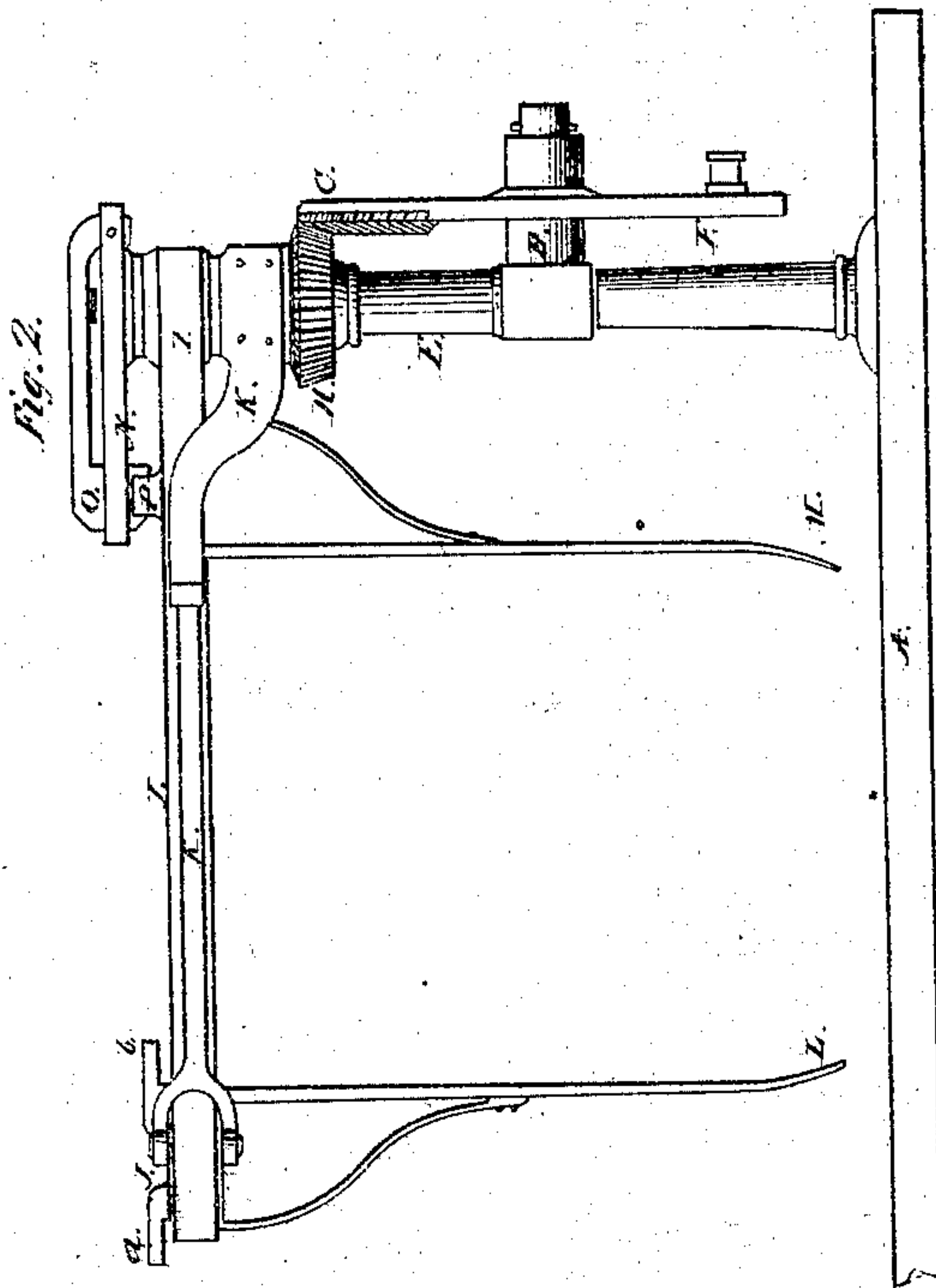
