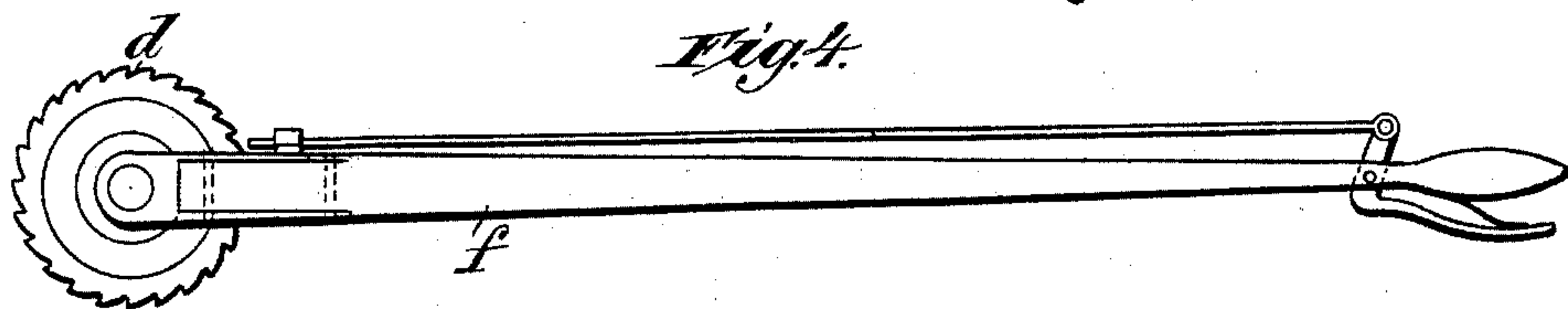
