(No Model.)

C. M. PIERCE.

SAWING MACHINE

No. 305,960. Patented Sept. 30, 1884.

Fig. 1.

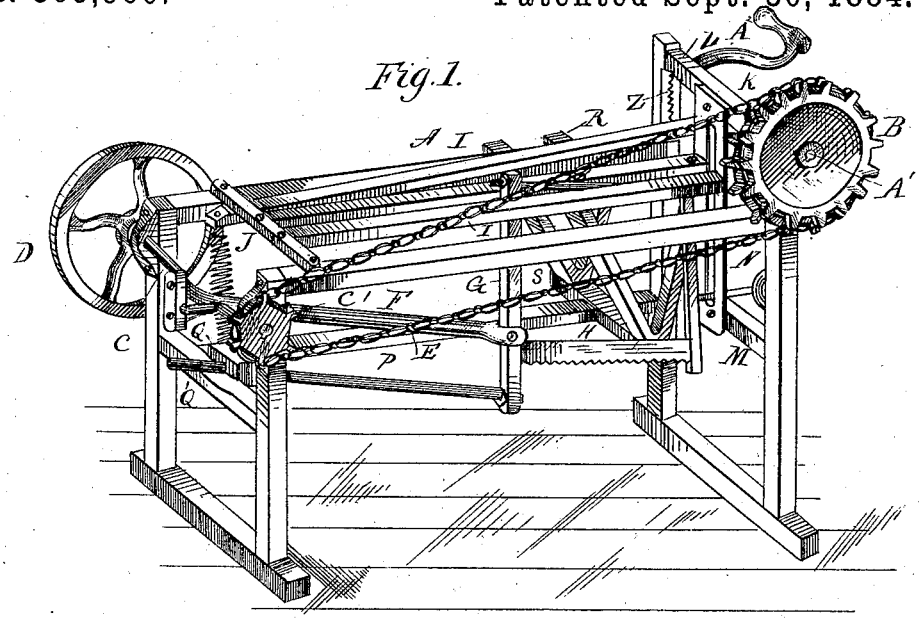


Fig. 2.

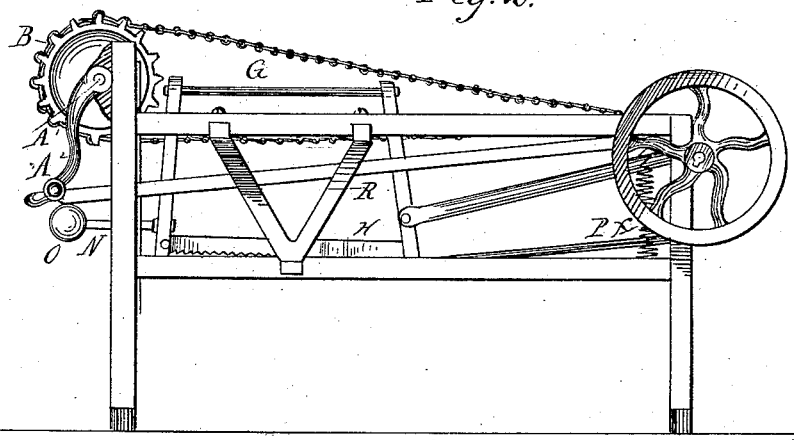
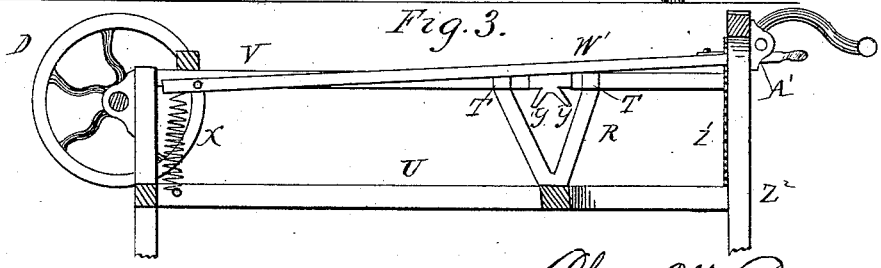


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES M. PIERCE, OF BRIDGETON, NEW JERSEY.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 305,960, dated September 30, 1884.

