

No. 631,071.

Patented Aug. 15, 1899.

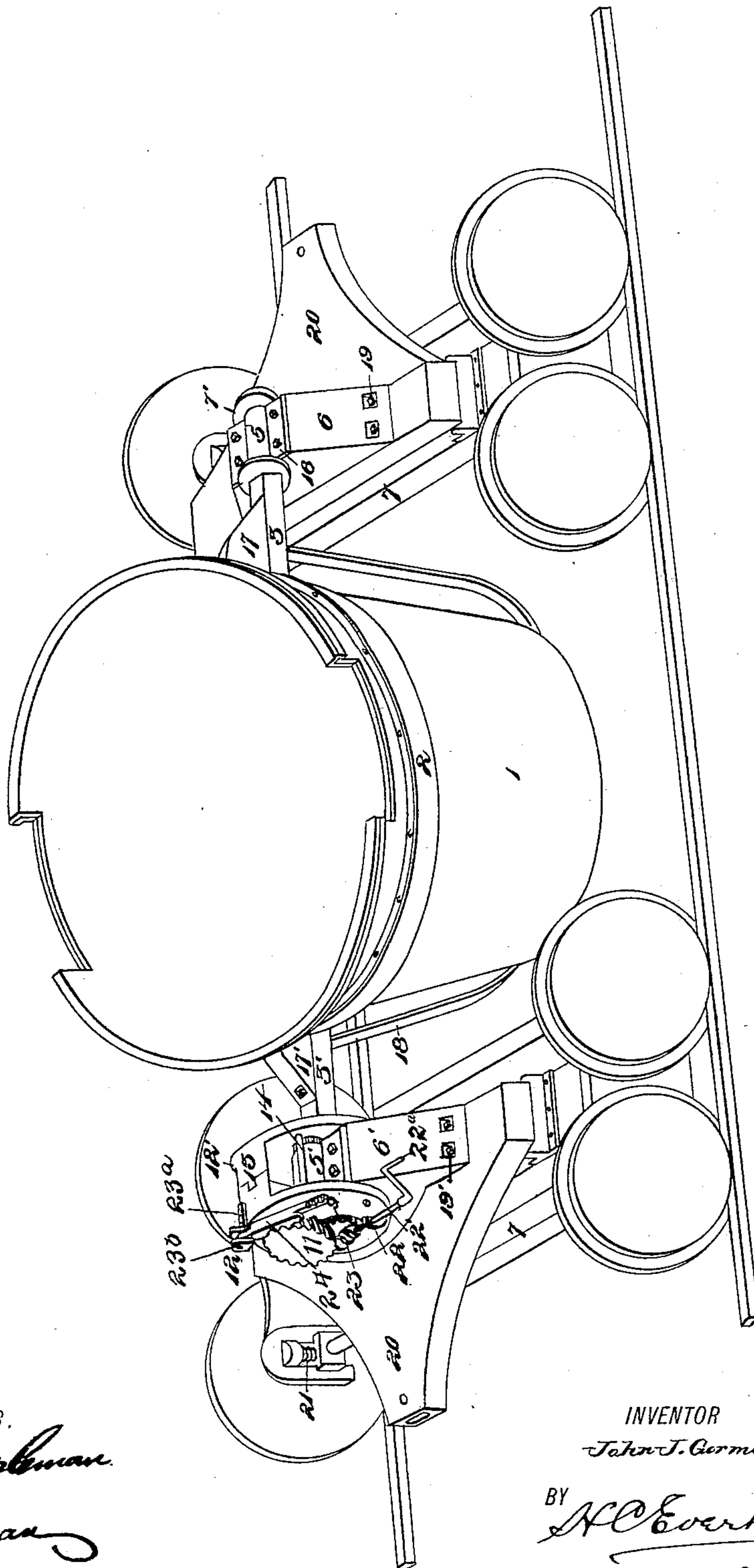
J. J. GORMAN.  
CINDER DUMPING CAR.

(Application filed June 9, 1898.)

(No Model.)

3 Sheets—Sheet 1.

*Fig. 1.*



WITNESSES.

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No. 631,071.

