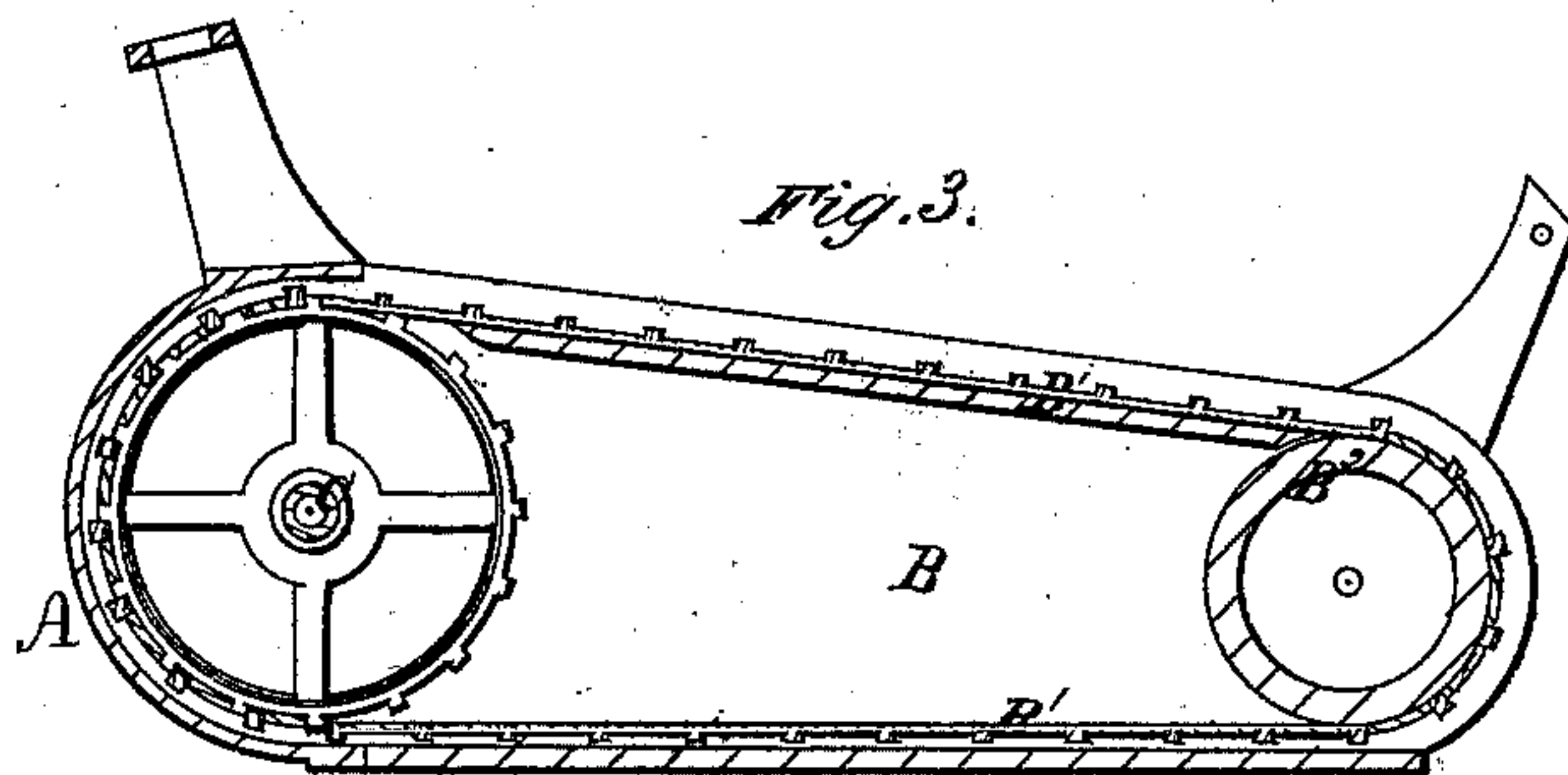
