

F. Parker.

Saw Mill.

N^o 94,638.

Patented Sept. 7, 1869.

Fig. 3.

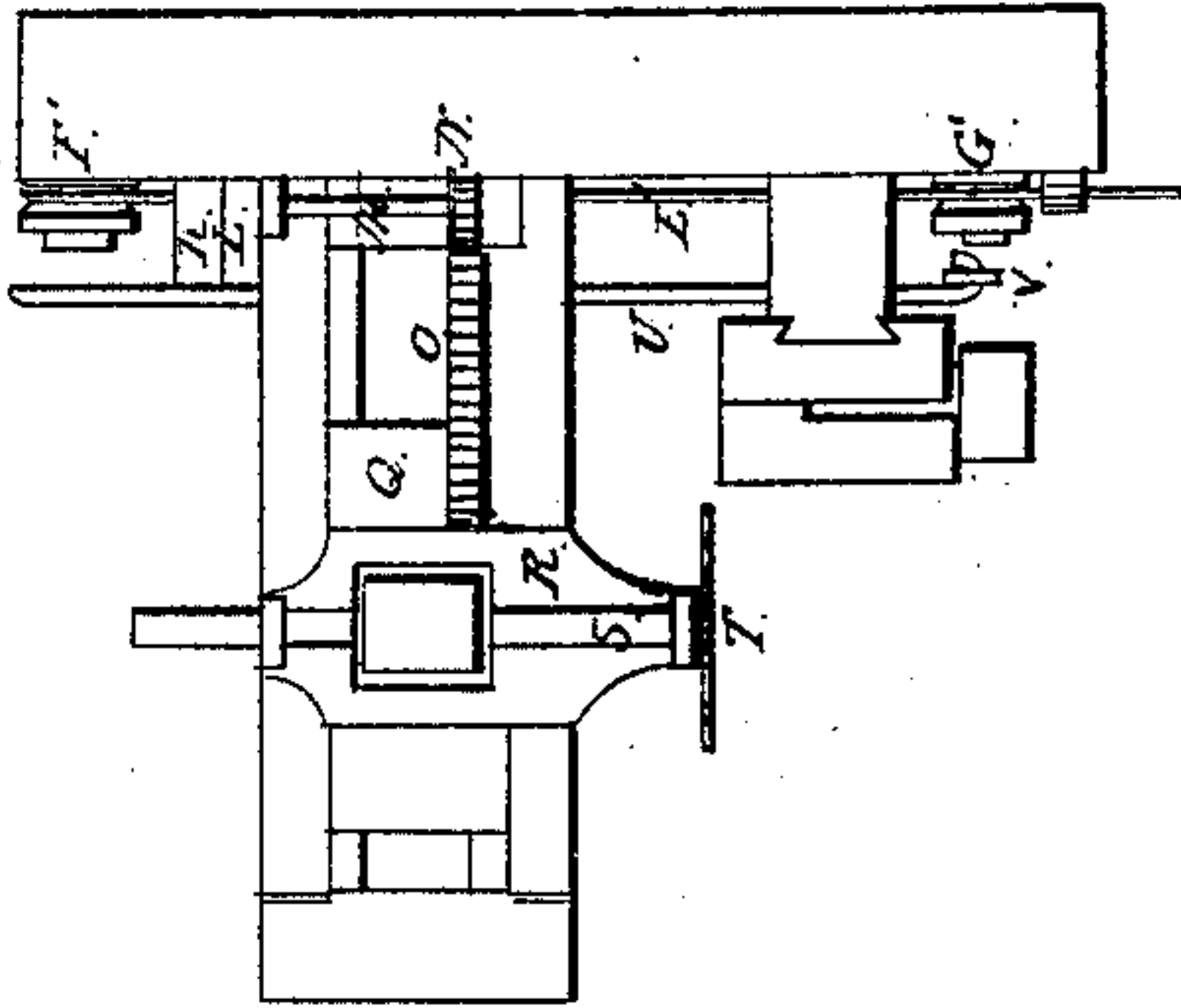


Fig. 1.

