

No. 699,023.

Patented Apr. 29, 1902.

C. L. E. SCHENK.
DOWNHAUL FOR MINES.

(Application filed Feb. 10, 1902.)

(No Model.)

FIG. 1.

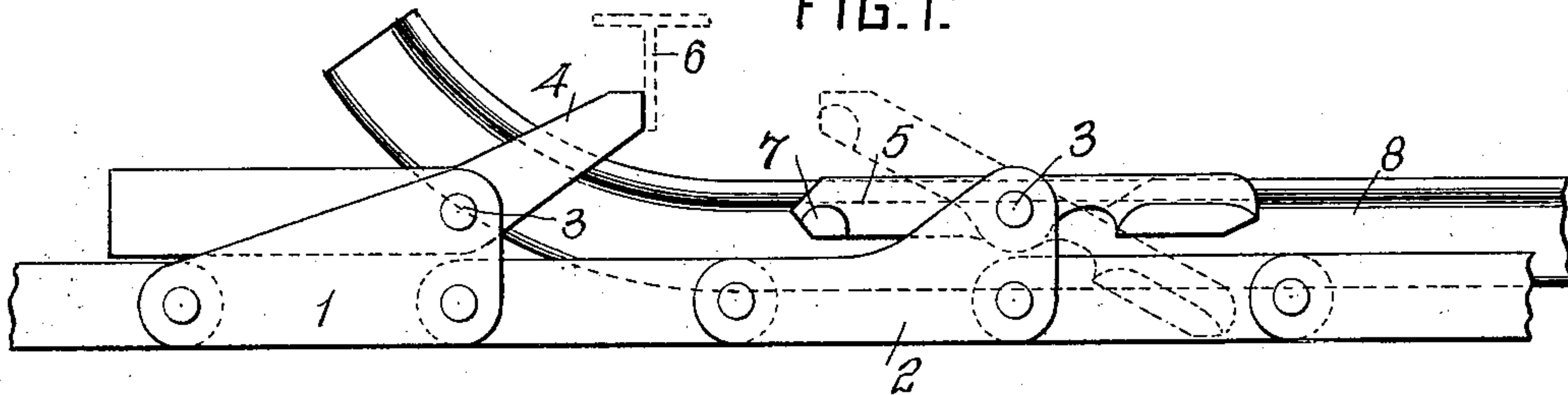


FIG. 2.

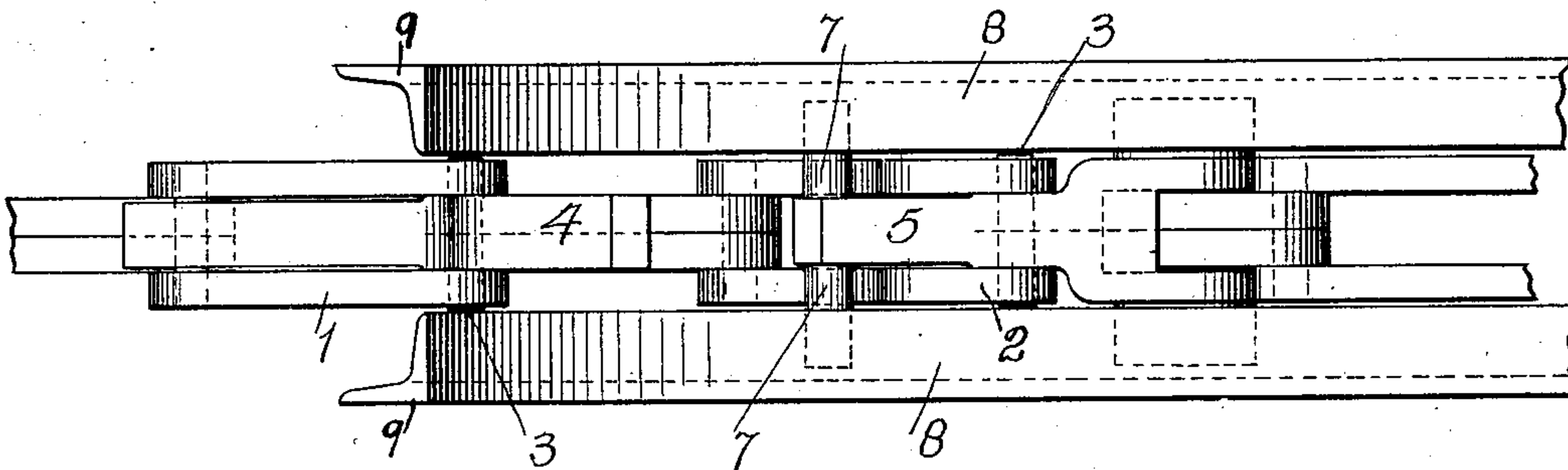


FIG. 3.

