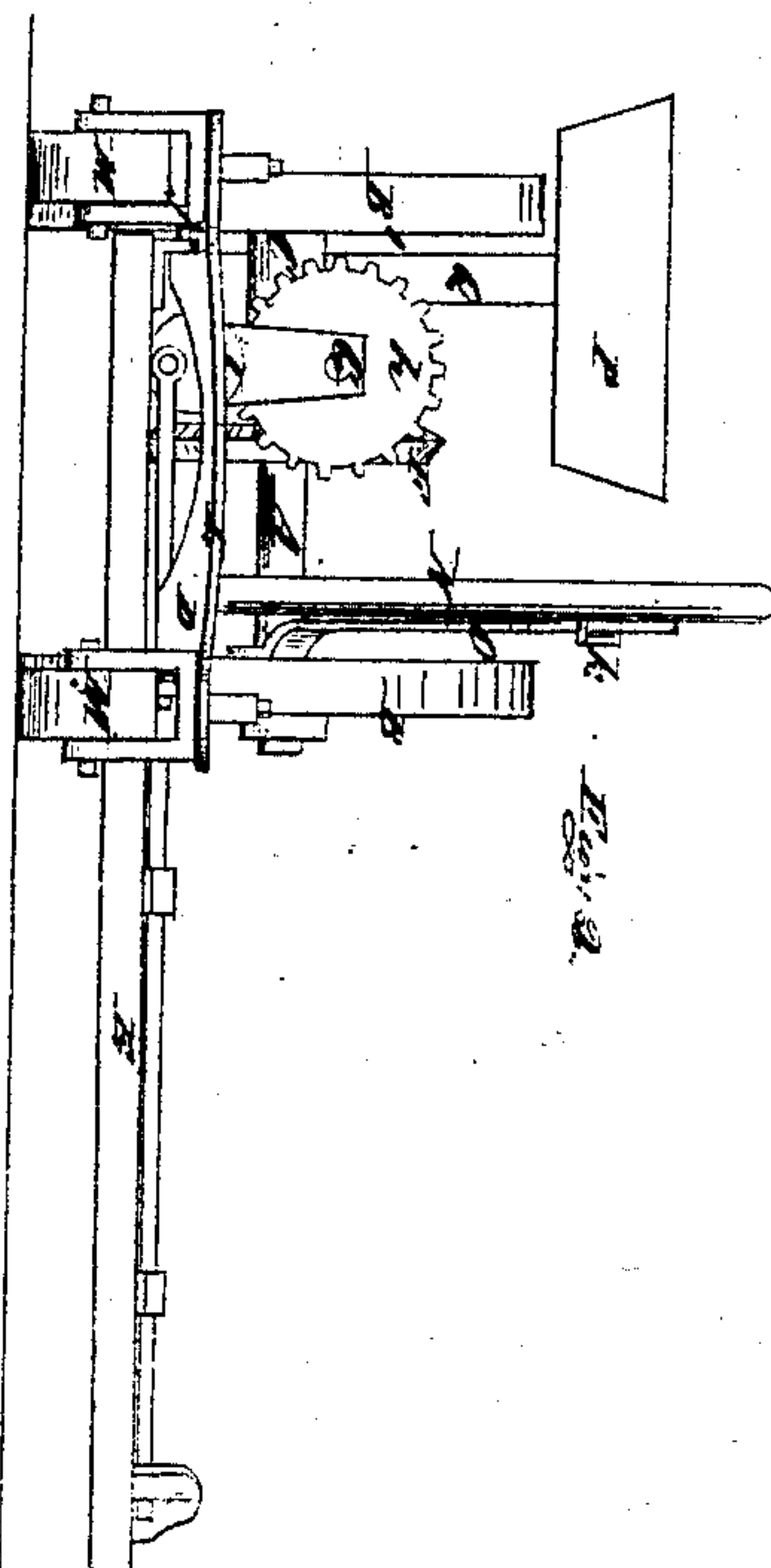
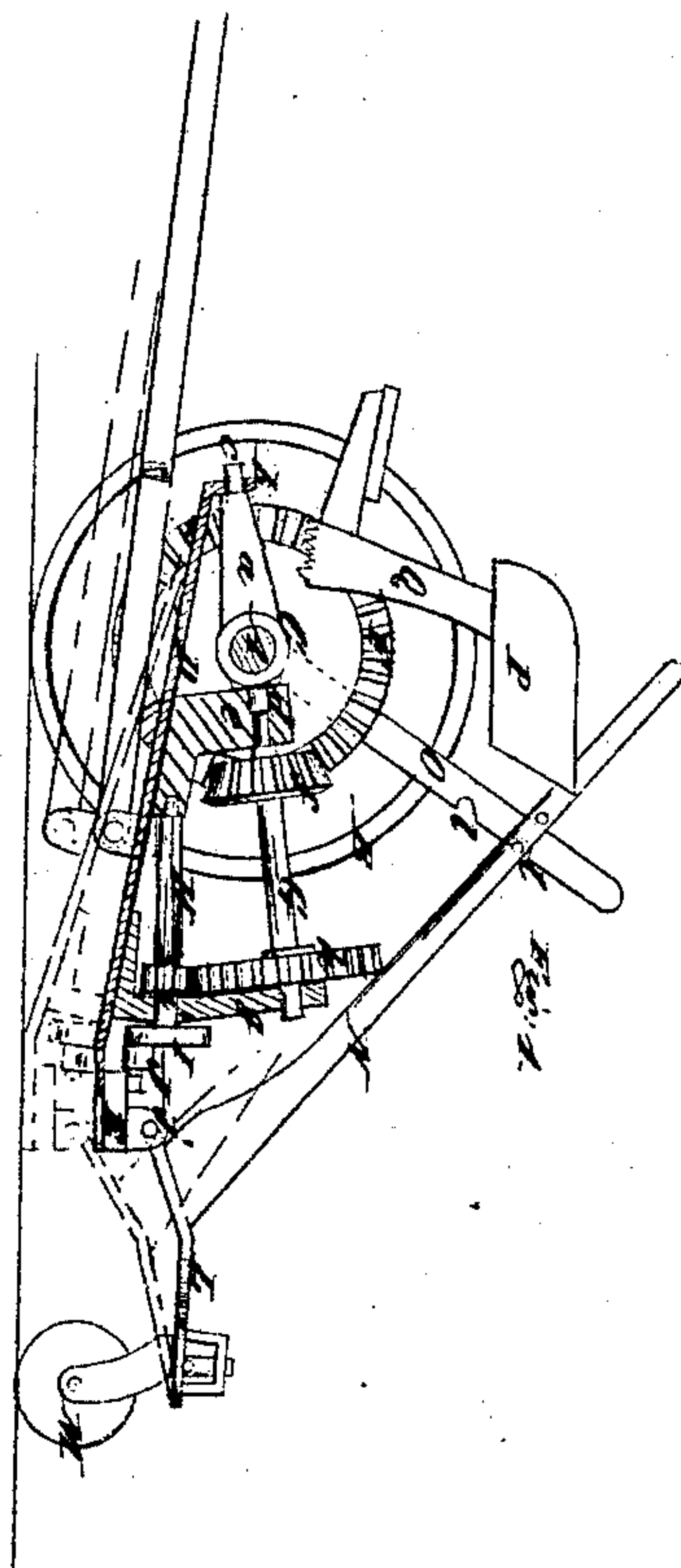
