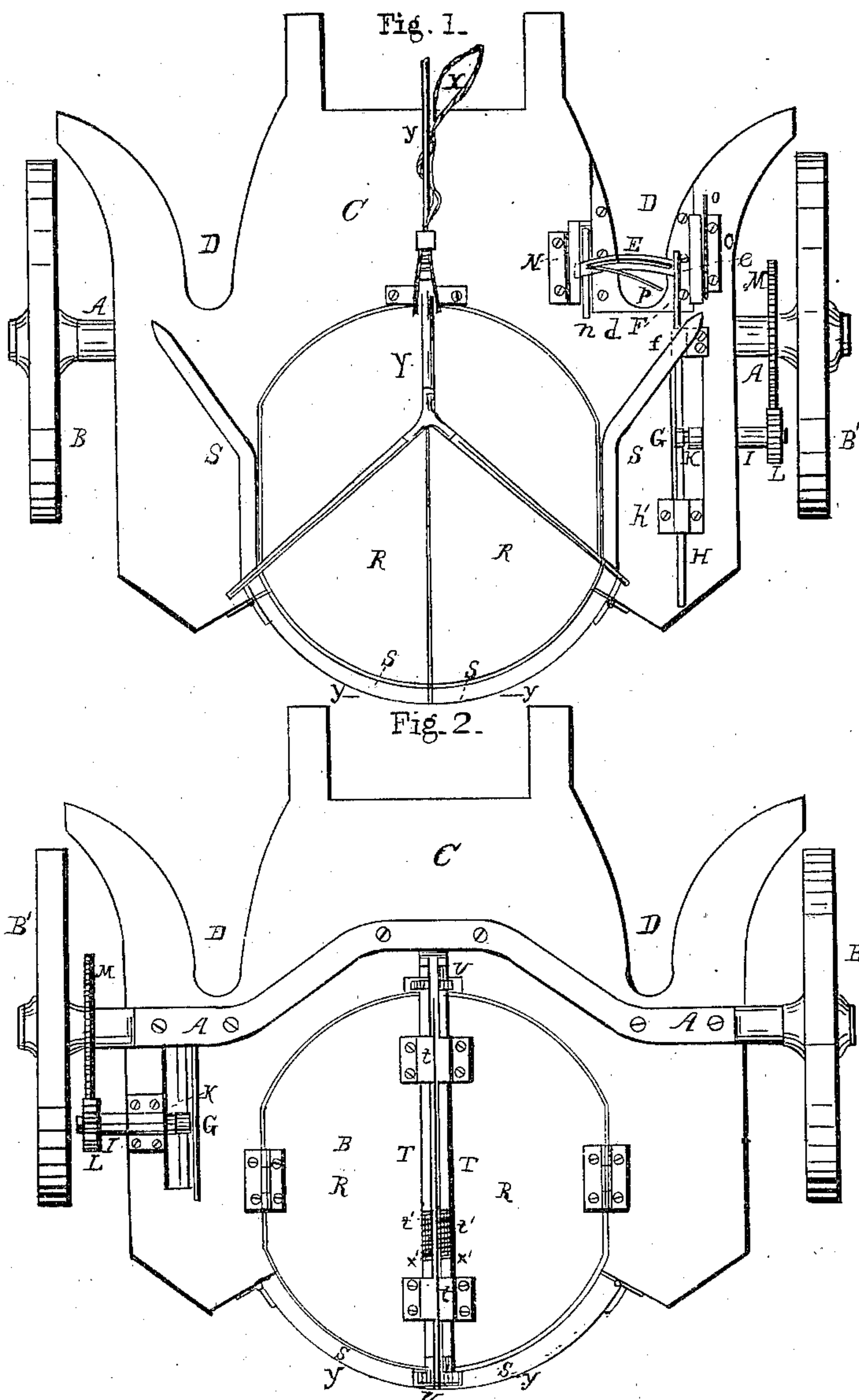


N. Newman,
Corn Harvester.

No. 97,429.

Patented, Nov. 30, 1869.



Witnesses.

Alfred M. ...
Samuel J. ...

Inventor.

Nelson Newman,
by O. ... & ... Attys.

