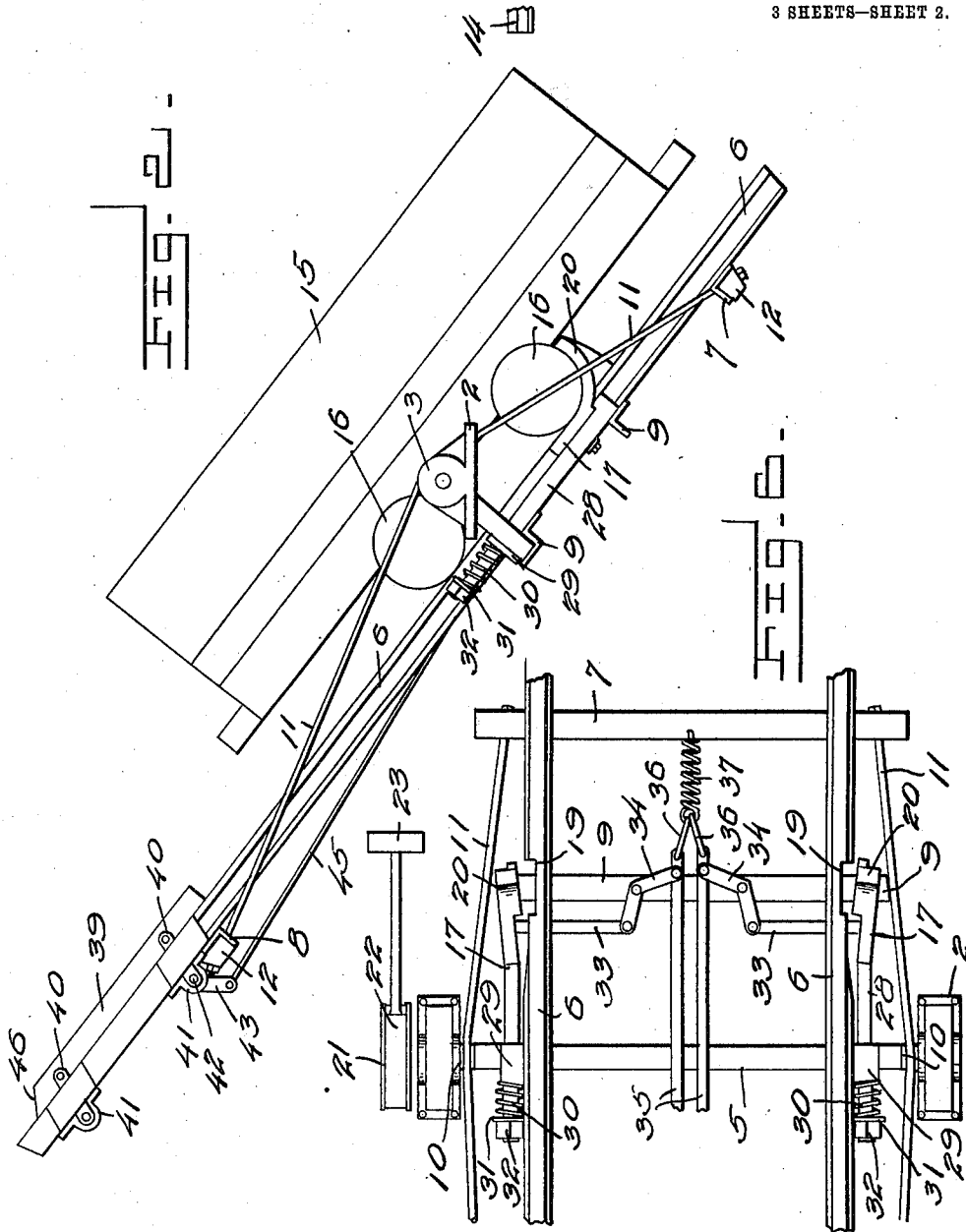


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CAR DUMPING MECHANISM.
APPLICATION FILED AUG. 14, 1911.

