

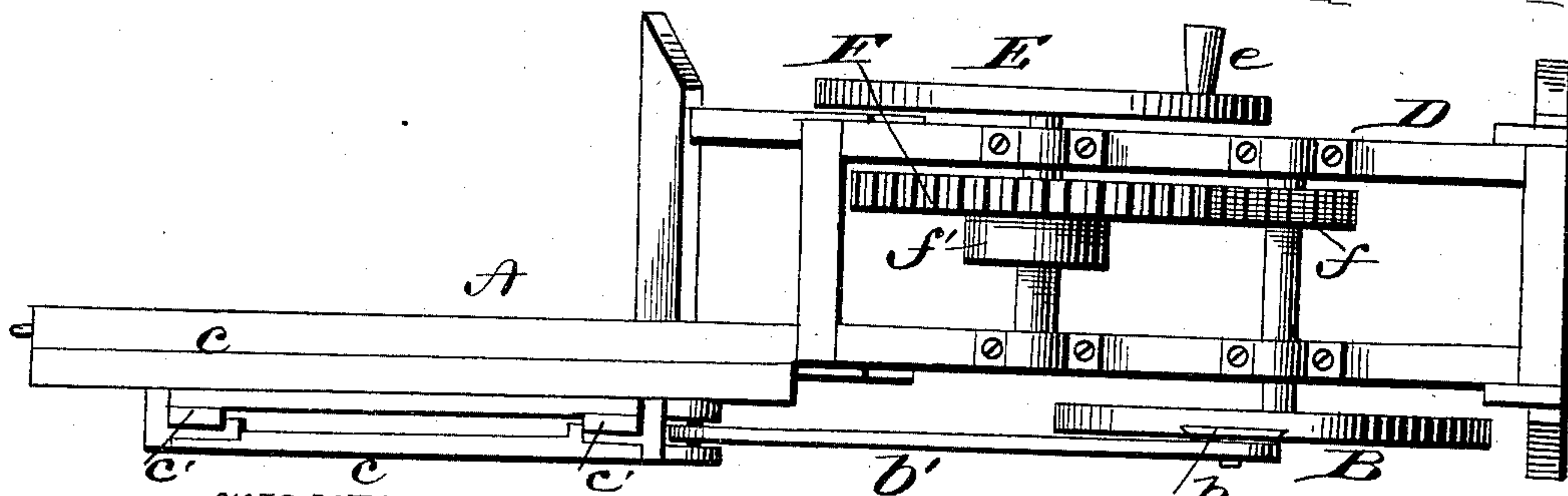
