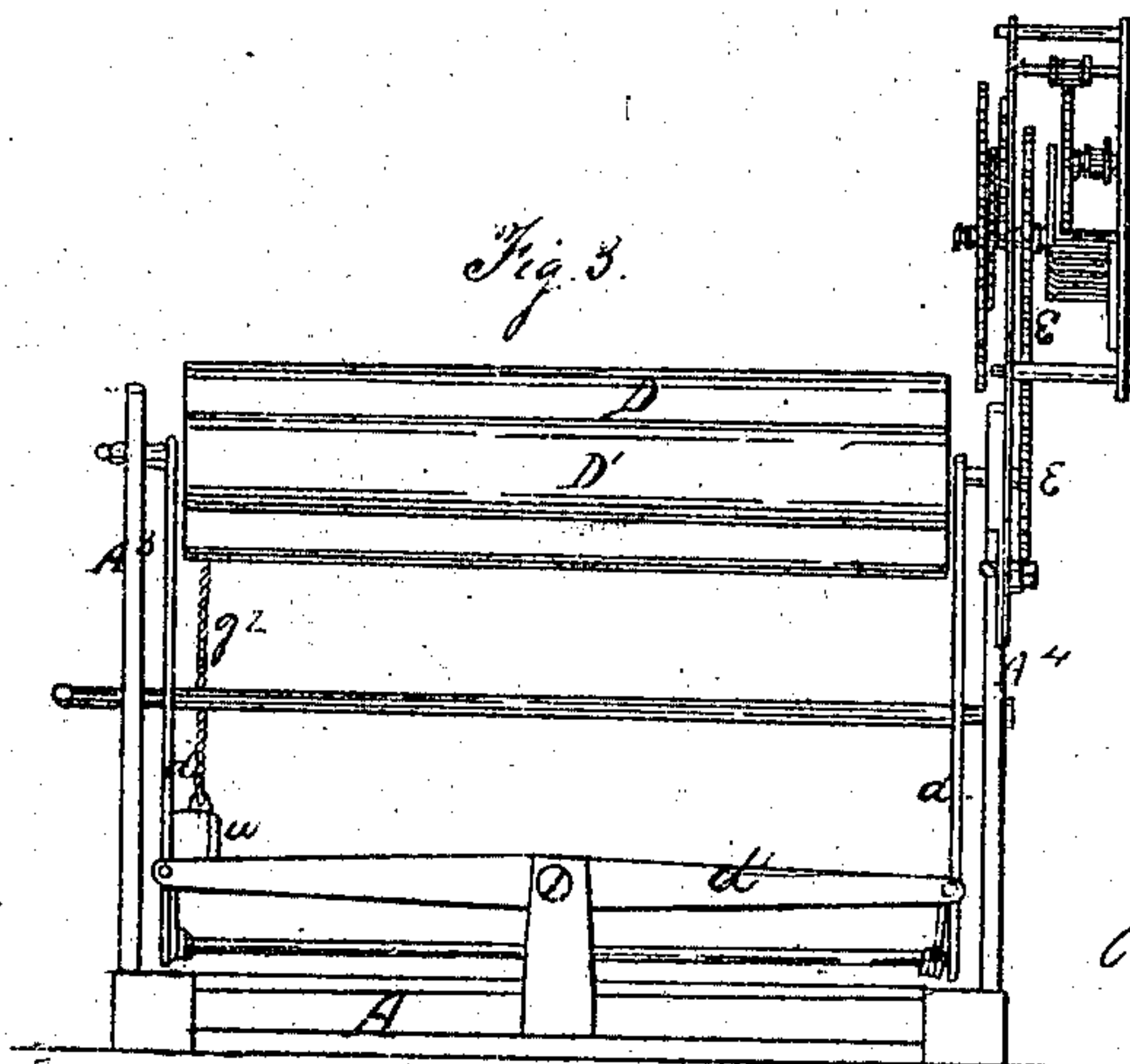
