

H. K. BURNETT & G. H. BAHRET.

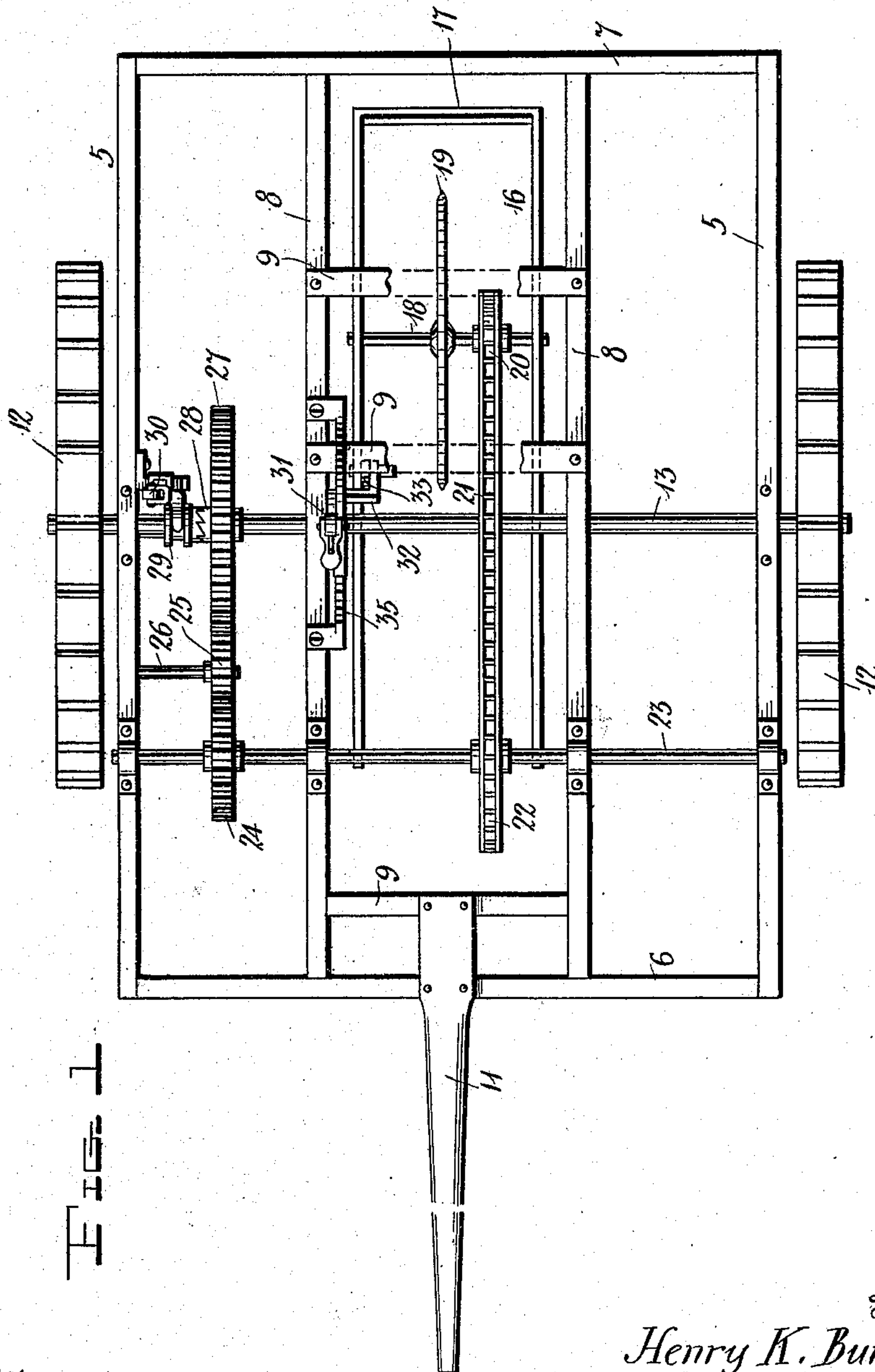
ICE CUTTING MACHINE.

APPLICATION FILED OCT. 19, 1907.

899,825.

Patented Sept. 29, 1908.

