

(No Model.)

I. HUFFER.
SOIL PULVERIZER.

No. 256,801.

Patented Apr. 18, 1882.

Fig. 1.

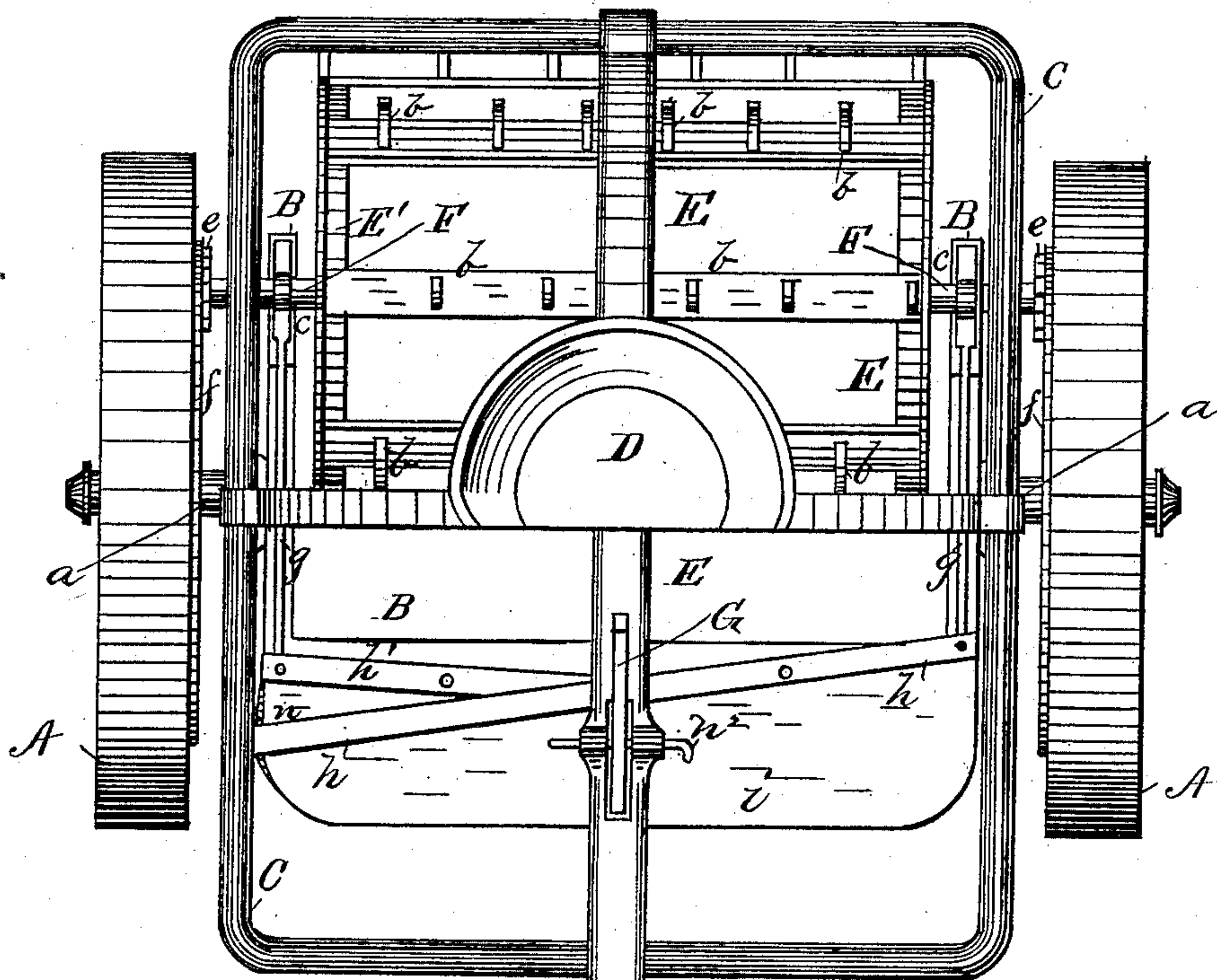


Fig. 2.