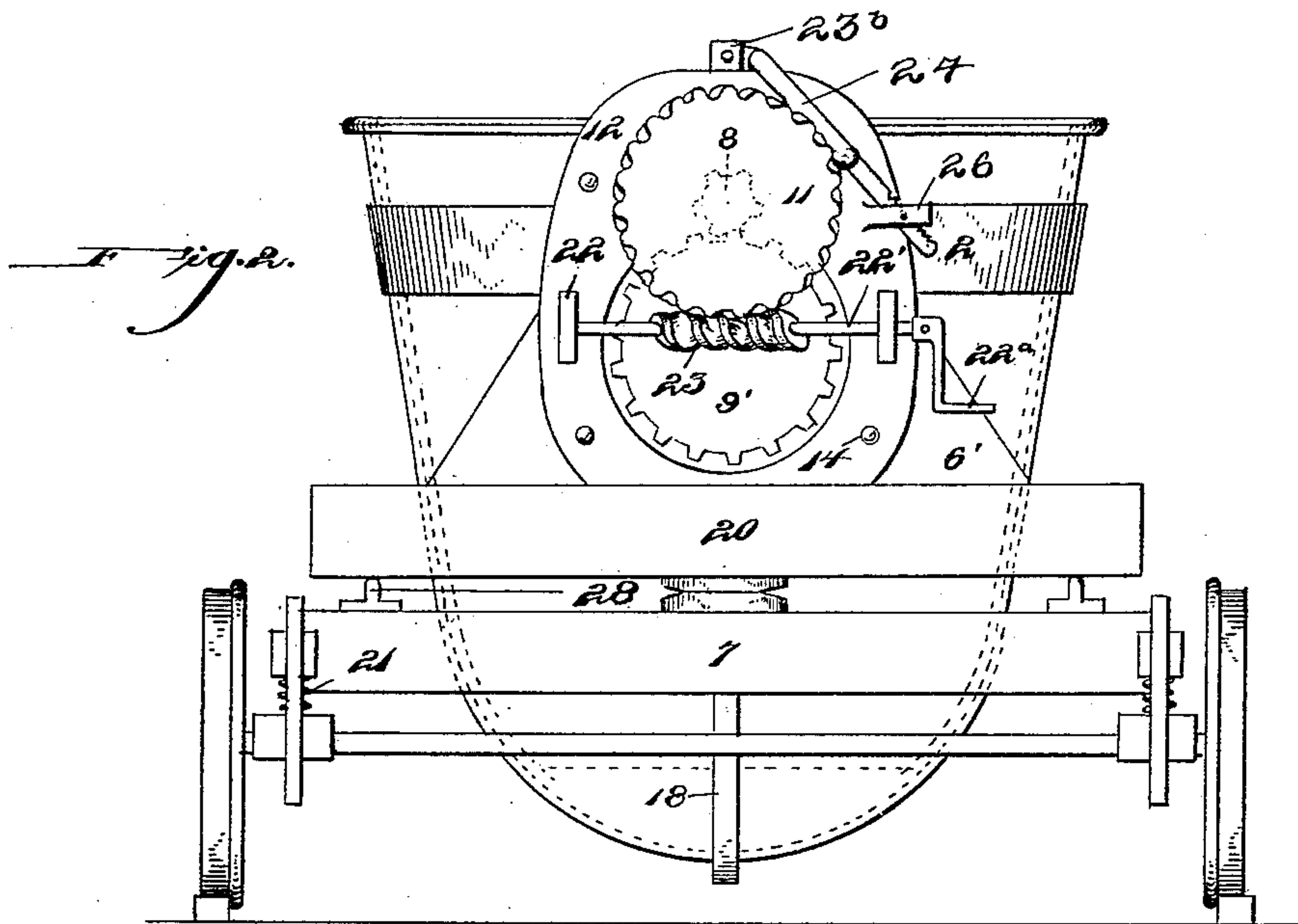
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