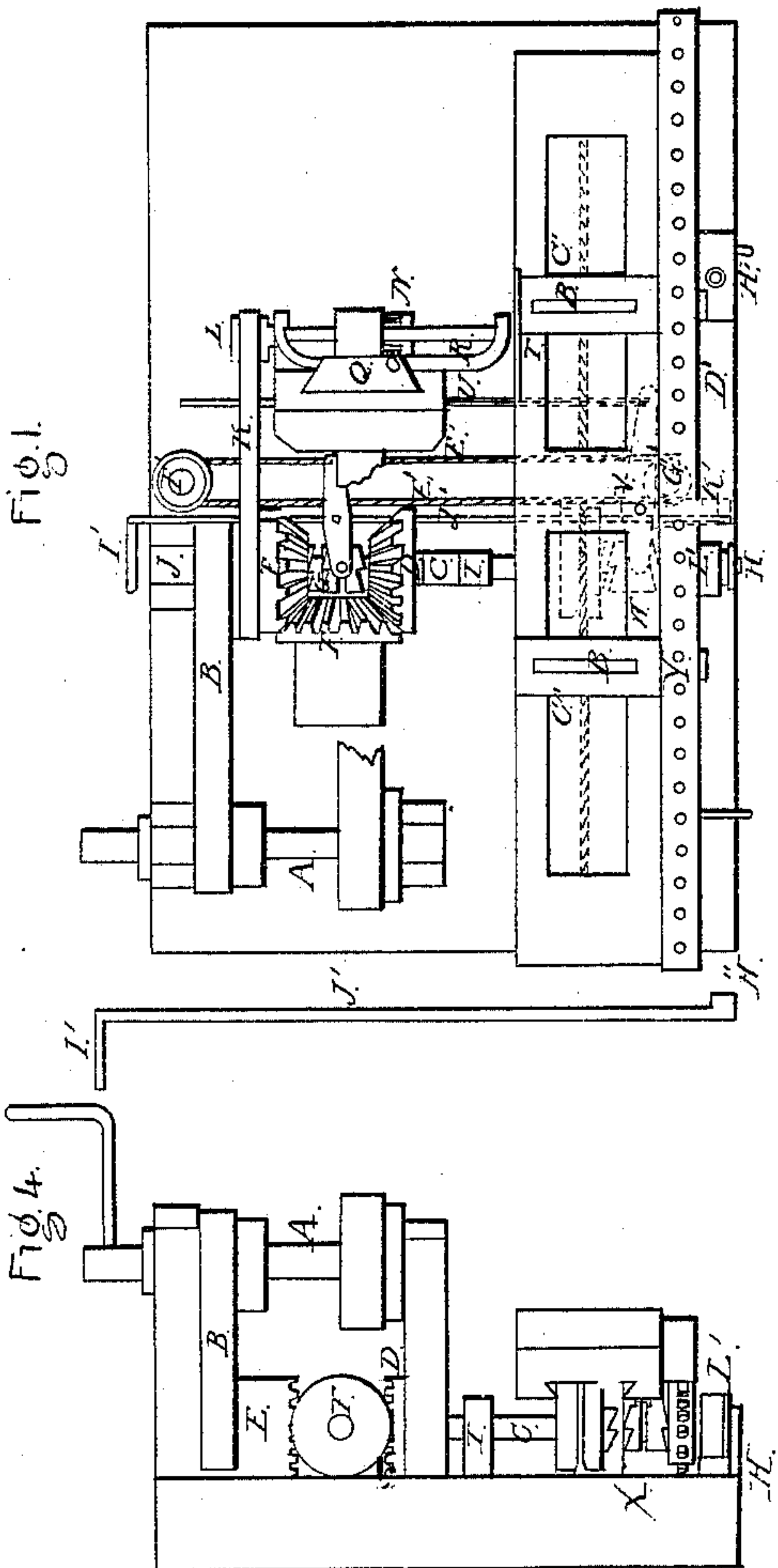


Fig. 2.

