

(No Model.)

G. GOODRICH.  
POTATO DIGGER.

No. 424,781.

Patented Apr. 1, 1890.

Fig. 1.

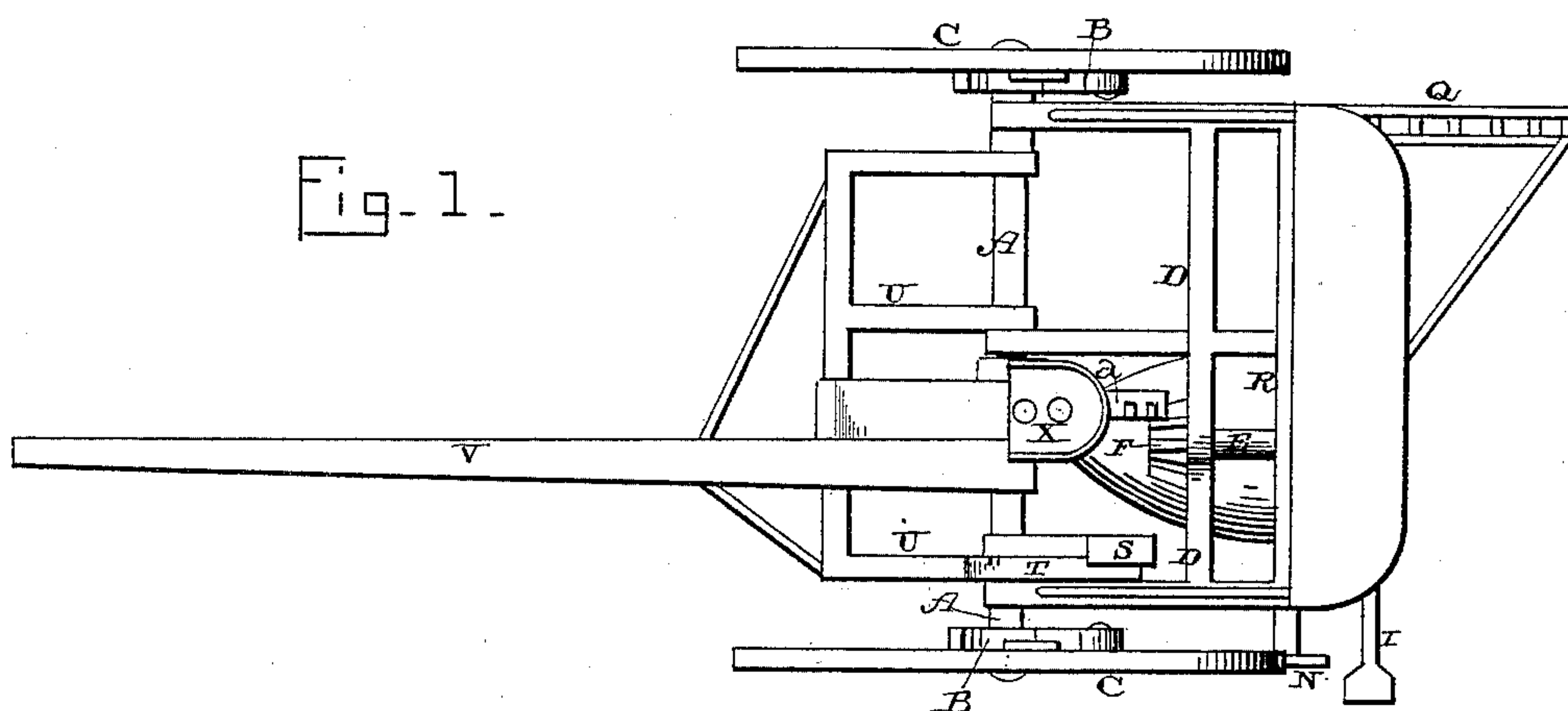


Fig. 2.

