

(No Model.)

W. DUNBAR.  
EDGER.

No. 311,422.

Patented Jan. 27, 1885.

Fig. 1.

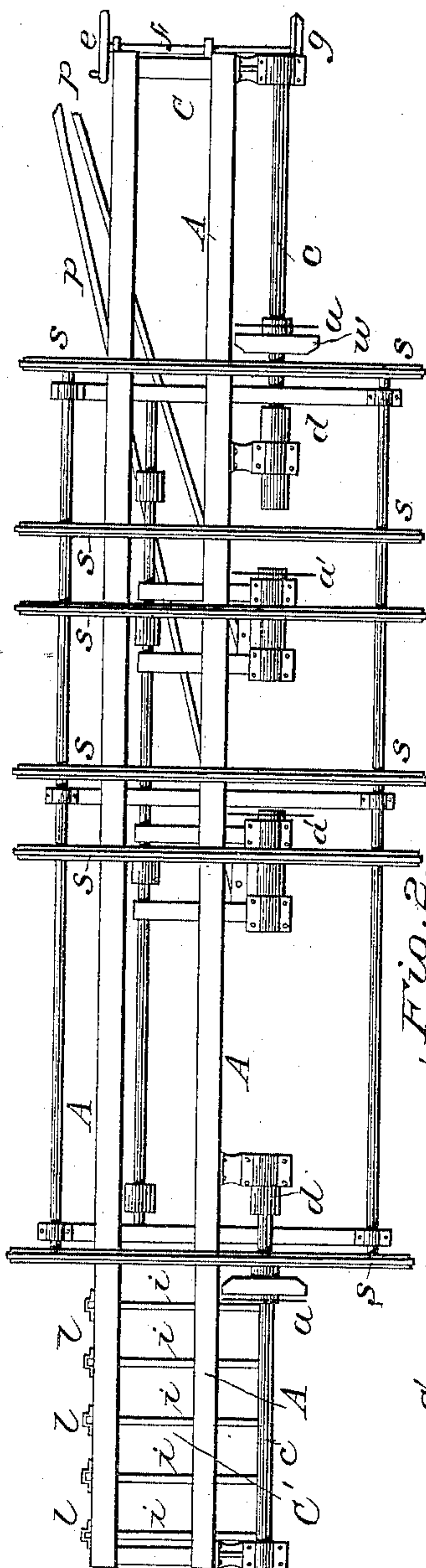


Fig. 2.

