

I. C. NOLTE.
CORN SHOCKER.

APPLICATION FILED JUNE 25, 1907.

908,027.

Patented Dec. 29, 1908.

4 SHEETS—SHEET 1.

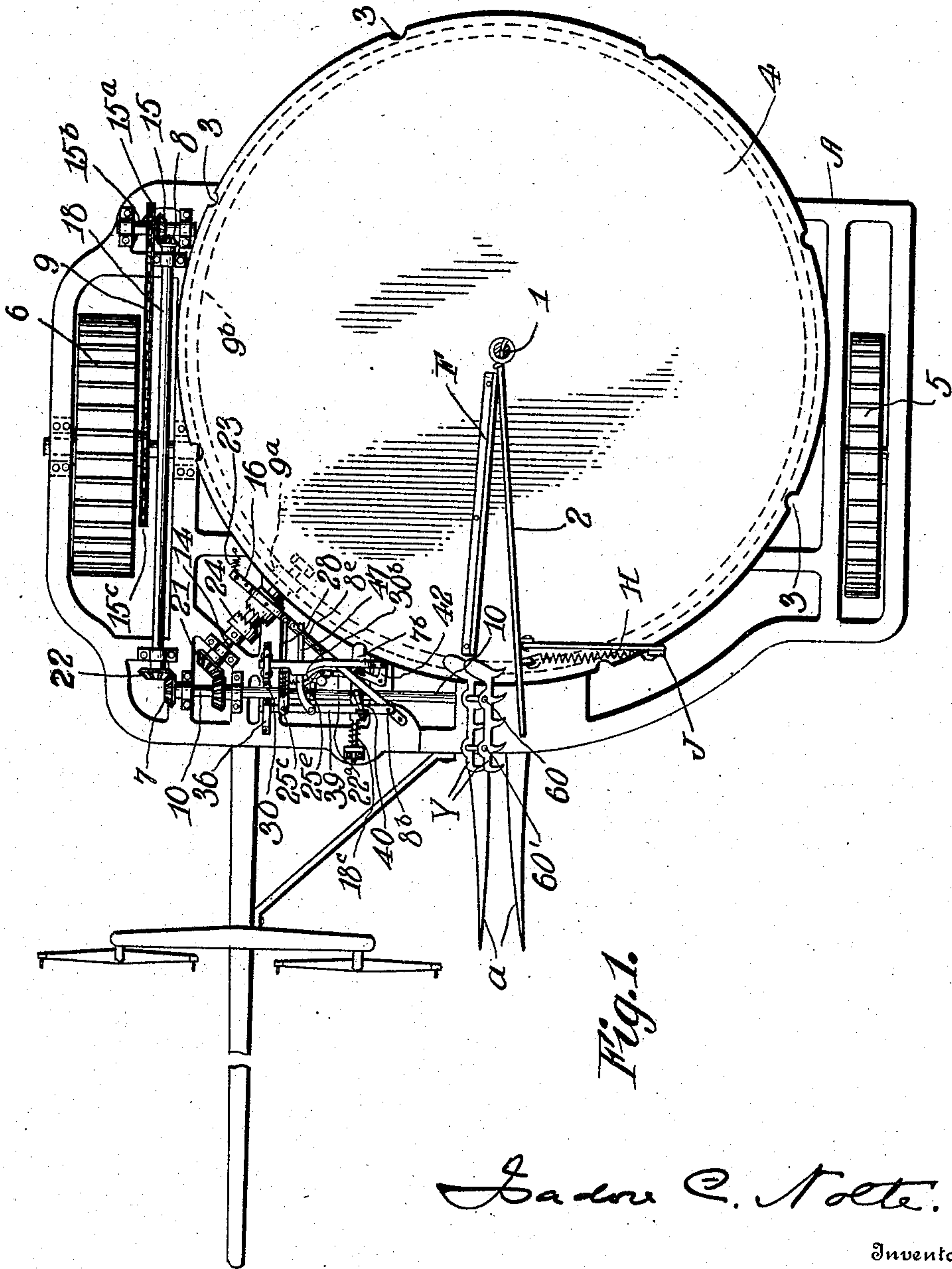


Fig. 1.

