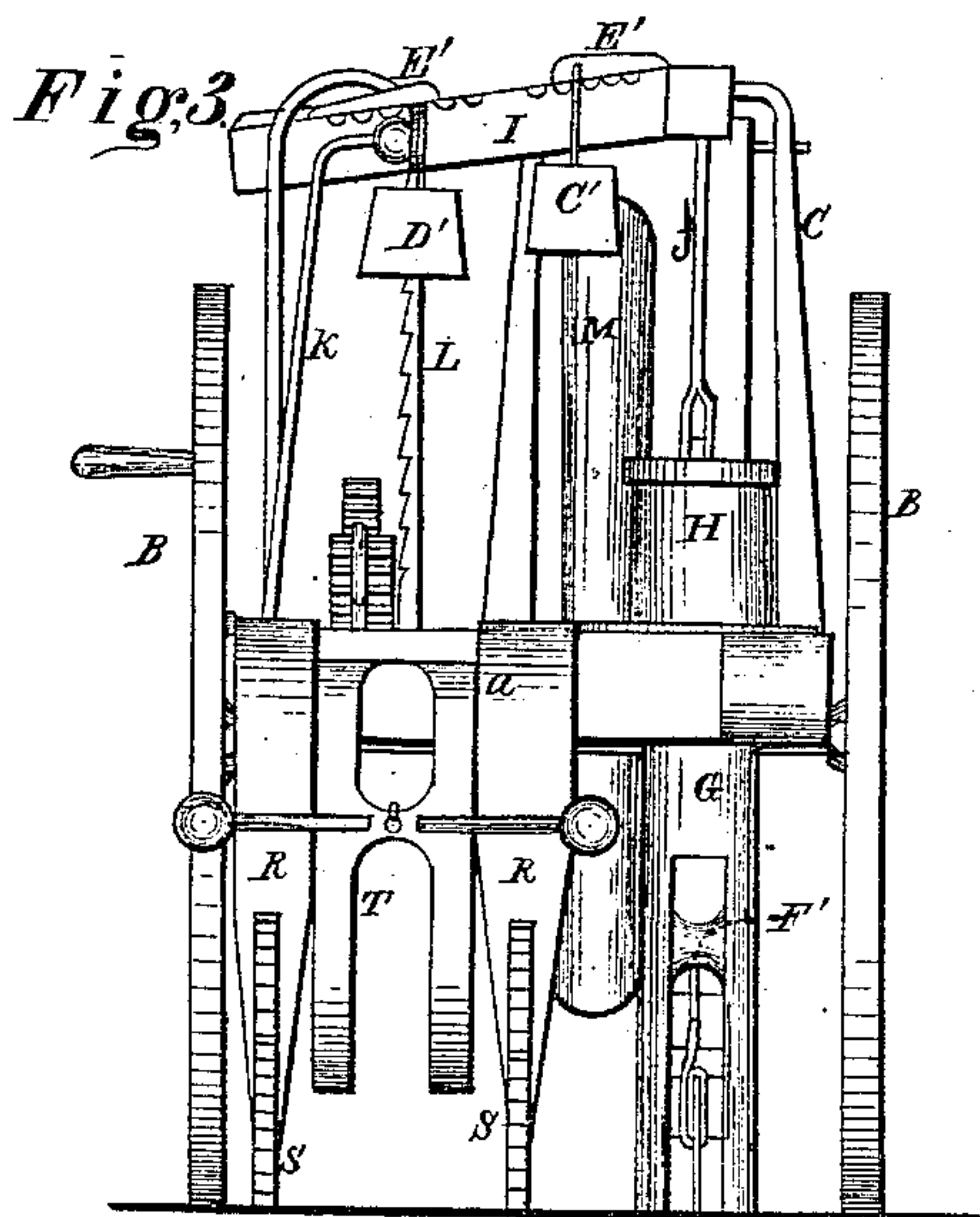