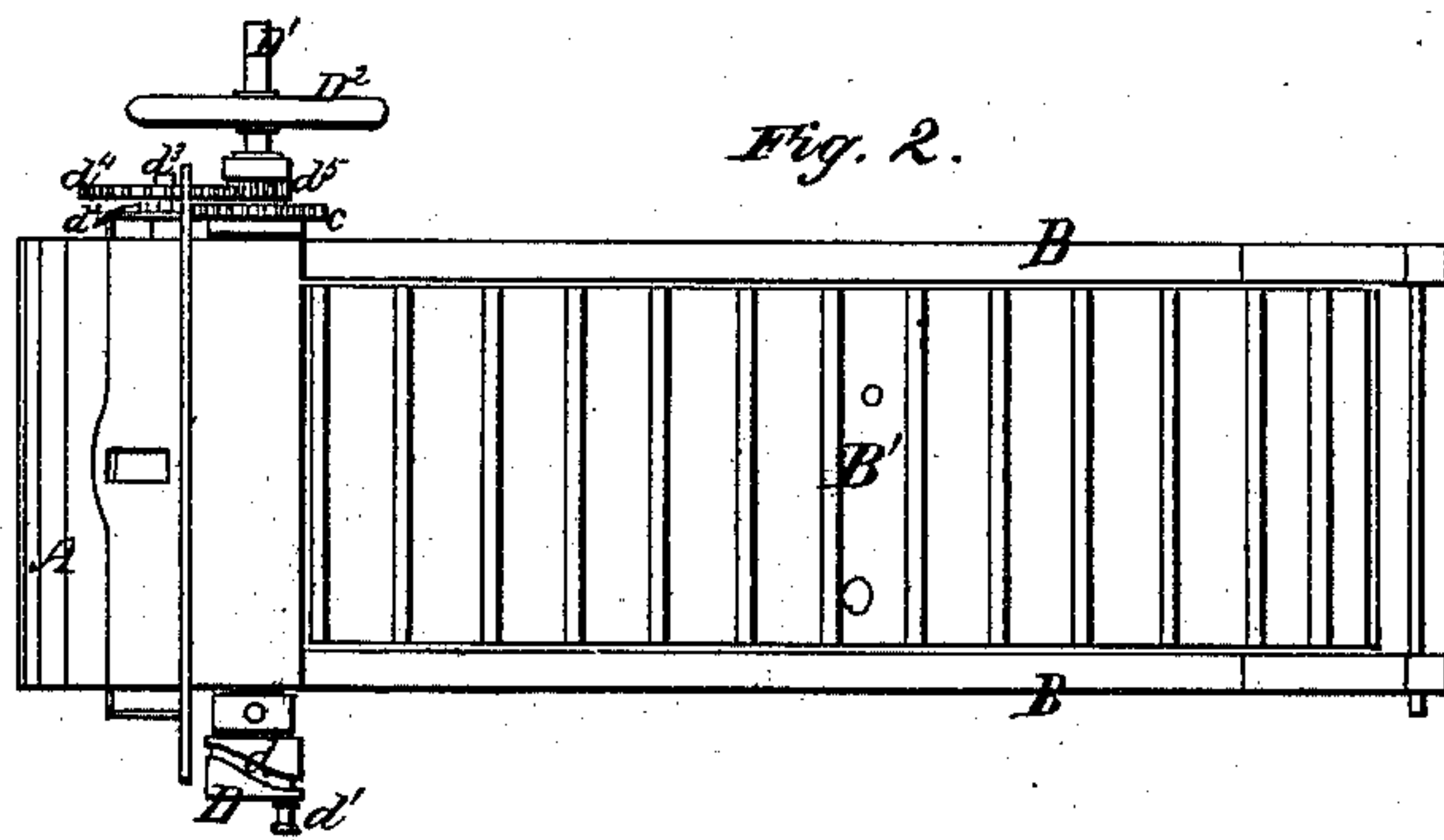