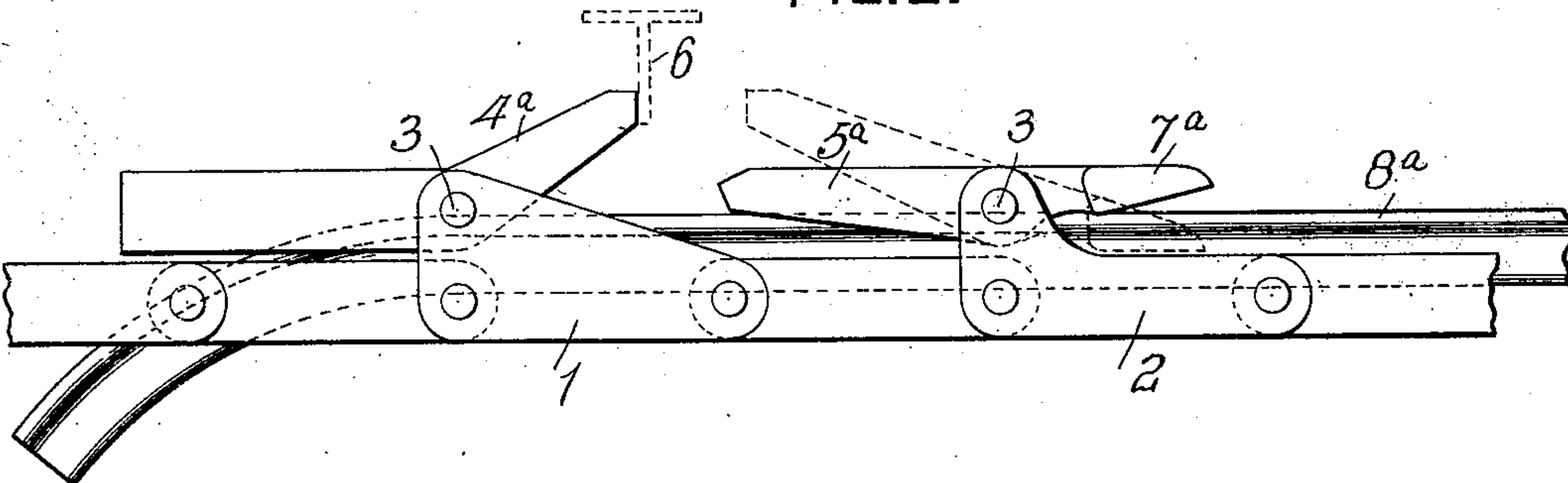
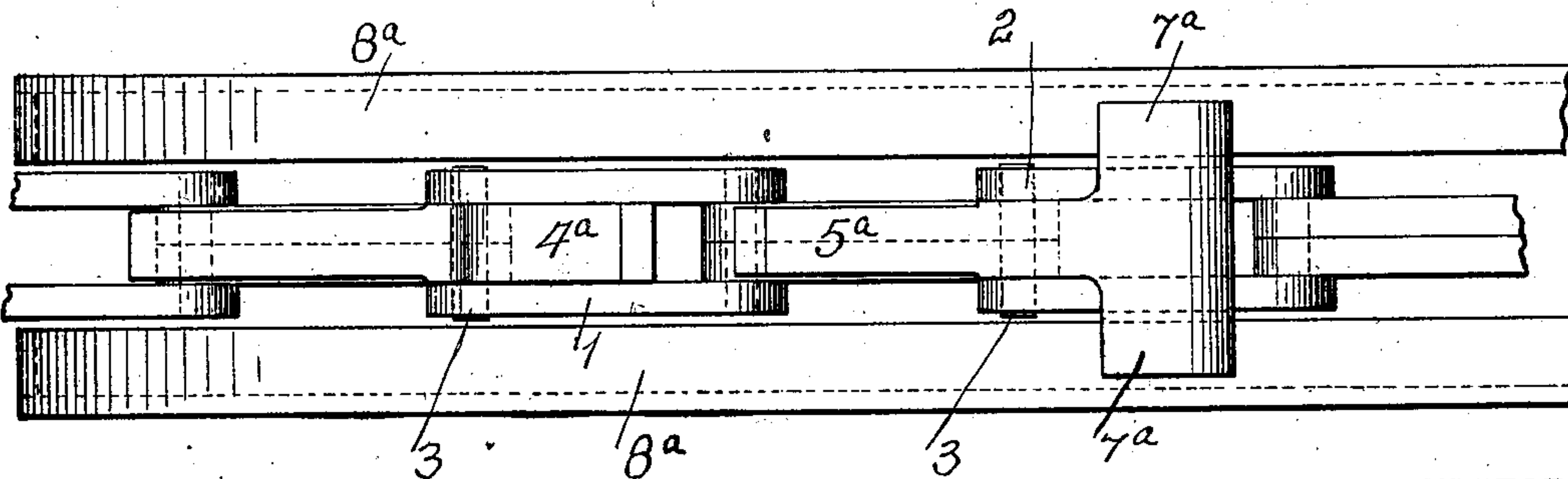


