

No. 657,411.

Patented Sept. 4, 1900.

J. HAMM.
STALK CUTTER.

(Application filed Mar. 27, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

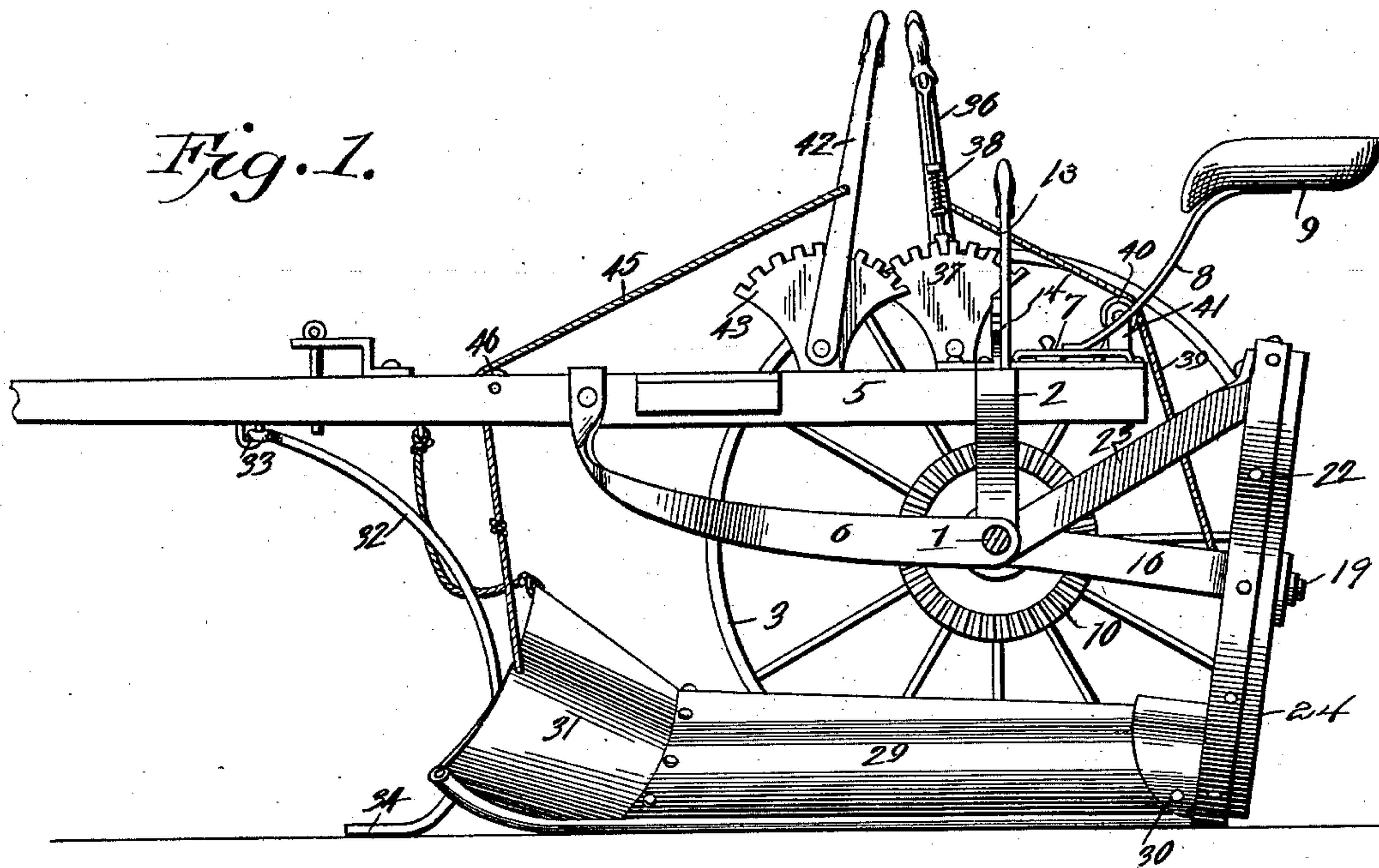
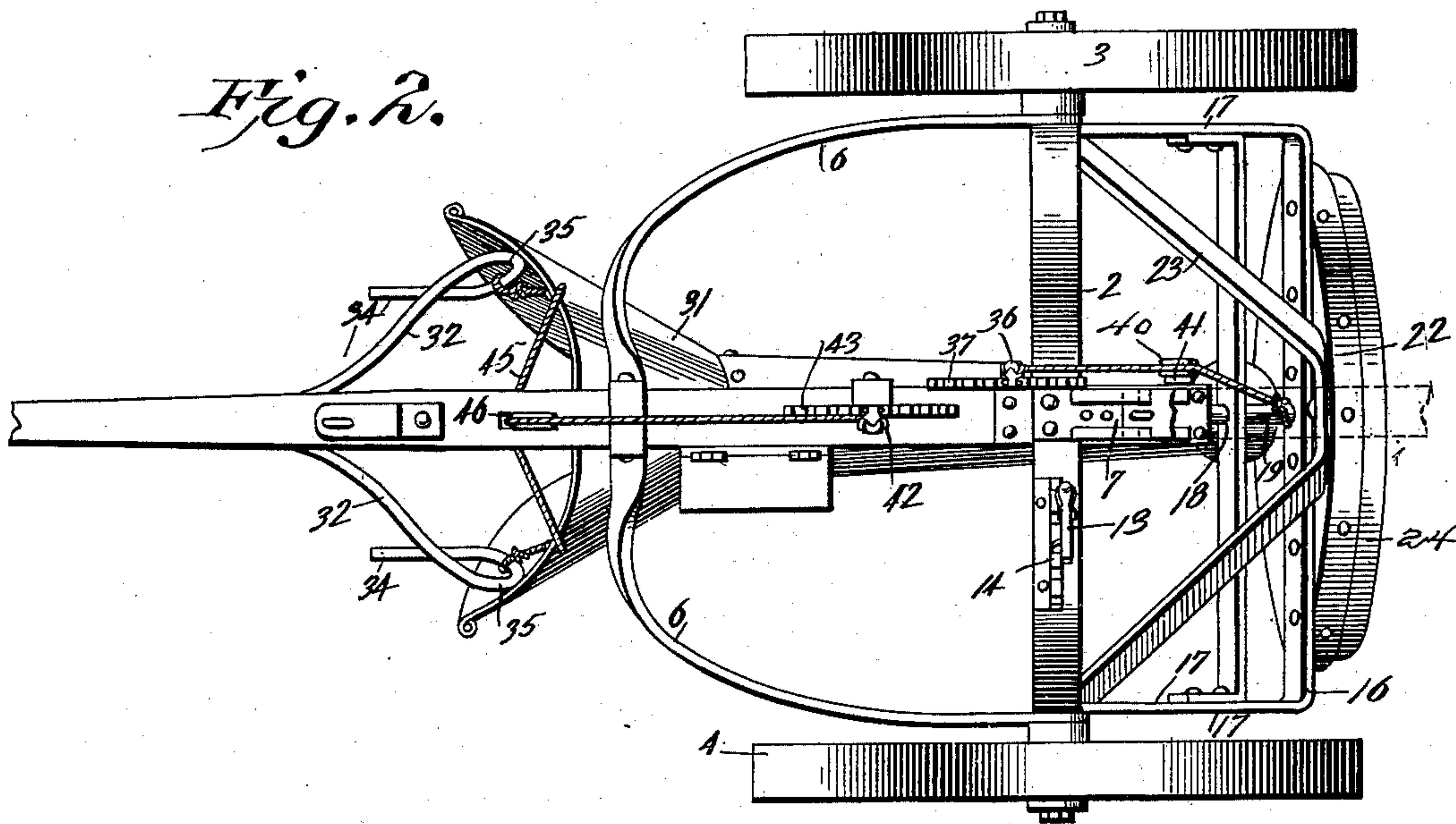