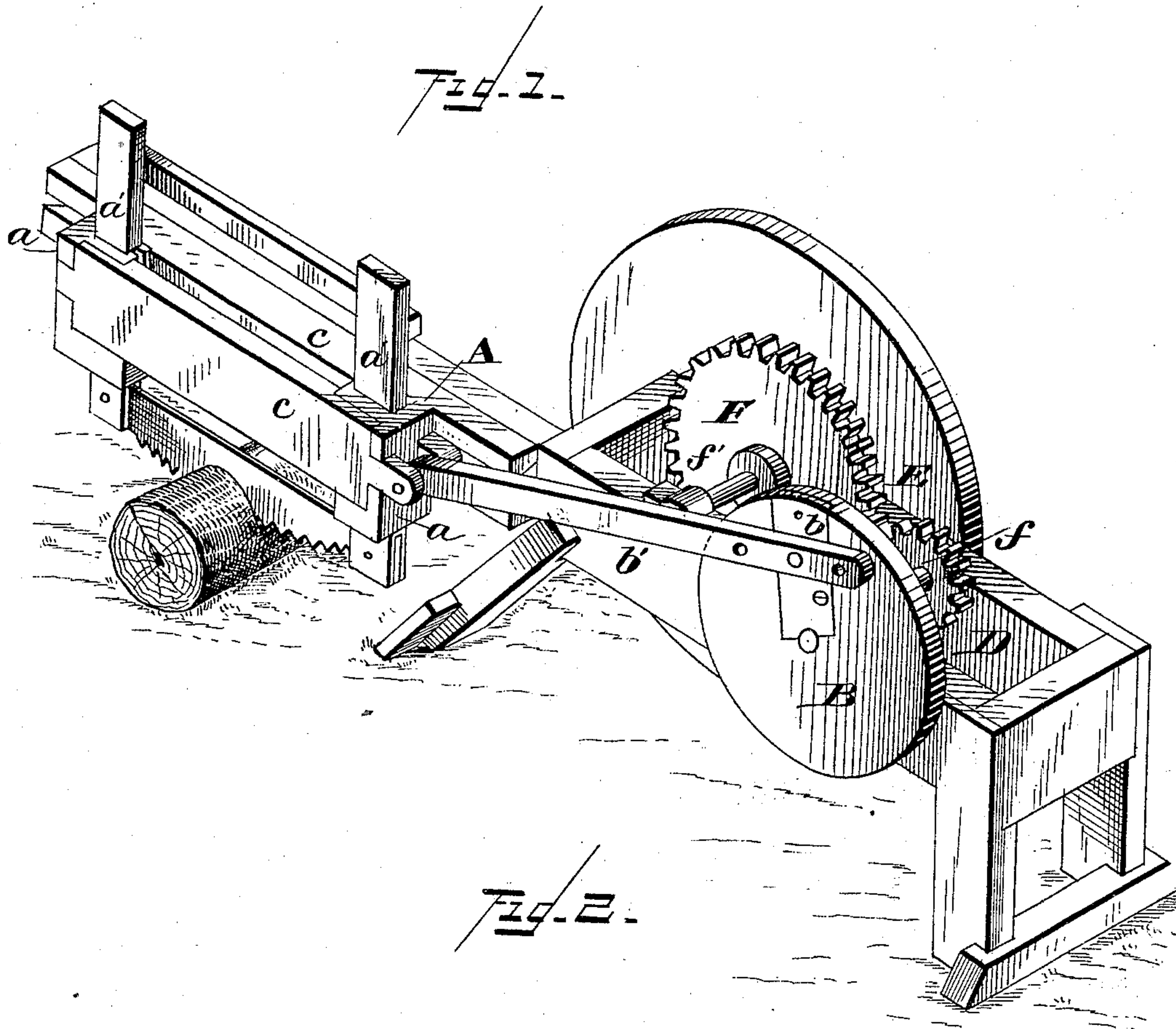
(No Model.)

