

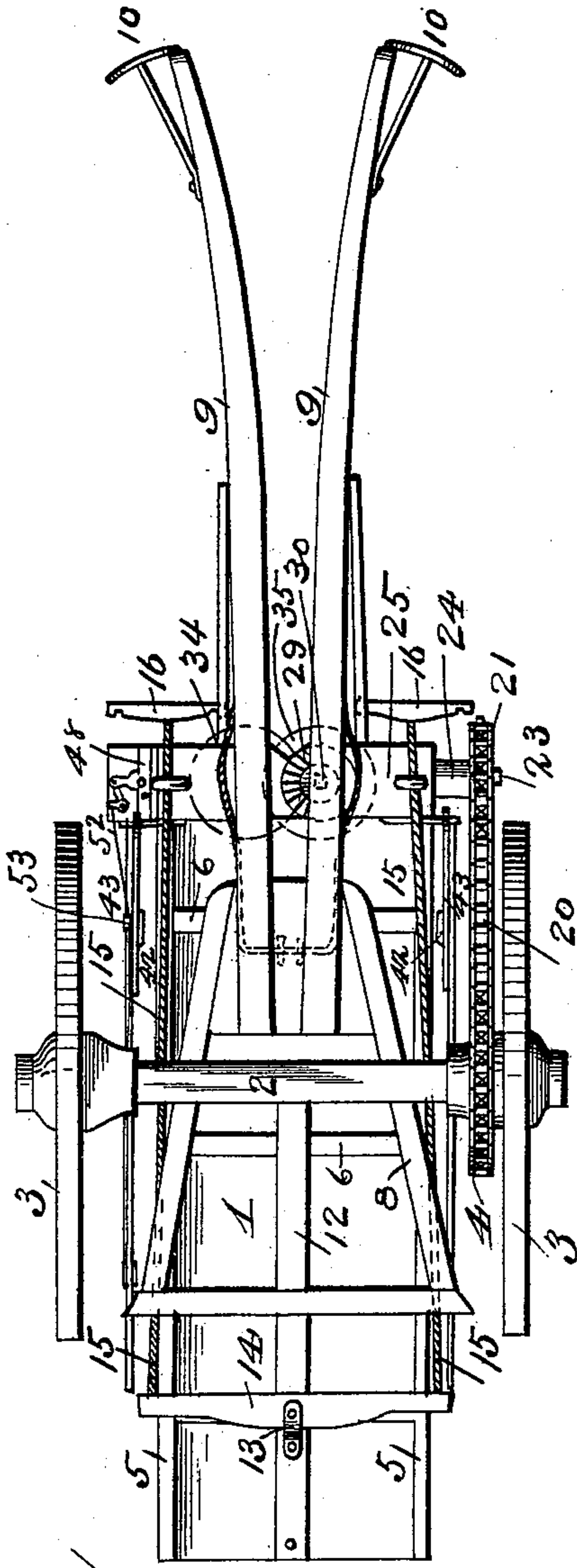
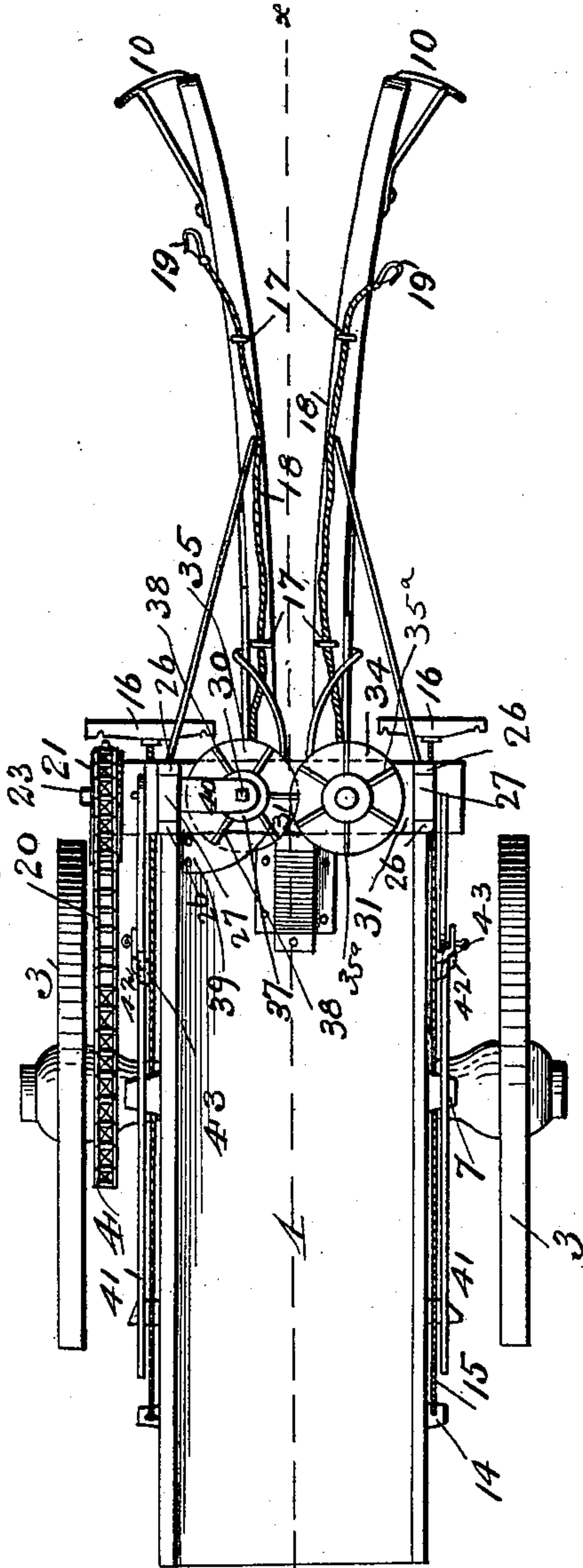
(No Model.)

