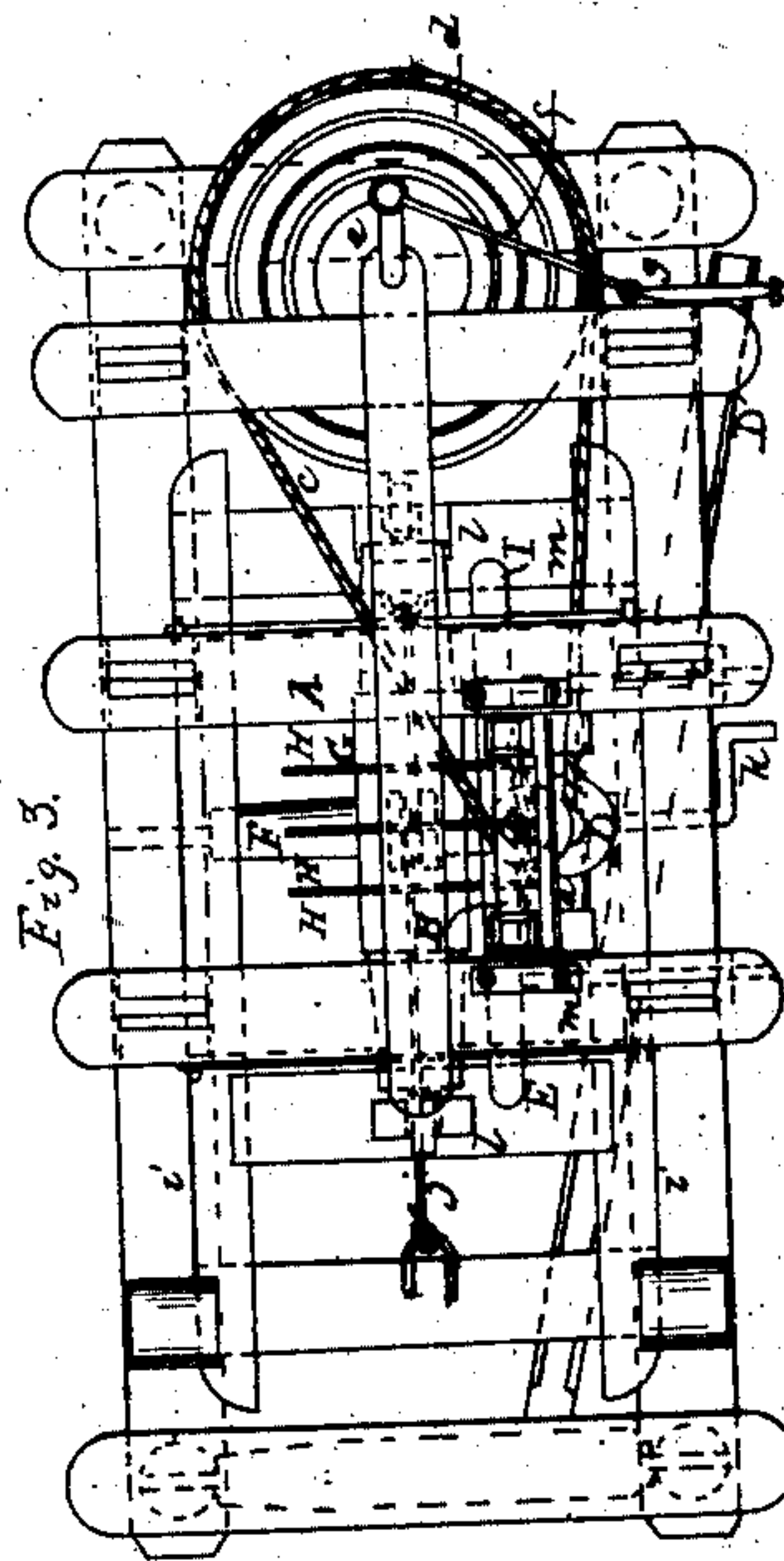
