

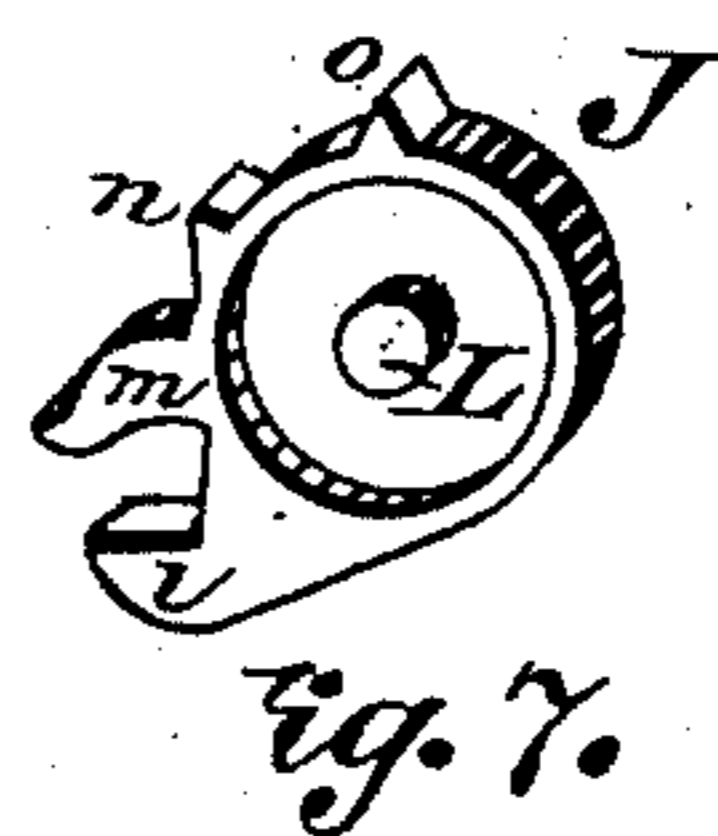
