

(No Model.)

2 Sheets—Sheet 1.

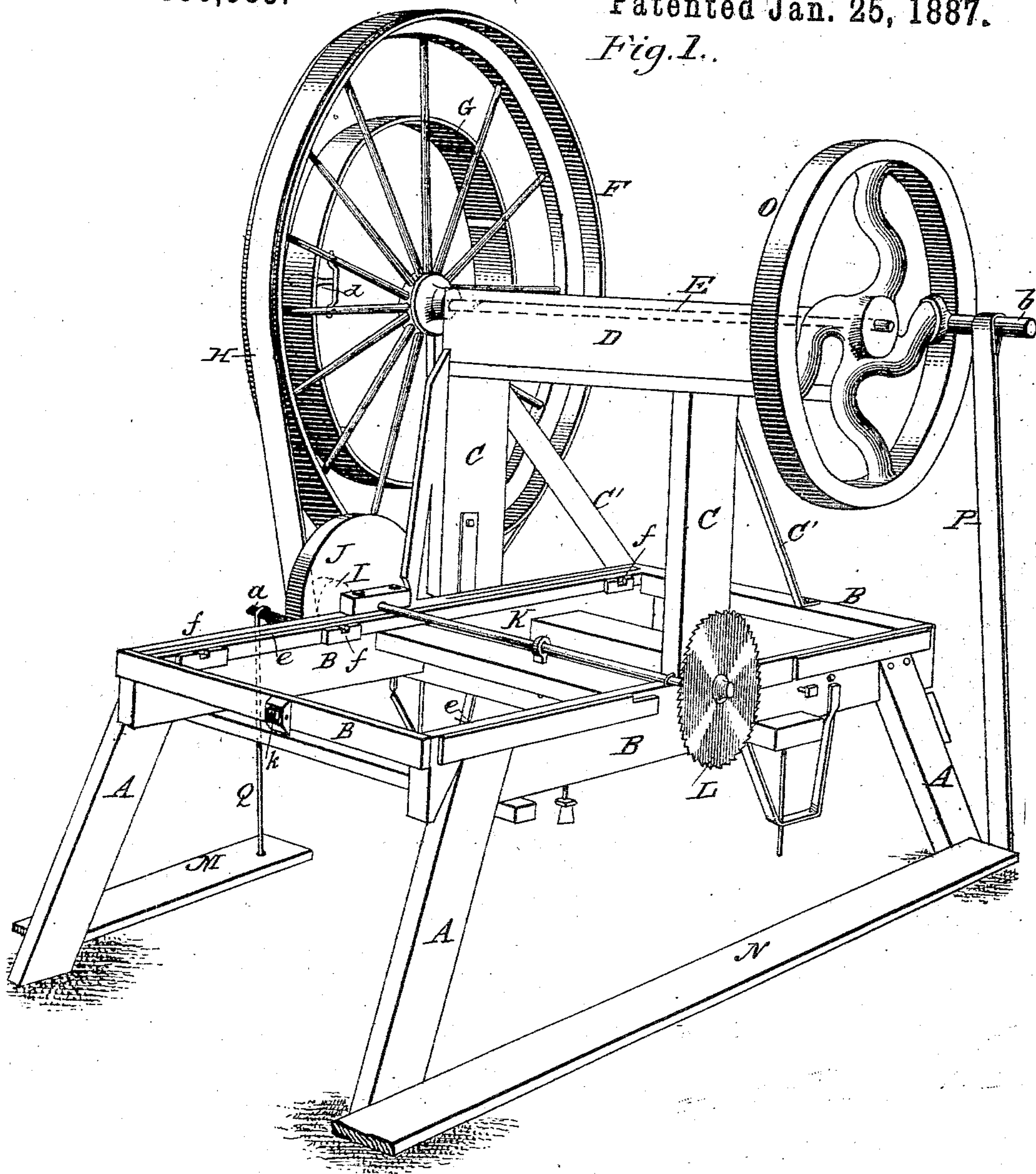
T. E. GOODWIN.

SAWING AND GRINDING MACHINE.

No. 356,583.

Patented Jan. 25, 1887.

Fig. 1.



Witnesses.