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2 Sheets Sheet 2

No. 97429.

Patented Nov. 30. 1869.

Fig. 3.

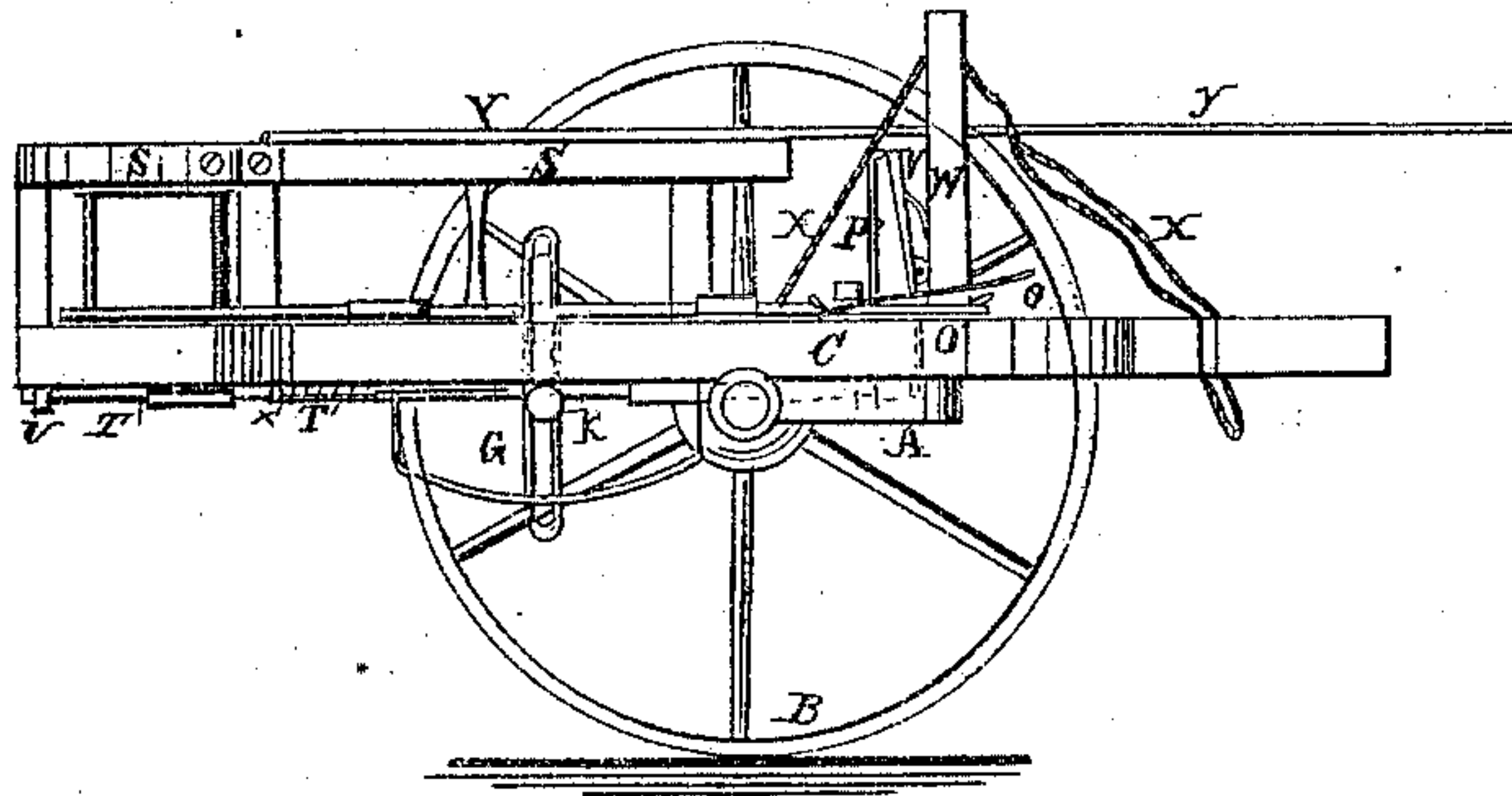


Fig. 4.