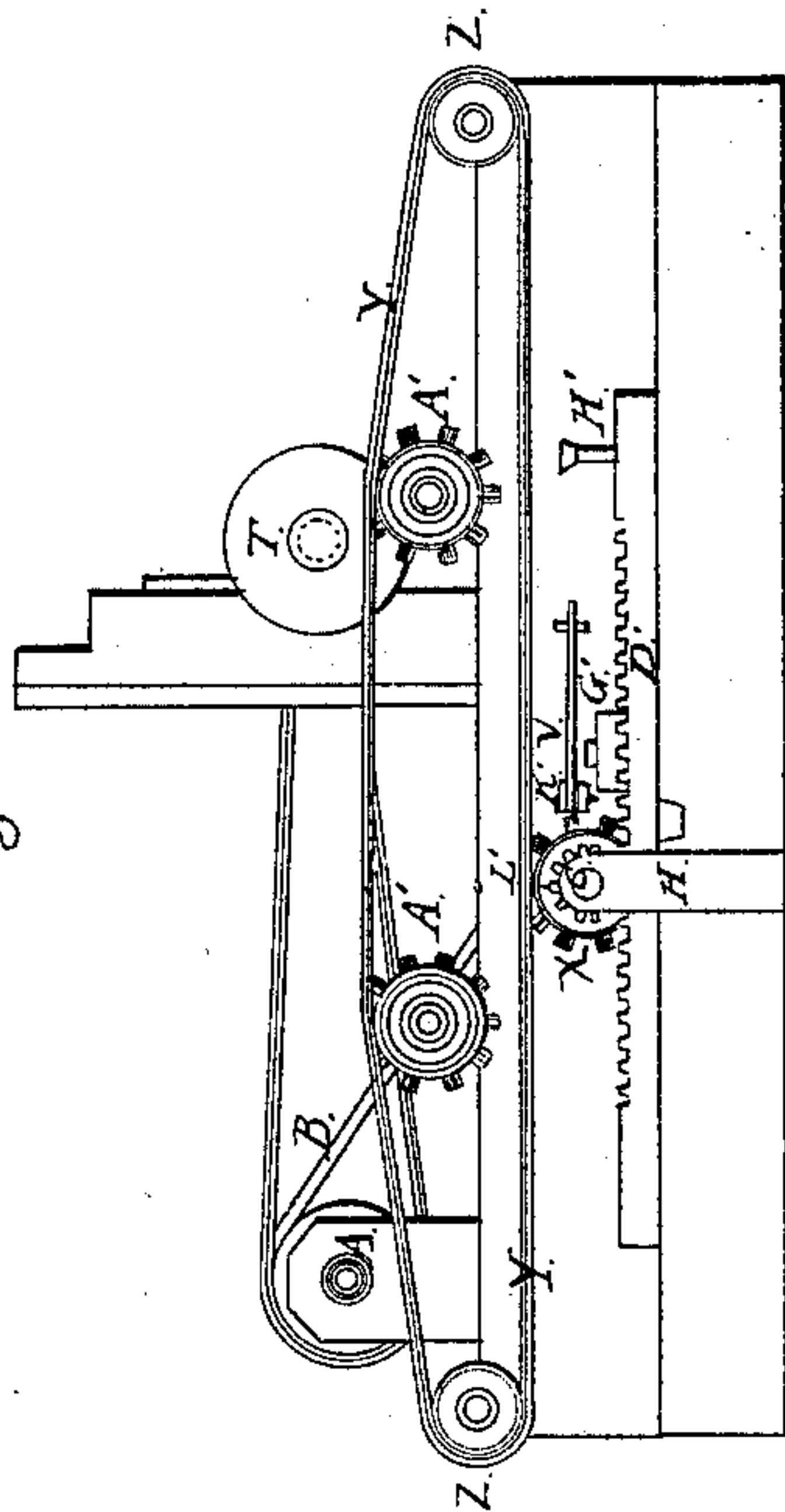
