(No Model.)

2 Sheets—Sheet 1.

J. C. SLOCUM.

GANG SAW MILL.

No. 335,319. Patented Feb. 2, 1886.

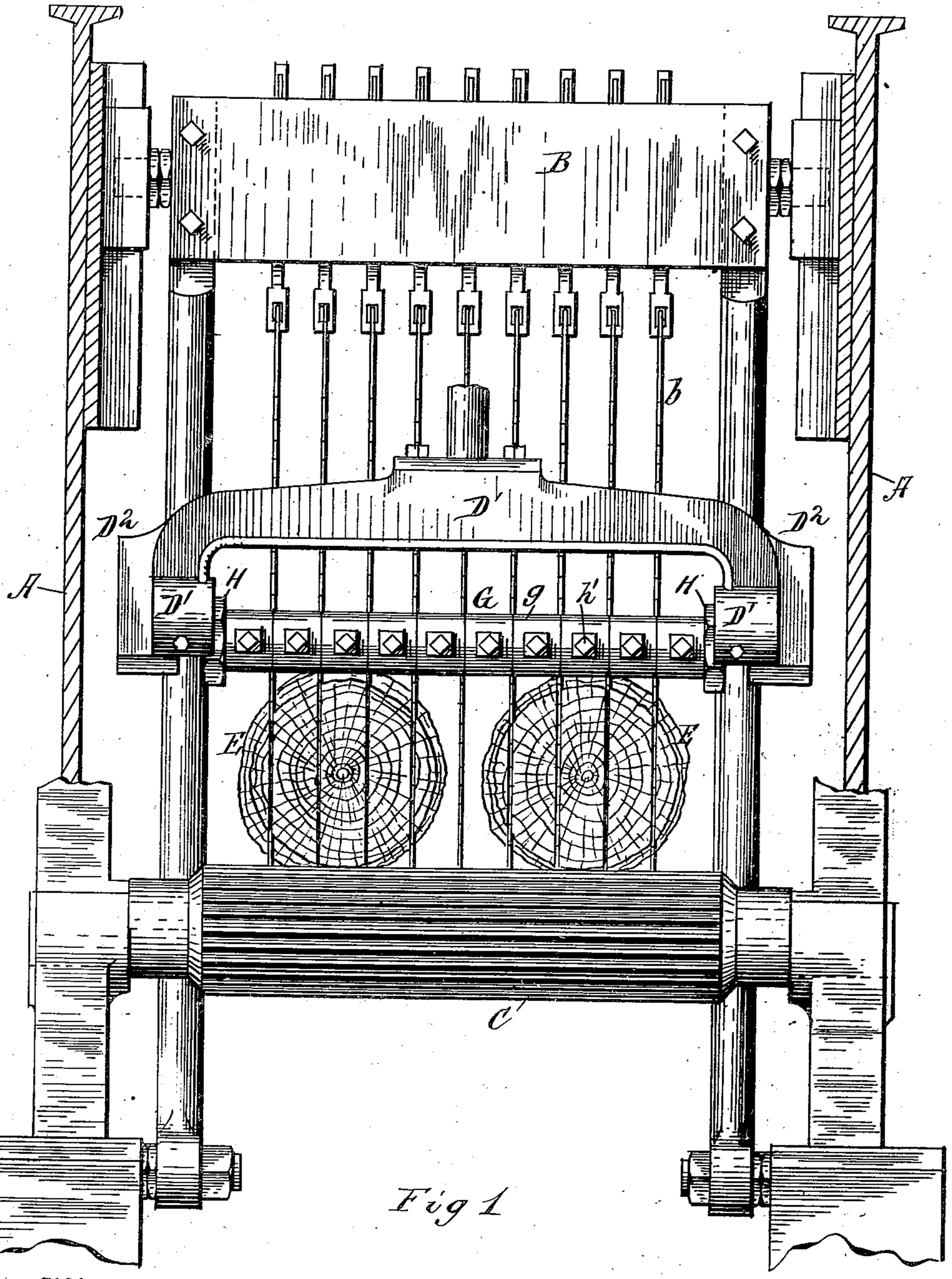

Fig 1

Witnesses

A. M. Best

W. C. Coles

Inventor

John C. Slocum

By Osborn & Church

Attorneys

(No Model.)

