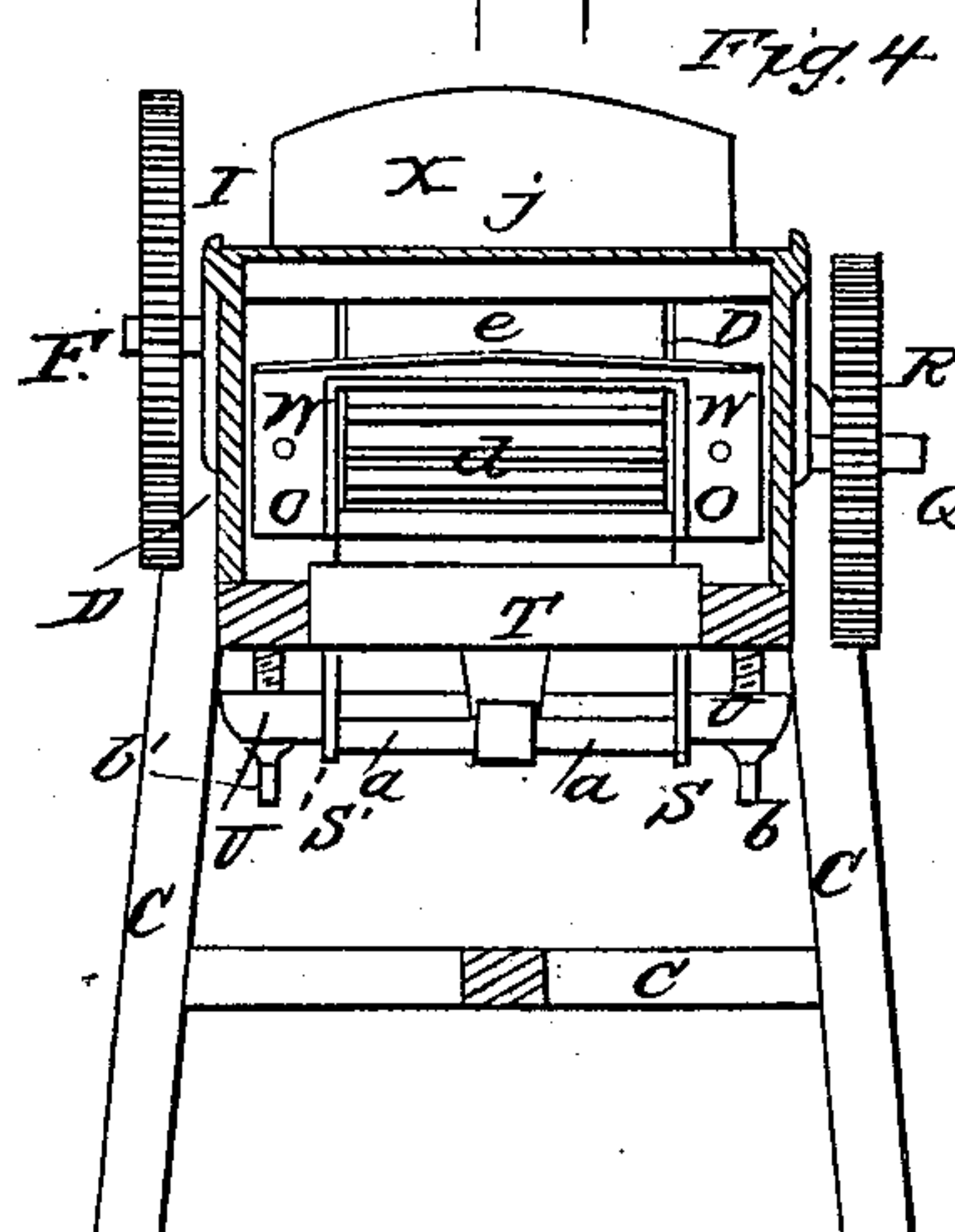
