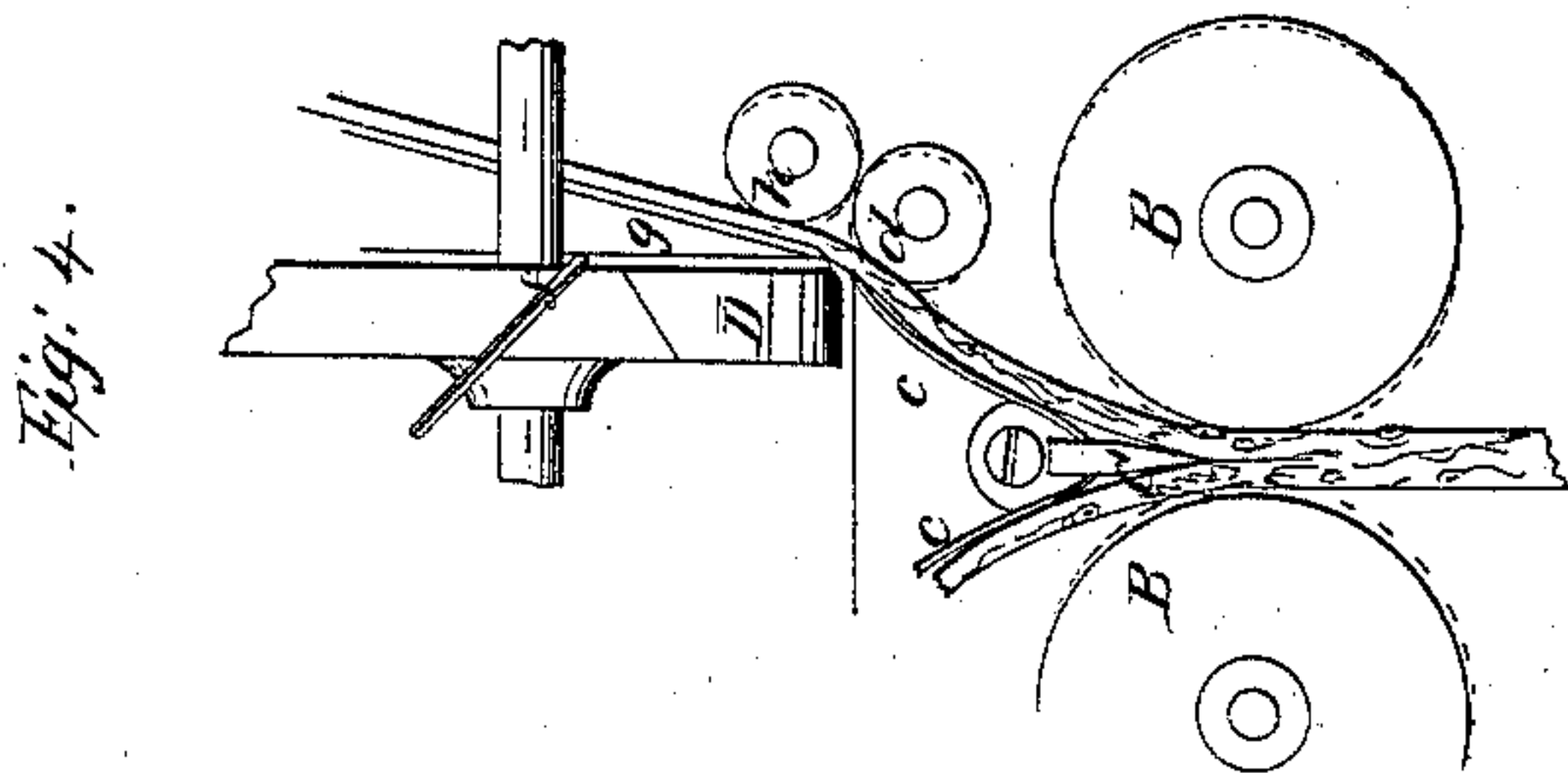