Henry Lockett

Willie Compton Lockett

Inventor:

Thomas Edwin Goodwin

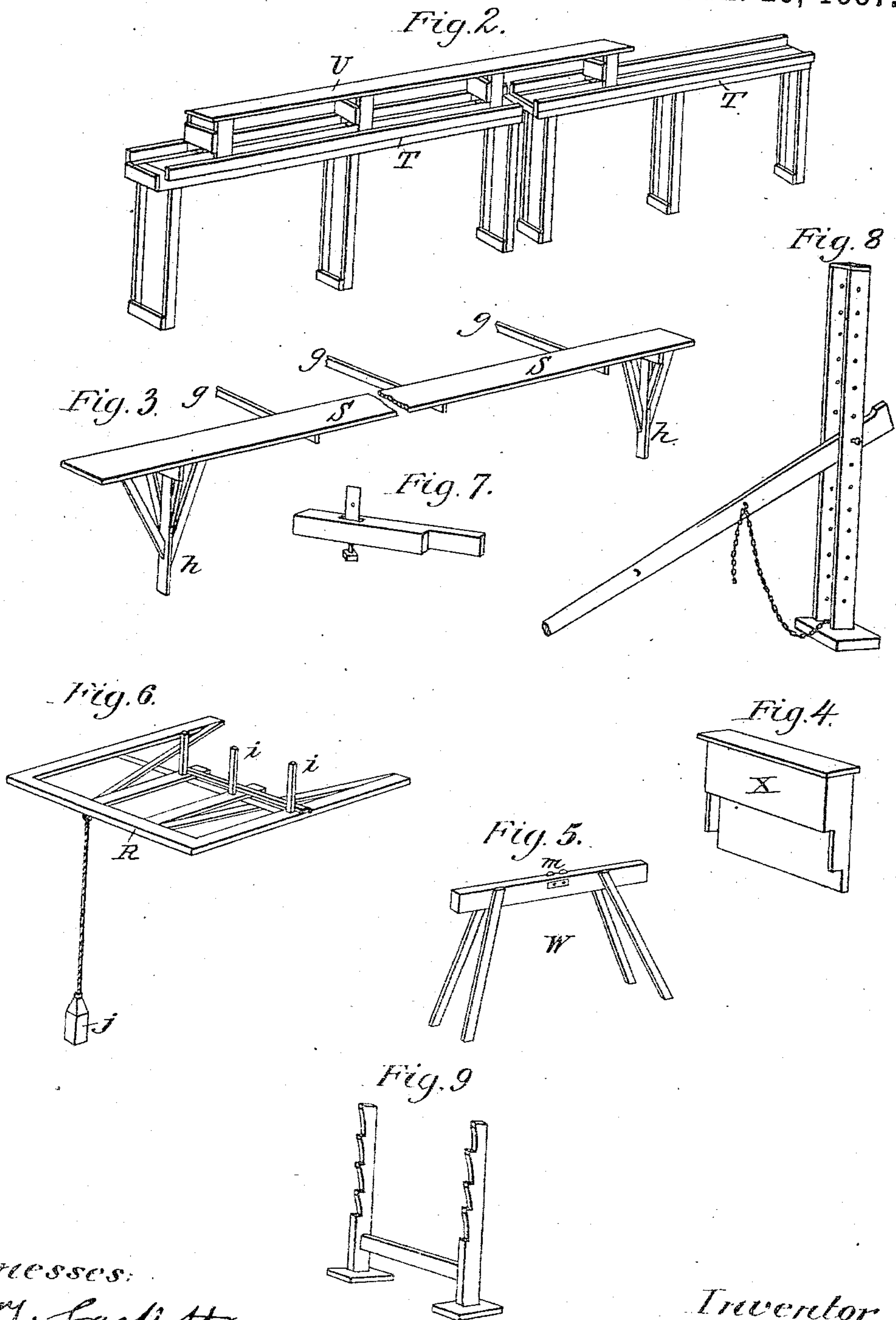
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Henry. Lockett
Willie Compton Lockett

Inventor:
Thomas Edwin Goodwin

UNITED STATES PATENT OFFICE.

THOMAS EDWIN GOODWIN, OF NASHVILLE, TENNESSEE.

SAWING AND GRINDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 356,583, dated January 25, 1887.

Application filed April 9, 1886. Serial No. 198,389. (No model.)

To all whom it may concern:

Be it known that I, THOMAS EDWIN GOODWIN, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Improvement in Sawing and Grinding Machines, of which the following is a specification.

