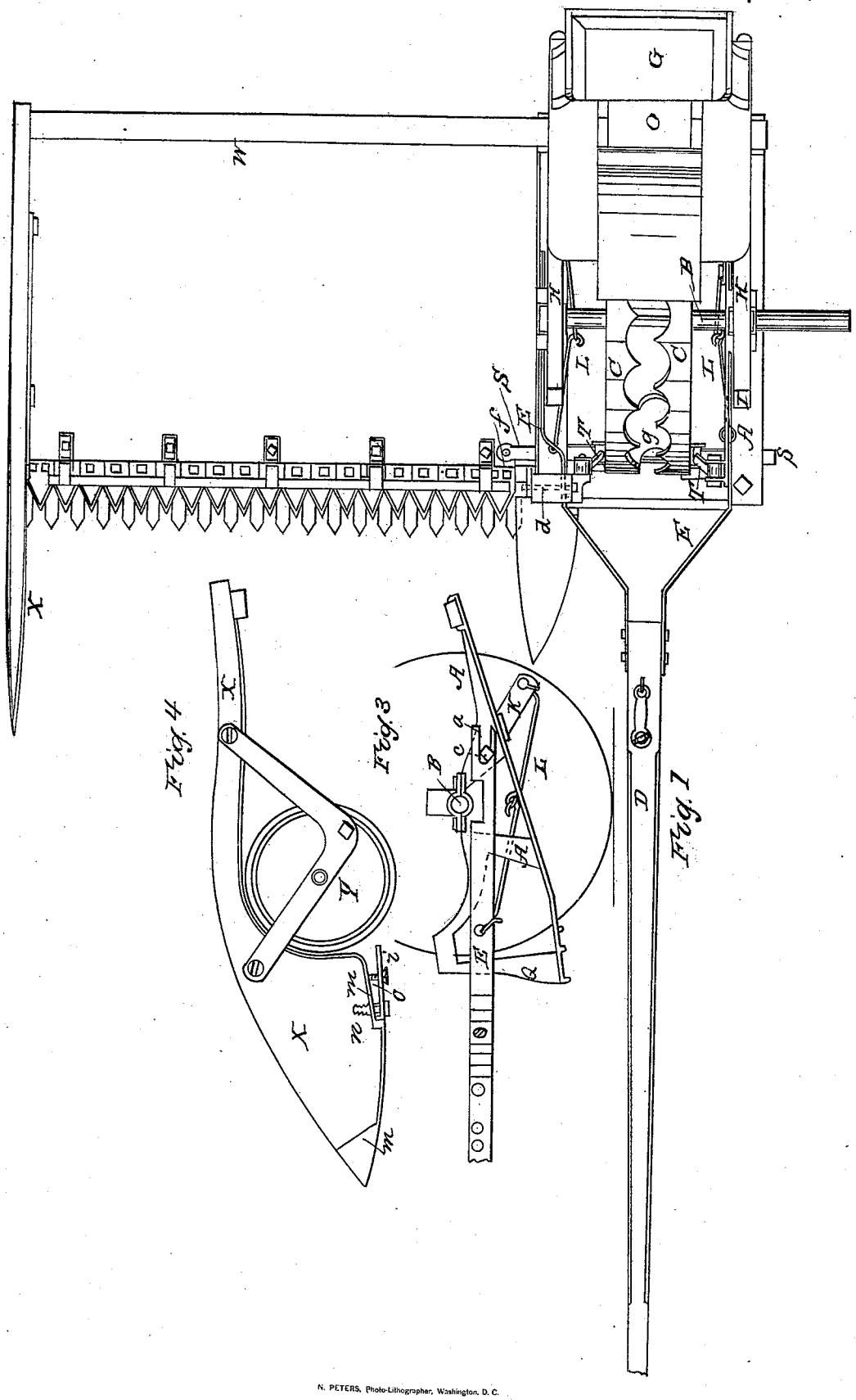
3 Sheets—Sheet 1.

A. H. CARYL.

Mowing Machine.

No. 18,187. Patented Sept. 15, 1857.



N. PETERS, Photo-Lithographer, Washington, D. C.

A. H. CARYL.

Mowing Machine.

3 Sheets—Sheet 2.

No. 18,187.

Patented Sept. 15, 1857.