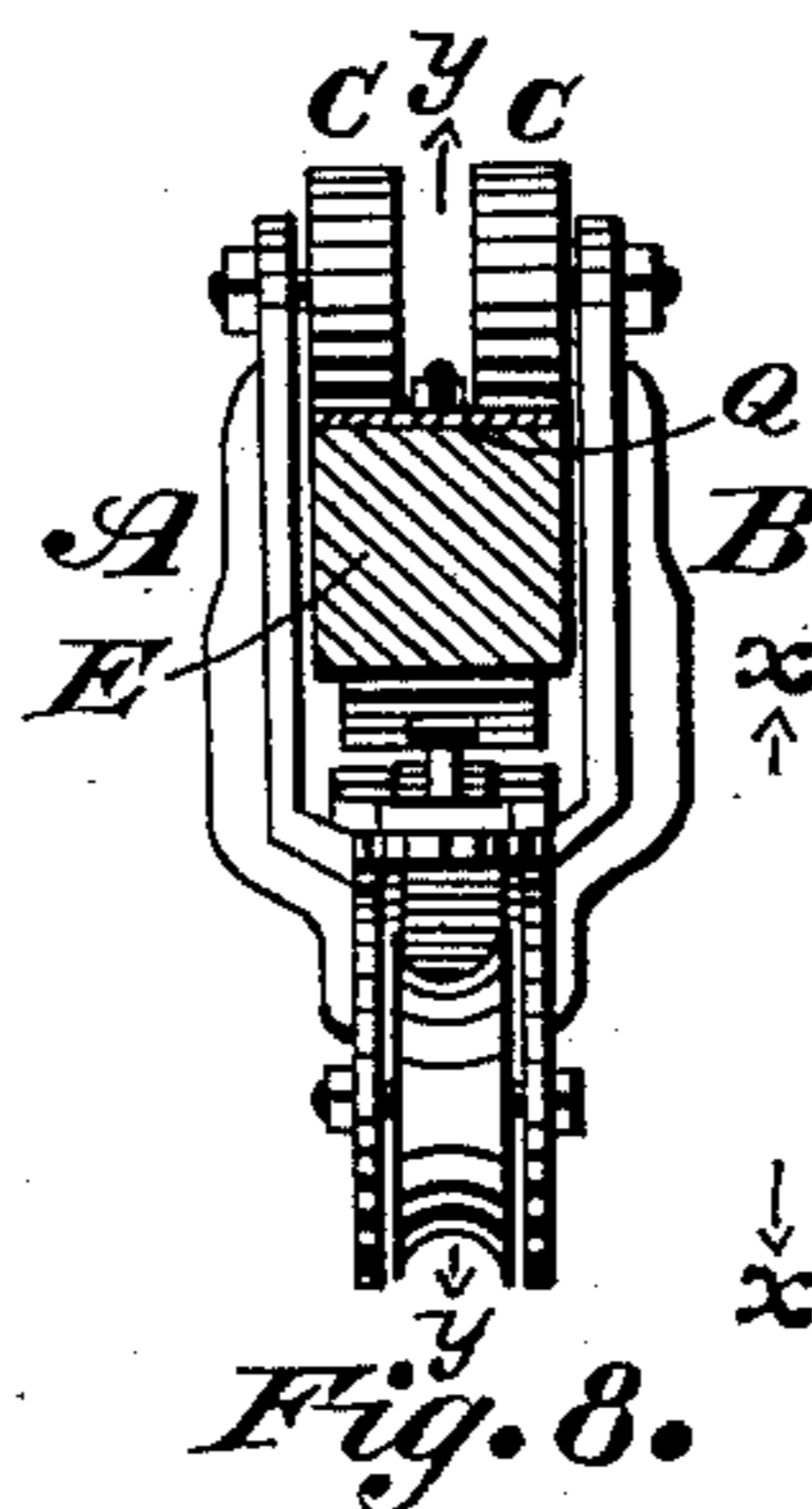
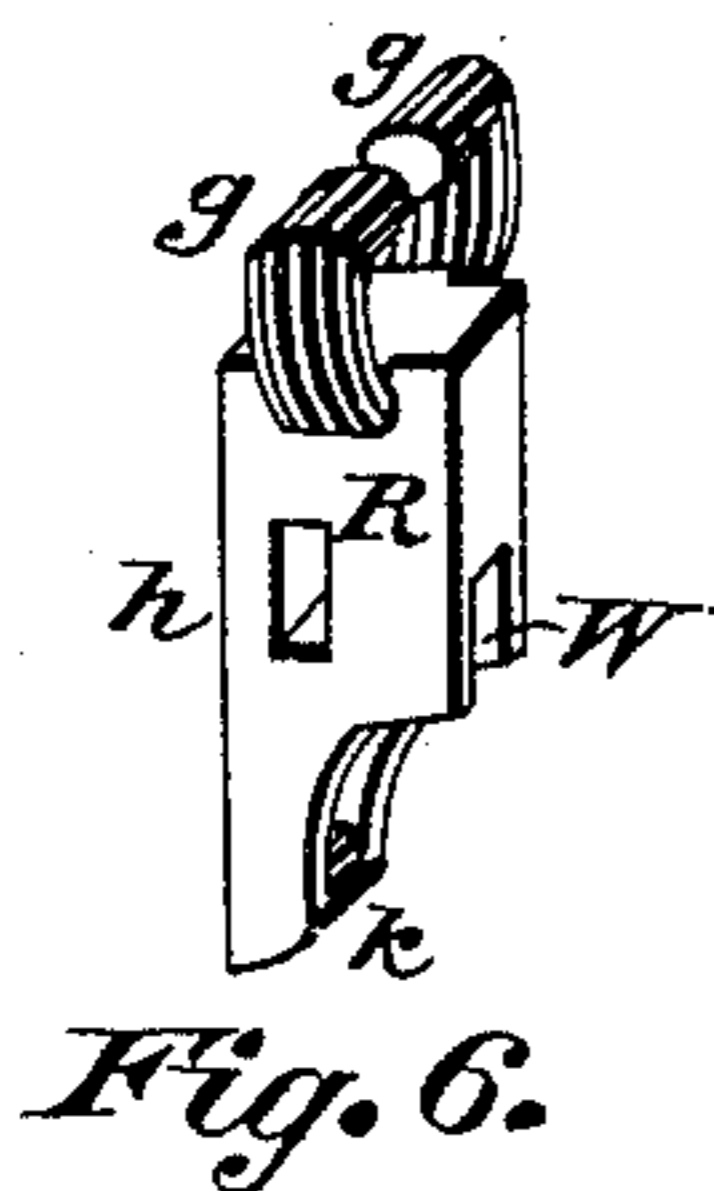
