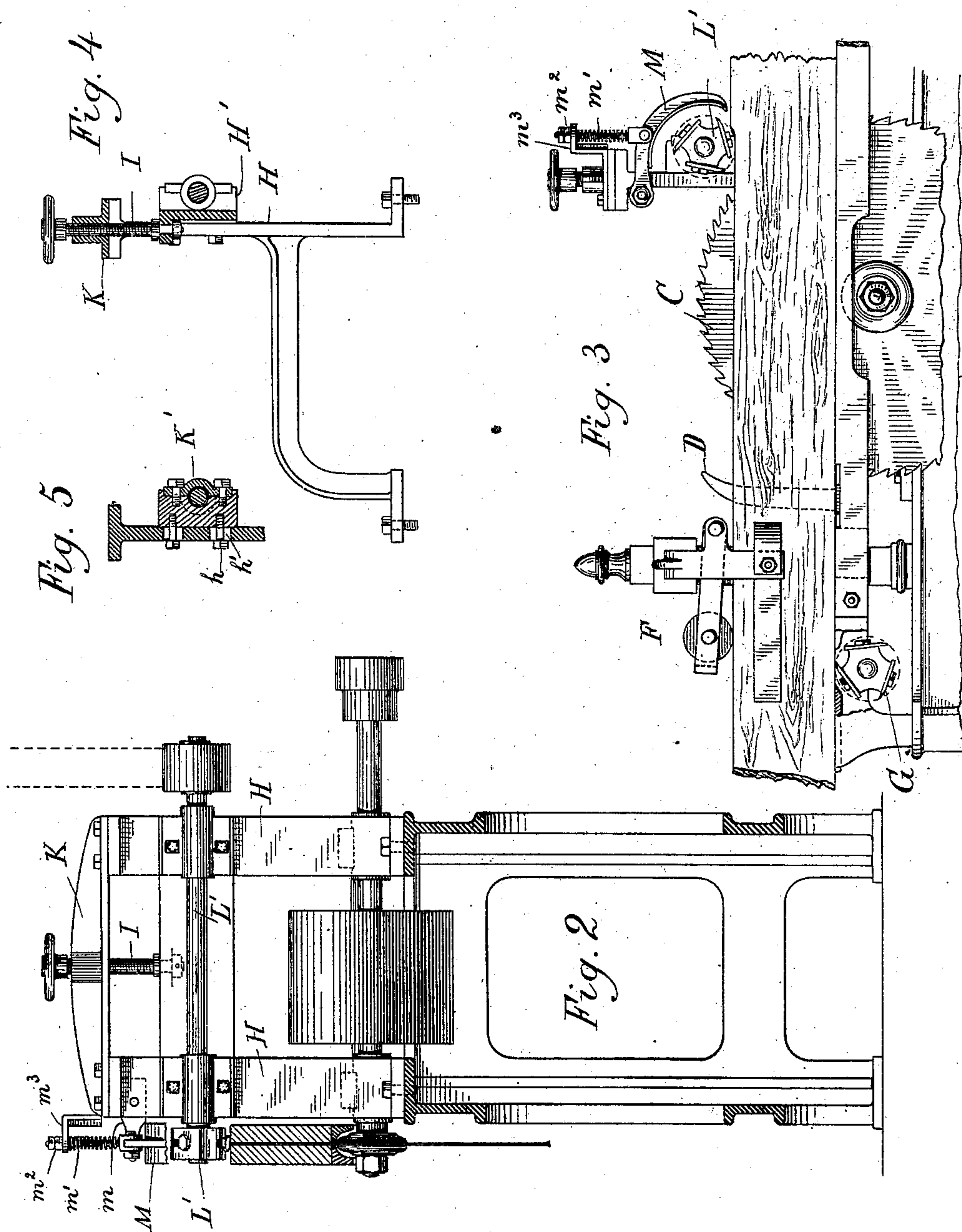
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Geo. G. Elliott
W. W. Elliott

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By Pierce & Fisher
Attorneys.

UNITED STATES PATENT OFFICE.

RICHARD B. JONES AND GEORGE F. WETHERELL, OF CHICAGO, ILLINOIS,
ASSIGNORS OF ONE-THIRD TO RANSOM RICHARDS, OF SAME PLACE.

RESAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 272,445, dated February 20, 1883.

Application filed November 7, 1882. (No model.)

