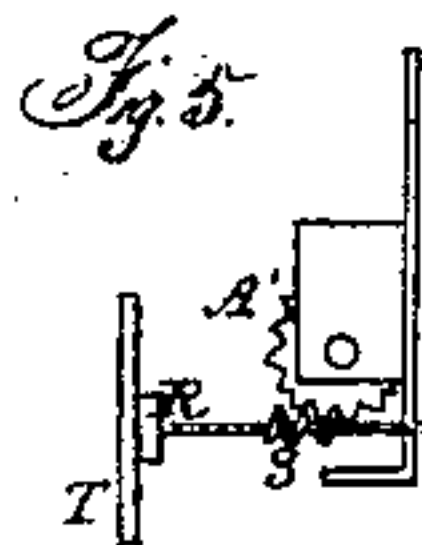
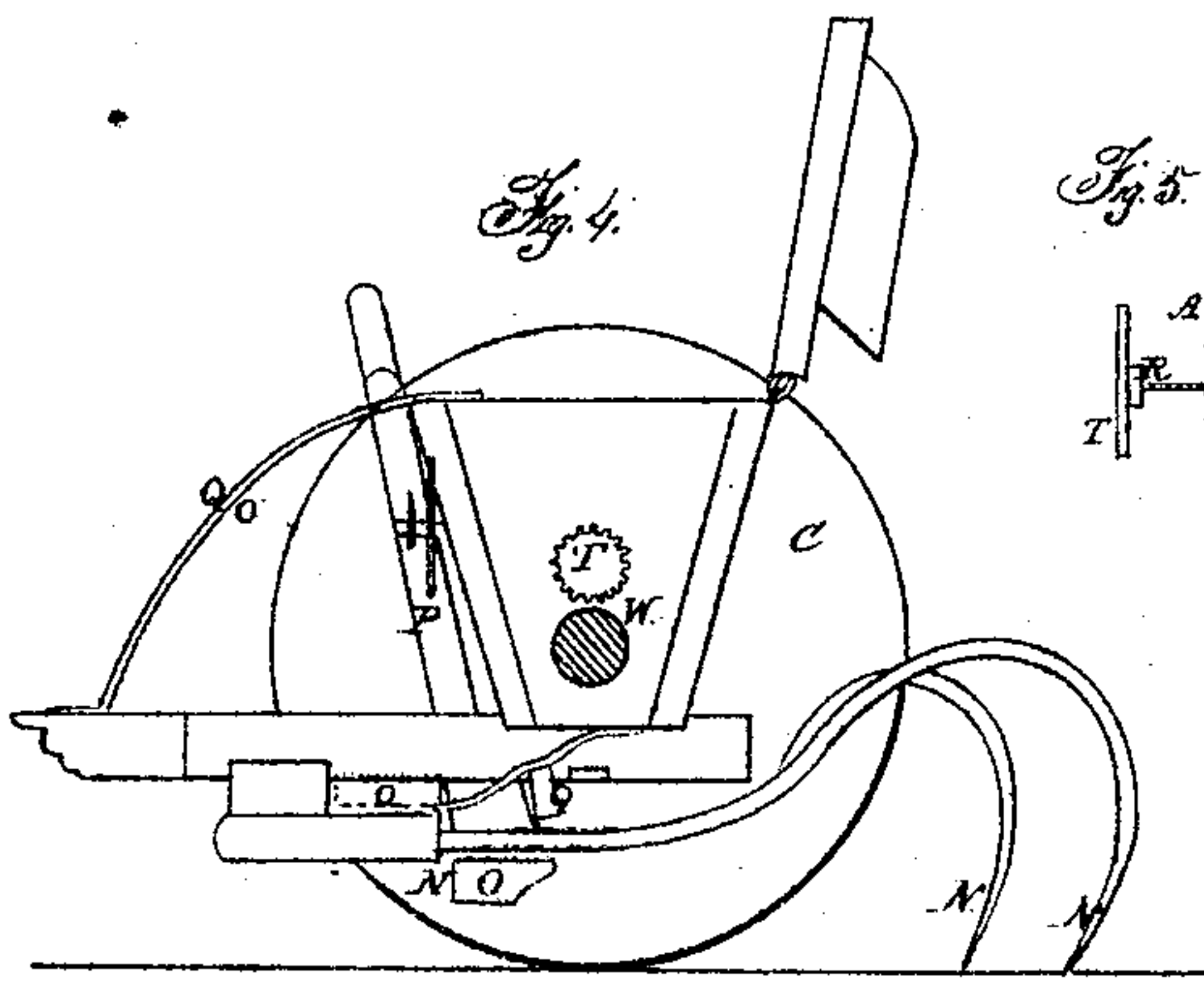