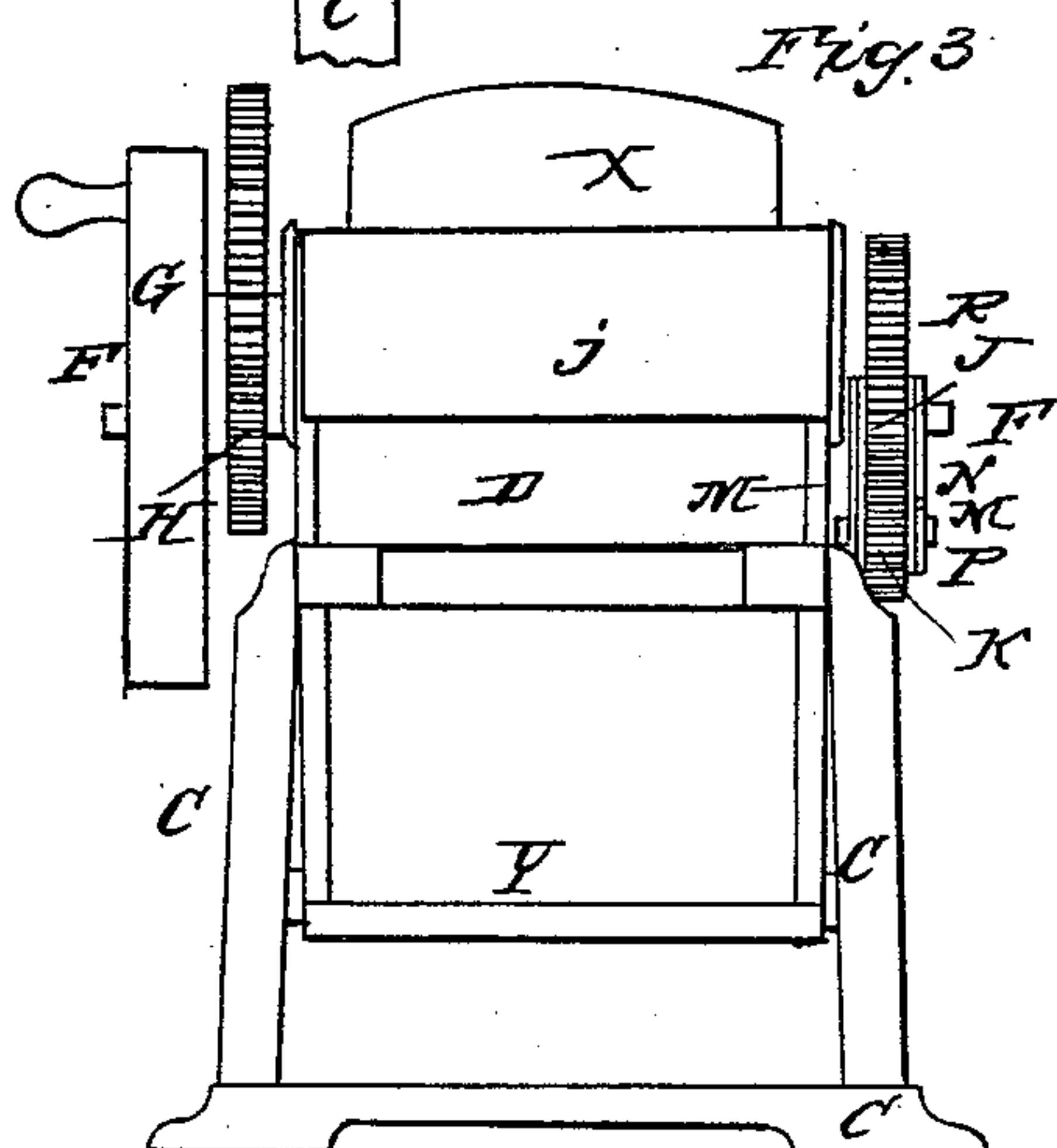
