

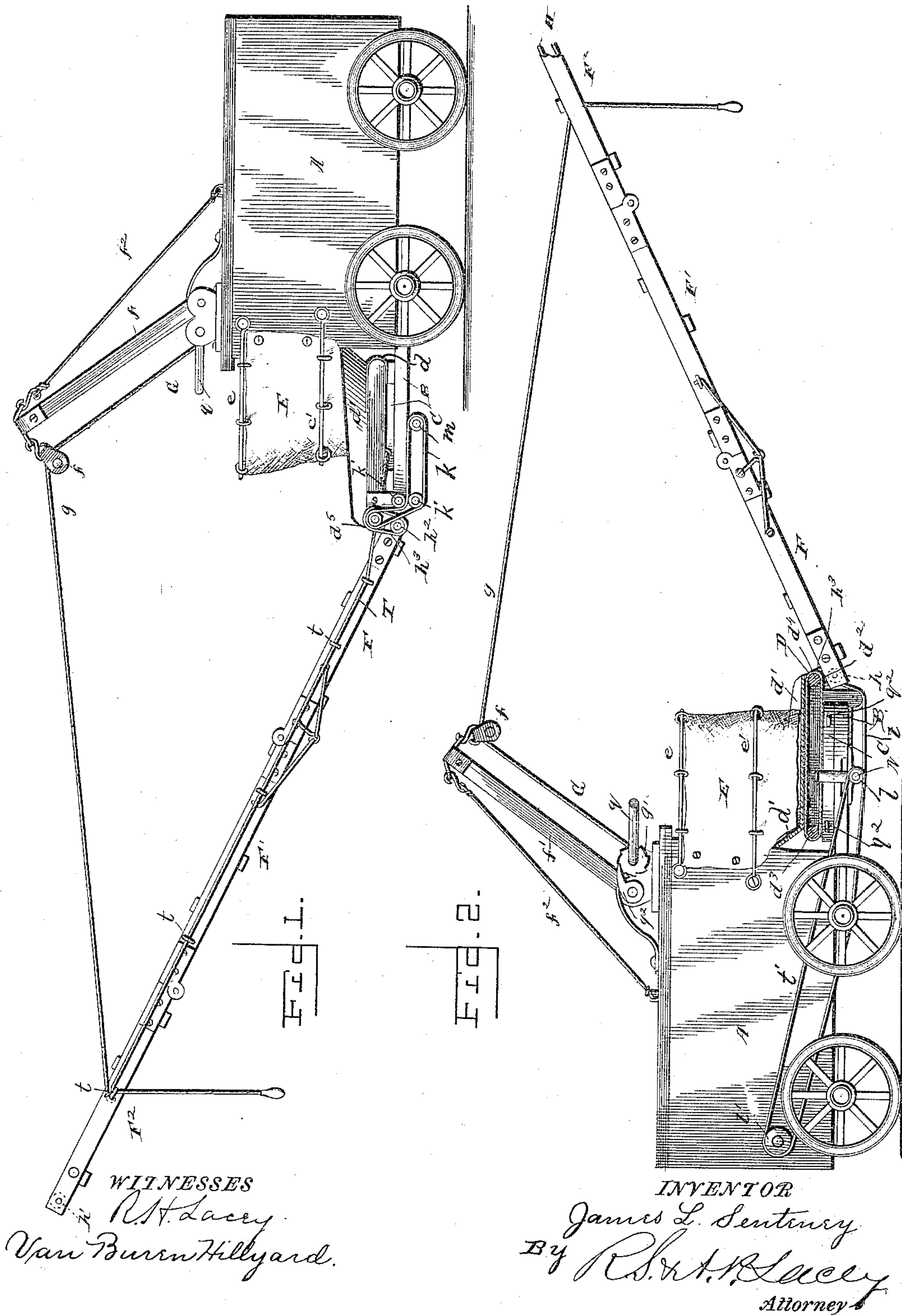
(No Model.)

3 Sheets—Sheet 1.

J. L. SENTENEY.
STRAW STACKER.

No. 436,674.

Patented Sept. 16, 1890.