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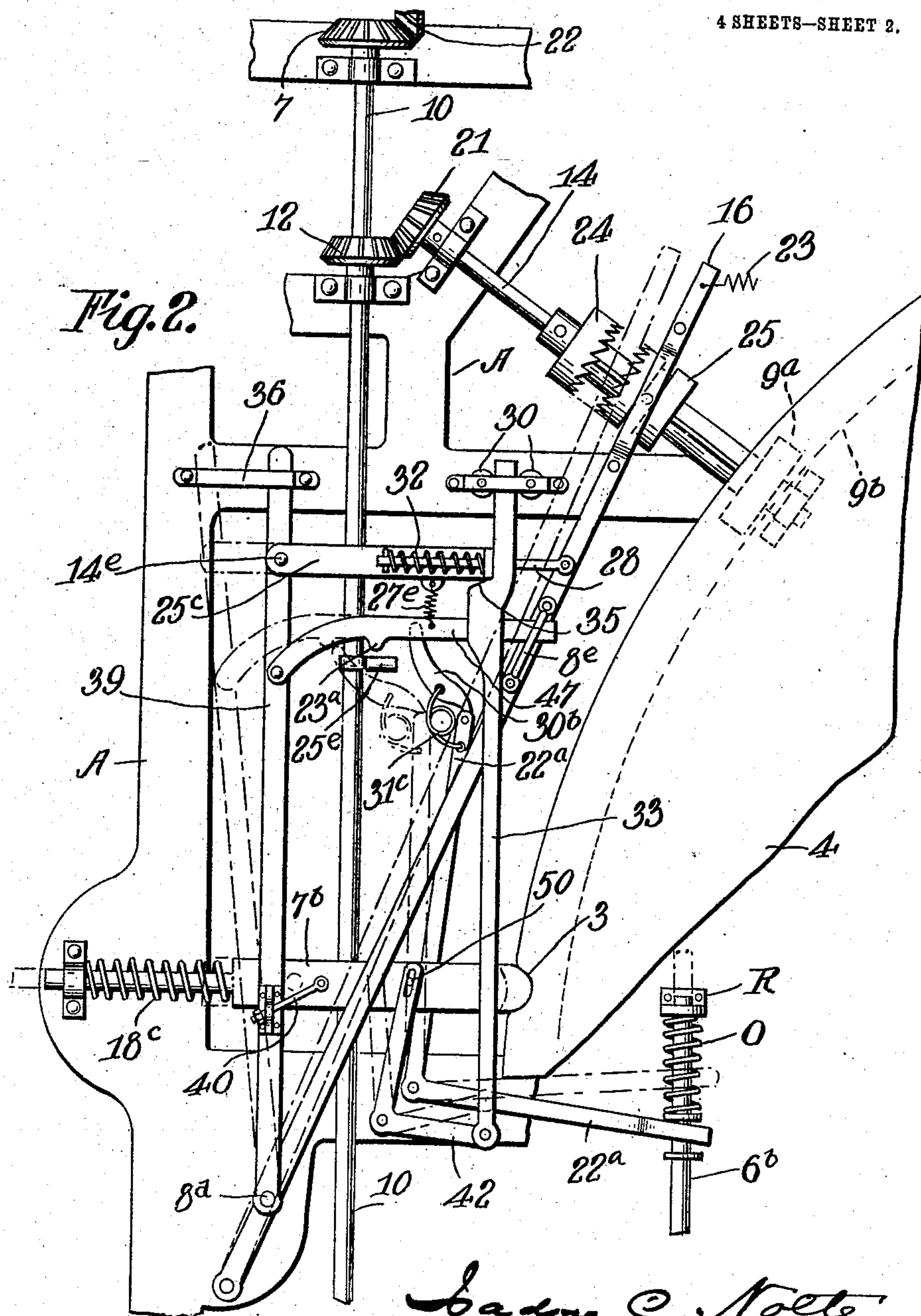
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4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