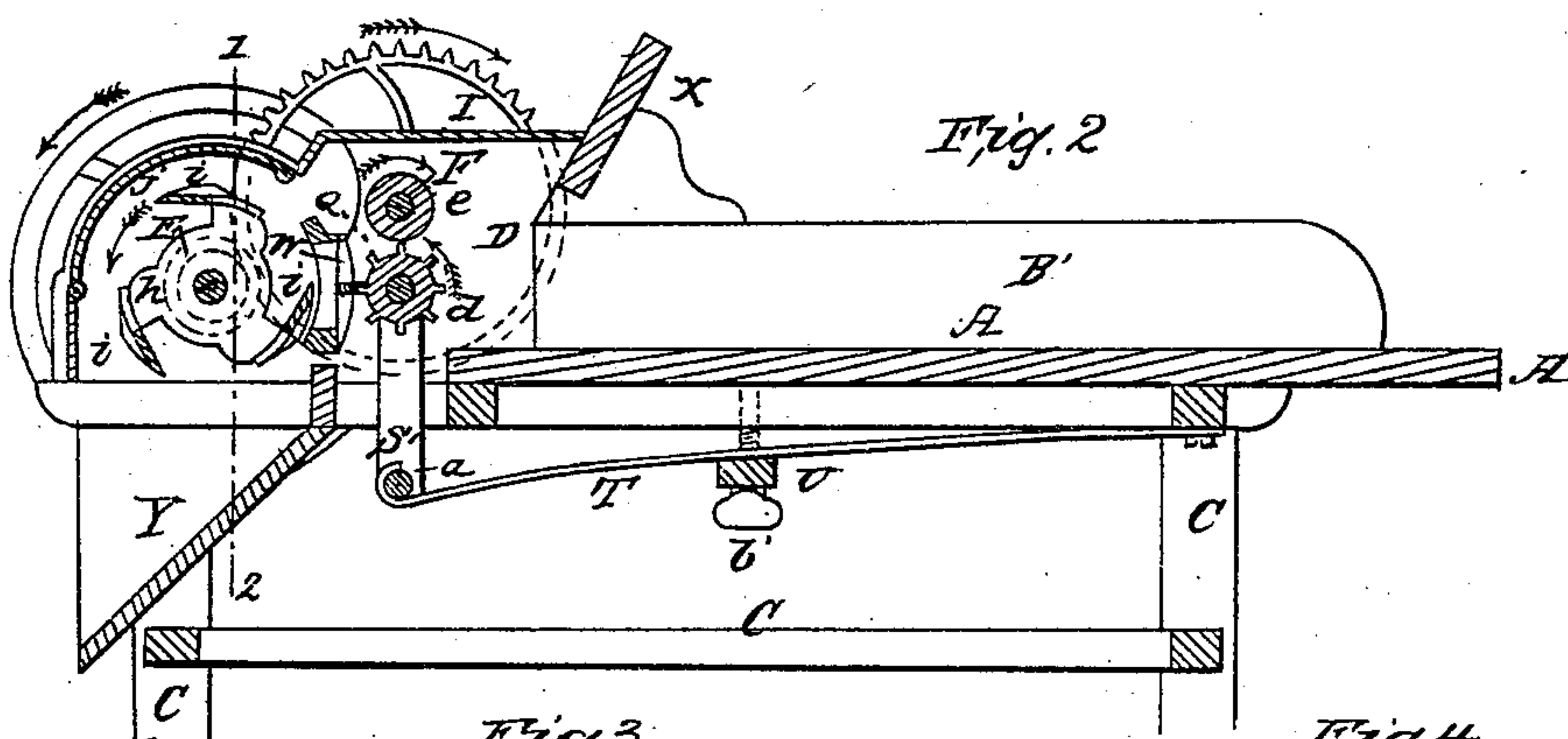