2 SHEETS—SHEET 1.



Witnesses
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FIG. 2

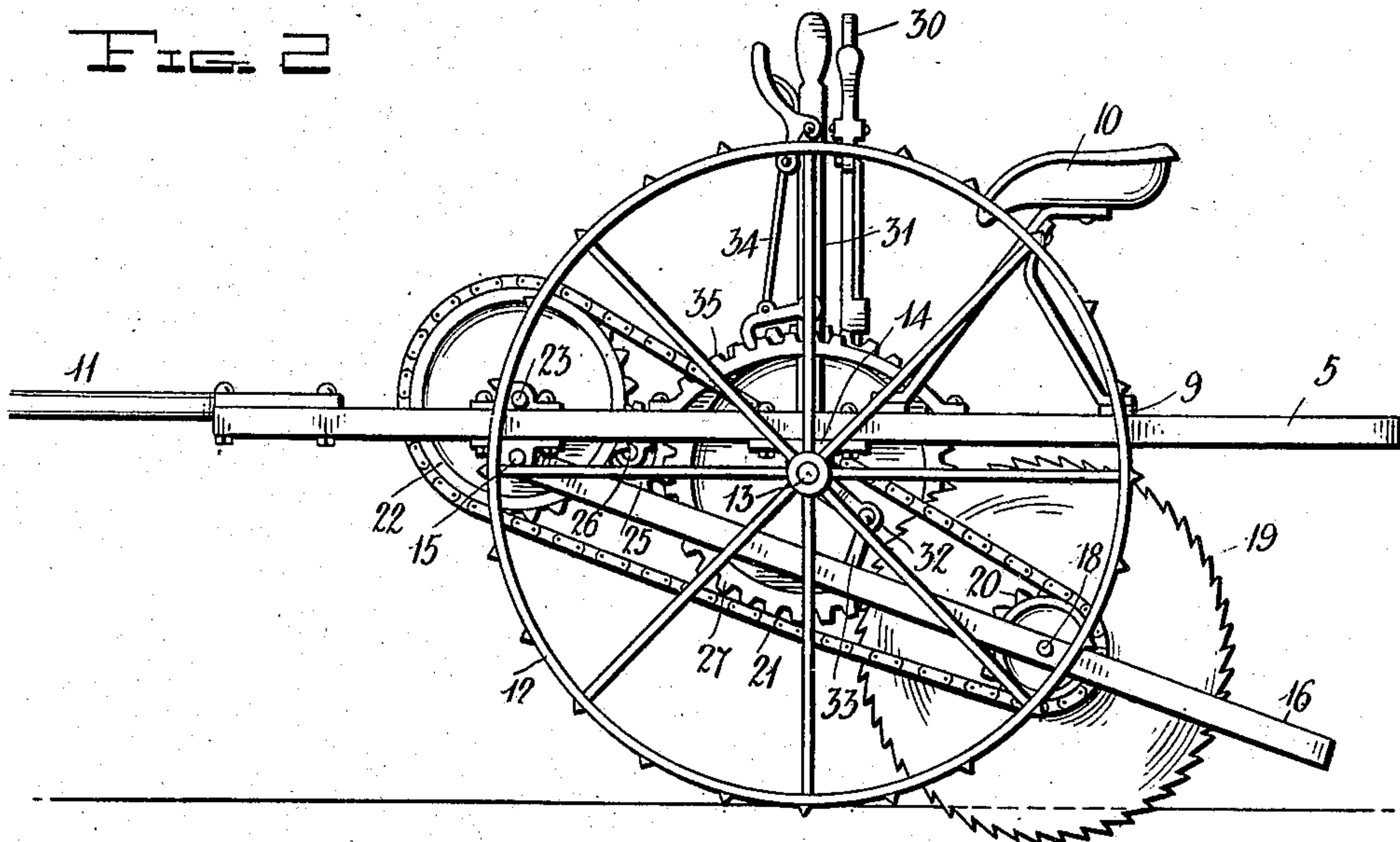
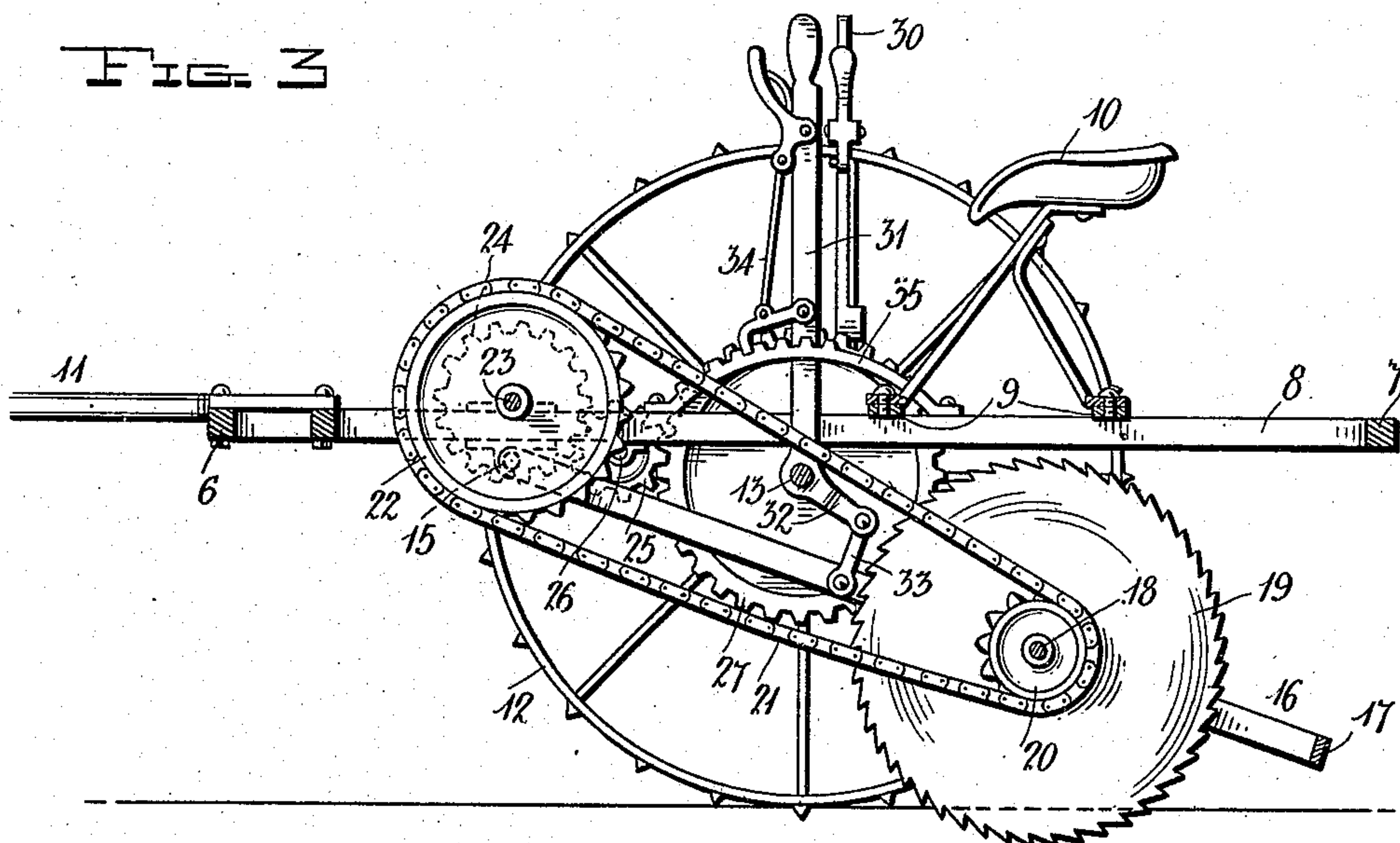