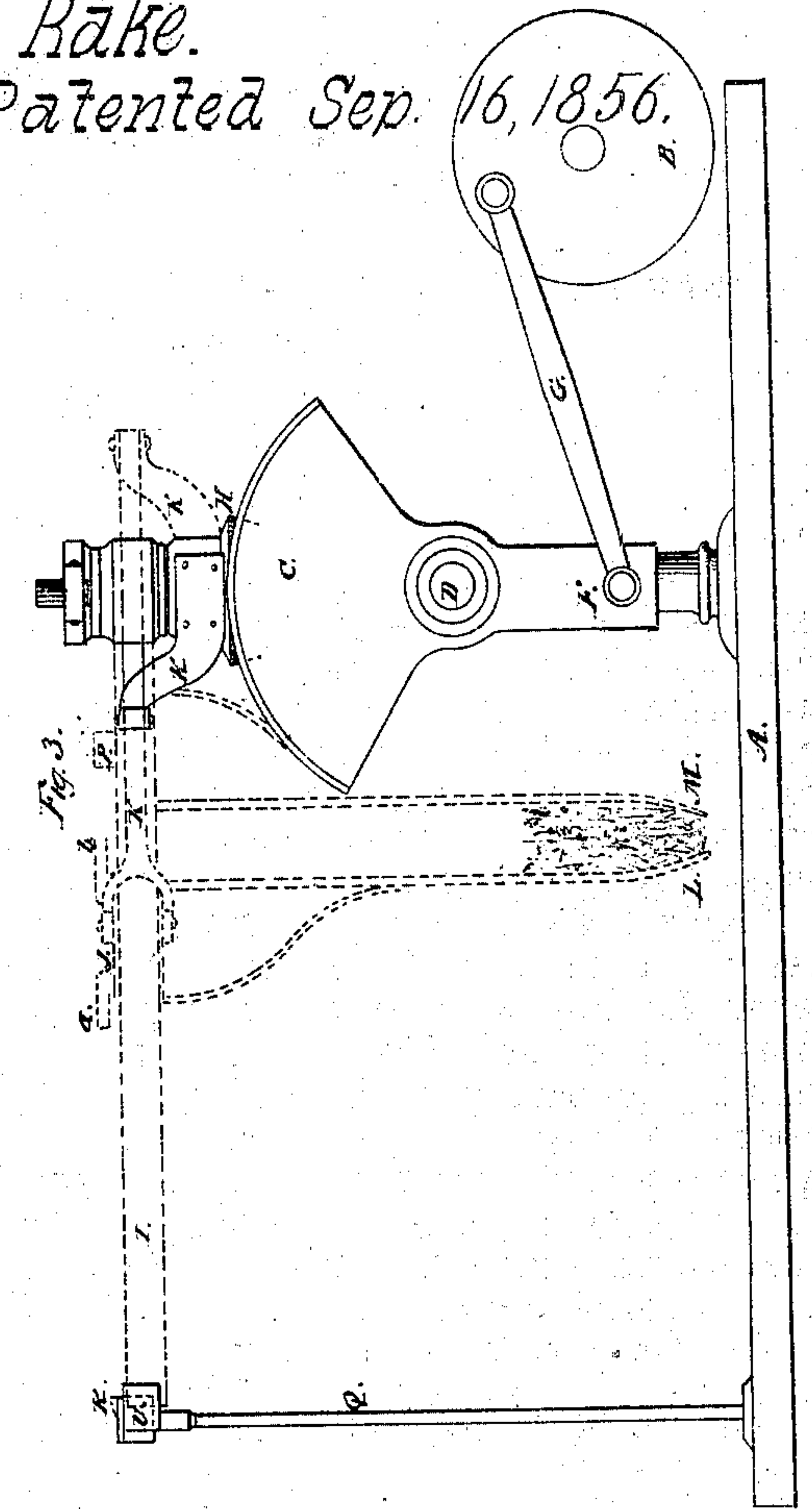