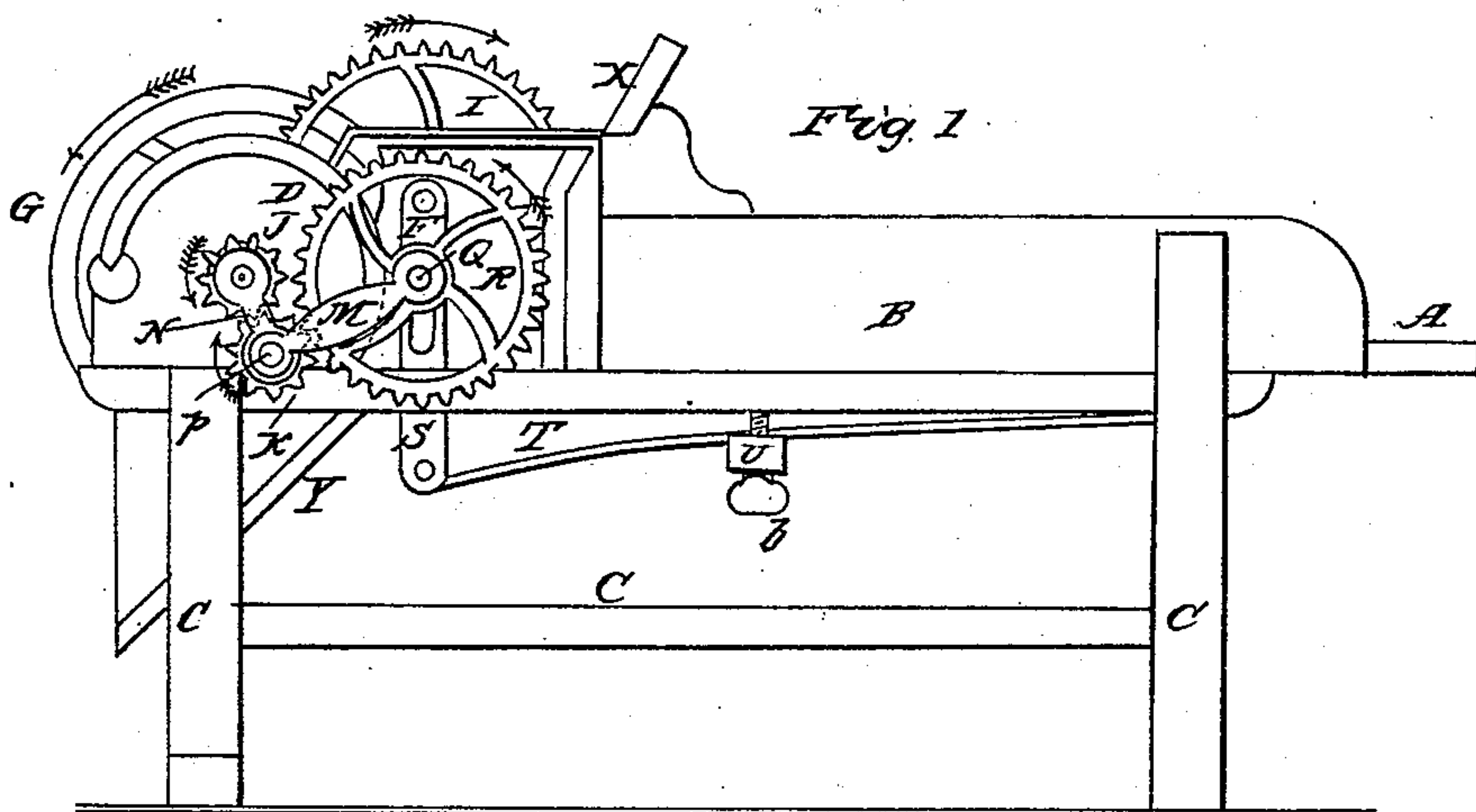


