

(No Model.)

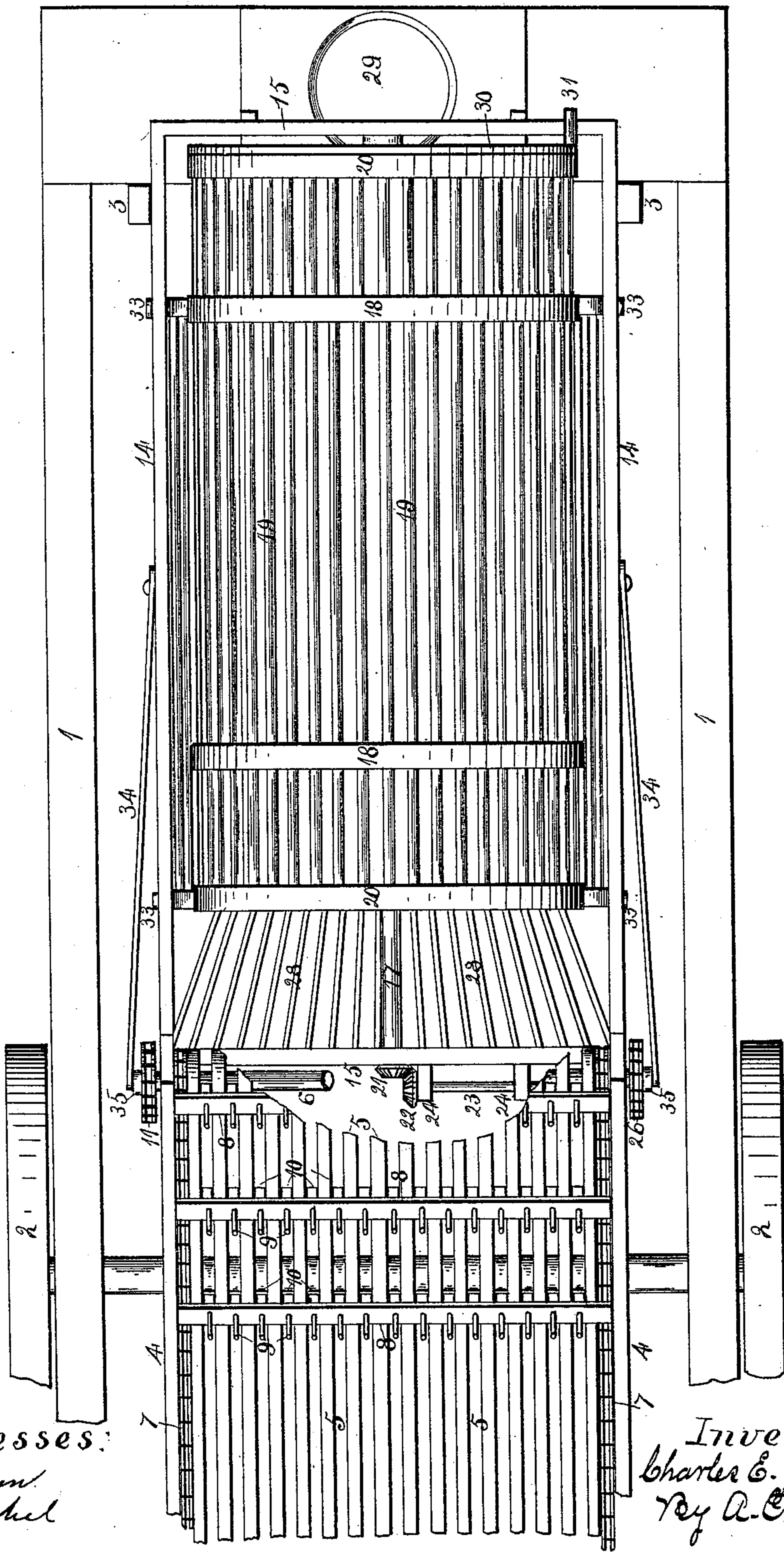
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C. E. JACKSON.
POTATO DIGGER.

No. 542,259.

Patented July 9, 1895.

Fig. 1.



