A. M. HALL.

Mowing Machine.

No. 16,274. Patented Dec. 23, 1856.

Fig: 1.

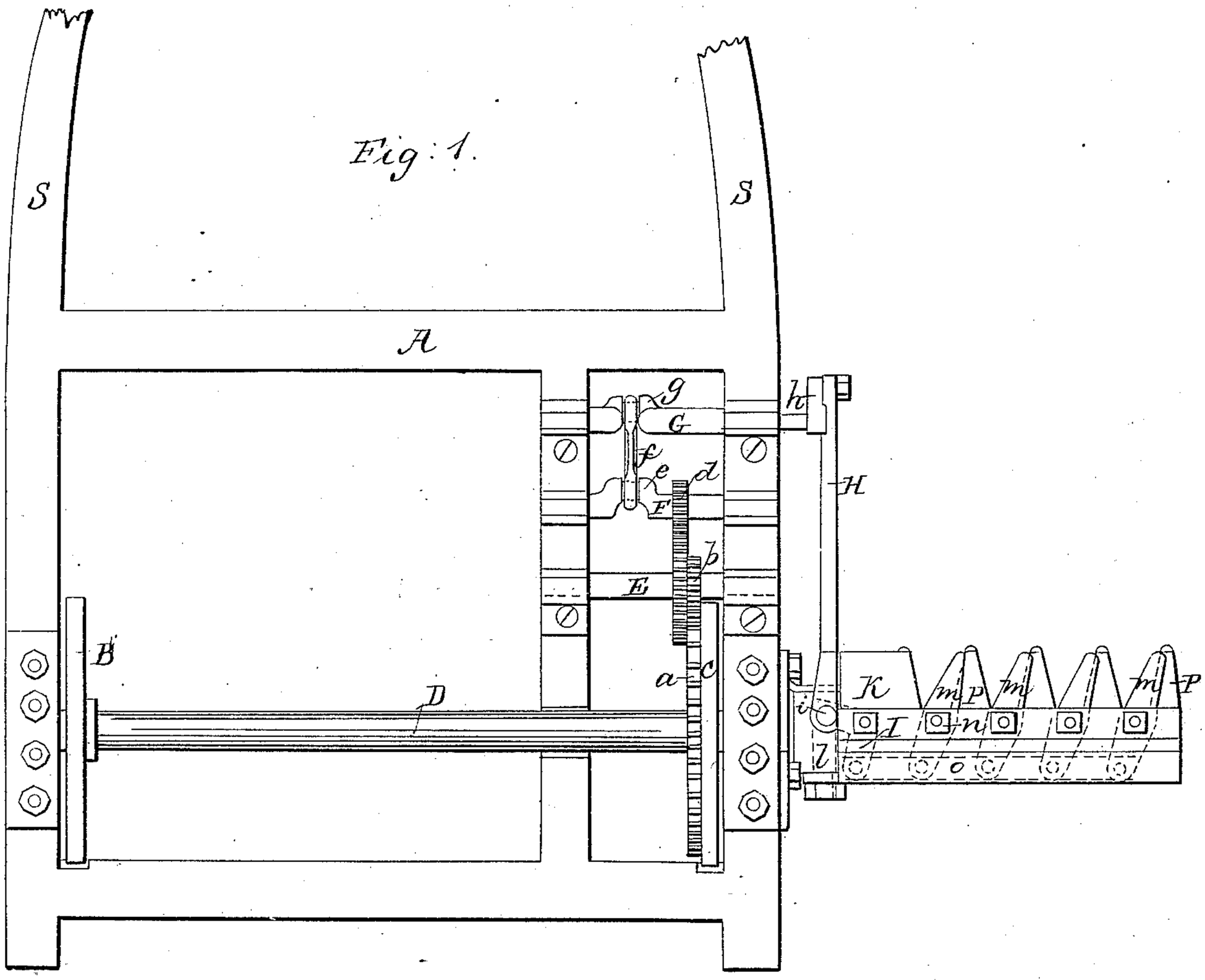


Fig: 2.

