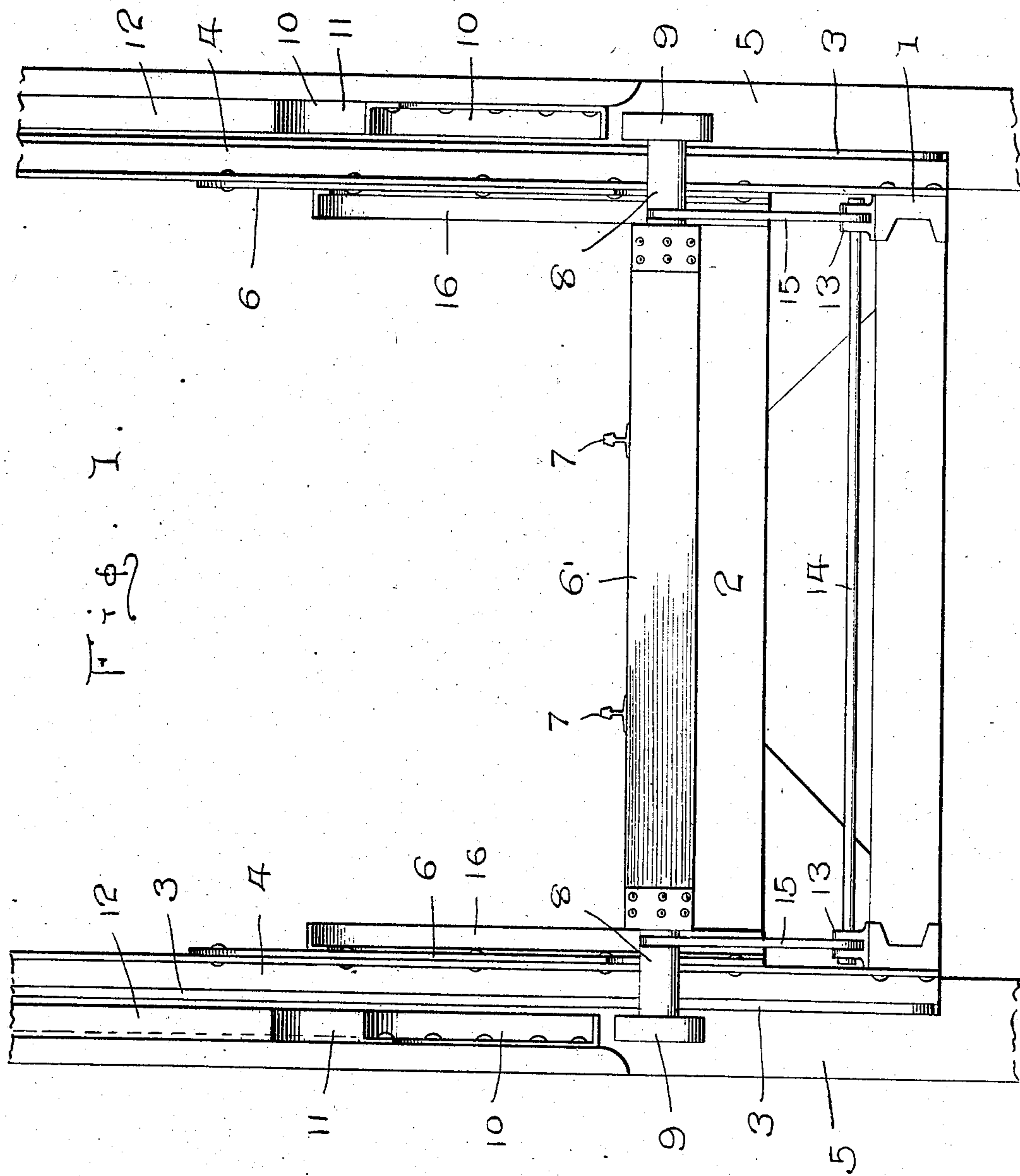


No. 894,528.

PATENTED JULY 28, 1908.