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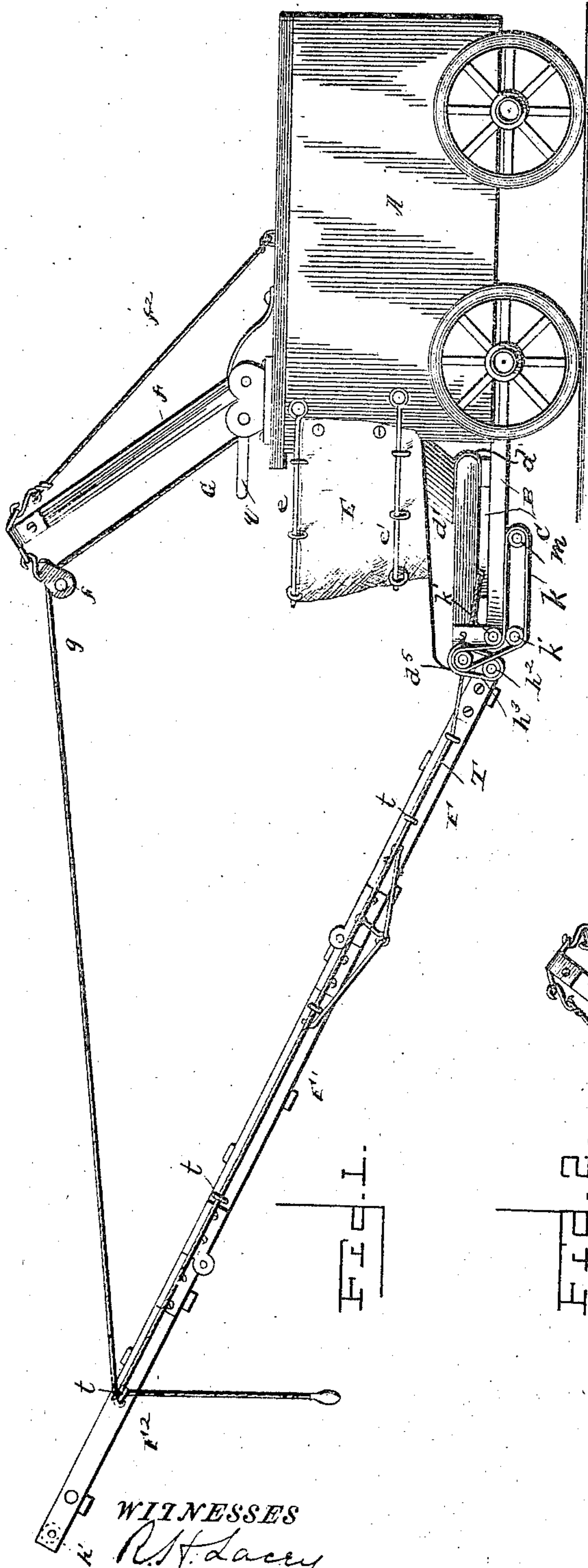
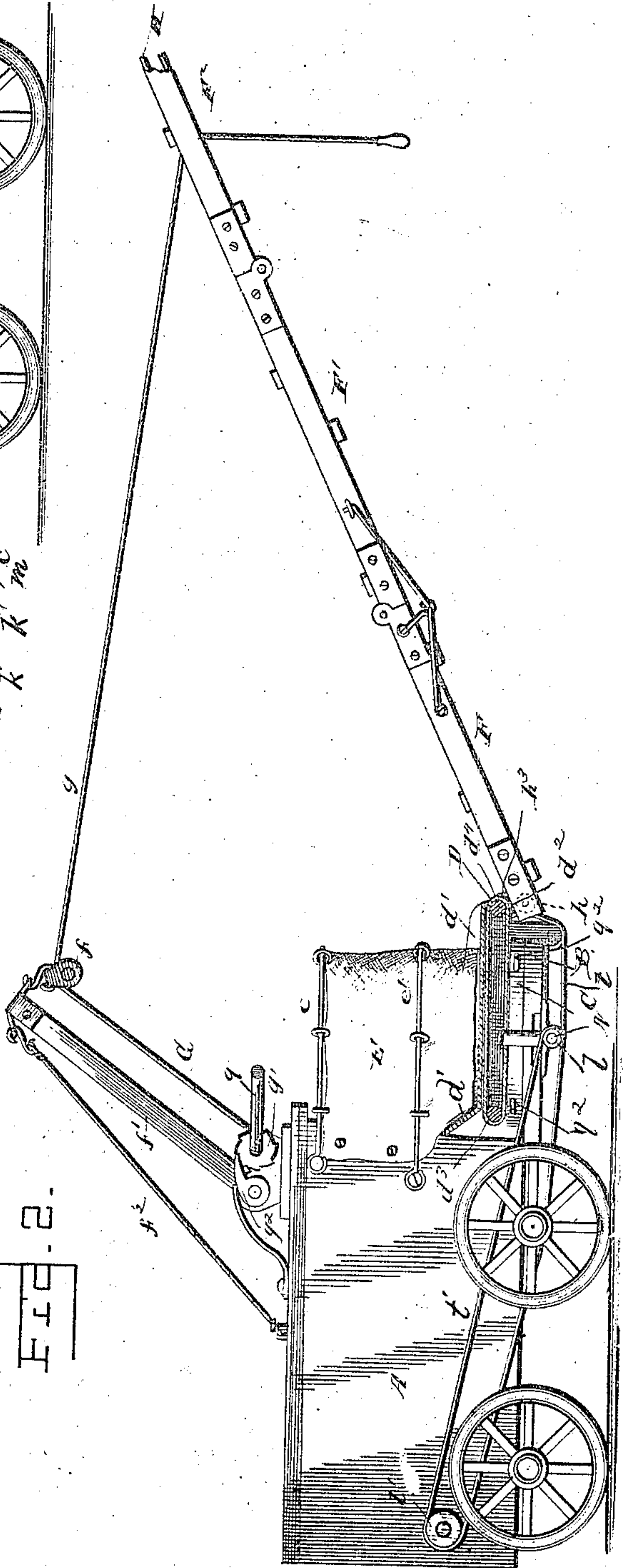


FIG. 1.

FIG. 2.



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Fig. 9.

