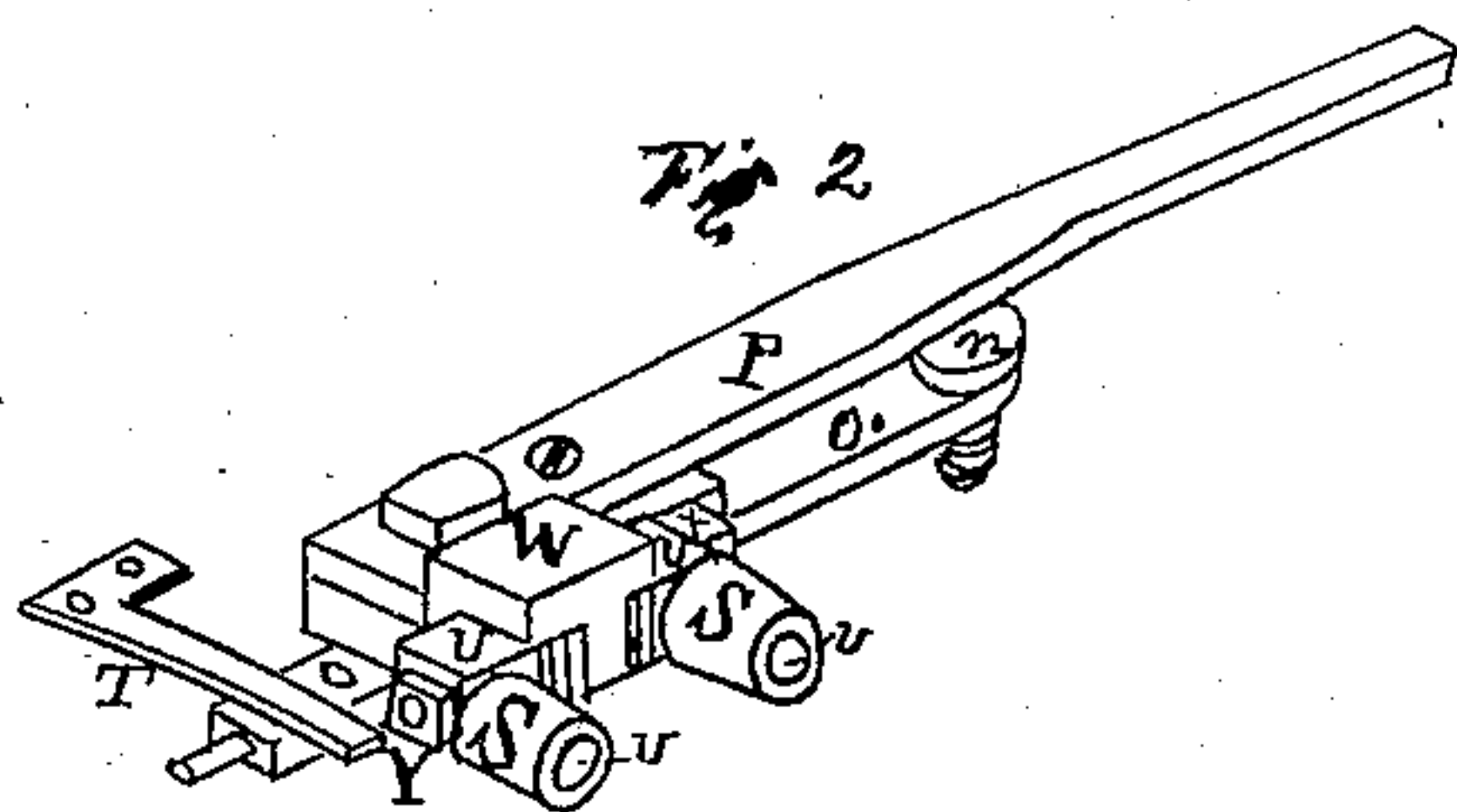
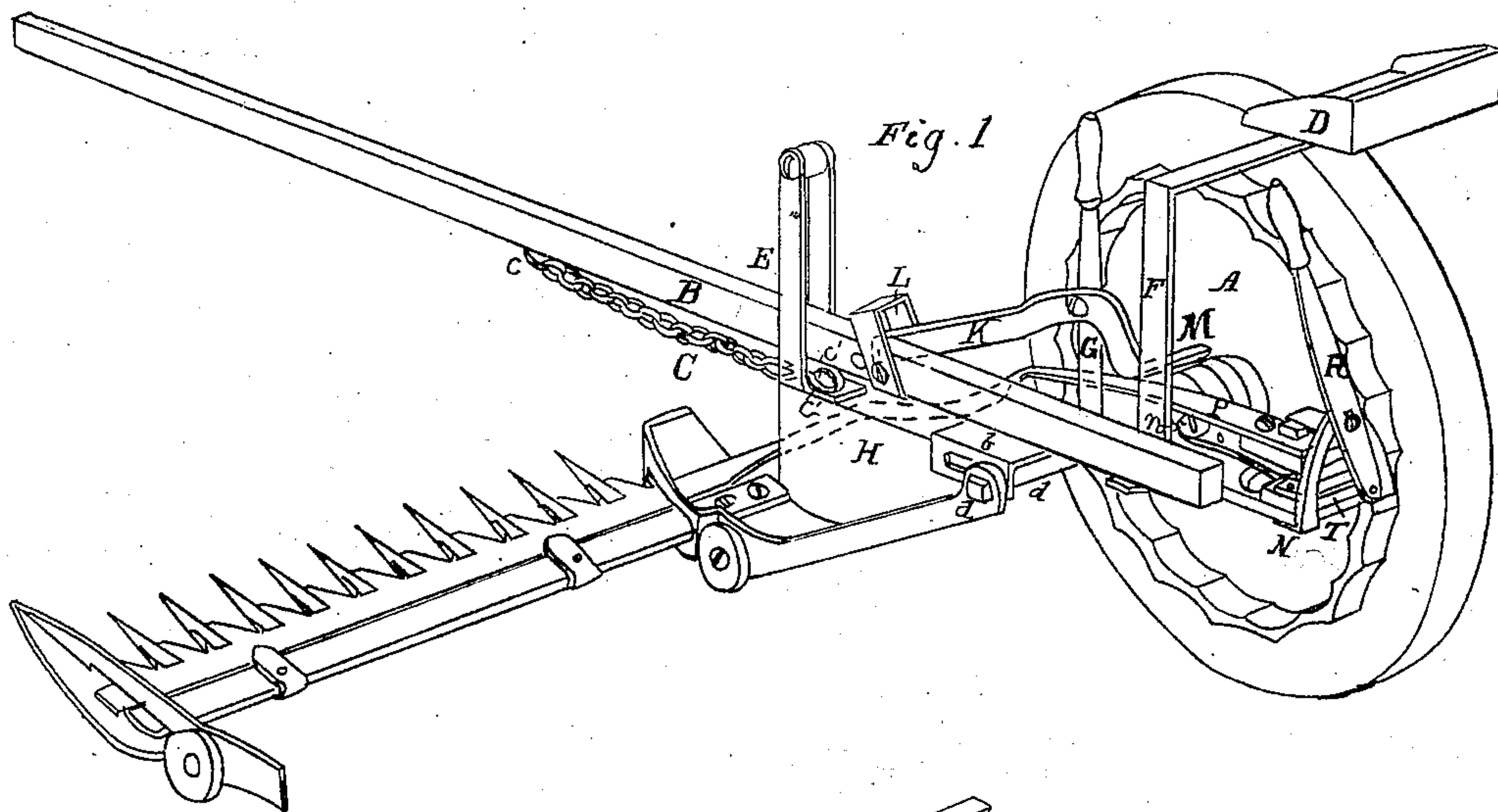


