

A. T. BOSSERT.
WORM GEARING.
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1,146,995.

Patented July 20, 1915.

Fig. 1.

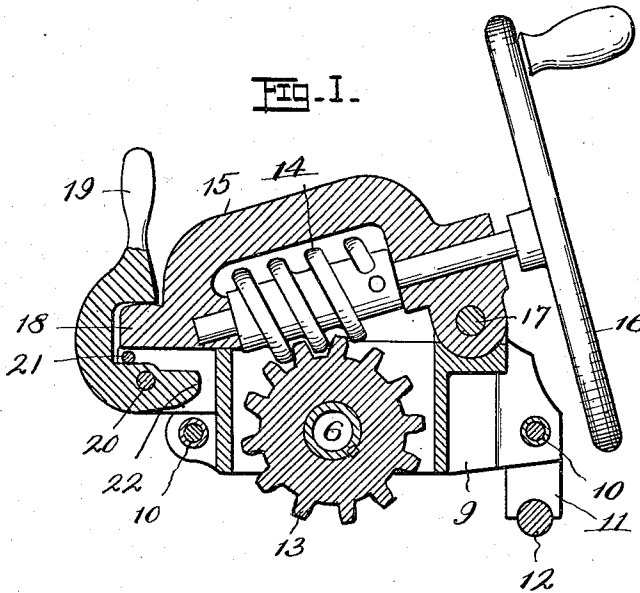
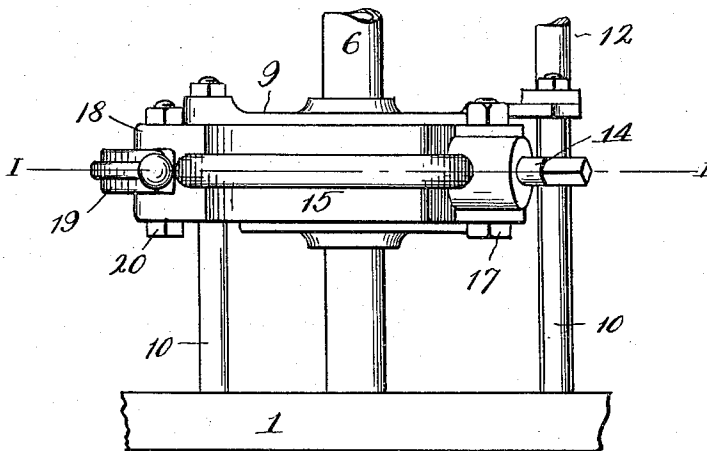


Fig. 2.



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WORM-GEARING.

1,146,995.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT T. BOSSERT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Worm-Gearing, of which the following is a specification.

My invention relates to improvements in worm gearing and while it is susceptible to other uses, it is particularly adapted to control the opening and closing of the doors of bottom dump wagons.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings in which:

Figure 1 is an enlarged central section of the self-locking gearing and its mountings, forming the important features of the invention, on line I—I of Fig. 2, and Fig. 2 is a detail plan view of the self-locking gearing and its mountings.

1 designates a broken side of a bottom dumping wagon provided with a journaled shaft 6. Shaft 6 extends through a frame 9, forming one of the features of my invention, said frame being secured to the inner side of one of the side boards of the body 1, by bolts 10, and provided with a leg 11 resting upon a stay-bolt 12, connecting the side boards of said body 1.

13 designates a worm-wheel arranged within frame 9 and keyed upon shaft 6.

14 designates a worm which, with the worm-wheel 13, forms the self-locking gearing, above referred to, for controlling the opening and closing operation of the doors. Worm 14 is journaled in a member 15 and provided at its reduced rear portion with a hand-wheel 16 whereby it may be rotated to the right or to the left. Member 15 is pivotally-secured by a pin or bolt 17 to the rear end of frame 9 and provided at its forward end with a lip 18, normally-engaged by a shoulder on a lever 19 fulcrumed at its lower end upon a pin or bolt 20, extending through the forward portion of frame 9.

21 designates a stop secured to the forward portion of frame 9, to limit the downward movement of lever 19, the lower portion of which has an inwardly-extending nose 22, which contacts with said stop when the lever is swung downward. When the lever is swung downward, as described, nose 22 moves upward into engagement with the underside of lip 18, and raises member 15 until worm 14 is thrown out of mesh with the worm-wheel 13.

By employing the hand-wheel 16 to operate the worm 14, the same may be rotated continuously in one direction when closing the doors, of a dump wagon, and thus complete the closing operation more rapidly than where an oscillatory motion, such as is had with the usual ratchet-lever mechanism, is employed.

Having thus described my invention what I claim, and desire to secure by Letters Patent, is:

A device of the character described, consisting of a shaft, a worm-wheel mounted upon said shaft, a frame adjacent said worm-wheel, a worm to control said worm-wheel, a member pivotally-mounted at one end on the frame and in which said worm is journaled, said frame acting as a stop for the free end of the pivoted member when the worm is in mesh with the worm-wheel, a hand-wheel to rotate said worm, a hand lever to normally lock the pivotal member from movement, said hand-lever having a nose to raise the pivoted member and lift the worm out of mesh with the worm-wheel, a lip on the free end of the pivoted member, and a shoulder on the hand-lever to engage said lip and lock the free end of said pivoted member upon the frame.

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

ALBERT T. BOSSERT.

Witnesses:

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