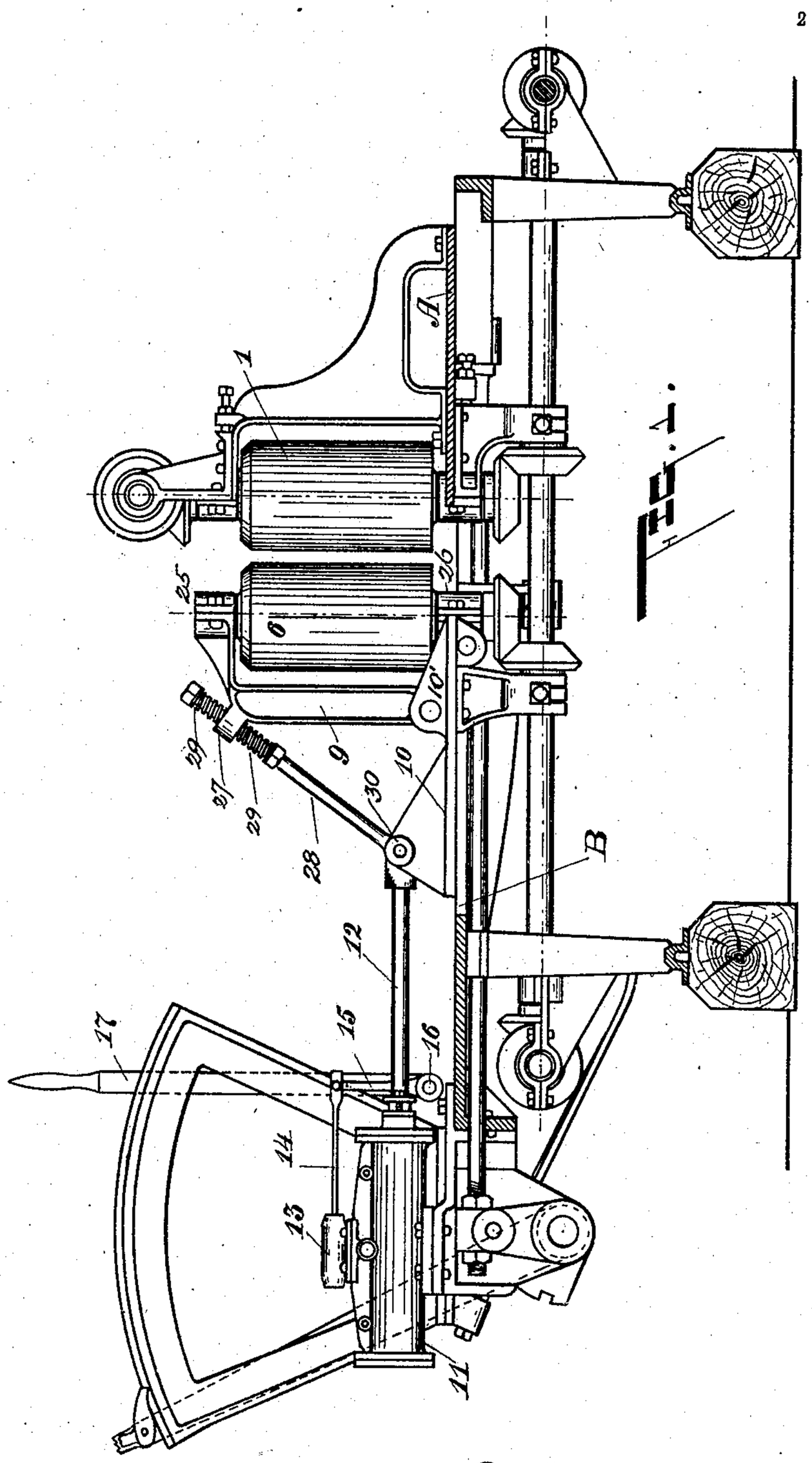
No. 815,955. PATENTED MAR. 27, 1906.

J. L. GRAHAM.

BAND RESAW.