Fig. 2.



Witnesses
Howard D. Ott.
J. C. Garner

Jacob Hamm, Inventor.
By his Attorneys,
C. A. Snow & Co.

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2 Sheets—Sheet 2.

Fig. 3.

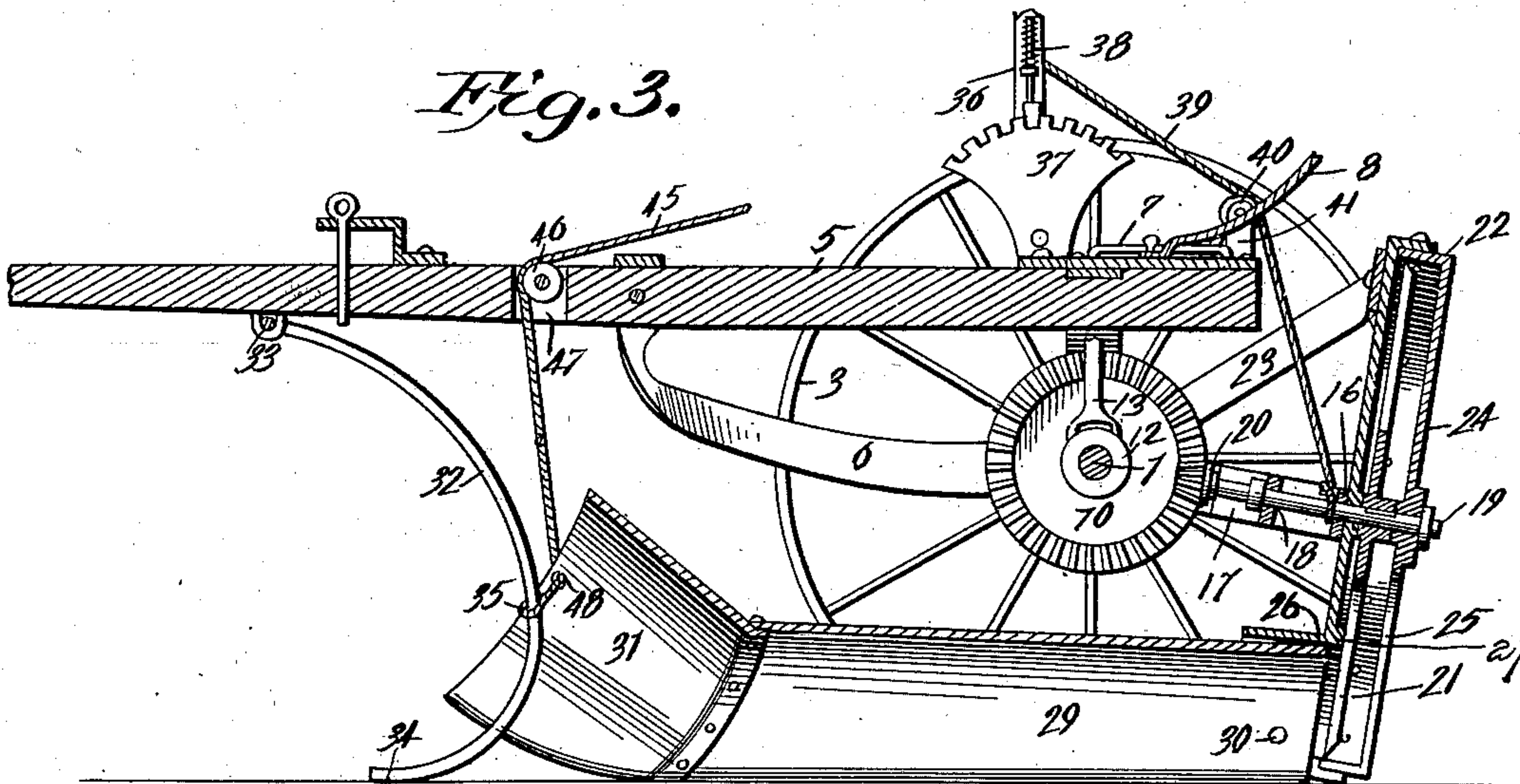


Fig. 4.