2 Sheets—Sheet 1.

W. D. GUNN.
PORTABLE SAWING MACHINE.

No. 417,173.

Patented Dec. 10, 1889.



WITNESSES
P. L. Ourand
J. J. Moulden.

INVENTOR
William D. Gunn
By W. T. Fitzgerald Attorney

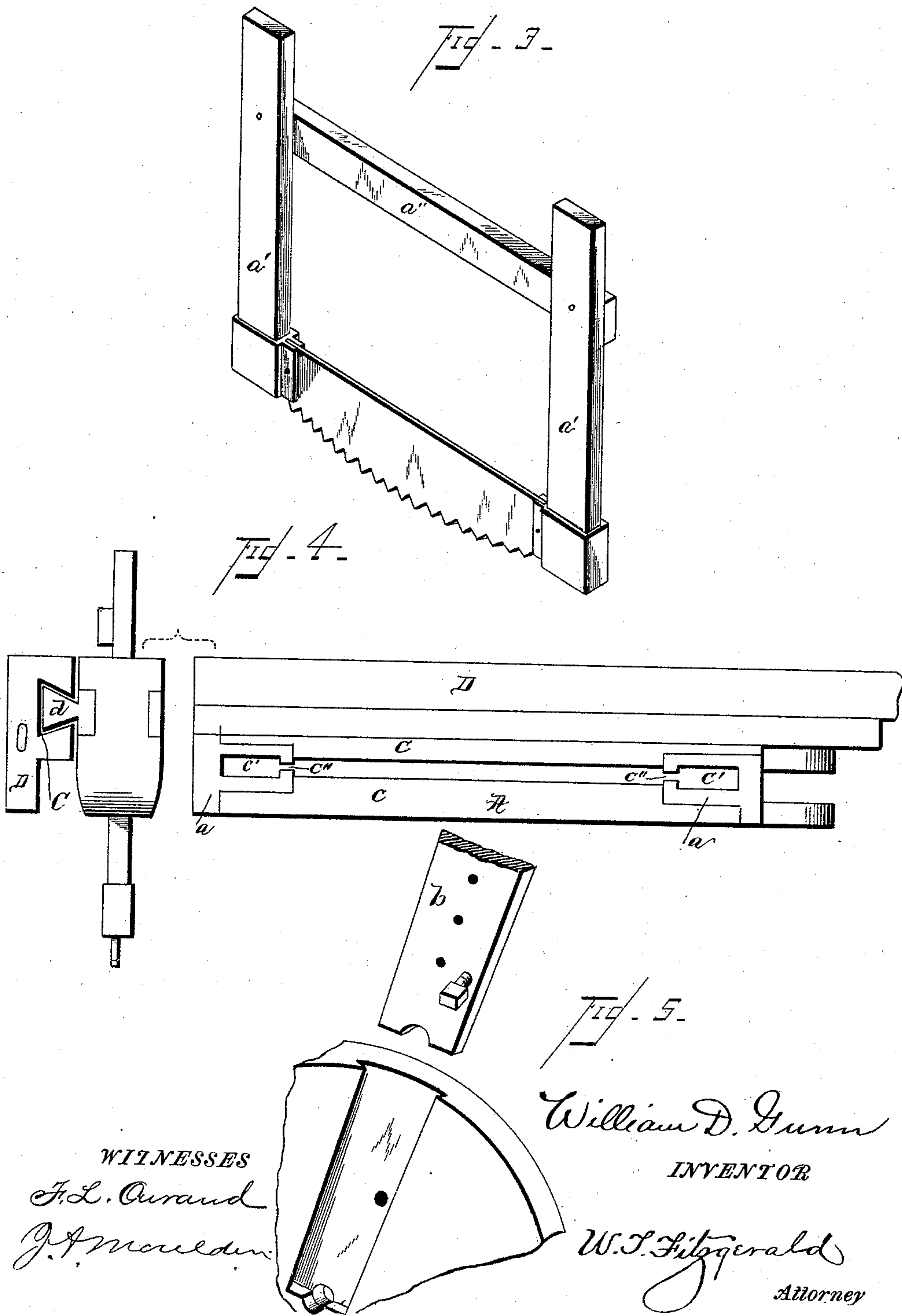
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Attorney

UNITED STATES PATENT OFFICE.

WILLIAM D. GUNN, OF WESSON, MISSISSIPPI.

PORTABLE SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 417,173, dated December 10, 1889.

Application filed April 12, 1889. Serial No. 306,959. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. GUNN, a citizen of the United States, residing at Wesson, in the county of Copiah and State of Mississippi, have invented certain new and useful Improvements in Portable Sawing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of new and useful improvements in portable sawing-machines, hereinafter fully described and claimed, the object of which is to provide a strong and compact mechanism for readily sawing logs crosswise, and is adapted to the use of lumbermen in dividing trees into proper length for the mill, or equally suitable for those desiring to divide logs into proper length ready for burning in stoves, grates, &c.

I am aware that many different varieties of machines have been produced for the purpose above named; but I am not aware that any existing machine comprises the features and points of novelty involved in the construction of my invention, which I describe as follows, reference being had to the accompanying drawings, which are to be considered a part of this application, similar letters of reference referring to corresponding parts in all the views.