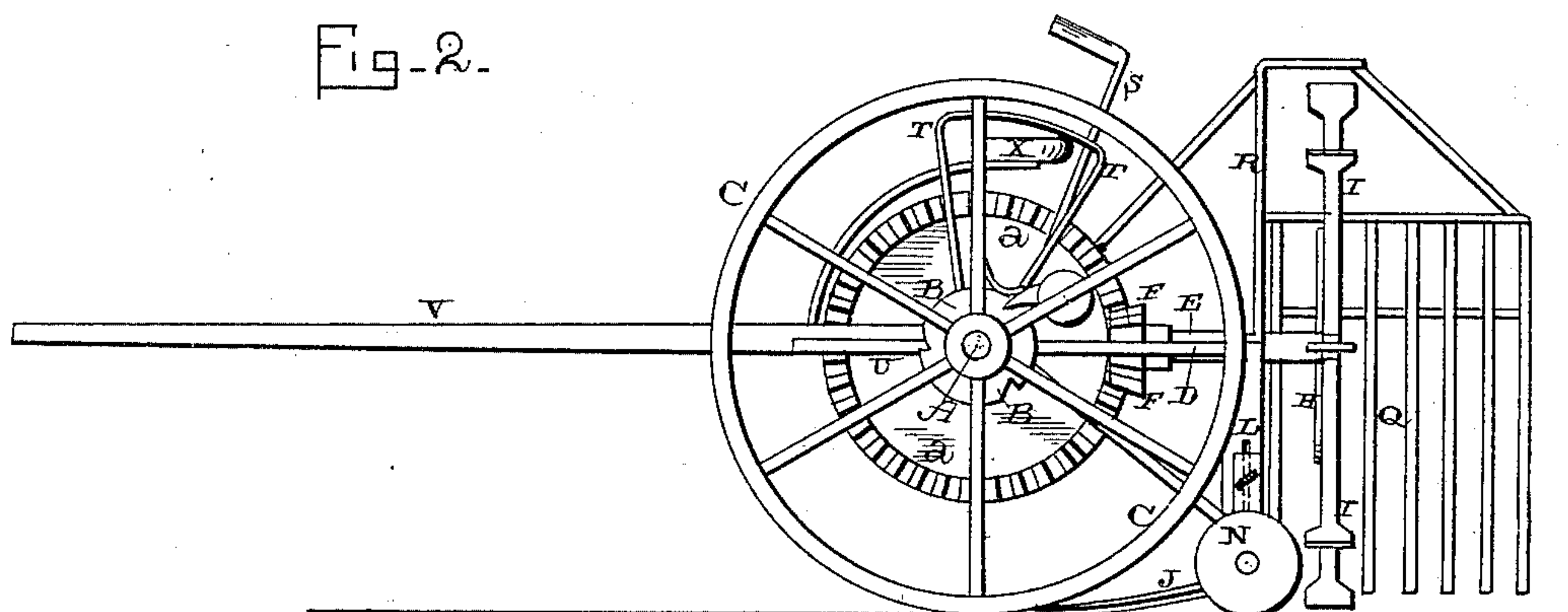