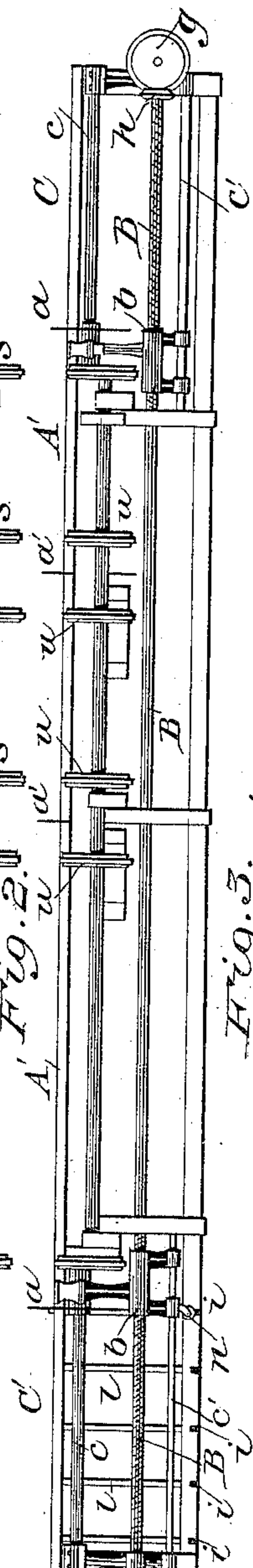
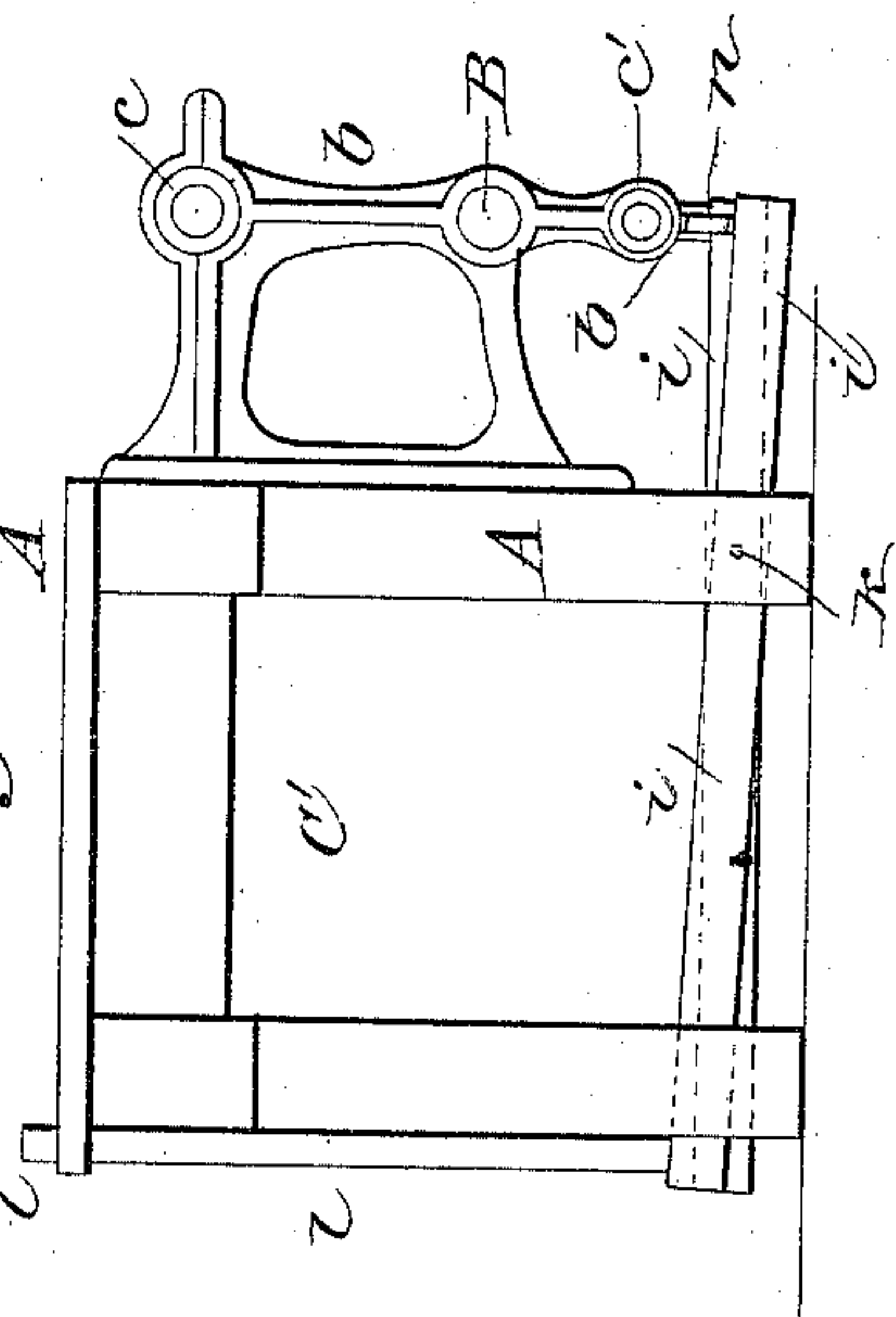


Fig. 3.



Witnesses:  
J. R. Drake,  
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William Dunbar Inventor:  
by  
J. R. Drake Atty



# UNITED STATES PATENT OFFICE.

WILLIAM DUNBAR, OF LARRABEE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF  
TO JUDSON J. NEWMAN, OF BUFFALO, NEW YORK.

EDGER.

SPECIFICATION forming part of Letters Patent No. 311,422, dated January 27, 1885.

Application filed July 17, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM DUNBAR, a citizen of the United States, residing at Larrabee, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Lumber-Trimmers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention is for the purpose of trimming both ends of hemlock and other lumber at the same moment and cutting the sticks in lengths running from four to twenty-four feet, and when there are bad places in the larger  
15 sticks to cut them out by raising intermediate saws by levers at the same moment that both ends are cut. The device is also for cutting ties, slab-bolts, &c., cutting ties of sixteen feet in halves, and trimming the ends at the same  
20 time.

The main object of this invention is to cut off the two ends of lumber, leaving the sticks in exact lengths or sizes, and simultaneously with this cutting out, when required, by intermediate saws the bad spots or parts of the  
25 lumber; and the invention consists of the combination and arrangement of the four saws for this purpose, and also in an automatic combined series of stops for the extreme end of the  
30 lumber to rest against, and at the same time indicate the length of the stick to be cut, all as fully hereinafter explained.

In the drawings, Figure 1 is a top plan of the entire machine, only the usual table being  
35 removed; Fig. 2, a front side elevation; Fig. 3, an elevation of one end, showing the operation of levers, &c., which throw up the combined stop and indicators.