Witnesses:
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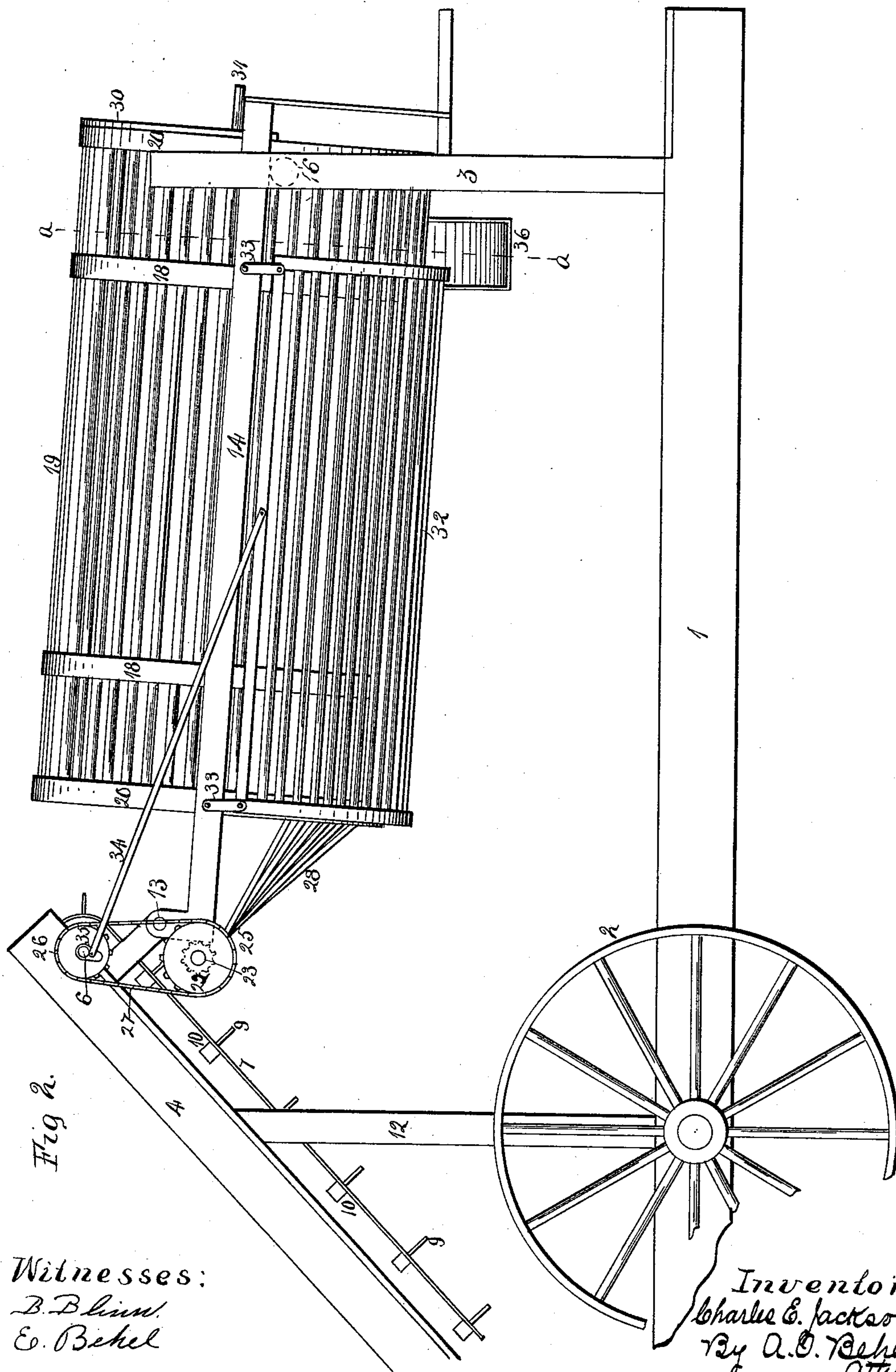
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Fig. 3.