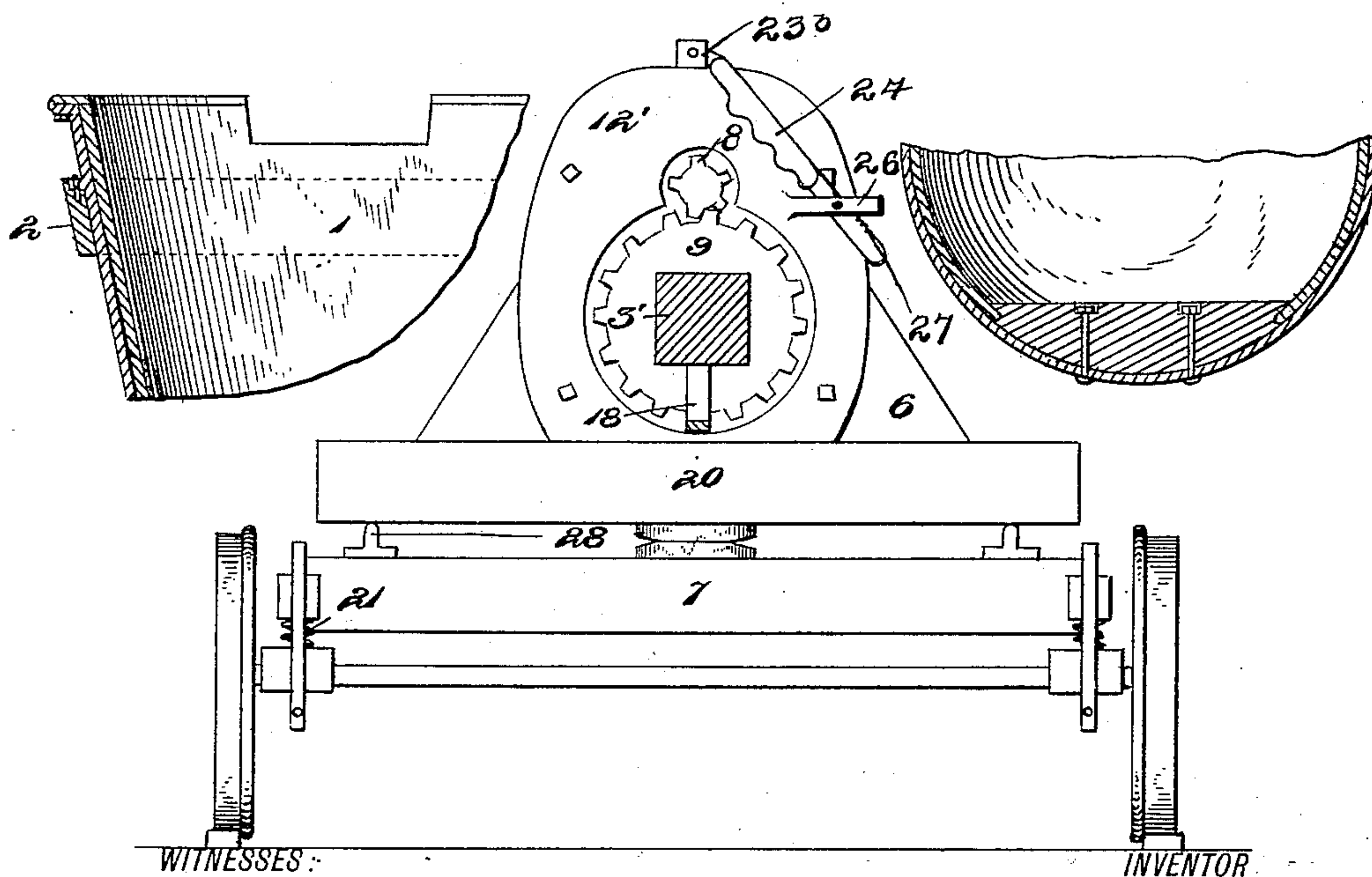
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(No Model.)