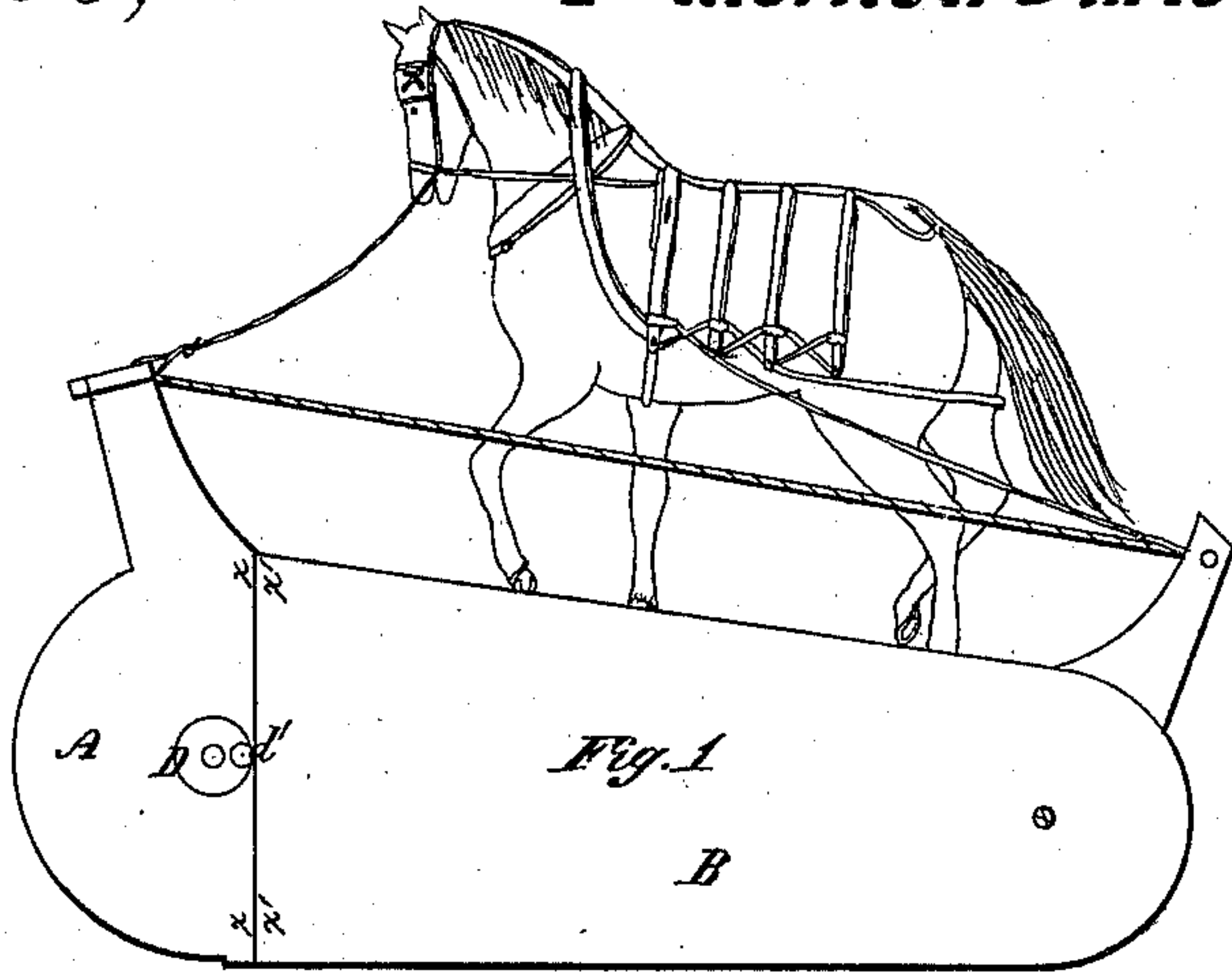
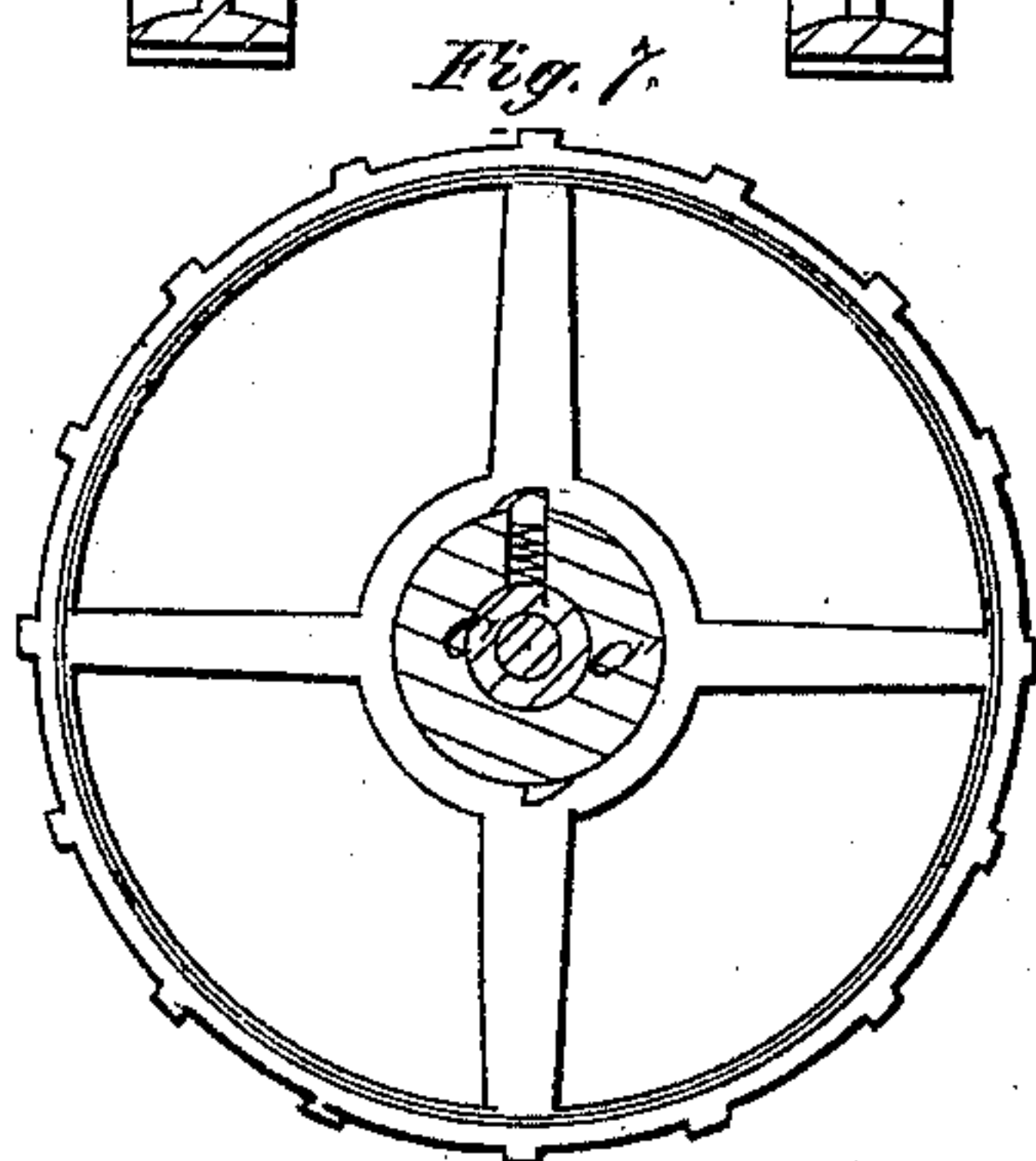