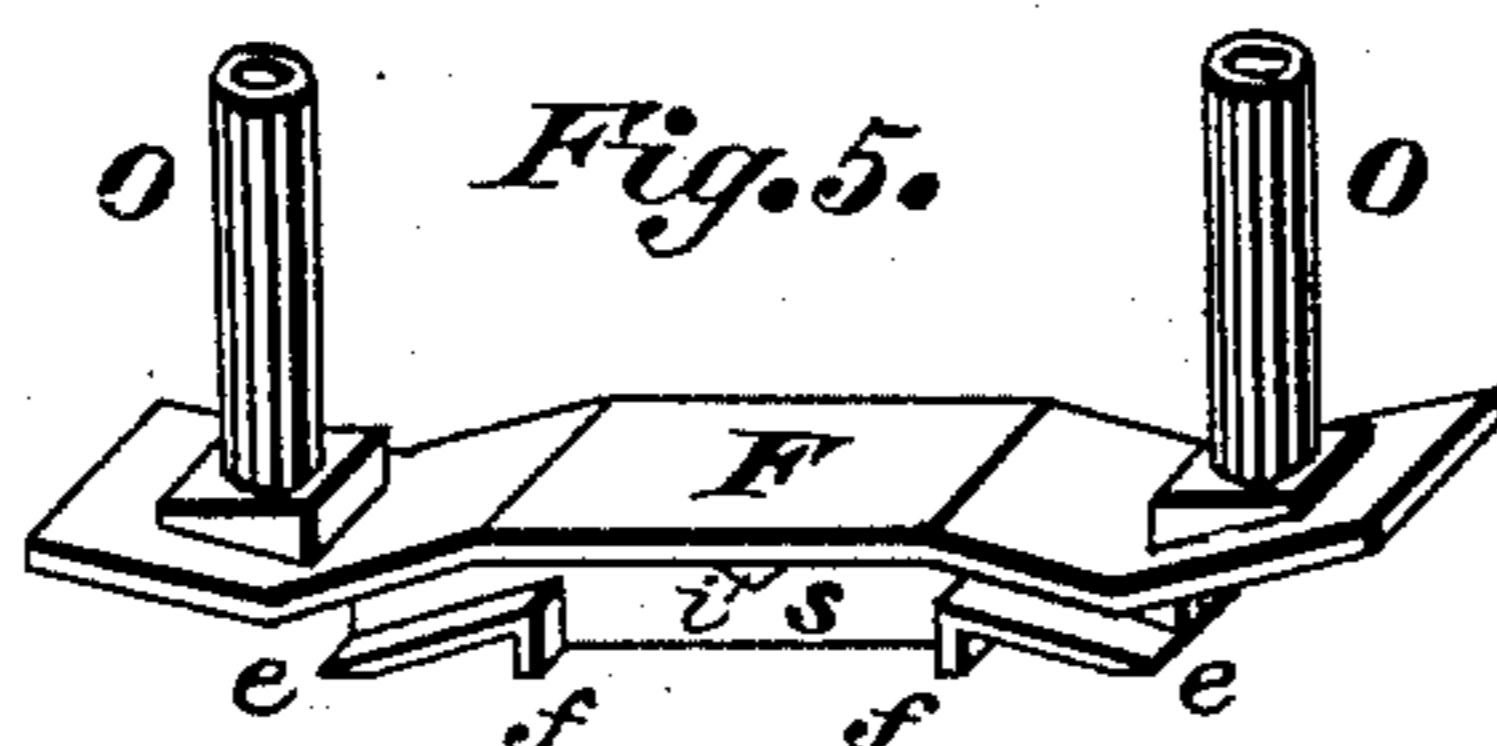
