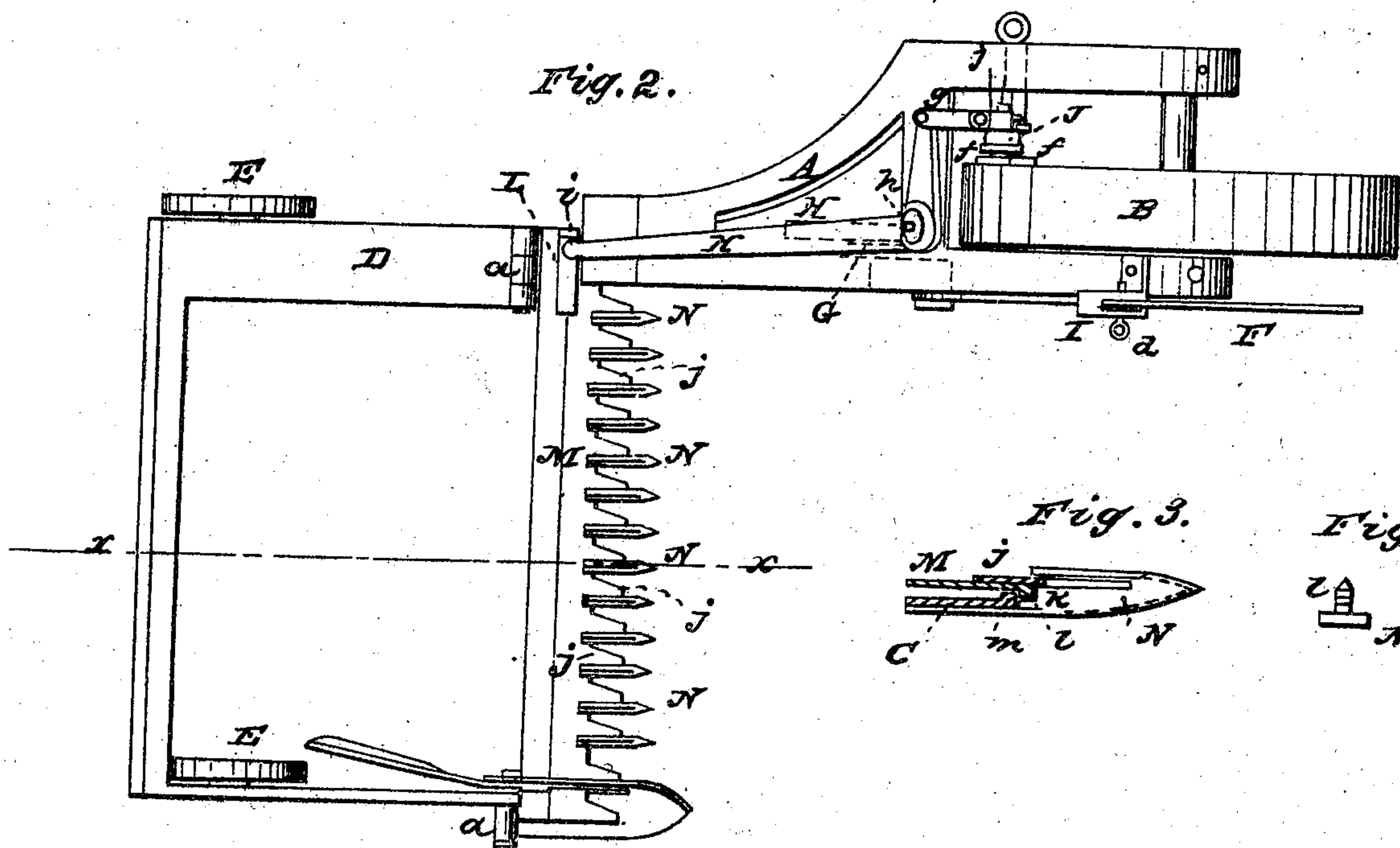
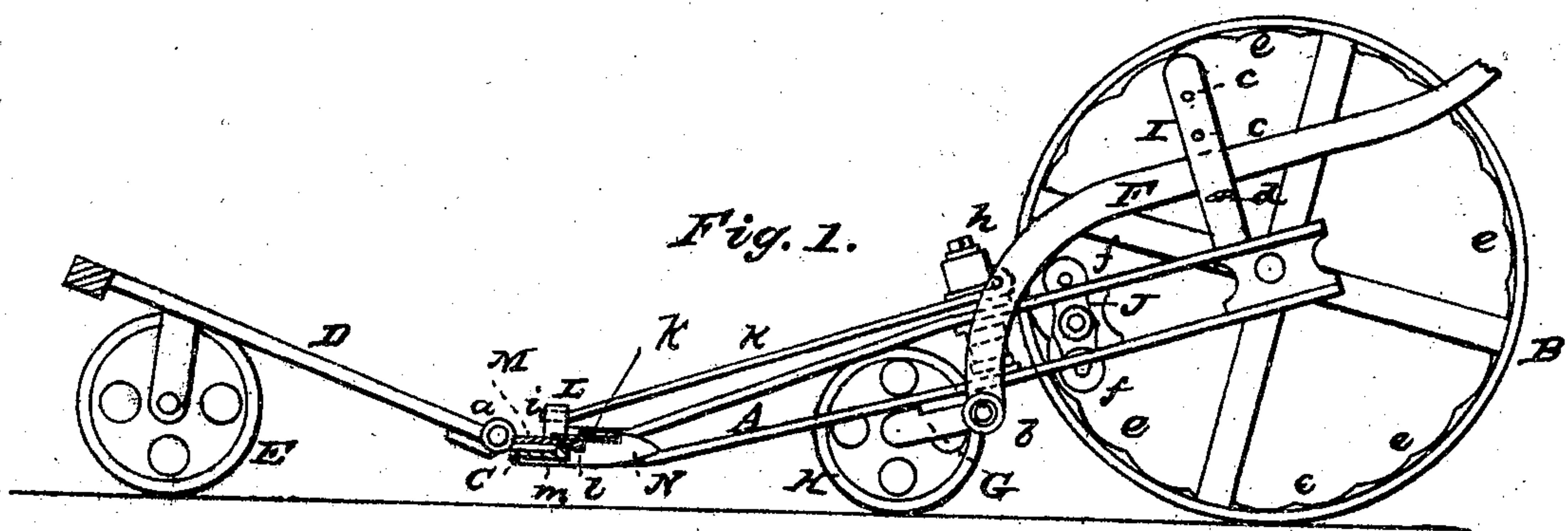