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*Fig. 4.*      *Fig. 5.*      *Fig. 5.*



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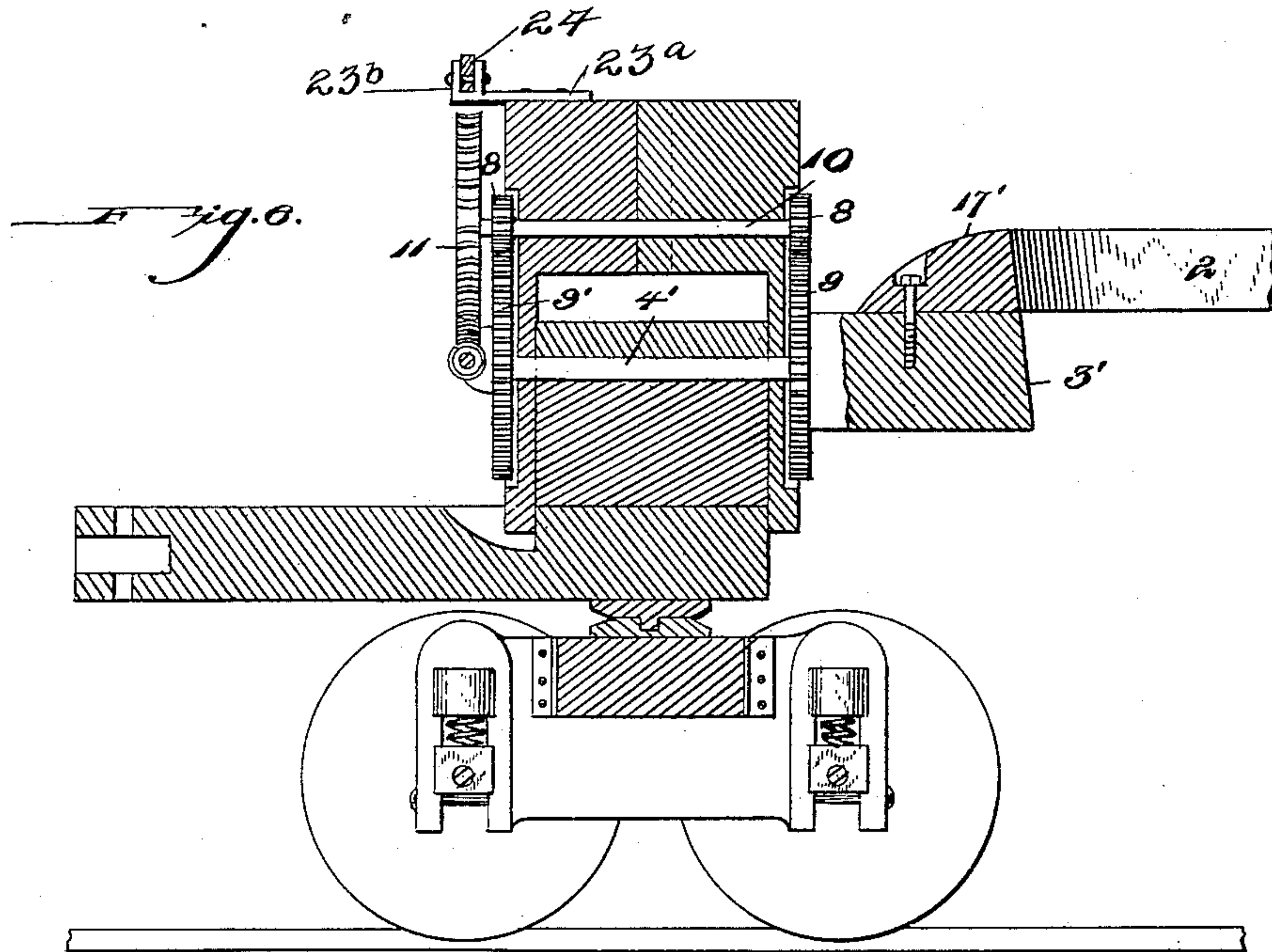
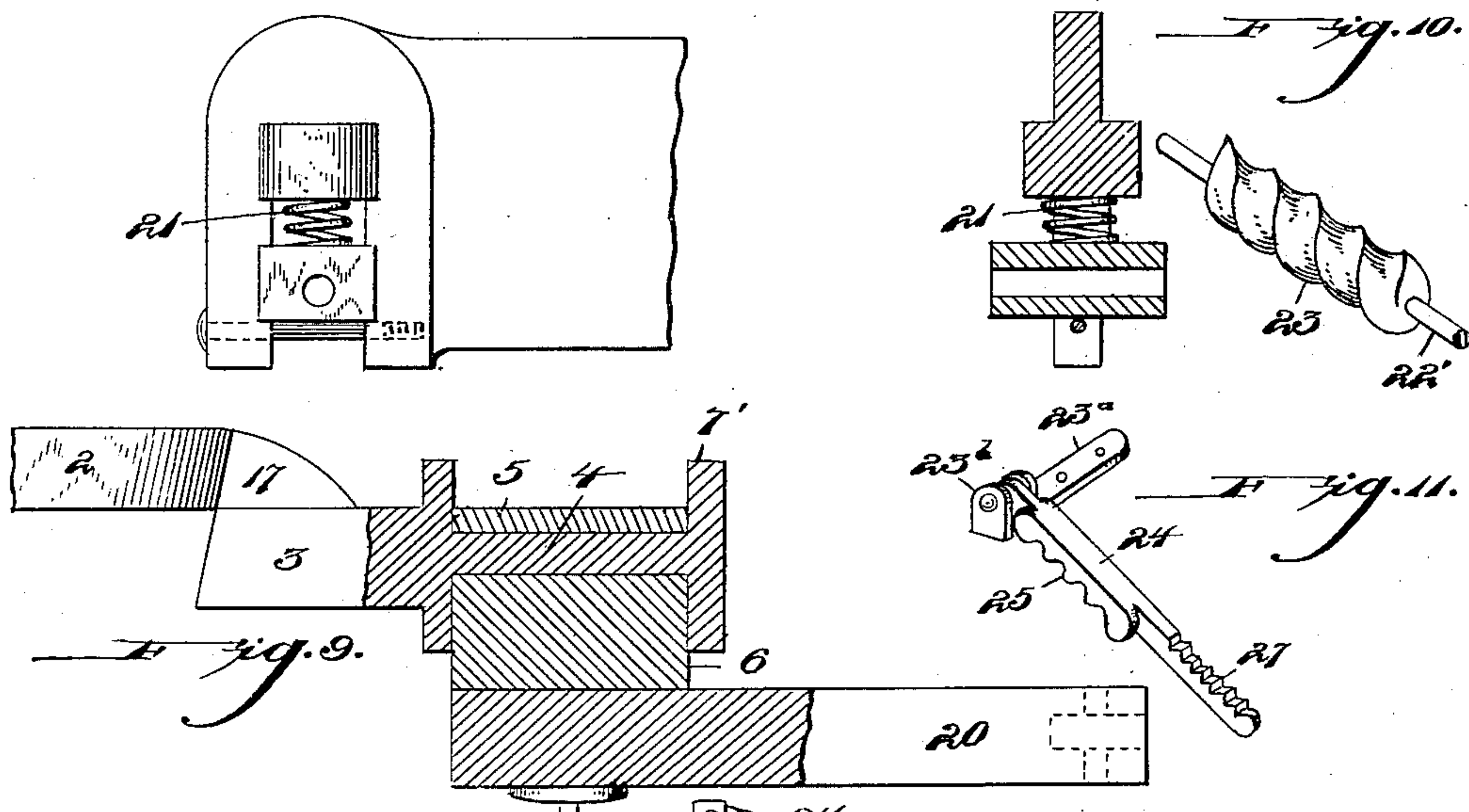
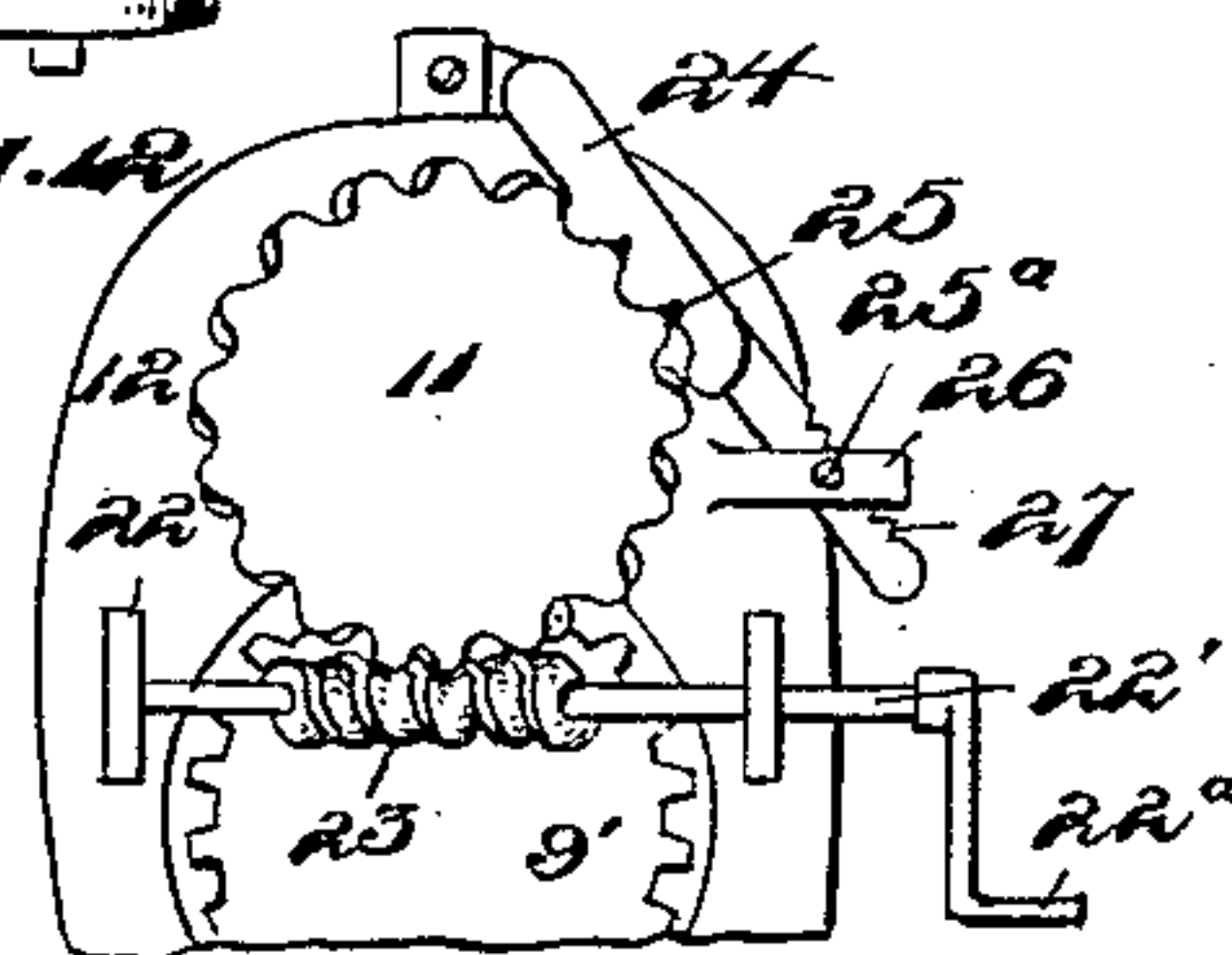