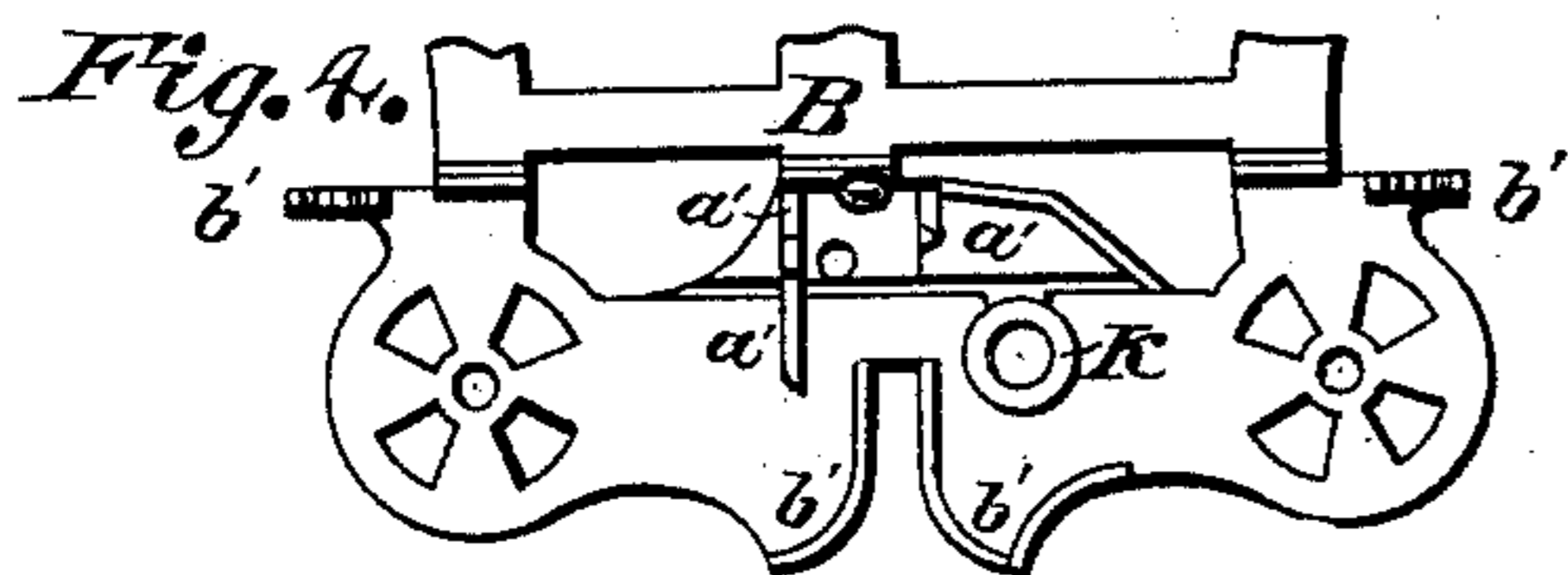
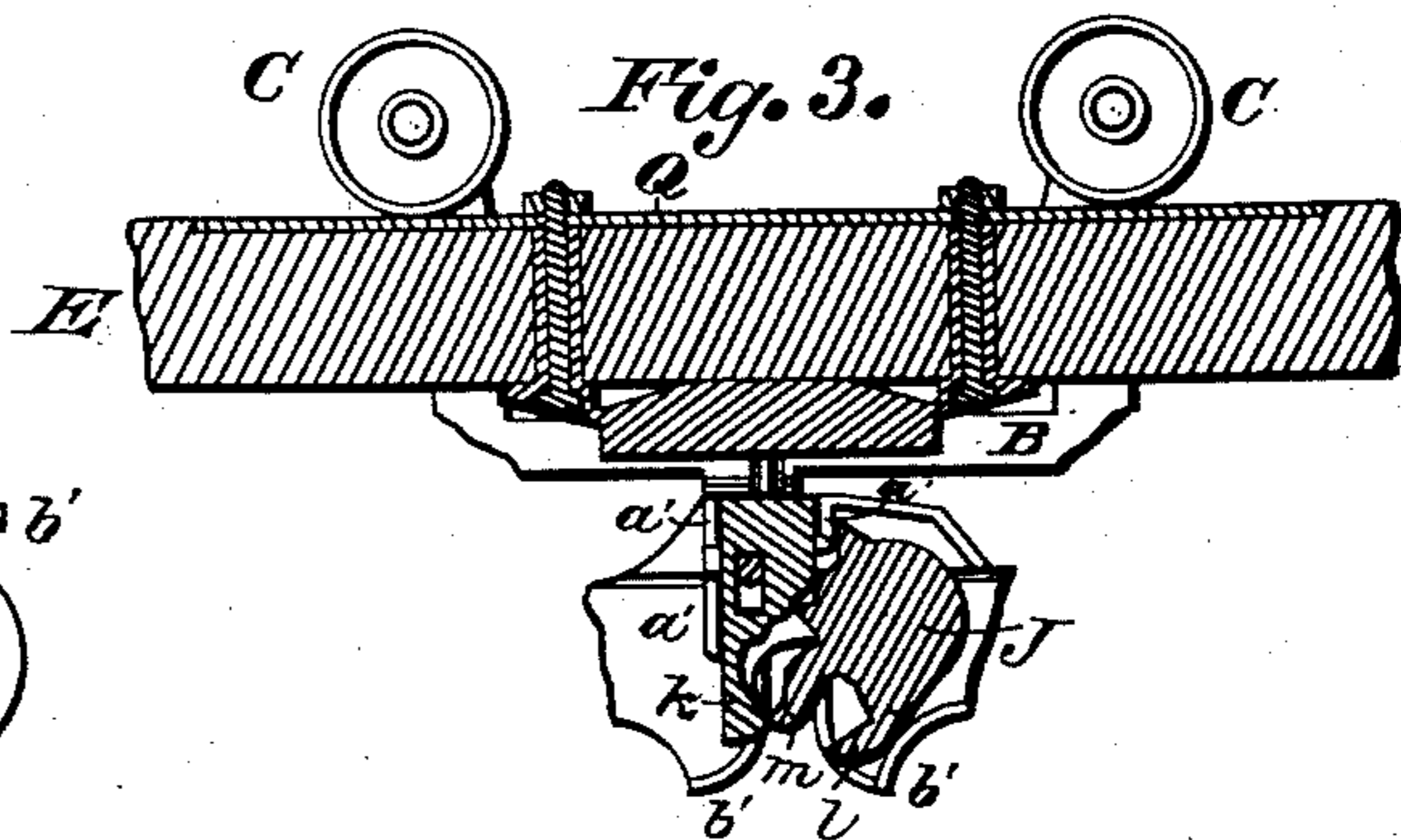