2 Sheets—Sheet 1.

A. O. GERE.  
CANE OR CORN HEADING MACHINE.

No. 594,788.

Patented Nov. 30, 1897.



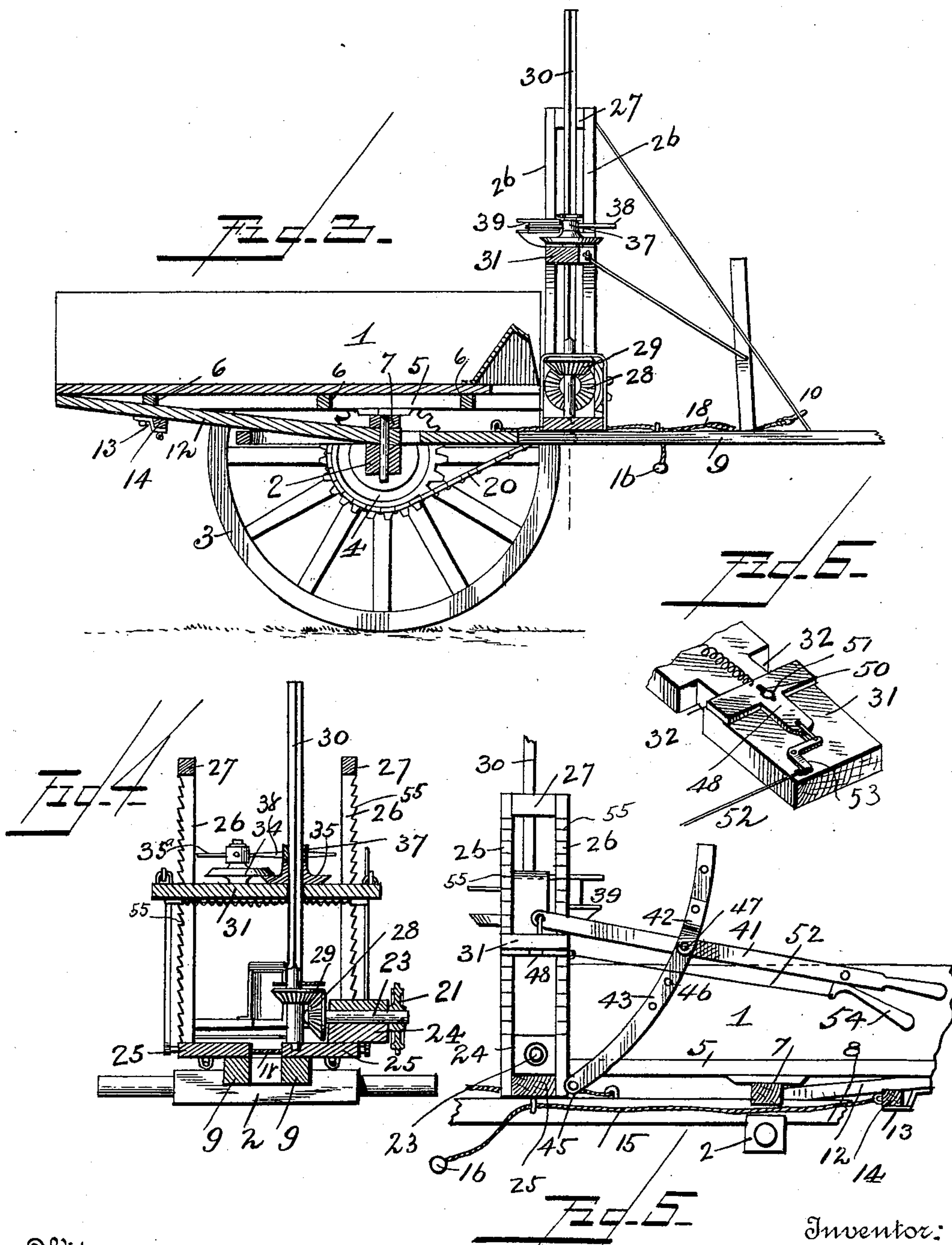
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# UNITED STATES PATENT OFFICE.

