W. A. KIRBY.

Mowing Machine.

No. 15,659. Patented Sept. 2, 1856.

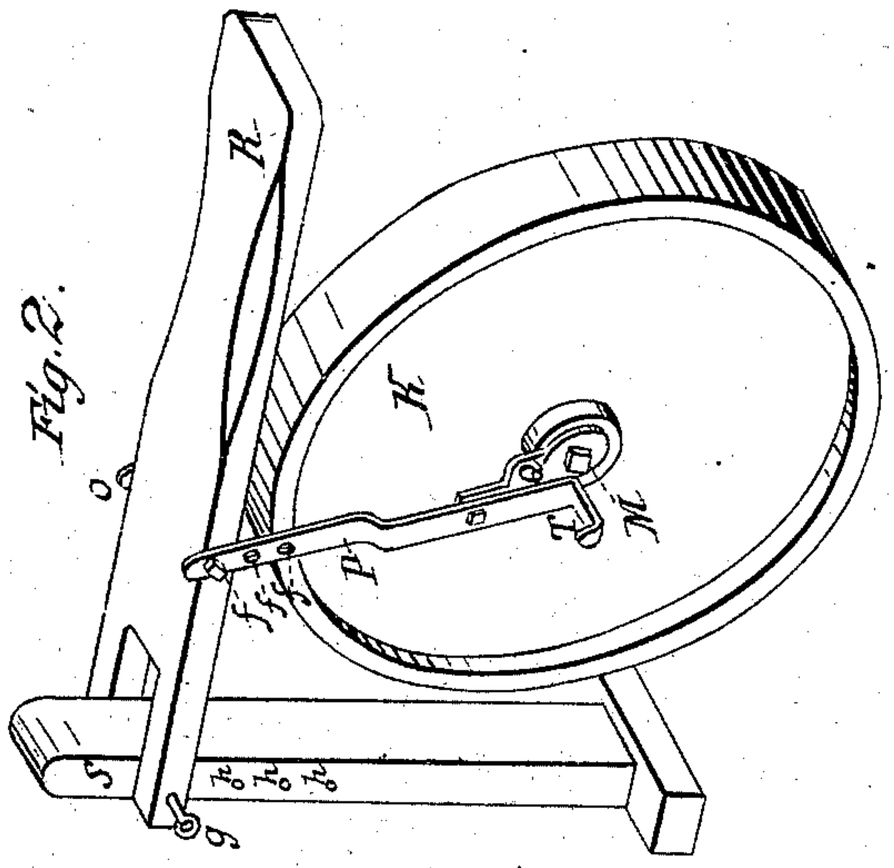

Fig. 2.

