

LOADER FOR CONCRETE MIXERS.  
APPLICATION FILED APR. 18, 1910.

Patented Apr. 18, 1911.

2 SHEETS--SHEET 1.

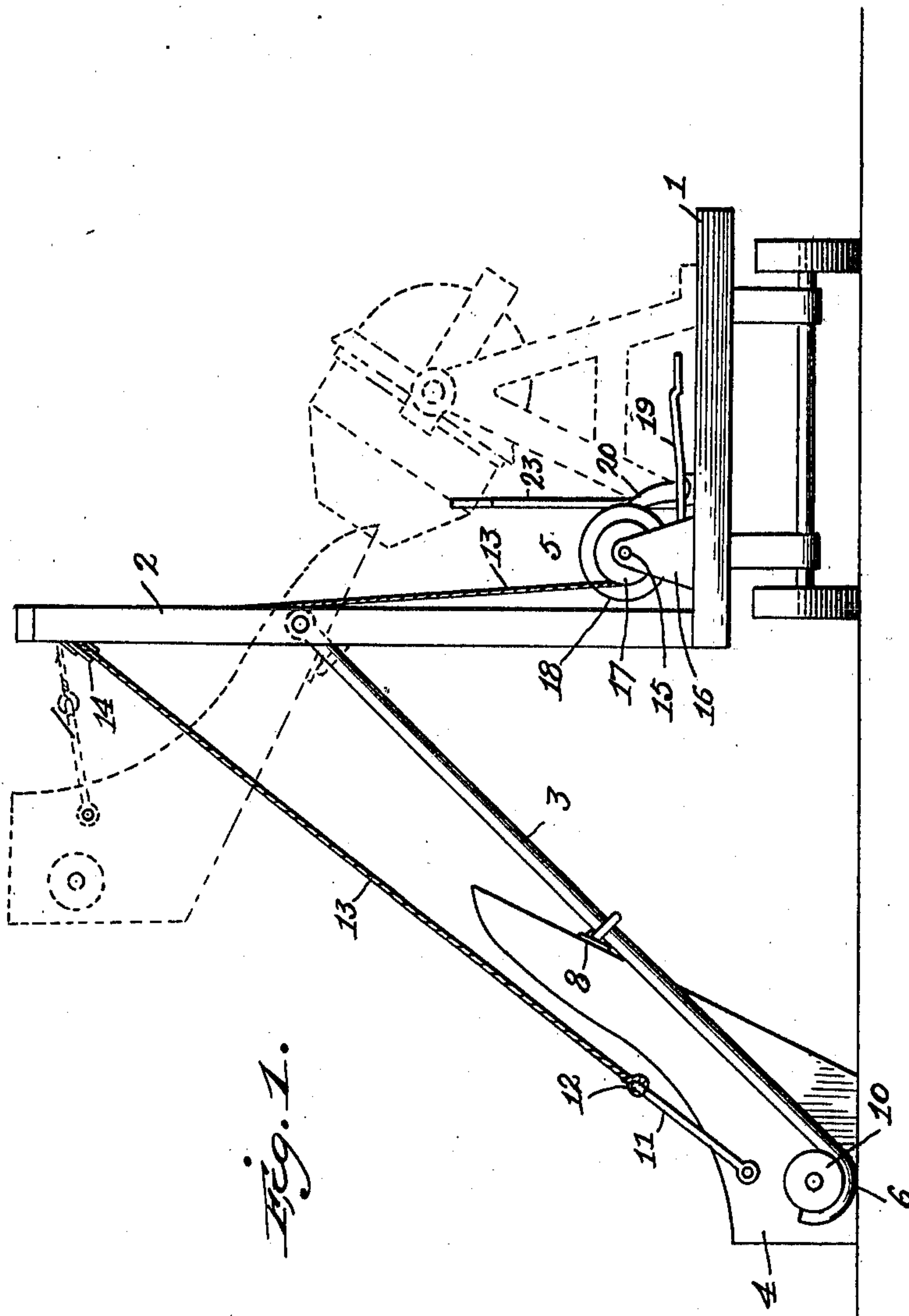


Fig. 1.