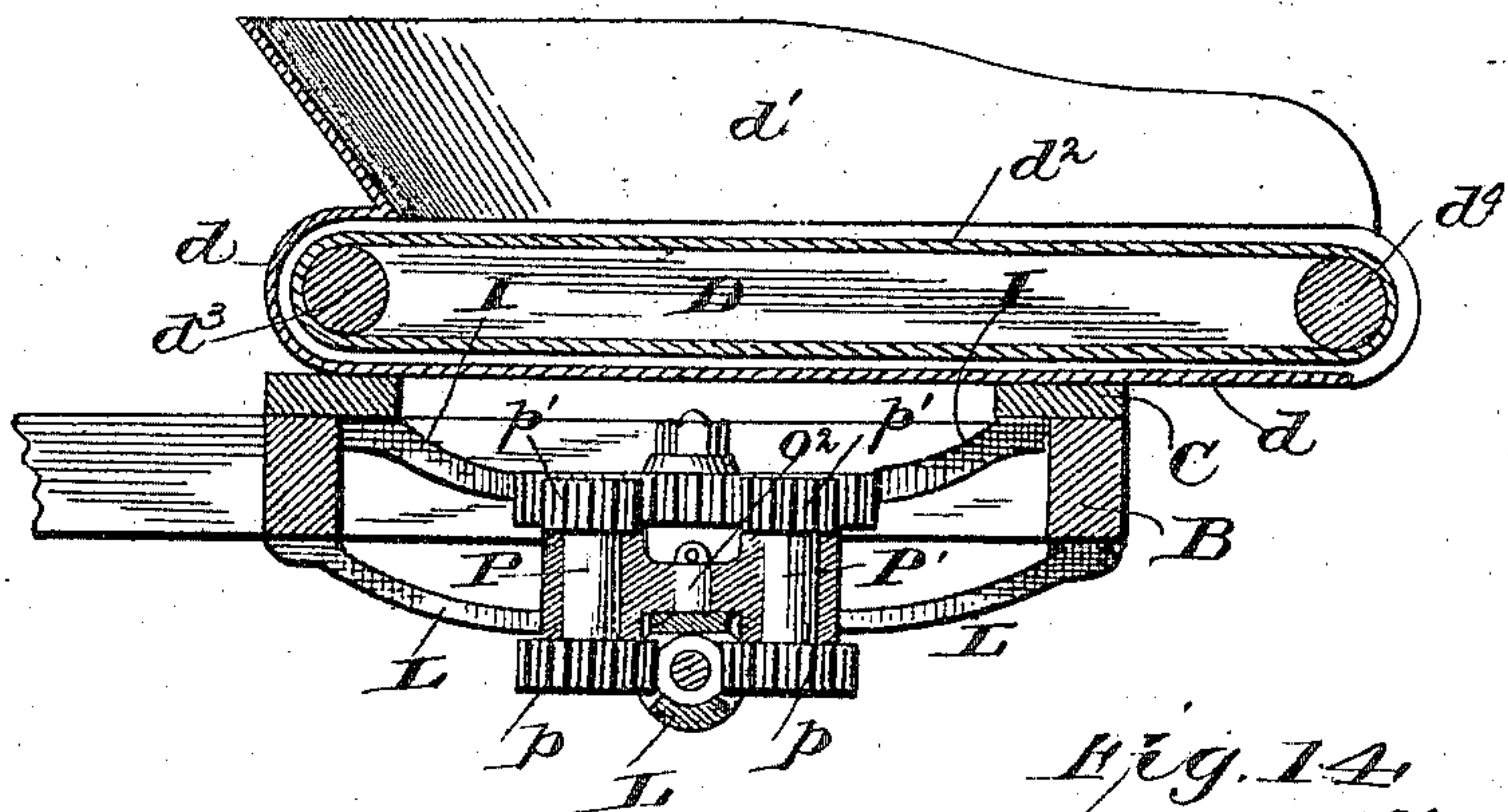
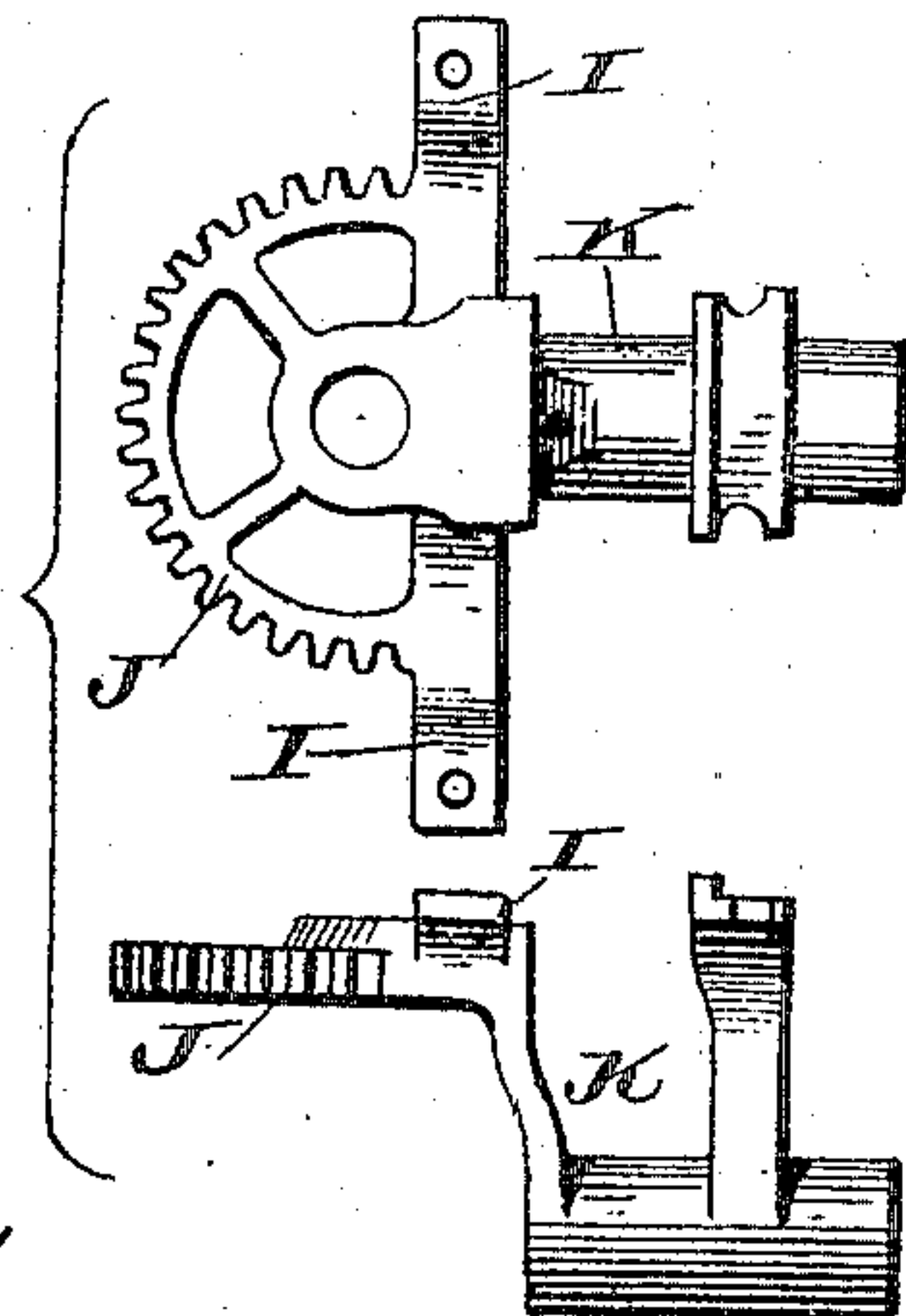