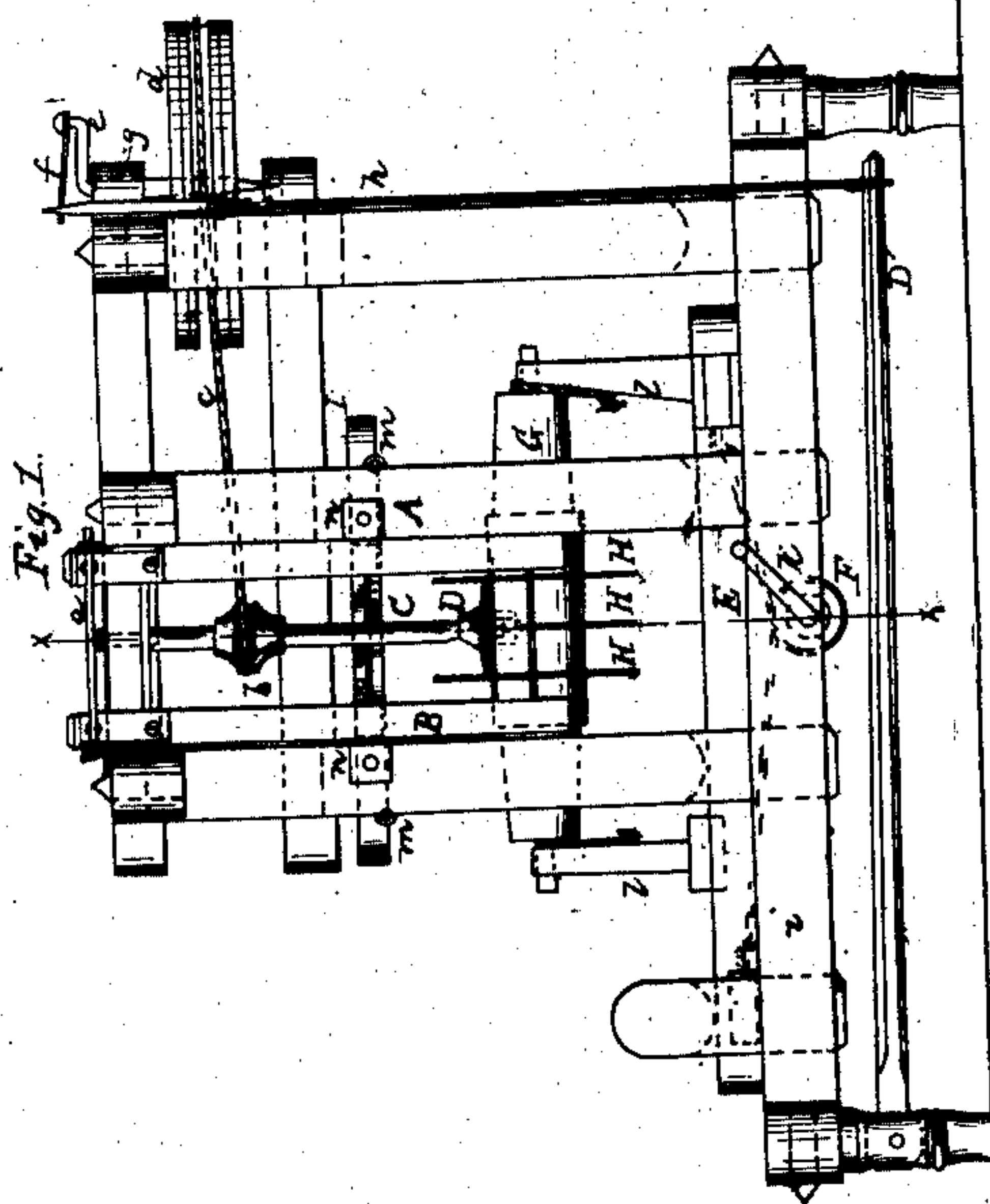