H. O. PEARCE.
COAL DUMPING CAGE.
APPLICATION FILED MAR. 17, 1908.

2 SHEETS—SHEET 1.



H. O. Pearce ^{Inventor}

^{Witnesses}
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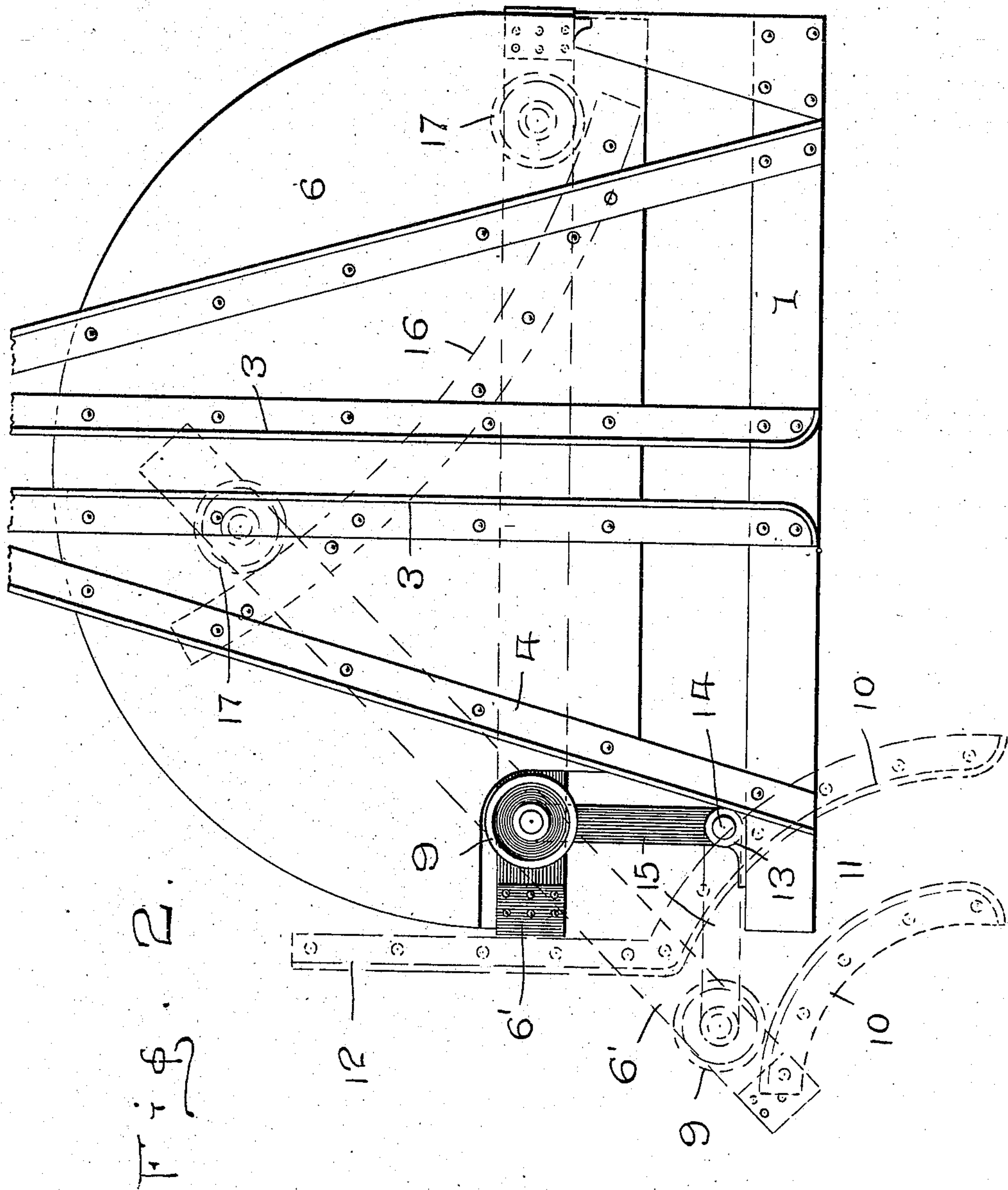
By ^{Attorneys}
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H. O. Pearce ^{Inventor}

Witnesses

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UNITED STATES PATENT OFFICE.

HARVEY O. PEARCE, OF LINTON, INDIANA.

COAL-DUMPING CAGE.

No. 894,528.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed March 17, 1908. Serial No. 421,684.

To all whom it may concern:

Be it known that I, HARVEY O. PEARCE, a citizen of the United States, residing at Linton, in the county of Greene and State of Indiana, have invented certain new and useful Improvements in Coal-Dumping Cages; and I 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 new and useful improvements in hoists and has relation more particularly to that class employed in the elevation of coal ore.

It is a primary object of the invention to provide a novel device of this character wherein a tilting platform is employed, said platform being operated automatically.

It is also an object of the invention to provide a novel device of this character whereby the load to be dumped is prevented from being discharged in bulk. This function is attained by providing novel mechanism for preventing the platform from passing its center.

Furthermore it is an object of the invention to provide a novel device of this character wherein the tilting platform is at all times trying to assume a horizontal position when moved from such position.