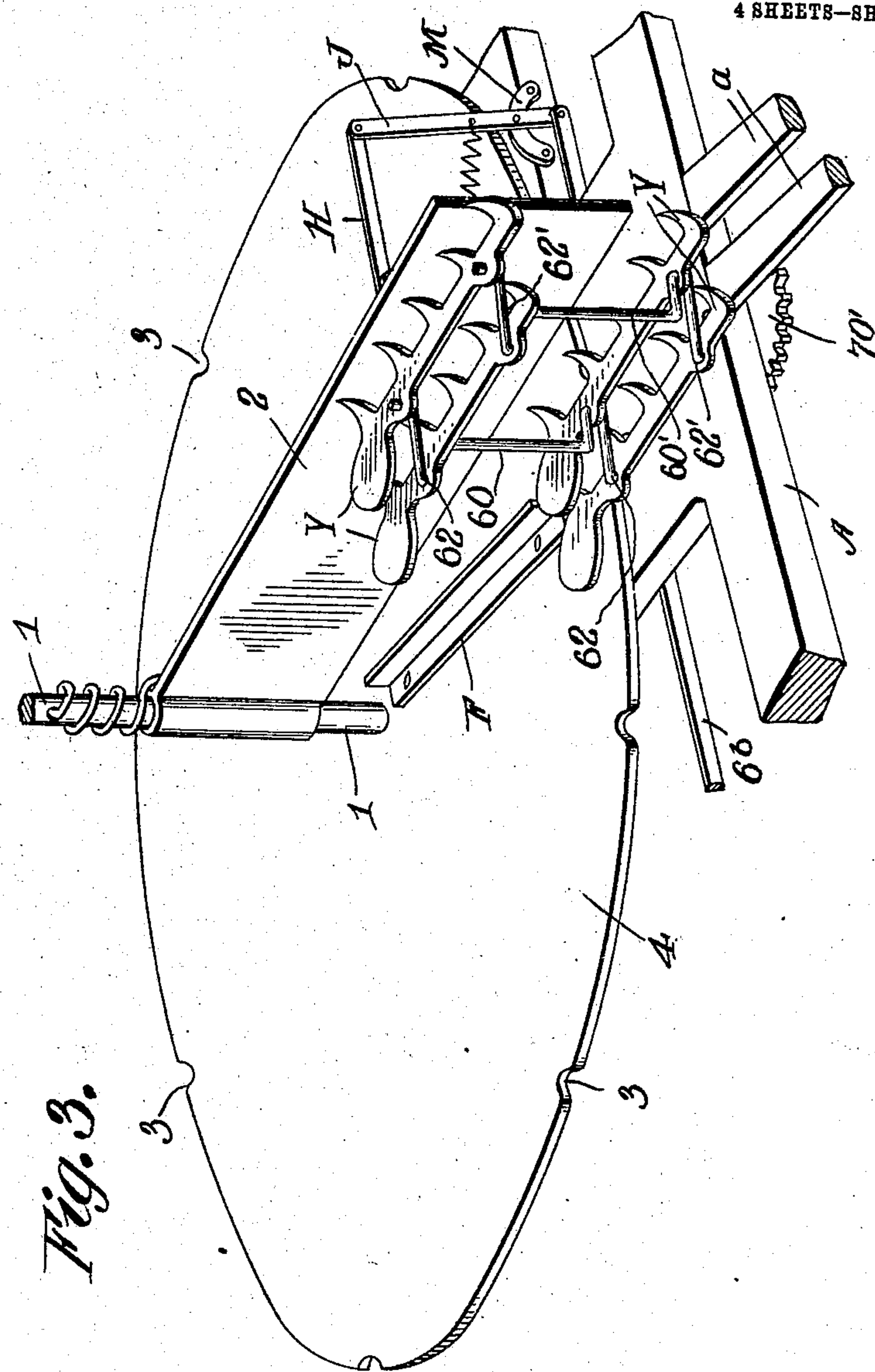


Fig. 3.

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4 SHEETS—SHEET 4.