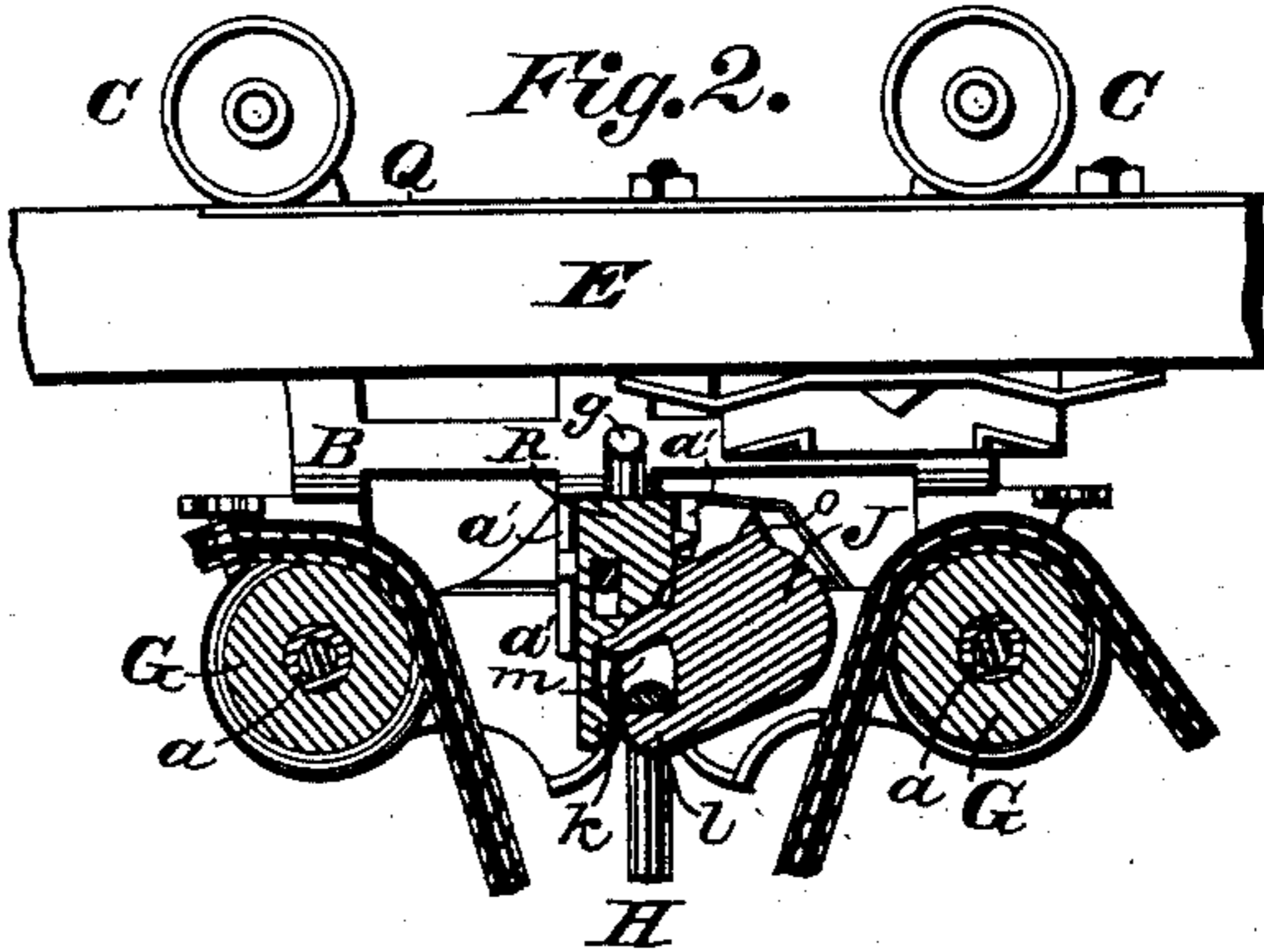