I. Lancaster, Mower.

No. 93,627.

Patented Aug. 10. 1869.



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Attest
Charles M. Young

of & co. exrs

per Charles M. Young
Atty

United States Patent Office.

I. LANCASTER, OF BALTIMORE, MARYLAND.

Letters Patent No. 93,627, dated August 10, 1869.

IMPROVEMENT IN HARVESTERS.

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, I. LANCASTER, of Baltimore, in the county of Baltimore, in the State of Maryland, have invented a new and useful Improvement in "Harvesting-Machines;" and that the following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from others of a similar class, together with such parts as I claim, and desire to secure by Letters Patent.

My invention relates to harvesting-machines of that class in which motion is imparted to the cutter-bar by means of regular projections upon the drawing-wheel, which actuate a lever connected with the cutting-bar, and my improvement, to certain modifications in the details of the same, hereinafter fully set forth.

In the accompanying plate of drawings, which form a part of the present specification,

Figure 1 is a perspective view from the inner, or grain-side.

Figure 2 is a view of the end of the reciprocating lever, with its attachments.

In using harvesting-machines, of the class hereinbefore mentioned, much difficulty has been experienced with the draught-pole, when the same is attached in the ordinary manner. There is a constant tendency on the part of the said draught-pole to force downward the cutter-bar and shoe, thus causing, by the friction of the shoe upon the ground, a serious waste of power, and other annoying inconveniences.