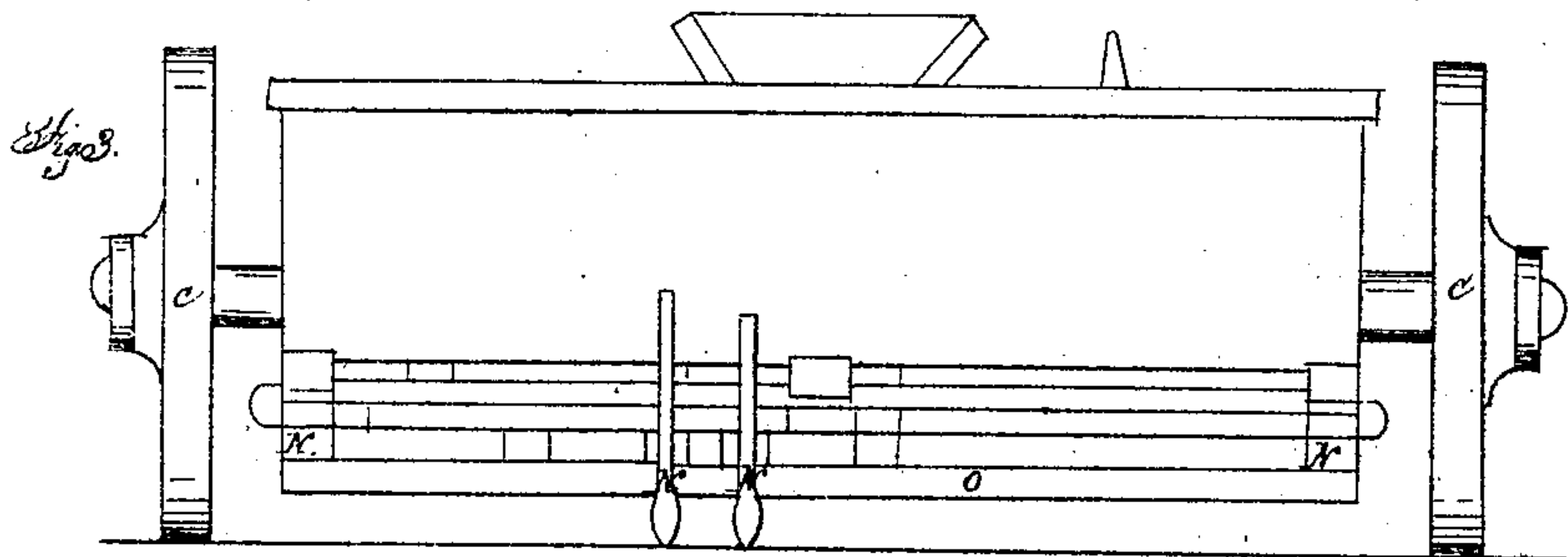