Fig. 8.



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# UNITED STATES PATENT OFFICE.

JOHN J. GORMAN, OF BRADDOCK, PENNSYLVANIA.

## CINDER-DUMPING CAR.

SPECIFICATION forming part of Letters Patent No. 631,071, dated August 15, 1899.

Application filed June 9, 1898. Serial No. 683,014. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. GORMAN, a citizen of the United States of America, residing at Braddock, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Cinder-Dumping Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in cinder-dumping cars.

The object of my invention is to convey the slag or hot cinders from the furnace in a cinder-pot, and when the pot is being dumped 15 the weight upon the car will always be at its center, thereby preventing the tilting of the car-truck and dislodgment of the car from the rails.

A still further object of my invention is to 20 provide a device of this character wherein any part that may be broken can be readily replaced owing to the construction of the car.

My invention further consists in the novel construction, combination, and arrangement 25 of parts hereinafter more specifically described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of my improved dumping-car. Fig. 2 is a front view thereof, showing 30 the mechanism for dumping the cinder-pot. Fig. 3 is a transverse view of a portion of the dumping mechanism. Fig. 4 is a longitudinal sectional view of the upper part of the cinder-pot, partly broken away. Fig. 5 is a 35 longitudinal sectional view of the cinder-pot, at the bottom thereof, partly broken away. Fig. 6 is a longitudinal sectional view on the lines X X of Fig. 1. Fig. 7 is an end view of a portion of the car-truck. Fig. 8 is a longitudinal sectional view of one of the journal-boxes. Fig. 9 is a longitudinal sectional 40 view on the line Y Y of Fig. 1. Fig. 10 is a perspective view of the worm mechanism for dumping the cinder-pot. Fig. 11 is a perspective view of the locking mechanism. Fig. 12 is a front view of the yokes and locking mechanism.