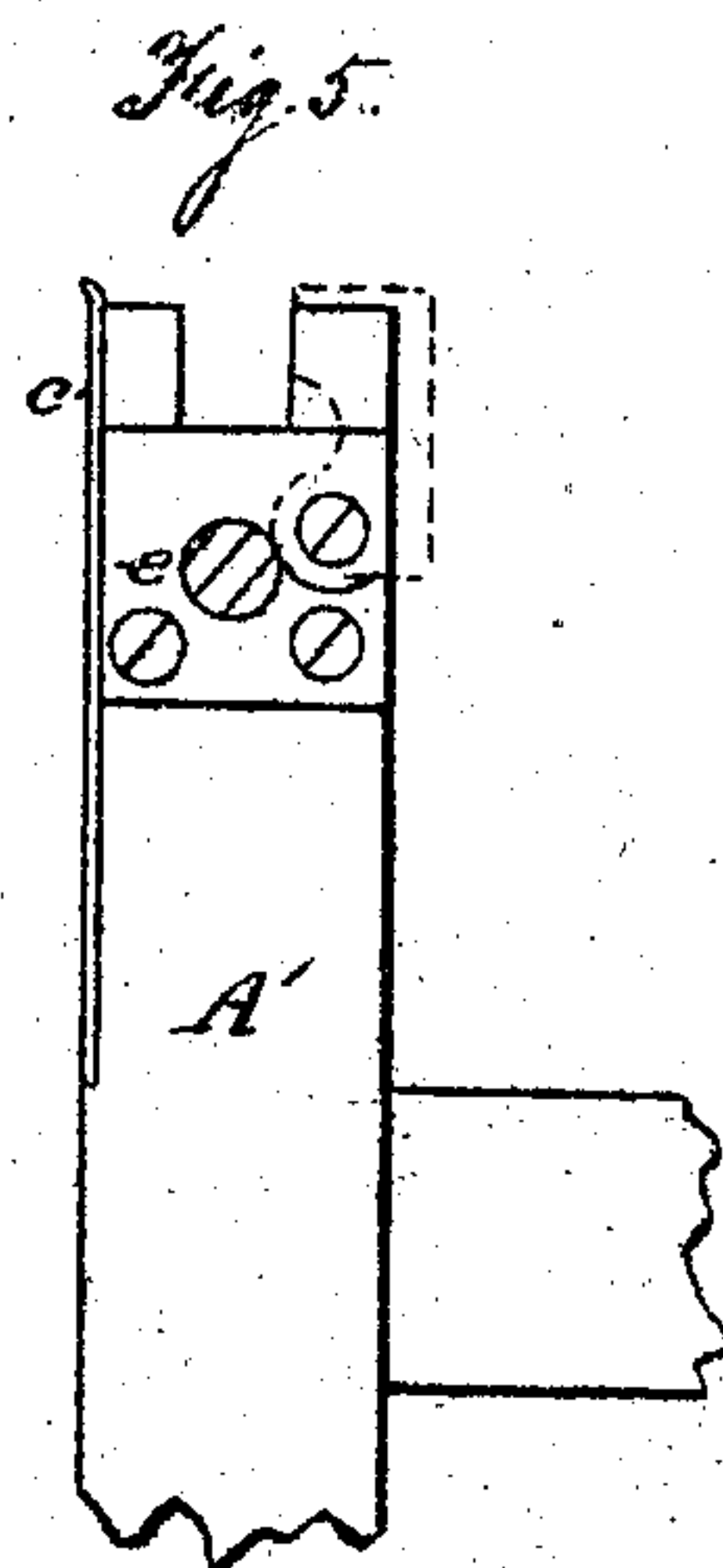
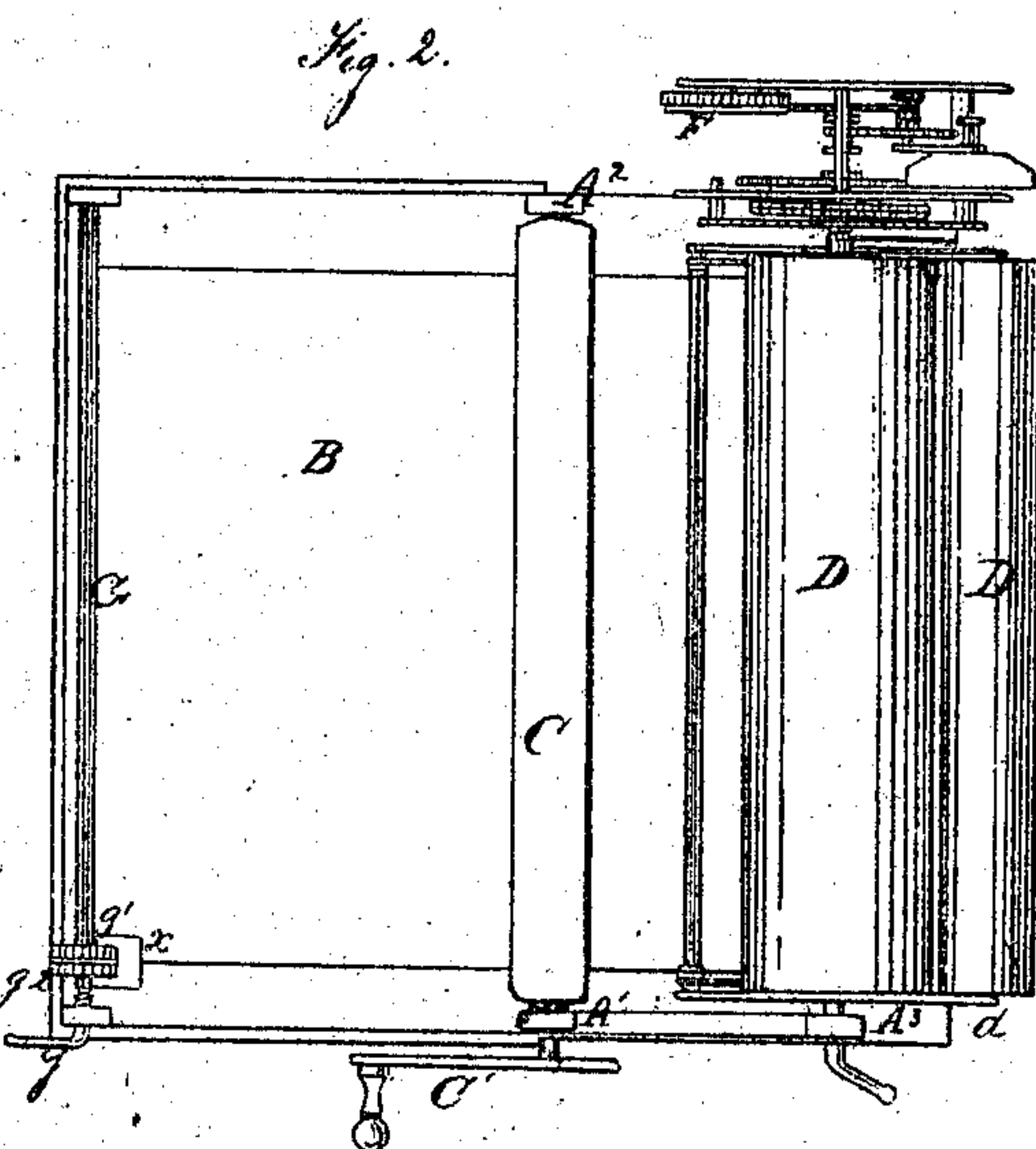