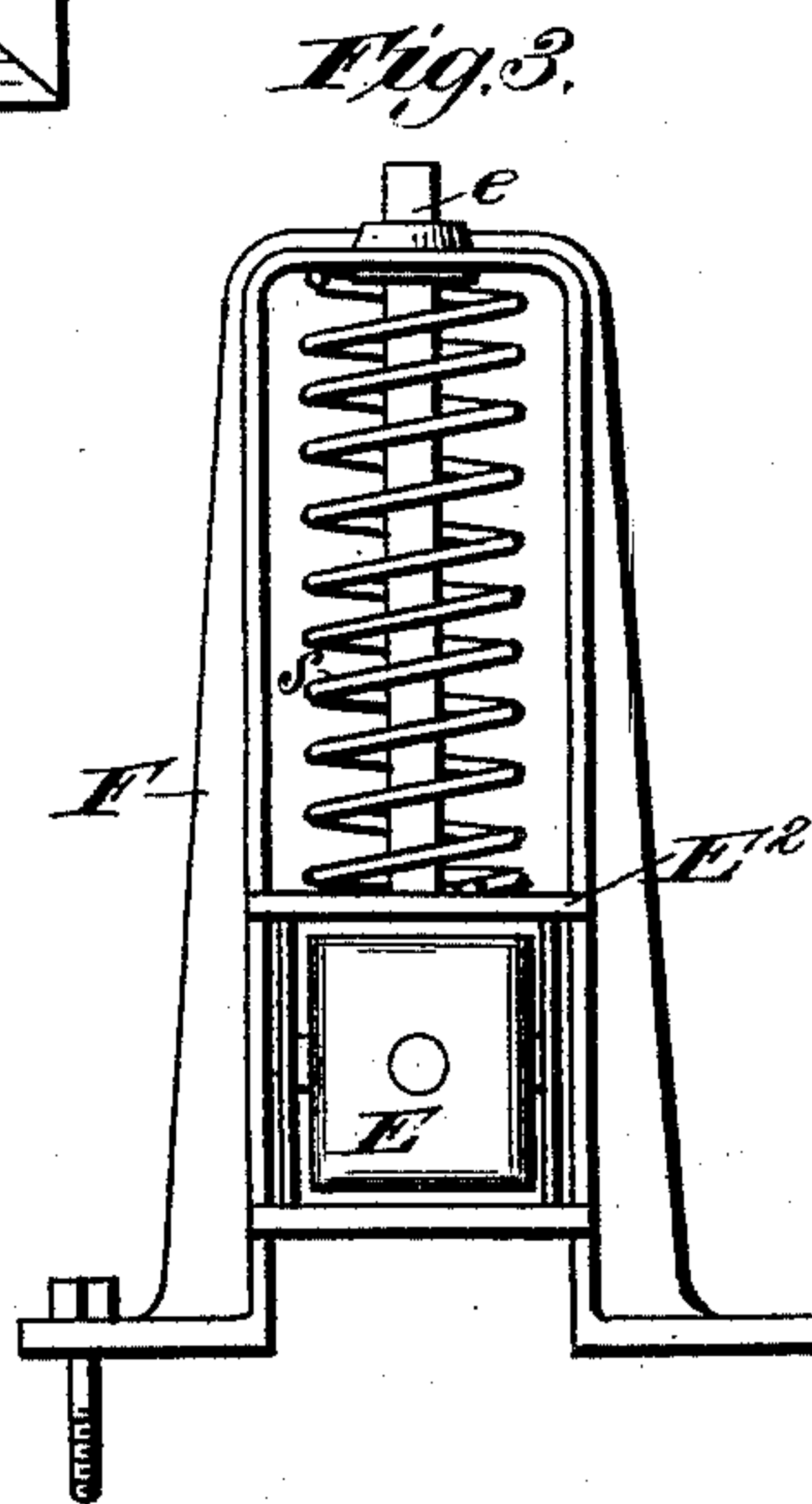
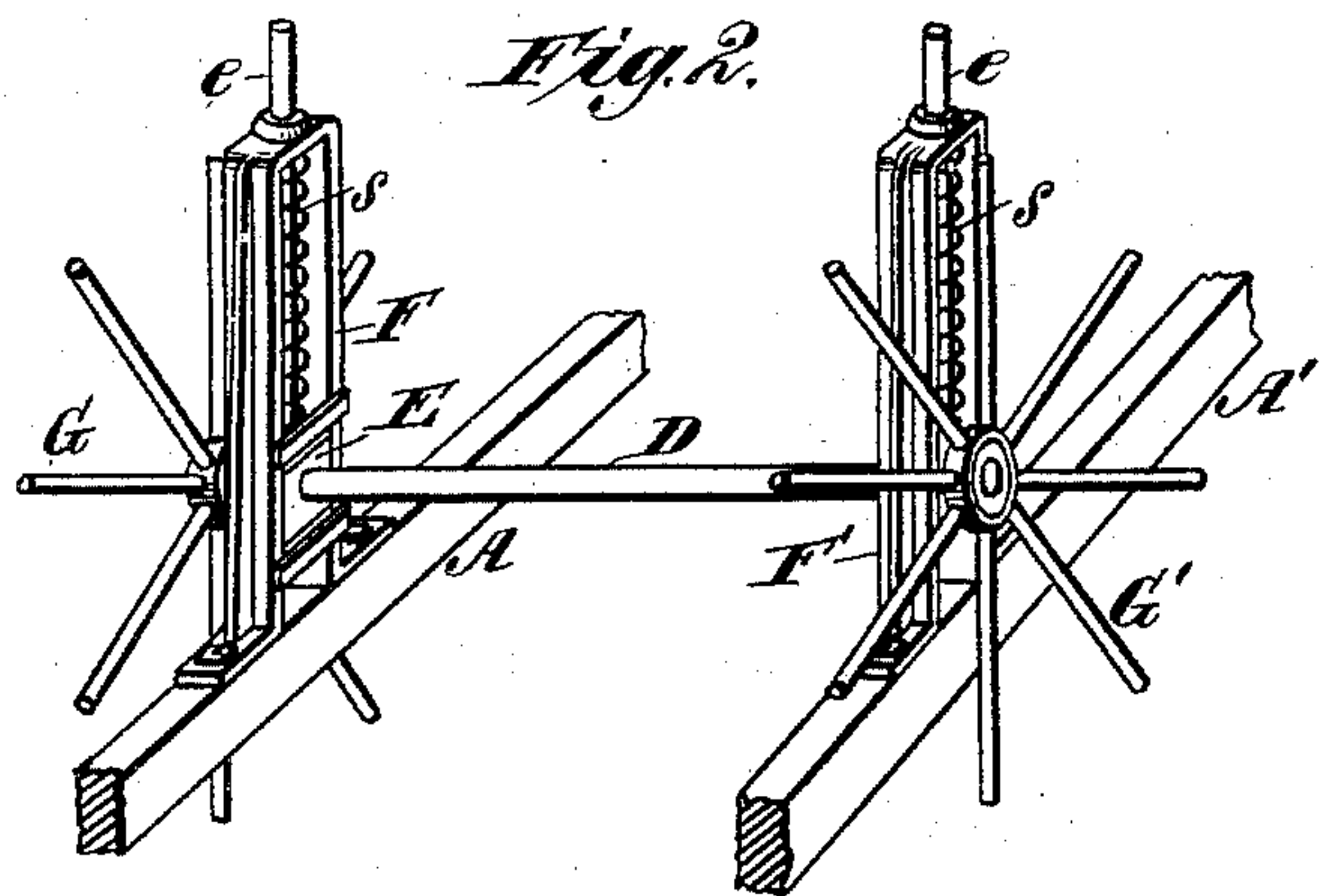
