

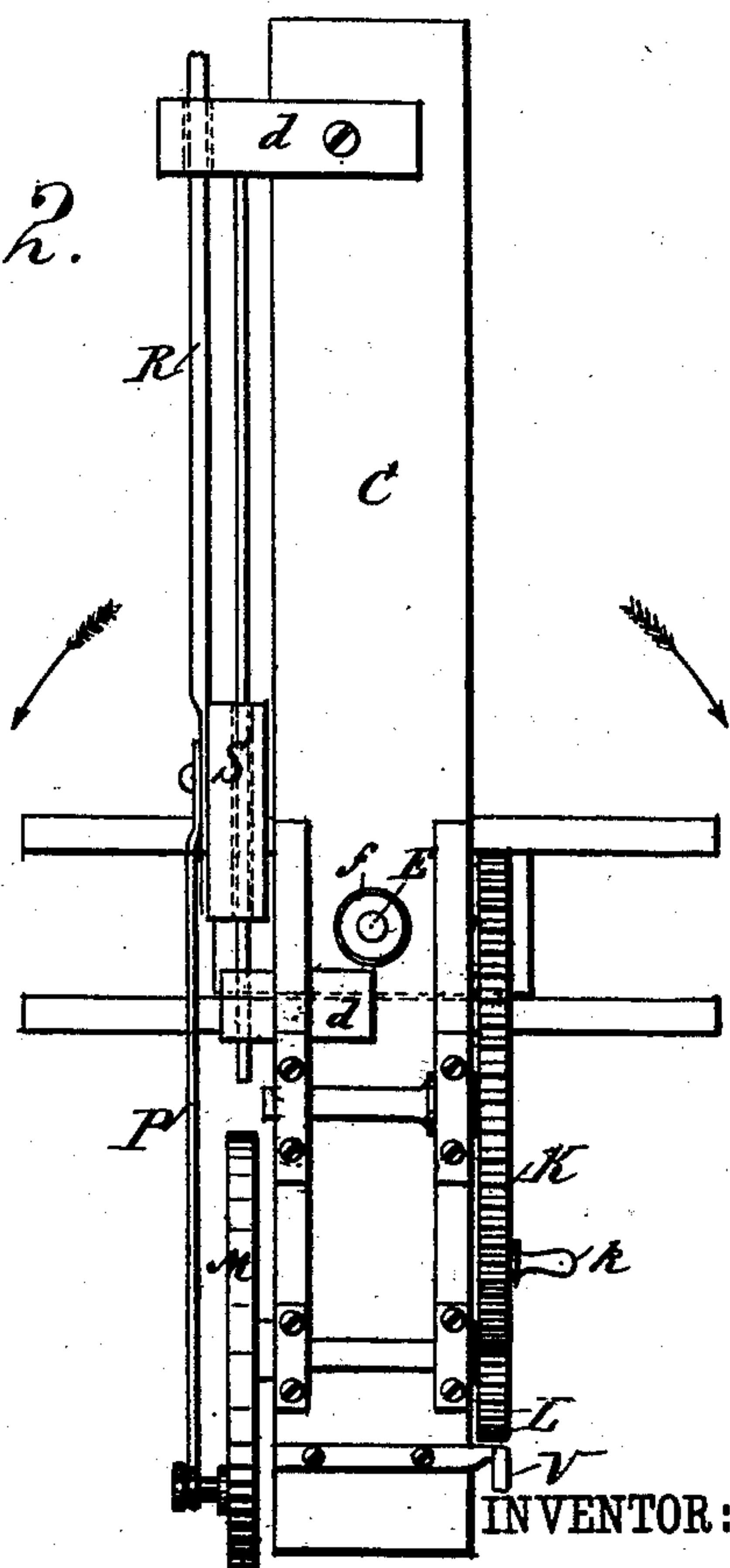
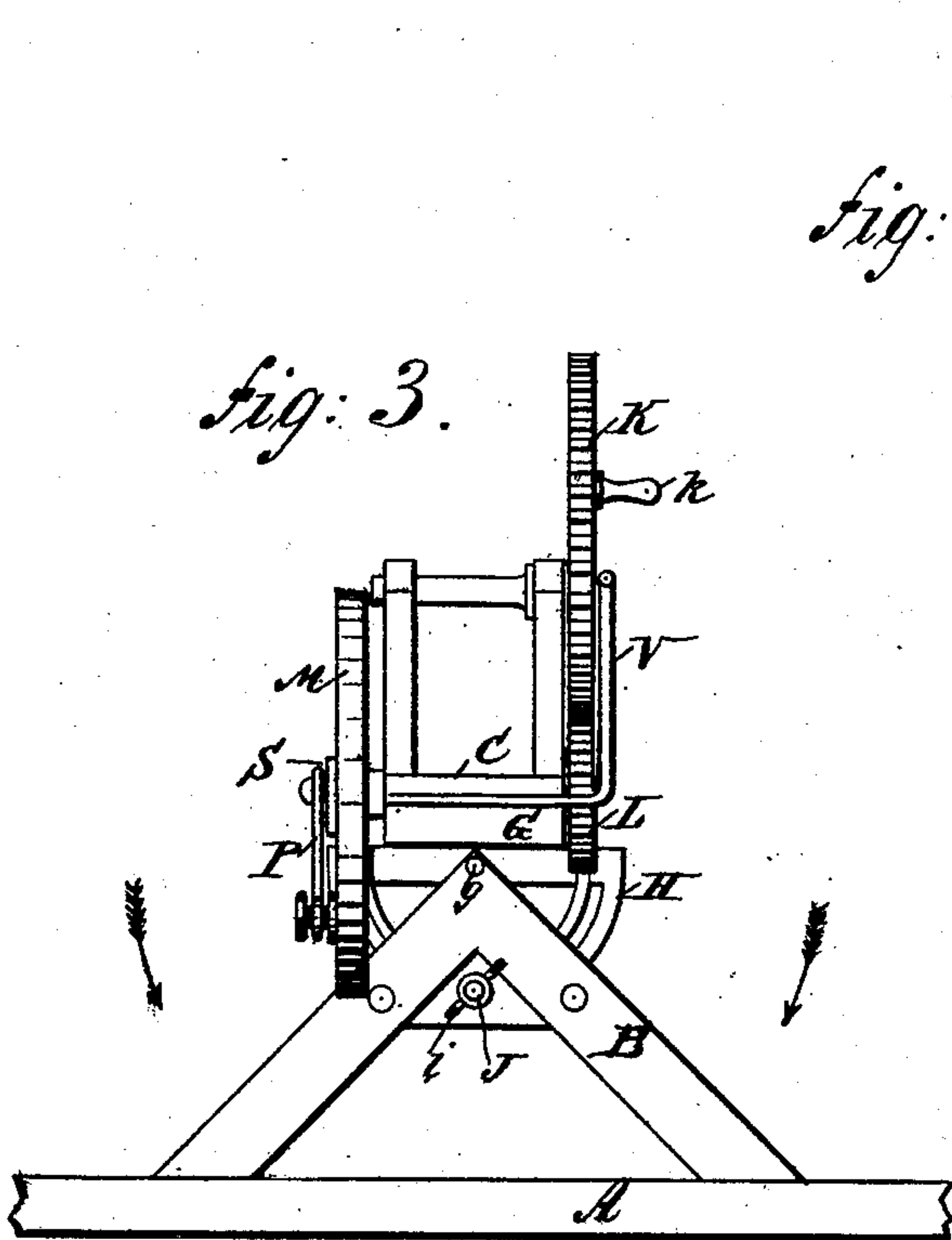