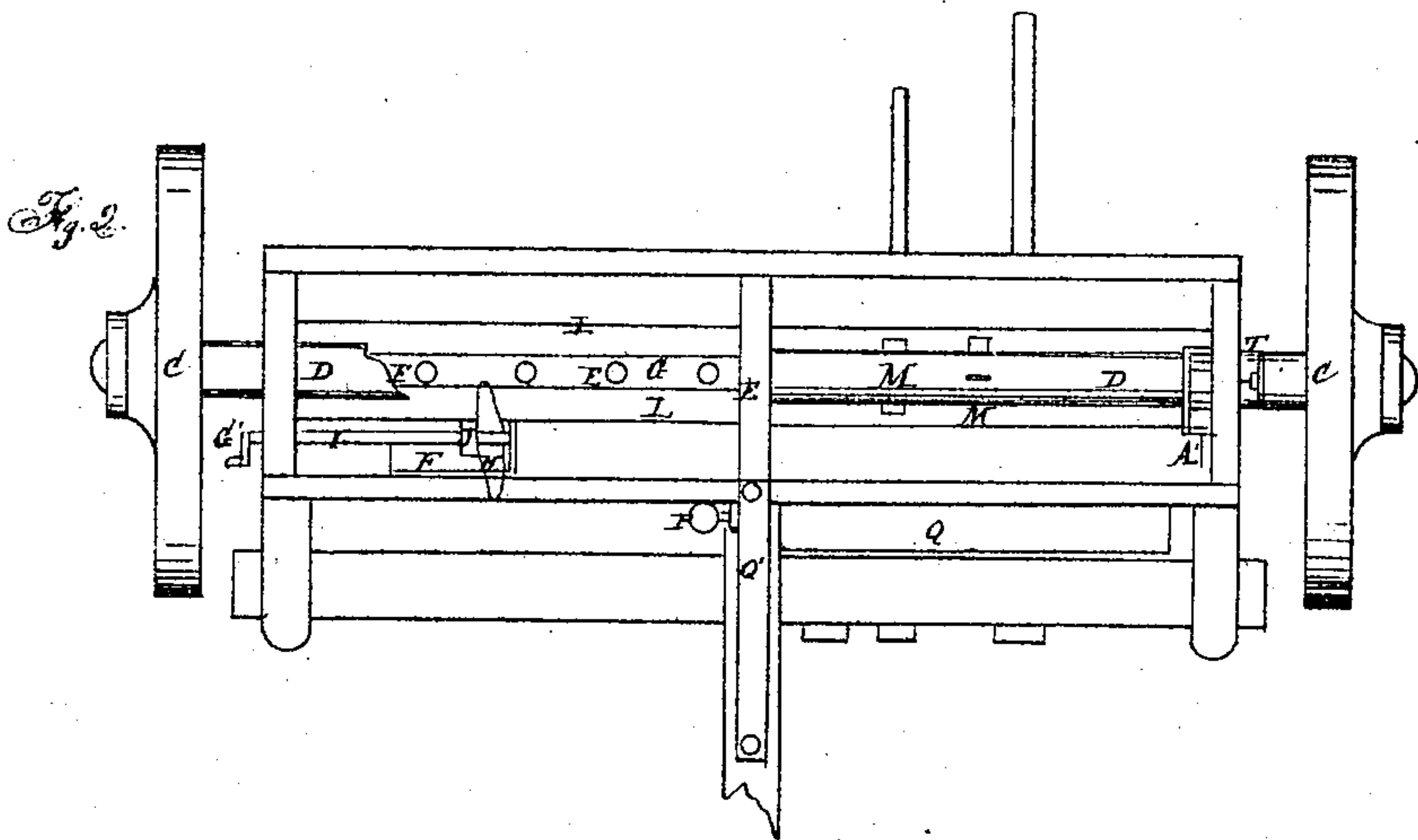
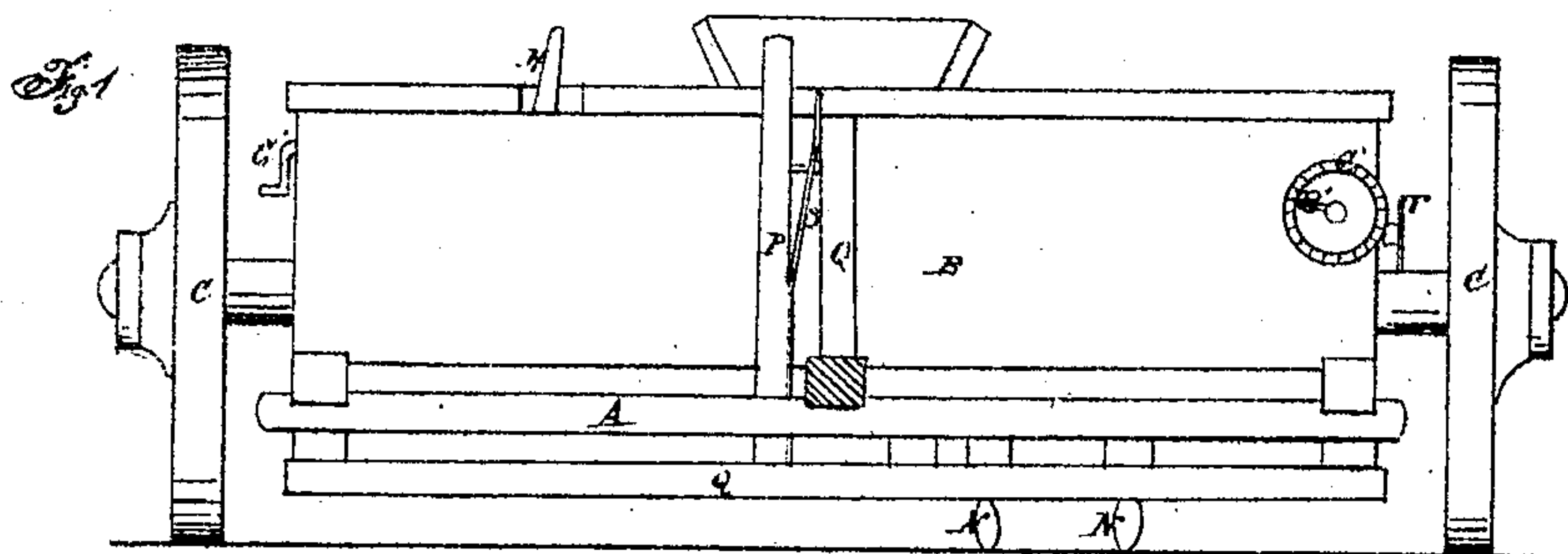