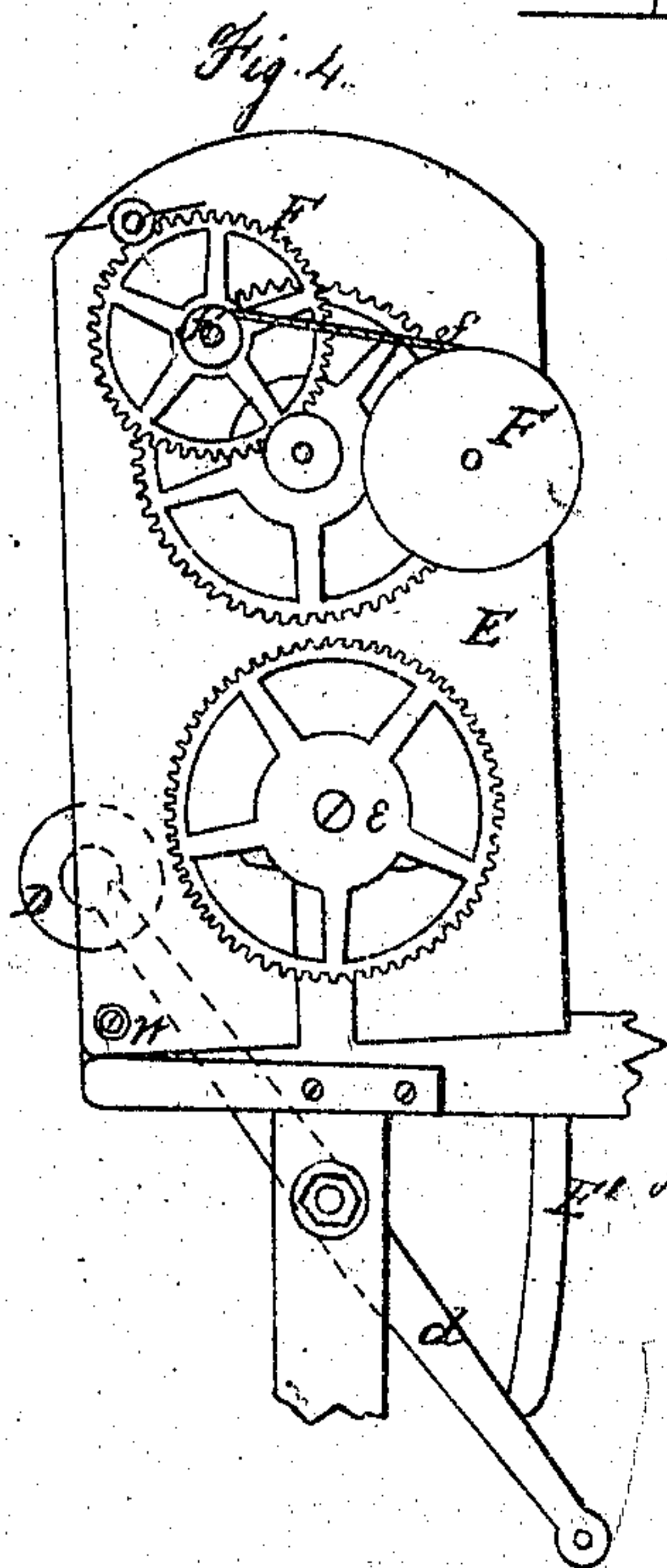