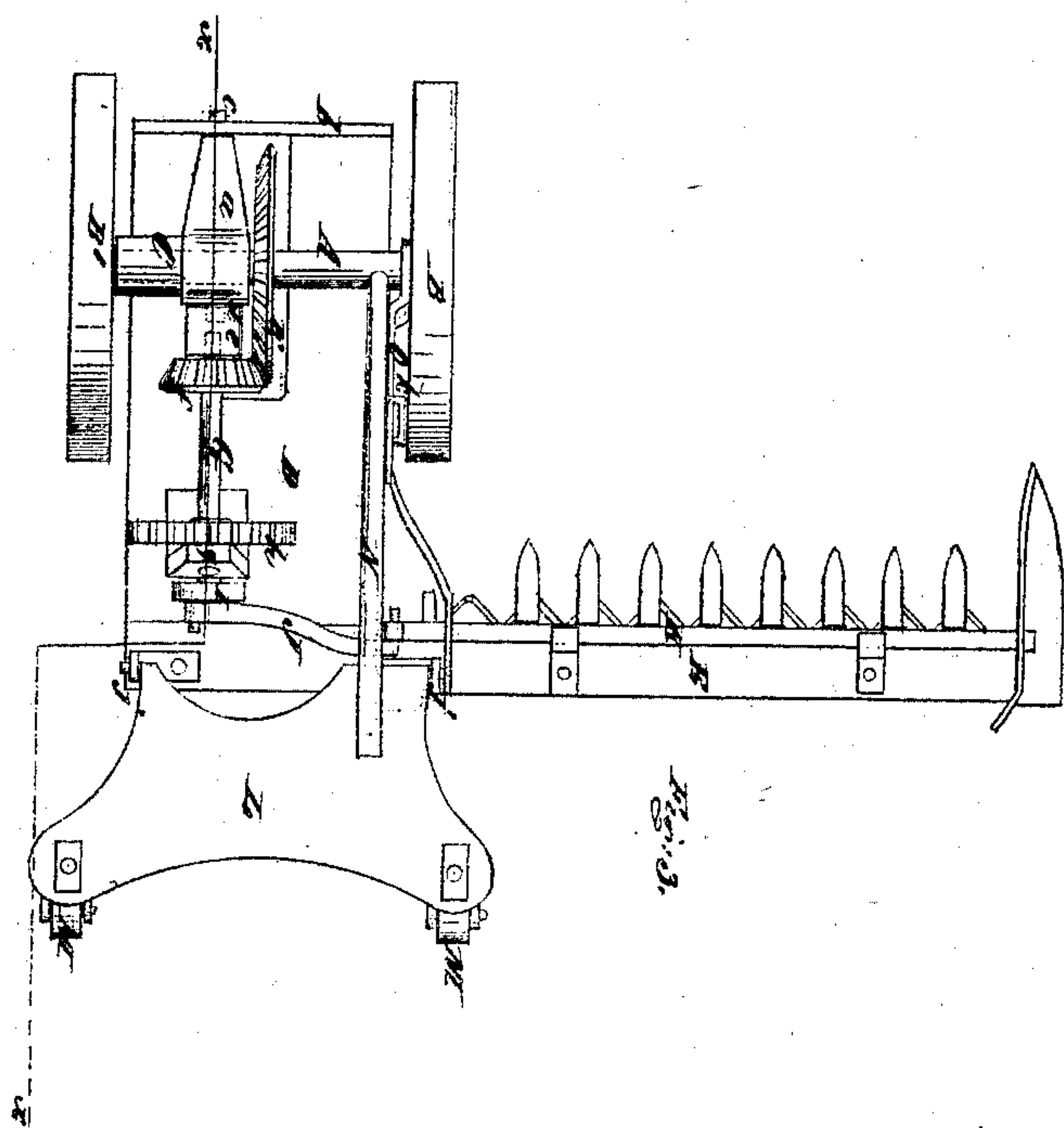