1,036,910.

Patented Aug. 27, 1912.

3 SHEETS—SHEET 2.



Witnesses
R. L. Cunningham
W. H. Parsons

13

Inventor
H. S. Salmon

By *Harry Eli Chandler*

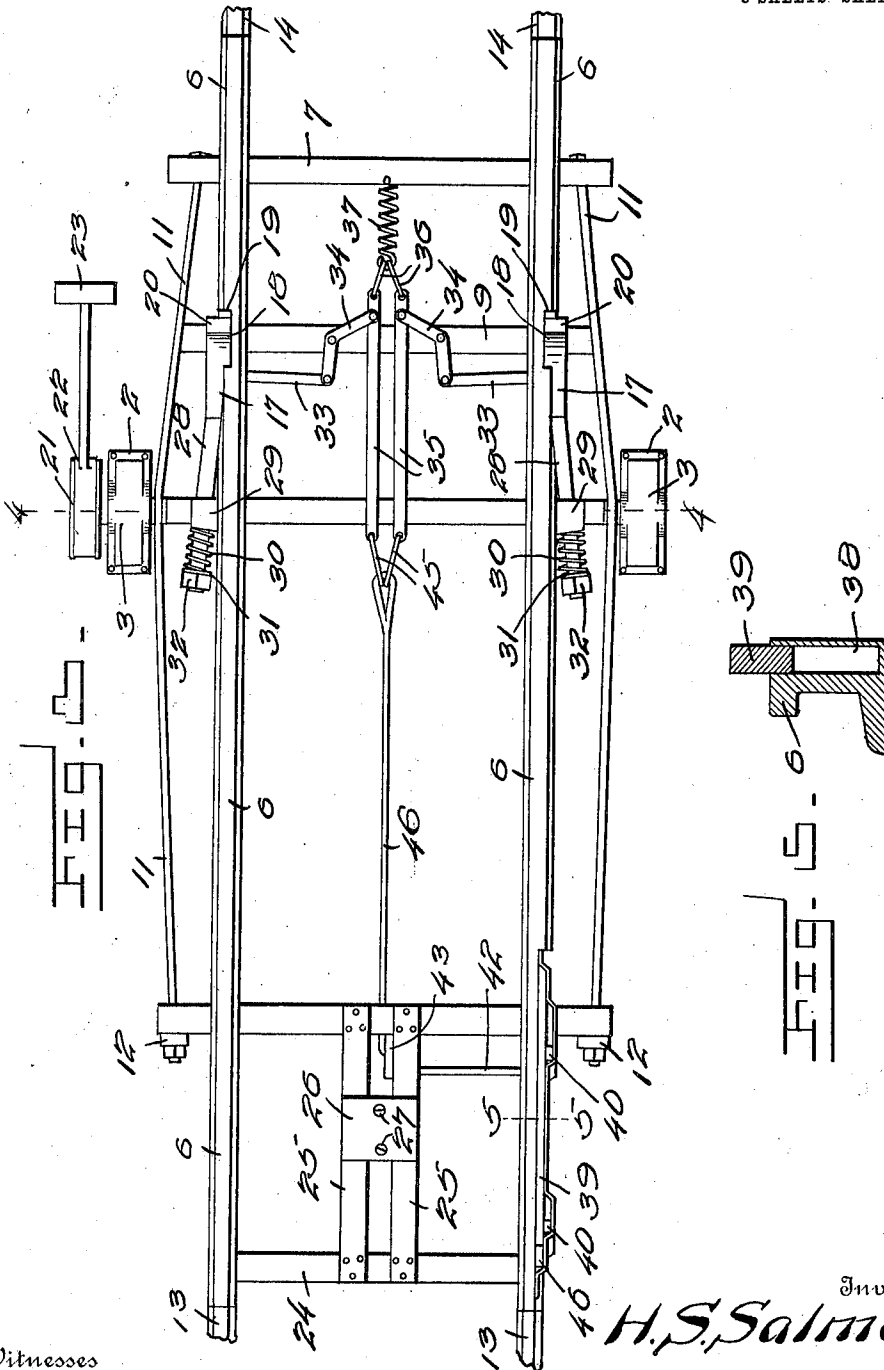
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UNITED STATES PATENT OFFICE.