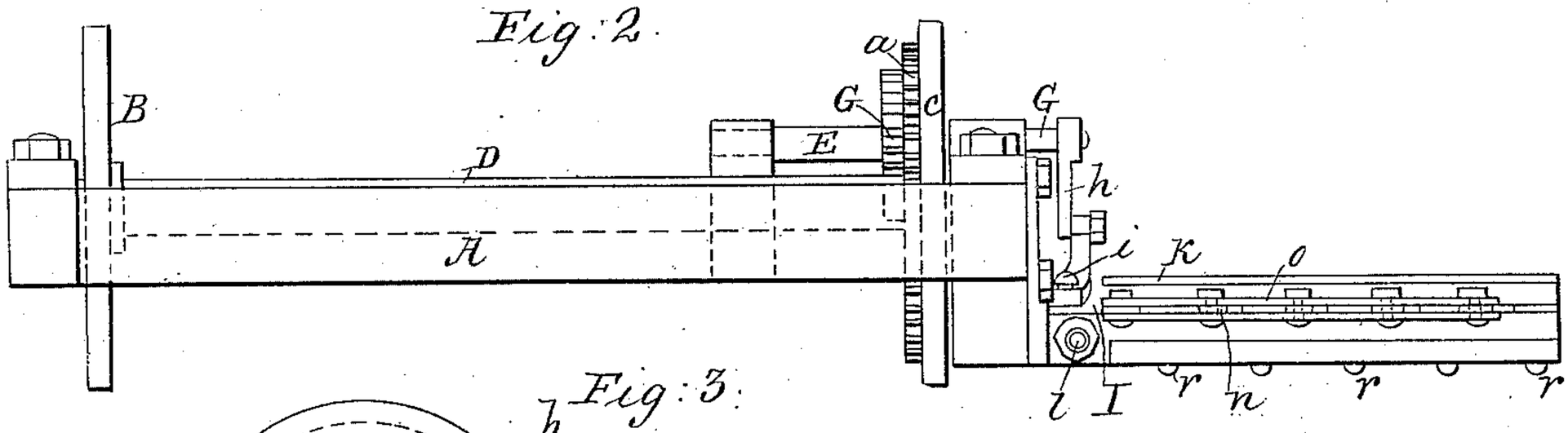
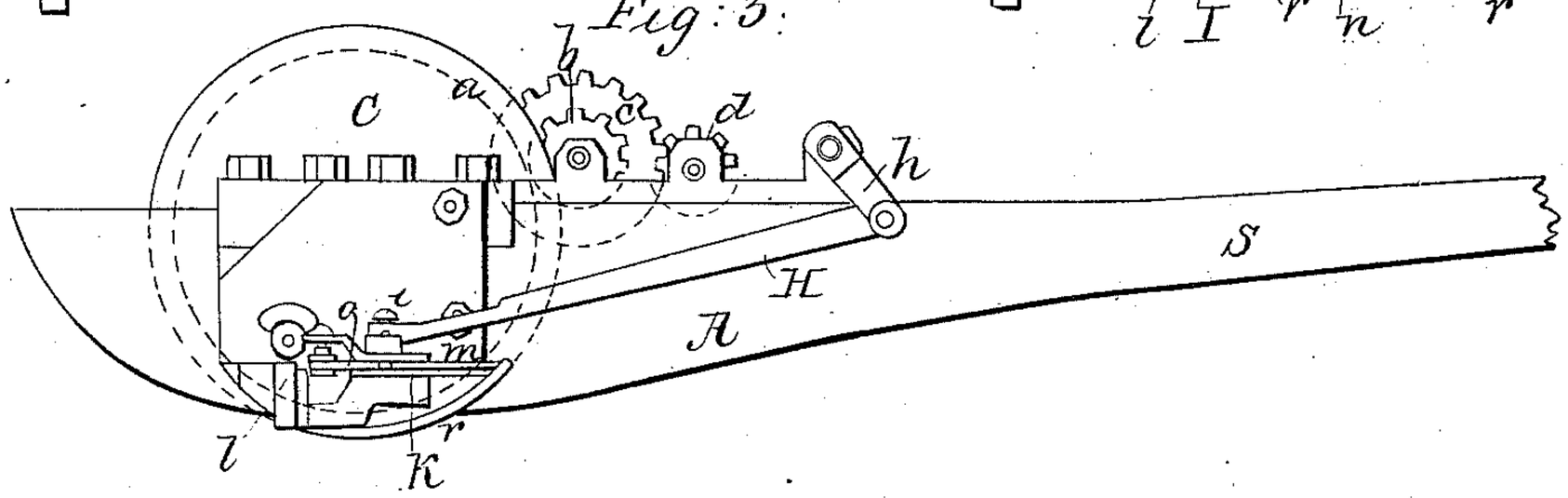


Fig: 3.