Fig. 10.



Reg. 14.

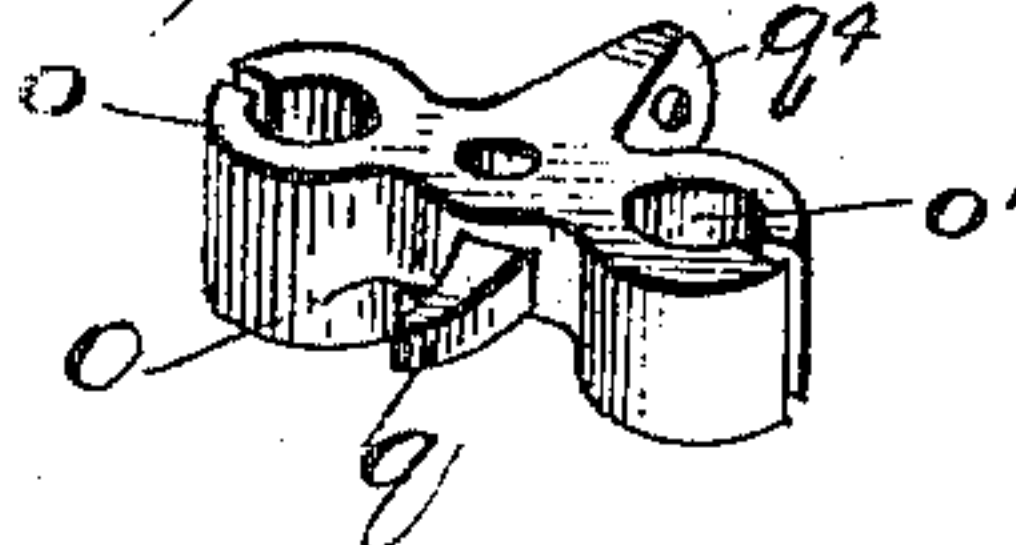


Fig. 15.

