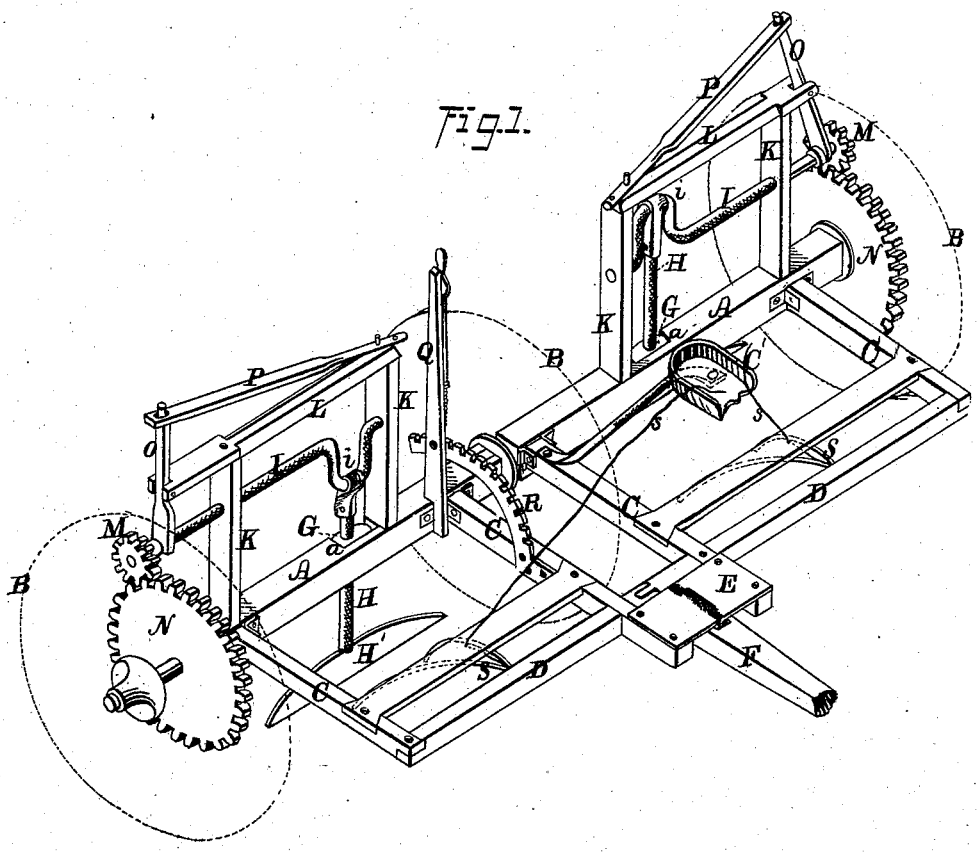
2 Sheets—Sheet 1.

M. W. & P. RESSER.

STALK-CUTTERS.

No. 193,997. Patented Aug. 7, 1877.

Fig. 1.



WITNESSES:

Jas. E. Hutchinson.

H. C. Hazard.

INVENTOR.

M. W. & P. Resser, by

Brindle & Co their Attys

2 Sheets—Sheet 2.

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Fig. 2.