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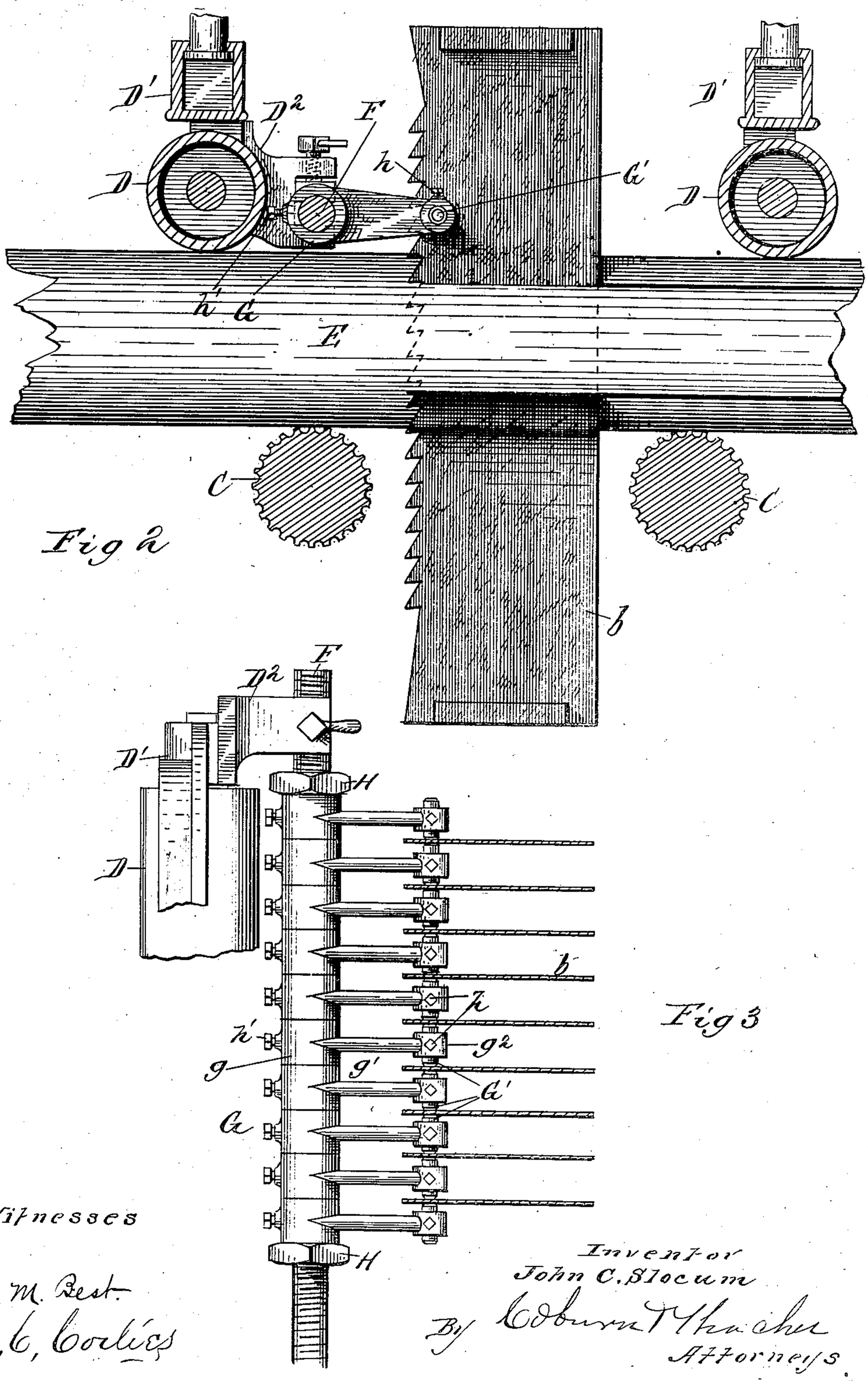

Fig 2

Fig 3

Witnesses

A. M. Best.
N. C. Curtis

Inventor
John C. Slocum
By Coburn & Thacher
Attorneys

UNITED STATES PATENT OFFICE.

JOHN C. SLOCUM, OF MARINETTE, WISCONSIN, ASSIGNOR OF ONE-HALF TO EDWARD SCOFIELD, OF SAME PLACE.

GANG-SAW MILL.

SPECIFICATION forming part of Letters Patent No. 335,319, dated February 2, 1886.

Application filed May 21, 1885. Serial No. 166,307. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. SLOCUM, a citizen of the United States, and residing at Marinette, in the county of Marinette and State of Wisconsin, have invented a certain new and useful Improvement in Gang-Saw Mills, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation, partly in section, of a gang-saw mill having my improvement applied thereto, the front pressure-roller being removed to show the guides; Fig. 2, a vertical central sectional view of the same, and Fig. 3 a plan view.

Like letters refer to like parts in all the figures of the drawings.

My invention relates to gang-saw mills, and more particularly to guides therefor, its object being to increase the efficiency of the saws by the application thereto in an improved manner of guides of an improved construction.