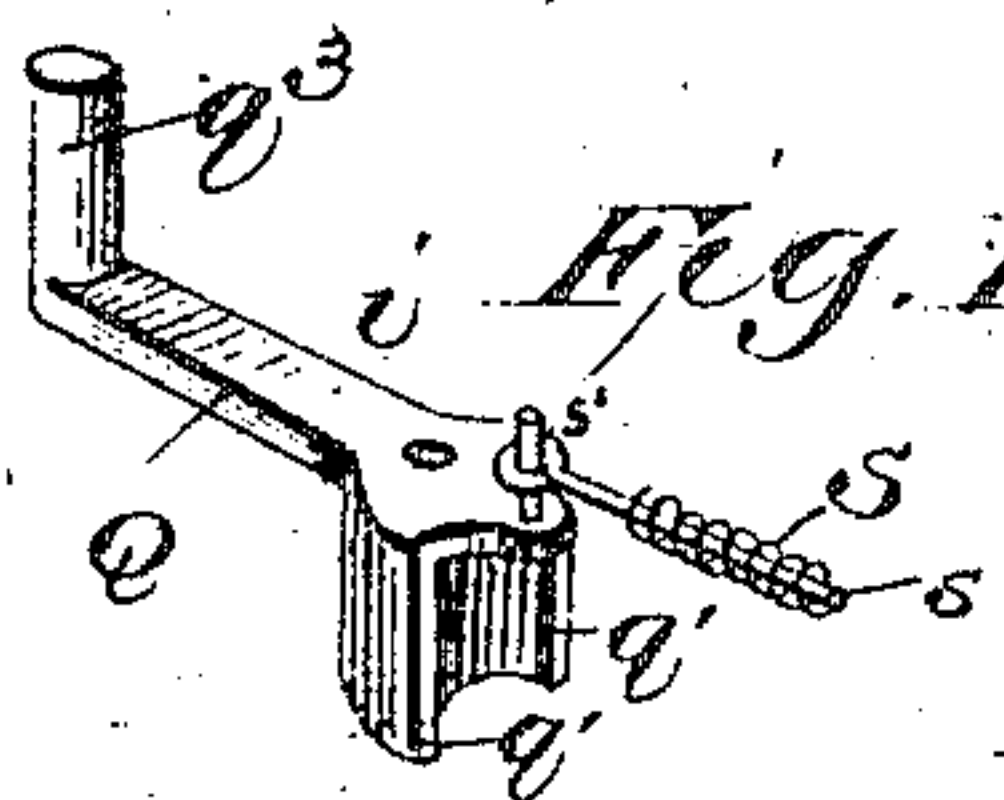


Fig. 11

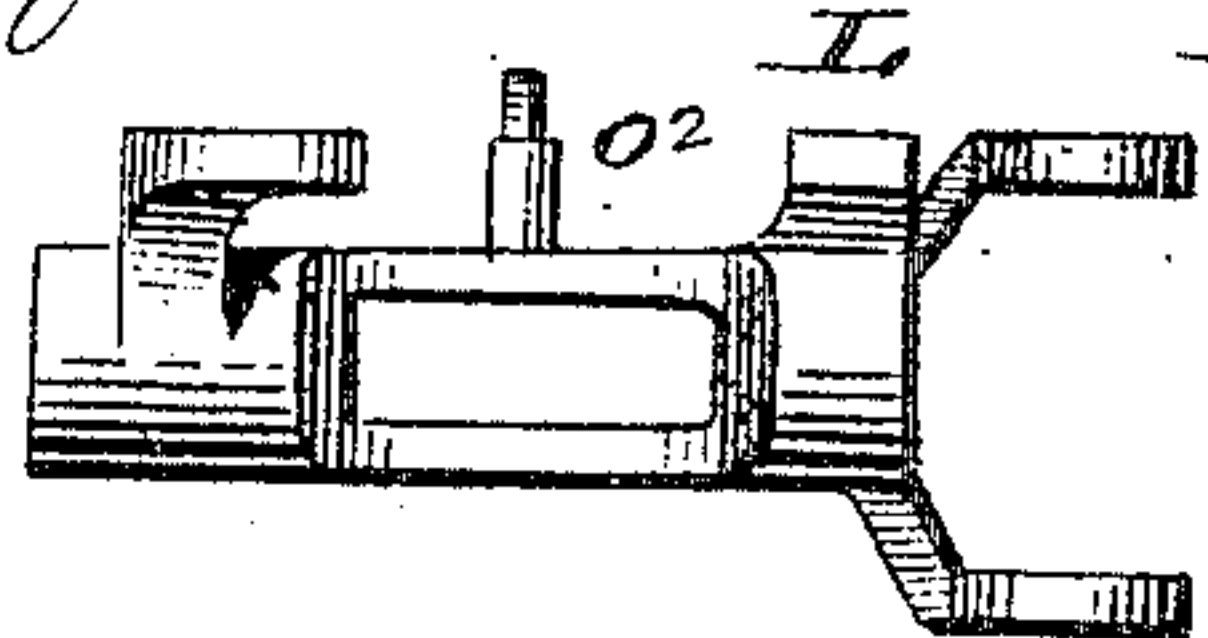


Fig. 13. I