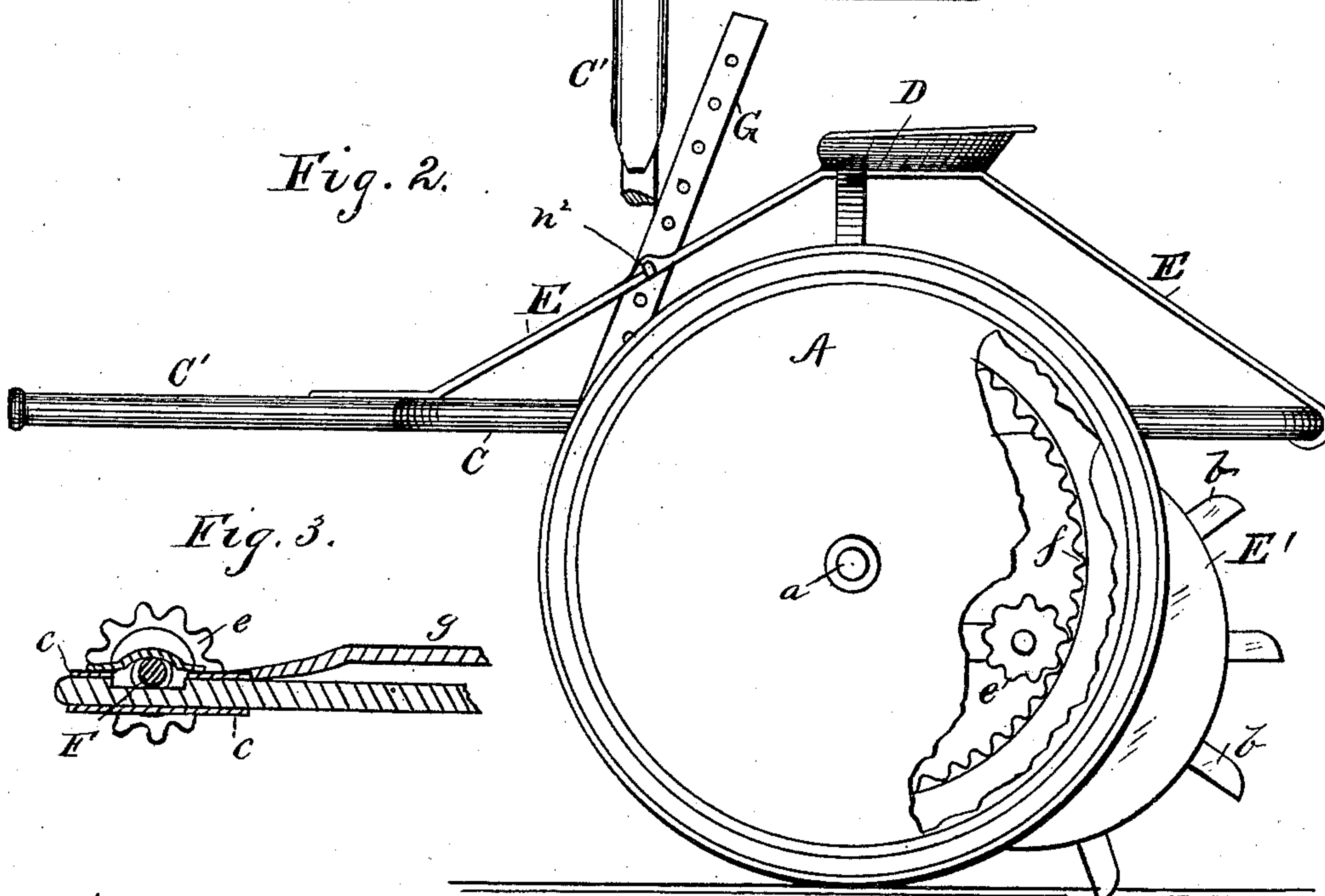
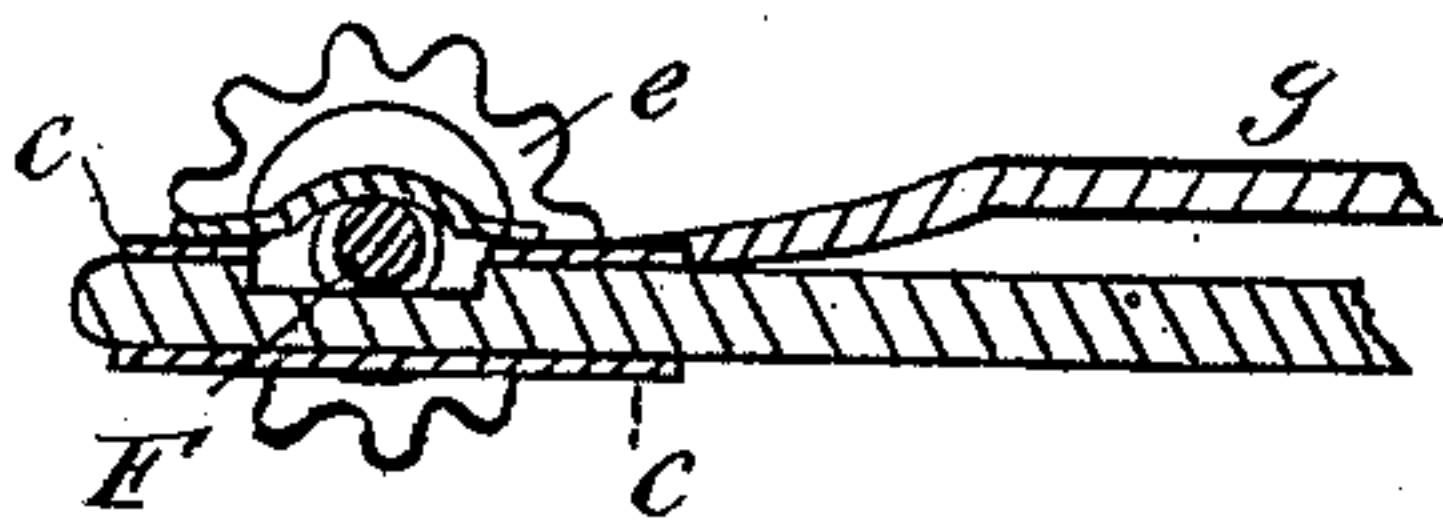