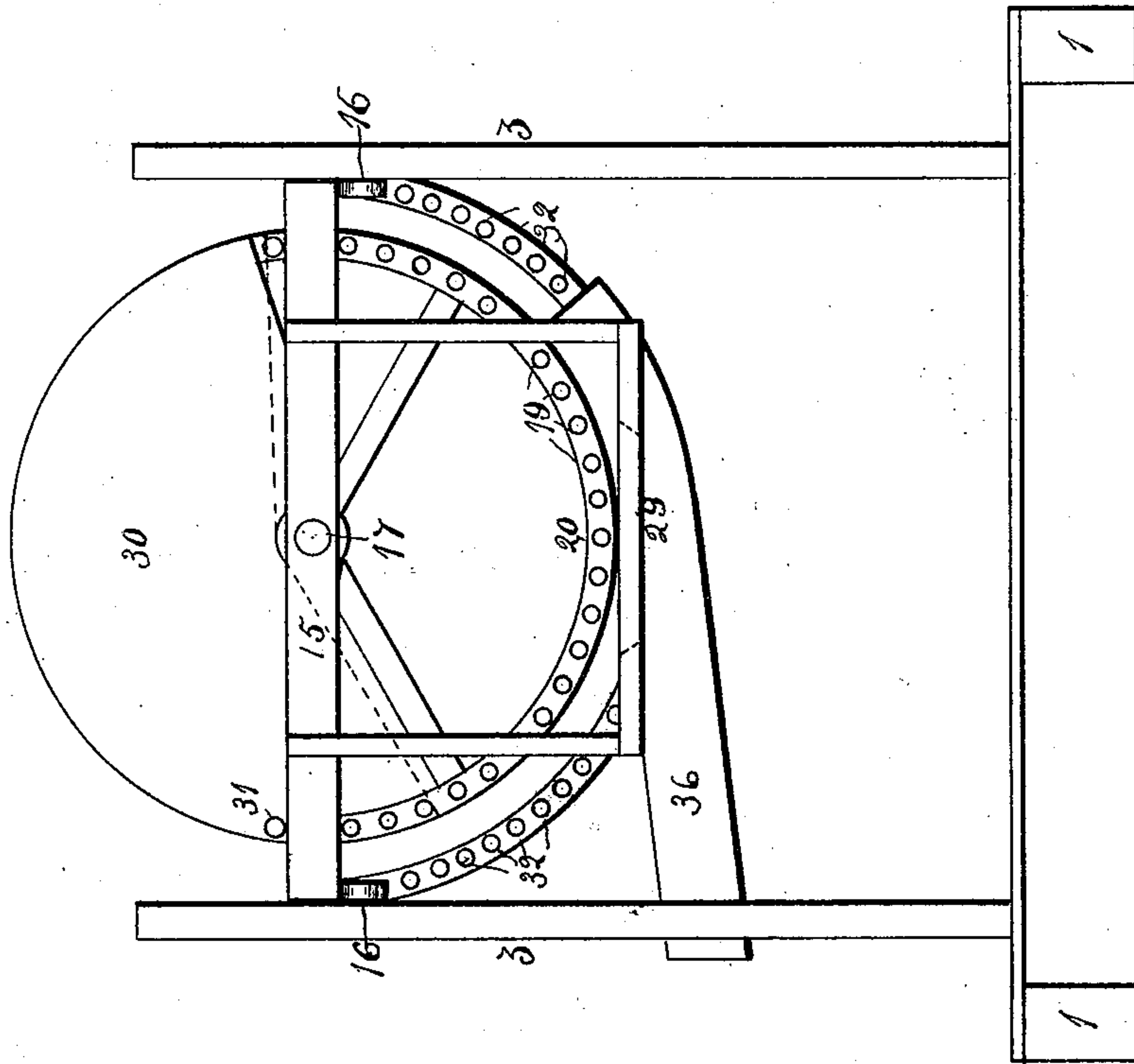


Fig. 4.