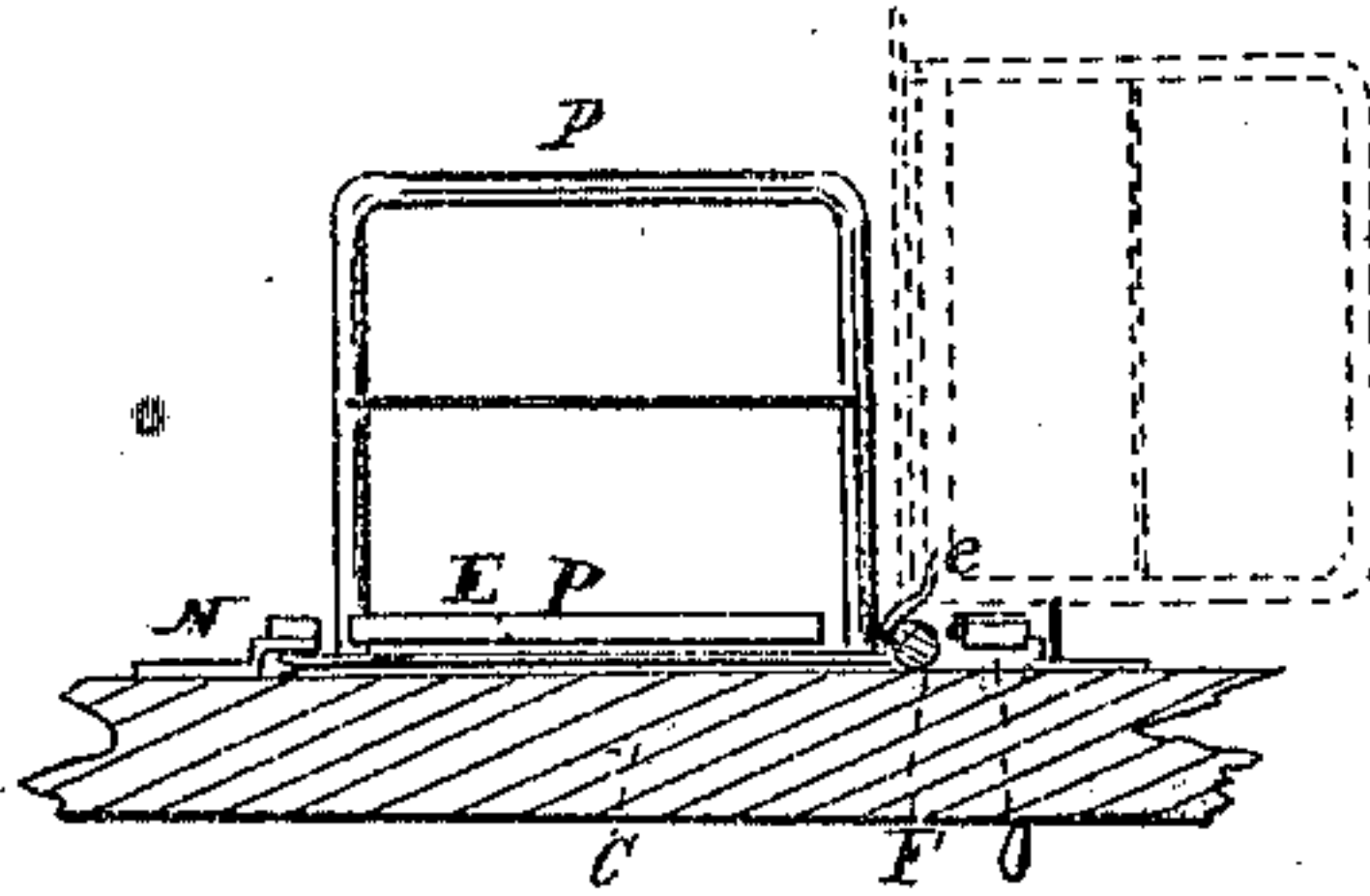


Fig. 8.