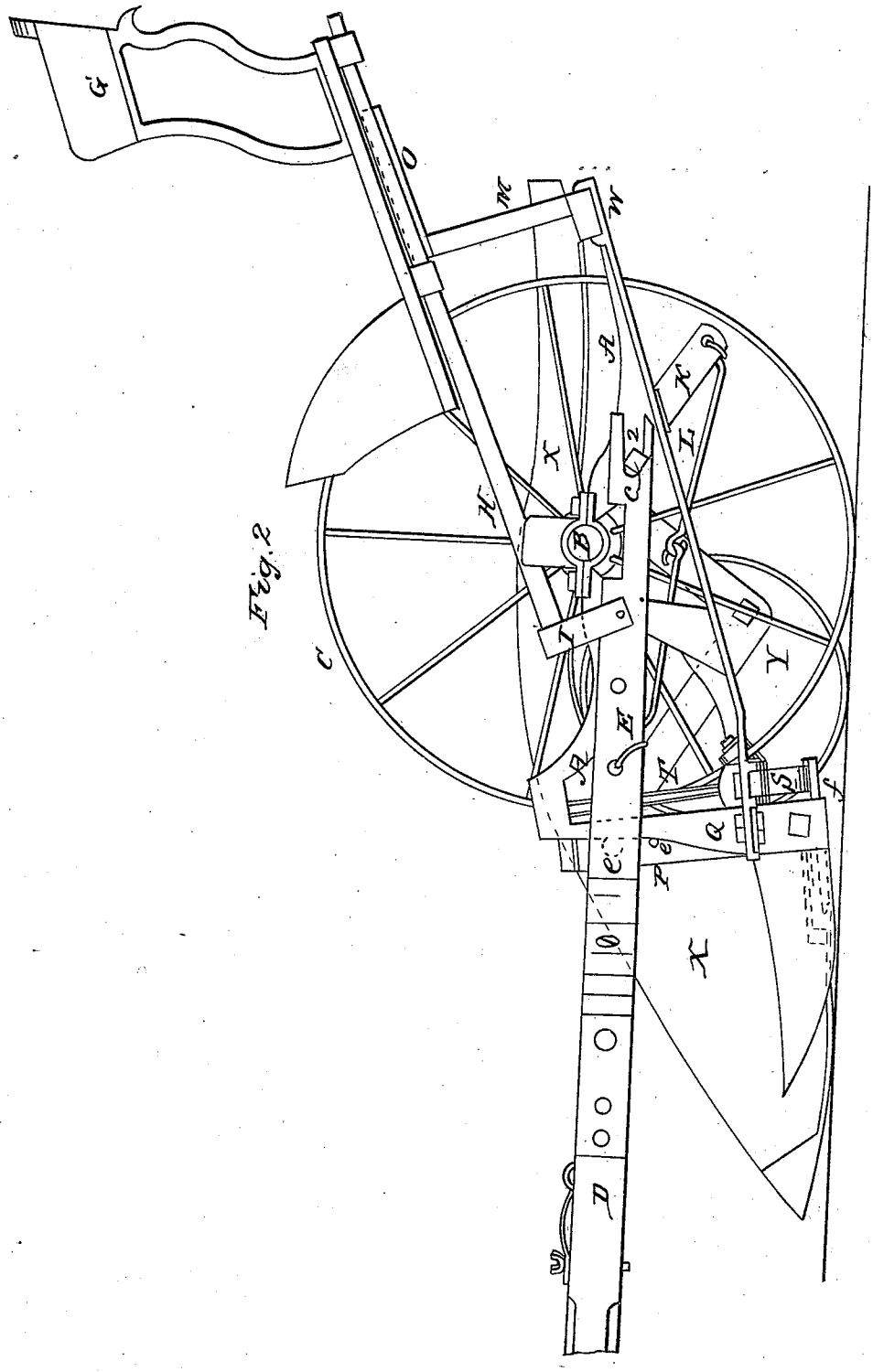


Fig. 2

N. PETERS. Photo-Lithographer, Washington, D. C.

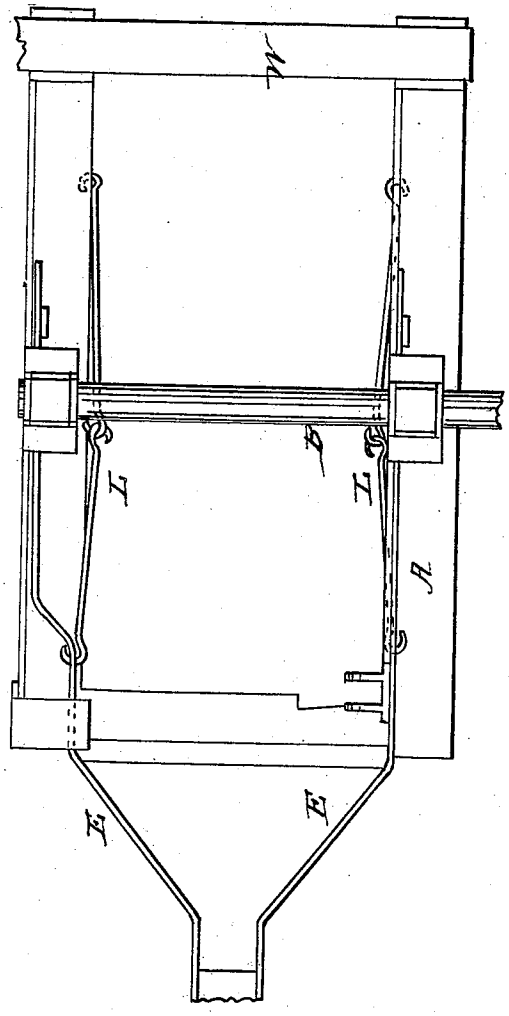
3 Sheets—Sheet 3.