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A. Durham

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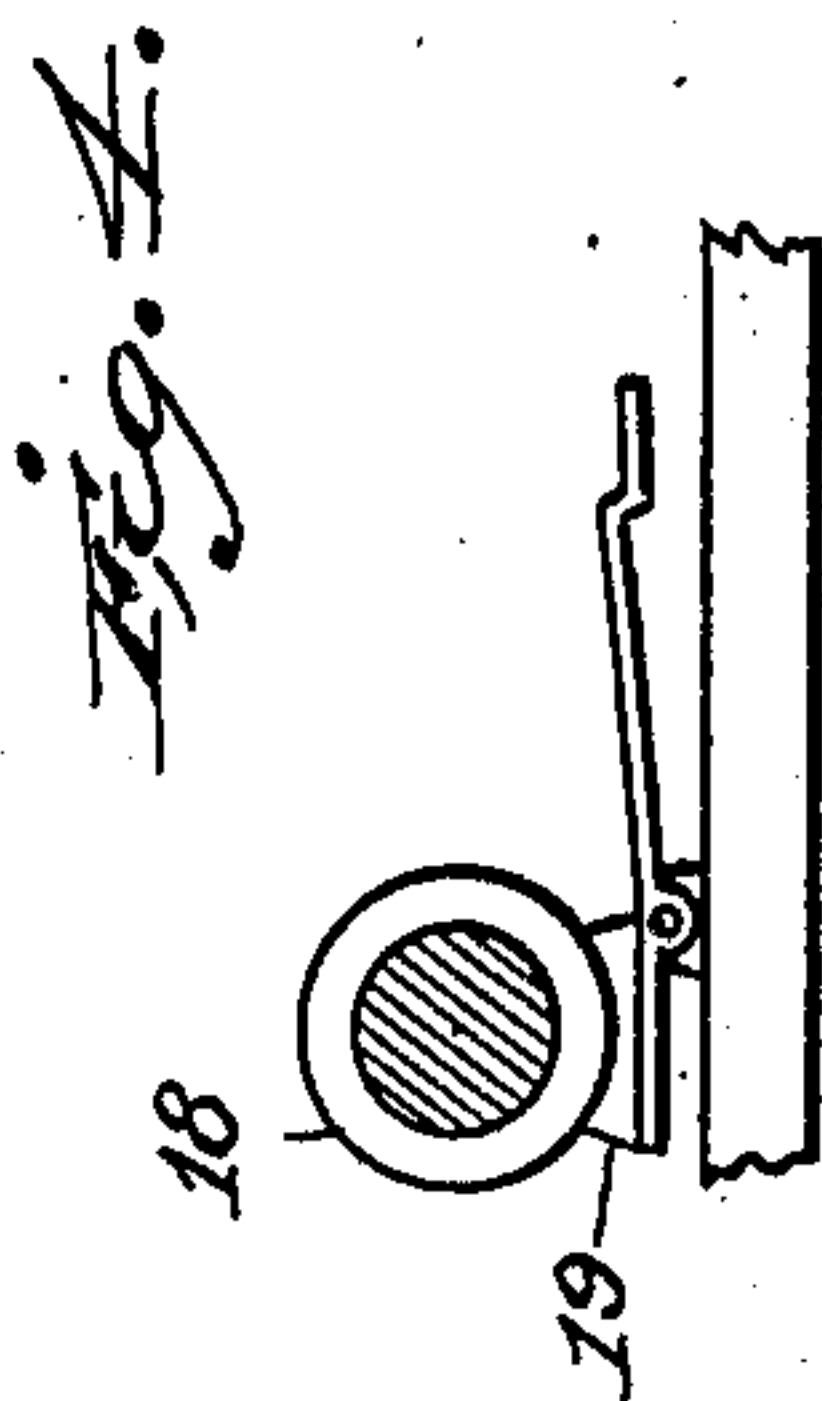
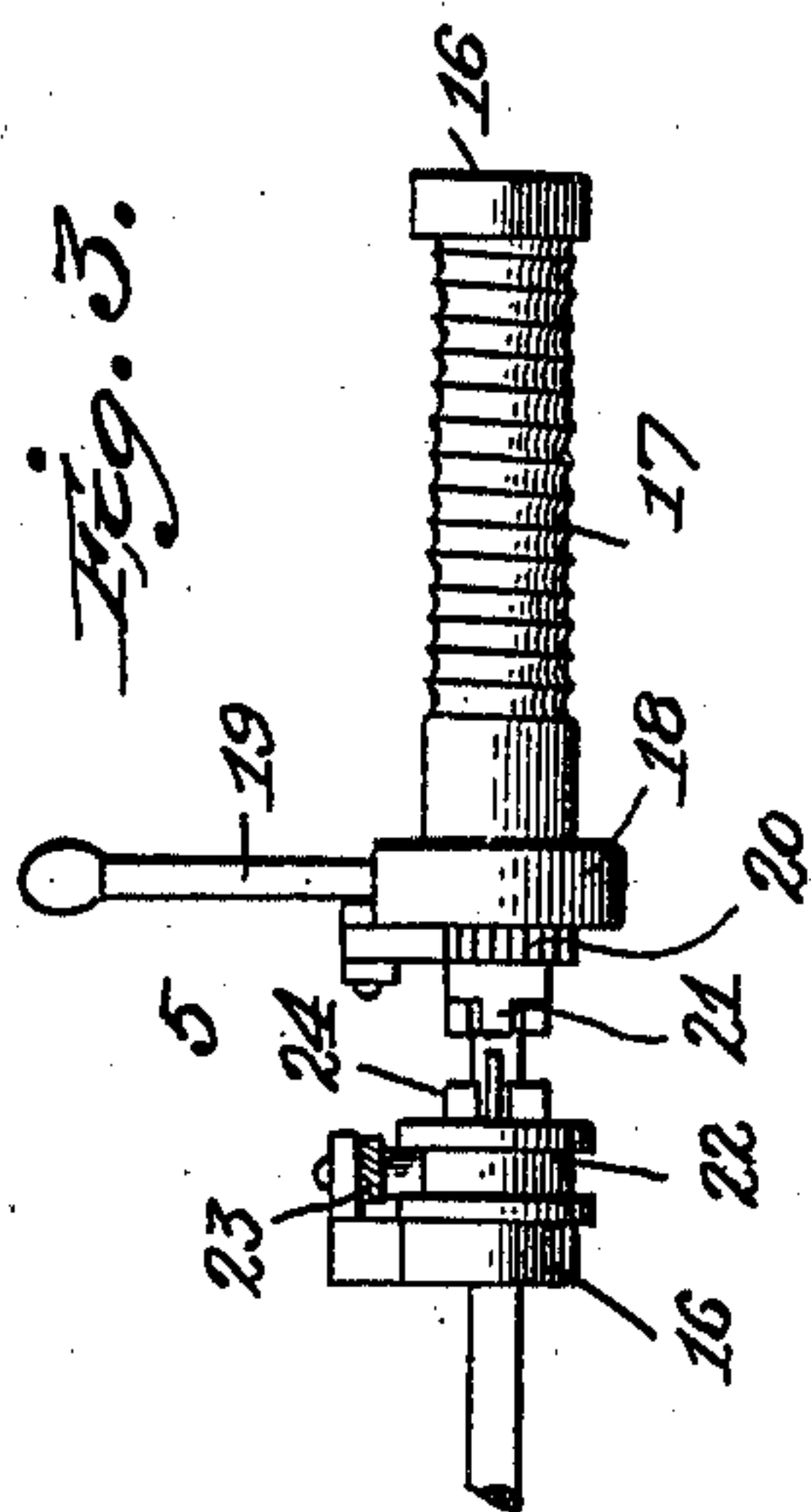