To all whom it may concern:

Be it known that we, RICHARD B. JONES and GEORGE F. WETHERELL, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have jointly invented certain new and useful Improvements in Resawing-Machines; and we do hereby declare the following to be a full, clear, and exact description, sufficient to enable others skilled in the art to which said invention appertains to practice the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of a resawing-machine with our improvements applied thereto. Fig. 2 is a vertical sectional view through the frame-work back of the guide-rolls. Fig. 3 is an enlarged detailed view, in side elevation, of the portion of the machine embodying our invention. Fig. 4 is a view partly in section and partly in side elevation of the mechanism for sustaining the upper cutter-head; and Fig. 5 is a sectional view of the upper portion of the slotted standard which bears the upper cutter-shaft.

Our invention relates to improvements in machines for resawing lumber, and especially to that class of machines in which the material to be divided is delivered to the saw through vertically-journaled feed-rollers.

The object of our present invention is to so locate and sustain the cutter-heads by means of which the rough edges of the boards are trimmed that a more uniform and certain planing of the upper edge may be effected and a greater depth of cut may be made by the upper cutter-head when desired.

In the accompanying drawings the invention is shown applied to a machine of the character set forth in Patent No. 266,997, granted to Richard B. Jones on the 7th day of November, 1882, in which the vertical feed-rolls A are sustained upon a tilting table journaled to the main frame B in front of the saw C, and driven by suitable gear-wheels from the source of power. Beyond the saw C is placed the usual sword, D, and the guide-clamps E and pressure-roll F, sustained by a suitable standard on the frame. To the bed of the machine, below the pressure-roll F, is bolted the journal-standard G, by which is carried the shaft of the cutter-

head G', by which the lower edge of the boards are trimmed as they pass from the saw.

It has heretofore been the practice to place the cutter-head by which the upper edges of the boards were planed or trimmed behind the saw and the sword, and great difficulty has been experienced in planing the upper edges by a cutter-head so located, for the reason that the boards, especially when they have left the bite of the feed-rolls, have a tendency to wobble, and thus render the planing uneven. More particularly has this uncertainty and unevenness of action been experienced where the boards have been thin, and where it has been necessary to cut a considerable depth of material from their upper edges. This difficulty we have overcome by sustaining the upper cutter-head at such position on the main frame that it shall act upon the material before it is divided and while it is still in the bite of the rolls. Another important advantage lies in the greater range of adjustment which may be safely allowed the cutter in the new relation. The rolls and the saw both operate to hold that part of the timber against which the cutter is acting firmly upon the bed-plate. In the old positions of the cutter the tendency of the saw-teeth, in revolving, was to lift the timber away from the bed. Hence to prevent it from "riding," or otherwise endangering the machine or operator, the depth of edge which could be trimmed off by the cutter was necessarily very circumscribed. By this change in position the cutter may be given a much greater range of adjustment with entire impunity, increasing the capacity of the machine to work stuff of varying width, and requiring little care on part of the operator to secure what is of approximately the same width at the outset.

To the main frame B, in substantially the position shown, are bolted the standards H, having the brace-arms projecting rearwardly therefrom to a point beyond the arbor of the saw. To the top of these standards is secured the cross-head H', having a central-threaded socket to receive the adjusting-screw I. This screw I is connected, as shown in Fig. 4, to the adjustable cross-arm K, which is clamped in desired position upon the standards H by means of the set-screws h, passing through the slots h', of any desired length, in the standards. To the

beam K, are affixed journal-bearings K', of suitable construction to sustain the driving-shaft L of the upper cutter-head, L'.

By the above-described mechanism the cutter can be readily adjusted so as to vary as necessary the amount cut from the upper edge of the lumber.

To the standard H, near its top, is bolted the arm m, to which is pivotally hung the chip-breaker M, pressed constantly downward by the spring m' on the rod m², which is hinged to the chip-breaker and passes through the standard m³, secured to the cross-head H'.

By the above-described improvements we are enabled to plane the upper edge of the lumber uniformly to its very end and to vary at pleasure the action of the upper cutter-head.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a resawing-machine, the combination, with the vertical feed-rolls, which may be tilted or inclined, of the cutter-head located between said rolls and the saw, substantially as described.

2. In a resawing-machine, the combination, with the vertical feed-rolls, which may be tilted or inclined, substantially as described, of the adjustable upper cutter-head, located between said rolls and the saw, and the lower cutter-head, located back of the saw, substantially as described.

RICHARD B. JONES.
GEO. F. WETHERELL.

Witnesses:

GEORGE E. HIBBARD,
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