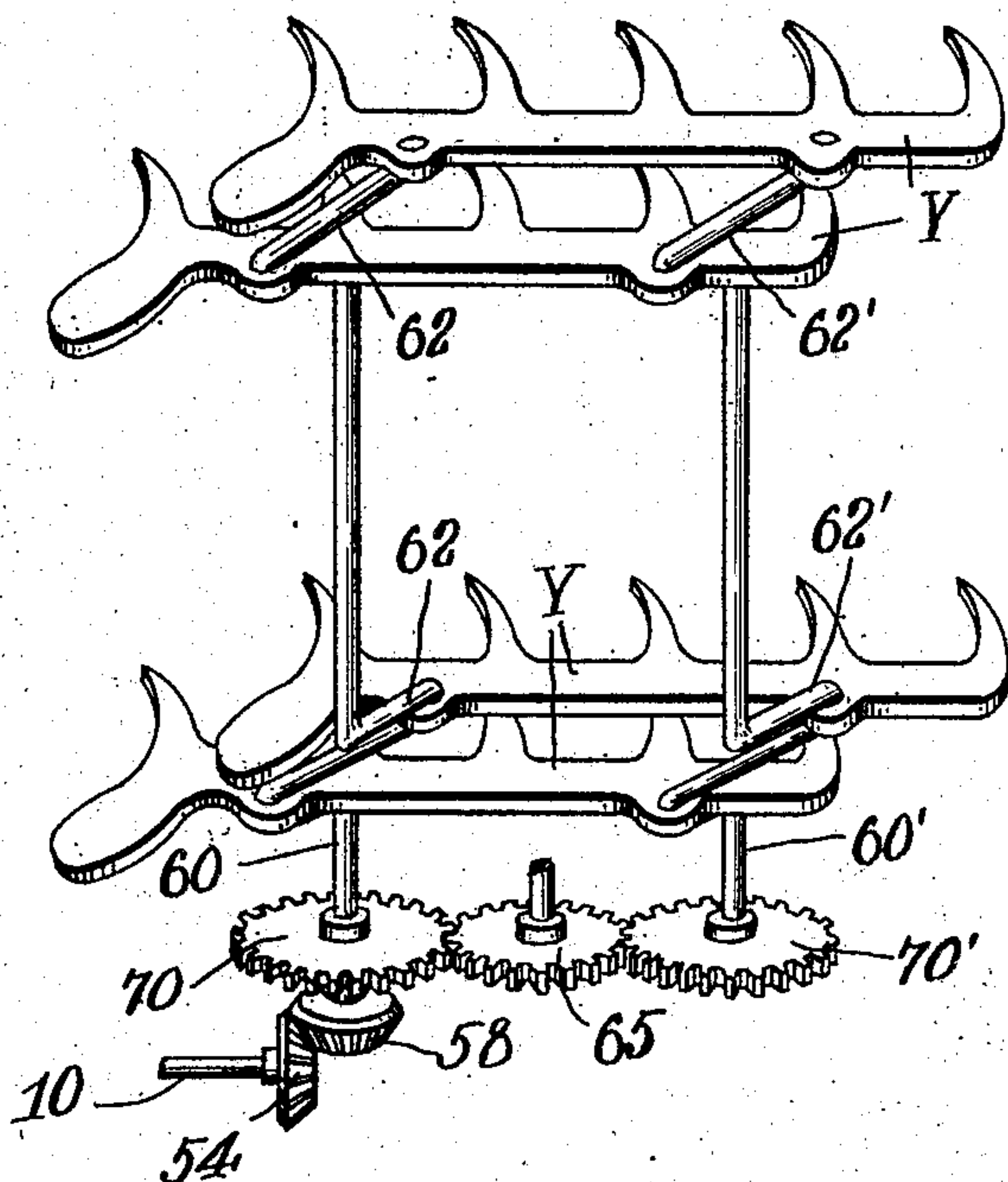


Fig. 4.