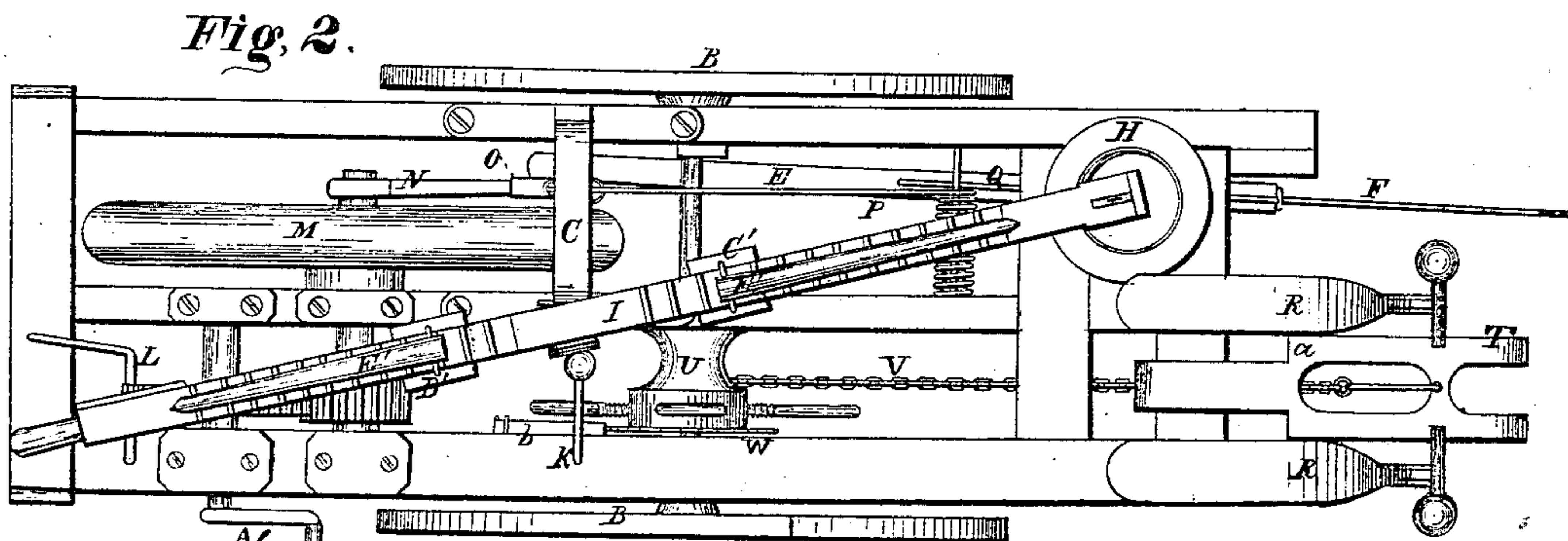
