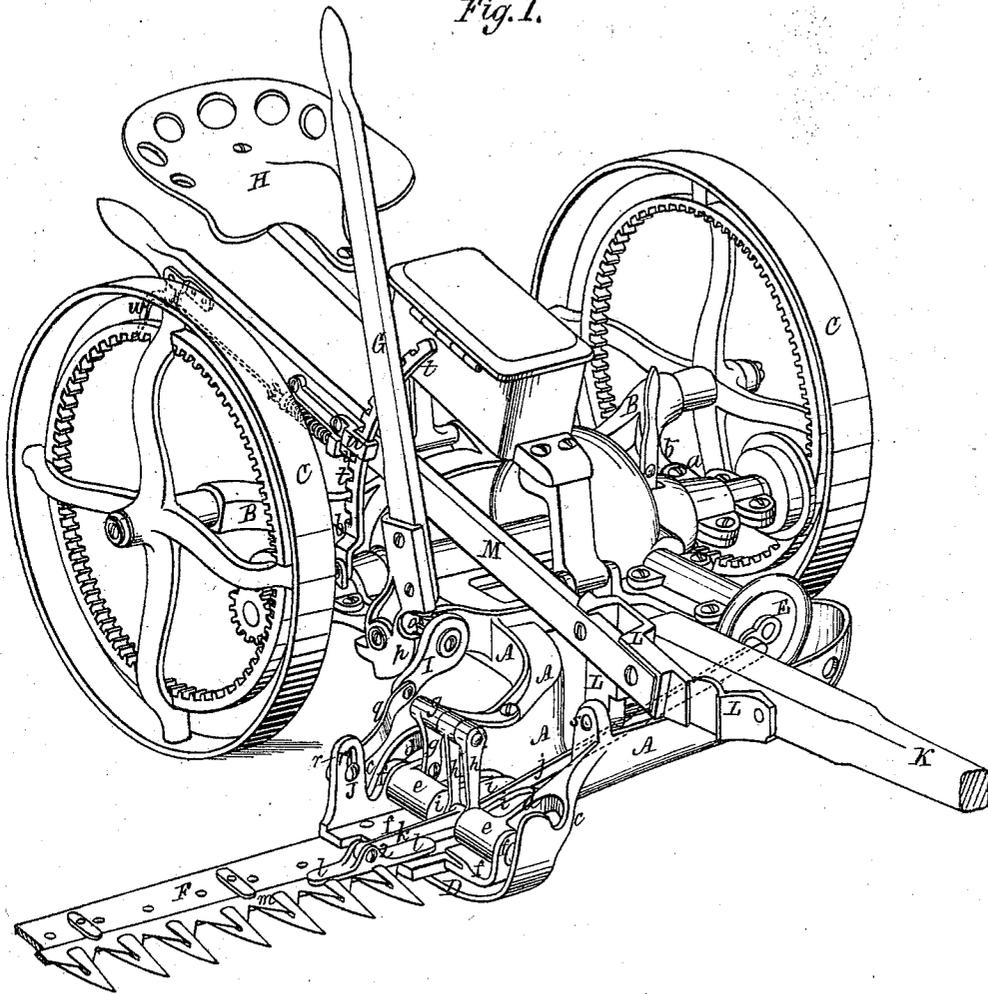


W. A. KIRBY.  
Mowing-Machines.

No. 142,111.

Patented August 26, 1873.

Fig. 1.



Witnesses.  
J. P. Low }  
Edmund Masson }

Inventor:  
William A. Kirby.  
By Atty. A. B. Staughton.

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Fig. 2.

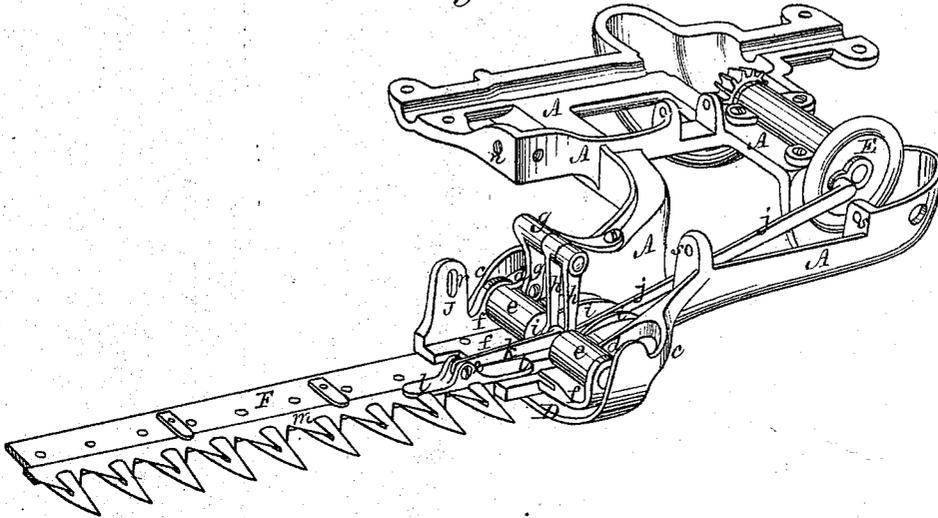
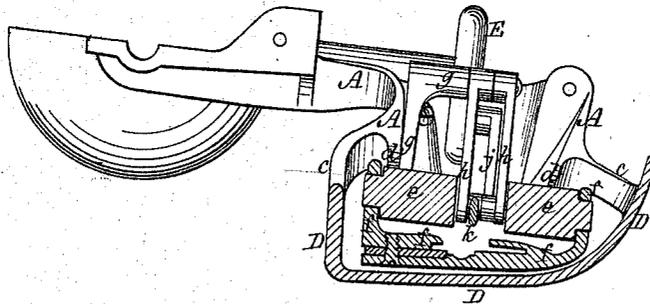


Fig. 3.