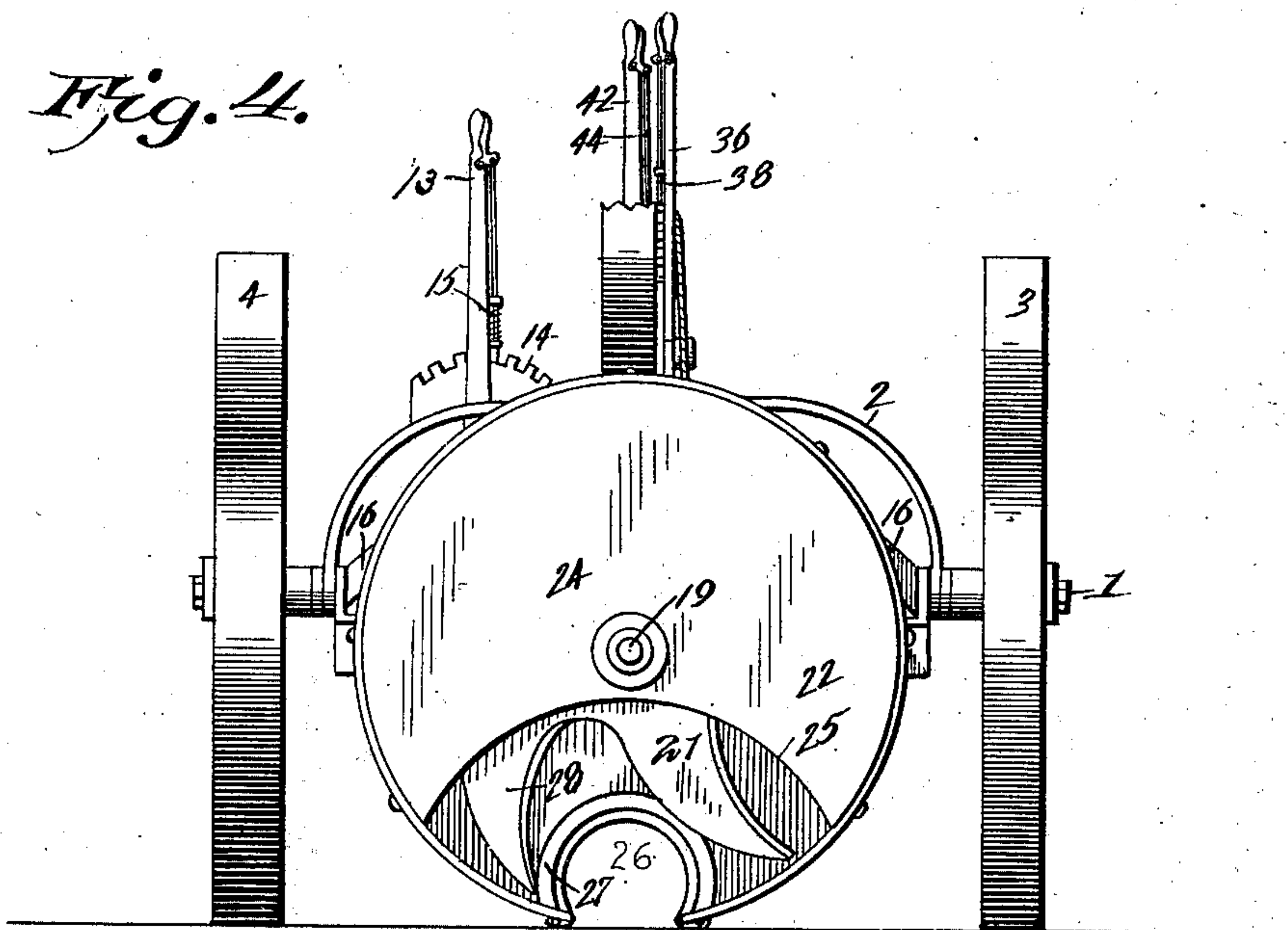