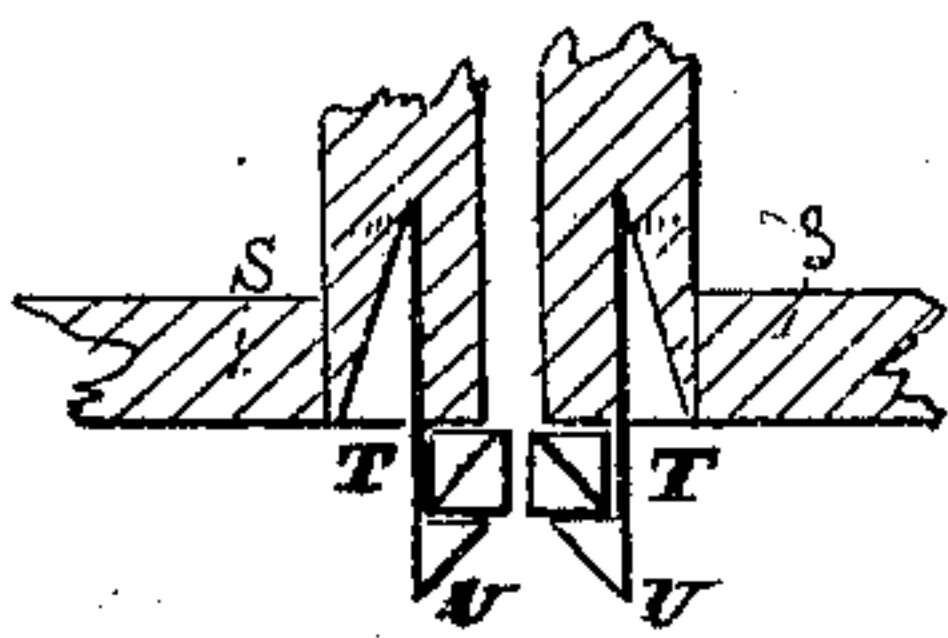


Fig. 5.



Fig. 6.

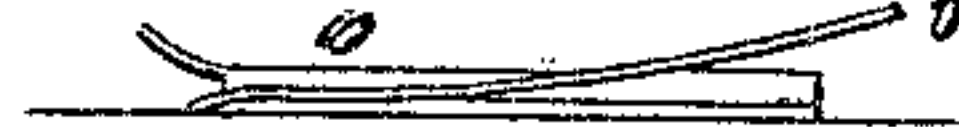


Fig. 7.