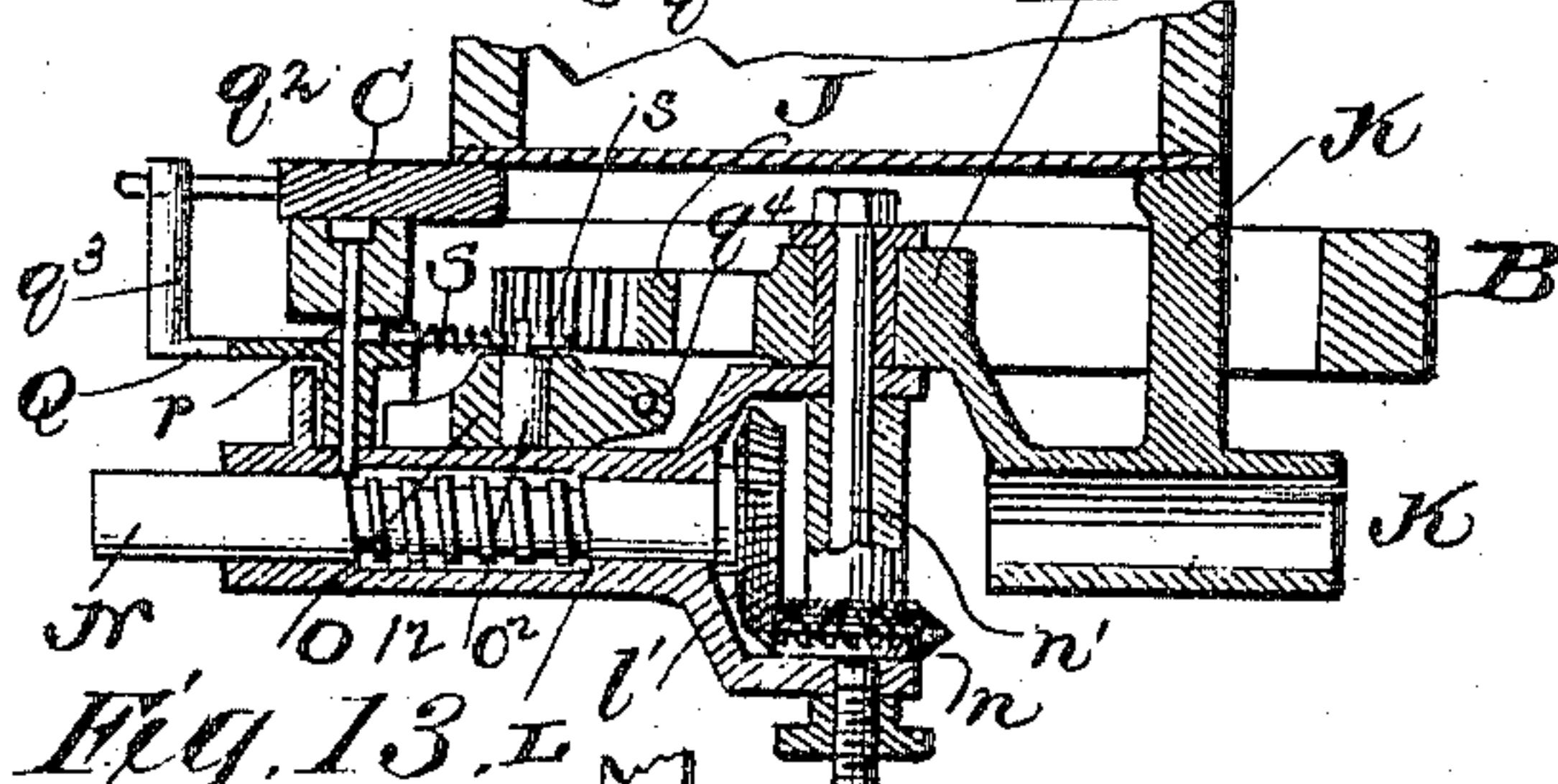
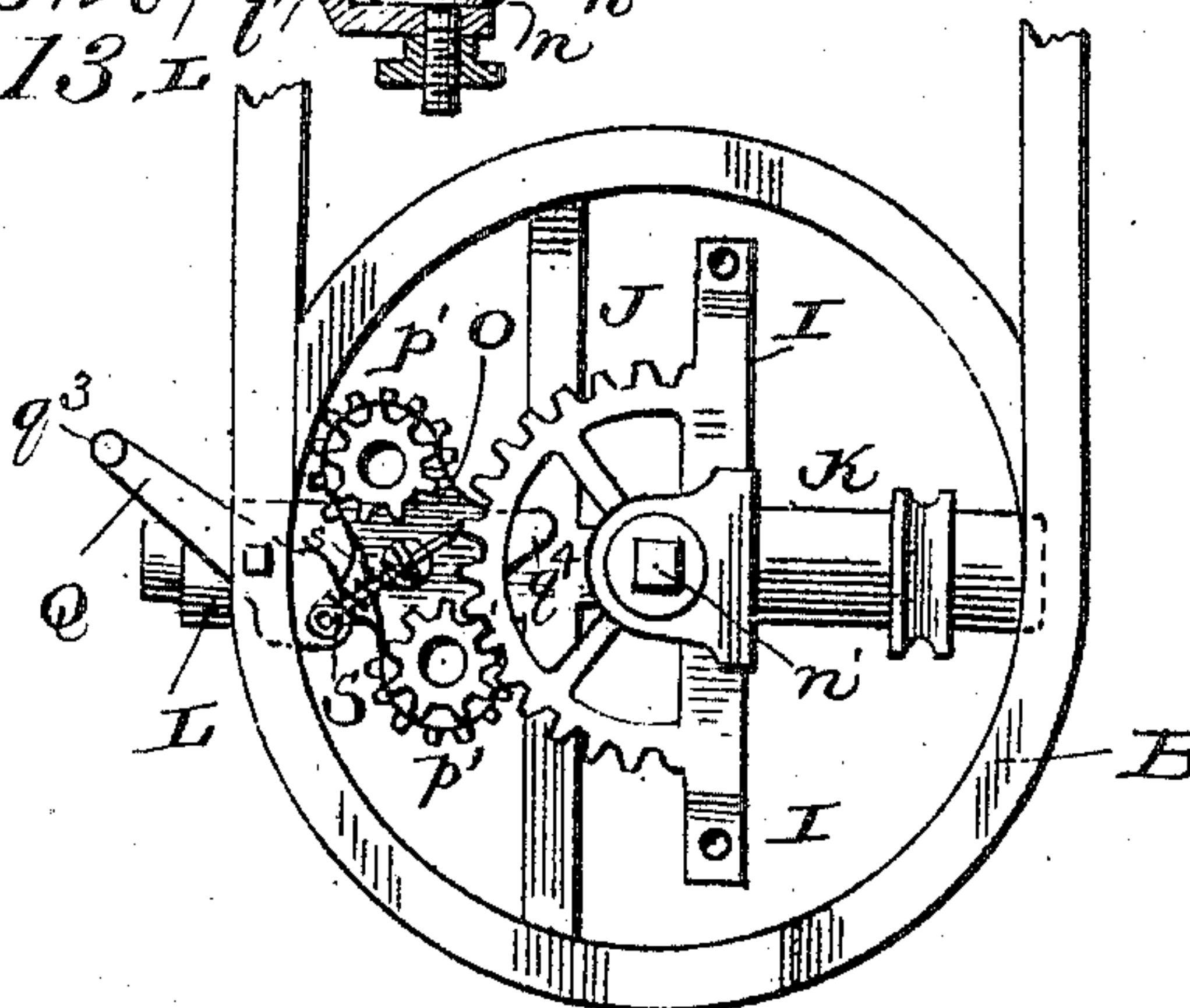


Fig. 12.



