(No Model.)

2 Sheets—Sheet 1.

T. MANLEY.

CIRCULAR GANG SAWING MACHINE.

No. 386,147. Patented July 17, 1888.

FIG 1.

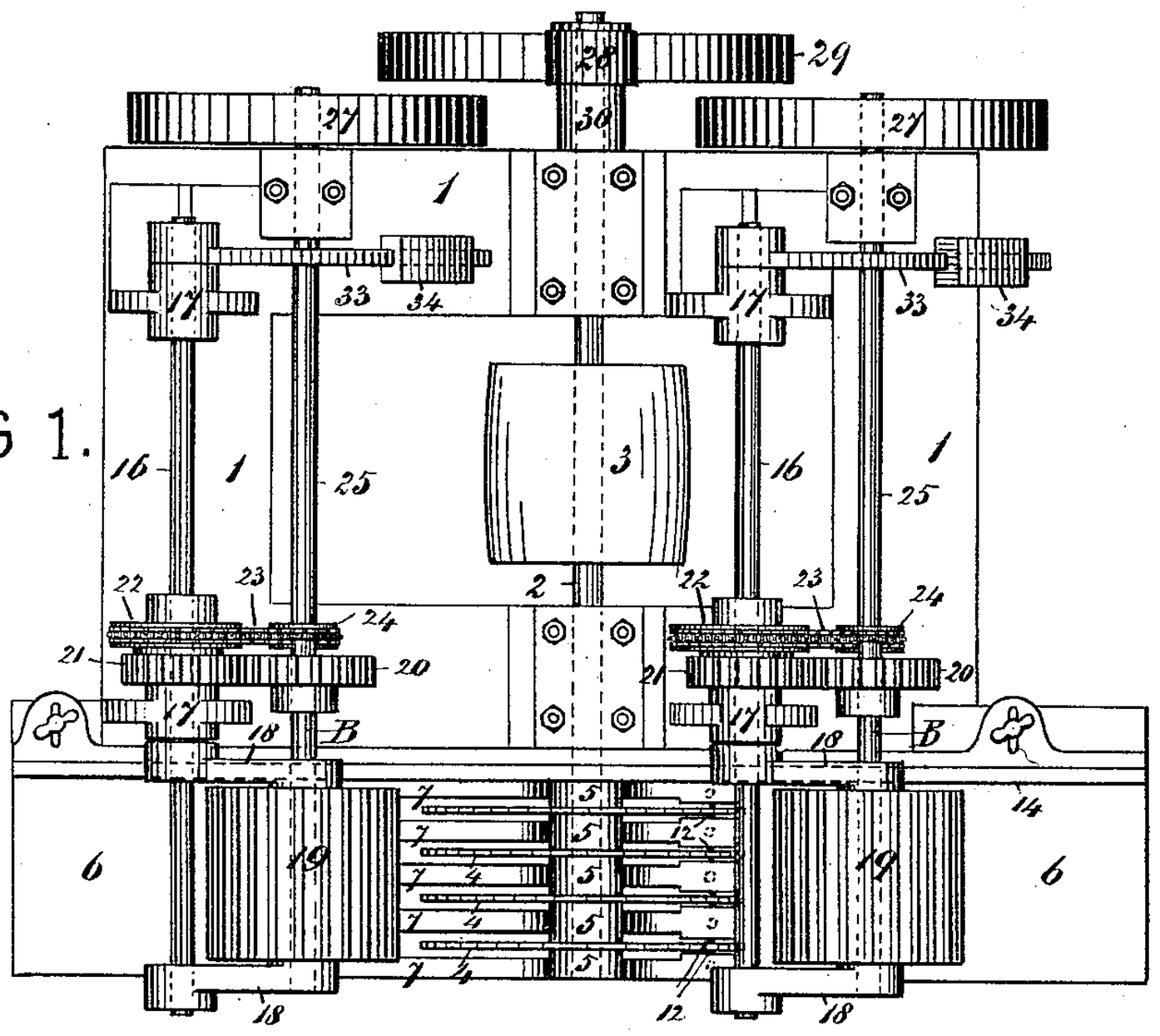
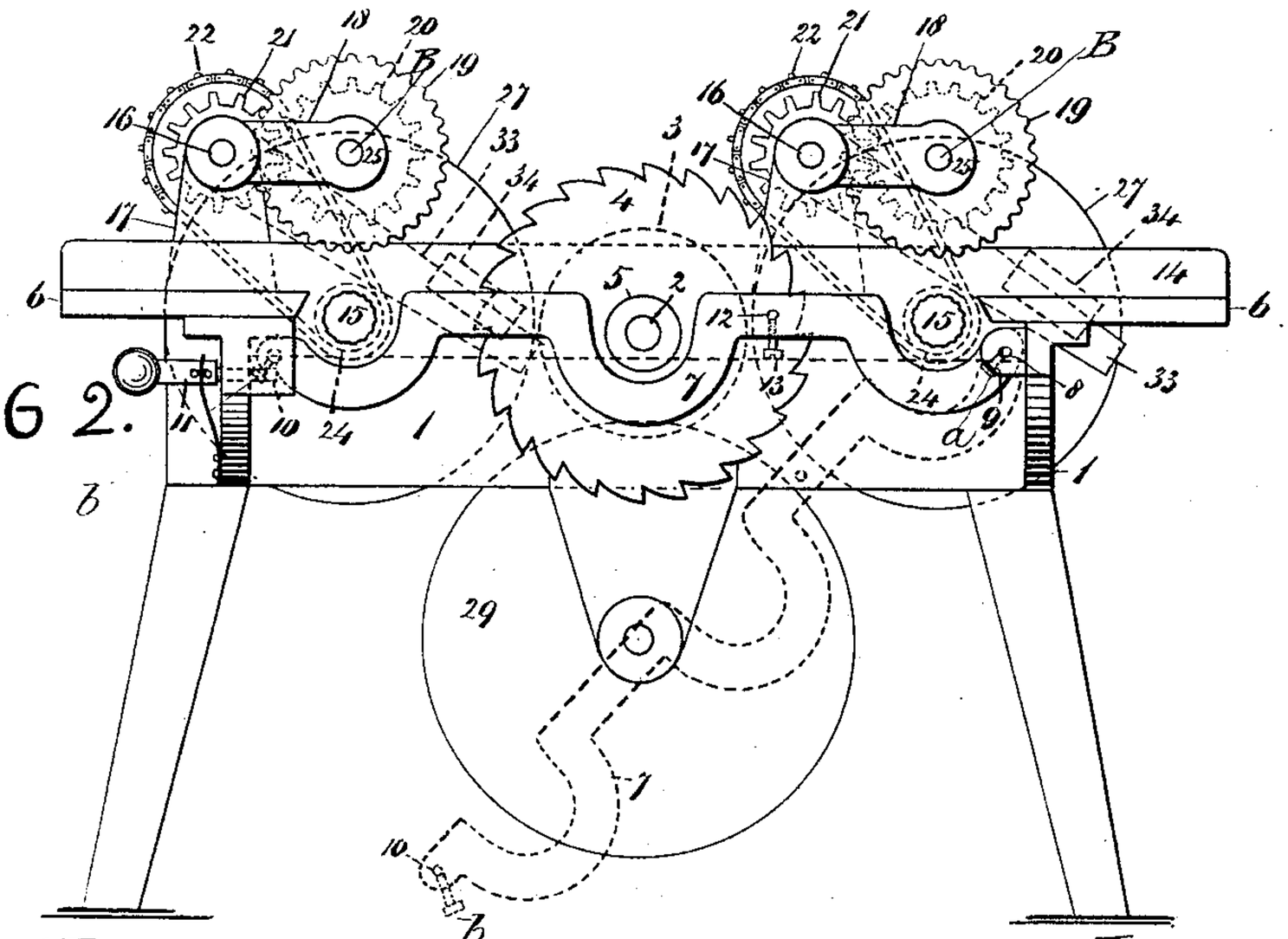