It is a further object of the invention to provide a novel device of this character that will be simple in construction, efficient in practice and comparatively inexpensive to manufacture.

With the above and other objects in view the invention consists of the details of construction and in the novel arrangement and combination of parts, to be hereinafter referred to.

In describing the invention in detail reference will be had to the accompanying drawings forming part of this specification wherein like characters of reference denote corresponding parts in the several views, and in which,

Figure 1 is a view in front elevation of the device. Fig. 2 is a view in side elevation of the device, the operating irons being indicated in dotted lines.

In the drawings 1 denotes the base frame of the hoisting cage which supports at its rear the auxiliary frame 2. The cage is provided on each side with the guide-bars 3 and the brace rods 4, said guide bars 3 being

adapted to straddle the runways 5 suitably positioned.

The cage is intended to be hoisted by cable or other flexible means. This arrangement, however, forms no essential feature of the invention and need not be illustrated.

Secured to the inner face of the guide bars 3 and the brace bars 4 are the protecting plates 6. Resting on the auxiliary frame 2 is the rear end portion of the tilting frame 6' which has suitably fixed thereto the rails 7 on which an ore car is moved, said car is held on the platform 6' by any suitable mechanism, any of the well known forms being employed with equal facility. The opposite end of the platform 6' has projecting therefrom at the sides, the shafts 8, on the outer ends of which are mounted the wheels 9. These wheels 9 are so positioned as to pass between the dumping irons 10 adjacent the runways 5. This manner of securing the dumping irons 10 forms no part of the present invention. These irons comprise two segmental bars spaced to form a runway 11. This arrangement is well known in the art.

The upper end of the iron 10 has a vertical extension 12, the purpose being hereinafter explained. In the front end of the frame in suitable bearings 13 is mounted a shaft 14, and this shaft 14 adjacent its end is pivotally engaged by the end portions of links 15. The opposite end portions of the links 15 are pivotally secured to the shaft 8, hereinbefore referred to. The manner of pivoting the links to the shaft 14 may be in any desired manner, but in the drawings they are shown as projecting within recesses in the bearings 13. This is done to prevent any longitudinal movement on the links 14, as is believed to be apparent.

Secured to the inner face of the edge plate 6 and inclined upwardly from adjacent the rear thereof, on an incline is an angle iron 16 forming a trackway for a wheel 17 carried at each side of the platform 6' adjacent its rear.

As the cage is elevated and reaches the dumping point the wheels 9 pass within the runway 11 and by engagement with the upper bar 10 causes the platform 6' to tilt forward, this movement of the platform being controlled by the links 15. As the platform 6' tilts forward the wheels 17 thereof engage the bars 16, and owing to the shape or curvature of the bars 16 the platform 6' is prevented from passing its center and the

ore held by a car thereon will be discharged slowly. This is of great advantage as the slow discharge permits the ore to be properly screened. It is to be further understood
5 that when the dumping position is reached by the cage a greater pull or strain on the hoisting cable is required. This obviates the possibility of the hoisting rope becoming slack.

10 Should the wheels 9 be caused to pass entirely through the runways 11 the platform 6' is held against returning to its horizontal position by the vertical extensions 12 of the upper bars 10. This arrangement
15 is of great advantage, as in practice it often happens that the cage may be elevated slightly above the dumping irons 10.

It is believed to be apparent how the platform returns it its horizontal position when
20 lowered.

What I claim is:

1. In a device of the character described, a cage having an auxiliary frame at one end, a platform resting on said auxiliary frame,
25 links pivotally secured to the cage, curved trackways carried by the sides of the cage, wheels carried by the platform to engage the trackways, and means for tilting the platform.

30 2. In a device of the character described,

a cage having an auxiliary frame at one end, a platform resting on said auxiliary frame, links pivotally secured to the cage, trackways carried by the sides of the cage, said trackways being curved upwardly, the lower
35 ends of the tracks being adjacent the end of the platform opposite to that having the links when said platform is in its normal position, wheels carried by the platform to engage the trackways and means for tilting
40 the platform.

3. In a device of the character described, a cage having an auxiliary frame at one end, a platform resting on said auxiliary frame, shafts projecting from the sides of the plat-
45 form, links pivotally engaging the cage and shafts, wheels on the shafts, curved trackways carried by the sides of the cage, wheels carried by the platform to engage the trackways and means acting in conjunction with
50 the wheels on the shafts for tilting the platform.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARVEY O. PEARCE.

Witnesses:

JESSE F. WEISMAN,
HARVEY LAUGHLIN.