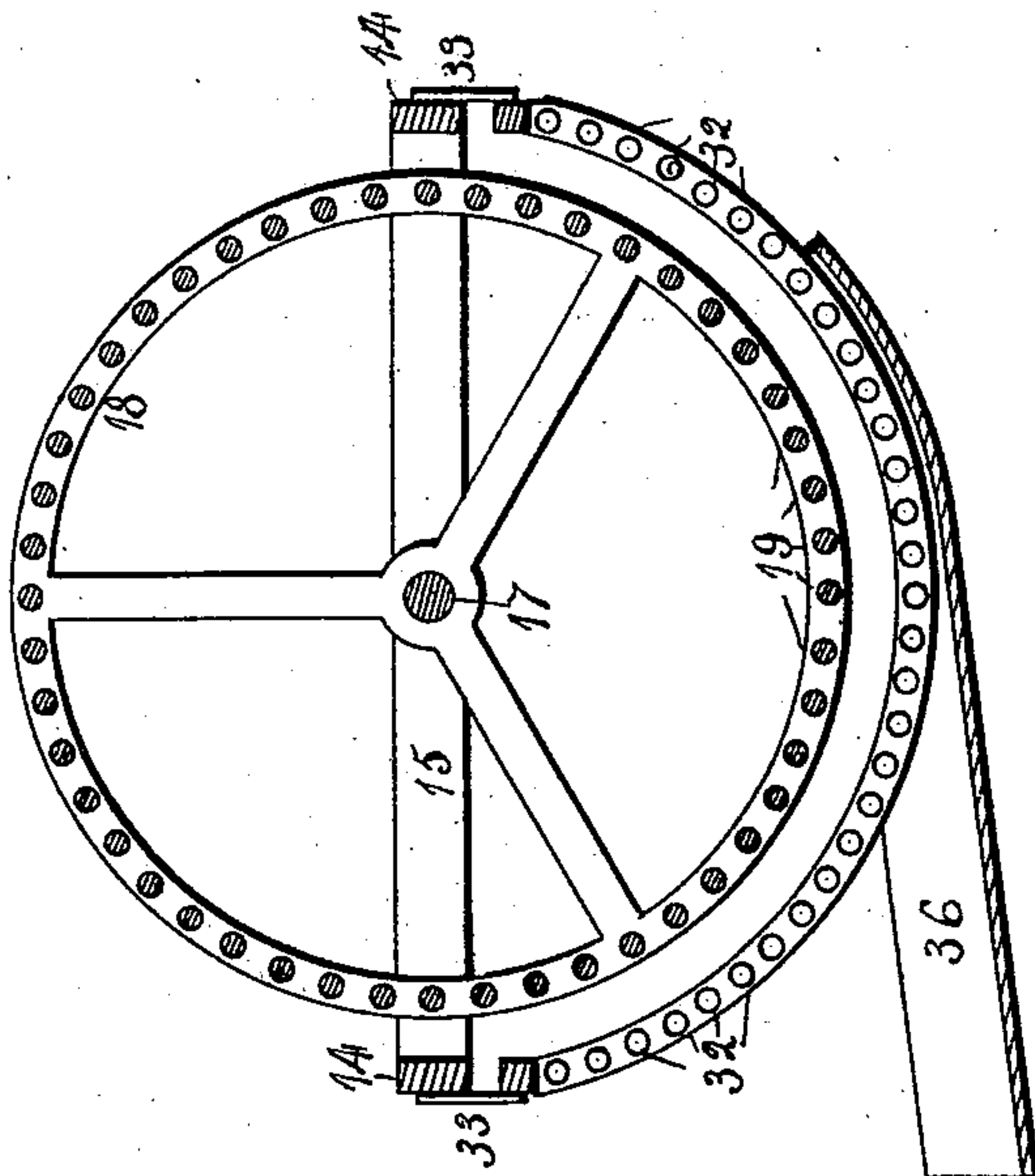