50 Like numerals of reference indicate corresponding parts throughout the several views of the drawings, in which—

1 indicates the pot for the slag, hot cinders, or other material, and is secured in a circular support 2, which is suitably secured to extensions 3 and 3'. Connected to these extensions, either by forming integral therewith or 55 by securing thereto in any suitable manner, are shafts 4 and 4', which are journaled in pillow-blocks 5 and 5'. These pillow-blocks are adjustably supported by the bolsters 6 and 6', carried by the truck 7. The shaft 4 has 60 secured thereon, at suitable distances apart, circular flanges 7', which are adapted to fit over the pillow-block 5 and prevent the shaft from sliding inwardly therefrom.

65 Secured on the shaft 3' are two cog or gear wheels 8, which mesh with the two gear-wheels 9 and 9', mounted upon a shaft 10, which extends through the gear-wheel 9' and has mounted upon its free end a double gear-wheel 11. 70

Secured to the pillow-block 5' and on each side thereof are yokes 12 and 12', which extend above the shaft 4' and have secured between them, at their upper ends, a block-support 13 for supporting the shaft 10. The 75 yokes 12 and 12' are held apart by the block-support 13 and brace-supports 14, which are secured thereto by suitable fastening means.

80 Secured to each end of the pillow-blocks, on their tops or upper face, are bearing-blocks 16 for the shafts 3 and 3'.

17 and 17' are supporting extensions which may be secured to the shafts 3 and 3' by suitable fastening means or formed integral therewith, as desired, and serve to support the 85 circular band or support 2 of the pot.

18 is a bracket which is connected to the under side of the shafts 3 and 3' and supports the pot from the bottom. 90

The pillow-blocks are each provided with king-bolts 19 and 19', which enter apertures provided therefor in the platform 20 on the cross-beams of the truck. The platform 20 is or may be secured to the side rails of the 95 truck and is or may be provided with the resistance-springs of a form as shown at 21, or other desired form of truck may be employed.

Secured to the front of the yoke 12, on its outer face, is a pair of brackets 22, in which 100 is mounted a shaft 22', carrying a worm 23, which meshes with the double gear-wheel



and has secured on one end a handle or crank 22<sup>a</sup> for revolving the same when it is desired to dump the pot.

5 Secured to the top of the yokes, at their center, is a bar 23<sup>a</sup>, which extends outwardly therefrom and over the double gear-wheel 11. This bar is formed with jaws 23<sup>b</sup>, between which is pivotally secured a rack 24, which acts as a locking-bar when brought into  
10 engagement with the double gear-wheel 11. This rack 24 has formed on its underneath face teeth or cogs 25, which are adapted to engage the aforesaid gear-wheel, and on its upper face, near its free end, with like cogs or  
15 teeth 27, forming a grip for engagement with the pin 25<sup>a</sup>, which passes through the extension 26, secured to the side of the yoke and holds the rack into engagement.

20 In order to retain the bolster plumb or nearly so, I may provide bolster-blocks 28, which are of any convenient form and are mounted on the platform of the trucks.

From the foregoing description, taken in connection with the accompanying drawings,  
25 the operation of my improved dumping-car may be readily understood.

It may be noted that various changes can be made in the details of construction with-

out departing from the general spirit of my invention. 30

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

. In a dumping-car, the combination with a pair of axle-trucks and the bolsters pivotally  
35 mounted thereon, of a platform mounted on each of said bolsters, pillow-blocks mounted upon said platforms, a pot or kettle, and a circular support to receive the same, a pair of shafts formed integral with said support at  
40 opposite sides thereof, and journaled in said pillow-blocks, spur-gears mounted on one of said shafts, separate gearing for operating said gearing on the shaft for overturning the  
45 pot or kettle, a pair of yokes secured to the front pillow-block, and a lock secured to said front pillow-block and engaging the operating-gearing to lock the same, substantially as set forth.

In testimony whereof I affix my signature 50 in the presence of two witnesses.

JOHN J. GORMAN.

Witnesses:

JOHN NOLAND,  
ALBERT J. WALKER.