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W. J. PATTERSON.

APPARATUS FOR MAKING UP TRAINS.

APPLICATION FILED JULY 20, 1904.

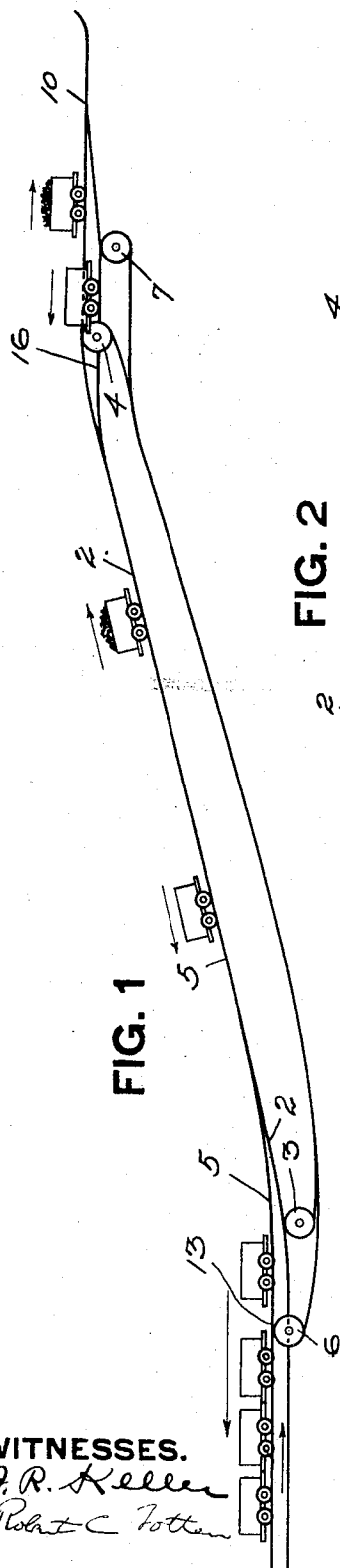


FIG. 1

FIG. 2

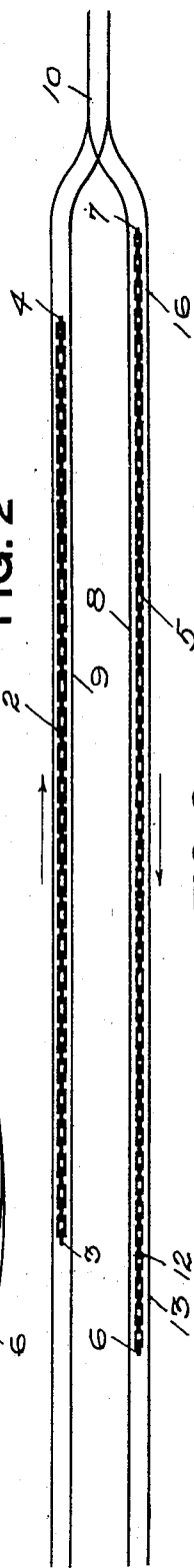
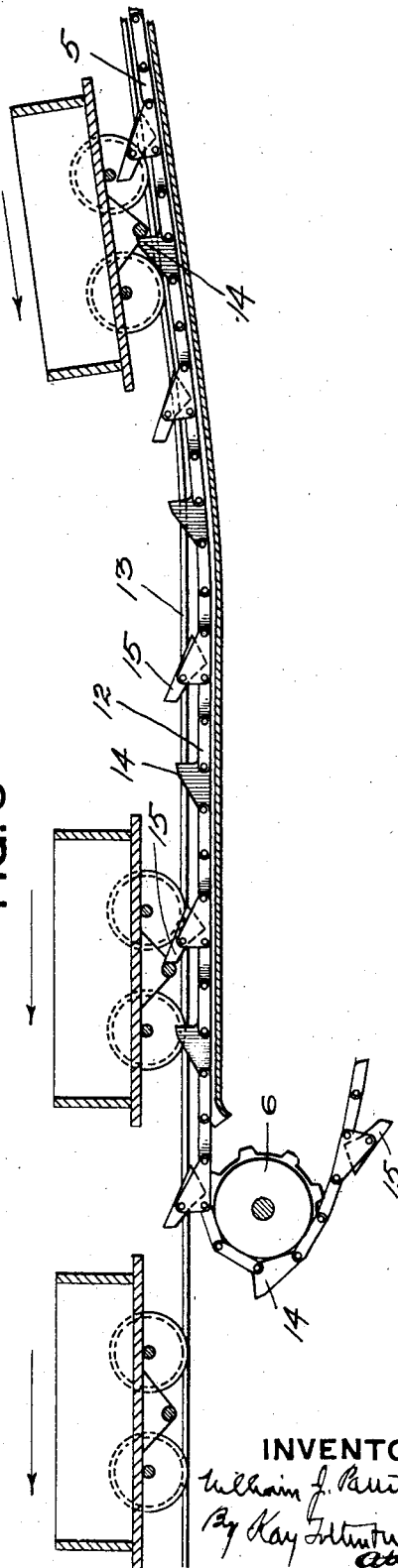


FIG. 3



WITNESSES.