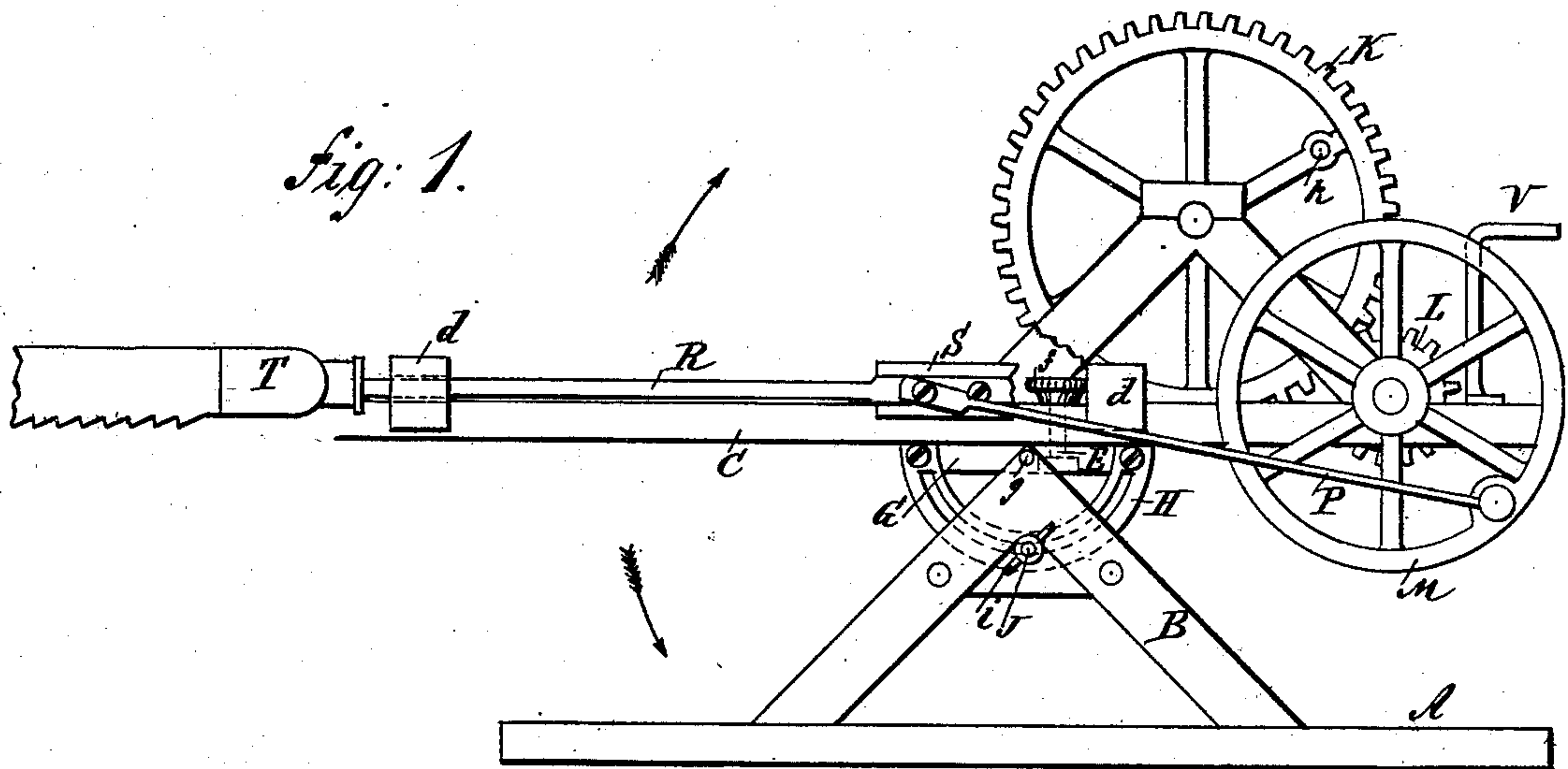
(Model.)