HERBERT S. SALMON, OF BESSEMER, ALABAMA.

CAR-DUMPING MECHANISM.

1,036,910.

Specification of Letters Patent. Patented Aug. 27, 1912.

Application filed August 14, 1911. Serial No. 643,932.

To all whom it may concern:

Be it known that I, HERBERT S. SALMON, a citizen of the United States, residing at Bessemer, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Car-Dumping Mechanism, of which the following is a specification.

My invention relates to improvements in car dumping mechanism and has for its leading object the provision of an improved form of mechanism of this character which will satisfactorily dump a mine or other similar car and will then provide a continuous track-way to allow the car to be moved forward off of the dumping mechanism.

The further object of my invention is the provision of an improved dumping mechanism of this character which will automatically check the forward movement of the car to be dumped and will cause the weight of the car and its contents to dump the same and will further serve to limit the continued forward movement of the car until another car is in position to be run onto the dumping mechanism to discharge its contents.

Another object of my invention is the provision of improved means for controlling the operation of the dumping mechanism to lock the same in any desired position and to regulate the speed of operation thereof.

Another object of the invention is the provision of novel and improved means for utilizing the weight of a car to be dumped to withdraw the stopping or abutment horns to permit the dumped car to be moved off of the dumping mechanism.

Other objects and advantages of my improved car dumping mechanism will be readily apparent by reference to the following description taken in connection with the accompanying drawings and it will be understood that I may make any modifications in the specific structure shown and described within the scope of my claims without departing from or exceeding the spirit of my invention.

Figure 1 represents a side elevation of my improved dumping mechanism with the parts in normal position. Fig. 2 represents a similar view with the parts in dumping position. Fig. 3 represents a top plan view of the invention. Fig. 4 represents a sec-

tional view on the line 4—4 of Fig. 3. Fig. 5 represents a sectional view on the line 5—5 of Fig. 3, and Fig. 6 represents a top plan view showing the abutment horns in outwardly shifted or inoperative position.

In the drawings, in which similar characters of reference are employed to denote corresponding parts throughout the several views, the numeral 1 designates the supporting standards or trestle work having secured at the upper portion thereof the bases 2 of the bearings 3 in which are rotatably engaged the ends of the crank shaft 4 having its crank portion 5 depending between the bearings. Suitably secured upon the said crank portion 5 are the rails 6 which are connected by transverse braces 7 and 8 at their ends and by a plurality of intermediate transverse tie braces 9. To securely support the end portions of the said rails, I secure on the straight portions 4 of the crank shaft the wear blocks 10 over which pass the rods 11 having their ends adjustably secured in the blocks 12 which fit into the angles of the braces 7 and 8 and are securely held therein, the rods acting as a truss rod to hold up the ends of the rails. It will thus be seen that the rails 6 are pivotally supported by the crank shaft, while disposed in alinement with one end of the rails when the same are in normal position are the track rails 13 stationarily supported and at the other end of the rails 6 are the track rails 14 for receiving the dumped cars.

In the use of my invention the cars 15 are shifted with their wheels 16 running from the tracks 13 onto the rails 6, while to limit the movement of the wheels and check the car, I slidably mount on the brace 9 the blocks 17 having inwardly extending portions 18 fitting into the recesses 19 formed in the sides of the rails 6 and having the upwardly extending arcuate horn portions 20 which fit against the periphery of the front wheels 16 and check the movement of the said wheels. Said horns 20 are so disposed that when the wheels of the car 15 strike the horns the greater portion of the weight of the car and its load will be disposed forwardly of the bearings 3 and consequently said weight will cause the crank shaft to swing to dump the car. To enable me to readily control said dumping, I secure on one of the projecting ends of the crank shaft the brake drum 21 having fitting

therearound the brake band 22 adapted to be tightened by pressure on the foot brake lever 23, tightening of the band locking the drum and thus the crank shaft against rotational movement.

