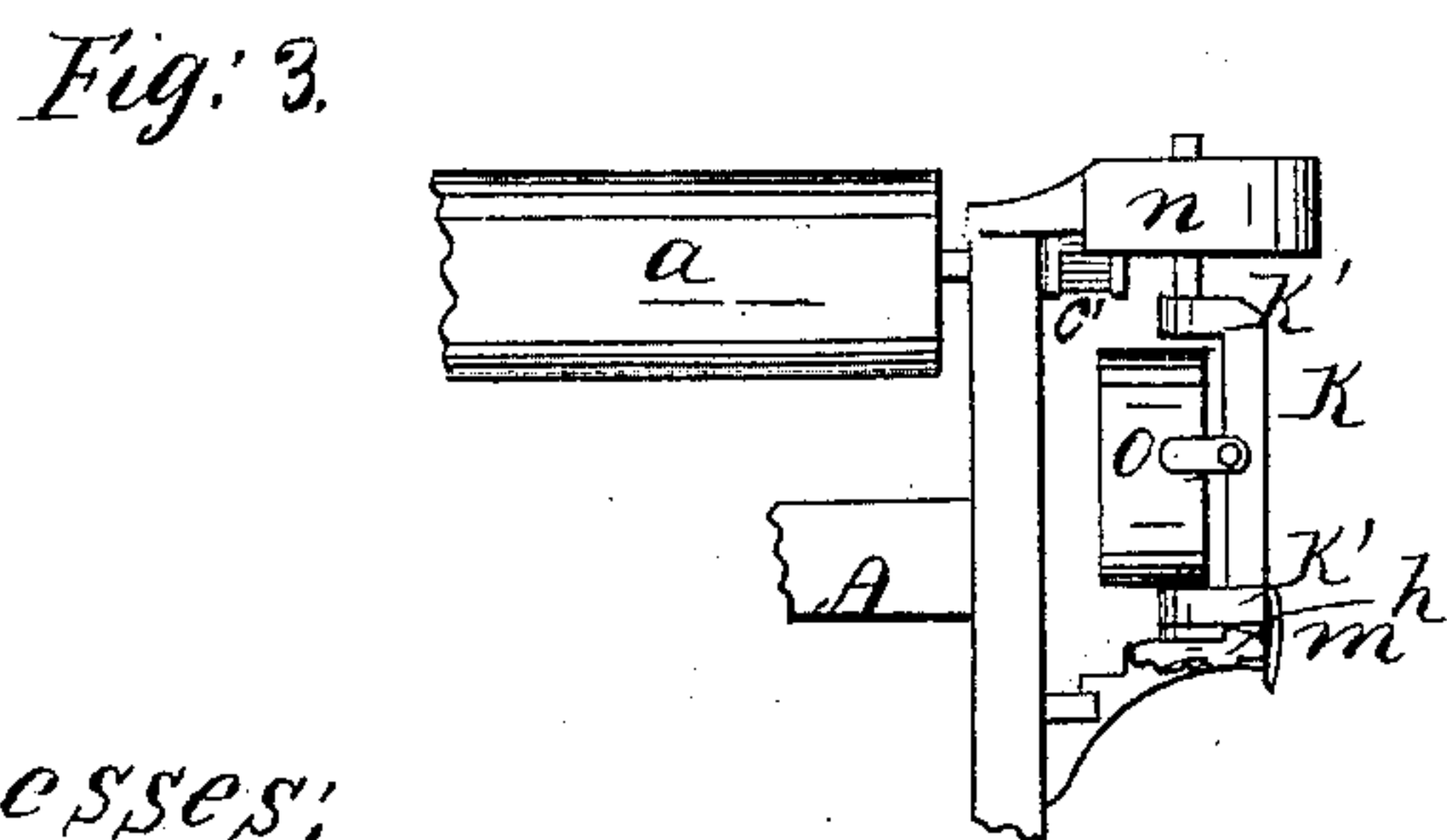
