(No Model.) 2 Sheets—Sheet 1.

F. W. STROH & M. J. & J. S. McINTOSH.

PICKET MILL.

No. 509,405. Patented Nov. 28, 1893.

Fig. 1.

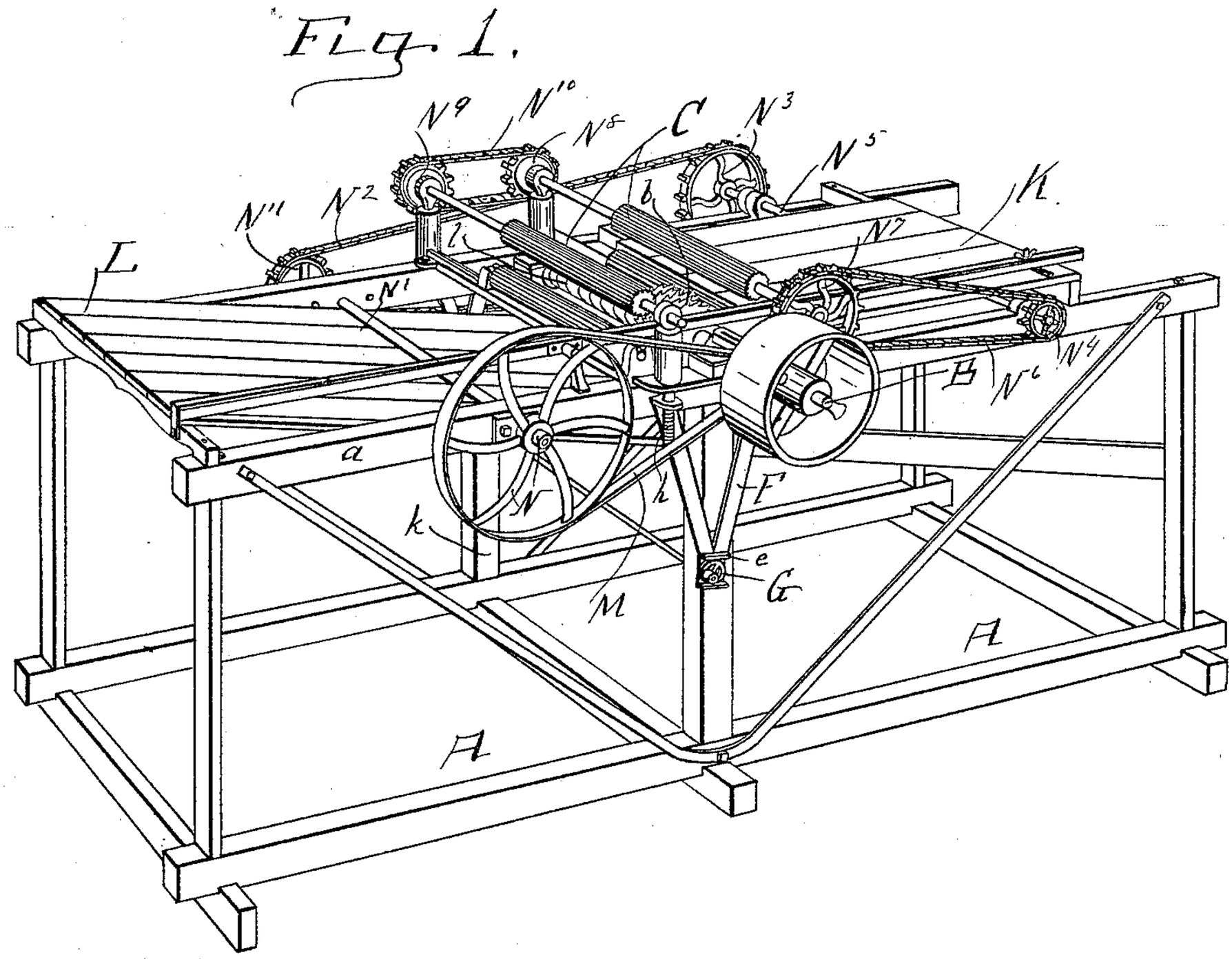
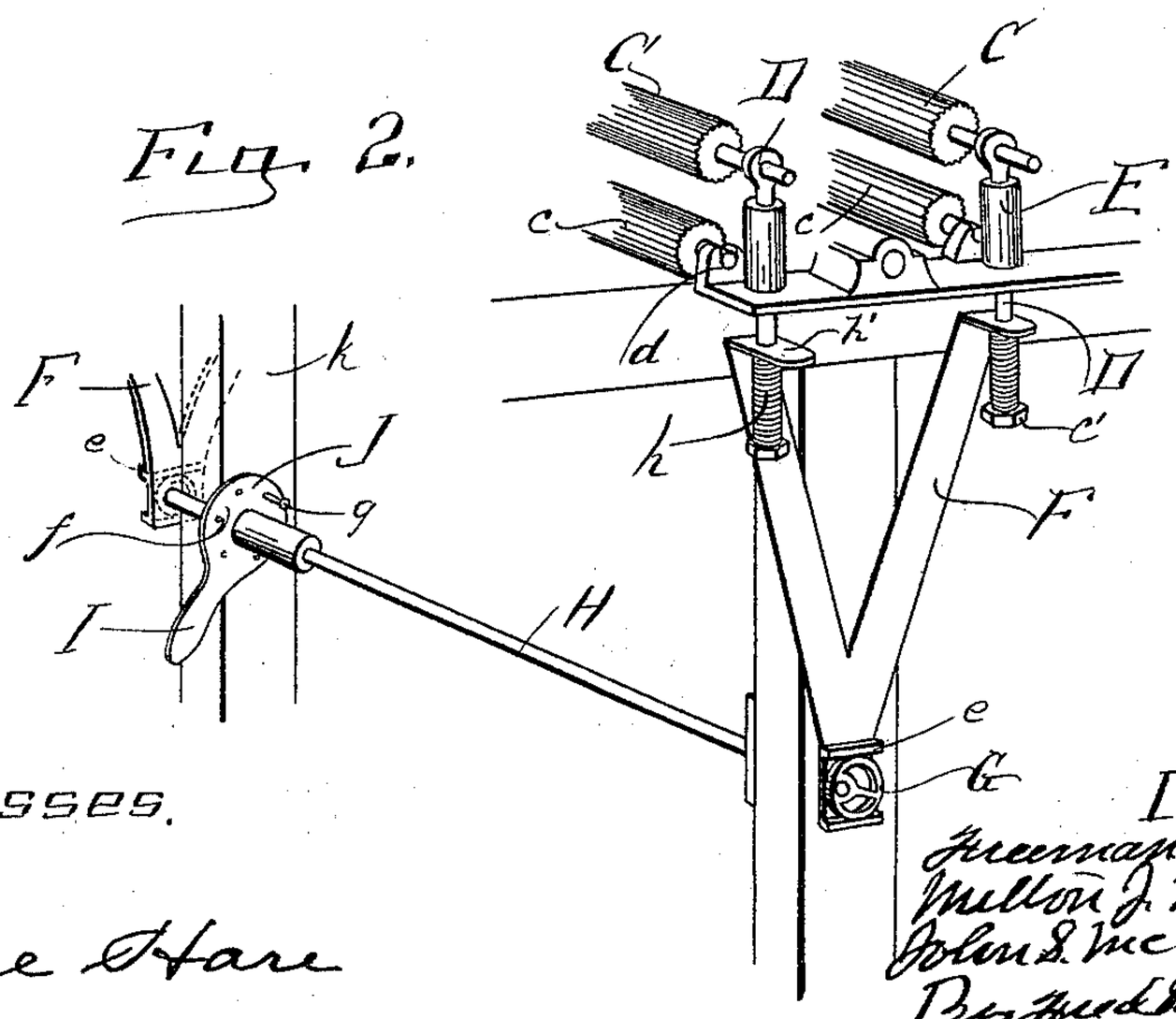


