

G. W. COLE.

Stalk-Chopper.

No. 57,678.

Patented Sept. 4, 1866.

Fig. 1.

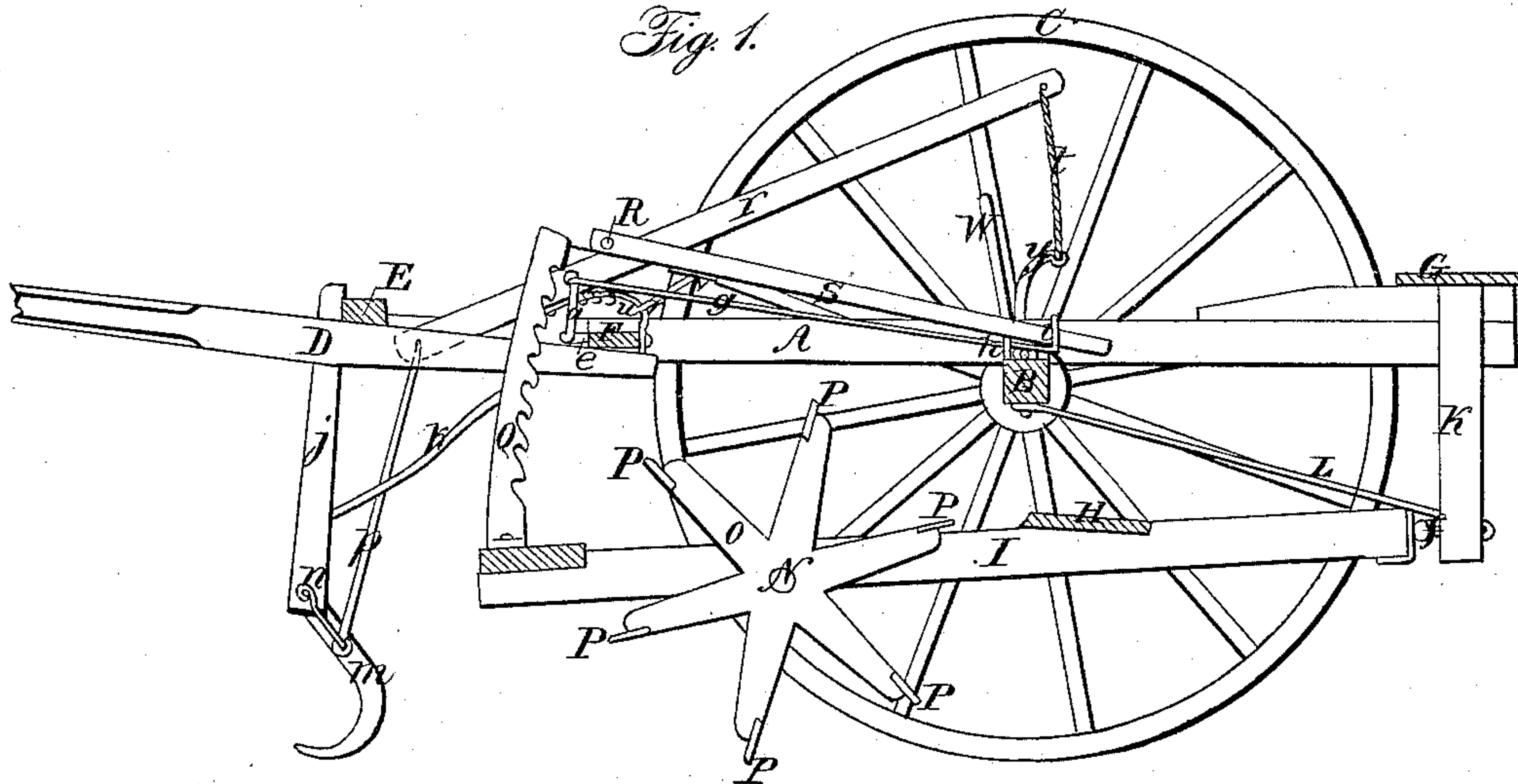
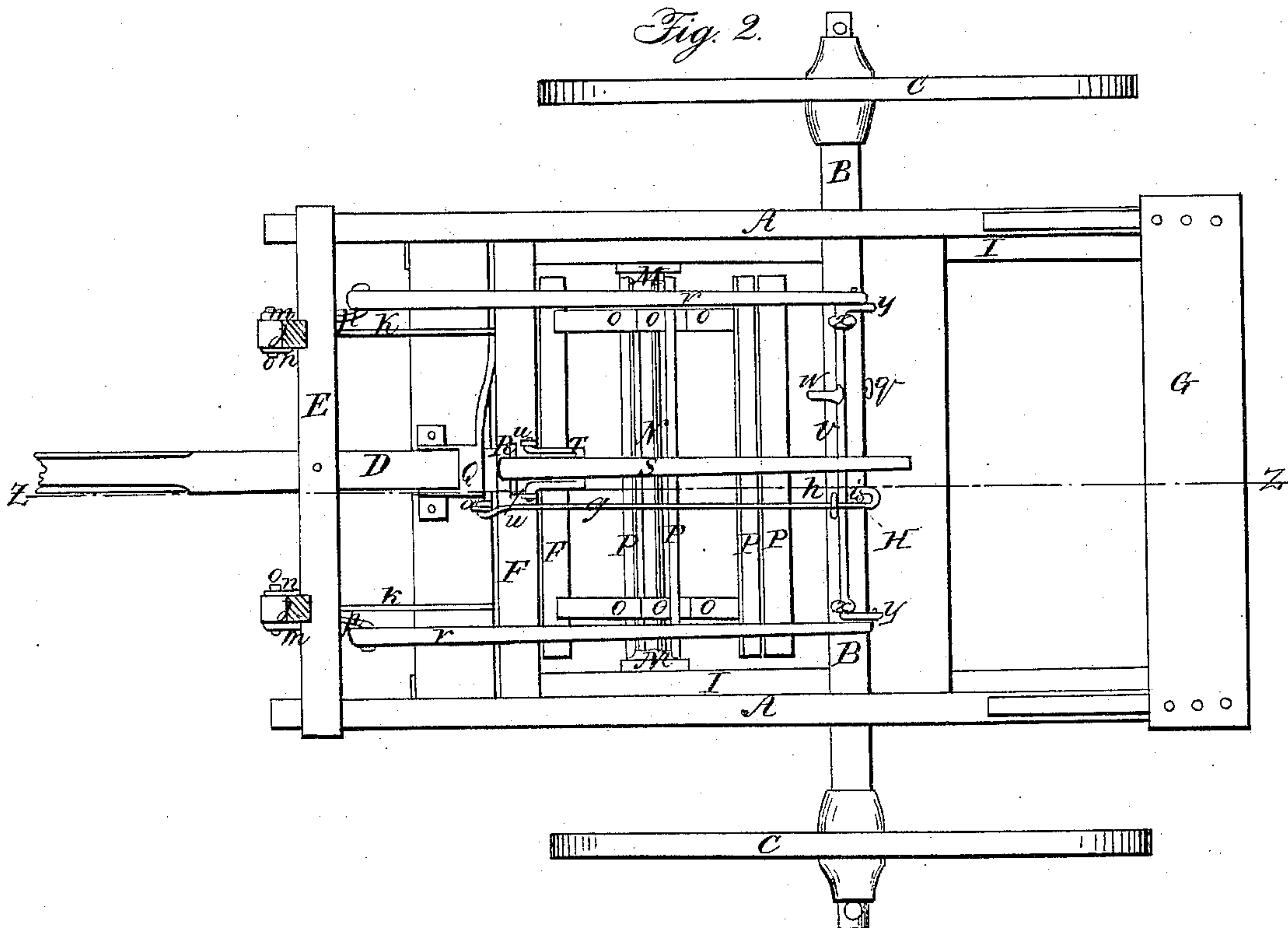