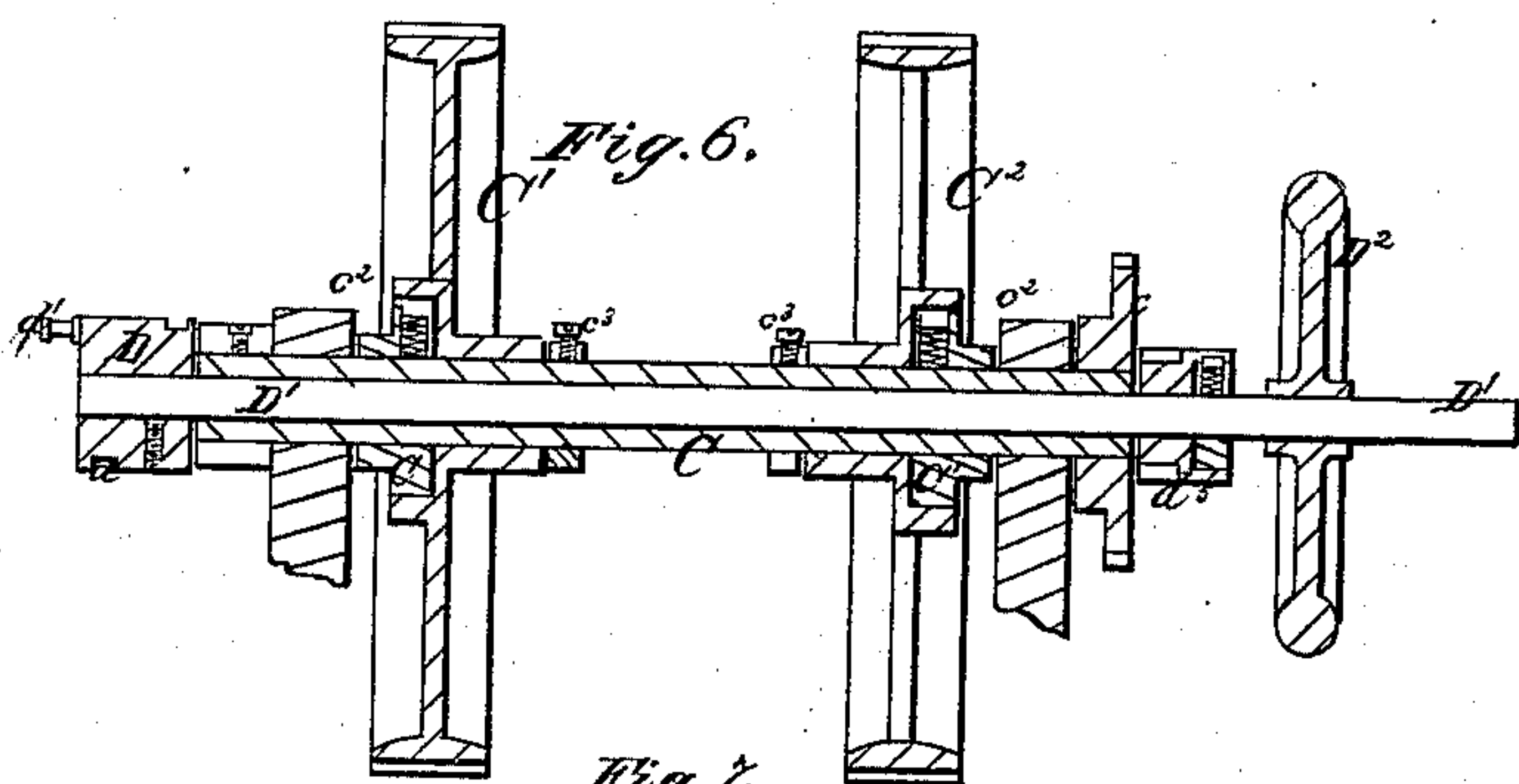