To this end my invention consists in mounting the guides upon the yoke which carries the pressure-roller, so that the guides and roller shall be simultaneously adjustable.

My invention further consists in certain improvements in the guides themselves, as hereinafter pointed out in the claims.

I will now proceed to describe a construction in which I have shown my invention practically carried out in one form, and will then specifically point out in the claims those features which I deem to be new and desire to protect by Letters Patent.

In the drawings I have shown my improvement applied to a gang-saw mill of approved construction, only such parts of the mill being shown as are necessary to a comprehension of my invention.

A represents the frame of the machine, and B the reciprocating gate carrying a series of saws, *b*. C indicates the feed-rollers, and D the pressure-rollers between which the cants E pass. The pressure-rollers D are mounted in vertically-adjusted yokes D′, by means of which their distance above the feed-rollers C may be regulated to accommodate cants of different sizes. All these parts are well known, and are found in the gang-saw mil's as ordinarily constructed.

To the ends of the yoke D′ of the forward pressure-roller, D, are attached brackets or hangers D^2, extending rearward therefrom, and having seats to receive a bar, F, which is removably mounted therein. This bar is preferably circular in cross-section, as shown, its rotation being prevented by means of clamping-screws and blocks in the hangers D^2, as shown, or by any other suitable means. Upon this bar F are mounted the guides G, each of which consists of a sleeve, *g*, embracing the bar F, an arm, *g′*, extending rearward from the sleeve, and a second smaller sleeve, g^2, at the extremity of the arm, *g′*.

In the sleeve g^2 is inserted the guide-pin G′, constructed of hard wood or other suitable material, and secured on position after adjustment by means of a set-screw, *h*, as shown. Set-screws *h′* pass through the sleeves *g* and bear against the bar F to lock the guides in position on the bar. The several guides are arranged side by side on the bar, as shown, a nut, H, being mounted on a threaded portion of the bar at each end of the series of guides, so that by screwing up the said nuts the whole series of guides may be clamped between them, and thus held firmly in position.

It will be observed that the guide-pins G′ bear upon the sides of the saws at a point immediately above the points where the saws enter the material to be operated upon, and thereby prevent any lateral deviation of the saws from their path of reciprocation. By loosening the screws *h′* any one of the guides may be swung upward, so as to render the guide-pin therein accessible for purposes of adjustment or renewal without disturbing the remaining guides. It will also be seen that since the bar which supports the guides is mounted upon the yoke which carries the adjustable pressure-roller the guides will be adjusted by the act of adjusting the said roller, so that its position above the upper surface of the cants E will always be the same relatively to the said upper surface. Moreover, the transverse bar, in addition to its action as a support for the guides, is of great utility in pre-

venting any slabs or splinters which may be torn from the wood by the saws from being carried up by the upstroke of the saws and becoming wedged, and thus breaking or otherwise damaging the saws.

It is obvious that by the use of these guides a saw very much thinner in gage than those heretofore employed may be used without any danger of the bending of the saw while at work, whereby the amount of lumber reduced to sawdust, and thus wasted, is largely reduced. It is also obvious that by the employment of the adjustable guide-pins G′ the spaces between the ends of the pins may be varied to accommodate saws of different gages.

Although I have shown my preferred form of guides, and also my preferred manner of mounting the same, it is obvious that various modifications both in the construction of the guides and in the details of the manner of mounting the same may be made without departing from the principle of my invention, and I therefore do not wish to be understood as limiting myself strictly to the precise construction hereinbefore described and shown in the drawings.

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

1. In a gang-saw mill, the combination, with the saws and the pressure-roller, of the guides embracing the saws and mounted upon the yoke or arm which carries the pressure-roller, substantially as and for the purposes specified.

2. The combination, with the saws of a reciprocating gang-saw mill, of a bar extending across the line of travel of the article to be operated upon immediately above the same and adjacent to the saws, and guides attached to the said bar and embracing the saws, substantially as and for the purposes specified.

3. The combination, with the pressure-roller yoke D, having brackets D^2, of the bar F, mounted in said brackets, and the guides G, mounted upon the said bar, substantially as and for the purposes specified.

4. The combination, with the bar F, of the guides G, having sleeves *g*, through which the said bar passes, the set-screws *h*′, by means of which the guides may be independently connected to the bar, and the nuts H, mounted upon the threaded portions of the said bar to clamp said guides in position, substantially as and for the purposes specified.

5. The combination, with the bar F, of the guides G, having sleeves *g*, through which the said bar passes, and set-screws *h*′, by means of which the said guides may be independently adjusted, substantially as and for the purposes specified.

JOHN C. SLOCUM.

Witnesses:
JOHN J. ANDREW,
BION B. PENNELL.