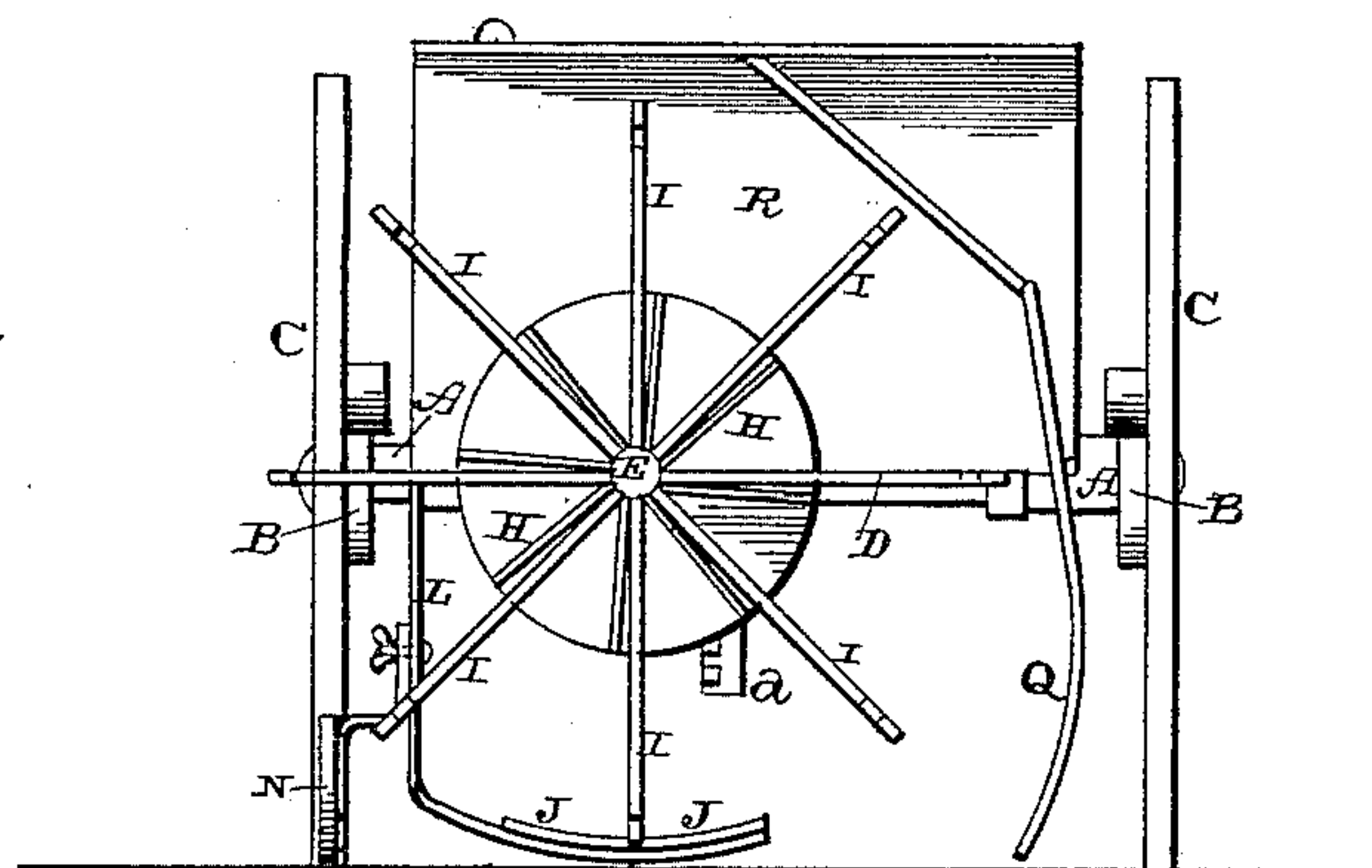