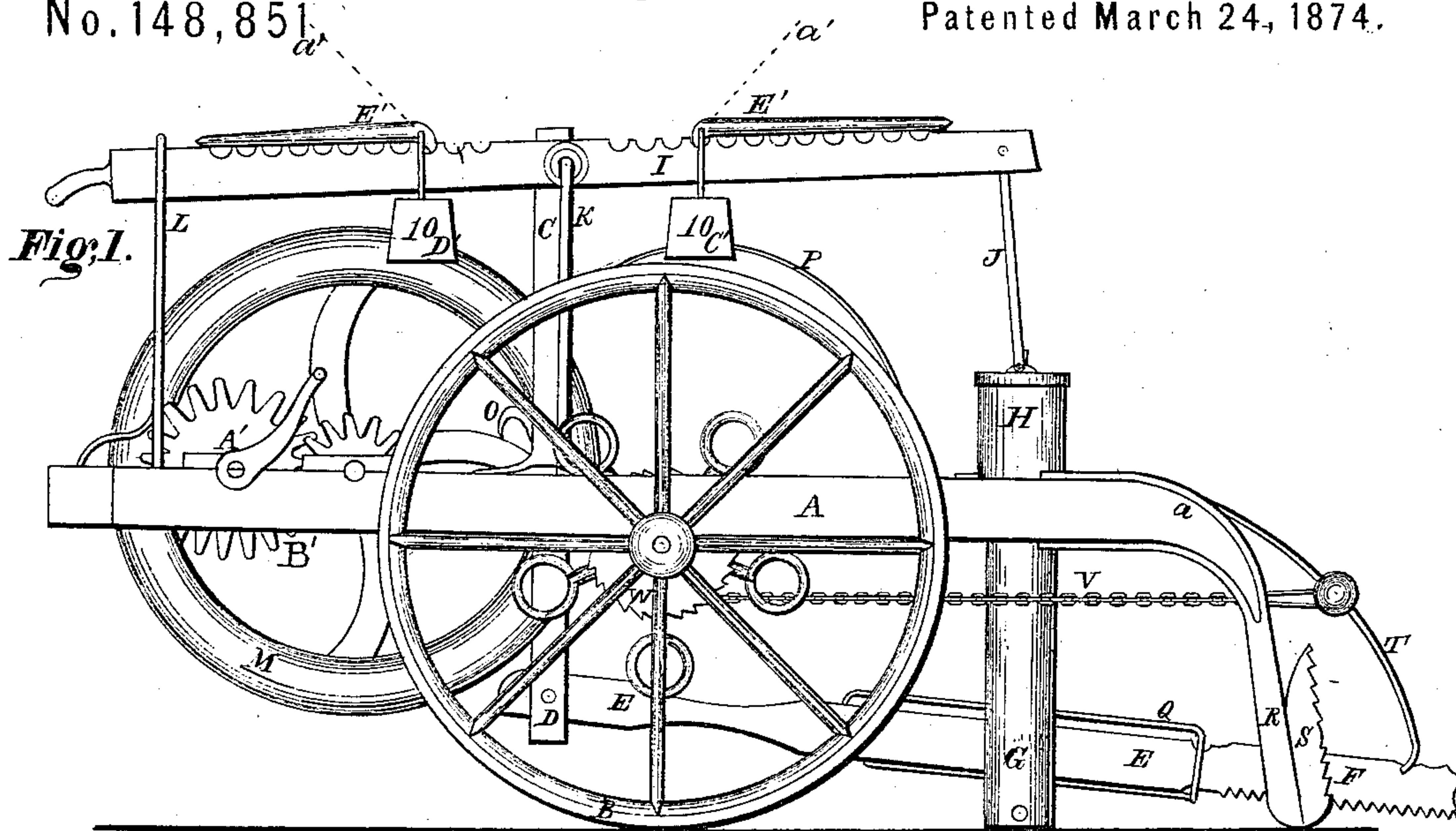