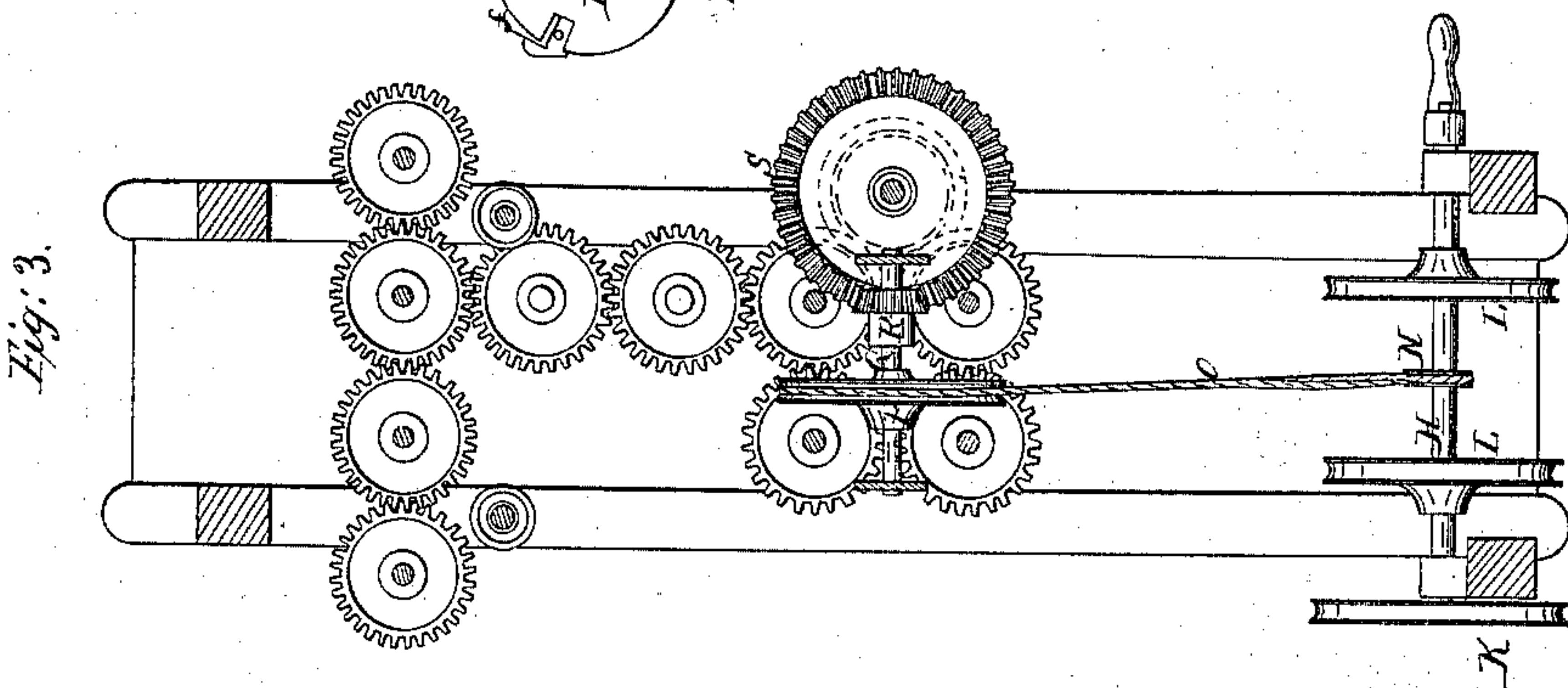
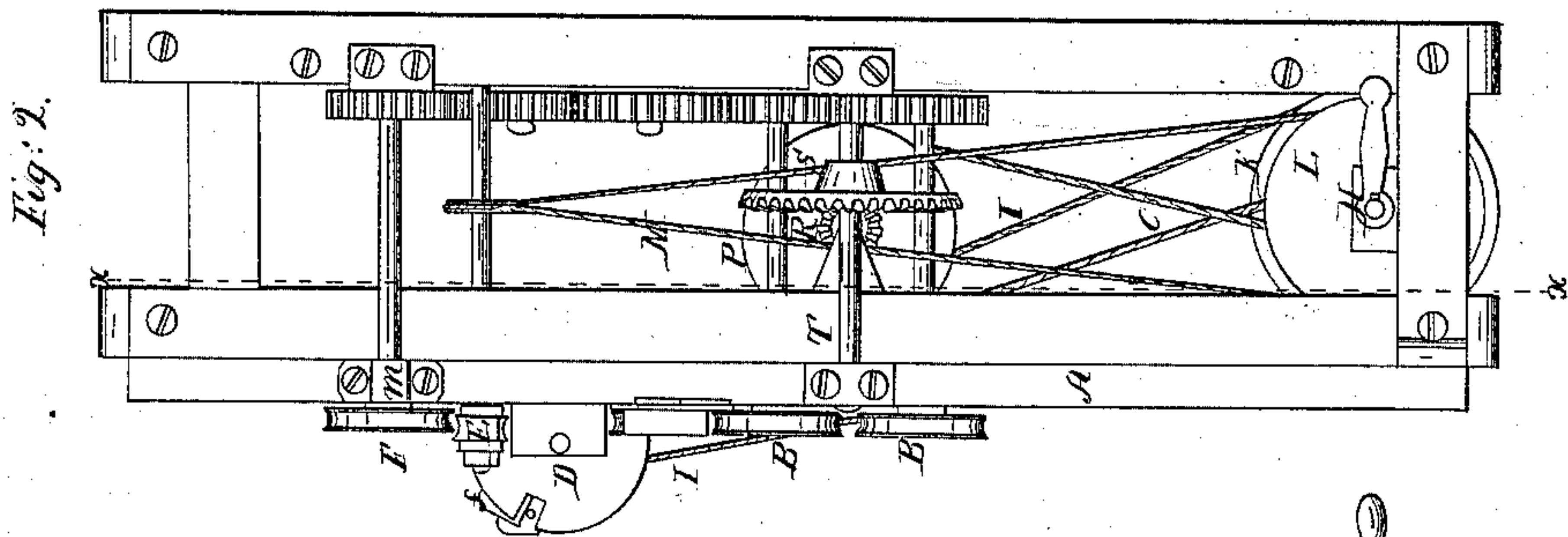