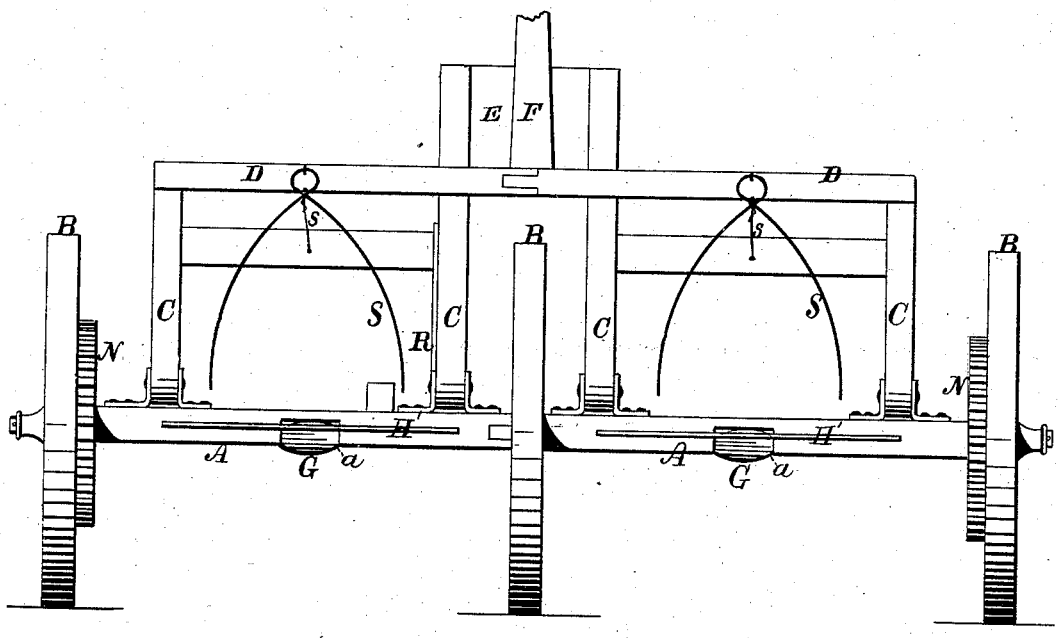
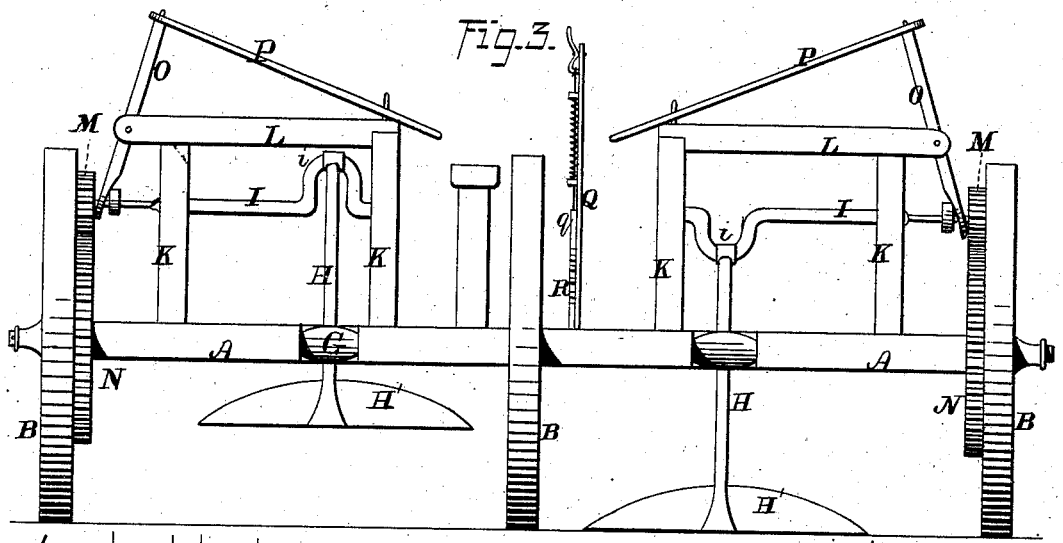


Fig. 3.



WITNESSES:

Jas. C. Hutchinson.

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INVENTOR.

M. W. & P. Resser, by

Prindle and Loughin attys

UNITED STATES PATENT OFFICE.

MOSES W. RESSER AND PHILLIP RESSER, OF GENESEO, ILLINOIS.

IMPROVEMENT IN STALK-CUTTERS.

Specification forming part of Letters Patent No. 193,997, dated August 7, 1877; application filed December 16, 1876.

To all whom it may concern:

Be it known that we, MOSES W. RESSER and PHILLIP RESSER, of Geneseo, in the county of Henry, and in the State of Illinois, have invented certain new and useful Improvements in Stalk-Cutters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our improved machine arranged for use. Fig. 2 is a plan view of the lower side of the same, and Fig. 3 is an elevation of its rear side.

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

The design of our invention is to enable corn-stalks to be easily and thoroughly divided into such lengths as not to interfere with the cultivation of the soil.

It consists, principally, in the means employed for changing the angle of operation of the cutters and for removing the same from contact with the ground, substantially as and for the purpose hereinafter specified.

It consists, further, in the machine as a whole, its several parts being constructed and combined to operate in the manner and for the purpose substantially as is hereinafter specified.