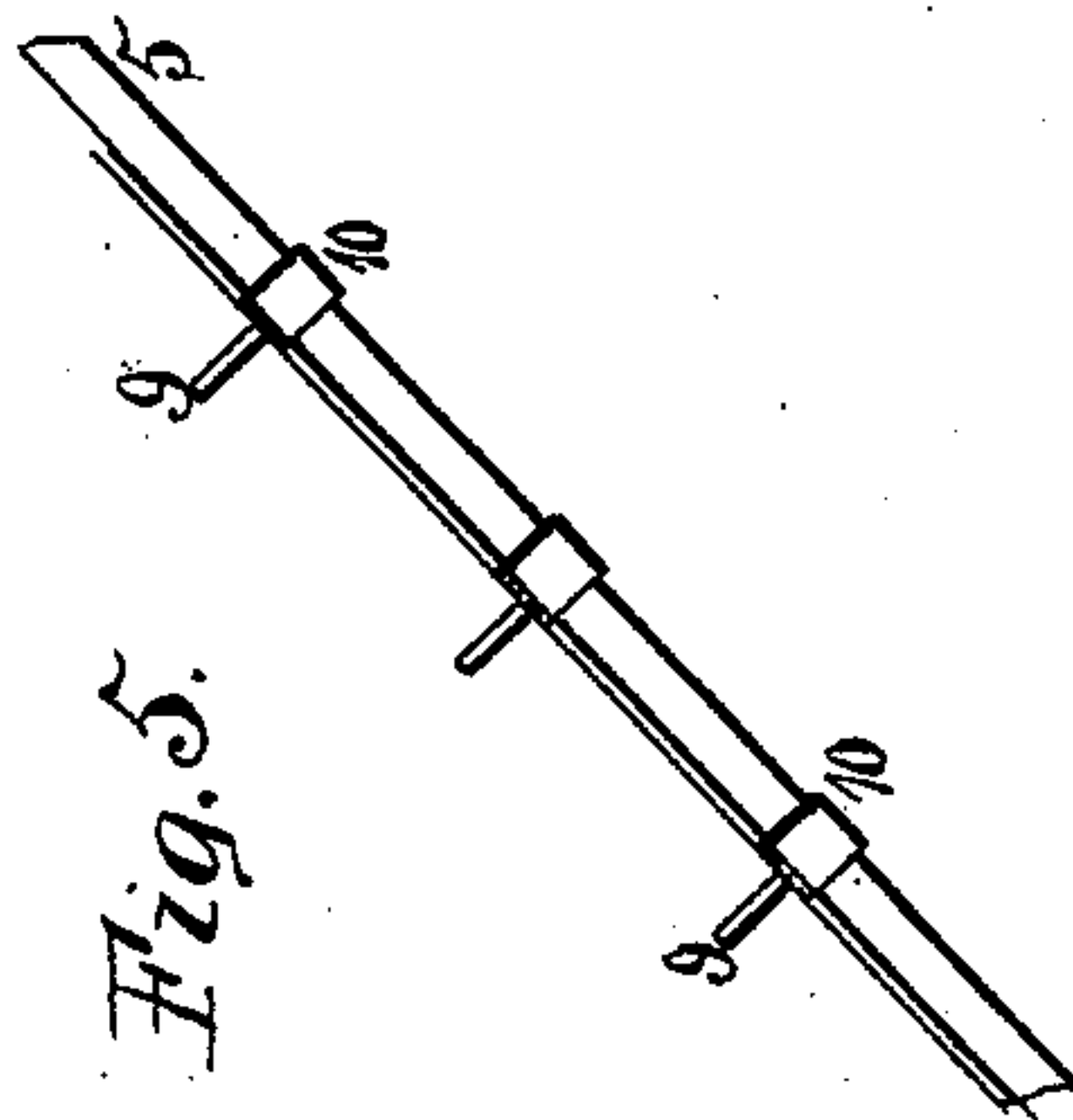