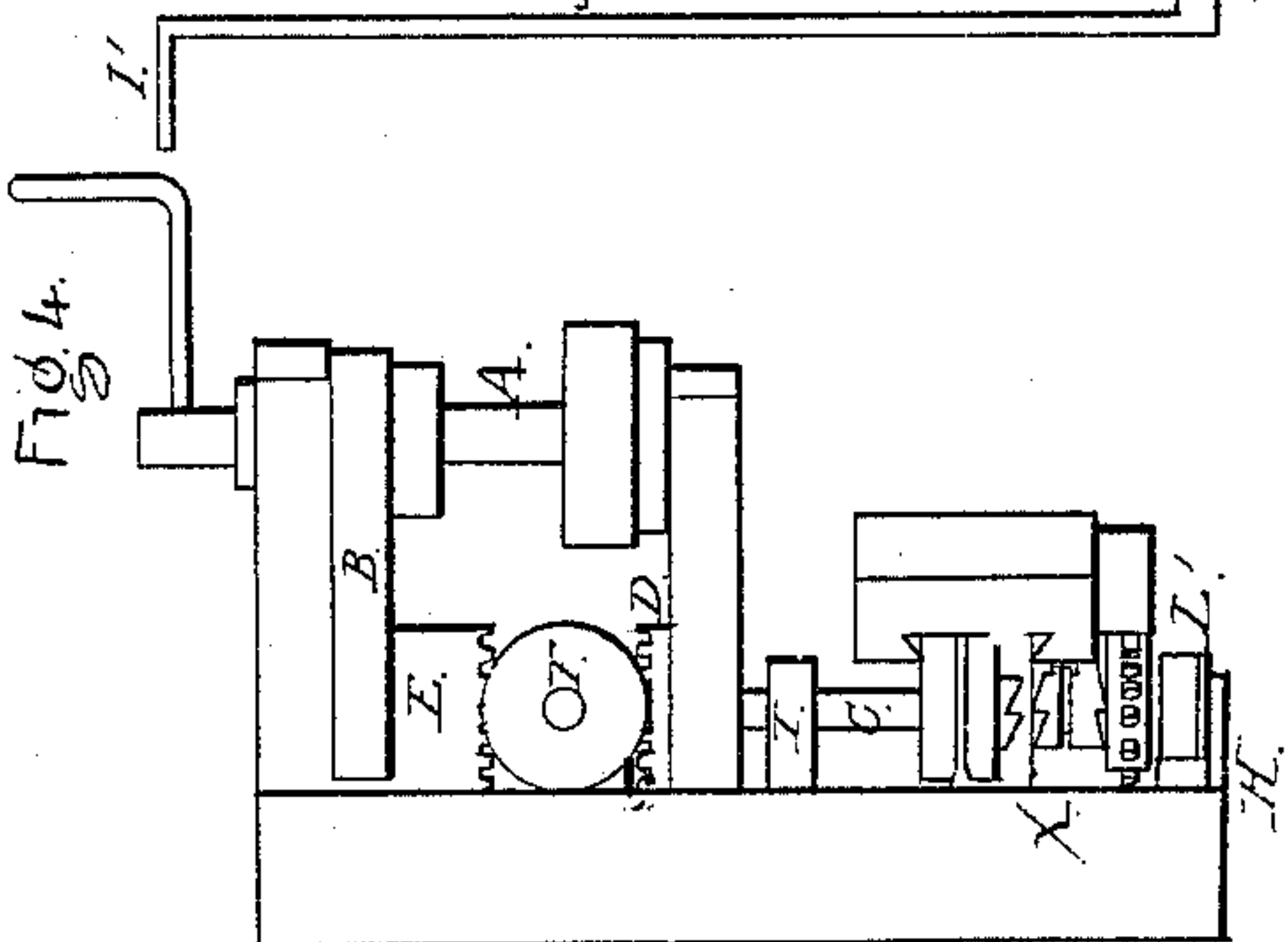