FIG 2.



Witnesses:
John Grist
Herbert Pennock.

Inventor:
Thos. Manley.
By Henry Grist
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(No Model.) 2 Sheets—Sheet 2.

T. MANLEY.

CIRCULAR GANG SAWING MACHINE.

No. 386,147. Patented July 17, 1888.

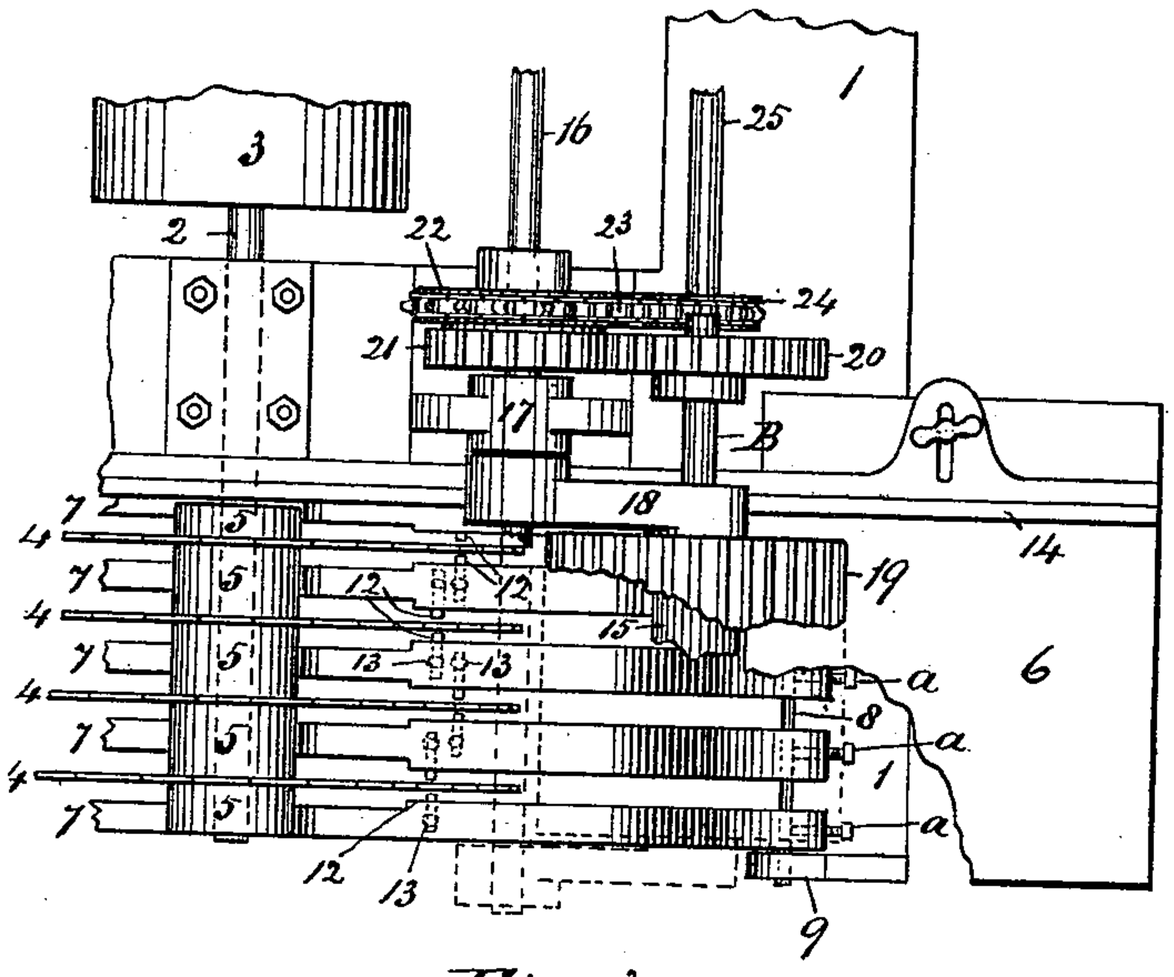

Fig. 3.

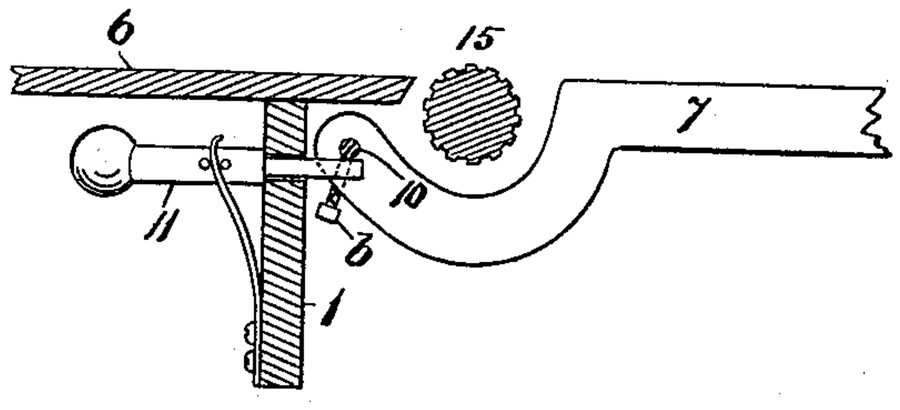

Fig. 4.

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UNITED STATES PATENT OFFICE.

THOMAS MANLEY, OF PRINCE ALBERT, SASKATCHEWAN, CANADA.

CIRCULAR GANG SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 386,147, dated July 17, 1888.