Fig. 2.



Witnesses:

W. A. Haskell.
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G. W. COLE, OF CANTON, ILLINOIS.

IMPROVEMENT IN MACHINES FOR CUTTING STALKS IN THE FIELD PREPARATORY TO PLOWING.

Specification forming part of Letters Patent No. 57,678, dated September 4, 1866.

To all whom it may concern:

Be it known that I, G. W. COLE, of Canton, Fulton county, and State of Illinois, have invented a new and Improved Machine for Cutting Standing Corn-Stalks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which are made a part of this specification, in which—

Figure 1 is a side sectional view on the line *z z* of Fig. 2. Fig. 2 is a plan or top view.

Similar letters of reference indicate corresponding parts in the two drawings.

This invention relates to a new and improved machine for cutting up standing corn-stalks; and it consists in the employment and use of gathering-hooks, in connection with hanging posts, levers, and spring-fulcrums, to keep the hooks in proper position when at work, or raise them when not at work, as hereinafter fully described; in the employment and use of a cutter-wheel rotating in a frame hinged at back end to a frame mounted on wheels, leaving the cutter-wheel and front end of its frame free to adjust themselves to any uneven surface of ground, as hereinafter fully described; and in the raising of the adjustable frame when not at work by means of a lever working into a notched or toothed standard fixed to front end of frame, and a spring which holds the frame as raised by the lever, as hereinafter fully described.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it more fully.