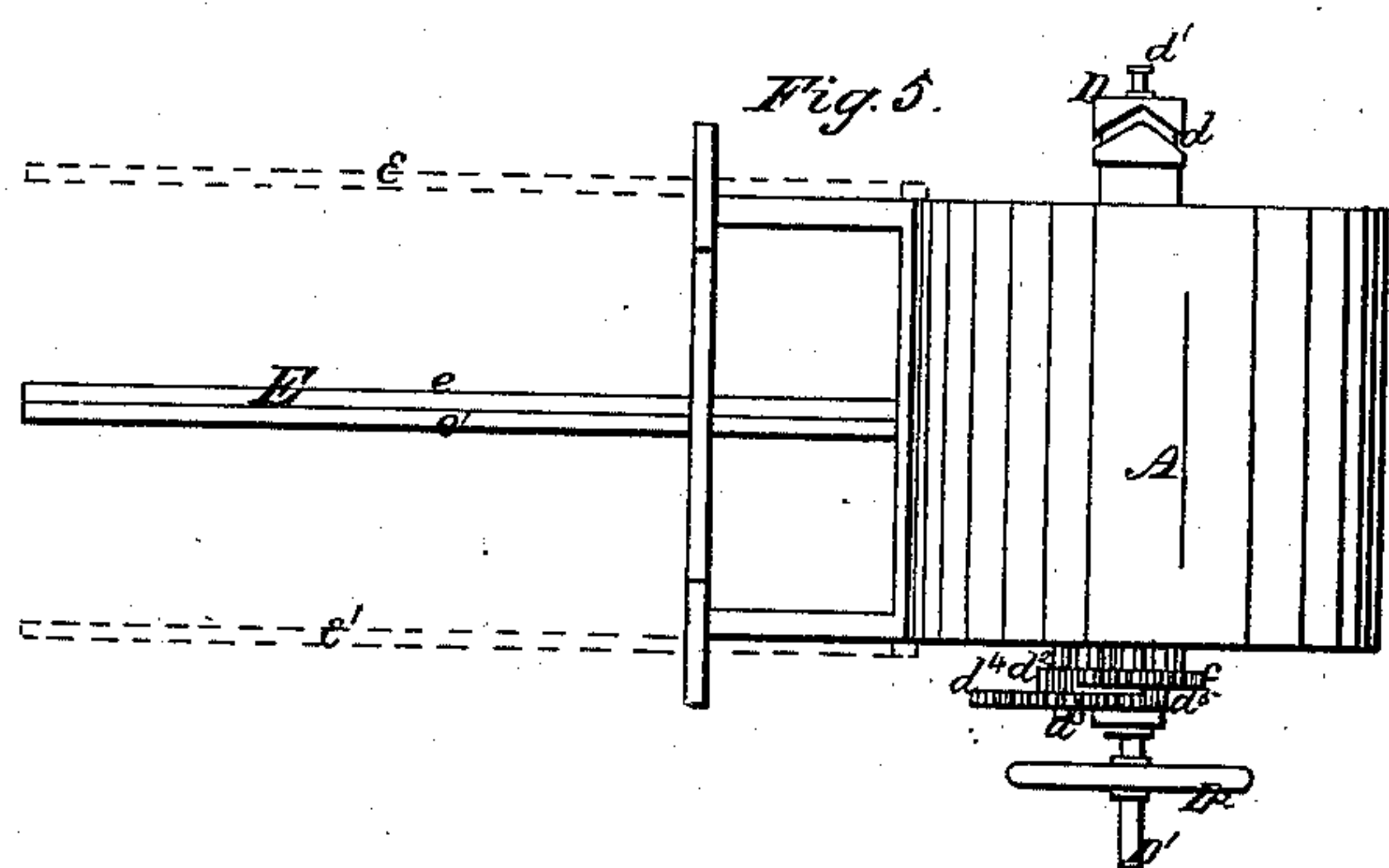