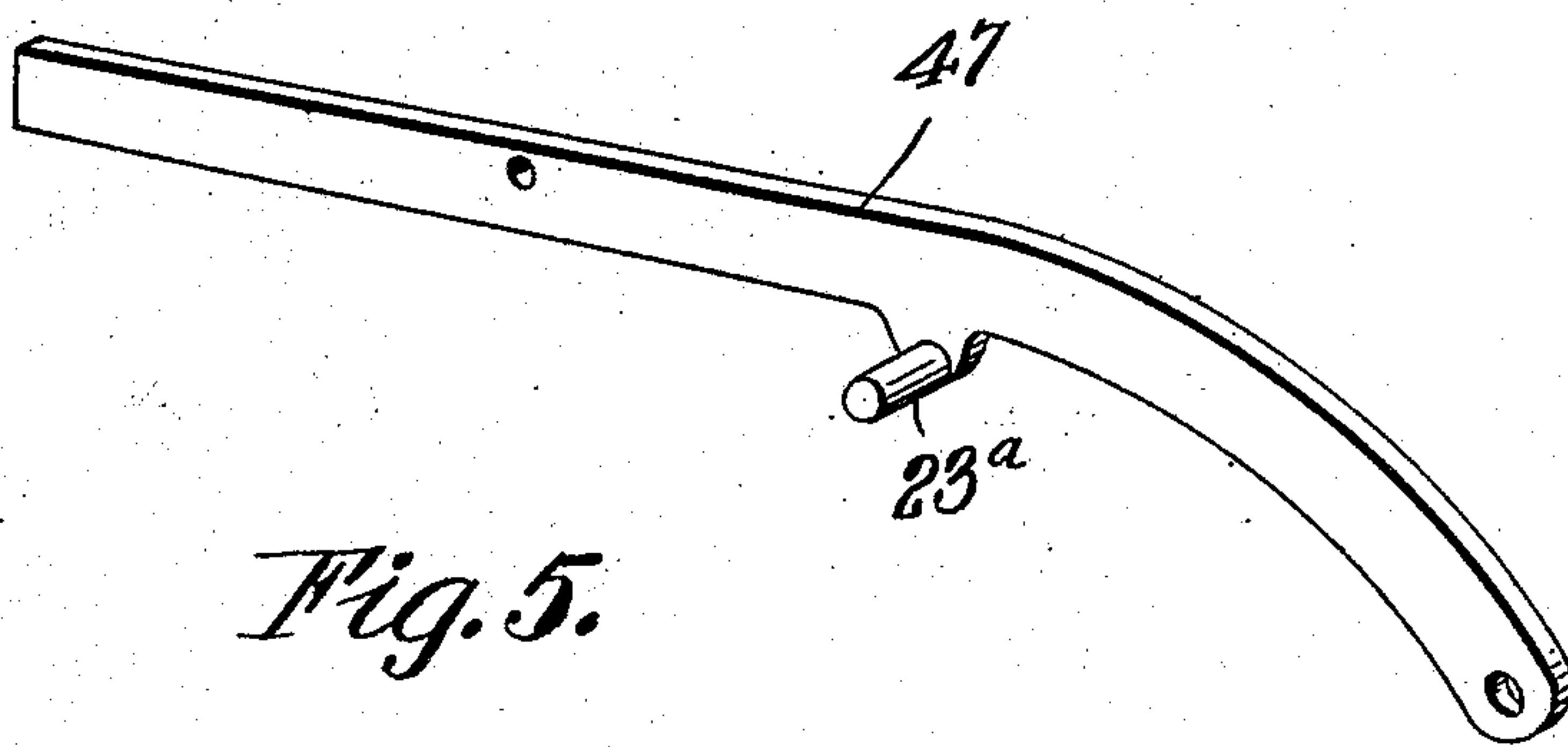


Fig. 5.

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UNITED STATES PATENT OFFICE.

ISADORE C. NOLTE, OF DELPHOS, OHIO.

CORN-SHOCKER.

No. 908,027.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed June 25, 1907. Serial No. 380,720.

To all whom it may concern:

Be it known that I, ISADORE C. NOLTE, citizen of the United States, residing at Delphos, in the county of Allen and State of Ohio, have invented certain new and useful Improvements in Corn-Shockers, of which the following is a specification.

This invention relates to corn shockers, and has for its object to provide a rotating table, upon which the stalks are stacked, with means for causing an intermittent partial rotation, which in the present instance will be one-eighth of a turn.

A further object is to cause the corn or stalks to stand upright when stacked.

A further object of the invention is to provide improved means for feeding the fodder stalks to the rotating table.