In the annexed drawings, A represents the axle of our machine, jointed near its center, so as to be capable of vertical flexibility, and supported upon or by means of three ground-wheels, B, one of which is journaled upon each end of said axle. The third wheel is journaled at its longitudinal center.

At suitable points upon the front side of the axle A, near its ends and at each side of its center, are pivoted the ends of four bars, C, which from thence extend horizontally forward, and at their front ends are connected together by means of a cross-bar, D, which latter is jointed at its longitudinal center. The center bars C extend forward of the cross-bar D, and upon such extended portions is secured a metal plate, E, which is jointed at its center, and has attached to its lower side, at said joint, the rear end of a pole, F.

When the device thus constructed is drawn forward over uneven ground, the central joint of the frame permits of sufficient flexibility to cause its end and center wheels to follow the inequalities of the ground.

Journaled within a recess, *a*, which is formed within the rear side of the axle A, upon each side of the center-wheel B, is a block, G, which is provided with a radial central opening that receives a bar, H, and permits the same to move freely therein.

The upper end of the bar H is journaled upon a crank, *i*, which is formed upon a shaft, I, that is journaled upon or within two standards, K, which standards are secured within and extend upward from the axle A, and have their upper ends connected together by means of a cross-bar, L.

The outer end of the shaft I is provided with a pinion, M, which meshes with and receives motion from a gear-wheel, N, that is secured upon the inner face of the contiguous outer ground-wheel B. The pinion M is arranged to slide lengthwise of the shaft I, and by means of a lever, O, and rod P, may be moved into or out of engagement with the gear-wheel N.

If now the pinion M is caused to engage with the gear-wheel N, and the machine is moved forward, the motion of the ground-wheel B will be communicated through said pinion and gear-wheel to the shaft I, and the bar H caused to reciprocate vertically.

A cutter, H′, being attached to the lower end of the bar H, and arranged with its cutting-edge in a line with the axle, the operating mechanism will cause said cutter to strike the ground once each ten inches of forward motion, and, by such blow, any corn-stalks resting on the ground will be cut into pieces.

The pivoted bearing-block G enables the cutter-bar H to move freely as its upper end is thrown forward or rearward by the motion of the crank *i*. In order that the angle at which the cutters H′ strike the ground may be changed at will, a bar, Q, is secured to and projects upward from the axle A, near the center-wheel B, by use of which lever the driver can turn said axle forward or rearward, and with it move the operative mechanism, so as to cause the cutter-bar H to be farther from or nearer to a perpendicular line.

When the inclination of the cutter-bars are

adjusted they are secured in place by means of a pawl and lever, *q*, which are secured to one side of the operating-lever Q, and engage with a toothed quadrant, R, that is attached to one of the bars C.

To render the operation of the cutters most effective, it is necessary that they should strike the corn-stalks at a right angle, and this can only be effected by arranging said stalks in a line with the draft.

The desired arrangement of the stalks is secured by means of a forked drag or rake, S, which is pivoted at one end to or upon the forward portion of the frame, and from thence extends rearward and downward to the ground directly in front of each chopper. The weight of each drag should be sufficient to cause the corn-stalks to assume positions in a line with the draft, but not sufficient to cause said stalks to be carried along with the machine. When not needed for straightening the stalks, the rakes S may be raised from contact with the ground by means of a cord, *s*, that is secured to each rake at a point in rear of its pivotal bearing, and passing upward to some point in convenient reach of the hand of the operator.

Having thus fully set forth the nature and merits of our invention, what we claim as new is—

1. In combination with the axle A, pivoted frame-bars C, and cutter-bars H, the lever Q, spring-pawl *q*, and toothed segment R, substantially as and for the purpose specified.

2. The hereinbefore-described stalk-cutter, in which are combined the longitudinally-jointed supporting-frame A, C, D, and E, the ground-wheels B, the pivoted bearing-blocks G, the cutter-bars H, the cutters H′, the crank-shafts I *i*, the pinions M, and gear-wheels N, said parts being constructed and arranged to operate in the manner and for the purpose substantially as shown.

In testimony that we claim the foregoing we have hereunto set our hands this 1st day of December, 1876.

MOSES W. RESSER.
PHILLIP RESSER.

Witnesses:
F. B. BRAINARD,
FRED. W. WILSHIRE.