It is believed that my invention entirely remedies this difficulty.

In the figure, A represents the drawing-wheel.

B is the draught-pole, which is so connected with the frame as to allow it to play reciprocally in the direction of its length. This is effected by means of the slotted bearing *b*, to which the pole is secured, and which plays easily backward and forward upon the pin *d*.

C is a chain fastened to eye-bolt, or rivet, at the point upon the draught poles, and secured to the frame by means of a stud-bolt at the point *c*.

E is a clevis, secured to the frame at its lower extremity, and clasping the tongue B.

The driver's seat D is connected to the rear end of the tongue, by means of the elbow-bar, F, to which it is firmly bolted, thus balancing the said tongue, and throwing the weight of the driver upon the centre of the drawing-wheel.

G is a bar, rigidly fastened to the frame H at its lower end, and the upper end of which is convenient to the hand of the driver. This bar is used for the purpose of turning the frame H upon its axis, partially around the centre of the drawing-wheel, there-

by raising or lowering the cutter-bar with celerity and ease, and enabling the whole frame to be lifted until it comes in contact with the under side of the tongue, a mode of operation possessing marked advantages over the ordinary method.

K is an angle-bar or lever, pivoted to the arm by a slide-bolt.

At one end of the said angle-bar is cut a notch, to fit over a projection in the small clevis L, by which, *i. e.*, the clevis, it is held to the side of the tongue. At the other end is the lateral projection M, to receive the foot of the driver.

When the frame H is raised sufficiently, the notch falls over the projection in the small clevis, and secures the said frame in position, thus rendering it portable, for the purpose of transportation, or the clearing of obstructions.

When it is desirable to put the machine in working order again, it is only necessary for the operator to press with his foot upon the lateral projection M, thus disconnecting the angle-bar K from the tongue, and causing the cutter-bar to resume its normal position.

It is evident that the notches may be multiplied upon the angle-bar, in such a manner as to secure the cutter-bar in any desirable position.

It is also evident that the tongue B, being fastened by means of the chain C to the frame, holds the machine up to its work laterally, while, at the same time, the cutter-bar is allowed to vibrate freely up and down, in such a manner as to adapt itself to the irregularities of the ground over which it passes, and prevent too much friction in the passage of the cutter-bar and shoe over the surface of the ground.

At N is seen that part of the frame which supports the fulcrum-plate O of the lever P.

The said plate is pivoted to the frame by the stud-bolt *n*, and is actuated by the lever R, which causes it to reciprocate upon the pivot O, in such a manner as to throw the friction-rollers S in and out of gear with the drawing-wheel.

In order to secure the fulcrum-plate firmly in position, when either geared or ungeared with the drawing-wheel, a spring, F, is bolted to the rear of the frame, which, by exerting a constant pressure upon the rear end of the fulcrum-plate *o*, notches the same securely in position.

As there is a very small throw at the cams or projections on the drawing-wheel when the machine is in active operation, and a great length of lever, in order to make the stroke of the knives sufficient, it becomes important to provide against the loss of motion between the rollers and the arms, arising from the wear and tear of their parts. I, therefore, make compensation for wear and tear, as follows:

In fig. 2 the various parts of the mechanism are portrayed.

The friction-rollers S are supported and revolve upon the studs *u*.

The said studs are separated by the partition W, and fit into right-angle slots, prepared for their reception. Several sheet-iron washers may be placed between the said studs *u* and the partition W.

Through the partition W, the studs *u*, and the washers, is passed the screw-bolt *x*, by which, in conjunction with the nut *y*, the said studs, washers, and partition are firmly secured. Should one or more of the washers become worn, they may be removed, and the parts secured firmly together, as before.

Having thus described my invention, in such a manner as to enable others skilled in the art to make and use the same, I will state my claim in the following clauses, to wit:

1. I claim the draught-pole, combined and arranged with the driver's seat D, the slotted bearing *b*, and the clevis E, substantially as described.

2. I claim the angle-bar K, arranged and operating substantially as herein explained.

3. I claim the fulcrum-plate O, actuated by the lever R, and held in position by the spring F, in combination with the lever P, substantially as described.

4. I claim the studs *u*, friction-rollers S, bolt *x*, nut *y*, partition-piece W, and washer, combined and arranged substantially as hereinbefore set forth.

I. LANCASTER.

Witnesses:

FRANCIS W. PLUMMER,
F. P. LANCASTER.