With these and other objects in view the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the machine, or as much thereof as is necessary for this case. Fig. 2 is an enlarged view of the mechanism for automatically starting and stopping the rotation of the table. Fig. 3 is a perspective view of that part of the invention, particularly, which feeds and bunches the fodder onto the table. Fig. 4 is an enlarged perspective view of the cranked rakes, which feed the fodder. Fig. 5 is a detail in perspective of a part to be hereinafter described.

Referring specifically to the drawings, 4 indicates the rotating table or platform of the shocker, mounted upon a frame A which is supported by the small or grain wheel 5 and a large or driving wheel 6. The table is notched in the edge, as indicated at 3, eight notches being shown spaced equally around the circumference. The main wheel 6 carries a sprocket wheel 15^c which drives a chain belt 9 running over a sprocket wheel 15^a on a shaft 15^b which has a bevel gear 15 in mesh with a bevel gear 8 on the rear end of a longitudinal shaft 18 mounted on the frame. The front end of this shaft has a bevel gear 22 which meshes with a bevel gear 7 on a shaft 10 extending across the front of the frame and mounted in suitable bearings thereon. The shaft 10 carries a bevel gear 12 which meshes with a bevel gear 21 on the shaft 14 mounted on the main frame. This shaft has a clutch the fixed member of which is indicated at 24 and the sliding member of which is indicated at 25. The shaft also carries a pinion 9^a which meshes with a circular rack,

indicated at 9^b on the under side of the rotary table 4, when the clutch is engaged. The pinion 9^a is loose on the shaft 14 but is fixed to the movable clutch member and is engaged with the rack when said clutch member is shifted to engagement with the fixed clutch member. The movable clutch member is shifted by means of a lever 16 which has a loop and collar extending around the movable clutch member and adapted to shift the same and to allow rotation thereof. The end of the lever 16 is connected to a spring 23 which normally tends to hold said clutch disengaged. The lever 16 has extending therefrom a rod 28 around which is a spiral spring 32 connected to a piece 25^c which is pivotally joined at 14^e to a lever 39 which is slidable or movable sidewise under a strap 36 fixed to the frame. A curved piece 47 is also connected at one end to the lever 39 and works at its other end under a strap 8^e on the lever 16. The pieces 25^c and 47 are connected by a spiral spring 27^e. On the under side of the piece 47 is a lug or projection 23^a, and working beside this is a hammer 25^e fixed to the shaft 10. The end of the lever 39 opposite to that which carries the parts just described is pivotally connected, at 8^d, to the end of the lever 16. The lever 39 is connected by a bolt 40 to a latch bolt 7^b which is arranged to engage in the notches 3 heretofore referred to.

22^a indicates a bell crank lever which is pivoted to the frame and has at one end a projecting finger or member 30^b held in position by a coiled spring 31^c, and the forked end of the lever 22 is connected to a rod 6^b, to be hereinafter described.

42 indicates a bell crank lever pivoted to the frame and connected at one end to the bolt 7^b by means of a slot and pin at 50, and connected at the other end to a sliding bar 33, which has a cam or projection 35 bearing against a flange at the end of the bar 25^c. The bar 33 is guided at its free end between rollers 30 on the frame. The bolt 7^b is normally advanced to engage the edge of the platform, by means of a coiled spring 18^c around the stem thereof.

In explanation of the mechanism so far described it may be said that when the lever 22^a is actuated it throws the finger 30^b between the rotating arm 25^e and the lug 23^a and forms a connection between the two which shifts the bar 39 forwardly and unlocks the bolt 7^b from the edge of the table,

and by the same movement the lever 16, in consequence of the connections 25^c and 28, swings outwardly and engages the clutch, thereby causing the platform to rotate. The outward movement of the bolt 7^b, by means of the bent lever 42, causes the bar 33 to advance until the raised or cam portion 35 engages behind the up-turned end of the bar 25^c, thereby holding said bar and the levers 39 and 16 in such position that the clutch will remain in engagement until the bolt 7^b reaches the next notch, at which time the spring 18^c will cause said bolt to advance into said notch, the bar 33 will be retracted, and the tension of the spring 23 will shift the lever 16, thereby disconnecting the clutch members and stopping the rotation of the table.