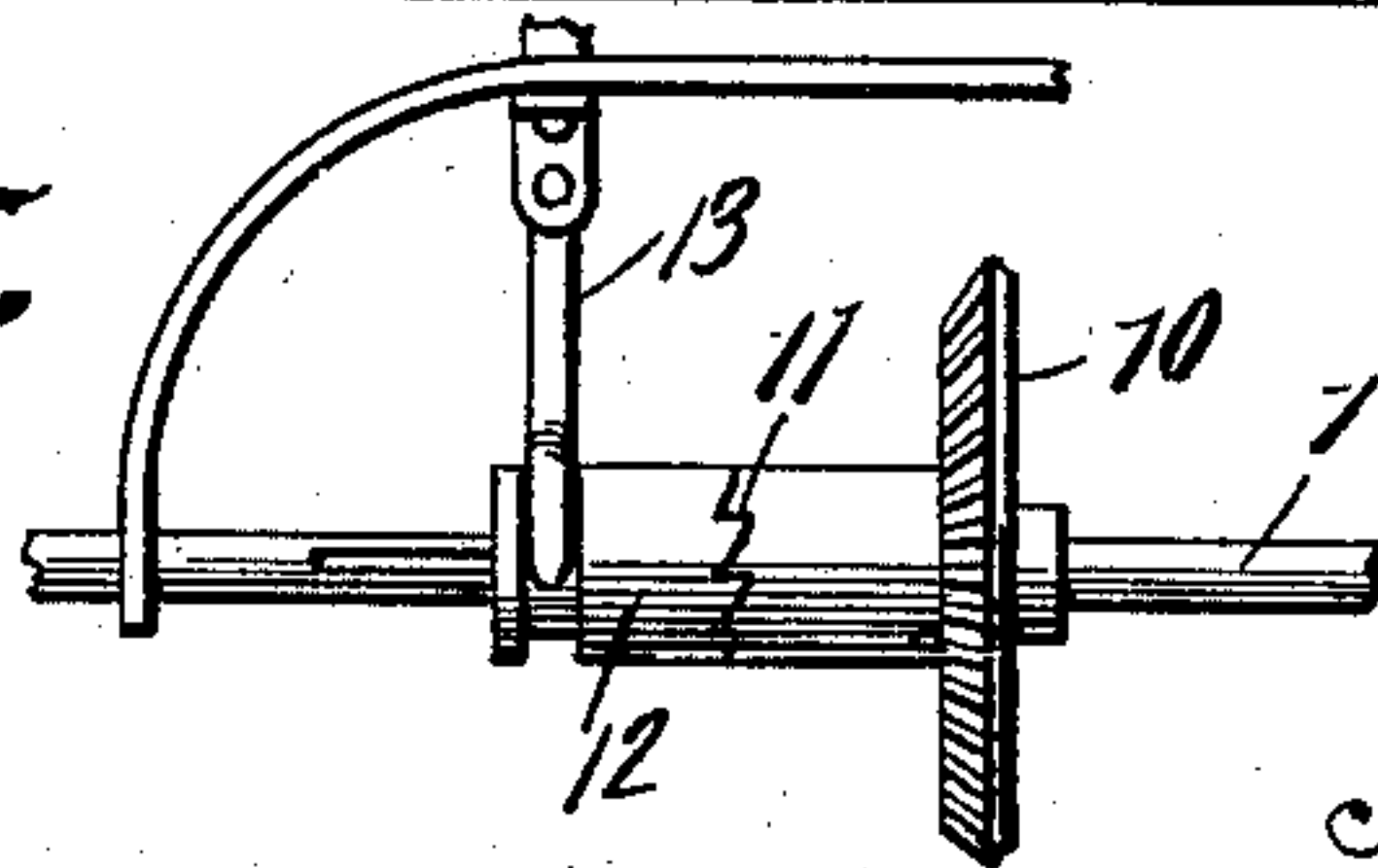