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

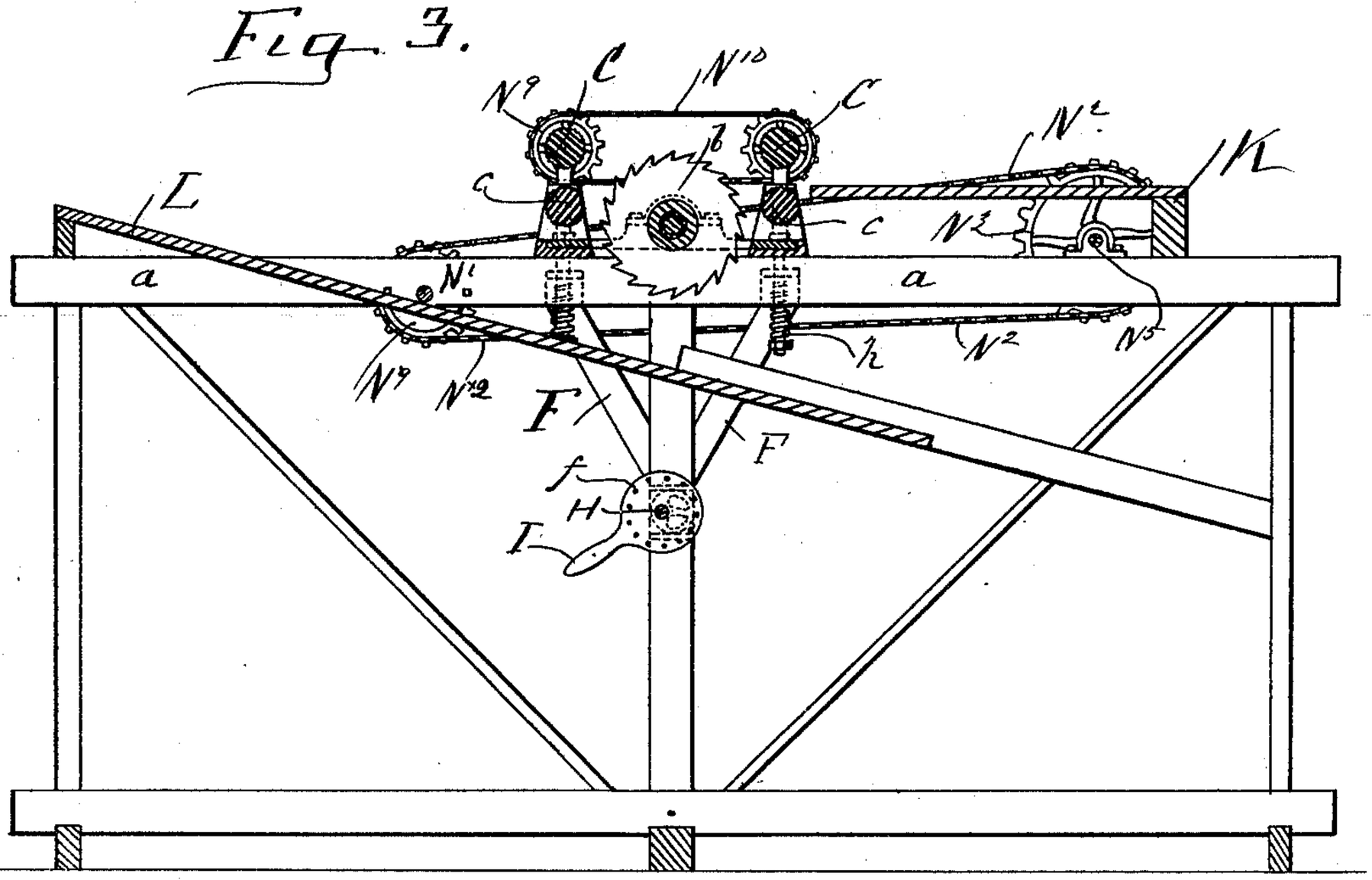


Fig. 4.