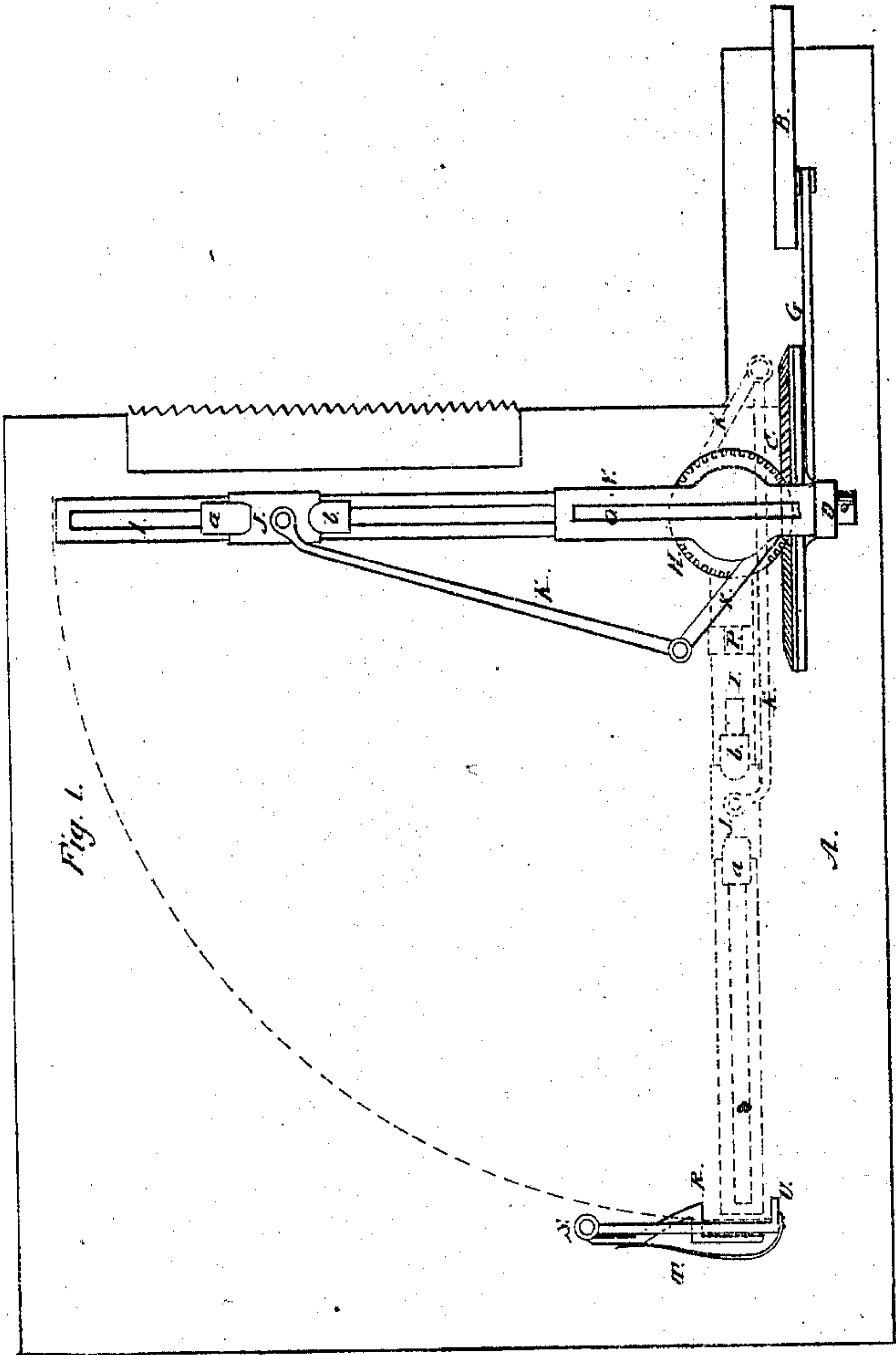