APPLICATION FILED DEC. 31, 1904

2 SHEETS—SHEET 1.



WITNESSES:

W. L. Cathcart.

J. S. Lee.

John L. Graham. INVENTOR

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Geo. B. Willcox. ATTORNEY

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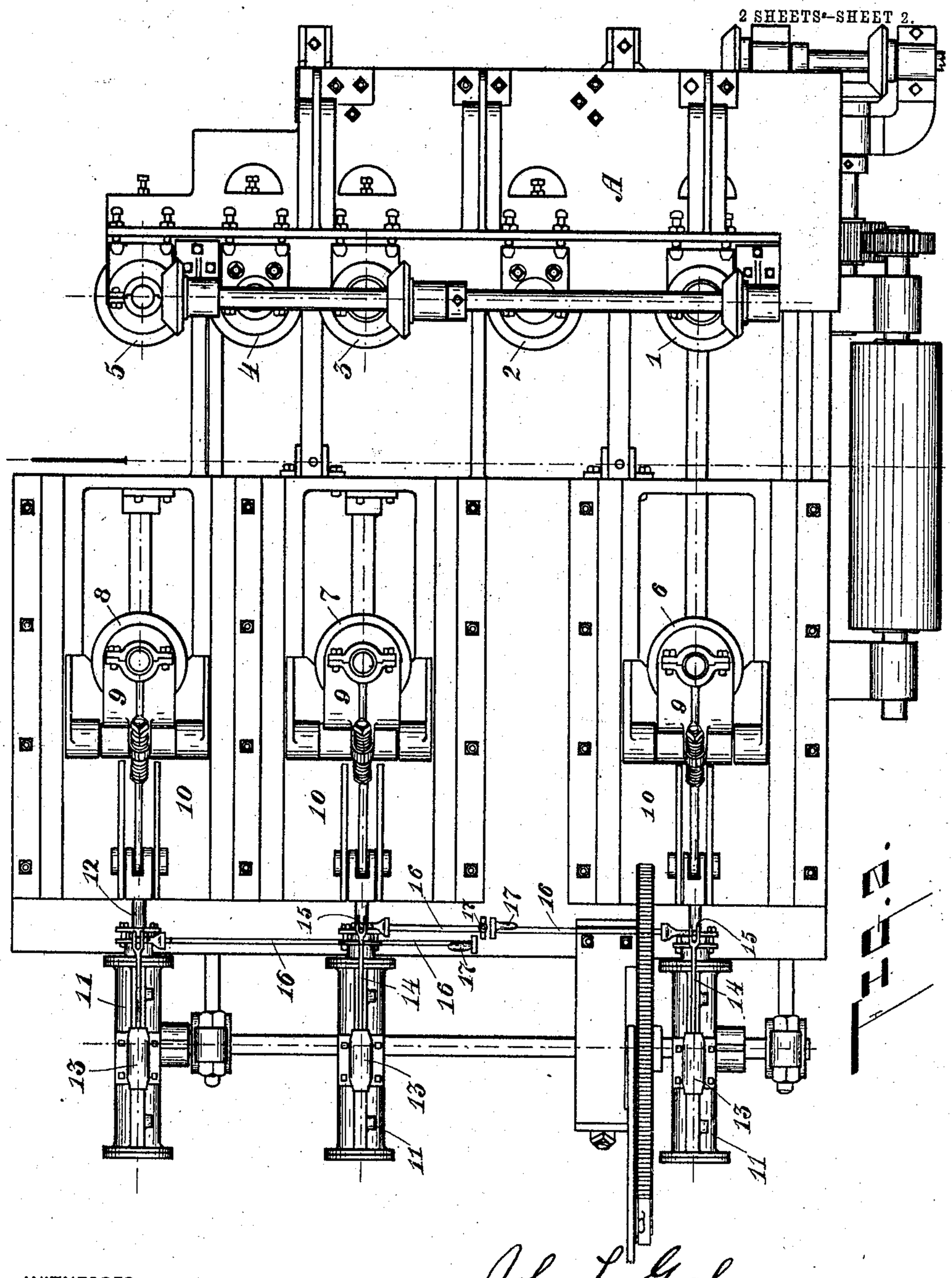

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UNITED STATES PATENT OFFICE.

JOHN L. GRAHAM, OF HAAKWOOD, MICHIGAN.

BAND-RESAW.

No. 815,955. Specification of Letters Patent. Patented March 27, 1906.

Application filed December 31, 1904. Serial No. 239,232.

