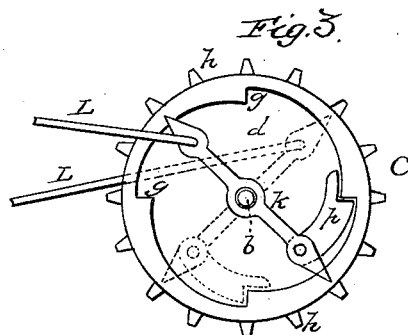
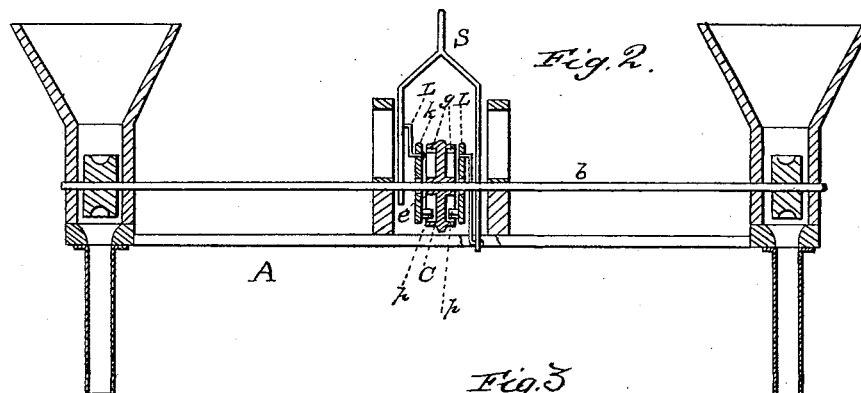
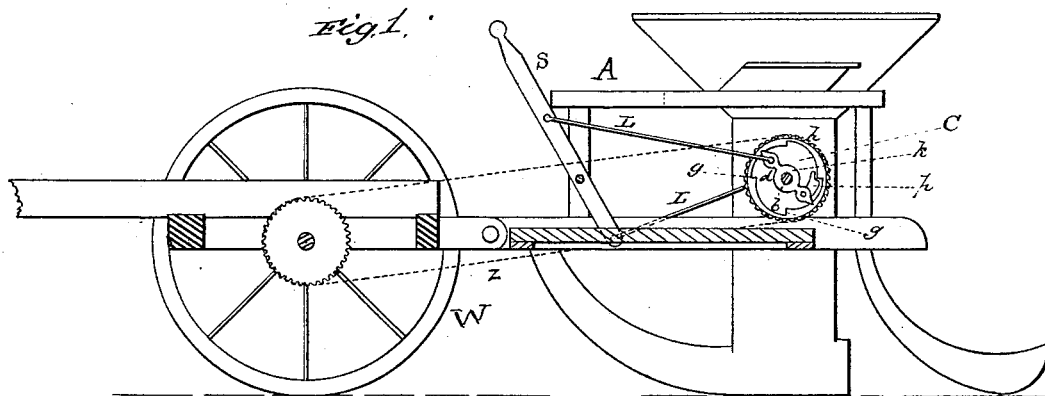


(No Model.)

W. A. HAZELRIGG.
FERTILIZER AND PLANTER.

No. 266,818.

Patented Oct. 31, 1882.



WITNESSES
E. H. Bates
James J. Sheehy.

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UNITED STATES PATENT OFFICE.

WILLIAM A. HAZELRIGG, OF NAPOLEON, INDIANA.

FERTILIZER AND PLANTER.

SPECIFICATION forming part of Letters Patent No. 266,818, dated October 31, 1882.

Application filed March 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, WM. A. HAZELRIGG, a citizen of the United States, and a resident of Napoleon, in the county of Ripley and State of Indiana, have invented a new and valuable Improvement in Fertilizers and Planters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my improved planter. Fig. 2 is a side view of the ratchet-wheel, and Fig. 3 is a cross-sectional view.

This invention has relation to devices for rotating the feeding or dropping cups of fertilizing-machines and planters; and it consists in the construction and novel arrangement, in connection with the shaft of the dropping-cups, of a wheel formed with an internal ratchet-rim bordering a recess on each side, diameter-levers spanning the sides of the wheel and carrying gravitating pawls or dogs engaging the internal ratchet-rims, the connecting-rods, and operating-lever.

The invention further consists in providing the internal ratchet-wheel described with projecting teeth on its circumference, designed so that it may serve as one of the chain-wheels for drilling.

In the accompanying drawings, the letter A designates a portion of the frame of a corn-planter, having a horizontal shaft, *b*, on which are placed and secured the dropping-cups, which work in the bottoms of the hoppers and serve to feed the grain to the dropping-tubes. On the shaft *b* is rigidly secured a wheel, C, which is recessed on each side, at *d*, about a central boss or bearing, *e*, and within a marginal ratchet-rim, *g*. On the perimeter of this wheel are radially-projecting teeth *h*, so arranged that the wheel can serve as a chain-

wheel. Across each lateral face of the wheel extends a diameter-lever, *k*, which is pivoted loosely on the shaft *b* and spans the wheel, bearing by its ends against the rim *g*, and by its middle portion against the boss *e*. To the lower end of each lever *k* is pivoted a dog or pawl, *p*, which works in the lateral recess *d*, and engages the internal ratchet-teeth of the wheel. By means of rods *L* the levers *k* are connected respectively above and below its fulcrum to the operating fork-lever *S*, which is designed to be worked with a vibratory motion, communicating movements of like character to the pawl-levers *k*, these levers, however, being so vibrated that their pawls alternately engage the ratchet-rims of the wheel, so that the main wheel C is constantly turned forward in the same direction, and by turning the shaft rotates the dropping-cups also forward in the same direction in an intermittent manner suitable for planting. For drilling, the chain *z* is adjusted on the wheel C and drive-wheel W on the front axle, so as to turn the dropper-cups continuously.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The wheel C, having an internal ratchet-rim, *g*, bordering a lateral recess on each side, the diameter levers *k*, pawls *p*, rods *L*, operating-lever *S*, and the shaft *b*, carrying the dropping-cups, substantially as specified.

2. The wheel C, having the lateral ratchet-rims *g*, bordering the recesses *d* in its sides, the central bearing, *e*, and the radially-projecting chain engaging teeth *h*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM AUGUSTES HAZELRIGG.

Witnesses:

JESSE LEWIS COWAN,

ABRAHAM LINCOLN BACHMAN.