A. Ingalls. Seeder & Cultivator.

N^o 73336

Patented Jan. 14, 1868.



Witnesses
E. E. Waite
J. Holmes

Inventor
A. Ingalls

United States Patent Office.

A. INGALLS, OF INDEPENDENCE, IOWA.

Letters Patent No. 73,336, dated January 14, 1868.

IMPROVEMENT IN SEEDER AND CULTIVATOR COMBINED.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. INGALLS, of Independence, in the county of Buchanan, and State of Iowa, have invented certain new and useful Improvements in a Seeder and Cultivator, Combined; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of the machine.

Figure 2 is a view of the inside from the top.

Figure 3 is a view of the rear side.

Figure 4, an end view.

Figure 5, a detached section.

Like letters of reference refer to like parts in the different views.

A, fig. 1, is a frame, on which is placed the seeding-box B, both being mounted on wheels C. These wheels are rigid on the axle D, which, it will be observed, penetrates the ends of the box to the central division-board E, which forms the seat in which the inner ends of the axle run. The bottom of the seeding-box is perforated with a series of holes, F, fig. 2, over which is placed a slide, G, provided with a corresponding number of holes, and is operated by the lever H. This lever is retained in position by a shifting-rod, I, fig. 2, on which rod is a nut, J, between which and the stay K, supporting the inner end of the rod, the lever is held, and the distance that it is required to be moved is regulated by the nut J, so that the throw of the slide can be more or less, for a purpose hereafter shown. The slide referred to is kept from displacement by the cleats L, which overlap the slide, thereby keeping it close down upon the bottom, so that no dirt can work under it and obstruct the freedom of its movement, also, the cleats being beveled, facilitates the running out of the last of the seed in the box, and which is assisted by the feeders or wings M, fig. 2, proceeding from the axles, and which feeders may be more or less in number, as may be desired. N, fig. 4, are cultivators, a row of which extend the length of the machine. One end of these cultivators is attached to the frame A, whereas the curved end reaches back and rests upon the ground, as shown in the drawing, but which may be raised up by the swing-bar O, on which they rest, the said bar being hinged to the frame by the hook and eye N', fig. 3, and which is also shown in fig. 4. To this bar is attached a lever, P, by which it is operated, for a purpose hereafter shown. Q, fig. 2, is a foot-board, hinged to the under side of the seed-box, so that it can rest upon the bars or shanks of the cultivator, which, on being pressed down by the feet of the driver, will force the teeth N into the soil, and thereby enable the operator to give at will more or less efficiency to the action of the teeth, as the variable condition of the soil may require. Projected through one end of the seed-box is a shaft, R, fig. 5, on the inner end of which is an endless screw or worm, S, and on the other end a toothed wheel, T, fig. 2, in the screw referred to, engages a toothed wheel, A', one end of which is projected through the side of the seeding-box, and to the protruded end of this shaft is attached a pointer, B', fig. 1, which is made to traverse the dial C' by the wheels and worm above described, and which are operated by a tooth, D', fig. 4, projecting from the side of the axle, which, as it comes around, engages in the teeth of the wheel T, and thereby causes it to turn, giving, by this means, movement to the pointer. The purpose of this apparatus is to measure the distance traversed by the machine. The size of the driving-wheels C and the number of teeth to the wheels T and A' are so adjusted as to measure accurately the ground gone over, and which will be indicated on the dial.

Having thus described the machine, the practical operation of the same is as follows: A certain quantity of seed is thrown into the box, the amount per acre being gauged by the distance that the slide G is opened, and which is regulated by the adjusting-rod and nut I J, which allows the lever to move the slide so much as to open the holes far enough to permit the required amount of grain for the acre to pass through. A scale of quantity, F, fig. 2, is placed on the inside of the box, immediately under the lever, and over which it passes as it is adjusted by the screw and nut I J; and which screw and nut are operated by the crank G'. By this means can be sown any quantity of seed to the acre, as may be required.

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

1. The slide G, as arranged, in combination with the lever H and adjusting-rod I, for the purpose and in the manner as set forth.
2. The graduating-scale F', in combination with the adjusting-rod I, for the purpose and in the manner as set forth.
3. The foot-board Q and swing-bar O, as arranged, in combination with the cultivators N, for the purpose specified.

A. INGALLS.

Witnesses:

J. H. SANDERS,

W. J. IRWIN.