Fig. 3.



Witnesses:

E. P. Ellis,  
J. M. Nesbit.

Inventor:

Geo. Goodrich,  
per  
Chas. E. Allen,  
att'y.



# UNITED STATES PATENT OFFICE.

GEORGE GOODRICH, OF WILLISTON, ASSIGNOR OF ONE-HALF TO CHARLES W. HOWE, OF RICHMOND, VERMONT.

## POTATO-DIGGER.

SPECIFICATION forming part of Letters Patent No. 424,781, dated April 1, 1890.

Application filed May 13, 1889. Serial No. 310,521. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE GOODRICH, a citizen of the United States, residing at Williston, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Potato-Diggers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in potato-diggers; and it consists in, first, a shield placed between the revolving disk, provided with arms, and the driver; second, the combination of the standard of the digger or plow with a wheel which is attached to the standard, and which regulates the distance that the digger shall run; third, a grating against which the earth and potatoes are thrown by the revolving arm, so as to separate them, as will be more fully described hereinafter.

The objects of my invention are to provide a potato-digger in which the dirt is prevented from being thrown upward and forward over the driver by means of a shield, to separate the earth and potatoes by throwing them against a stationary screen located to one side of the digger, and to regulate the depth at which the digger shall run.

Figure 1 is a plan view of a machine which embodies my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a rear view.

A represents the axle, provided with the ratchets B at each end.

Placed upon each end of the axle is a supporting-wheel C, which is provided with a spring-pawl to engage with the ratchet at that end of the axle and cause the axle to revolve when the machine is moved forward. In backing or turning the machine the spring-pawls slip idly around without affecting the axle.

Pivoted upon the axle is the supporting-frame D, in which is journaled the shaft E, which has the pinion F secured to it at its front end for engaging with the large wheel *a* upon the axle, and which has the revolving disk H secured to its rear end. This disk is provided on its rear side with radial flanges, and secured to the disk near its center are the spring-actuated arms I, which are broadest at their outer ends, and which are made

to sweep around as the machine is moved forward just in the rear of the digger J. The arms are made of elastic metal, so that they will give when they strike against any hard object, and thus not only prevent them from being broken, but prevent them from injuring or breaking the potatoes, as they would do if made perfectly rigid in the usual manner. These arms are attached to the flanges at their inner ends, but separated therefrom near their outer ones. The outer ends of the flanges serve as braces to the arms when they strike against some object.

The digger J is secured to a standard L, which is secured to one corner of the pivoted frame, and to this standard is attached the vertically-movable wheel N, which regulates the depth at which the digger shall run. This wheel runs along upon the ground, and by adjusting it vertically it regulates to the utmost nicety the depth the potato-digger shall penetrate without any care upon the part of the driver further than to adjust the wheel. As the dirt and potatoes pass over the rear end of the digger, they are struck by the revolving spring-arms, and both dirt and potatoes are thrown sidewise against the vertical screen Q, which allows the dirt to pass through but stops the potatoes and causes them to fall in a line upon the top of the ground.

Secured to the rear edge of the pivoted frame in between the driver's seat and the revolving disk is placed the vertical guard R, which is turned over at its top, so as to catch any dirt which may be thrown outward and upward by the spring-arms, and thus protect the driver and the operating parts of the machine from the flying dirt. This guard is suitably braced in position and has one of the braces which supports the outer end of the screen rigidly secured to it.

The hinged frame and all of its attachments are raised and lowered upon the axle by means of a lever S, which is rigidly secured to the frame, and which engages with the notches in the segment T, which is rigidly secured to the frame U, to which the tongue V and driver's seat X are secured. By means of this lever the movable frame and its attachments can be raised, so that they will not be brought into



operation while the machine is being moved from place to place and lowered any desired degree while the potatoes are being dug. The forward movement of the machine causes the  
5 axle to revolve, and the large wheel upon the axle meshing with the pinion causes the disk provided with the spring-arms to throw the dirt and potatoes to one side, as above described.

10 Having thus described my invention, I claim—

1. In a potato-digger, the combination of the axle and driving-wheels journaled thereon, the front frame carrying the tongue and  
15 a segment, the rear pivoted frame, the revolving disk journaled thereon, the vertical standard secured thereto, having its lower end extending horizontally inward, a plow or shovel secured thereto, a vertically-adjustable wheel  
20 secured to the standard, and the operating-

lever rigidly secured to the rear frame and engaging the segment upon the front frame, whereby the frame is raised and the wheel adjustable independent of the movement of the frame, substantially as shown and de- 25 scribed.

2. A revolving wheel for potato-diggers, consisting of a disk provided with radial flanges and spring-arms secured at their inner ends to the inner ends of the flanges and di- 30 verging therefrom, whereby the arms are allowed to give and are limited in their movements by the flanges, substantially as described.

In testimony whereof I do affix my signa- 35 ture in presence of two witnesses.

GEORGE GOODRICH.

Witnesses:

CHARLES W. HOWE,

CHARLES E. ALLEN.