Fig. 3.



Witnesses,
Edwin L. Jewell
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UNITED STATES PATENT OFFICE.

ISAAC HUFFER, OF TAYLORVILLE, ASSIGNOR OF TWO-THIRDS TO JOHN W. MOORE AND JAMES C. McBRIDE, OF CHRISTIAN COUNTY, ILLINOIS.

SOIL-PULVERIZER.

SPECIFICATION forming part of Letters Patent No. 256,801, dated April 18, 1882.

Application filed August 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, ISAAC HUFFER, of Taylorville, in the county of Christian, and in the State of Illinois, have invented certain new and useful Improvements in Soil-Pulverizers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to soil-pulverizers wherein rotary drums are employed for breaking up the clods and to cut into the surface of the ground, so as to thoroughly pulverize the soil.

The nature of my invention consists in the combination, with a drum which is armed with knives of suitable form and mounted on a transporting-frame, of gearing for giving rapid rotation to the drum, and novel means for elevating and depressing the drum and for stopping and starting the rotation thereof, as will be hereinafter explained.

In the annexed drawings, Figure 1 is a plan view of the improved rotary pulverizer. Fig. 2 is an elevation of one side of the machine, parts of which are broken away to expose two of the gear-wheels. Fig. 3 is a detail view in section, showing how the shaft of the drum is mounted on the draft-frame.

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

In the annexed drawings, A A designate two transporting and driving wheels, which turn freely on two short axles, *a a*, fixed to a frame, B, on which axles is mounted the main draft-frame C. The two frames may articulate freely and independently of each other.

On the draft-frame C is mounted the driver's seat D by means of braces E, and to this frame a draft-pole, C', is applied.

E' designates an open or skeleton drum, provided with knives of any suitable form and arranged in any desired manner. These knives *b* may be so applied to the drum that they can be removed when desired.

The shaft F of the drum E' is fixed centrally to its heads, and has its journal-bearings in tubular slides *c*, applied so that they

can be moved longitudinally on the side bars 50 of the frame B.

Fixed to the ends of the drum-shaft F are pinion spur-wheels *e*, designed to engage with the teeth of inside spur-wheels, *f*, on the driving and transporting wheels A. The pulverizing-drum will, by the means described, receive a very high rate of rotary speed when the machine is drawn along and the spur-wheels are in gear.

The tubular slides *c* are connected by rods *g* to the ends of two levers, *h h'*, which have their fulcrums on a platform, *i*, of frame B.

The lever *h* is pivoted at the middle of its length to the inner end of the lever *h'*, and the right-hand end of lever *h* is provided with a catch, *n*, which is adapted to engage with ratchet-teeth fixed to the frame B.

By means of the levers and connecting-rods described the driver, while in his seat, can disengage the pinions *e* from the inside spurs of the transporting-wheels, and thus stop the rotation of the drum E' while the machine is being drawn over the ground. The driver can also start the drum rotating at pleasure.

A rod, G, is pivoted to the front end of the frame B and extended up through the front brace, E, and provided with a number of holes, through one or the other of which is passed a pin, *n*². By this simple arrangement the drum can be raised and sustained free from the ground, or adjusted so as to cut into the ground and break up the clods.

Having described my invention, I claim—

In a soil-pulverizer of the character described, the combination of the tubular slides *c* on frame B, the shaft of drum E' bearing in said slides, the levers *h h'*, and the rods *g g*, connecting the levers with slides *c c*, all arranged for the purpose of engaging pinions *e* with spur-wheels *f* or disengaging said wheels, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 18th day of August, 1881.

ISAAC HUFFER.

Witnesses:

GEO. B. CROOKER,
J. W. MOORE.