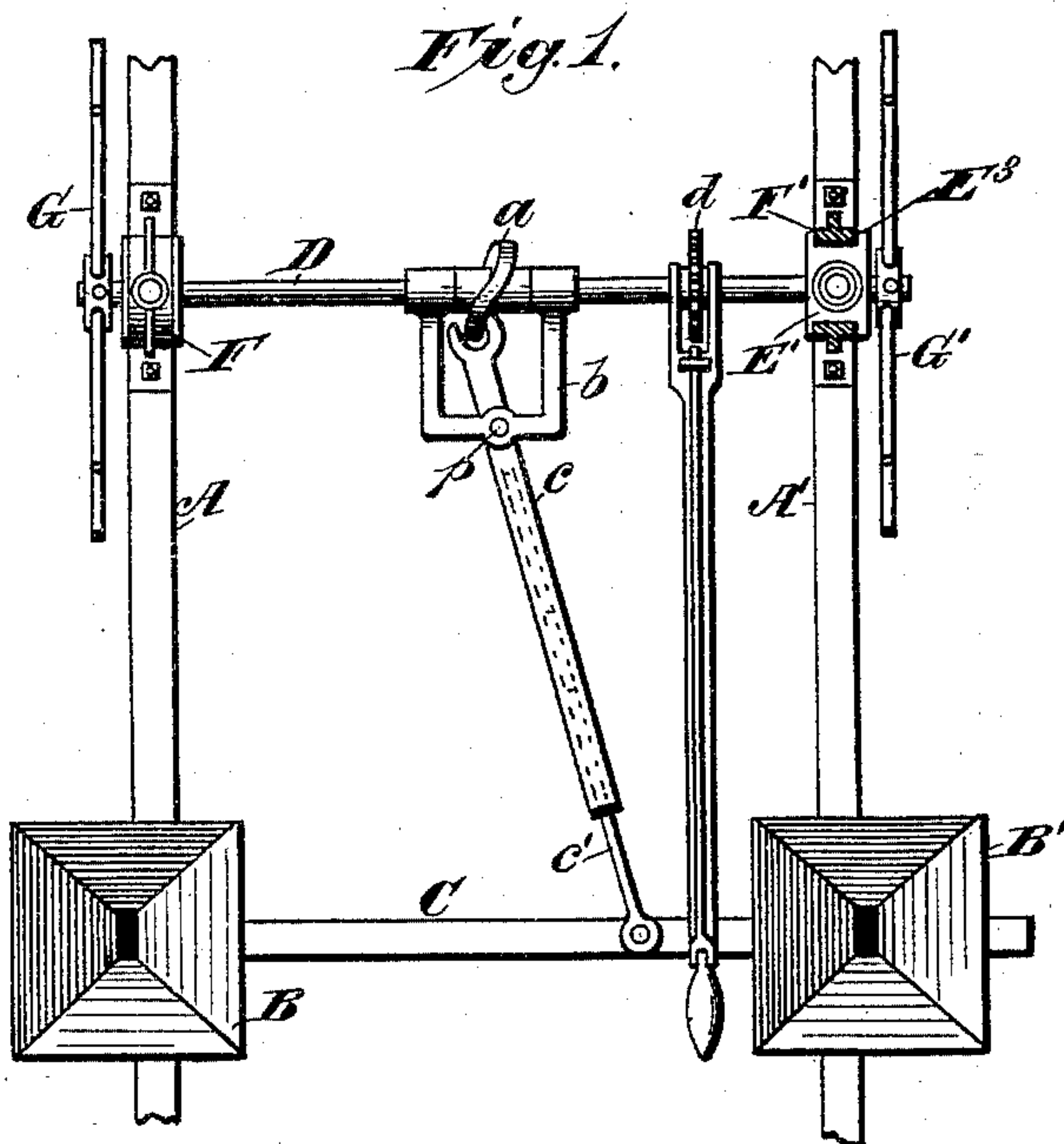