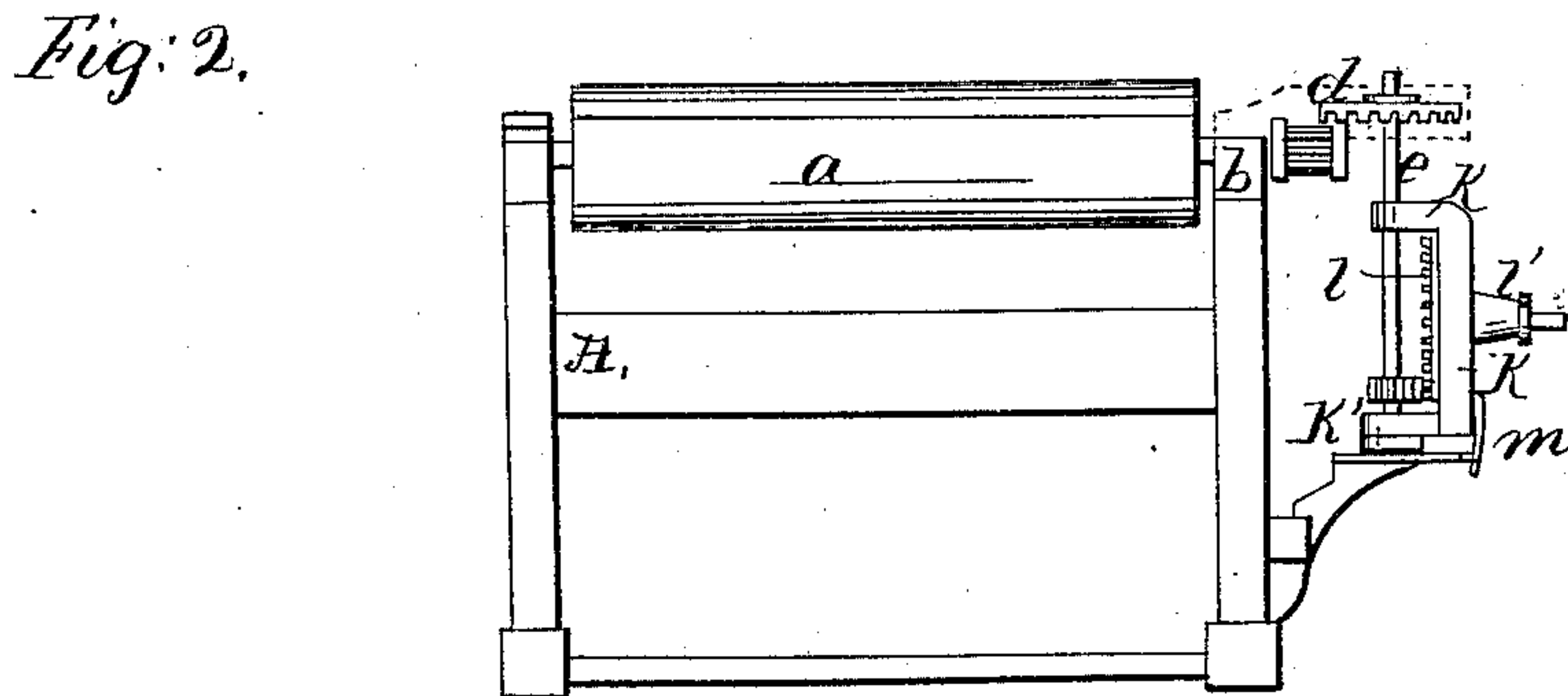
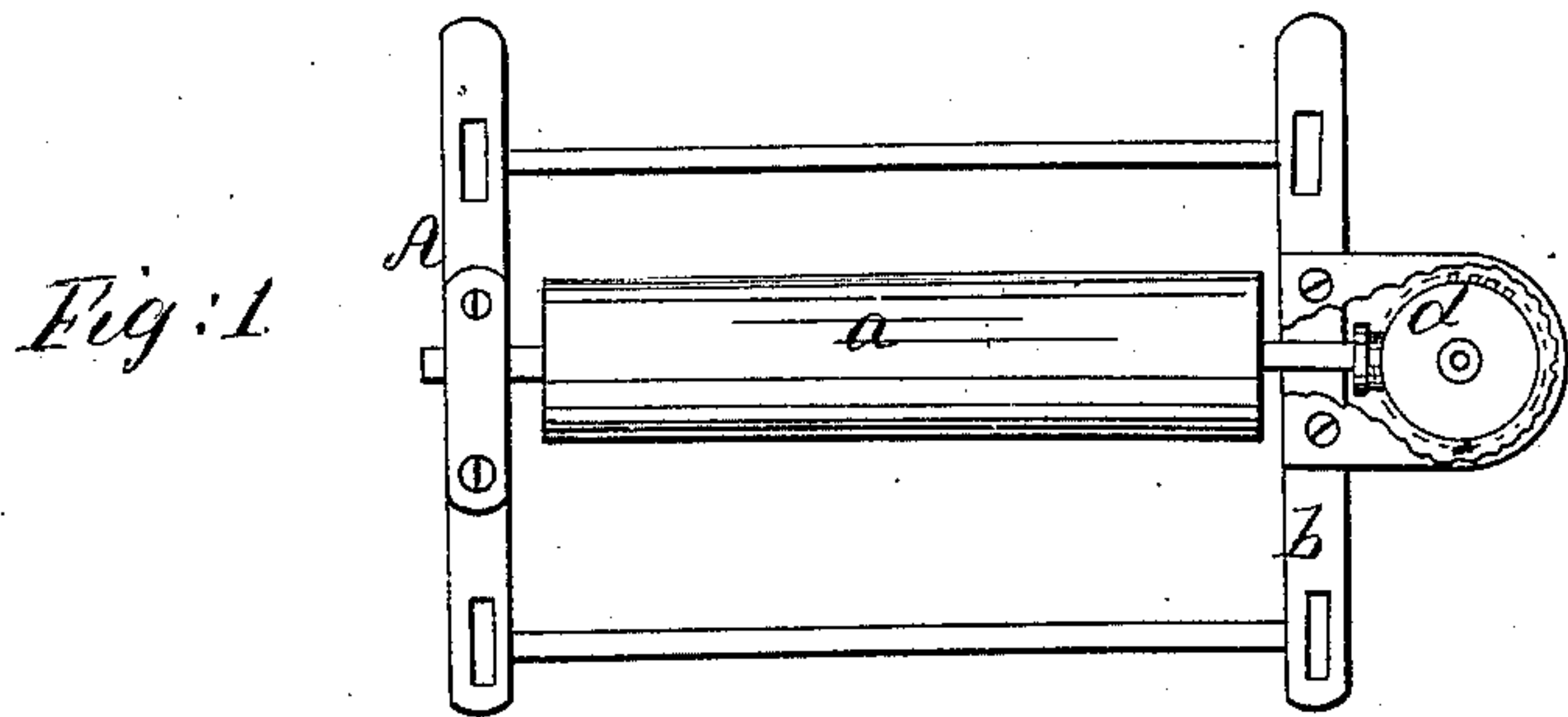
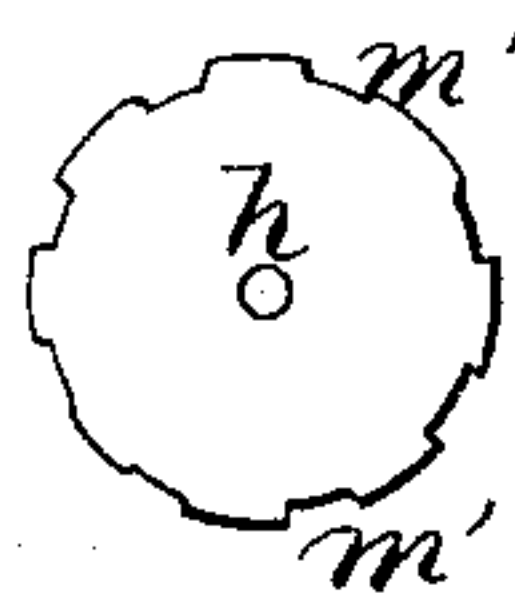