Fig. 4.



Witnesses:

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United States Patent Office.

FRANCIS PARKER, OF CATO, NEW YORK.

Letters Patent No. 94,638, dated September 7, 1869.

IMPROVEMENT IN CIRCULAR SAW-MILL.

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

To whom it may concern:

Be it known that I, FRANCIS PARKER, of the town of Cato, in Cayuga county, New York, have invented a new and improved mode of constructing Saw-Mills, or Mills for Cutting Lumber from Logs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of this invention is to save time in operating mills used in cutting lumber from logs. And to attain this object, I make the power that propels the saw do the work of feeding up the log after the saw has passed through.

And also the use of the same power to raise the circular saw for the purpose, in large timber, of cutting half the depth of the entire cut by one passage of the saw above the log, and then lowering the saw the proper distance, to allow the same to pass under the log, and by a reverse motion of the carriage, complete the cut.

In order that others may know how to make and use my invention, I will proceed to describe its construction and mode of operation.

Figure 1 is a plan of the several parts of my invention;

Figure 2 is an elevation of one side, showing some of the parts and their relation to each other;

Figure 3 is a view of one end; and

Figure 4 is a view of the opposite.

A is the driving-shaft, from which all the parts of the mill are driven.

The belt B connects the shafts A and C.

On the shaft C are two bevel-wheels, D and E. Both engage the wheel F.

The shaft C is stationary, except when turned by connecting the clutch G with the wheel D.

The shaft C has three bearings at H I J, and it extends through the entire width of the mill.

The belt K passes around the same pulley with the belt B.

This pulley and the wheel E are made of one piece, and turn freely on the shaft C.

The belt K passes over the pulley L, on the shaft M, on which is a pinion, N, engaging the rack O, the upper end of which is attached to the slide Q.

This slide has attached to it the mechanism R, supporting the saw-mandrel S, on which hangs the saw T.

When it is desirable to raise the saw, the belt K is tightened so as to turn the shaft M; and by its connection with the saw above described, the saw will be raised to any desirable height, and is secured in that position until it is required to be lowered.

This is accomplished by the gravitating force of the weight of the slide, mandrel, and saw, regulated by

a friction-brake, acting against the pulley L, or by taking hold of the same with the hand, and by this means, controlling its descent to the point required.

This completes the description and mode of operating one part of my invention, that of raising and lowering the saw, for the purpose above described.

The rod U and lever V operate the clutch W.

When the clutch G is made to engage the wheel D, motion is given to the shaft C.

By pulling the rod U, causing the clutch W to engage the wheel X, (see fig. 2,) the band or chain Y is set in motion, carrying with it the pulleys Z Z, and the two wheels A' A', connected with and operating the screws B' B' in the head-blocks C' C'.

Ordinary saw-mill dogs may be used in these head-blocks, and the screws B' B' inserted through nuts attached thereto, but as these are not of my invention, nothing further need be said of them here.

D is a rack, and is operated by the chain or cord E'.

Said cord is looped around the pulley F'.

The cord on the left-hand side of said pulley, as represented in the drawings, is brought forward and passed around G', (shown partly in dotted lines,) and taken to the right-hand end of rack D', and attached thereto. The cord on the right-hand side is passed around the same pulley and fastened to the opposite end of said rack.

To the rack D' is affixed a stub, H'.

Beneath the rack D' is a rod, J', with a wing, H'' projecting from the side thereof.

Said rod extends to the opposite side of mill, and has the end I', bent up at right angles to the main portion. This is used for a handle.

The distance between the stand H' and the end of the lever K', projecting out from and forming a part of the lever V, determines the distance the feed will operate in moving the log toward the saw.

After the saw has passed through the log, and while the carriage is at rest, by bearing down the handle I', on the rod J', the wing H'' will lift the rack into gear with the pinion L'. Then, by aid of the rod U, the clutch W is made to engage the wheel X, the pinion L' being attached thereto, the log will be fed forward until the stand H' strikes the end of the lever K', and disengages the clutch from the wheel X.

Having above described the construction and mode of operating my invention,

What I claim as new, and wish to secure by Letters Patent, is—

The belt K, pulley L, shaft M, pinion N, rack O, and slide Q, constructed and arranged to operate substantially as described, and for the purpose specified.

FRANCIS PARKER.

Witnesses:

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