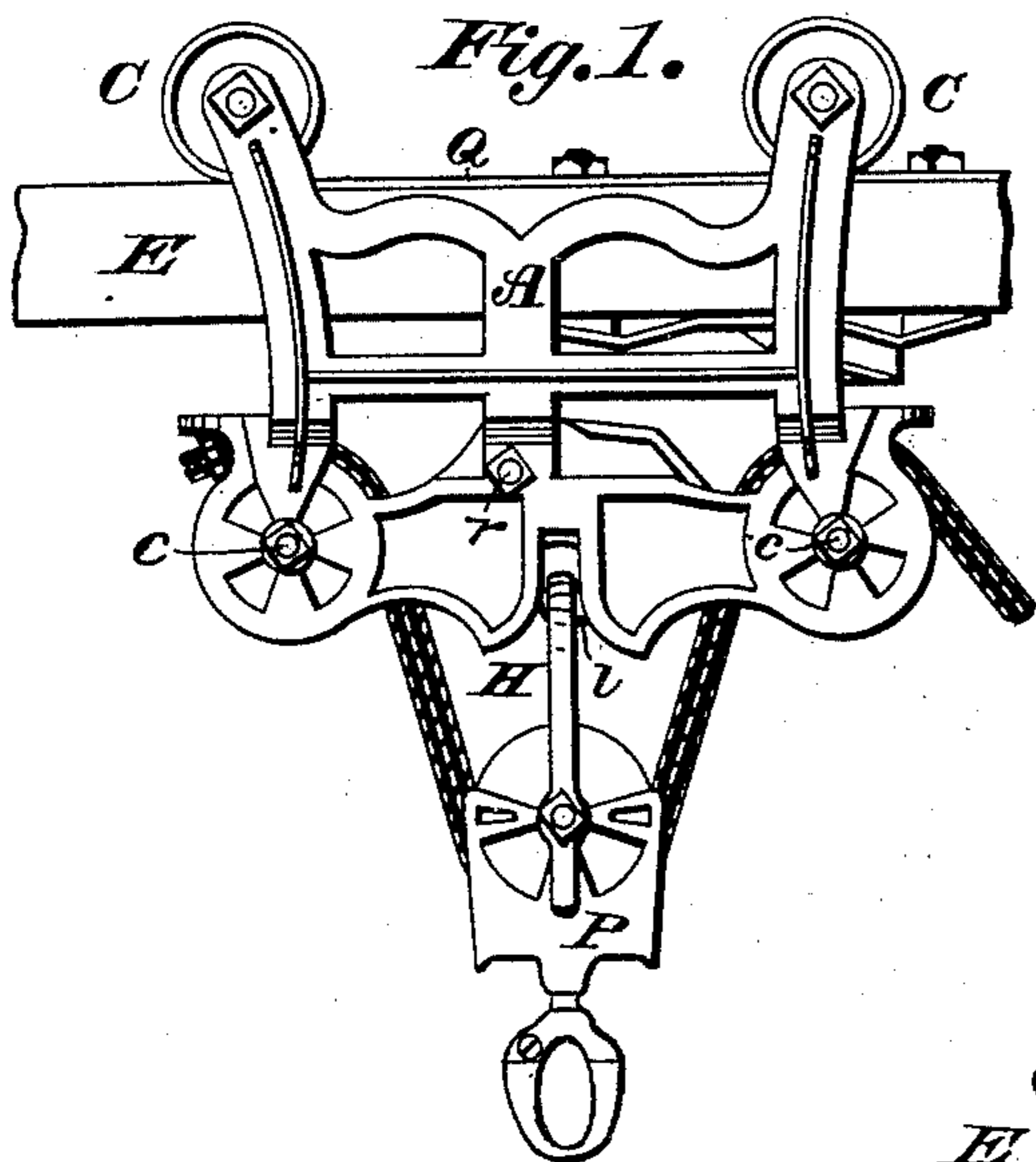
(No Model.)