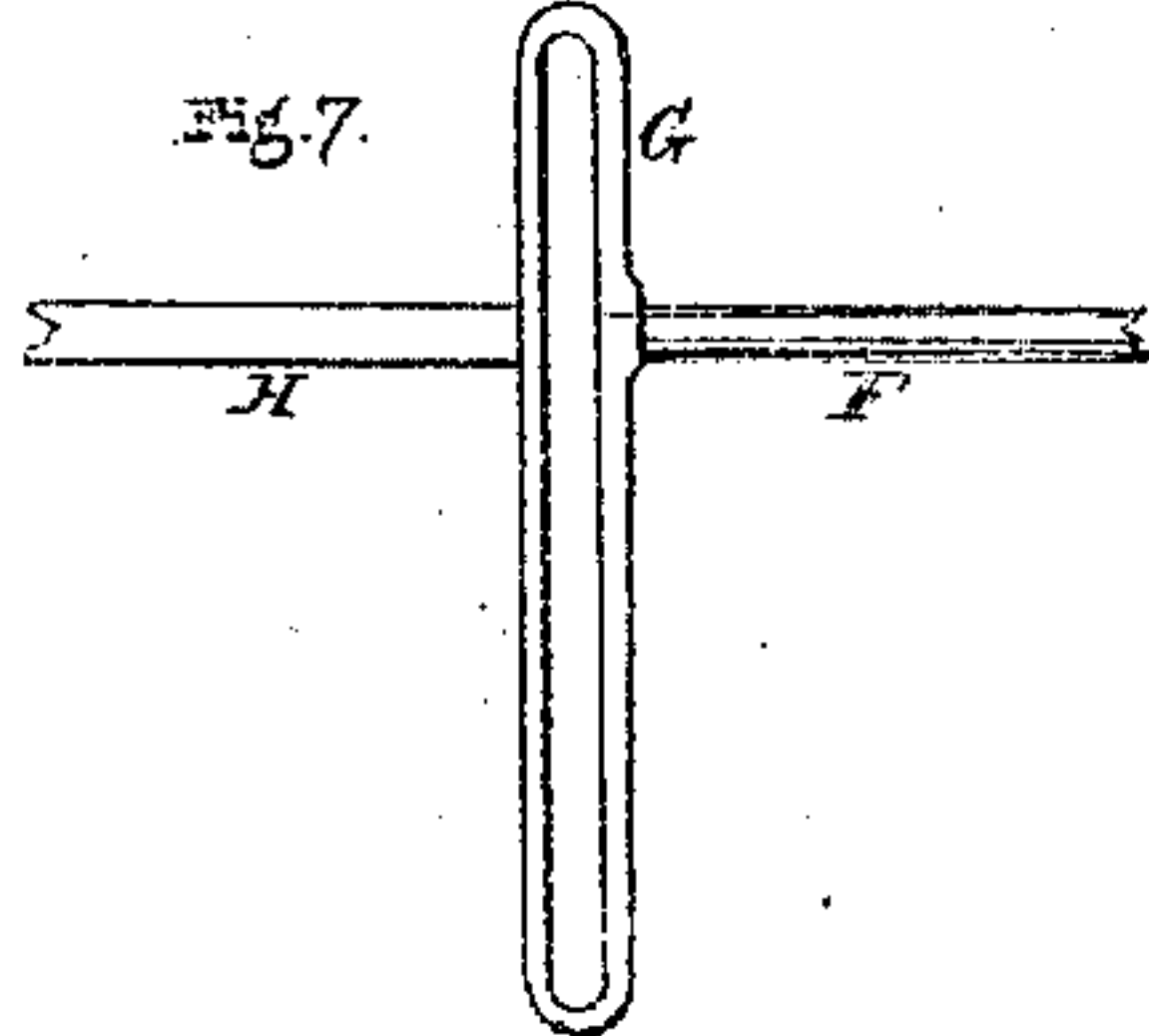


Fig. 9.

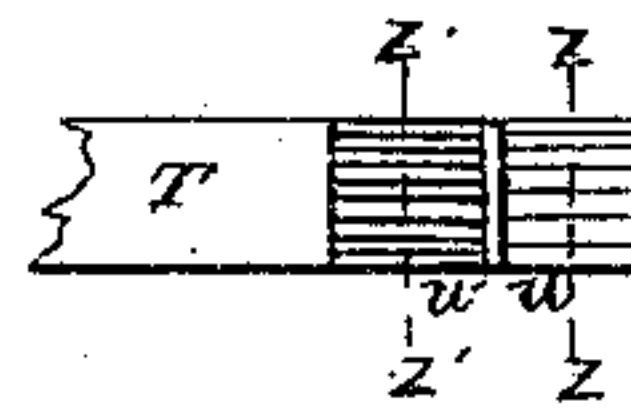


Fig. 10.



Fig. 11.



Witnesses.

*Ad. M. M. M.
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Inventor.

*Nelson Newman
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United States Patent Office.

NELSON NEWMAN, OF SPRINGFIELD, ILLINOIS.

Letters Patent No. 97,429, dated November 30, 1869.

CORN-HARVESTER.

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, NELSON NEWMAN, of Springfield, in the county of Sangamon, and in the State of Illinois, have invented a new and useful Machine for Cutting and Shocking Corn; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a plan view of the upper side of my device;

Figure 2 is a like view of the lower side of the same;

Figure 3 is a side elevation;

Figure 4 is a broken vertical cross-section of the platform, on the line *xx* of fig. 1, showing the cutting-devices;

Figures 5 and 6, are side elevations of the cutter-head guides;

Figure 7 is a side elevation of the link and guide-rods, for operating the cutter-head;

Figure 8 is a broken vertical longitudinal section of the gates, on the line *yy* of figs. 1 and 2;

Figure 9 is a broken side elevation of one of the bars for locking the platform; and

Figures 10 and 11 are cross-sections of the same, on the lines *zz* and *z'z'*, respectively, of fig. 9.