J. R. Keller
Robert C. Fother

INVENTOR.

William J. Patterson
By Ray J. Patterson
Attys

UNITED STATES PATENT OFFICE.

WILLIAM J. PATTERSON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO
HEYL AND PATTERSON INCORPORATED, OF PITTSBURG, PENNSYLVANIA.

APPARATUS FOR MAKING UP TRAINS.

SPECIFICATION forming part of Letters Patent No. 783,070, dated February 21, 1905.

Application filed July 20, 1904. Serial No. 217,421.

To all whom it may concern:

Be it known that I, WILLIAM J. PATTERSON, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Making up Trains; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to car-hauls, and more especially to apparatus for making up trains of empty cars in connection with such car-hauls.

The object of my invention is to provide for the making up of trains of empty cars without the jarring and jolting of the cars, and thereby reducing the wear and tear on the same.

To these ends my invention comprises, generally stated, an inclined chain haul adapted to engage the empty cars and a substantially horizontal portion at the lower end of said chain haul, with means on said chain haul for advancing the car when it reaches such a point along a substantially level track, whereby each empty car is advanced substantially a car's length, while the whole train is advanced the same distance each time.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side view of my improved car-haul. Fig. 2 is a plan view thereof. Fig. 3 is an enlarged detail view of one end of the car-haul, showing the horizontal portion adapted to advance the empty cars along the horizontal track.

Like numerals indicate like parts in each.

In the drawings the uphaul-chain 2 passes around the wheels 3 and 4, and the downhaul-chain 5 passes around the wheels 6 and 7. These chains may be driven in any suitable manner. The track 8 is the downhaul-track and the track 9 the uphaul-track, both tracks uniting in the track 10 at the upper end of the haul. In the car-haul illustrated the loaded cars are taken up by the uphaul-chain 2, while the empty cars are taken down by the downhaul-chain 5.

At the lower end of the downhaul-chain 5

is the substantially horizontal section 12, which extends for a suitable distance parallel with the horizontal track 13.

I may employ any suitable form of a car-haul chain, that shown comprising the stationary projections 14 and the pivotal or movable projections 15. The movable projections 15 project above the stationary projections 14 and are adapted to advance the car on the short upgrade 16, while the rigid projections 14 are adapted to engage and control the car in its descent.

The empty cars after they have been unloaded are run back over the track 10 onto the downhaul-track and when they reach the downhaul-chain are first engaged by the movable projections 15 and advanced up the slight grade 16 until they begin to descend the downhaul 5. At this point the rigid projections are engaged by the cars and control their speed in descending. When the empty car reaches the horizontal portion of the chain haul, the speed of the car decreases, and the pivotal projections 15 then come into engagement with a suitable projection on the car, and said car is advanced along the horizontal track until the pivotal projection engaging therewith passes around the wheel at the bottom of the car-haul, and is thus disengaged from the empty car. The next car in its descent will be engaged in the same manner by pivotal projections at the horizontal portion of the chain and said car will be advanced sufficiently to move the car previously lowered about a car's length, the action of said chain being to advance the cars at an even positive speed along the horizontal track, so that the cars as they come down are pushed against the preceding cars without jarring or jolting, and in this manner the train is made up by advancing the cars a car's length each time until the entire train has been completed.

What I claim is—

1. In apparatus for making up trains of cars, the combination of a suitable chain haul having a main inclined portion, an inclined track corresponding thereto, means for controlling the descent of the cars by said chain

haul, a substantially horizontal portion of the lower end of said chain haul, a track portion corresponding thereto, and means for advancing said cars by said chain haul along said last-named track portion a car's length each time.

2. In apparatus for making up trains of cars, the combination of a suitable chain haul having a main inclined portion, an inclined track corresponding thereto, means for controlling the descent of the cars by said chain haul, a substantially horizontal portion at the lower end of said chain haul, a track portion corresponding thereto, and projections on said chain adapted to engage the cars when said horizontal track portion is reached.

3. In apparatus for making up trains of

cars, the combination of a suitable chain haul having a main inclined portion, an inclined track corresponding thereto, projections on the chain adapted to engage the cars and control their descent, a substantially horizontal portion at the lower end of said chain haul, a track portion corresponding thereto, and pivotal projections on said chain adapted to engage the cars at said horizontal track portion.

I testimony whereof I, the said WILLIAM J. PATTERSON, have hereunto set my hand.

WILLIAM J. PATTERSON.

Witnesses:

ROBERT C. TOTTEN,
G. C. RAYMOND.