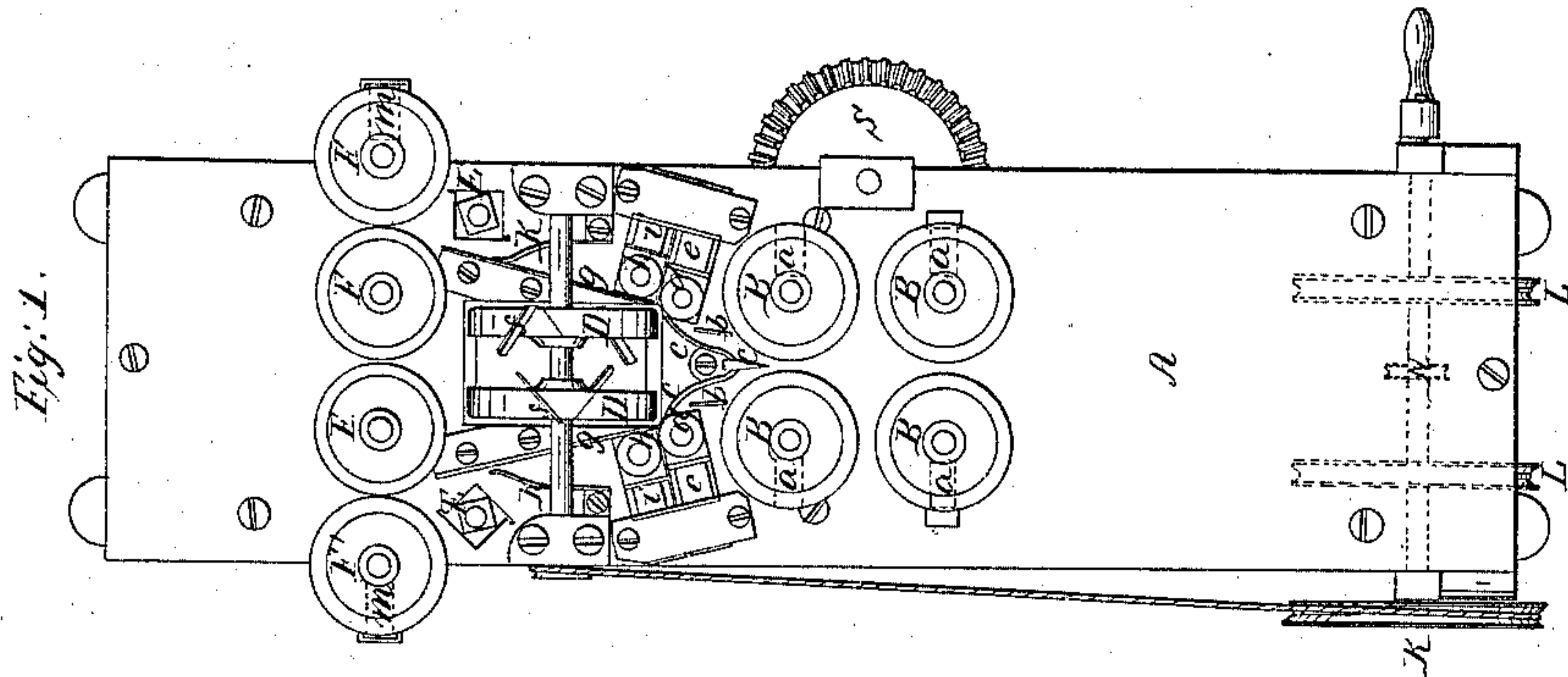