(No Model.)  
E. GODDEN & G. R. WHITEHURST.  
CORN PLANTER.

# CORN PLANTER.

No. 448,649.

Patented Mar. 24, 1891.



*Witnesses.*

Robert Emmett.  
J. A. K. Rutherford.

*Inventors.*

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*Edward Godden*  
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*By* *L. M. Hoswa.* *Atty.*



# UNITED STATES PATENT OFFICE.

EDWARD GODDEN AND GEORGE R. WHITEHURST, OF CLARKSBURG,  
ASSIGNORS TO JAMES M. THOMAS, OF CHILLICOTHE, OHIO.

## CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 448,649, dated March 24, 1891.

Application filed March 17, 1890. Serial No. 344,270. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD GODDEN and GEORGE R. WHITEHURST, citizens of the United States, residing at Clarksburg, Ross county, Ohio, have invented new and useful Improvements in Corn-Planters, of which the following is a specification.

Our invention relates to corn-planters, its object being to improve the same in respect to means for securing regularity in planting.

To this end it consists in the mechanism hereinafter described attached to the ordinary wheeled planter to actuate the dropper mechanism at uniform distances in the travel of the machine.

Mechanism embodying our invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of our attached mechanism, together with so much of the frame of the planter as shows its relation to the seed-boxes and dropper-bar; Fig. 2, a perspective elevation of the two actuating-wheels in their bearings; Fig. 3, a detailed side elevation of one of the pivoted axle-boxes in its slide-frame and guides; Fig. 4, a detail of the setting-lever and its ratchet.

Referring now to the drawings, A A' designate the side bars of the supporting-frame, and B B' the seed-boxes of the planter, which is mounted on wheels (not shown) in the usual manner, and C the dropper-bar, which passes transversely across the machine between and into the seed-boxes and by its reciprocation drops the seed, the precise construction and operation of the seed-dropping mechanism not being material to our invention. In front of the seed-boxes (or at the rear, if preferred) is journaled in vertically-guided bearings E E' an axle D, carrying at its outer ends beyond the frame two wheels G G', having spokes without rims, both rigidly attached to the axle D. The bearings of the axle D are in boxes E E', pivoted horizontally in slide-frames E<sup>2</sup> E<sup>3</sup>, which slide-frames are held and guided vertically in parallel guide-brackets F F', secured to the frame-bars A A'.

The slide-frames E<sup>2</sup> E<sup>3</sup> have stems *e* projecting upward centrally through the tops of the brackets, and coiled springs S around the stems and between the slide-frames and the

top of the brackets to hold the frames and their contained boxes normally downward with resilient force.

The construction, as will be seen, admits of the elevation of either end of the axle without the other, the horizontal pivots of the boxes permitting them to accommodate the angle assumed by the axle freely.

In the progress of the machine the outer ends of the free spokes of the wheels G G' engage with the ground, rising or falling according to its inequalities of surface; but, being rigidly connected to the common axle D, any inequalities of rotation in relation to the general travel of the machine, which might occur through an inequality of the ground-surface at one side acting upon one of the wheels, is checked by the compensating action of the opposite wheel and the rigid axle-connection.

The rotation of the axle D is utilized as a means of actuating the seed-dropping mechanism, a given number of droppings being given by each complete rotation. As a convenient mode of utilizing such rotation, we have shown the following construction, to wit: The axle D is provided centrally with a side-acting cam-wheel *a*, rigidly secured and operating within a yoke-frame *b*, loosely hung upon the shaft in constant lateral relations to the hub of the cam. A lever *c* is passed through or across the rear side of the yoke-frame *b*, and, secured by a vertical pivot P, engages the cam *a* between terminal jaws of the lever within the yoke, while the other end of the lever projects rearwardly to and pivotally engages with the dropper-bar C. The rear end of the lever is made extensible by a telescope-joint *c'*, as shown, or may engage the pivot of the dropper-bar C by a longitudinal slot in the end of the lever, the object in either case being to accommodate the arc movement of its terminal as it is oscillated from side to side by the rotation of the cam. By such oscillation the dropper-bar is moved laterally across the machine and the seed-dropping mechanism actuated. The cam may have any number of corrugations, and thereby produce any desired number of movements in each entire rotation of the axle. We have also shown a ratchet-wheel *d* upon the axle



provided with a pawl-handle *f* of ordinary construction, the purpose of which is to change or regulate the rotative position of the axle at any time with reference to the  
5 relative position of the seed-dropping mechanism, so as to adjust the same in starting a new row or to correct any error of alignment at any time.

The invention, as will be seen, involves as  
10 a leading principle the provision and operation of an independent axle rotated by two terminal wheels, to which it is rigidly connected, and utilized as a prime mover for actuating the dropping mechanism, and may  
15 be applied to most existing types of corn-planters, with such variations in mechanical details as may be required to adapt it thereto in each special case.

We claim as our invention and desire to

secure by Letters Patent of the United States—

In a corn-planter, the combination, with the independent axle *D*, the wheels *G G'*, and the dropper-bar *C*, of the connections between said axle and bar, consisting of the cam *a* and  
25 lever *c*, carried in the yoke-frame *b*, loosely journaled on the axle *D*, said lever engaging the cam at one end and the dropper-bar at the other end, substantially as described.

In testimony whereof we have hereunto  
30 set our hands in the presence of two subscribing witnesses.

EDWARD GODDEN.

GEORGE R. WHITEHURST.

Witnesses:

JAMES M. THOMAS,

JAMES A. WOOD.