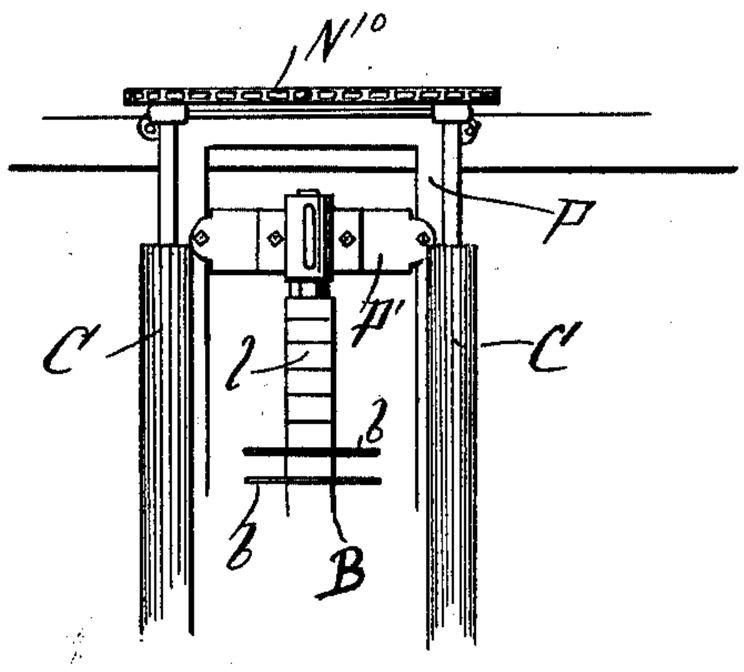
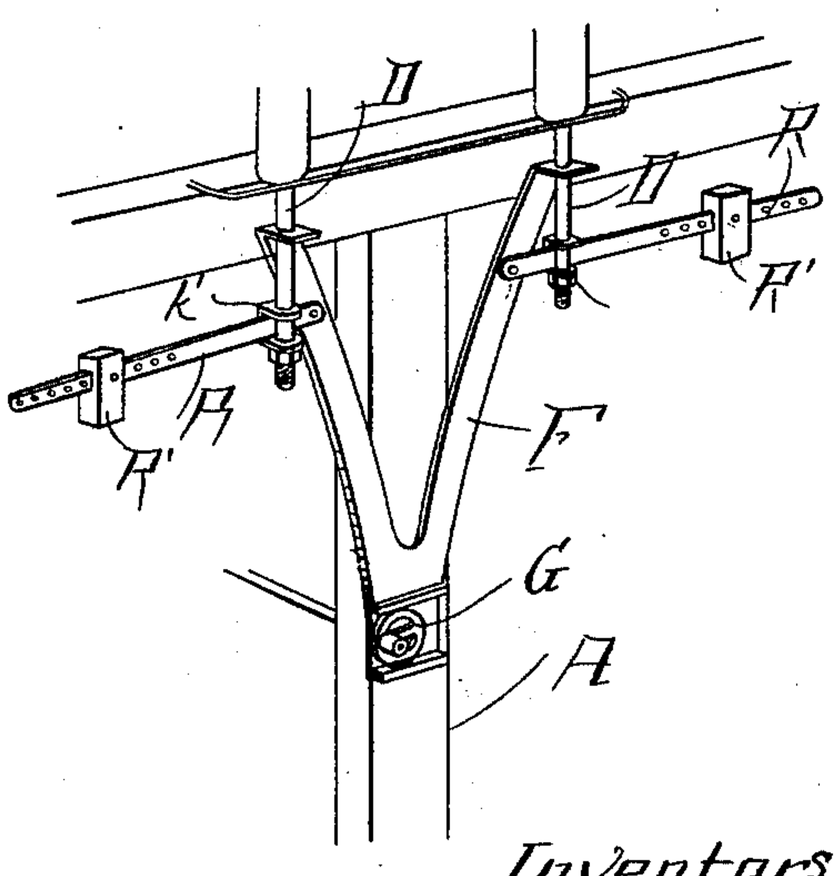


Fig. 5.



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UNITED STATES PATENT OFFICE.

FREEMAN W. STROH, MILTON J. McINTOSH, AND JOHN S. McINTOSH,
OF MASSILLON, OHIO.

PICKET-MILL.

SPECIFICATION forming part of Letters Patent No. 509,405, dated November 28, 1893.

Application filed June 19, 1893. Serial No. 478,050. (No model.)

To all whom it may concern:

Be it known that we, FREEMAN W. STROH, MILTON J. MCINTOSH, and JOHN S. MCINTOSH, citizens of the United States, residing at Massillon, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Picket-Mills; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to letters of reference marked thereon, in which—

Figure 1, is a perspective view. Fig. 2 is a view, showing portions of the feed rolls, and illustrating one of the roll adjusting brackets and eccentrics, and shaft. Fig. 3, is a longitudinal section of the mill. Fig. 4, is a top view, of the upper feed rolls and illustrating a portion of the gang saw shaft. Fig. 5, is a modified form of tension for the feed rolls.

The present invention has relation to picket mills and it consists in the different parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings A represents the frame which may be substantially of the form shown or it may be of any other desired form, reference being had to properly attaching the different parts.