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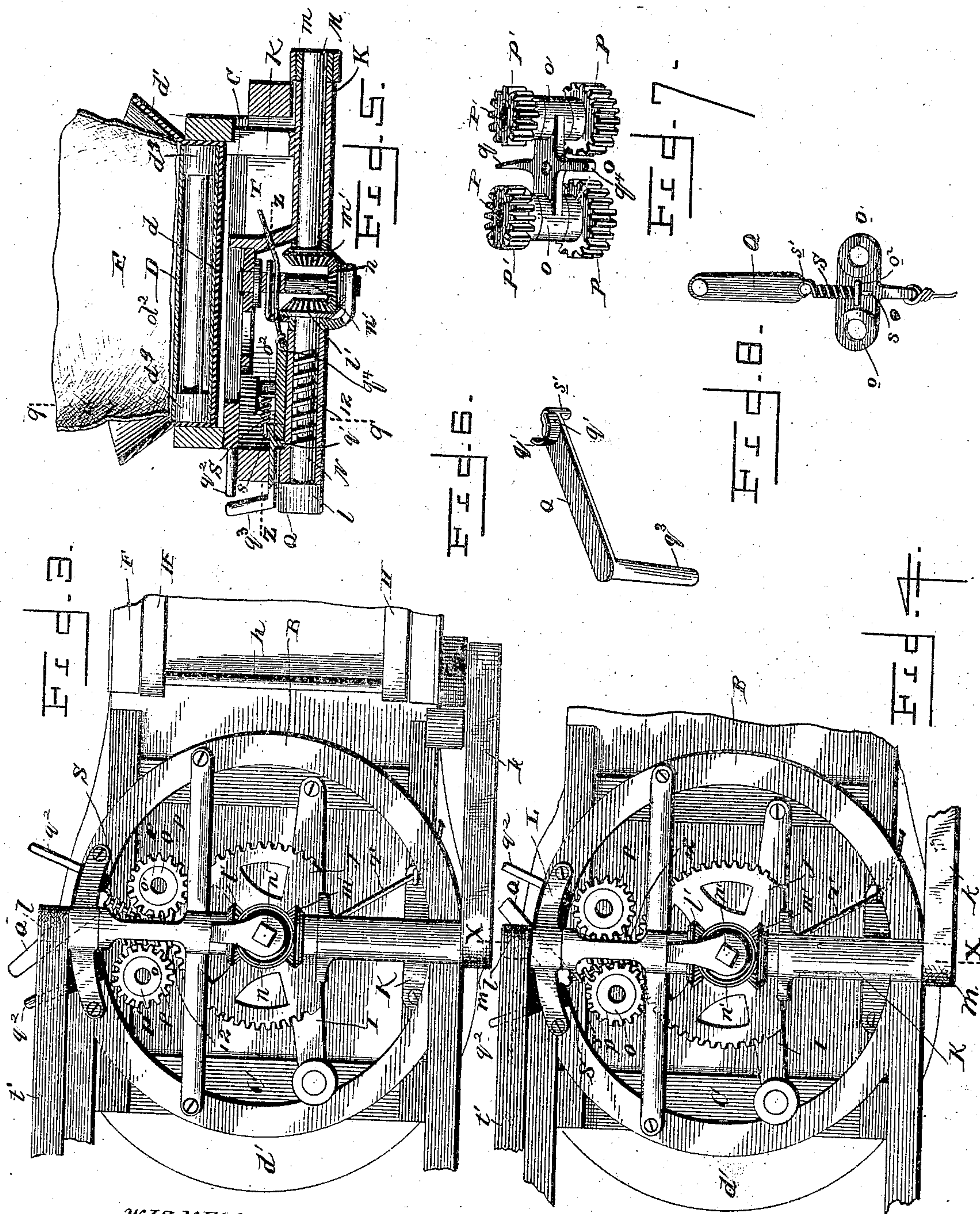
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UNITED STATES PATENT OFFICE.

JAMES L. SENTENEY, OF COOK'S MILLS, ILLINOIS.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 436,674, dated September 16, 1890.

Application filed April 26, 1889. Serial No. 308,683. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. SENTENEY, a citizen of the United States, residing at Cook's Mills, in the county of Coles and State of Illinois, have invented certain new and useful Improvements in Straw-Stackers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to straw-stackers, and has for its object to improve the general construction of the same, whereby their efficiency is increased and they are rendered more convenient to manipulate.

A further object of the invention is to provide simple means for automatically swinging the carrier or stacker right and left, and which can be thrown out of gear by the man on the stack, so that the stacker can be moved to any desired point.

The improvement consists of the novel features and the peculiar construction and combination of the parts, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a side view of a thrashing-machine, showing the application of my improved stacker. Fig. 2 is a reverse side view, parts being broken away, of the thrasher and stacker, the horizontal carrier being in section. Fig. 3 is a bottom plan view of the fifth-wheel and turn-table, on an enlarged scale, showing the parts connected therewith. Fig. 4 is a view similar to Fig. 3, showing the yoke reversed. Fig. 5 is a cross-section on the line X X of Fig. 4, looking to the left. Fig. 6 is a detail perspective view of the reversing-lever. Fig. 7 is a detail perspective view of the yoke and the shafts carried thereby. Fig. 8 is a top plan view of the yoke and the reversing-lever. Fig. 9 is a detail section on the line 9 9 of Fig. 5, looking to the right, on an enlarged scale. Fig. 10 is a top plan and a side view, respectively, of the casting I and bearing K. Fig. 11 is a side and a top plan view, respectively, of the casting L. Fig. 12 is a top plan view of the fifth-wheel and the mech-

anism for shifting the elevator. Fig. 13 is a detail section on the line X X of Fig. 4, the shaft M being removed. Fig. 14 is a detail perspective view of the yoke. Fig. 15 is a detail perspective view of the lever, showing the spring and stiffening-rod connected therewith.