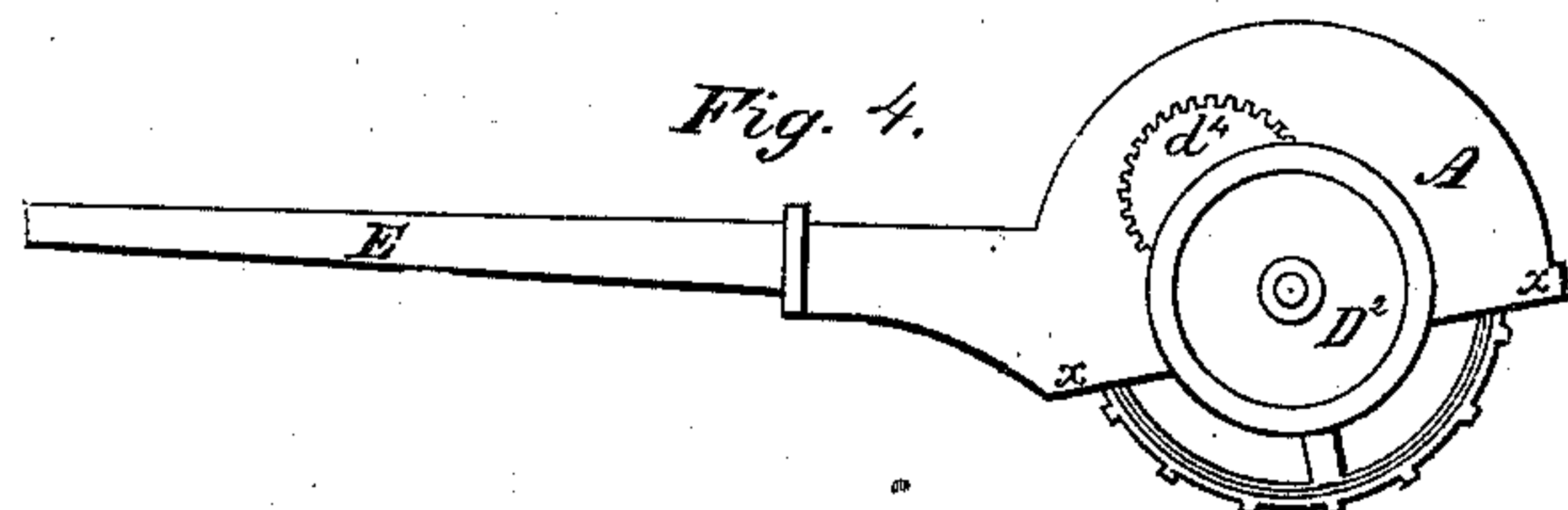