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES E. JACKSON, OF KINGS, ILLINOIS.

POTATO-DIGGER.

SPECIFICATION forming part of Letters Patent No. 542,259, dated July 9, 1895.

Application filed March 12, 1895. Serial No. 541,507. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. JACKSON, a citizen of the United States, residing at Kings, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Potato-Diggers, of which the following is a specification.

The object of this invention is to construct a potato-assorter which is adapted to different makes of potato-diggers; and it consists of a rotary drum, into which the potatoes are deposited by the digger, which, being supported at a downward angle, will deliver the potatoes at its lowest end.

In the accompanying drawings, Figure 1 is a plan view of my improved potato-separator. Fig. 2 is a side elevation. Fig. 3 is an end elevation of the discharge end. Fig. 4 is a transverse section on dotted line *a*, Fig. 2. Fig. 5 is a vertical lengthwise section of a portion of the potato-elevator.

My improved potato-assorter is especially adapted for use in connection with the potato-digger shown in my application filed October 29, 1894, Serial No. 527,262, in which the potatoes and such dirt as clings thereto are elevated by the potato-elevator in order to be delivered onto an assorter.

The main frame 1 supports carrying-wheels 2, and at its rear end are secured uprights 3, the potato-elevator consisting of the side bars 4, supporting a series of lengthwise bars 5 and a shaft 6 at their upper ends. Inside of the upper ends of the side bars and to the shaft 6 are secured sprocket-wheels, over which pass linked chains 7, and to these chains are connected cross-bars 8, each supporting a series of teeth 9, and to their under faces are secured blocks 10, guided between the lengthwise bars 5. A rotary movement is imparted to the shaft 6 by a chain-belt connection with the sprocket-wheel 11, said chain having a connection with the driving-axle or parts operated thereby. As the shaft is rotated, the chain-belt 7 will move upward on the upper face of the elevator carrying the cross-bars 8, and should the space between the bars 5 clog with dirt the blocks 10 will clear them, thus keeping the space open, so that the dirt from the potatoes may pass through. This elevator-frame may be supported in any suitable manner by the main frame, such as the sup-

ports 12. To the upper ends of the side bars 4 is pivoted a frame 13. This frame is composed of the side bars 14 and end bars 15, the side bars being supported upon rollers 16, secured to the inner frame of the uprights 3. A shaft 17 is supported by the end bars 15 and extends centrally of the frame in its lengthwise direction. Upon this shaft are secured two heads 18, which are each provided with perforations, through which pass rods 19, forming a cylinder of rods extending in the lengthwise direction of the shaft 17. The ends of these rods are held in place by a ring 20 at each end. To the end of the shaft next to the potato-elevator is secured a miter gear-wheel 21, which meshes with a like miter gear-wheel 22, secured to a shaft 23, extending crosswise of the machine and supported by brackets 24, secured to the upper end bar of the frame supporting the cylinder. This shaft has a sprocket-wheel 25, secured to its outer end, which has a connection with a sprocket-wheel 26, secured to the shaft 6 by a linked chain 27. Thus a rotary movement is imparted to the cylinder.

To the upper end bar supporting the cylinder is secured a chute composed of the rods 28, which extend a short distance within the upper open end of the cylinder, and into this chute the potatoes are deposited by the potato-elevator, and in the rotary movement of the cylinder the potatoes will be carried upward until gravity causes them to roll over, and owing to the incline of the cylinder they will finally be discharged at its lower open end, and this movement will cause the potatoes to rub against each other, removing the dirt from them, which, in connection with the small potatoes, will pass through the openings between the rods composing the cylinder. At the discharge end of the cylinder is located a platform, forming a support for the attendant, and above this platform is located a table, having an opening 29, through which the potatoes pass into bags or other receptacles placed beneath the tables.

Upon the shaft 17 is located a cut-off 30, having a handle 31, which when in the position shown in solid lines, Fig. 3, allows the discharge of the potatoes from the cylinder, but when extended into the position shown in dotted lines will form an end to the cylinder,

holding the potatoes in check until a new bag or other receptacle is placed in position. Beneath this cylinder is located a sifter composed of a frame in semicircular form, which
5 supports rods 32, extending in the lengthwise direction of the cylinder some distance below it. The frame has a swinging connection with the side bars 14 through the medium of the links 33, and to the frame are connected
10 rods 34 at one end, their other end having a connection with a crank 35, secured to the shaft 6, outside of the sprocket-wheels 11 and 26, and as this shaft rotates these cranks will, through the rod connection, impart a swing-
15 ing or jolting movement to the sifters. The small potatoes that pass through the opening in the cylinder will be received by this sifter, and after all dirt has been removed therefrom will be discharged into a chute 36, carried by

the lower end of the sifter, and from this chute 20 they are deposited in any suitable receptacle.

I claim as my invention—

1. In a potato digger, a potato assorter consisting of an inclined rotatable cylinder, a sifter located beneath the cylinder and means 25 for imparting a swinging movement to the sifter.

2. In a potato digger a potato assorter consisting of a rotary cylinder standing in an inclined position, a sifter located beneath the 30 cylinder, means for imparting a swinging movement to the sifter and a spout located at the discharge end of the sifter.

CHARLES E. JACKSON.

Witnesses:

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