Application filed July 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. PIERCE, a citizen of the United States, residing at Bridgeton, in the county of Cumberland and State of New Jersey, have invented a new and useful Sawing-Machine, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to wood-sawing machines, and it has for its object to provide a machine of the class referred to that shall possess superior advantages in point of simplicity, speed, economy, durability, and general efficiency; and the invention consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a view in perspective of a sawing-machine embodying my improvements. Fig. 2 is a side elevation. Fig. 3 is a vertical longitudinal sectional view.

Referring by letter to the accompanying drawings, A designates the frame of the machine, which is provided at one end with the driving-shaft A′, provided with the crank-handle A^2 and the large sprocket-wheel B.

In suitable bearings at the other end of the frame A is provided a crank-shaft, C, having a small sprocket-wheel, C′, at one end and a balance-wheel, D, at the other end. A sprocket-chain, E, connects the sprocket-wheels B and C.

F designates the pitman which connects the saw-frame G to the crank-shaft C. The saw-frame G is provided with a saw-blade, H, and said frame G works between parallel guides I I′, secured near one end of the frame to the under face of a cross-bar, J, connected to the top side rails of the frame A, and at their other ends to a slotted upright, K, secured to the inner faces of the top cross-rail, L, and the lower cross-rail, M. A guide-rod, N, is connected to the front end of the saw-frame G, and extends forward through the slot in the upright K, and is provided on its end with a weight, O. A guide-rod, P, is connected to the rear lower corner of the saw-frame G, and works through an iron guide-block, Q, on a cross-bar, Q′, at the rear end of the frame A. The saw-horse R is made of two V-shaped pieces, connected at their bottoms by a piece, S, and arms of the outer V are connected at their tops by two parallel pieces, T T, to the side rail, U, leaving this V open. The connecting-pieces S and T T are let into the face of the longitudinal rail U and the side rail, V, and are secured by bolts. The longitudinal guide-rail I′ is bolted to the tops of the arms of the inner V of the saw-horse, and a space is left between the side rail, V, and the guide-rail I′, in which the clamp W for holding the stick or sticks of wood to be sawed is worked up and down.

The clamp W consists of a bar, W′, running longitudinally of the frame A, and pivoted near its rear end to the inner face of the side rail V, and connected at its rear end to the upper end of a spiral spring, X, the lower end of which is connected to the inner face of the longitudinal rail U.

Directly over the piece S of the saw-horse the bar W′ is provided on its under face with inverted-V-shaped jaws Y, which are intended to hold the stick of wood or a number of small sticks of wood in place in the saw-horse, when the dog Z on the bar W′ near its front end is in engagement with the proper notch of the rack Z′, secured to the upright Z^2 at the front end of the frame.

A full-sized machine weighs about one hundred pounds. I have cut one-eighth of a cord of wood in three cuts in twenty minutes on the first trial with this machine, and can now do more rapid work.

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

1. The combination, with the frame having the V-shaped saw-horse, the pivoted spring-actuated clamp with inverted-V-jaws and dog and rack, the upper parallel saw-guides, the slotted upright at one end and the iron guide-block at the other end, of the saw-frame having the weighted guide-rod working in the slotted upright, the rear guide-rod working in the iron guide-block, the driving-shaft having crank and large sprocket-wheel, the sprocket-chain, the crank-shaft having small sprocket-wheel and balance-wheel, and the pitman connecting the crank-shaft and saw-frame pro-

vided with the saw-blade, substantially as specified.

2. The combination, with the frame of a sawing-machine, of the saw-horse composed of the V-shaped ends connected at their lower ends by the cross-piece S, let into the longitudinal rail U, and the outer V connected by pieces T T to the side rail, V, and the inner V connected to the guide-rail I′, and the pivoted spring-actuated clamp W, provided with the inverted-V-shaped jaws, and the dog Z and the rack Z′, secured to the upright Z^2, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES M. PIERCE.

Witnesses:

JOSEPH W. BROOMALL,

SAMUEL STEINMETZ.