W. H. HOVEY.
MOWING MACHINE.

No. 14,661.

PATENTED APR. 15, 188



UNITED STATES PATENT OFFICE.

WM. H. HOVEY, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN GRAIN AND GRASS HARVESTERS.

Specification forming part of Letters Patent No. 14,661, dated April 15, 1856.

To all whom it may concern:

Be it known that I, WILLIAM H. HOVEY, of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Grain and Grass Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an inner side view of my improvement, the finger-bar and sickle being bisected transversely, as indicated by *x x*, Fig. 2. Fig. 2 is a plan or top view of the same. Fig. 3 is a transverse section of the finger-bar and sickle *x x*, Fig. 2, showing the plane of section. Fig. 4 is an end view of one of the fingers.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a peculiar construction and arrangement of the sickle, whereby it is prevented from choking or clogging.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the main frame of the machine, in which frame the driving-wheel B is placed.

C represents the finger-bar, which is attached to the back end of the main frame A.

D represents a frame, the inner ends of the side pieces of which are attached to the back of the finger-bar at its ends by hinges or joints *a a*, as shown clearly in Fig. 2. The frame D is of rectangular form, and its outer end is supported by wheels E E, one at each side.

The front end of the main frame A is fitted loosely on the axle of the driving-wheel B; or the axle may be described as having its bearings in said frame.

F represents a lever, the lower end of which is attached to a small shaft, *b*, secured to the under side of the main frame A, and to the end of the shaft *b* opposite to the end to which the lever F is attached there is secured an arm, G, having a wheel, H, at its outer end. The outer end of the lever F passes through a guide, I, which is perforated with holes *e*, in either of which a pin, *d*, fits, for the purpose of securing or holding the outer end of lever F at any desired height.

The inner periphery of the driving-wheel B has projections *e* upon it, and J is a rock-lever

fitted within the frame A and having a friction-roller, *f*, at each end, against which the projections *e* act. The upper end of the rock-lever has a link, *g*, attached to it, and this link is attached to the end of one arm of a right-angled or bent pitman, K, which works on a pivot or bolt, *h*, as a fulcrum. The lower end of the pitman K has a circular projection, *i*, upon it, which projection is fitted in a socket, L, on the inner end of the sickle-bar M.

N represents the fingers, which are bolted to the under side of the finger-bar C. The fingers are slotted longitudinally, in order to admit the sickle-teeth *j*, which work back and forth in the slots, and the portion of the fingers above the sickle-teeth are transversely of triangular form, the lower edges being cutting-edges. The sickle-teeth *j* are attached to the sickle-bar M, which is fitted directly over the finger-bar C, covering it entirely, as shown clearly in Fig. 3. The front end of the sickle-bar has a lip or projection, *k*, attached to it, which rests upon ledges *l* on the fingers N, just back of the slots. (See Figs. 1, 3, and 4.) The front end of the finger-bar C has a vertical lip or ledge, *m*, upon it, which lip or ledge is directly back of the lip or projection *k* on the sickle-bar. (See Fig. 3.)

In consequence of the sickle-bar M covering entirely the finger-bar C, there is no stationary surface allowed for the cut grass or grain to rest or lodge upon, and it will be shaken off immediately from the sickle-bar. The choking or clogging of the sickle is often occasioned by the grass or grain lodging upon some stationary part of the machine, such as the finger-bar or a stationary covering placed over it, and the cut grass or grain is caught by the sickle-teeth and recut many times, and thereby chokes or clogs the teeth. This difficulty is obviated by my improvement. The lips or projections *m k* at the front ends of the finger and sickle bars form a close joint and prevent the grass from working underneath or between the sickle and finger bars, and the lower end of the lip or projection *k*, resting upon the ledges *l* on the fingers, causes the sickle to work with but little friction, the sickle and cutter bars not being in contact.

By adjusting the lever F, or by raising or lowering its outer end and securing it at a proper point, the sickle may be secured at the desired height from the ground, so as to cut

the grass or grain nearer to or farther from the surface of the ground, and the driver, by merely raising the outer end of said lever, may raise the sickle and finger bar so that they will pass over any obstruction in the path of the machine.

It will be understood that the wheel H runs upon the ground, and its axis is the fulcrum of the lever F, and as the lever is attached to the frame A by the shaft *b* it follows of course that the back part of the main frame and the sickle will be raised or lowered when the outer end of said lever is raised or lowered. In cutting grain the platform is attached to the frame D.

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

Providing the front ends of the cutter and sickle bars with lips or projections *m k*, arranged as shown, the lip or projection *k* bearing upon ledges *l* on the fingers, substantially as shown and described, for the purpose specified.

WM. H. HOVEY.

Witnesses:

WM. P. ALLIS,
A. L. SOULE.