Fig. 5.



Witnesses

Howard D. Kerr.

J. W. Garner

By his Attorneys,

Jacob Hamm, Inventor.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JACOB HAMM, OF STEELBURG, NEBRASKA, ASSIGNOR OF ONE-HALF TO
JOHN F. DEMEL AND FRANK HAMM, OF STEELE CITY, NEBRASKA.

STALK-CUTTER.

SPECIFICATION forming part of Letters Patent No. 657,411, dated September 4, 1900.

Application filed March 27, 1900. Serial No. 10,363. (No model.)

To all whom it may concern:

Be it known that I, JACOB HAMM, a citizen of the United States, residing at Steelburg, in the county of Jefferson and State of Nebraska, have invented a new and useful Stalk-Cutter, of which the following is a specification.

My invention is an improved stalk-cutter adapted for cutting standing cornstalks in a field into short lengths, whereby they may be readily covered out of the way when the field is plowed; and it consists in the combination, with a supporting-frame and a cutting mechanism, of a tubular shoe or runner adapted to ride down the cornstalks and dispose the same in position to be cut by the cutting mechanism, and means for raising and lowering said tubular shoe or runner and said cutting mechanism.

My invention further consists in the peculiar construction and combination of devices hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of an improved stalk-cutter embodying my invention, the rear wheel thereof being removed. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal sectional view of the same. Fig. 4 is a rear elevation of the same. Fig. 5 is a detail view.

In the embodiment of my invention herein shown, 1 represents the axle-shaft, which is journaled in bearings on the depending ends of an arch-bar 2 and is provided with wheels 3 4, which are respectively fast and loose thereon. A draft-pole or tongue 5 is secured near its rear extending end under the center of the arch-bar 2, and the latter is braced by means of brace-bars 6, which may be either of the form here shown or of any other suitable form and either connected to the axle-shaft, as here shown, or connected to the arch-bar. The slotted plate or keeper 7 is secured on the end of the draft-pole, which extends in rear of the arch-bar over the axle, and in said slotted plate or keeper is secured the lower end of a spring-bar 8, which is adjustable longitudinally thereon and carries at its rear upper end a seat 9 for the driver. It will be understood from the foregoing and by refer-

ence to the drawings that by this construction the supporting-frame, which comprises, essentially, the draft-pole or tongue, the arch-bar, and the brace-bar 6, is counterbalanced on the axle-shaft, the weight of the driver when the machine is in operation contributing to counterbalance the frame thereof. A beveled gear-wheel 10 is loose on the axle-shaft and is provided on one side with a clutch member 11, adapted to be engaged and disengaged by a clutch 12, which is splined on the axle-shaft and is operated by a hand-lever 13, which is within convenient reach of the driver and is provided with the usual segment-rack 14 and locking-detent 15, whereby it may be secured when adjusted.

A rocking frame 16 extends rearward from the supporting-frame, and the front ends of the side bars 17 thereof are pivotally connected to the axle-shaft. Said rocking frame may be either of the form here shown or of any other suitable form and is provided with bearings 18, in which is journaled the longitudinally-disposed shaft 19, which is centrally located with reference to the frame and is provided at its front end with a beveled pinion 20, which engages the beveled gear-wheel 10. A cutter-wheel 21 is keyed to the rear-extending portion of the shaft 19 and rotates therewith in a circular shield or casing 22, in which the shaft 19 is centrally journaled, the front side of the said casing being braced by brace-bars 23, which connect the same to the axle-shaft, as shown. The said shield or casing is provided on its rear side with a removable cover 24, bolted or otherwise secured thereto, as shown, and having an opening formed by cutting away the lower portion of said cover, the said opening being of any suitable form. A semicircular opening 26 is made in the lower side of the front portion of the shield or casing and is provided on its rear side with a flange or offset 27, which forms a coacting cutting edge with the cutting edges of the curved cutting-arms 28, with which the cutter wheel or disk is provided.

A longitudinally-disposed substantially-tubular shoe 29, which is preferably semicylindrical in form, as here shown, has its rear end connected to the shield or casing 22 by a hinged joint 30, said rear end of the said tu-

bular shoe being coincident with the opening 26 in the front side of the casing. At the front end of the tubular shoe the same is provided with a flared substantially funnel-shaped mouth 31. The width of the said flared funnel-shaped mouth is sufficient to cause the same to gather in the standing corn-stalks in a row when the same are being ridden down by the shoe, the latter serving to bend and incline the stalks as it passes over them to a substantially-horizontal position, so that they become cut into short lengths by the successive cutting arms or blades of the revolving cutting-wheel.

