



# United States Patent Office.

GEORGE W. KEARNS, OF LILLEYVILLE, PENNSYLVANIA.

Letters Patent No. 108,797, dated November 1, 1870.

## IMPROVEMENT IN SAWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, GEORGE W. KEARNS, of Lilleyville, Mifflin county, State of Pennsylvania, have invented an Improved Portable Sawing-Machine; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 represents a side elevation of the machine.

The nature of my invention consists in the arrangement and combination of a balance and driving-wheel, with a pivoted saw and spring in the rear of the saw, to tighten and regulate the operation of the saw.

The object of my invention is to produce a neat, convenient portable sawing-machine to save time and labor.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation, as follows:

A represents a square upright frame supporting the devices for operating the saw.

Across the frame are two inclined supports, B B, with two revolving axles, C C, upon which are a toothed wheel, D, and pinion, E, that drive the main

balance or driving-wheel F, to which the arm of the saw G is pivoted or attached to a wrist, J.

In the rear of the saw G is a spring, H, that is held by a link, K, that passes around the spring and through the blade of the saw by which the saw can be tightened, and which gives the saw a yielding motion, so as to saw truer and easier, and not be too suddenly checked while sawing, and prevents the saw from bending or jarring while in motion.

The saw is raised and lowered by means of the rope and lever L L, the rope attached at the rear of the saw, and the lever operating on a fulcrum, M, in the upright guide N at the side of the frame A.

The machine is operated by the crank P.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement and combination of the balance-wheel F, with its pivoted saw G, and spring H, when constructed and operating as herein described, and for the purposes set forth.

. GEO. W. KEARNS.

Witnesses:

JOHN BARR,  
DAVID A. STROUP.