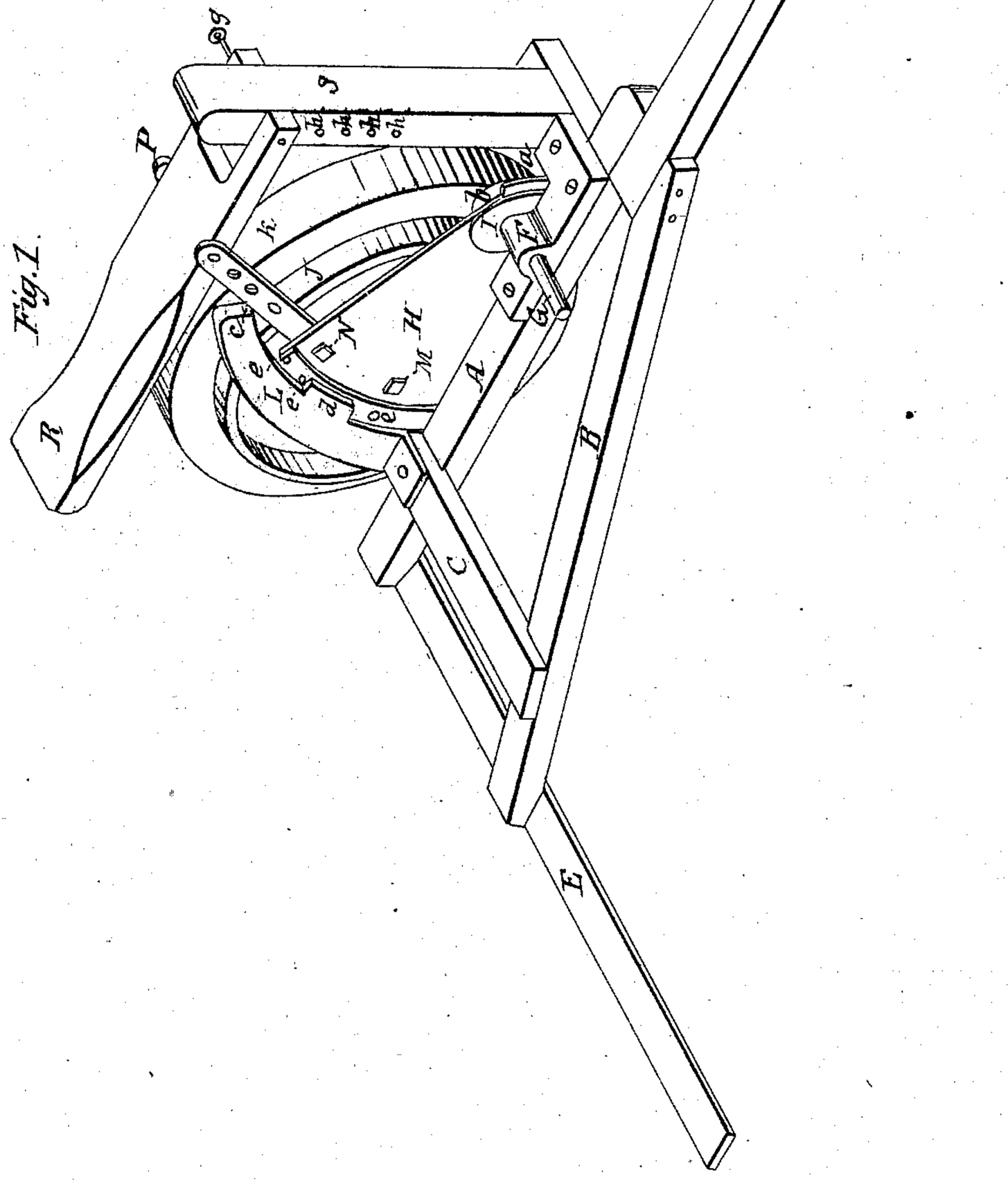

Fig. 1.

UNITED STATES PATENT OFFICE.

W. A. KIRBY, OF BUFFALO, NEW YORK.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. **15,659**, dated September 2, 1856.

To all whom it may concern:

Be it known that I, WILLIAM A. KIRBY, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Harvesting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 represents a perspective view of so much of a harvesting-machine as will illustrate the character of my invention, and Fig. 2 represents a perspective view taken from the opposite side of the machine from that of Fig. 1.

Similar letters of the alphabet, where they occur on the separate figures, denote like parts of the machine in both.

The nature of my invention relates to the manner of hanging or uniting the frame of a harvesting-machine to the main supporting-wheel so that the former may be raised or lowered and balanced on the latter to suit the special character of the work to be done by it.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A B C are three pieces forming a triangular frame, to which all the remaining portions of the machine may be connected. A tongue, D, is shown as connected to the front ends of the frame-pieces A B, and a finger, cutter, or platform beam, E, to their rear ends.

In a suitable metallic box or block, F, on the frame-piece A is substantially fixed a journal or shaft, G, so as to turn therein, and upon this block F is placed a segmental plate, H, having a hub, I, upon it to give it proper bearing on said box or block, and a flange or guide-piece, *a*, also, which moves in a slot or recess in the box F to steady said segmental plate on its journal when turning thereon. *b* is a fast pulley on the shaft G, which may bear against a circular flange, J, on the inner face of the main driving and supporting wheel K, so as to receive motion therefrom; or *b* may be a cogged pinion, and the flange J a cogged flange taking into it; or an endless belt may be used around the two, the object being to get motion from the main wheel and transmit it to the cutters, reel, or rake, as may be desired.

L is a segmental rim, supported on the frame-piece C, and furnished with a groove or way, *c*, in its inner perimeter, into which groove or way the outer edge of the plate H moves and is supported. A projecting piece, *d*, is also formed on the inner perimeter of the rim L, against which an adjusting-pin, placed in either of the series of holes *e e*, &c., may catch to hold the frame when properly adjusted on the main wheel K.

On the segmental plate H is wrought or cast in a journal, M, for supporting the main wheel K, and to said plate is also pivoted by a pin, N, a brace or support, O, provided with a series of adjusting-holes, *f f*, &c. A support or brace, P, corresponding to O is also pivoted to an arm, Q, connected or fastened to the journal M, as seen in Fig. 2, and similarly provided with adjusting-holes *f*, &c. To these two braces or supports O P is hung a seat, R, for the driver or conductor, which, besides having a pivoted motion at the supports, can also hinge and be adjusted in the standard S by a pin, *g*, which may pass through its end and through said standard at any of the adjusting-holes *h*. The lower end of the brace or support P may be formed into a stirrup, T, to make a foot-support for the driver or conductor. By thus pivoting the plate H to the frame and hanging the wheel K to said plate, and also pivoting the seat R (which is also a lever) to the plate H and the standard S, the frame can be raised or lowered on the wheel at pleasure; but in raising or lowering the frame the position of the seat R changes, for it may be used as the lever by which the raising or lowering is done, and some provision must be made for bringing it back into a convenient or effective position. This is done by the adjustments heretofore mentioned in the braces O P and standard S. By these connections, too, I not only make the adjustments that are necessary for high or low cutting with great facility, but I dispense with much of the framework heretofore used, and consequently make the machine lighter and cheaper than heretofore done.

The peculiar position and manner of hanging the seat makes the weight of the driver or conductor on its rear end act as a counterpoise or balance to raise and hold up the front part of the machine. The pin is to be inserted in one of the holes *e* underneath the projection *d*, so that when the machine is cutting low or the frame is on or close to the ground, and the driving-wheel K should drop into a depres-

sion of any kind, it will still be in contact with the ground and continue the motion of the cutting apparatus, which it could not do were it permanently adjusted to the frame. Any sudden jar communicated to a machine with a stiff tongue is thrown upon the horses. By my manner of hanging the seat the weight of the driver, when the machine strikes any obstacle, tends to raise up and ease the jar, and thus relieve the horses.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The combination of the main wheel K, single plate H, and rim L, when connected and operating together in the manner and for the purpose as herein described.

2. Hanging the seat to the plate H and to the standard S in the manner and for the purpose set forth.

WM. A. KIRBY.

Witnesses:
A. B. STOUGHTON,
E. COHEN.