To assist the rails 6 in swinging back into alinement with the track rails 13 and 14 after the car 15 has been dumped, I secure at the extreme rear of the rails 6 the cross bar or brace 24 connected with the brace 8 by the bars 25, while slidably mounted on the said bars 25 is the counter weight 26 adapted to be secured in desired adjusted position by tightening of the set screws 27, the movement of the counter weight into various positions along the bars 25 causing the same to balance and return into position different weights of cars.

In order that I may move the car 15 forward off of the tracks 6 after said car has been dumped to make way for the next loaded car, I have provided my improved automatically operating horn controlling mechanism. The horn blocks 17 have extending rearwardly therefrom the bars 28 which pass through the bracket members 29 rising from the crank shaft, helical springs 30 being mounted on the ends of the bars and having one end bearing against the brackets and the other against the washer 31 held on the end of the bar by the nut 32, the spring tending to hold the horns within the recesses of the rails, but the brackets engaging the bars 28 sufficiently loosely to permit of lateral movement of the bars and horns. To aid in holding the horns normally inward, I secure to the base blocks 17 the links 33 having their inner ends pivoted to the bell crank levers 34 which are intermediately pivoted to the brace 9 and have their inner ends pivoted to the links 35 having their forward ends connected by the chain links 36 to the end of the helical spring 37 having its other end secured to the brace 7. Said spring draws the plate links 35 forward and thus tends to rock the bell cranks 34 to draw the links and horn bearing blocks inward. To cause the weight of a loaded car to shift the horns outward into position where they will not engage the wheels 16, I form in the end portions of one of the rails 6 the groove 38 in which is slidably held the plate 39 supported by the links 40 which are pivoted to the plate and have their lower ends pivotally secured to the depending brackets 41 carried by the rail. One of the links 40 has secured to the lower end thereof the shaft 42 which is rotatably held in the bearing brackets 41 and has depending therefrom the rock arm 43 which is connected by the rod 44 and the chain links 45 with the rear end of the

plate links 35. As a loaded car passes from the rails 13 onto the rails 6 the wheels of said car will strike the inclined end 46 of the plate 39 and will force the plate downwardly and forwardly, in the direction in which the car is traveling, thus rocking the supporting links 40 and thus the rock shaft 42. The movement of said shaft 42, will, through its arm 43, draw on the links 35 and rock the bell crank to force the horns outward into the position illustrated in Fig. 6, thus tensing the spring 37 which will reversely shift the horns and draw them inward as soon as the plate is relieved of the weight thereon.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of my improved car dumping apparatus will be readily apparent and it will be seen that I have provided a simple and efficient apparatus for this purpose which will automatically dump the various loaded cars and which will be provided with means for automatically checking the movement of the cars but for releasing the cars to allow of movement of the same off of the dumping apparatus as another car is introduced onto said apparatus.

I claim:

1. A car dumping apparatus including a pivotally supported crank shaft, rails forming a track-way secured to the crank portion of the shaft, braces connecting the rails, suspension rods passing over the ends of the crank shaft and secured to the braces for supporting the end portions of the rails, horns for limiting the movement of a car on the rails, and means for automatically moving the horns into inoperative position.

2. The combination with a supporting trestle, of bearings secured thereon, a crank shaft having its ends journaled in the bearings and its crank depending therebetween, a brake drum secured on the projecting end of the shaft, a brake band engaging the drum for controlling the rotation of the shaft, a pair of spaced rails supported by the crank of the shaft, horns for limiting the movement of a car projecting adjacent the rails for stopping a car with its weight forwardly of the bearings of the shafts, a counter weight supported by the rails for balancing the weight of an empty car, and means for automatically controlling the position of the horns.

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

HERBERT S. SALMON.

Witnesses:

R. E. HOGAN,
D. F. HARRIS.