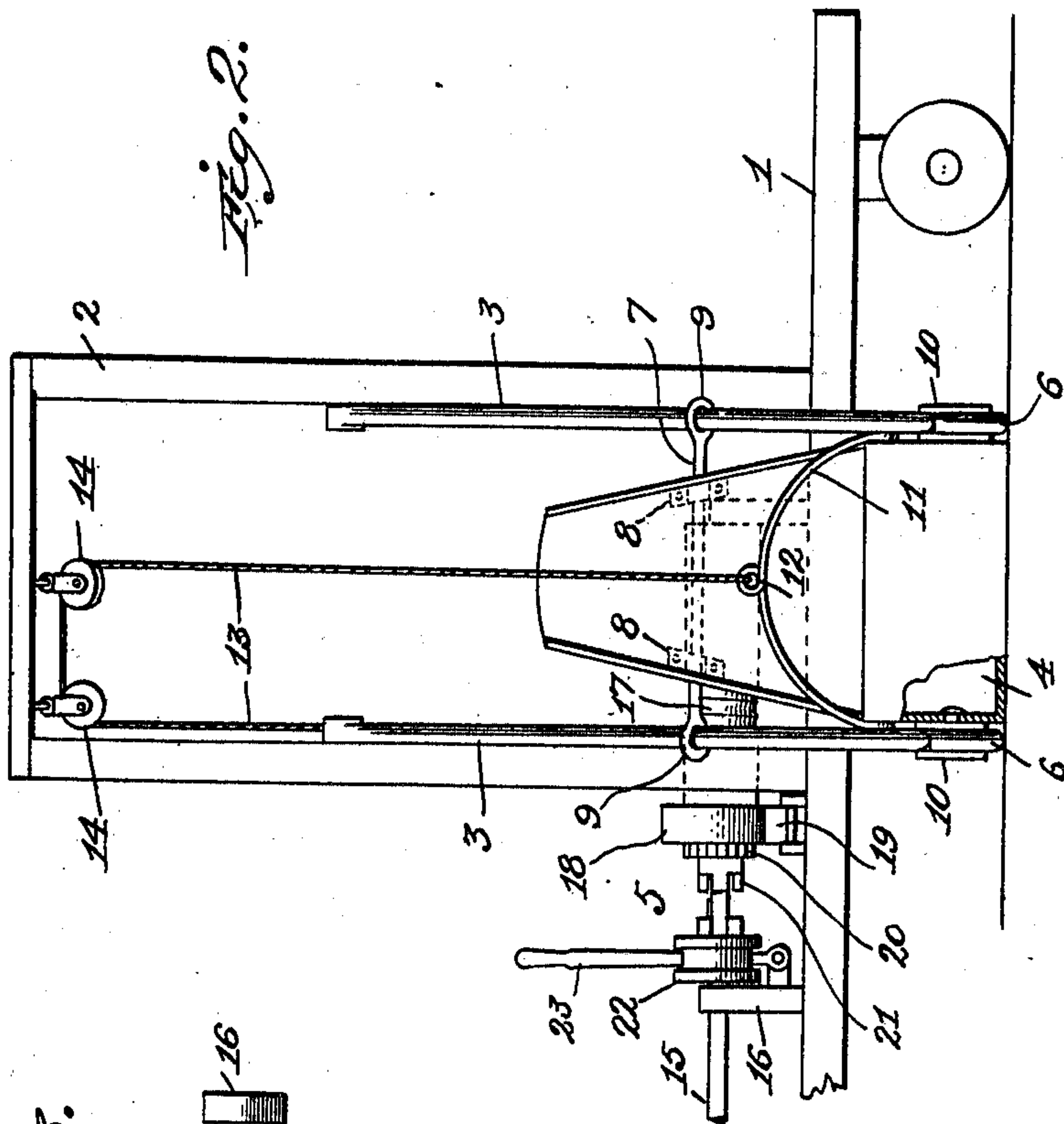
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990,194.