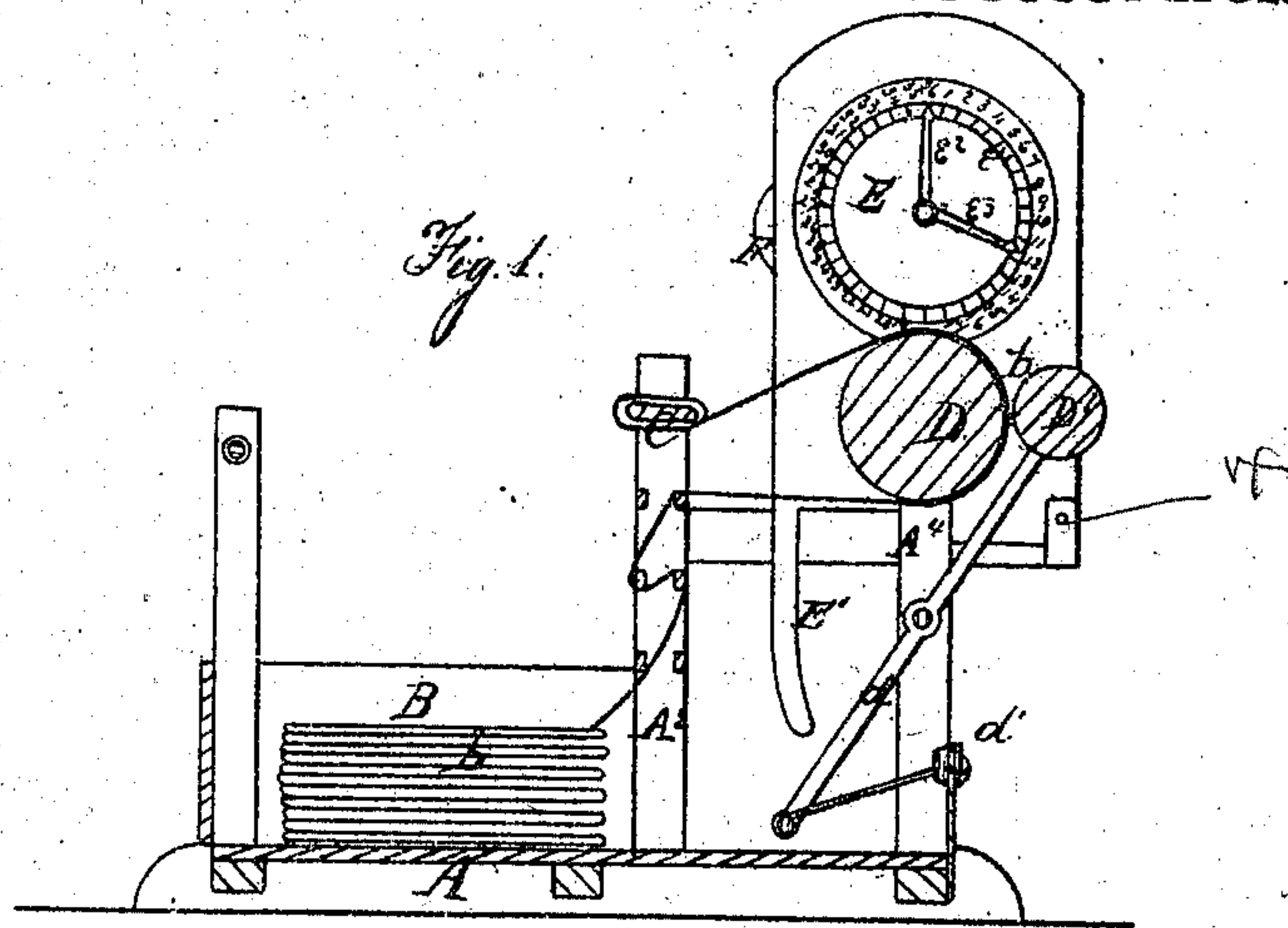