A. H. CARYL.

Mowing Machine.

No. 18,187.

Patented Sept. 15, 1857.



N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

A. H. CARYL, OF SANDUSKY, OHIO.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **18,187**, dated September 15, 1857.

To all whom it may concern:

Be it known that I. A. H. CARYL, of Sandusky, in the county of Erie and State of Ohio, have invented certain Improvements in Mowing-Machines, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a plan; Fig. 2, a side elevation. Figs. 3, 4, 5 are details.

To enable others skilled in the art to understand my invention, I will proceed to describe the manner in which I have carried it out.

In the accompanying drawings, A is the wheel-frame, to which are attached the operating parts of the machine. This frame is suspended from the axle B of the main driving-wheel C. The tongue D terminates in the hounds E, which are connected with the carriage, as will be hereinafter explained. The driver's seat G is carried by spring-levers H, which have their fulcra upon the top half of the box immediately over the main axle. The forward ends of these levers pass through clasps upon the end of the links I, which hook into the hounds, as seen in Fig. 2. These levers may be passed a greater or less distance through the clasps for the purpose of adjusting the counterbalancing force thrown upon the tongue by the weight of the driver. When the seat is thus arranged the weight of the forward end of the tongue is partially counterbalanced by that of the driver, and the pressure upon the horses' necks may be adjusted as required. The rear ends of the hounds are forked, as seen at *a*, and pass over a pin, *c*, projecting from the wheel-frame. This pin is placed to the rear of the axle, and as near upon a level therewith as may be, and thus the machine may be backed without forcing the cutter-bar down upon the ground, the friction of the axle in its bearings tending to raise the forward part of the machine, so that a small additional weight placed upon the rear of the machine by the driver will be sufficient to raise the cutters from off the ground.

In lieu of causing the forked ends of the hounds to bear against the wheel-frame they may be made to embrace the driving-axle, and thus when the machine is backed the wheel-frame is left free to be raised by the driver or by the friction of the axle in its boxes.

It is evident that although the machine may be backed by means of the hounds thus connected it cannot be drawn by them. For this purpose the following arrangement is adopted: K is an arm descending from the after part of the wheel-frame, which is connected with the forward part of the hounds by chains or flexible links L, and thus the force applied to move forward the machine tends to elevate the cutters, and enables the driver to raise them entirely from the ground by the application of a portion of his weight, as will now be more fully described.

From the rear of the wheel-frame rises the the post M, that supports the treadle O, immediately in front of the driver and between the levers H, which support his seat. When the machine is not in motion, the driver, by throwing his weight upon the treadle, can raise the finger-bar from the ground. When the machine is in motion, the draft being thrown upon the arm K, a portion of the weight of the forward part of the machine is relieved, and it is only necessary for the driver to put a moderate pressure with one of his feet upon the treadle in order to raise the cutters. This he does whenever it becomes necessary to surmount an obstacle, and in going to and from work, or, in general, whenever it becomes necessary to move the machine without operating the cutters upon the grass.

From the forward part of the wheel-frame rise the posts P and Q, through the former of which the hounds pass, the pin *d* being so placed as to throw the weight of the forward part of the machine, or so much of it as remains unbalanced, upon the tongue. The pin *d* is adjusted in position by being placed in one or other of the holes *e* in the post P, whereby the cutter-bar is made to run at the required distance from the ground. The cutter-bar is connected by a link at *f* with the sliding bar S. This bar is suspended by the arms T, and carries the roll *g*, which plays in the zigzag groove in the periphery of the driving-wheel. The bar S thus vibrates in a short arc and moves with the least possible friction in its bearings.

The divider X, which is cut out of two-inch plank, is seen detached in Fig. 4, and the forward end, which rises about three inches from the ground, is brought to an edge, that it may divide the grass that is to be mown from that which is to be left standing. Upon its bottom edge the divider is shod with iron

m, which is formed as seen in Fig. 4, the finger-bar being attached to the piece *i*, which is secured to the iron *m* by a screw, *n*, and is held off from it by a washer on the screw *n*, and by a set-screw, *o*, leaving a space or opening, *r*, into and through which the cutter-bar passes. This construction prevents the jamming of the mown grass between the end of the cutter-bar and the divider, by which the operation of the cutter-bar is so greatly obstructed in many of the machines now in use. The off wheel Y runs immediately behind and beneath the divider, and its rear end is connected with the rail W, by which, together with the finger-bar, its motion is steadied.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the rear portion of the tongue or hounds E E with the main or wheel frame A and seat G, said parts being arranged for joint operation, in the manner and for the purposes above set forth.

A. H. CARYL.

Witnesses:

P. E. TESCHEMACHER,

THOS. R. ROACH.