To the top or upper rails *a* of the frame A is journaled the gang saw shaft B, which shaft is provided with any desired number of saws such as *b*. For the purpose of journaling the lower feed rolls *c* the grooved flanges *d* are provided, and are located substantially as illustrated in Figs. 1 and 2. The upper feed rolls C are journaled to the top or upper ends of the bars D, which bars extend downward through the hollow posts E, as illustrated in Figs. 1 and 2. The bottom or lower ends of the bars D are provided with the screw threaded nuts *c'* which are for the purpose hereinafter described. To the sides of the frame A are located the adjustable brackets F, which brackets are provided at their bottom or lower ends with the flanges or ribs *e*, between which flanges or ribs are located the eccentrics G said eccentrics being securely attached in any convenient and well known manner to the shaft H, said shaft being properly journaled to the frame A. The eccentrics are for the purpose of elevating and lowering the brackets F, and at the same time adjusting the space between the upper and lower feed rolls *c* and C. The object and purpose of providing a means for adjusting the upper feed rolls independent of the tension of said upper feed rolls is to provide for sawing timber of different thickness into pickets or strips. For the purpose of setting the brackets F and holding them at any desired point of adjustment the lever I is provided, which lever is provided with the flange J, said flange being provided with a series of apertures such as *f*, said apertures being for the purpose of receiving the pin *g*. For the purpose of holding the pin *g* an aperture is formed in the post *k* of the frame A. For the purpose of providing a tension for the upper feed rolls, the springs *h* are provided, which springs are located around the bars D, and between the nuts *c'* and the flanges *h'* said flanges being preferably formed integral with the brackets F, and for the purpose of causing the bars D to follow the movements of the brackets F as they are moved up and down, the bars D are attached to the flanges *h'* or their equivalents, thereby giving to the springs *h* the same tension at all points of adjustment of the brackets F. To the top of the frame A is attached the feed table K which table is constructed in the ordinary manner. The rear or delivery table L is inclined upward from its inner end and is so located for the purpose of permitting the inner ends of the pickets or strips to drop below the rear feed rolls. For the purpose of communicating rotary motion to the top or upper feed rolls a belt such as M leads from the gang-saw shaft B to the wheel N, which wheel is secured to the shaft N', and to the opposite end of said shaft is attached the sprocket wheel N^{11} from which the sprocket chain N^2 leads and communicates rotary motion to the sprocket wheel N^3 which in turn communicates rotary motion to the sprocket wheel N^4 by means of the shaft N^5. From the wheel N^4 leads the sprocket chain N^6, which communicates rotary motion to the

two upper feed rolls by means of the wheels N^7, N^8, and N^9, and the sprocket chain N^{10}. It will be understood that by our manner of communicating rotary motion to the upper feed rolls they can be adjusted up and down without interfering with the tension of the different sprocket chains and belting. Upon the gang-saw shaft B are located a number of collars *l* which are for the purpose of spacing the saws *b*. For the purpose of providing a means for removing, the collars *l* and the saws *b* the shaft B is formed somewhat shorter than the frame P as illustrated in Fig. 4. It will be understood that by this arrangement the box P′ can be removed and slid or slipped from the end of the shaft B without removing said box from off its frame and without disturbing in any manner the gang-saws, shaft B.

In Fig. 5 we have illustrated a modified form for providing a tension for the upper feed rolls, which modification consists in providing the pivoted arms R, which arms are provided with the weights R′. The arms R are held in operative position by means of the clevises *k′* located upon the lower ends of the bars D. The inclined table L extends under the feed table K as shown in Fig. 3, and the shaft N′ located above said inclined table so that as the sawed strips fall upon said shaft they will be carried down the inclined table and in reach of the person feeding the gang saws so as to be removed.

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

1. The combination of the frame A, the gang-saw shaft B, provided with saws such as *b*, the feed rolls *c* and C, the bars D having journaled to their top or upper ends the upper feed rolls, the hollow posts E, the adjustable brackets F carrying the bars D, and the upper feed rolls and provided with the ribs *e*, the eccentrics G located upon the shaft H, the lever I, and means for holding said lever, substantially as and for the purpose specified.

2. The combination of the frame A, the gang-saw shaft B provided with saws such as *b*, the feed rolls *c* and C and means for communicating rotary motion to the rolls C, the bars D, carrying the upper rolls, the brackets F carrying the bars D, the springs *h*, the eccentrics G located upon the shaft H, the lever I, and means for holding the lever, the table K, and the inclined table L, substantially as and for the purpose set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

FREEMAN W. STROH.
MILTON J. McINTOSH.
JOHN S. McINTOSH.

Witnesses:
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WAYNE MATTHEWS.