# W. F. Boggs. Measuring Cloth.

N<sup>o</sup> 75848

Patented Mar. 24, 1868.



Witnesses:

H. Paulij  
R. Simon

Inventor:

Wilbur F. Boggs.  
By his Atty  
McRandolph & Co.



# United States Patent Office.

WILBUR F. BOGGS, OF PETERSBURG, ILLINOIS, ASSIGNOR TO HIMSELF  
AND JOHN T. BENNETT, OF SAME PLACE.

*Letters Patent No. 75,848, dated March 24, 1868.*

## IMPROVEMENT IN MACHINE FOR MEASURING CLOTH.

*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, WILBUR F. BOGGS, of Petersburg, in the county of Menard, and State of Illinois, have made certain new and useful Improvements in Combined Cloth-Measurer and Roller; 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 produce a machine for winding cloth and measuring it at one and the same operation.

To enable others 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 longitudinal sectional elevation of the improved machine.

Figure 2 is a plan of the same.

Figure 3 is a front elevation.

Figure 4 is a sectional elevation of the clock-work, showing the mode of disconnecting it from the roller-gearing.

Figure 5, an elevation of the top end of the post that sustains the cloth-roller, showing the device for unshipping it.

The platform or sills A sustain the box B, in which the cloth is placed to be wound, and also the posts A<sup>1</sup> A<sup>2</sup> A<sup>3</sup> A<sup>4</sup>, that sustain the operative parts of the machine. The posts A<sup>1</sup> A<sup>2</sup> are connected together by means of the tension-bars *a*, between which the unwound cloth, *b*, is passed, in order to tighten it on the reel or winding-bar C, and also on the measuring-roller D. The reel or winding-bar C has its bearings in the top ends of the posts A<sup>1</sup> A<sup>2</sup>, and the measuring-roller B has its bearings in the top ends of the posts A<sup>3</sup> A<sup>4</sup>. A friction-roller, D', is placed by the side of and against the roller D, and has its bearings in the adjusting-bars *d*, which are pivoted to the posts A<sup>3</sup> A<sup>4</sup>, and have their bottom ends attached to the spring *d'*, which acts upon them in such a manner as to draw or press the roller D' tightly against the roller D. The roller D is to be just three feet in circumference, so that the cloth, *b*, in passing over it, will measure just one yard for every revolution of the said roller. The cloth, as it comes from the box B, will pass up through the tension-bars *d*, thence under and around the roller D, and back to the winding-bar C, which will be turned by means of the crank C' so as to wind the cloth up into a suitable roll for the market. The friction-roller D' will press the cloth firmly against the roller D while passing around it, thereby compelling the said roller D to turn just at the same speed with which the cloth moves, thereby accurately measuring it. The number of revolutions and fractional parts of revolutions made by the roller D will be accurately recorded by the clock E. One of the journals of the roller D will extend outside of the post A<sup>4</sup>, and there have affixed to it a cog-wheel, *e*, which gears into and communicates motion to the wheel *e*<sup>1</sup>. This wheel *e*<sup>1</sup>, by means of suitable clock-gearing, communicates motion to the hands *e*<sup>2</sup> *e*<sup>3</sup>, shown in fig. 1. The hand *e*<sup>2</sup> is geared so as to make one revolution at each revolution of the roller D, and it will therefore indicate on the face *e*<sup>4</sup>, which is graduated and numbered into thirty-six equal parts, the fractional parts of a revolution made, and the number which the said hand points at when stopped will indicate the number of inches the roller has turned, and, consequently, the amount of cloth measured. The hand *e*<sup>3</sup> is geared so as to make but one revolution to thirty-six revolutions of the roller D, and, consequently, the graduated number on the dial to which it points will indicate the number of revolutions made by the roller D, and, consequently, the number of yards measured by it. Thus the hand *e*<sup>3</sup> will point to the dial-figure indicating the number of yards wound, and the hand E<sup>2</sup> will point to the dial-figure indicating the fractional parts of a yard.