The shaft 10 also carries a bevel gear 54 which meshes with a bevel gear 58 on a vertical shaft 60 which is cranked as at 62. This shaft has a gear 70 which drives an intermediate gear 65 in mesh with an outer gear 70' on a vertical shaft 60' which is also cranked as indicated at 62'. These cranks carry double sets of rakes Y which vibrate or work back and forth and carry the fodder onto the platform 4 and toward or against a yielding apron 2 which is pivoted at its inner end to the central standard 1 of the platform. Opposite the apron is a guide F for the butts of the stalks, said guide consisting of an angular plate riveted to the platform and extending from the center to the outer edge. The apron 2 is connected at its outer end by a link H and a lever J which is pivoted to a bracket M on the main frame and the lower end of which is connected to the fork of the lever 22^a. A spring O, bearing between said fork and a fixture R on the frame of the machine, tends to retract or push the lever back. The machine also has guides *a* which run on opposite sides of the row of corn or fodder and direct the stalks to the rakes, the operation of which delivers the stalks onto the platform.

As the stalks are stacked against the apron 2 on said platform they cause said apron to yield or swing back, and when sprung back to a sufficient extent the lever J and rod 6^b act upon the lever 22^a and cause the trip and start of the rotation of the table in the manner above described, and the table turns an eighth revolution and is again engaged and held for the next sheaf. As the stalks forming the next sheaf (shock section) are delivered onto the platform they enter or are crowded between the preceding sheaf and the apron 2, and said apron is accordingly, in due course, swung back to trip the rotating devices again; and so on until the platform is filled.

Any suitable cutting mechanism may be employed, and since it forms no part of this

invention, it is not shown or described.

I claim:

1. In a harvesting machine, the combination with a rotatable shock table, of means to feed stalks thereto, and means controlled by the stalks so fed to intermittently turn the table.
2. In a harvesting machine, the combination with a rotatable shock table and means to turn the same, including a normally disengaged clutch, of means to feed stalks upon the table, and means actuated by the stalks thereon to engage the clutch and turn the table when a sheaf is formed.
3. In a harvesting machine, the combination with a rotatable shock table and means to turn the same, including a normally disengaged clutch, of a bolt engaging the table and holding the same against rotation when the clutch is disengaged, means to feed stalks onto the table, and means operated by the stalks so fed to release the bolt and engage the clutch, to turn the table, when a sheaf is formed.
4. In a harvesting machine, the combination with a rotatable shock table and means to turn the same, of a latch normally holding the table against rotation, and means automatically actuated by the formation of complete sheaves on the table to release the latch and allow the table to turn.
5. In a harvesting machine, the combination with a rotatable shock table, of means to intermittently turn the same a partial rotation, including a normally disengaged clutch, a latch normally engaging the table and holding the same against rotation, means actuated by the feed of the stalks to the table to retract the latch and engage the clutch, to turn the table, a spring bearing upon the latch and tending to advance and reengage the same, and connections between the latch and the clutch, operative to disengage the clutch when the latch is advanced.
6. In a harvesting machine, the combination with a rotatable shock table having notches at stated intervals in its edge, of means to turn the table, a latch engaging in one of the notches, and means actuated by the formation of a sheaf on the table to release the latch and allow the table to turn, and means to reengage the latch in the next notch.
7. In a harvesting machine, the combination with a rotatable shock table, of means to turn the same including a normally disengaged clutch, an apron mounted above the table and arranged to receive the stalks fed thereto, and connections between the apron and the clutch and acting to engage the clutch and turn the table when a full sheaf is fed to the apron.
8. In a harvesting machine, the combination with a rotatable table, and means to

turn the same, including a normally disengaged clutch, of a latch engaging the table and holding the same against rotation when the clutch is disengaged, a yielding apron 5 above the table and against which the stalks are fed, and means actuated by the movement of the apron incident to pressure of the stalks thereon to engage the clutch and dis-

engage the latch, to allow the table to be turned when a sheaf is formed.

In testimony whereof I affix my signature, in presence of two witnesses.

ISADORE C. NOLTE.

Witnesses:

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WILLIAM S. KIMBALL.