*J. Whitehead.*

*Harvester Rake.*

*Patented Sep. 16, 1856.*

*N<sup>o</sup> 15751*





# UNITED STATES PATENT OFFICE.

J. WHITEHEAD, OF MANCHESTER, VIRGINIA.

## IMPROVEMENT IN SELF-ACTING RAKES FOR HARVESTERS.

Specification forming part of Letters Patent No. **15,751**, dated September 16, 1856.

*To all whom it may concern:*

Be it known that I, JESSE WHITEHEAD, of Manchester, in the county of Chesterfield and State of Virginia, have invented certain new and useful Improvements in Self-Acting Rakes; 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 thereof, in which—

Figure 1 represents a top plan. Fig. 2 represents in elevation the position of the parts when the rake is about to gather up a gavel from the platform. Fig. 3 represents in elevation the position of the parts when the rake is about to deliver the gathered gavel on the ground in rear and to one side of the machine.

Where similar letters of reference occur in these separate figures they denote the same parts of the machine in all.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A is a frame, which may in part represent the platform and in part the frame of any ordinary harvesting-machine.

B is a wheel on the frame, which may be driven from the main wheel of the harvester or by any other moving part thereof. A segmental wheel, C, is hung at D to an upright, E, and the projecting end F of said segmental wheel C is attached to the wheel B by a connecting-rod or pitman, G, so that the rotary motion of the wheel B shall communicate a vibratory motion to the segment C.

On the face of the segment C is a series of beveled cog-teeth which take into a beveled pinion, H, which is loose on the column or upright E, and gives to said pinion a reciprocating rotary motion on said upright.

Over the pinion H, and also arranged loosely on the shaft or upright E, is placed an arm, I, upon which a carriage, J, is placed, and to said carriage is fastened one end of a toggle-lever, K, the other end of said lever being fastened to the hub of the pinion H.

To the under part of the carriage J is fixed a traveling rake, L, and on the arm I, near to its hub or turning-point, a rake, M, toward and from which the traveling rake L moves.

On top of the column E is permanently attached an arm, N, on which a latch, O, is piv-

oted, so that it may rise and fall, and on the arm I is a catch, P, into which the latch O drops, and when the latch is thus in the catch the arm I is locked and cannot move until the latch is raised up. On the column Q is arranged another latch, R, pivoted to the column at S and controlled by a spring, T. On the column Q is also arranged an arm, U, having its end bent around so as to form a stop to the traveling arm I. When the arm I swings around into the position shown at Fig. 3 it is locked there by the latch R and cannot move until the latch is removed; but during the rest of the arm I, while it is latched, the carriage J is free to move over the whole length of its ways on said arm, and at either end of the carriage J are arranged the projecting pieces *a b*, the former for opening the latch R and the latter for raising the latch O to release the arm I. I would here mention that I contemplate the placing of the latch R on the standard E, and thus dispense with the column Q. It can be operated there as readily as where it is now.

It will be remembered that both the pinion I and the arm J are loose on the column E. They can therefore have motions either together or independent of each other, as the case may be, and, although they are connected by the lever K, yet the toggle-joint in said lever still admits of their independent movement.

The operation is as follows: In Figs. 1, 2, the rake is in position, just in rear of the cutters, to commence the gathering of a gavel. The latch O being down, of course the arm I cannot move. Now, as the pinion turns it draws, by means of the lever K, the carriage J and rake L with it along on the arm I, said rake forcing the cut grain along against its fellow M. This motion continues until the projection *b* strikes underneath the latch O and raises it out of the catch P. The arm I is now released and it swings around a quarter of a circle, by the action of the lever K, until its end passes the spring-latch R, as shown in red lines in Fig. 1, when it is again locked, and the rake L is now ready to release its gavel and return back along the arm I, which it does by the reversed action of the pinion H, until the projection *a* strikes against and pushes away the spring-latch R, which again releases the arm I, and it immediately swings around into its former position, and ready for the next operation.

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

1. The combination of the swinging arm I and traveling carriage J, moving together and independent of each other by means substantially such as described, and for the purpose set forth.

2. Locking the arm I at each end of its trav-

erse movement, so that the rake cannot swing around while the carriage J and rake L reciprocate to gather and discharge the gavel, substantially as herein described.

JESSE WHITEHEAD.

Witnesses:

A. B. STOUGHTON,  
E. COHEN.