Letters of like name and kind refer to like parts in each of the figures.

My invention belongs to a class of devices used for cutting the standing stalks of corn, and has for its object the cutting, shocking, and placing the same in an upright position upon the ground; and to this end,

It consists principally in the construction and operation of the cutting-devices, and in the means employed for alternately throwing said devices to one side, so as to avoid a hill of corn, and returning the same to position when said hill is passed, as is hereinafter set forth.

It also consists in the means employed for producing a reciprocating motion of the cutter-head, in combination with the cutting-devices, as is hereinafter described.

It finally consists in the peculiar construction of the dropping-table, in combination with the devices employed for locking said table in position, and for releasing the same, for the purpose of depositing the corn upon the ground.

In the annexed drawings—

A represents the axle, constructed of metal, in the form shown in fig. 2, and having journalled upon its ends, in the usual manner, the ground-wheels B and B'.

Secured to and resting upon the axle A, is a plat-

form, C, having, at its front edge, two notches, D, placed at a suitable distance apart, so as that the centre of each will be on a line with a row of corn, which, as said notches flare outward, is gathered into the same, when the device is driven forward.

The upper surface of the platform, around the rear end of the notches, is covered with a steel plate, *d*, having a sharp, square edge at the line of said notch.

E represents a cutter or sickle, secured to and extending outward, at a right angle, from one end of a round rod, F, the opposite end of which is swivelled in one side of a link, G, which in turn has connected to its opposite side, in a line with said rod, one end of a square bar, H, the whole being placed so that the cutter resting upon the platform, extends across the notch D, while the rods extend rearward, in a line with the draught, through corresponding boxes *f* and *h*, with the link occupying a vertical position within a slot in the platform.

Journalled within a suitable box beneath the platform, is a shaft, I, having upon its inner end a crank, K, the pin of which, *k*, works in the slot of the link G.

Attached to the outer of said shaft is a pinion, L, which meshes with and receives motion from a gear-wheel, M, secured, upon the inner end of the hub of the ground-wheel.

As thus constructed, if the device is driven forward, the motion of the wheel B will be communicated, through the gear M, pinion L, shaft I, and crank K, to the link G, producing in said link, the rod F, and cutter E, an alternately-reciprocating motion, by means of which any suitable substances placed between the inner end of the notch D and said cutter would be readily severed.

In order that the cutter may be held against the plate *d*, when cutting the stalk, and afterward raised so as to allow a hill of corn to enter the notch, its outer end is caused, when moving backward, to pass under a guide, N, which holds said cutter firmly against the plate *d*, until after it has passed the rear end of said notch, when, upon being released from said guide, a spring, *n*, pressed down by the cutter in its backward stroke, throws the same upward to or beyond a vertical position, as shown in fig. 4.

A small rod, *e*, projecting outward and slightly downward from the cutter, near the rod F, engages with a guide, O, corresponding to that described, when said cutter moves forward, holding it in a vertical position until released, when it is thrown down upon the plate *d*, by means of a spring, *o*, pressing against a guard-rod, P, projecting upward and across from either end of said cutter.

By this arrangement, the cutter will be automatically raised and retained in a vertical position while

moving forward, and then thrown down and held firmly against the cutting-plate *d*, upon the backward stroke, so that when the device is driven forward, each hill of corn in the row will be alternately received into the notch, the stalks neatly divided, and their tops pushed backward upon the platform.

A spring, *p*, attached at one end to the guard-rod *P*, near the outer end of the cutter, and projecting horizontally across, in front of the same, serves to throw forward the stalks already cut, and free the same from said cutter, so as to permit it to rise at the end of the backward stroke.

At the centre, transversely of the platform, in rear of the notches and cutting-devices, is a nearly circular opening, open to the rear; to which are fitted two doors, *R*, hinged at their outer edges to the platform, so that while closing said opening, when occupying a horizontal position; they may, when desired, swing downward and outward, and leave the opening unobstructed.

A railing, *S*, extends from the outside and rear of the cutting-devices, to and around the rear end of said doors, that portion of said railing immediately in rear of the same being divided in the centre and at the ends, so as to form two gates, *s*, which, being hinged at their outer ends, are permitted to swing to either side.