Application filed February 6, 1888. Serial No. 263,187. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MANLEY, of Prince Albert, in the District of Saskatchewan, in the Dominion of Canada, have invented certain new and useful Improvements in Circular Gang Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of my improved circular gang sawing-machine, and Fig. 2 is a side elevation of the same. Fig. 3 is a portion of Fig. 1 enlarged, the upper and lower feed-rollers partly broken away to show the end of the underlying guide-bars; and Fig. 4 is a detail showing the opposite end of the guide-bars and their retaining spring-bolt and screws.

My invention relates to sawing-machines to cut lath-bolts, pickets, &c., from slabs and refuse timber of saw-mills; and the object of my invention is to construct the machine whereby the gang circular saws will cut upwardly, so that the teeth will not drag the bark into the kerf when a slab is inserted between the feed-rollers, the bark side uppermost; and my invention consists in connecting the two sawing-tables by a series of guide-bars intervening the saws and adjustable laterally, and having set-pins to prevent the saws wabbling and to allow the space between the saws to be increased or diminished for cutting stuff of various sizes.

1 is the frame of the machine, on which is mounted the saw-arbor 2, provided with driving-pulley 3. The saw-arbor carries the gang of circular saws 4 and intervening collars 5, said collars being of the required thickness to space the saws to the dimension of the lath-bolt or picket.

6 6 are two tables standing out from the frame, the saws intervening the tables, and said tables are connected by adjustable guide-bars 7, intervening the saws and sleeved at one end on a shaft, 8, journaled in lugs 9 below the table. The other ends of the guide-bars are connected by a bar or rod, 10, passed laterally through them, and said rod is engaged by a spring bolt or catch, 11, below the table to support the guide-bars horizontally when sawing. The guide-bars being pivoted at one end, allow the other end to drop, as shown in dotted lines in Fig. 2, when the supporting bolt or catch is retracted from contact therewith to give access to the series of bars, whereby they may be adjusted more or less laterally apart, according to the space required between the saws, and which space will be the width or thickness of the lath-bolts, pickets, &c. The guide-bars 7 are provided with set-screws *a* and *b* to impinge shaft 8, and rod 10 to keep said guide-bars at the adjusted space apart. The guide-bars 7 are also provided with adjustable pins 12 in lateral holes, and said pins are projected against the sides of the saws, and are kept in adjusted position by set-screws 13. These pins prevent the saws wabbling or deviating with the grain of the wood and make the saws cut straight through the timber. The guide-bars 7 pass under the lower feed-roller, 15, and thence up to a level with the two tables, then under the saw-arbor and up to a level with the tables, and thence under the other lower feed-roll to a point below the table, where they are supported by the rod and spring catch or bolt, as before described. By thus connecting the two tables by the guide-bars the slab is carried along from one table to the other. The slab is fed to the saws so that the bark will be uppermost, and from the table, by which the saws will cut upwardly, whereby the grit in the bark will not be drawn into the kerf and the saws will preserve their sharpness for a longer period than when, as in other machines, the saws cut downwardly.

14 is a guide-bar adjustable laterally upon the tables to and from the saws to guide the slab while sawing.

16 16 are rock-shafts parallel to the saw-arbor and on opposite sides thereof, and are journaled in standards 17, secured to the top of the main frame. At one end of the shafts is secured a gravitating arm, 33, provided with a weight, 34, which in a normal position bears on the top of the main frame, but is raised during the passage of the slab over the feed-rolls. At the other end of the shafts are secured arms 18, in which are journaled a short shaft, B, carrying fluted feed or compression roll 19, so as to be vertical to the feed-roll 15, and said roll 19 is driven by cog-wheel 20 on shaft B, meshing with a cog-wheel, 21, loose on the rock-shaft 16, and said cog-wheel 21 is driven by its counterpart sprocket-wheel 22 on shaft 16, chain 23, and sprocket-wheel

24 on shaft 25 of the feed-roll 15, and shaft 25 is driven by a belt-wheel, 27.

The feed or compression rolls 19 19 are driven in one direction reversely to the rotation of the saws by the saw-arbor having a belt-pulley, 28, which belts with an idler-pulley, 29, provided with a belt-hub, 30, which drives the two wheels 27 27 on shaft 25 of the feed-rolls 15, and the compression-rolls 19 are driven by the sprocket-wheels and chain, as before described.

I claim as my invention—

The combination, with the sawing-tables 6 6, of a series of laterally-adjustable guide-bars, 7, intervening the saws and pivoted to drop at one end and connecting the tables horizontally, and provided with adjustable pins 12 to prevent the saws wabbling and insure a straight cut, as set forth.

THOMAS MANLEY.

Witnesses:
H. PENNOCK,
JOHN GRIST.