*H Marcellus,*  
*Mower*

*Nº 20.164*

*Patented May 4, 1858*



# UNITED STATES PATENT OFFICE.

H. MARCELLUS, OF AMSTERDAM, NEW YORK.

## IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. 20,164, dated May 4, 1858.

*To all whom it may concern:*

Be it known that I, HENRY MARCELLUS, of Amsterdam, in the county of Montgomery and State of New York, have invented a new and Improved Mowing-Machine; 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 a side sectional elevation of my improvement, taken in the line *x x*, Fig. 3. Fig. 2 is back view of the same. Fig. 3 is a plan or top view of the same.

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

This invention consists in a novel way of attaching the main frame of the machine to its axle, as hereinafter fully shown and described, whereby the sickle is allowed to conform to the inequalities of the ground without at all affecting the perfect operation of the driving-gear, and the machine as a whole rendered extremely simple and effective.

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

A represents an axle. B B' are wheels fitted thereon. The wheel B is fitted loosely on the axle, but the wheel B' is attached permanently to it.

C is a sleeve or collar, which is placed loosely on the axle A, and adjoining the wheel B'. This sleeve or collar has an arm or projection, *a*, attached to its front part at right angles.

D is the main frame of the machine, which is formed of a cast-metal plate, having the finger-bar E rigidly attached to its back end, at right angles with it, as shown in Fig. 3. The front end of the main frame D has a vertical ledge, *b*, formed on it, through which a journal, *c*, at the front end of the arm or projection *a*, passes loosely, and a journal, *d*, at the back end of the sleeve or collar C, and in line with journal *c*, passes into an upright, *e*, attached to the main frame. (See Fig. 1.) By this means the main frame is attached to the axle A, and it will be seen that a universal-joint connection is obtained—that is to say, the platform is allowed to vibrate or move vertically in a plane at right angles with the axle A, and also in a plane parallel or nearly parallel with it.

F is a bevel-wheel, which is placed on the axle A, and secured permanently to it, adjoining the end of the sleeve or collar C.

This bevel-wheel gears into a bevel-pinion, *f*, which is placed on a shaft, G, one end of which has its bearing in the upright, *e*. The opposite end of the shaft G has its bearing in an upright, *g*, which is attached to the main frame D at its back part. The back end of the shaft G has a toothed wheel, *h*, on it, said wheel gearing into a pinion, *i*, which is placed on a shaft, H, parallel with the shaft G, and having its bearings in the same uprights, *e g*. The back end of the shaft H has a crank-pulley, I, placed on it, said crank-pulley having a connecting-rod, J, attached to it, which connecting-rod drives the sickle K, which is placed on the finger-bar E.

P is the driver's seat, which is attached to an upright, Q, at the front end of the main frame, and at one side of it, as shown in Fig. 2.

From the above description it will be seen that as the machine is drawn along the finger-bar, and consequently the sickle, will rise and fall to conform to the inequalities of the surface of the ground, the finger-bar being allowed to rest on the ground, the finger and main frame working or moving together, as they are rigidly connected, and the movement of both being due to the peculiar connection of the main frame to the axle A. It will also be seen that the driving-gear F *f* will not be at all affected by the oscillations of the main frame, as the axis of the pinion *f* is at all times in a radial position relatively with the wheel F.

By means of the plate L, lever N, and bar O the finger-bar and sickle may be raised and supported at the proper height, the two castor-wheels M M retaining the finger-bar and main frame in proper positions.

By this improvement the machine is rendered extremely simple, it being composed of but very few parts, and none that are liable to get out of repair.

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

Attaching the main frame D of the machine to the axle A by connecting the frame, by means of journals *c d*, to the sleeve or collar C, which is placed loosely on the axle A, substantially as and for the purpose set forth.

HENRY MARCELLUS.

Witnesses:

JAS. H. EARL,

J. W. STURTEVANT.