Witnesses.

D. P. Low  
Edmund Mason

Inventor.

William A. Kirby  
By atty A. B. Stoughton.

# UNITED STATES PATENT OFFICE.

WILLIAM A. KIRBY, OF AUBURN, NEW YORK, ASSIGNOR TO HIMSELF AND  
DAVID M. OSBORNE, OF SAME PLACE.

## IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. 142,111, dated August 26, 1873; application filed  
March 21, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM A. KIRBY, of Auburn, in the county of Cayuga 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 of this specification, in which—

Figure 1 represents a perspective view of the machine. Fig. 2 represents, in perspective, the main frame dismantled of many of the parts it carries or sustains to better show its construction, and the shoe and the finger-bar attachments. Fig. 3 represents a vertical transverse section through the shoe and that part of the main frame where the finger-bar is hinged.

Similar letters of reference where they occur in the several separate figures denote like parts in all of the drawings.

My invention relates, first, to a main frame, constructed as hereinafter described, having the shoe a rigid part thereof, and having points of support for the pole, the lifting-lever, and the hinged finger-bar; and my invention further relates to the combination of the main frame, the finger-bar hinged to the main frame, the cutters supported on the finger-bar, the hanger or pendulum connected with the cutter-pitman, and the guides in or on the main frame, so that the cutters may be driven without binding, while the finger-bar is raised and lowered to pass obstructions in its path.

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.

The main frame is shown at A. It is hinged at *a* to brackets or arms *b* that project from the main axle B, said main axle being supported in the driving and carrying wheels C. At the front grain side of the main frame there are downward and outwardly-projecting portions thereof, as at *c*, which support and carry the shoe D, so that said shoe is really a part and parcel of the main frame itself, but is rounded and curved so as to readily glide over the ground, and so become a shoe. On the

main frame A, and at or near the point where the arms *c* that sustain and carry the shoe branch off, there are other arms or projections, *d*, which terminate in enlargements *e*, to which the finger-bar plate *f* is hinged, so that said finger-bar may be raised and lowered at its outer end, or upon its hinged connection, while the shoe D remains upon the ground. To a bracket or support, *g*, cast or fastened on the main frame, is pivoted a hanger or pendulum, *h*, consisting of two sides or bars, the lower ends of which move between guides or faces *i* made on the main frame; and to a pivot-pin passing through or connecting the lower ends of these hanger-bars, there is also attached the main pitman or driver *j*, and the secondary pitman or driver *k*, which latter is pivoted at 2 to the lug-plate *l* on the cutters *m*. Thus motion is communicated from the wrist-wheel E to the cutters, and the finger-bar F with the cutters may be raised and lowered without stopping the cutters or cramping their free motion, the pitman being guided vertically by the pendulum or hanger, and laterally by the guides *i*. To the main frame, at the point *n*, Fig. 2, there is hung a lever, G, Fig. 1, which extends up within convenient reach of the driver in his seat H. On the lower end of the lever G there is a bevel-toothed segment, *p*, which gears with another bevel segment or pinion, *o*, which is fast upon the crank-arm I, and to the outer end of this crank-arm is pivoted one end of a link, *q*, the other end thereof being connected by a pin passing through a slot, *r*, to an upright arm, J, fast upon the finger-bar F. By this arrangement the driver in his seat, by means of the lever G, can raise up the outer end of the finger-bar to pass over obstructions, and the act of so raising the finger-bar tends to press and hold the shoe D to the ground. By the same lever the finger-bar may be held up or let down at pleasure. The pole K, through the tongue-plate L, is hinged to the main frame by a rod passing through the holes *s s*, (more clearly seen in Fig. 2,) and to a seat on this tongue-plate is fastened a lever, M, which extends rearward, crosses the hinged joint between the pole and main frame, and terminates in a handle near the driver's seat H. A toothed arc, *t*, pivoted to the main frame,

extends upward, and passes through a guide-piece, *u*, on the side of the lever M, and a spring-bolt, *v*, is arranged to shoot into and hold between the teeth of the arc *t*. A rod or wire extends from the spring-bolt *v* to a small lever, *w*, near the end of the lever M, so that the driver may operate and control said spring-bolt. By this arrangement the main frame and finger-bar may be raised and held up and carried upon the pole, or the horses' necks, and upon the carrying-wheels. Thus the lever G raises the finger-bar alone, and the lever M raises the finger-bar and main frame together.

There are many parts of this harvesting-machine which do not enter into the special combinations claimed, and which have not been specially referred to in this specification; they

are shown in the drawings, and further description of them is not deemed necessary.

Having thus fully described the nature of my invention, what I claim therein as new is—

1. The main frame, constructed as set forth, having the shoe a rigid part thereof, and having points of support for the pole, the lifting-lever, and the hinged finger-bar, substantially as described and represented.

2. The combination of the main frame, the finger-bar hinged to the main frame, the cutters, the hanger, pitman, and the guides, as and for the purpose described and represented.

WILLIAM A. KIRBY.

Witnesses:

A. B. STOUGHTON,

EDMUND MASSON.