FIG. 3



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UNITED STATES PATENT OFFICE.

HENRY K. BURNETT, OF HYDE PARK, AND GOTTLIEB H. BAHRET, OF POUGHKEEPSIE,
NEW YORK.

ICE-CUTTING MACHINE.

No. 899,825.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed October 19, 1907. Serial No. 398,282.

To all whom it may concern:

Be it known that we, HENRY K. BURNETT and GOTTLIEB H. BAHRET, citizens of the United States, residing at Hyde Park and Poughkeepsie, respectively, in the county of Dutchess, State of New York, have invented certain new and useful Improvements in Ice-Cutting Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to ice cutting machines and has for its primary object to provide a very simple construction of machine of this class but one which will be highly efficient in its operation.

Another object of the invention is to provide a simply constructed device of this character wherein the operating mechanism is balanced upon the supporting frame, and a machine produced wherein the draft is lightened and the efficiency of the operation improved.

In the accompanying drawings, Figure 1 is a top plan view of the machine, Fig. 2 is a side elevation thereof, and, Fig. 3 is a vertical longitudinal sectional view through the machine.

As shown in the drawings, the machine comprises a rectangular frame including side sills 5, a front end sill 6 and a rear end sill 7 which sills connect the respective ends of the side sills 5.

The frame of the machine is also comprised, in part, of a pair of parallel longitudinally extending sills 8 which are connected by means of cross pieces 9 as is clearly shown in Fig. 1 of the drawings. There are preferably three of these sills 9, two of them being located adjacent the rear end of the frame and the third adjacent the front end thereof, there being a seat 10 supported upon the two rear sills 9 and a draft tongue 11 connected to the front one of the said sills 9 and to the front sill 6.