To all whom it may concern:

Be it known that I, JOHN L. GRAHAM, a citizen of the United States, residing at Haakwood, in the county of Cheboygan and State of Michigan, have invented certain new and useful Improvements in Band-Resaws; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to band-resaws, and pertains more particularly to means in a band-resawing machine whereby each of the pressure-rolls by which the lumber being resawed is held against the gage or feed rolls will have movement independent of the others toward and from the line of cut.

The object of giving each of the pressure-rolls movement toward and from the line of cut independent of the other pressure-rolls is to enable the operator to feed in rapid succession boards of varying thicknesses. Where the pressure-rolls are mounted on one carriage, they must all move practically simultaneously toward and from the line of cut; but in my present improvement I mount each pressure-roll on a separate independent sliding carriage and provide for each of such carriages a fluid-actuated cylinder by which the carriage is moved back and forth.

To facilitate the rapid manipulation of the cylinders and their pressure-rolls, I arrange the levers by which the cylinder-valves are controlled close together and within easy reach of the operator.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation, partly in section, and Fig. 2 is a top plan view.

1, 2, 3, 4, and 5 are the usual gage-rolls or feed-rolls mounted on a suitable sliding table A and adjustable simultaneously toward and from the line of cut. The means by which the gage-rolls are adjusted toward and from the line of cut may be any of the well-known devices now in common use.

The pressure-rolls are indicated by reference-numerals 6, 7, and 8, each of which rolls is suitably mounted in journal-bearings 25 26, the upper journal-bearing 25 being stationarily supported in the upper end of a bracket 9, pivoted at its lower end to the wings 10′ 10′, carried by the tables 10, slidingly mounted on the frame B of the machine to the forward end of which frame is pivotally mounted the journal-bearing 26.

An ear 27 is carried by the upper free end of the bracket, through which ear passes a rod 28, the upper end of which rod carries the springs or other suitable cushion devices 29 29, the adjacent ends of which bear against the ear to normally but yieldingly retain the bracket in upright position. (Shown in Fig. 1.) The opposite end of the rod projects obliquely rearwardly and is pivotally secured to the lug 30, carried by the table 10.

The tables are separate and entirely disconnected from each other, and each table is preferably actuated or reciprocated toward and from the line of cut independently of the others by means of the parallel fluid-operated cylinders 11, provided with the usual pistons and piston-rods 12 12, the outer ends of which piston-rods may be preferably secured to the lugs 30 30 of the tables 10, suitable valves 13 being provided to control the admission of power to the cylinders, such valves being preferably provided with the valve-rods 14, the outer ends of which valve-rods are each connected to a separate arm 15, secured to a suitable rock-shaft 16, extending transversely relative to the cylinders. The rock-shafts of the several valve-rods are brought to a common point, as shown in Fig. 2, at which point the rock-shafts are each provided with a lever 17, the levers extending upwardly and arranged to stand closely together in order that they may be easily and quickly handled by one man without moving from his position.

One object of pivotally mounting the pressure-rolls is to permit them to yield in accordance with the irregular surface of the timbers being sawed.

Having thus fully disclosed my invention, what I claim as new is—

1. In a sawmill, the combination with a suitable frame provided with feed or gage rolls, of a plurality of sliding tables located opposite the feed-rolls, a bracket pivotally secured at one end to each of the sliding tables, a journal-bearing stationarily mounted in the upper free end of the bracket, a pressure-roller, the lower end of which is pivotally secured to the table, and the upper end of which is received in the journal-bearing, an obliquely-disposed rod, one end of which loosely engages the upper end of the bracket, cushion members on the rod bearing against

the bracket to yieldingly retain the latter and its pressure-roll in approximately vertical position, the opposite end of the rod being pivotally secured to the table, and means for effecting the independent reciprocation of the tables relative to each other.

2. In a sawing-machine, the combination with a suitable frame, and feed-rolls or gage-rolls, mounted thereon, of a plurality of independent relatively movable tables slidingly mounted on the frame opposite the feed-rolls, a pivotally-mounted yieldingly-supported pressure-roll carried by each table, a separate fluid-operated means connected to each table for moving individual tables separately from the rest, a valve mechanism for each fluid-operated means, said mechanism comprising a valve and valve-rod, individual rock-shafts to which the valve-rods are connected, the rock-shafts leading to a common point and a separate lever for each rock-shaft, the levers grouped closely together.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN L. GRAHAM.

Witnesses:

A. A. EASTERLY,

W. I. CATHCART.