FIG. 4.



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UNITED STATES PATENT OFFICE.

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DOWNHAUL FOR MINES.

SPECIFICATION forming part of Letters Patent No. 699,023, dated April 29, 1902.

Application filed February 10, 1902. Serial No. 93,438. (No model.)

To all whom it may concern:

Be it known that I, CARL L. E. SCHENK, a citizen of the United States, residing at Walkers Mills, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Downhauls for Mines, of which improvements the following is a specification.

The invention described herein relates to certain improvements in downhaul-chains for cars, and has for its construction certain improvements in the mechanisms employed for detachably connecting the cars to the downhaul-chain.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of a portion of a downhaul-chain having my improvement applied thereto. Fig. 2 is a top plan view of the same. Figs. 3 and 4 are views similar to Figs. 1 and 2, illustrating a modification of the improvement.

In the practice of my invention the chain is constructed in the usual or any suitable manner except as regards the links, to which the connecting devices are attached. These links 1 and 2 are, as shown in Figs. 1 and 3, formed with vertical extensions at or near one end of the links, such extended portions forming bearings for the pivot-pins 3 of the dogs 4 and 5. In the construction shown in Figs. 1 and 2 these dogs have their outer ends weighted, so as to throw the inner ends upward to engage the opposite sides of a flange projection 6 on the bottoms of the cars. By reference to Fig. 2 it will be seen that the inner end of the dog 5 is provided with lateral projections 7, which in the movement of the chain along the storage portion of the track will pass under plates 8, preferably formed by flanges of angle-pieces 9, secured to the ties of the track inside of or between the rails. These depressing-plates serve to hold the rear or inner end of the front dog down, so that they may run freely from the kick-back of track onto the storage-track. The front portions of these depressing flanges or plates are curved upwardly, so that the lateral projections on the dog will be caused to pass under the plates and held in such position until re-

leased by the passage of the projections from the ends of the plates.

In the practice of my invention the depressing flanges or plates 8 are arranged along the storage portion of the track, and as the cars run down onto such track they will be checked by the ordinary form of track-brake and remain in such position until the flange or projection 6 on the cars is caught by the rear dog and the cars pushed forward along the storage portion of the track. As the car passes along the storage portion of the track the front dog 5 will be released, so that its rear end will be lifted by the weight into position in front of the flange or projection 6 on the car.

The construction shown in Figs. 3 and 4 is similar to that shown in Figs. 1 and 2, excepting that the rear end of the dog 5^a is depressed by lateral extensions 7^a on the front end of the dog riding upon plates or flanges 8^a, arranged between the tracks. This lateral extension at the front end of the dog 5 forms a weight for lifting the rear end of such dog into operative position when the extensions 7^a pass off the plates or flanges 8^a.

It will be observed that the construction and arrangement of the dogs are such as not to require any material change in any of the links and that the vertical extensions on the links 1 and 2 will not require any change in the sprocket-wheels now employed for driving the chain.

I claim herein as my invention—

A downhaul having in combination of a chain pairs of oppositely-swinging dogs pivotally mounted on the chain and provided with weights for holding the adjacent or inner ends of each pair in operative position, a depressing-plate arranged parallel with the line of movement of the chain, and a lateral extension from the front dog of each pair adapted to engage and be shifted by said plate, substantially as set forth.

In testimony whereof I have hereunto set my hand.

CARL L. E. SCHENK.

Witnesses:

DARWIN S. WOLCOTT,
F. E. GAITHER.