A represents a rectangular frame, which is mounted on axle B, with two wheels, C C, and drawn by the pole D, attached to E and F, cross-pieces of frame A. G represents the driver's movable seat, and H the driver's foot-board, on the adjustable frame I, which is a rectangular frame attached at its rear end by the joints or hinges J to the hanging posts K on each side of the frame A, which posts are braced by the rods L L. On the inside of the frame I are bolted the boxes M M, in which turn the ends of the shaft N, on which are firmly keyed the cutter-heads O O, which heads or arms are rabbeted at their outer extremity to receive the cutters P, which are

bolted to the arms and parallel to shaft N, and extending nearly to inside of frame I, in which they freely rotate. On the front end of the frame I is bolted the metal open standard Q, through which the pole D passes to F. This standard is the arc of a circle with a radius from J, and its back edges are cut into teeth or notches to receive the spring *e* and the pin R in the end of the lever S. This lever has a hinged fulcrum, T, as shown in Fig. 2, the ends held by staples *u u*, which are driven into F, and the middle or lever end of the fulcrum is secured to the lever S by the plate *v*. To hold the open standard Q (and thereby the frame I) at any required height when raised by the lever S, there is provided a spring, *e*, fastened to F and resting on pole D, with the movable end terminating in a short upright arm, *a*, extending above F, to which is attached the rod *g*, which passes through the staple *h* driven into axle B.

To the front edge of E are bolted the hanging posts *j j*, braced by the rods *k k* to cross-piece F. Near the lower ends of these posts and on the outside are attached hooks *m m* by bolts *o o*, on which work *m* and braces *n*. The lower ends of *n* are fastened to *m*, and so bent that upper part is parallel to hooks which touch the ground when at work. The lever-rods *p p* connect the hooks *m* and levers *r*, which levers rest upon spring-fulcrums *s*, which are bolted to the levers and to F. The fulcrums *s* have a contracting spring, and hold the short arm of the lever down and the hooks *m* to their work, as shown in Fig. 1. The long arms of levers *r* are connected by a cord, *t*, to the curved arms *y y* on the ends of the rod *v*, secured to axle B by the staples *x x*, to which rod is fixed the lever *w*.

The machine operates as follows: As it is drawn along the hooks *m* will gather the lodged or broken stalks in a line with the rotary motion of the cutters, and enable them to cut the stalks into pieces as they pass over them. The hooks are kept to the ground by the contracting power of the fulcrums *s* under each lever *r*. By pulling back the lever *w* the hooks *m* will be instantly raised.

The cutters P have a great pressure given them, because the work is below and forward of the coupling J, and the whole weight of the

cylinder of cutters and most of the frame I, with a pushing cut, will be on the stalks, to which may be added the foot-power of the driver to the board H. The front end of the frame I is kept in the line of motion of the machine by the pole D passing through the open standard Q, attached to the frame. The forward end of the frame I has an adjustable perpendicular motion, adapting itself to the unevenness of the ground and the position of the cutters, on which it rests while at work.

When not at work, as in driving to and from the field, the driver will raise the hooks *m* by pulling back the lever *w* and placing over it the catch *q* and detaching the rod *g* from the pin *i*, when the spring *e* will enter the teeth of the open standard Q, and receive the weight of the frame I as it is raised by the lever S.

I do not claim separately the cylinder of cutters, for it has been previously used; nor do I claim the hooks *m* *m* separately, or in themselves considered; but

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

1. The combination of a cylinder of cutters, O, and its supporting-frame I, with the main

frame A, when said frame I is hinged at its rear end to the frame A, and has a vertical adjustment at its front end, operating substantially as and for the purposes set forth.

2. The hooks *m*, constructed as described, in combination with the hanging posts *j*, arranged substantially as and for the purposes set forth.

3. The notched or toothed open standard Q, lever *s*, spring-catch *e*, rod *g*, and staple *h*, in combination with the frames A and I, all substantially arranged as and for the purposes set forth.

4. The levers *r* and rods *p*, in combination with hooks *m*, arranged substantially as and for the purposes set forth.

5. The spring-fulcrum *s*, in combination with the frame A and lever *r*, arranged substantially as and for the purposes set forth.

6. The curved arms *y* and lever *w*, as described, in combination with the levers *r* and catch *q*, all arranged substantially as and for the purposes set forth.

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Witnesses:

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