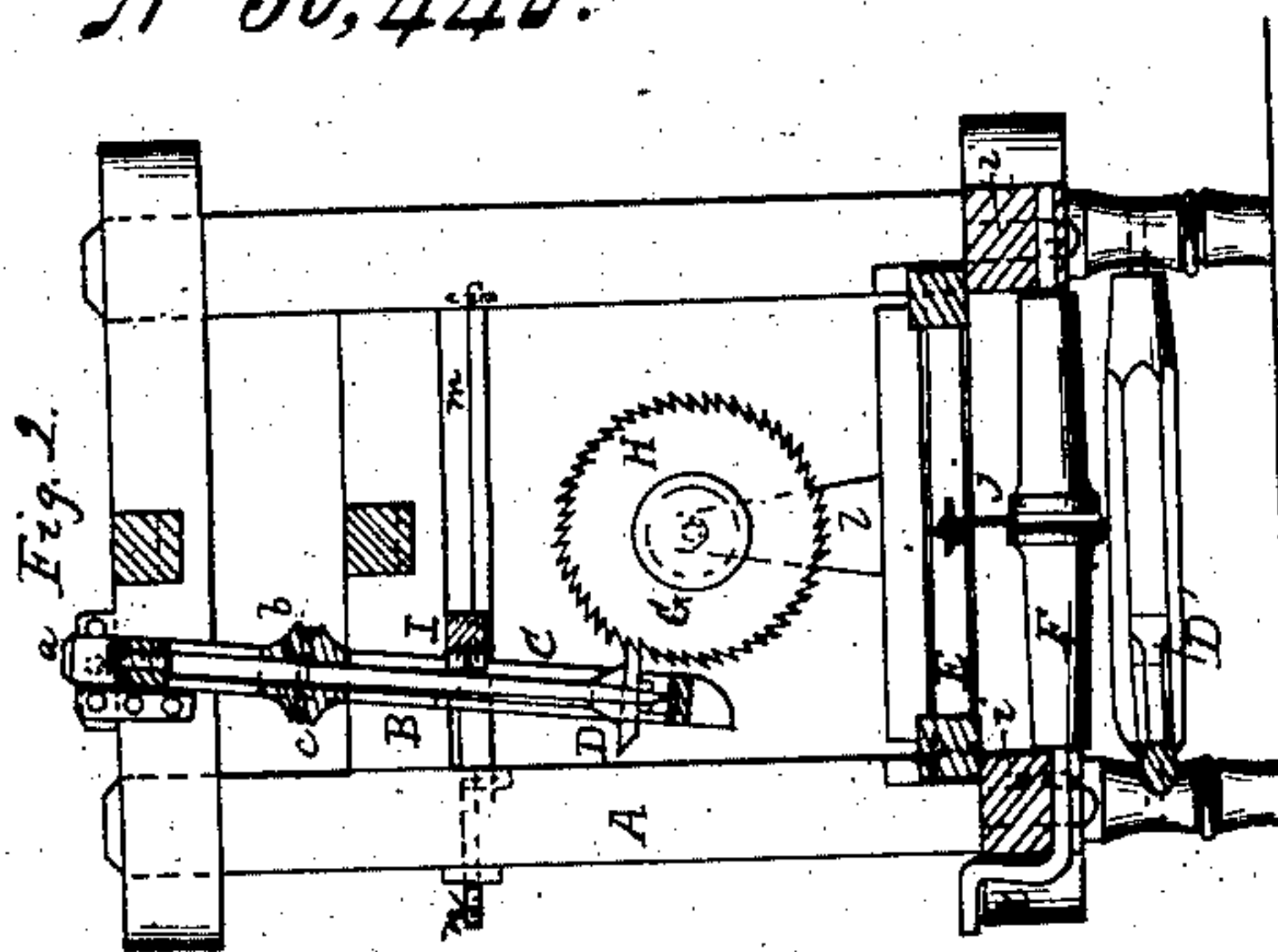