A represents a thrasher of ordinary construction, being shown to illustrate the application of my invention.

B is the fifth-wheel, which is attached to the thrasher, and on which the turn-table C is mounted. The horizontal carrier D is placed on the turn-table, and is protected on its bottom by the metal covering *d*, which extends up over the front end of the said carrier, as shown. The flaring-shield *d'* projects up from the front end and on the two sides of the carrier D and prevents the wind and current of air from the machine carrying straw off the carrier. The canvas shield or hood E, extending from one side of the thrasher to the other side in a semicircle, is supported on the two curved rods *e* and *e'*, that are attached at their ends to the sides of the thrasher, and acts, in conjunction with the shield *d'*, to prevent the wind blowing the straw from the said carrier D. The endless apron *d''* of the carrier D passes over rollers *d'''* and *d''''* at the ends of the carrier, and the roller *d''''* is extended at one end and provided with the double pulley *d''''''*.

The stacker comprising a series of sections F, F', and F'', that are hinged together, is hinged or pivoted at its lower end to the carrier D, and its outer end is raised and lowered by means of the windlass G and the rope *g*, which latter extends from the outer section F'', and thence over pulley *f* on the end of the folding derrick *f'*, that is supported by the guy-ropes *f''*, to the windlass G. The windlass is rotated by the crank *g*, and is held from turning back by the pawl *g''*, which is arranged to engage with the ratchet-wheel *g'* on the said windlass. The elevating-apron H of the stacker passes over rollers *h* and *h'* at the ends of the stacker and is of ordinary construction. The end of the roller *h* is extended and provided with the pulley *h''*. The pulleys *h''* and *d''''''* are geared together by the belt *h'''*.

The casting I, secured to the under side of

the turn-table, is provided with the toothed segment J. The bearing K, fastened to the turn-table, may be secured to or form part of the casting I, and is located diametrically opposite the bearing L, which is secured to the fifth-wheel B. The shaft M, journaled in bearing K, is provided at its outer end with the pulley *m*, which is connected by belt *k* with pulley *d*⁵, said belt passing over the guide-pulleys *k'*, and on its inner end with the bevel-pinion *m'*. The shaft N, journaled in bearing L and having pulley *l* on its outer end and the bevel-pinion *l'* on its inner end, has a portion between its ends provided with a worm-thread *l*². The bevel-pinion *n* is mounted on the pendant *n'* so as to turn freely on same, and meshes with the bevel-pinions *m'* and *l'*, causing the two shafts M and N to revolve together at any relative adjustment.

The yoke O, pivoted between its ends on the stud *o*² of bearing L, has two vertical bearings *o* and *o'*, in which are journaled two shafts P and P', that have gearing at each end. The lower ends of the shafts have worm-gears *p*, which are in mesh with the worm-thread *l*² on the shaft N, and the upper pinions *p'* are adapted to be thrown in and out of gear with the toothed segment J.

The lever Q, pivoted between its ends on the pin or bolt *r*, has two tappets *q'* on its inner end, which are adapted to engage with a horizontal projection *q* on the yoke O and swing the latter right or left to throw one or the other of the pinions *p'* in engagement with the toothed segment J. The spring S holds the yoke in either position, and is stiffened by the rod *s*, which passes through an opening in the upper end of the stud *o*², and which is engaged with the pin *s'* at the end of the lever Q. The vertical extension *q*³ on the outer end of the lever Q is adapted to be struck by the tappets *q*² on the turn-table C and reverse the lever Q, and consequently change the position of the yoke O and bring one pinion *p'* out of mesh with the segment J and throw the other pinion *p'* in mesh with the said segment, thereby reversing the motion of the stacker. The cord T, passing through staples *t* in the sides of the stacker, extends from the outer end of the stacker to the projection *q*⁴ on the inner end of the yoke O.

By pulling on said cord the pinions *p'* will be thrown out of gear with the segment J, and the stacker can be moved readily from right to left.

The operation of the invention is manifest from the foregoing detailed description, reference being had to the annexed drawings. However, it may be well to state that the power is transmitted from any suitable part of the thrashing-machine to the pulley *d* by the belt *t'*, which passes over said pulley and the pulley *l'* on the end of a shaft that projects from the side of the thrasher.

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

1. The combination, with the fifth-wheel and the turn-table having a toothed segment, as J, of the shaft N, having a worm-thread on a portion thereof, the yoke having vertical shafts, which shafts have gearing on each end, the lower gearing being in mesh with the worm-thread on shaft N and the upper gearing adapted to be thrown in mesh with said segment, substantially as and for the purpose described.

2. The combination, with the fifth-wheel, the turn-table, and the shaft N, having worm-thread *l*², of the yoke, the shafts P and P', having gearing *p* and *p'*, and the reversing-lever Q, substantially as set forth.

3. The combination with the fifth-wheel, the turn-table, and the yoke, of the reversing-lever adapted to engage with said yoke, and tappets on the turn-table adapted to automatically operate the lever Q, substantially as and for the purpose described.

4. The combination, with the turn-table and the yoke carrying mechanism to engage with and operate the turn-table, of the cord T, extending from the end of the stacker and connected with the said yoke to disconnect the mechanism carried thereby from the said turn-table, substantially as and the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES L. SENTENEY.

Witnesses:

A. G. CHAPMAN,
J. R. BEGGS.