The frame is supported by means of ground wheels 12 fixed upon an axle shaft 13 journaled in suitable bearings 14 upon the said sills 5 of the frame, it being understood that this axle shaft is intended to rotate during the travel of the machine. The axle shaft is located substantially centrally of the frame of the machine and balances the machine

and increases its efficiency, as hereafter explained.

Loosely connected at their upper and forward ends as at 15, to the intermediate frame sills 8 of the frame of the machine, are the spaced side members 16 of a supplemental or saw hanging frame which also includes a cross connecting piece 17 which connects the lower or rear ends of the said side members 16. Journaled at its ends in the said side members 16 is a saw shaft 18, and fixed upon this shaft is an ice cutting saw 19 and a sprocket gear 20 around which is engaged a sprocket chain 21. The sprocket chain also passes over a sprocket gear 22 fixed upon a shaft 23 which is journaled in suitable bearings and extends transversely of the main frame of the machine. Fixed upon this shaft 23 is a gear 24 which meshes with an idler gear 25 journaled upon a stub shaft 26 upon one of the side sills 5. This idler gear in turn is in mesh with a gear 27 mounted to freely rotate upon the axle shaft 13, this gear 27 being formed with one member 28 of a clutch and a clutch sleeve 29 being splined upon the said axle shaft 13 for movement longitudinally thereof. A lever 30 is mounted upon the adjacent side sill 5 and this lever has connection with the clutch sleeve so that it may be shifted into engagement with the clutch member of the gear 27. From the above it will be understood that power is transmitted from the ground wheels by way of the gearing just described to the saw shaft 18 thereby rotating the said saw and furthermore that the saw shaft may be thrown into or out of gear by operating the lever 30.

In order that the saw frame may be adjusted vertically, and thereby adjust the depth of its cut, a lever 31 is mounted loosely upon the axle shaft 13 and is formed at its lower end with an angularly directed extension or arm 32 to which is connected one end of a link 33, this link being connected at its lower end to one of the side members 16 of the supplemental frame of the machine. This lever 31 carries a hand operated pawl device 34 which coöperates with a segmental rack 35 fixed upon one of the longitudinally extending beams 8 of the main frame of the machine. From the foregoing it will be observed that by rocking the lever 31, the supplemental or saw carrying frame may be adjusted to regulate the depth of the cut of the

saw, or elevated clear of the ice or ground when the machine is to be moved from place to place.

The axle shaft being located centrally of the main frame, the main shaft 23 located in advance of the axle shaft and the supplemental frame 16—17 being arranged to swing from the main frame adjacent to the main shaft 23 and extending rearwardly beneath the axle shaft and carrying the saw mandrel and saw and the sprocket wheel 20 rearwardly of the axle shaft, the machine is completely balanced and the draft materially lightened. The machine being thus arranged operates with greater ease and with less fatigue to the horses and likewise to the operator, and is more easily guided.

What is claimed is—

1. In a machine of the class described, the combination with a main frame, and an axle carried thereby, of a shaft mounted for rotation upon said frame and disposed parallel with the axle, driving connections between said shaft and axle; a longitudinally-disposed swinging frame pivotally connected at its front end with the main frame; a transversely-disposed shaft carried by the swinging frame adjacent the rear end thereof; a saw carried by the last-mentioned shaft; driving connections between said first and last-mentioned shafts; an operating lever pivoted to the axle and provided at its lower end with an angular extension; and a connecting device between said extension and

the swinging frame, for raising or lowering the latter when said lever is moved in one direction or the other.

2. In a machine of the class described, the combination with a main frame including longitudinal side sills and a pair of intermediate sills arranged in spaced relation to and parallel with the side sills and with each other, of an axle mounted for rotation upon said frame; ground wheels carried by the axle; a shaft mounted for rotation upon said frame and disposed parallel with and in advance of the axle; driving connections between said shaft and axle; a swinging longitudinal frame disposed between the intermediate sills and having its front ends pivotally connected therewith; a transversely disposed shaft carried by the swinging frame adjacent the rear end thereof; a saw carried by the last-mentioned shaft; driving connections between said first and last mentioned shafts; an operating lever pivoted to the axle and provided at its lower end with an angular extension; and a connecting device between said extension and the swinging frame, for raising or lowering the latter when said lever is moved in one direction or the other.

In testimony whereof, we affix our signatures, in presence of two witnesses.

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Witnesses:

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