W. King, *Sheet 1-2 Sheets.*
Horse Power,
No 78,808, *Patented June 9, 1868.*



W. King,
Horse Power,
No 78,808,
Patented June 9, 1868.



Witnesses.
H. Paug
R. Simon

Inventor.
Walter King
By his Atty
W. Randolph

United States Patent Office.

WALTER KING, OF RICHMOND, MISSOURI.

Letters Patent No. 78,808, dated June 9, 1868; antedated May 27, 1868.

IMPROVED HORSE-POWER.

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, WALTER KING, of Richmond, in the county of Ray, and State of Missouri, have made certain new and useful Improvements in Locomotive Horse-Power; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of this invention is to construct a horse-power in such a manner that its principal operative parts may be used to operate locomotive machinery, such, for instance, as a reaper, harvester, planter, drill, or any other kind of farm-machinery, and at the same time be equally applicable to the propulsion of stationary machinery, such, for instance, as threshers, saws, or any variety of mills, &c., &c.

The economy of a machine like this, where its operative and expensive parts may be converted into various uses, is so evident as to need no elaborate synopsis of its merits.

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

Figure 1 of the drawings is a side elevation of the machine used as a stationary horse-power.

Figure 2 is a plan of the same.

Figure 3 is a sectional longitudinal elevation of the same.

Figure 4 is a side elevation of the locomotive power.

Figure 5 is a plan of the locomotive power.

Figure 6 is a longitudinal sectional elevation of the driving-shaft, and the devices thereto attached.

Figure 7 is a side elevation of one of the driving-wheels.

Generally, the machine is built with two housings, A B. The first of these contains the operative parts of the machine, which are common to both the stationary and locomotive power. In this housing bearings are provided for the driving-shaft C, on which shaft there are two driving-wheels, C¹ C².