N. B. Wood,
Making Hoops.

N^o 15,865.

Patented Oct. 7, 1856.



UNITED STATES PATENT OFFICE.

WM. B. WOOD, OF FITCHBURG, MASSACHUSETTS.

HOOP-MACHINE.

Specification of Letters Patent No. 15,865, dated October 7, 1856.

To all whom it may concern:

Be it known that I, WM. B. WOOD, of Fitchburg in the county Worcester and State of Massachusetts, have invented certain new and useful Improvements in Machines for Splitting and Shaving Hoops, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, in which—

Figure 1, is a plan. Fig. 2, a side elevation. Fig. 3, a horizontal section upon the line x, x , of Fig. 2, and plan of the parts beneath. Fig. 4, detail drawing showing the operation of the splitting knife, and of the shaving cutters upon the hoop.

My invention has for its object to split the pole, and shave each half at one and the same time, the two hoops being thus completed at a single operation.

To enable others skilled in the art to understand my invention, I will proceed to describe the manner in which I have carried it out.

In the accompanying drawings, A, is the bed of the machine,—B, the feeding rolls, which are kept up to their work by the springs a , seen dotted in Fig. 1. These rolls yield as the size of the pole varies, and deliver the latter to the stationary knife C, by which it is split through the center. The two halves are each then directed by the stationary guides b , past the edge of the spring guides c , against which the hoops are pressed by the rolls d , that are kept up to their work by springs e . The interior surface of each hoop is then shaved by the cutters f , upon the revolving cylinders D, D'. During this operation the planed surfaces of the hoops are pressed up against the stationary guides g , by the rolls h , which are furnished with springs i operating in a manner similar to the springs e . The guide g , forms an angle with the plane of revolution of the cutters f , and at its forward end approaches as near to the cutting point as may be, without interfering with the cutters, and thus the hoop is held firmly and

undeviatingly however irregular its interior surface may be in advance of the cutters. The hoop is then reduced to a uniform thickness by the revolving cutters E, during which operation it is held firmly to the rear of the guide g , by the spring guides k . The cutters E, may be set, so as simply to take off the knobs, or they may be caused to operate along the whole surface to reduce it to a uniform thickness. The hoops are then drawn out of the machine by the rolls F, F', the latter being forced up by springs m , seen dotted in Fig. 1. The pole is thus split and the two hoops are finished at a single operation.

Motion is communicated to the machine through the shaft H. The shaving cutters are operated by a band I, driven by the pulley K, upon the shaft H. This shaft also carries the pulleys L, which actuate through the bands M, the cutters E.

N, is a small pulley upon the shaft H, which gives motion through the band O, to the pulley P secured to the shaft Q. R, is a pinion upon this shaft which engages with the gear S, upon an auxiliary shaft T, from which as will be seen by the drawings motion is communicated by means of suitable intermediate cog wheels to the driving and drawing rolls B, F, and F'.

I do not claim splitting hoop poles by forcing them against the edge of a stationary knife—nor do I claim shaving them by means of revolving cutters—neither do I claim any of the individual devices employed, nor their combinations; but

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

The peculiar arrangement of the several parts of the within described machine, operating in the manner specified for the purpose of splitting the poles and shaving the hoops at one operation as set forth.

WM. B. WOOD.

Witnesses:

MOSES WOOD,
MARY C. WOOD.