M. L. NICHOLS.

DRAG SAW.

No. 248,200.

Patented Oct. 11, 1881.



WITNESSES:

A. Seehl.  
C. Seagwick

INVENTOR:

M. L. Nichols  
BY *Munn & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MARION L. NICHOLS, OF CENTRE TOWNSHIP, EMMETT COUNTY, MICHIGAN,  
ASSIGNOR OF ONE-HALF TO ASA W. ALDRICH, PHILIP B. WACHTEL,  
AND THOMAS QUINLAN, OF SAME PLACE.

## DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 248,200, dated October 11, 1881.

Application filed March 25, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, MARION LAFAYETTE NICHOLS, of Centre Township, in the county of Emmett and State of Michigan, have invented a new and useful Improvement in Sawing-Machines, of which the following is a specification.

My invention relates to a portable sawing-machine to be used for sawing trees or logs and adapted to be moved from place to place.

The invention consists in a novel construction, arrangement, and combination of a saw-frame, the platform or stand, the gearing, and devices connected therewith, whereby provision is made for sawing in any desired direction, as hereinafter described.

In the accompanying drawings, Figure 1 is a side view of an apparatus embodying my improvements. Fig. 2 is a top view of the same. Fig. 3 is an end view, with the saw-frame at right angles with the platform or stand.

Similar letters of reference indicate corresponding parts.

A represents a base board or sill, upon which rests a double-inclined frame, B.

C represents the saw-carrier, consisting of a beam provided with two lateral arms, *d d*, near its front and rear ends on one side. It is pivoted on a vertical pivot or pin, E, extending upward from a supporting-block, G, and having a thumb-nut, *f*, on its upper end, which is screw-threaded. The block G is provided with trunnions *g g*, which work in bearings in the double-inclined frame B. Said block is also provided with an arc-shaped slotted bar, H, extending downward close to one side of the double-inclined frame. A flat-headed and screw-threaded pin or bolt, J, passes through the slot in the bar, and through the side of the frame, and is provided with a thumb-nut, *i*.

On the upper side of the beam C is a frame, in which is journaled a shaft carrying a gear-wheel, K, provided with a crank-handle, *k*. The wheel K gears with a pinion, L, on one end of a shaft, the other end of which carries a crank-wheel, M. This wheel is connected by

a pitman, P, with a slide, S, consisting of a block arranged to slide on a rod or bar having its ends secured in the arms *d d*. To the slide S is attached the rear end of the saw-rod R, which works through the forward arm, *d*, and its front end has the saw-holder or stock T attached to it by a swivel-connection.

When the apparatus is to be used to saw vertically, either up or down, the thumb-nut *i* is loosened so as to allow the saw-carrier to swing on the trunnions *g* and be controlled by the operator holding the handle V with the left hand, while turning the wheel K with the right hand to operate the saw.

When the apparatus is to be used to saw horizontally, as in felling trees and similar service, the saw-carrier is adjusted to the desired height and angle and then secured by tightening the thumb-nut *i*. The saw stock or holder T is then turned to the desired position to give the proper direction to the saw. The thumb-nut *f* is then loosened, so as to allow the operator to control the lateral movement of the saw-carrier by means of the handle V and feed the saw to its work with the left hand, while operating the wheel K with the right hand.

By loosening both the nuts *i* and *f* the saw-carrier C may have a universal motion imparted to it, and may be adjusted both vertically and longitudinally, while the peculiar shape of the double-inclined frame B allows a motion of at least one hundred and eighty degrees.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the frame A B, of the saw-carrier C and the trunnioned block G, the former pivoted on a pin, E, extending upward from the latter, as shown and described.

MARION LAFAYETTE NICHOLS.

Witnesses:

HENRY H. DENNIS,  
JACOB SCHROUDER.