L. Y. MYERS.

HAY CARRIER.

No. 327,451.

Patented Sept. 29, 1885.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

LEWIS Y. MYERS, OF CANTON, OHIO.

## HAY-CARRIER.

SPECIFICATION forming part of Letters Patent No. 327,451, dated September 29, 1885.

Application filed May 4, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS Y. MYERS, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have  
5 invented a new and useful Improvement in Hay-Carriers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

10 My invention relates to an improvement in hay-carriers; and it consists in certain features of improved construction and combination of parts, hereinafter described, and set forth in the claims.

15 In the accompanying drawings, Figure 1 is a side elevation, in which is shown the several parts in their respective working position. Fig. 2 is same view, with front of main frame removed, and represents a vertical longitudinal section on a line drawn from X to X, Fig. 8. Fig. 3 is a view on the same line of division extending from Y to Y. Fig. 4 is a view of the lower part of frame B. Fig. 5 is a perspective of the double locking-plate F.  
25 Fig. 6 is a perspective of the locking-bolt R. Fig. 7 is a perspective of the cam J, hereinafter explained, and Fig. 8 represents a view on a vertical transverse line drawn from Y to Y.

Similar letters of reference indicate corresponding parts.

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

The main frame preferably consists of two  
35 pieces, A and B, having on their inside faces ribs *a' b'*, which form a guideway for the locking-bolt and the yoke on the pulley-block P. The inner edge of these flanges touch each other when the parts are drawn together by the  
40 bolts.

The rollers C C may be attached to the frame by the use of a bolt and thimble, thus forming a spindle for the roller.

The sheave-wheels G G are placed on sleeves  
45 *a*, that reach from one frame-piece to the other. The bolt A is passed through the sheave and the frame-pieces. The sleeves should be a little longer than the length of the hub of the sheaves, so as not to allow the frame to bind  
50 or tighten on the sheaves.

The locking-bolt R may be made in the form

of a parallelogram, with converging hooks *g g* on the upper end, and the right-hand lower corner removed, as shown in Fig. 6. There is also an oblong mortise through the bolt, and a  
55 groove, W, cut in the edge, the bottom of which is graded, as shown at *k* in Fig. 3, so as to allow it to engage with the projecting finger on the cam.