ASA O. GERE, OF STAFFORD, KANSAS, ASSIGNOR OF ONE-HALF TO OLIVER H. BAUGH, OF SAME PLACE.

## CANE OR CORN HEADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 594,788, dated November 30, 1897.

Application filed May 1, 1897. Serial No. 634,755. (No model.)

*To all whom it may concern:*

Be it known that I, ASA O. GERE, a citizen of the United States, and a resident of Stafford, in the county of Stafford and State of Kansas, have invented certain new and useful Improvements in Cane or Corn Heading Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to machines for heading Kafir corn or cane, and the object is to provide an improved construction of the same, whereby I secure important advantages with respect to efficiency in operation.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a heading-machine constructed in accordance with my invention. Fig. 2 is a bottom view of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a cross-sectional view on the line  $x x$ , Fig. 1. Fig. 5 is a detail longitudinal section of the front end of the machine, showing the means for elevating the cross-head carrying the cutters. Fig. 6 is a detail perspective view looking from the inner side of the cross-head.

In the said drawings the reference-numeral 1 designates a wagon or cart body, 2 the axle, and 3 the wheels. One of these wheels is provided with a sprocket-wheel 4, for a purpose hereinafter described. Secured to said body, on the under side, are two horizontal strips 5, connected together by cross-strips 6, and near the center these strips are provided with a cross-piece 7. Located between these strips and the axle are the hounds 8 of the double or forked tongue, consisting of the inclined poles 9, provided at the front ends with breast-straps 10, adapted to be connected with the hames or collar of a harness. Connected with the said axle and cross-piece 7 is a rearwardly-extending longitudinal bar 12, the rear end of which is secured to the body 1. Secured to said bar, near its rear end, is a clip 13, to which and the bar is pivoted a whif-

fletree 14, to which are secured forwardly-extending ropes 15, the front ends of which are provided with singletrees 16, with which the harness-traces are adapted to be secured, as usual. Secured to the hounds and tongue are a number of eyes or pulleys 17, through which passes a rope 18, the ends of which are provided with snap-hooks 19, which are adapted to be connected with the bits of the respective draft-animals.

Passing around the sprocket-wheel 4 is a sprocket-chain 20, which also passes around a sprocket-wheel 21, secured to a shaft 23, journaled in a bearing 24, secured to a plate 25, attached to one of the poles 9. There is a similar plate 25 secured to the other pole, and to each of these poles are secured two upwardly-extending parallel bars 26, connected together at their upper ends by cross-pieces 27. To the inner end of the shaft 23 is secured a bevel-gear 28, which meshes with a corresponding gear 29 on the lower end of a vertical shaft 30. This shaft is angular or square and passes loosely through a vertically-movable cross-head 31, provided with notches 32 near each end, which engage with the edges of the bars 26. The opening in the cross-head through which the said shaft passes is large enough to allow it to rotate freely therein. Journaled to the upper side of said cross-head is a circular rotatable cutter 34, and mounted on said shaft 30 is a similar cutter 35, having an angular opening through which said shaft passes, so that while said cutter rotates with the shaft it can move vertically thereon. Mounted on said shaft and located above the cutter 35 is a reel, consisting of the hub 37, vertically movable on the shaft and provided with a series of radial arms 38. In rear of this reel is a stripper 39, which removes the heads from the reel.