*S. Yeatman*

*Sharpening Rotary Saws.*

*N<sup>o</sup> 30,442.*

*Patented Oct. 16, 1860.*



Witnesses

*W. Combs*  
*R. L. Spence*

Inventor

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# UNITED STATES PATENT OFFICE.

SAMUEL YEATMAN, OF PROVIDENCE, ALABAMA.

## FILING GIN-SAWS.

Specification of Letters Patent No. 30,442, dated October 16, 1860.

*To all whom it may concern:*

Be it known that I, SAMUEL YEATMAN, of Providence, in the county of Pickens and State of Alabama, have invented a new and useful Machine for Filing Gin-Saws; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side elevation of my machine. Fig. 2, a transverse vertical section of the same taken in the line *x, x*, Fig. 1. Fig. 3 a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a rectangular frame in the upper part of which a smaller frame B, is suspended on a rod *a*, the frame B, being allowed to swing freely back and forth on said rod. In the frame B, there is placed a vertical arbor C, on the lower part of which a circular file D, is secured. This file D, has a plane upper surface but its lower surface is beveled so as to form a V-shaped edge as shown clearly in Figs. 1, and 2. The file is constructed of course of steel and cut in such a way that while rotating it may operate efficiently on the saws. On the arbor C, near its upper end there is placed a pulley *b*, around which a belt *c*, passes, said belt also passing around a wheel *d*, the shaft of which has a crank *e*, on it, said crank being connected by a pitman *f*, to a bent lever *g*, which is attached to the frame A, and is connected to a treadle D', by a cord or chain *h*, see Figs. 1, and 3.

In the lower part of the frame A, there is placed a carriage E, which is fitted on ways *i, i*, and allowed to slide freely in the frame A, to the right and left. To the ends of the carriage E, there is attached a cord or chain *j*, which passes around a shaft F, placed transversely in the frame A, at about its center. To one end of the shaft F, a crank *k*, is attached.

On the carriage E, there are two uprights *l, l*, one at each end. The upper ends of these uprights form bearings for the saw-shaft G, and said uprights are of such a

height as to bring the saws H, in a proper relative position with the file D, see Fig. 2, in which the file is shown cutting into a saw with its upper plane surface tangential with the shaft G. This position of the saws and file insures the proper form of the saw teeth. The saw shaft G, is allowed to turn freely in its bearings.

I, is a stop bar which is fitted on guide rods *m, m*, in the frame A, and is allowed to slide freely thereon. This bar I, is directly back of the frame B, and it may be adjusted at different points on the rods *m*, by screw rods *n, n*. To the bar I, at its outer side springs *o, o*, are attached, the use of which will be presently shown.

The operation is as follows. The operator by applying his foot to the treadle D', rotates the wheel *d*, and consequently the file D, and the latter by being pressed forward by the operator acts upon the saw directly in front of it and cuts the spaces between its teeth of the proper form the depth of the cuts being regulated by the bar I. When the frame B, is relieved of the pressure of the hand the springs *o, o*, throw outward the frame B, and the operator turns the crank F, with his right hand and thereby moves the carriage E, until the next saw is brought opposite the file D, and the operation is repeated the shaft G, being turned by the hand of the operator so that all the teeth of the saws will be sharpened the teeth of the several saws being acted upon consecutively and the carriage E, moved first in one direction and then in the other, the whole length of the line of saws, or, each saw may be finished at once, and the carriage E, moved only as each saw is finished. Thus by this simple device the desired work may be very expeditiously and perfectly done.

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

The arrangement of the saw shaft G, saws H and carriage E with the saw D, saw shaft C, swinging frame B, and spring stop bar I, as and for the purposes herein shown and described.

SAMUEL YEATMAN.

Witnesses:

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