**S. G. ROSENBERGER.**  
**Sawing-Machines.**

No. 148,851

Patented March 24, 1874.



*Witnesses.*  
*A. J. Cornett.*  
*E. H. Old.*

*Inventor.*  
*S. G. Rosenberger.*  
*Per. Burridge & Co.*  
*Attorneys.*



# UNITED STATES PATENT OFFICE.

SAMUEL G. ROSENBERGER, OF SEVILLE, OHIO.

## IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 148,851, dated March 24, 1874; application filed February 12, 1874.

*To all whom it may concern:*

Be it known that I, SAMUEL G. ROSENBERGER, of Seville, in the county of Medina and State of Ohio, have invented a certain new and Improved Sawing-Machine, of which the following is a full and complete description, reference being had to the accompanying drawing making a part of this specification.

Figure 1 is a side elevation of the machine. Fig. 2 is a plan. Fig. 3 is an end elevation.

Like letters of reference refer to like parts in the several views.

The object of this invention is for cross-cutting logs, timber, &c., and which consists of a saw, driven by certain mechanical movements, operated by hand, in connection with which there is a dogging arrangement for holding the log while being sawed; also, certain devices for regulating the bite of the saw, and to protect it from being broken by any sudden strain or movement.

The construction and operation of the machine are as follows: In the drawing, A represents a frame mounted upon the wheels B. On said frame is erected a frame, C, in which is hung a pendulum, D, (Fig. 1.) To the end of the pendulum is attached a saw-beam, E, in which is secured the saw F. The saw-arm is held in a sliding guide, G, fitted loosely in a sleeve, H, so as to be moved vertically therein, for raising and lowering the saw by means of the lever I, attached thereto by the connecting-rod J. F', Fig. 3, is a friction-roller, sustaining the weight of the saw-guide upon the guard Q, and upon which it runs. The lever I referred to is supported on a standard, K, which serves as a fulcrum for its vibration. L, Fig. 3, is a rack for retaining the lever in any desired position. The pendulum is vibrated, for working the saw, by the fly-wheel M, to which it is connected by a pitman, N, (Fig. 2.) The connection of the pitman to the pendulum is not made directly thereto, but to a spring, O, (Figs. 1 and 2,) attached to the side of the pendulum. P is a spring; one end thereof is secured to the pendulum, and the other to the frame A. To the saw-beam E is secured a spring-guard, Q, (Fig. 1.) The purposes of the springs O P and the guard Q will hereinafter be shown. The dogging-device for holding the log consists of the hangers R, provided with concaved

serrated racks S. Between the hangers is pivoted a dog, T. At the point a, to the dog, is connected a windlass, U, (Fig. 2,) by means of a chain or cord, V, whereby the dog is drawn into the log. W is the ratchet of the windlass, and b the pawl, (Figs. 1 and 2.)

The above-described machine is operated as follows: The log to be sawed is laid across the front of the machine under the dog T, and close to the serrated racks S of the hangers, against which it is drawn hard by the dog on winding up the chain on the drum of the windlass. The saw is also lifted up for the accommodation of the log by means of the lever I. The log, on being properly adjusted, is now sawed by turning the crank A', thereby operating the gearing B', and consequently the fly-wheel and saw connected therewith. Should the weight of the saw be insufficient to feed it down into the log, the weight C' can be shifted along towards the end of the lever or beam on which it hangs, more or less, according to the hardness of the wood. In the event the log is of soft wood, and the weight of the saw of itself is sufficient to make it cut, the weight C' can either be moved back, or the weight D so adjusted as to counterbalance it. By a careful adjustment of the two weights the feed of the saw can be easily and exactly gaged according to the hardness of the wood. In the event the saw on going through the log should meet with knots, or any sudden resistance in its way downward, the strain on the saw will be eased by the guard Q, which will yield in the guide to any unusual or sudden pressure, and thereby save the saw from bending or breaking. And so, also, should the saw meet with any unusual strain in its reciprocating movement the shock upon the mechanism and upon the saw will be eased by the spring P on one side of the pendulum, and the spring O on the other. By these springs is avoided the danger of breaking the saw and the machinery, and at the same time it causes the pendulum to vibrate with uniformity, and with little or no jerky motion. The weights D' and C' are secured to the lever or beam by the clamps E', which, on being turned down, as shown in the drawing, will hold the loops of the weight in the notches on the lever, but which are released therefrom so that they can

be moved along by turning the clamps up, as indicated by the dotted line *a*, Fig. 1.

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

1. The lever I, weights D' and C', and clamps E', in combination with the slide-guide G, saw-beam or arm E, and vibrating lever or pendulum D, substantially in the manner as described, and for the purpose set forth.

2. The pendulum D, springs O P, in combination with the saw-arm E, and connecting-rod or pitman N, in the manner substantially as described, and for the purpose specified.

3. The serrated concaved racks S, with the

hangers R thereof extending upward and lapping onto the frame A and secured thereto, in combination with the dog T, chain V, and windlass U, substantially in the manner as described, and for the purpose specified.

4. The combination of the spring-guard Q, saw-arm E, saw-guide G, and roller F', substantially in the manner as described, and for the purpose set forth.

SAMUEL G. ROSENBERGER.

Witnesses:

W. H. BURRIDGE,

E. HESSENMUELLER.