C. P. PERRY.
Straw Cutter.

No. 20,582.

Patented June 15, 1858.



UNITED STATES PATENT OFFICE.

C. P. PERRY, OF NORRISTOWN, PENNSYLVANIA.

STRAW-CUTTER.

Specification of Letters Patent No. 20,582, dated June 15, 1858.

To all whom it may concern:

Be it known that I, CHARLES P. PERRY, of Norristown, Montgomery county, State of Pennsylvania, have invented certain new and useful Improvements in Straw-Cutters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to improvements in that class of straw cutters, in which revolving knives, a feed roller and a plain roller are used, and my improvement consists in so connecting and gearing together the shafts of the said cutters and rollers by a peculiar combination and arrangement of links and cog-wheels, fully described hereafter, that the feed roller may yield and change its position, as regards that of the plain roller, without disturbing the movement and operation of the machine.

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

On reference to the drawing, which forms a part of this specification, Figure 1 is an external elevation of my improved straw cutter. Fig. 2 a sectional elevation of the same. Fig. 3 an end view, looking in the direction of the arrow (Fig. 2). Fig. 4 a transverse sectional elevation on the line 1, 2, (Fig. 2) -also looking in the direction of the arrow.

Similar letters refer to similar parts throughout the several views.

A platform A with the two side pieces B and B', (forming the feeding trough of the machine), are secured to the frame-work C, to which is also attached the metal box D. In the opposite sides of the latter turn the shafts E and F. To the shaft E (on one side of the machine) is secured the handled pulley G and the pinion H, which gears into the wheel I on the shaft F, and (on the opposite side of the machine) the shaft E is furnished with a pinion J, which is maintained in gear with the pinion R, by means of two links N N, one being situated on each side of the pinion, and both being hung loosely at the top, to the shaft E, and at the bottom to the spindle P, to which the pinion K is secured. To the same spindle the two links M M are also loosely connected, one link being situated on each side of the pin-

ion and wheel R, into which the pinion gears. This wheel R is secured to a shaft Q, which passes through, and is guided in, oblong slots in the opposite sides of the metal box D, and turns in recesses formed in the top of the bars S and S', which are connected together at the bottom by the transverse bar a. The latter is embraced in the middle by one end of the spring T, the opposite end of which is attached to the front of the machine. This spring bears on the top of a transverse bar U, which is rendered adjustable to the underside of the platform A by means of set screws b and b', so that the rigidity of the spring may be increased or diminished at pleasure. To the shaft F is attached the plain roller e, to the shaft Q the toothed feed roller d, and to the shaft E the two plates h, to which are secured the three angular cutting blades i, i, i. W is a plate, having an opening sufficiently large for the bundle of straw to pass freely through, and this plate is so curved as to coincide with the circle described by the revolving angular knives, which pass in close proximity to, but not in actual contact with, the plate. This plate W is attached by set screws to the metal box D, in such a manner that it can be readily set up toward the revolving blades, when the circle described by the latter becomes diminished by the wearing away or sharpening of their edges. The transverse bar X serves to direct the uncut straw toward the feed rollers, and the shoot Y to direct the cut straw to the ground.

Operation: The machine may be set in motion by hand or by a strap passing over the pulley G, causing the moving parts to revolve in the direction indicated by the arrows. A suitably sized bundle of straw is placed on the platform A, and directed toward the feed rollers e and d, between which it is drawn. The elasticity of the spring T allows the lower roller to yield, and its rigidity tends to compress the straw into a compact mass, as it passes through the opening in the adjustable plate W. There it is submitted to the action of the revolving angular knives i, i, which cut the straw into suitable lengths, the latter dropping onto the chute Y, and from thence onto the ground. By the peculiar arrangement of the links M and N, in conjunction with the shafts E, F and Q and their respective wheels, it will be evident, that the roller d can move up or down without any interrup-

tion of its required motion. By so arranging the plate W that it can be set up toward the knives, when the latter are worn by sharpening or other causes, the usual tedious and uncertain plan of setting up the knives is avoided.

I do not claim the upward cut of the knives, neither do I claim broadly allowing the feed roller *d* to yield more or less from the roller *e*, and, at the same time, to continue its rotary motion; but

I claim and desire to secure by Letters Patent;

The shaft E with its pinion J, the shaft

Q with its wheel R, and the spindle P with its pinion K, when the said shafts are linked together, and the said wheels and pinions are arranged, with respect to each other, substantially as, and for the purpose herein set forth.

In testimony whereof, I have signed my name to this specification before two subscribing witnesses.

CHAS. P. PERRY.

Witnesses:

HENRY HOWSON,
WILLIAM H. BROWN.