A pair of gathering-arms 32, which are curved, as shown, are pivotally connected to the under side of the draft-pole or tongue at a point in advance of the shoe, as at 33, and said gathering-arms have their lower ends adapted to slide on the ground in advance of the shoe, as at 34, and are flexibly connected to the inner sides of the flared mouth or forward extension of the shoe, as at 35. Hence the said gathering-arms serve to keep the front end of the shoe depressed sufficiently to cause the same to ride down the standing cornstalks, and said arms 32, moreover, serve to gather cornstalks which are laterally inclined in the rows and dispose the same in position to be engaged by the riding-shoe.

A hand-lever 36 is mounted on the supporting-frame at a suitable point within convenient reach of the driver and is provided with the usual segment-rack 37 and spring-pressed locking-detent 38, and said hand-lever is connected to the rocking frame 16 by a suitable cord or chain, as at 39, said cord or chain passing over the bearing-sheave 40, mounted in a bracket 41 on the rear end of the draft-pole or tongue. A suitable hand-lever 42 is mounted on the draft-pole or tongue a slight distance in advance of the lever 36 and is likewise provided with a segment-rack 43 and a spring-pressed locking-detent, (indicated at 44,) and said lever 42 is connected to the front end of the riding-shoe by a suitable cord or chain 45, which passes over the bearing-sheave 46, mounted in a slot or opening 47 in the draft-pole or tongue. The lower end of said cord or chain is divided, the ends thereof, as here shown, being passed through openings 48 in the sides of the flared mouth of the riding-shoe and attached to the gathering-arms 32, the said divided ends of the said cord or chain thereby forming links, which connect the said gathering-arms 32 flexibly to the mouth of the riding-shoe.

It will be understood that by means of the hand-lever 36 and cord or chain 39 the rocking frame 16 may be raised, so as to elevate the rear ends of the riding-shoe and also elevate the cutting mechanism from the ground. It will be further understood that by means of the lever 42 and chain or cord 45 the front end of the riding-shoe, together with the

gathering-arms 32, may be likewise elevated from the ground to permit the machine to be driven from one field to another and turned at the ends of the rows. It will be further understood that when the clutch 12 is in engagement with the gear-wheel 10 the latter will be caused to rotate, and thereby rotate the cutter-wheel, and that when said clutch is disengaged from said gear-wheel 10 the cutter will be thrown out of operation.

Having thus described my invention, I claim—

1. In a stalk-cutter, the combination with a supporting-frame, of a riding-shoe adapted to ride down and bend standing cornstalks, and a cutting mechanism in rear of said riding-shoe, substantially as described.

2. The combination with a supporting-frame, of a rocking frame, a revoluble cutter carried by the rocking frame and geared to the axle-shaft, of the supporting-frame, a riding-shoe having its rear end supported by the rocking frame, a lever to raise and lower the latter and thereby raise and lower the rear end of the riding-shoe, and a lever and connections to raise and lower the front end of the riding-shoe, substantially as described.

3. In combination with a supporting-frame having an axle-shaft provided with a gear-wheel, a rocking frame pivoted on said axle, a revoluble cutter having a supporting-shaft journaled in the rocking frame and provided with a pinion engaging said gear-wheel, a shield carried by the rocking frame and incasing the revoluble cutter, a longitudinally-disposed riding-shoe in advance of the cutter mechanism and having its rear end flexibly connected to the lower side of said shield, and means to raise and lower said rocking frame and the front end of said riding-shoe, substantially as described.

4. In a cornstalk-cutter of the class described, the combination with a supporting-frame and operating mechanism, of a shield or casing, a revoluble cutter-wheel therein, and a longitudinally-disposed riding-shoe, the rear end of the latter being flexibly connected to the lower side of said shield or casing, substantially as described.

5. In a cornstalk-cutter of the class described, the combination with a supporting-frame and a cutter mechanism, of a longitudinally-disposed riding-shoe having its front end adapted to be raised and lowered, and pivoted gathering-arms at the front end of said riding-shoe and flexibly connected thereto, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JACOB HAMM.

Witnesses:

C. H. DENNEY,
EDWARD B. COWLES.