Figure 1 is a perspective view of my invention complete. Fig. 2 is a top view of the same. Fig. 3 is a view of the saw with its standards and cross-bar separated from the balance of the machine. Fig. 4 is a side and top view of the saw-guide. Fig. 5 is a side view, in perspective, showing the adjustable section of the drive-wheel and also the guide-slot for controlling the saw-guide.

Referring to the different parts of my invention by letter, A indicates the saw-guide, consisting of two pieces of timber *c*, arranged parallel with each other, and separated at their ends by means of the head-blocks *a a*, and serving the purpose, when used in connection with such head-blocks, of forming the sides of the frame of the saw-guide A. The rectangular blocks *a a*, the length of which is somewhat greater than the width, are provided with perpendicular rectangular holes

or openings through the middle their entire length, while the inner sides of such holes are cut away, forming the opening *c*. The object of these slots *c'* is to provide a guide for holding the standard *a'*, attached to the ends of the saw, in a perpendicular position, while the openings *c''* on the inner side of such blocks are for the purpose of admitting the saw to pass freely in or out of the saw-guide A.

a'' is a cross-bar reaching horizontally from the top of one standard *a'* across to the other standard, and serving the purpose of holding such standards in a perpendicular position and regulating by its weight the cutting capacity of the saw.

On the side of the saw-guide A, I arrange a triangularly-shaped projection *d* its entire length, such projection being intended to fit into a correspondingly-shaped slot C in the extended part of the frame D of the machine.

For the body proper of my machine I provide a suitably-constructed rectangular frame supported by suitably-arranged legs or up-rights, and having a large cog-wheel F meshing into a smaller wheel *f*, both suitably axled and journaled onto the frame D. The outer end of the axle of wheel F extends through and past the frame sufficiently to admit of the adjustment of a large drive-wheel E, while the end of the axle of the smaller wheel extends through and past the other side of the frame of the machine; also, for the purpose of attaching thereto the second drive-wheel B, the obvious purpose of both of such wheels being to regulate the motion and add power to the effect of the machine by their impetus when in motion. To the outside of drive-wheel E, I attach a handle *e* for applying the motive power. An additional provision for applying motive power is found in the band-wheel *f'* on the inner side of the large cog-wheel F. On the outer side of the drive-wheel B, I arrange a triangularly-shaped groove from the center to the circumference, and in this groove I arrange a correspondingly-shaped adjustable section *b*, the object of such adjustable section being for the purpose of forming a connection with the piston *b'*, and is in effect for the purpose of increasing or diminishing the diameter of the wheel, thereby regulating the movement of the saw. This adjustable section *b*, fitting into the tri-

angularly-shaped groove in the side of drive-wheel B, is intended to be adjusted at any position desired, and secured by means of a suitably-provided set-screw.

- 5 In operation the log is drawn under the forwardly-projecting end of the frame D, and the standards connected with the saw and the cross-bar a'' are inserted in the slots c' . The power is then applied to wheel E, and is transmitted to saw-guide A by means of the piston and the mechanism above described, and the saw, held in position above the log by means of the standards a' , enters the log by its own weight and the weight of the standards and cross-bar, above referred to.

10 It will thus be observed that I have produced a strong, compact, and practical machine, the especial and valuable features of novelty being comprised in the arrangement of the saw and its accompanying standards and guides. The piston may be connected to the saw-guide A in any preferred manner.

20 Having described my invention, what I

claim, and desire to secure by Letters Patent, is—

25 In combination with a sawing-machine having a frame one side of which projects forwardly in such a manner as to form a support for the triangular groove C, the drive-wheel B, having an adjustable section b , for the purpose of increasing or diminishing the length of the stroke of the piston, and saw-guide A, composed of two parallel sides c , separated slightly from each other by means of the slotted head-blocks a , and having on its side a triangular projection d , for the purpose of engaging in the correspondingly-shaped groove C, all substantially as described, and for the purpose named.

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

W. D. GUNN.

Witnesses:

W. H. BRITTAIN,
JOHN PATTERSON.