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2 SHEETS—SHEET 2.



Inventor

*James Dushane*

Witnesses

*E. F. Dubail*  
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# UNITED STATES PATENT OFFICE

JAMES DUSHANE, OF SOUTH BEND, INDIANA.

## LOADER FOR CONCRETE-MIXERS.

990,194.

Specification of Letters Patent.

Patented Apr. 18, 1911.

Application filed April 18, 1910. Serial No. 556,084.

*To all whom it may concern:*

Be it known that I, JAMES DUSHANE, citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Loaders for Concrete-Mixers, of which the following is a specification.

This invention relates to improvements in loaders for concrete mixers, and has for its object to provide such a device, that is effectual, easily manipulated, and simple in construction.

Another object is, to provide means whereby a loading bucket can be positively guided and automatically dumped; also to allow said bucket to rest upon the ground to be loaded, thereby obviating the necessity for loading stages.

These objects are attained by the means illustrated in the accompanying drawings, in which,

Figure 1 is a side elevation of the loader, Fig. 2 is a front view thereof, Fig. 3 is a detail plan of the hoisting mechanism, and Fig. 4 a detail sectional view showing the brake for the hoisting mechanism.

Similar numerals in the different views represent the same parts.

As shown the device is mounted upon a truck 1, and embodies a frame 2, tracks 3, bucket 4, and a hoisting and control mechanism 5. The tracks 3 are pivotally connected to the uprights of the frame, and are provided at their lower ends with curved portions 6, said pivots allowing the tracks to adjust themselves to uneven surfaces, without interfering with their use, and said curved portions forming effectual stops for the bucket 4 in its descent. Said tracks 3 form the guiding means for the bucket 4, which is supported thereon by the bar 7, pivoted in bearings 8 secured to the underside of the bucket at its upper end, and provided with eyes 9 which engage the bar, and the grooved rollers 10, which travel upon the upper side of the tracks. A bail 11 is pivoted to the sides of the bucket at its lower end, and is provided with an eye 12, to which is secured one end of a cable 13, the other end being connected to the hoisting mechanism, said cable being guided by the pulleys 14, hung from the frame 2 at its top.

The hoisting mechanism comprises a shaft

15 mounted in bearings 16, and has loosely mounted thereon a winding drum 17, a brake drum 18, adapted to be engaged by a foot brake 19, a pawl and ratchet 20, and a clutch member 21, also a sliding member 22 adapted to be shifted by a lever 23, and is keyed to the shaft and provided with a clutch member 24 to engage the member 22, the shaft to be connected to a suitable source of power.

The operation is as follows:—When the bucket is loaded, the operator shifts the sliding clutch 24 into engagement with the clutch 21, after first throwing the pawl and ratchet into operative position, this immediately causes the drum to rotate, winding the cable, thereby drawing the bucket upward along the tracks, until the eyes 9 contact with the standards of the frame 2, when the additional winding of the cable lifts the lower end of the bucket from the tracks, and causes the bucket to assume the position shown in the dotted lines in Fig. 1, or to a dumping position, when the contents are emptied into the mixer, also shown in dotted lines. After the load is dumped the brake 19 is applied, the pawl released, and the clutch is disengaged, when the bucket can be lowered by gravity through the operation of the brake.

It will be observed that the line of draft of the bucket is approximately parallel with its travel, thus applying the power in the most effective manner to lift the load; also that the bucket is under absolute control at all times, whether loaded or not; when loaded by the ratchet and pawl, and when unloaded by the brake, in fact the brake can be utilized in either condition.

Having thus fully described the invention, what is claimed is:—

1. A loader comprising an elevating bucket, a hoisting mechanism therefor, and pivoted tracks, said tracks being movable independently of each other and having their free ends held in parallel relation by the bucket.

2. A loader comprising an elevating bucket, a hoisting mechanism therefor, and pivoted tracks, said tracks being movable independently of each other and having curved lower ends.

3. A loader comprising an elevating bucket, a hoisting mechanism therefor, and pivoted tracks, said tracks being movable in-



dependently of each other and having their free ends held in parallel relation by the bucket, said bucket having one end pivoted to said tracks.

5 4. A loader comprising an elevating bucket, a hoisting mechanism therefor, and pivoted tracks, said tracks being movable independently of each other, said bucket having one end pivoted to the tracks and the  
10 other end removably supported thereon.

5. A loader comprising a frame, tracks independently movable of each other pivoted to said frame, a bucket retaining the free ends of the tracks in parallel relation,  
15 and means for elevating and dumping the bucket.

6. A loader comprising a frame, tracks independently movable of each other pivoted to said frame, a bucket, means for  
20 supporting said bucket upon the tracks, said supporting means being pivoted to the bucket retaining the tracks in parallel relation and adapted to engage the frame to

cause the bucket to dump, and means for elevating the bucket. 25

7. A loader comprising a frame, tracks independently movable of each other having one of their ends pivoted to the frame and free lower ends, a bucket pivoted to the tracks and retaining them in parallel relation, and means for elevating said bucket. 30

8. A loader comprising a frame, tracks independently movable of each other pivoted to said frame, a bucket, and means for elevating and controlling said bucket, said  
35 means embodying a power shaft, a hoisting drum, a brake, a pawl and ratchet, and a clutch for engaging and disengaging said hoisting drum and brake from the power.

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

JAMES DUSHANE.

Witnesses:

EDW. F. DUBAIL,  
LAURA A. GOWER.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."

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