The numeral 40 designates a guide-bracket through which the shaft 30 loosely passes. Above the cutter 34 is a reel 35<sup>a</sup>, similar to that above described.

Pivotaly connected with the ends of the cross-head 31 are rearwardly-extending levers 41, each of which is pivoted to an adjustable bracket 42, connected with an upwardly-extending bar 43, pivoted to the plate 45. The bars 43 are formed with a number of holes 46



to receive pins 47, by which the brackets 42 are adjustably secured thereto. Located on the under side of said cross-head are laterally-movable dogs 48, formed with central slots 50, with which engage headed pins 51, secured to the cross-head. Connected with these dogs are wires 52, which pass through staples 53, secured to the cross-head, and which extend rearwardly and are connected with handle-levers 54, pivoted to the rear ends of the levers 41. The said dogs are adapted to engage with teeth 55 in the edges of the bars 26, and by operating the small levers 54 the dogs are thrown out of engagement with the said notches, so that by actuating the levers 41 the said cross-head can be elevated or lowered to adjust the cutters vertically according to the height of the corn or cane to be headed.

The operation will be readily understood. The machine is drawn across the field, and the corn or cane will be guided by the forked tongue to the rotating cutters, which will sever the heads, which will be conducted into the wagon-body by the reels. The cross-head, carrying the cutters, can be vertically adjusted, as before set forth, to accommodate the machine to cane or corn of varying heights. The rope 18, being loosely passed through the loops 17 and connected with the bits of the horses, will allow freedom of movement of the horses' heads, but will prevent undue swerving of the same, thereby holding them down to their work.

The heading mechanism above described may be attached to an ordinary farm or other wagon by removing the tongue of the latter and substituting therefor the forked tongue, hounds, and connections of my improved header and providing one of the wheels of such wagon with a sprocket-wheel to drive the cutters and reels.

The heading mechanism may also be connected with a sled instead of a wagon-body, if desired.

Having thus fully described my invention, what I claim is—

1. In a corn or cane heading mechanism, the combination with the tongue, the hounds, the cross-strip, the rearwardly-extending bar, the whiffletree pivoted thereto, the ropes and the singletrees, of the eyes or pulleys secured to the tongue and hounds, the rope passing through the same, the snap-hooks on the ends thereof, adapted to be connected with the bits of a harness, substantially as described.

2. In a cane or corn heading machine, the combination with the forked tongue, the upwardly-extending arms, the vertically-mov-

able cross-head, the cutter journaled thereto, the angular, rotatable shaft, the vertically-movable cutter mounted thereon, the rotatable reels, and the stripper, of the bevel-pinion at the lower end of said shaft, the pinion meshing therewith, the stud-shaft, the sprocket-wheel at the outer end thereof, the sprocket-chain and the sprocket-wheel secured to one of the wheels of a wagon with which the mechanism is adapted to be connected, substantially as described.

3. In a cane-heading machine of the character described, the combination with the vertical arms at opposite sides of the machine, the vertically-moving cross-head, the rotatable cutters, and reels, and means for operating the same, of the levers connected with said cross-head, the pivoted upwardly-extending bars, pivotally connected with plates secured to said vertical arms, and the adjustable brackets connected with said bars, to which said levers are pivoted, substantially as specified.

4. In a cane or corn heading machine, the combination with the forked tongue, the vertical arms connected therewith having notches in the edges, the vertically-movable cross-head, the rotatable cutters and the rotatable reels, of the laterally-movable dogs attached to said cross-head, the wires connected therewith, the levers pivoted to said cross-head, the adjustable brackets, the pivoted arms to which said brackets are attached, and the levers with which said wires are connected, substantially as described.

5. In a cane or corn heading machine, the combination with the forked tongue, the hounds, the rearwardly-extending bar, the whiffletree pivoted thereto, the ropes connected with the whiffletrees, the eyes or pulleys secured to said tongue and hounds, the rope passing through or around the same, having snap-hooks at the ends, of the plates secured to the tongue, the upwardly-extending arms, the vertically-movable cross-head, the vertical shaft and means for rotating the same, the rotatable cutters and reels, the hooks pivoted to said plates secured to the tongue, and means for elevating and lowering the said cross-head, substantially as described.

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

ASA O. GERE.

Witnesses:

F. D. LARABEE,  
F. O. LITCHFIELD.