From the foregoing description, it is evident that, after a certain number of revolutions have been made by the machine, it must be turned back to its initial or starting-point and commence measuring anew. This is accomplished by the following simple device, viz: A drum, F, having a coiled spring within it, is attached to the clock-frame by means of a suitable axle. From the periphery of this drum a cord, *f*, attached thereto, is conveyed to a drum, *f'*, attached to the cog-wheel F', as is clearly shown in fig. 4. The wheel F' gears into a



pinion on the main axle, which carries the wheel  $E^1$ . While the machine is being turned forward so as to measure the cloth, the spring within the drum  $F$  is being wound up tightly, and the cord  $f$  is also being wound up around its drum  $f'$ . When it is desired to set the machine back, the operator will press down on the roller  $D'$ , and will thereby tip the adjusting-bars  $d$  forward, as is shown in fig. 4. This will cause the said bars  $d$  to be raised up below their pivot-points, and one of them will come in contact with the bar  $E'$ , which is attached to the clock-frame  $E$ , and raise it up, as is shown in fig. 4, the said frame  $E$  being pivoted at  $x$ , so as to allow its back end to rise up by this motion, and, at the same time, to disengage the wheels  $e$  and  $e^1$ . As soon as the said wheels are disengaged, the strength of the spring within the drum  $F$  will be sufficient to draw the cord  $f$  with such force as to unwind it from the drum  $f'$ , thereby turning the machine back to its original position. Of course the spring in  $F$  and the length of the cord  $f$  must be so adjusted as to cause the hands  $e^2$   $e^3$  to turn to the starting-point. When the winding-bar shall have received its full load or quantity of cloth, it is to be removed from the machine and withdrawn from the completed roll, so as to be prepared for a new operation.

To remove the winding-bar from the machine, the top portion of the box  $c$  is to be turned up, as shown by dotted lines in fig. 5, thus allowing the journal of the bar to be raised up. When replaced, the spring  $c'$  will secure the movable part of the box in its proper position. When it is desired to wind and measure cloth from a roll already wound, the bar  $G$  is inserted into the roll to be used, and then the operation will be conducted as before, by taking the end from the bolt on the bar  $G$ , instead of from the box  $B$ . The bar  $G$  may be easily taken from or replaced into the machine, by means of the screw-bearing  $g$ . In case a fabric of light texture or fine finish, that might be injured by passing through the tension-bars  $a$ , is being wound from the bar  $G$ , it is provided with a friction-pulley,  $g^1$ , over which a cord,  $g^2$ , passes, from which a weight,  $W$ , is suspended, and thus the required friction is produced without injury to the cloth.

Having thus described my invention, what I claim is—

1. The drum  $F$ , cord  $f$ , and drum  $f'$ , when combined with the pivoted clock-frame  $E$ , in the manner described, and for the purpose of reversing the same, as set forth.
2. The combination and arrangement of the pivoted clock-frame  $E$ ; its tipping-bar  $E'$ , and the adjusting-bar  $d$ , as and for the purpose set forth.
3. The friction-roller  $D'$  and its spring-frame  $d$   $d'$ , in combination with the measuring-roller  $D$ , as shown and described.
4. The roller  $G$ , its screw-bearing  $g$ , friction-pulley  $g^1$ , cord  $g^2$ , and weight  $W$ , when combined and operated as herein described and set forth.

WILBUR F. BOGGS.

Witnesses:

J. G. STRODTMANN,  
WALTER BENNETT.