A A indicate portions of the rectangular  
40 frame-work which supports the operating parts, and A' in Fig. 2 the upper part or table.

B is the principal operating saw-shaft, which runs the entire length of the machine, and  
45 with its ends journaled in boxes in the ends of the frame, as shown in Fig. 2. In Fig. 1 it is not shown, as it runs directly under other parts. On this shaft B, for a short distance, is cut a screw-thread at each end, and on these  
50 threads moves a frame, b, (one at each end,) carrying a saw, a a. The upper part of the

saw-frame slides on a shaft, c, and the lower part on a guide-rod, c', (see Fig. 2,) the same at both ends of the machine. These saws a a receive motion from pulleys d d, (see Fig. 1,) 55 and the screw-thread on shaft B is right-hand at one end and left-hand at the other, and when desired to move these saws farther apart to cut the ends of longer sticks the operator turns a hand-wheel, e, on a shaft, f, which operates a beveled gear-wheel, g, at its other end, 60 which meshes into a small beveled gear, h, on the end of the main saw-shaft B, thus throwing these end saws farther apart, or drawing them together to their limit. 65

At the opposite end from the operator's frame C is the frame C', both being parts of the main frame, but narrower, as shown in Fig. 1. This frame C' is provided with a series of levers, i i i, at the bottom, which are pivoted 70 in the lower front cross-piece of the frame, as shown at k, Fig. 3. At the opposite end each lever is pivoted to an upright stick, l, the top coming level with the table through loose clamps. These levers stand a foot apart, and 75 the upper ends are painted to indicate in feet the distance or length apart of the main saws. This is done as follows: On the bottom of the saw-frame b, at this end, is a wheel, n. (Shown in Figs. 2 and 3.) As the saws are thrown 80 apart as before explained this wheel n strikes each lever i in succession until the one is struck that throws up the stick l, indicating the number of feet required. In Fig. 2 it is shown on the first lever l, and that has thrown 85 up the stick, called a "combined stop and indicator," against which the stick or sticks to be sawed are pushed. In Fig. 3 the last lever, i, is the one on which wheel n rests, and it has thrown up the last indicator and 90 stop l. Every foot the operator moves the saws a a counts two feet—one at each end; therefore these stops are painted 18, 20, 22, and 24 feet, the saw always being opposite the indicator and kept there until all the lumber 95 of that length is sawed.

When bad spots in the sticks or lumber are observed by the operator, he steps on the foot-levers p p, which are so fulcrumed as to throw up intermediate saw-frames and saws a' a', 100 either or both. One is used when short sticks are to be cut, in connection with one end saw



*a.* The saws are shown up in Figs. 1 and 2. When a bad place is cut out, the levers *p* are released, and the saw and frame drop below the table by their own weight.

- 5 The exact construction or operation of these saws and frames I do not claim, and therefore any more particular description is omitted. Only their combination in connection with these extension end saws is new. It is four  
10 feet from saw *a* to saw *a'* at the operator's end, four feet to next intermediate saw, *a'*, and eight feet to extreme end saw *a*, and the two end saws have eight feet extension. Thus both  
15 ends of lumber can be cut simultaneously in lengths of from four feet to extreme length of the machine. The usual chains, *s s*, and their wheels *u u* are employed for carrying the lum-  
ber on the table to and from the saws. *w w* are the usual lumber-rests next saws *a a*.  
20 The great novelty of this machine is that it unites in one simple device several important points, such as cutting both ends of lumber at once and into exact lengths required; also cut-  
ting out bad places therein at same time, which  
25 saves greatly in labor, in weight, and consequently in freight in shipping such lumber, this work being done on the ground instead of after being shipped.

I am aware that it is not new to use two or more saws adapted to be adjusted on an arbor. 30  
What I claim is—

1. In a lumber-trimmer, the combination and arrangement of the end saws, *a a*, on screw-shaft B, the intermediate raising and lowering saws, *a' a'*, the saw-frame *b*, provided with the 35 wheel *n*, and the pivoted levers *i i i*, with the stops and indicators *l l l* pivoted thereto, all substantially as and for the purpose specified.

2. In a lumber-trimming device, the end C' 40 of the main machine, provided with the pivoted levers *i i i*, equidistant apart, having the upright stops and indicators *l l*, pivoted thereto and operated by the movement of the saw-frame *b*, having the wheel *n* at the bottom 45 coming in contact with said levers, all substantially as and for the purpose specified.

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

WILLIAM DUNBAR.

Witnesses:

J. R. DRAKE,  
J. J. NEWMAN.