UNITED STATES PATENT OFFICE.

ANDREW M. HALL, OF WEST FALMOUTH, MAINE.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **16,274**, dated December 23, 1856.

To all whom it may concern:

Be it known that I, ANDREW M. HALL, of West Falmouth, in the county of Cumberland and State of Maine, have invented an Improved Mowing-Machine; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings.

My invention consists in the peculiar construction and arrangement of mechanism for operating the cutters, &c.

Figure 1 is a top view, Fig. 2 is a rear elevation, and Fig. 3 a side elevation, of said machine.

In such drawings, A denotes the main frame for sustaining the operative mechanism, it being understood that a horse is to be attached to said frame by thills *s s*, or their equivalent, in the usual way. The frame is supported by two wheels, B C, affixed on an axle, D, which carries a gear, *a*, that operates a train of gears, *b c d*, applied to two other shafts, E F, arranged as shown in Fig. 1. The latter shaft, F, carries a bell-crank, *e*, from which a connecting-rod or pitman, *f*, extends to and embraces another bell-crank, *g*, of a rocker-shaft, G, on whose outer end is fixed a crank, *h*. The wrist of said crank extends through a pitman, H, which should be so constructed as to enable it to move or vibrate laterally, so as to enable it, at its rear end, to be moved either toward or away from the frame A, as circumstances may require. In order to apply the pitman to the wrist of the crank, the hole through which the said wrist extends may be made so much larger in diameter than the wrist as will allow of sufficient lateral play or vibration of the pitman as may be necessary. The said rear end of said pitman is jointed to one arm of a bent lever, I, which turns on a pin at the intersection or junction of its arms, and supported by the cutter-frame K, as shown in the drawings.

The cutter-frame K, I apply to the main frame A by a hinge or hinge-connection, as seen at *l*, and so that the cutter-frame may be turned freely upward and downward and accommodate itself to the slope of land which it may rest on and be drawn over while the machine is in operation.

The several knives of the cutter-frame are shown at *m m m* as capable of turning on fulcra *n n n*, and are all jointed at their rear ends to one connecting-bar, *o*, which at its inner end is jointed to the other arm of the bent lever I. Each vibratory cutter *n* operates in connection with two stationary scissors or knife-edges, *p p*, extending from the cutter-bar, which has projecting from its under surface a series of curved supporters, *r r r*, which, when the machine is in motion, rest directly on the surface of the ground and maintain the cutters at a suitable elevation above the same. By so applying the pitman H to the wrist of the crank *h* that said pitman may turn laterally as well as vertically thereon, and by applying the cutter-bar to the main frame by a hinge-connection, the cutter-bar will accommodate itself to the ground it may pass over, and the pitman will be free or enabled to operate the lever I, whether the cutter-bar be horizontal or inclined relatively to the plane or surface on which the wheels may rest. Thus the machine will operate to better advantage than when the cutter-bar is so fixed to the frame as to be movable in all directions with and by the same.

The device for operating the pitman H, consisting of the cranks *e g* and short connecting-rod *f*, enables me to use the long pitman H and small gears *b d*, by means of which the cutters are worked with great ease and rapidity, while the mechanism is compact and not liable to get out of order.

I do not claim hinging the cutter-bar to the main frame by a hinge-connection in order to enable the said bar to accommodate itself to the ground it may pass over; but

What I do claim is—

Operating the pitman H by means of the mechanism above described, when the same is constructed and arranged in the peculiar manner and for the purposes above set forth.

In testimony whereof I have hereunto set my signature this 19th day of September, A. D. 1856.

ANDREW M. HALL.

Witnesses:

JOHN A. P. MERRILL,

ABIGAIL Y. MERRILL.