A suitable door-spring, secured to the hinged edge of each gate and to the contiguous portion of the railing, keeps the gates closed, except when purposely held open.

In order that the doors or traps *R* may be held in a horizontal position when desired, a square bar, *T*, is secured to the under side of each at its inner edge, by means of two boxes, *t*, the ends of said bar projecting outward beyond said trap, so as that each shall engage with spring-catches or detents *U*, attached to the platform, and to the lower inner edge of the gate *o*.

Each bar *T* is loosely fitted to its boxes *t*, so as to slide freely lengthwise, and is kept in the position shown in fig. 2, by means of a spiral spring, *t'*, coiled around a rounded portion of said bar, with one end pressing against a shoulder thereon, while the other end bears against a pin, *x'*, projecting upward from the door, said pin also serving as a stop to prevent the bar from moving too far in the direction of the spring.

As shown in fig. 8, the bar *T* is bevelled downward and outward from the upper inner corner at *u*, directly over the catch *U*, so as to enable it to press outward and pass said catch when the door is closed upward; and in order that the bar may be disengaged with equal facility when it is desired to drop said door, another portion of said bar, *u'*, immediately adjoining, is bevelled in an opposite direction, or downward and inward from the upper outer corner, so that if said bar be pressed lengthwise until said bevelled part *u'* is brought directly over said catch, the weight of the door will cause said catch to be pressed to one side, liberating said door, and permitting it to swing downward.

A lever, *V*, pivoted to the rear side of a post, *W*, with its lower end resting against the bars *T*, furnishes a means by which the driver can readily press said bars to the rear, and liberate the doors *R*, while a cord, *X*, attached to each door, and passing through a hole in said post, permits said doors to be readily returned to position.

The operation of this device is as follows:

Being placed so that each gathering-notch shall cover a row of corn, and the machine driven forward, the cutters are alternately raised, passed to the front of a hill of corn, and then dropped, and drawn backward, by the latter of which motions the stalks are neatly severed and passed backward upon the platform in a vertical position, where, after a sufficient number has accumulated, they are bound together in the form of a shock, and deposited upon the ground by dropping the circular doors.

In order to assist the operator in getting the shock in shape, and also to enable him to loosen the same, in the event of its becoming wedged into the opening in the platform, after having been dropped upon the ground, a forked pole, *Y*, is provided, the straight end, *y*, being passed through a suitable hole in the post *W*, while the forks extend to the rear, by means of which the above-named results are readily accomplished.

The advantages possessed by this device are so obvious as scarcely to require enumeration.

It will be seen that by it the farmer is enabled to rapidly and easily cut and shock two rows of corn at the same time, and that a great saving in time is effected, in performing these operations, over that usually required.

Having thus fully set forth the nature and merits of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

A cutter, having a reciprocating movement, in which the position of the same is changed at each end of the stroke by a partial revolution of the cutter-bar upon its axis, so that said cutter advances and returns in different paths, substantially as described.

Also, the devices used for changing and controlling the position, radially, of the cutter *E*, consisting of the guides *N* and *O*, the rod *e*, and the springs *n* and *o*, all combined substantially as shown, and for the purpose specified.

Also, the means employed for imparting a reciprocating motion to the cutter *E*, consisting of the rod *F*, the link *G*, the bar *H*, the shaft *I*, the crank *K*, the gear-wheel *M*, and the pinion *L*, in combination with the cutting-devices herein described, substantially as and for the purpose specified.

Also, the means employed for securing the doors *R* in a horizontal position, and releasing the same therefrom when desired, consisting of the bars *T*, provided with the bevelled portions *u* and *u'*, the spiral springs *t*, the pin *x'*, the catch *U*, and the lever *V*, all combined substantially as described, and for the purpose shown.

Also, in combination with the securing and releasing-devices above named, the means employed for forming and depositing the shock, consisting of the traps or doors *R*, the spring-gates *s*, and the forked rod *Y*, substantially as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand, this 21st day of September, 1869.

NELSON NEWMAN.

Witnesses:

CHAS. K. JONES,
THOS. NALE.