When attached to the housing B, the straight edge, *x x*, of the housing A will assume nearly a vertical position, as is shown in fig. 1, and dowels projecting from it will enter cavities prepared for them in the straight end, *x' x'*, of the housing B. In this position the two housings will be secured together by hooks or other suitable means.

When the locomotive power is to be used, the edge, *x x*, of housing A will assume a horizontal or nearly horizontal position, as is clearly shown in fig. 4.

When the two housings are coupled together, as shown in figs. 1, 2, and 3, an endless tramway, B¹, will pass around the wheels C¹ C² and the roller B², fixed in the other end of the housing B, as most clearly shown in fig. 3. This tramway will be of the usual jointed kind, usually used for horse-powers, and hence need not be minutely described. The upper portion of it, in passing between the wheels C¹, C², and B², will travel down an inclined plane, as shown in figs. 1 and 3, as is also customary. As the tramway is drawn around the wheels C¹ C², it will impart motion to them, which may be transmitted, through the shaft C and driving-wheel D, to whatever machine is to be used, in the usual manner, *i. e.*, either by belt, gearing, or pitman, the latter being used either with the corrugated groove *d* or the wrist *d'*.

When the machine is to be used as a locomotive horse-power, the housing A and its attachments only will be used, and these will be placed in the position already described, and then the peripheries of the wheels C¹ C² will rest on the ground, as shown in fig. 4, and, by being drawn over the ground, the said wheels C¹ C² will be caused to rotate, their peripheries being studded with corrugations to prevent slipping on the ground.

In order to concentrate the operative parts of this machine, and at the same time gear up the driving-wheel to the requisite speed, I make the driving-shaft C hollow, and place within it a counter-shaft, D¹.

The outer end of the hollow shaft carries a master-wheel, *e*, that gears into a pinion, *d*², on the counter-shaft *d*³, and the counter-wheel *d*⁴, on the same shaft, gears into a pinion, *d*⁵, on the counter-shaft D¹, and thus an accelerated motion is transmitted from the shaft C to the counter-shaft D¹, and through it and its wheel, D, to whatever machinery is to be operated.

A boss, c^1 , is affixed to the shaft C, for each of its driving-wheels, as is shown in fig. 6, and in this boss is placed a spring-clutch, c^2 , arranged so as to engage the wheel when it is turned forward, and thus turn the shaft with it, but so it can be released when the wheel is turned backward. This arrangement is especially necessary when the machine is to be drawn over uneven ground.

The screw-bands c^3 keep the wheels $C^1 C^2$ in position on their shaft.

The shaft D^1 should be provided with a fly-wheel, D^2 , for steadying the motion.

When used as a locomotive machine, the housing A may be provided with a pole, E, for drawing it, as shown in figs. 4 and 5. This pole is to be made of two pieces, $e e^1$, which may be separated, and placed in the dotted-line positions shown in fig. 5, thus furnishing thills for the machine, and converting it into a one-horse machine.

It is very evident that a mower, harvester, drilling-machine, planter, or any other similar locomotive machine, may be attached to the housing A, and driven by the wheel D, either by means of gearing, belt, or pitman, as in the case of the stationary machine.

The carriage A $C^1 C^2$ may be used for a corn or other seed-planter or drill, by removing the gearing c, d^2, d^3, d^4, d^5 , and shaft D.

Having described my invention, what I claim, is—

1. A locomotive horse-power, A C D, in combination with a stationary machine, B $B^1 B^2$, substantially in the manner shown and described.

2. The housing A, when combined with the driving-shafts C D^1 and the wheels $C^1 C^2$, substantially as shown and described.

3. The wheels $C^1 C^2$, the bosses c^1 , and spring-clutches c^2 , when constructed and arranged as described and set forth.

4. The pole E, when formed of two pieces, $e e^1$, and applied to the housing A, so as to form a one-horse or a two-horse machine, as described and shown.

WALTER KING.

Witnesses:

M. RANDOLPH,

H. PAULI.