The object of my invention is to provide a convenient and compact machine to be run either by hand or foot, and designed for use either as a crosscut or rip saw or for a grinding-machine; and it consists in the peculiar construction and arrangement of parts, which I will first describe with reference to the drawings, and then point out in the claims.

In the drawings, Figure 1 is a perspective view of the entire machine as adjusted for crosscut-sawing. Figs. 2 and 3 are perspective views of an arrangement of railway and carriage and table for rip-sawing. Fig. 4 is a perspective view of the saw cover. Fig. 5 is a detail perspective view of a trestle-bench for supporting long lumber. Fig. 6 is a perspective view of the carriage for crosscut-sawing. Fig. 7 is a perspective view of a gage or clamp, and Figs. 8 and 9 are perspective views of a lifting-jack and notched support for use in connection with my machine.

In the drawings, Fig. 1, A represents the four legs which support the rectangular frame B B B B. Upon the middle of this frame are erected two upright standards, C C, provided with inclined braces C' C'. At the tops of these standards is secured a horizontal boxing, D, in which is contained the main shaft E. On one end of this main shaft is keyed a large band-wheel, F, and to the side of this is fastened the power band-pulley G, which is provided with a crank-handle, d, for operation by hand when desired. On the opposite end of the main shaft E is fastened the heavy fly-wheel Q, to which is secured a crank-handle, n, and to this crank-handle is fastened a strap, P, connected below to a treadle, N, for operation by the foot. Crosswise on the main frame B, in suitable bearings, is journaled the saw-shaft K, having on one end the circular saw L, and on the other end the grindstone J and band-pulley I. Around this band-pulley I there passes the band H from the large band-wheel above; but in the place of this band-pulley a crank, a, rod Q, and treadle M may

be used for driving the grindstone or saw directly by hand or foot.

Inside the frame B there are guideways e e. Upon these slides the crosscut-carriage R, Fig. 6, which latter is provided with uprights i, against which the log is placed, and has a weight, j, with cord that runs over grooved pulley k in frame B to draw the carriage back.

For rip-sawing, or sawing the lumber longitudinally, the carriage R is not used, and in its place I employ the attachments shown in Figs. 2 and 3. S is a long table, which is placed horizontally between the saw and the near standard C. The outer ends of this table are supported upon independent legs h, which extend to the ground, while the middle portions of said table are supported upon cross-bars g, which extend transversely across the frame B, and have their ends farthest from the saw seated in the sockets f on the inner side of frame B. Just outside the saw and parallel with the table S are arranged the benches T, having a railway upon their upper surfaces, upon which runs the long carriage U, which carries the log or lumber to be ripped. When the lumber is arranged on the carriage and the latter is run to the saw, parallel with the long table S, the saw cuts the lumber longitudinally, and the cut off piece falls upon the table S. For very long lumber I use an independent trestle-bench, W, Fig. 5, having rollers m on its upper edge, which bench is placed where it will receive the end of the said lumber and support the same.

To protect the saw from the weather and guard against accidents when not in use a cover, X, Fig. 4, is made to slip over the same.

By placing the grindstone J on the same shaft as the saw L it will be seen that when I operate the grindstone by the treadle Q M the grindstone also acts as a fly-wheel for the saw for sawing light stuff without turning the large wheels alone.

For holding and gaging the lumber on the carriage in rip-sawing I use a clamp or gage, (shown in Fig. 7,) and for raising the log I employ a lifting-jack, Fig. 8, and notched standards, Fig. 9.

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

1. The combined saw and grinding machine

consisting of the rectangular frame B, having ways *e*, legs A, standards C C, and boxing or case D, the main shaft E, a ranged in said boxing and having at one end fly-wheel O, with 5 strap P and treadle N, and at the other the large and small band-wheels F and G, the shaft K, arranged crosswise the frame B and having saw L at one end and at the other the grindstone J and pulley I, the belt H, and the 10 crosscut carriage R, with weight and pulley, all combined, substantially as and for the purpose described.

2. The herein-described sawing-machine,

consisting of frame B, with sockets *f*, in combination with the saw-shaft K, having saw L at one end and pulley I, with means for driving it, at the other, the long table S, with cross bars *g* and legs *h* at the ends, the portable railway-benches T T, and the carriage U, running thereon, for adapting the saw to cut lumber 20 longitudinally, substantially as and for the purpose described.

THOMAS EDWIN GOODWIN.

In presence of

J. H. BOND,

H. C. LOCKETT.