The cam J is provided with spindles or trun-  
60 nions, on which it has a rocking movement, and with a jaw, *l*, as a support for the yoke H of the sheave-block P, the projecting finger *m*, by which the cam is moved so as to bring the jaw *l* to position, as shown in Fig. 2, and a  
65 tooth, *n*, by which the locking-bolt is raised, and which also engages with the bolt and locks the cam in position with the load suspended on the jaw *l*. The tooth *o* stops the reverse movement of the cam when it has reached the  
70 point *a'* on the frame when the parts have been released and the yoke H discharged from the jaw *l*. The projecting finger *m* and the bottom of the groove in the locking-bolt should be so adjusted to each other that when the cam is  
75 released, if the bolt does not drop to its proper position, the projecting finger *m* will engage with the projecting curve in the bottom of the groove *k* in the bolt and press it down, as  
80 shown in Fig. 3. Before bolting the frame-pieces together, place the locking-bolt in the way provided for it by the ribs *a* on the frame-pieces; also put the cam in position, as shown in Fig. 2, by placing the spindles of the wheel in the socket K in the frame-pieces. Put the  
85 bolt *r* (see Fig. 1) through the frame-pieces and through the slot in the locking-bolt. This bolt, while it is useful in holding the parts together, also acts as a stop to the movements of the locking-bolt.

90 The foregoing describes all the parts of my invention so far as relates to the carriage. I will now describe the locking-plate F, Fig. 5, and its relation to the beam E and the plate Q.

The lower surface of the plate F is divided  
95 by the rib *s*, on each side of which projects inclined planes *ee* and shoulders *ff*. The plate F is so declined as to guide the hooks *g g* on the locking-bolt into the grooves formed by the parts referred to. The tubes O O and the  
100 plate F are preferably integral. The tubes pass through the beam, as shown in Fig. 3,

and are secured to the plate Q by through-bolts, and are of such length as to secure the planes *e* at the proper distance from the plate Q, on which the rollers C C of the carriage move. This is important to secure a successful operation of the locking devices, and it is for this reason that the plate Q is used, as there is liability of the timber beam E yielding or wearing under the pressure of the load on the rollers.

The object obtained by the arrangement of the parts described is a carrier that may be worked in opposite directions from the locking-plate by drawing the rope through from one side to the other and changing the snatch-block with the rope. By these means the beam may be permanently located in the barn across the floor and the hay carried to the mow on opposite sides.

The operation is as follows: Figs. 1 and 2 show the carrier returning from the mow on left hand to the locking-plate on beam E over the wagon. As the hooks *g g* pass up the inclines *e e*, the locking-bolt R will be raised up, so as to allow the tooth *n* to pass into the groove, thereby releasing the cam, allowing it to drop into the position shown in Fig. 3, which will release the yoke H and allow it, with the sheave P and fork, to descend to the hay on the wagon. The hooks *g g* of the locking-bolt remain between the shoulders *f f*, detaining the carrier in that position until a load is brought up. Yoke H will then engage with the finger *m* and turn the cam until the jaw *l* will have caught the yoke, as shown in Fig. 2. The hooks on the locking-bolt will be raised over the shoulders *f f*, and having passed out of the locking-plate the locking-bolt will drop back, so as to engage the tooth

*n* and lock the cam. The locking-bolt cannot be passed through the locking-plate without having an upward and downward movement, for after having been raised by the inclines and passed into the lock between the shoulders it will be forced down by the declining point *i*.

Having described the nature and object of my invention, what I desire to secure by Letters Patent, is—

1. The vertical locking-bolt R, provided with converging hooks, as described, and for the purpose set forth.

2. The cam J, provided with projecting jaw *l*, finger *m*, and teeth *n* and O, as shown and described, and for the purpose set forth.

3. The locking-plate F, having ribs *s s s s*, the inclines *e e e e*, shoulders *f f f f*, the declining points *i i*, and the tubes O O, as shown and described, and for the purpose set forth.

4. The combination of the locking-bolt, as described, with the cam, when used in the manner and for the purpose set forth.

5. In a hay-carrier, a vertically-moving locking-bolt, as described, a rotating cam provided with projecting jaw *l*, and finger *m*, substantially as set forth, and for the purpose specified.

6. The combination of the locking-bolt, as described, the rotating cam, and the locking-plate, as described, and operating substantially as set forth.

In testimony whereof I have hereunto set my hand this 18th day of April, A. D. 1885.

LEWIS Y. MYERS.

Witnesses:

CHAS. R. MILLER,  
W. K. MILLER.