*J. Duchesne,*  
*Machine Gearing,*  
*Nº 78,582, Patented June 2, 1868.*



*Fig: 4.*



*Witnesses;*  
*C. E. Brown*  
*Frederic Thomas*

*Inventor;*  
*John Duchesne by*  
*Geo. E. Brown Atty*

# United States Patent Office.

JOHN DUCHESNE, OF LACON, ILLINOIS.

*Letters Patent No. 78,582, dated June 2, 1868.*

## IMPROVEMENT IN SIDE-GEAR FOR THRESHING-MACHINES.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN DUCHESNE, of Lacon, in the county of Marshall, and State of Illinois, have invented an Improved Side-Gear for Threshing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification, of which—

Figure 1 is a plan view,

Figure 2 a side elevation,

Figure 3 a view of the coverings of the gears, and

Figure 4 a plan view of the foot-plate.

This invention consists of a mechanism for effecting the connection between a horse-power and a threshing-machine, such that the position of the one may be changed, when desired, without moving the other, as will hereinafter more fully appear.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the frame of a threshing-machine.

*a* represents the cylinder whence motion is communicated to the working parts. One of the journals of said cylinder is prolonged, so as to project beyond the cross-beam *b*, in which it rests, and to the projecting end a pinion, *c*, is attached, which gears with a spur-wheel, *d*, placed on the upper end of a vertical shaft, *e*, said shaft being at right angles with the axis of the pinion *c*. The shaft *e* is stepped in the circular foot-plate *h*, which forms the upper part of the bracket *h'*, secured to the lower portion of one side of the frame A.

A vertical swivelling-post, *k*, is loosely attached, by means of lugs *k' k'*, to the shaft *e*. To the lower part of said shaft, just above the lower lug *k'* of the post *k*, is rigidly attached a pinion, *i*, which gears with the spur-wheel *l*, which has its axis at the centre of the swivelling-post *k*, the said axis passing horizontally through said post, and projecting beyond the same far enough to present a point of attachment, *l'*, to the tumbling-rod of a horse-power.

It will be perceived that the power, thus derived by the axle *l'*, is communicated, by the gearing *l i c d* and the shaft *e*, to the cylinder *a*, and that, by means of this gearing, the speed of said cylinder is greatly increased, as compared with that of the axle *l'*.

*m* represents a spring-bar, projecting downward from the lower end of the swivelling-post *k*. *m'* represents depressions in the periphery of the circular foot-plate *h*, of a size to receive the said spring-bar. When the latter rests in one of the said depressions, the swivelling-post is thereby locked.

During the process of threshing it is sometimes found desirable to change the position of the separator, as, for instance, when the wind shifts, so as to prevent the straw from coming out of the tail of the machine. It is obvious that if this can be done without changing the position of the horse-power, a great saving of time and labor will be effected. By the common system of connecting the horse-power and separator this cannot be done, but, by the use of my invention, it can easily be done, as it is only necessary to unlock the swivelling-post with which the horse-power is connected by withdrawing the spring-bar *m* from that one of the depressions *m'* in which it may happen at the time to be resting, and swing the frame A, with its separating-machinery, round on the swivelling-post as a pivot.

For the protection of the machinery, I place the cap *n* over the gearing *c d*, and the case *o* over the gearing *l i*, the latter admitting of being drawn on or off at pleasure, by means of slots *r*, which are covered by the lugs *k' k'*, when the case is in position.

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

1. The swivelling-post *k*, for the purpose of rendering the connection between a horse-power and separator adjustable, substantially as described.

2. The combination of the swivelling-post *k*, spring-arm *m*, and notched foot-plate *h*, as and for the purpose set forth.
3. The combination of the swivelling-post *k* with the gearing *l i c d*, and shaft *e*, as and for the purpose set forth.
4. The cap *n*, in combination with the gearing *c d*, as and for the purpose set forth.
5. The slotted case *o*, in combination with the gearing *l i* and swivelling-post *k*, as and for the purpose set forth.

JOHN DUCHESNE.

Witnesses:

JOHN B. DUCHESNE,  
JAMES SWEENEY.