L. KOSELAK.

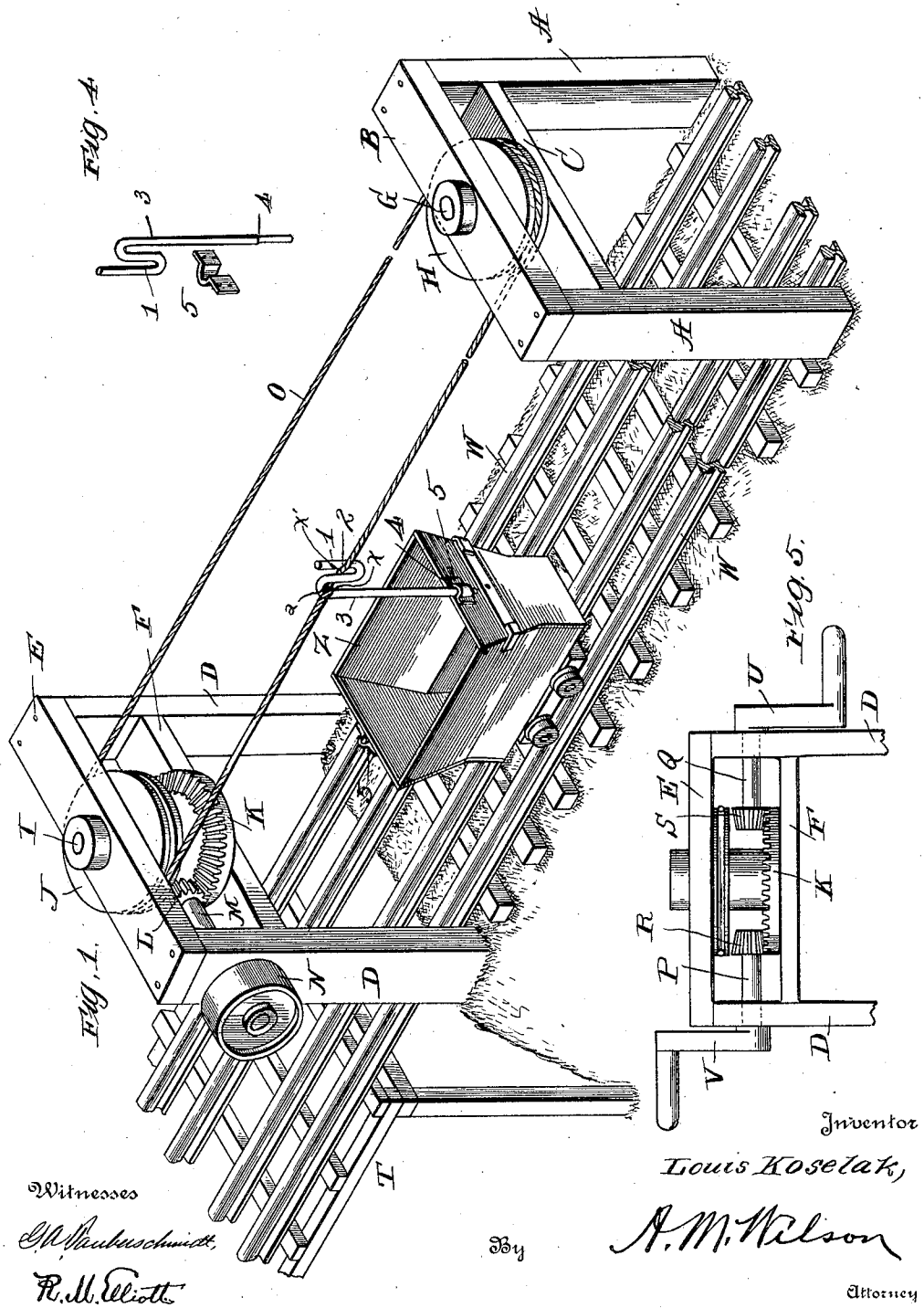
HAULAGE DEVICE FOR MINE CARS.

APPLICATION FILED OCT. 29, 1913.

1,101,635.

Patented June 30, 1914.

2 SHEETS—SHEET 1.



COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

L. KOSELAK.

HAULAGE DEVICE FOR MINE CARS.

APPLICATION FILED OCT. 29, 1913.

1,101,635.

Patented June 30, 1914.

2 SHEETS—SHEET 2.

Fig. 2.

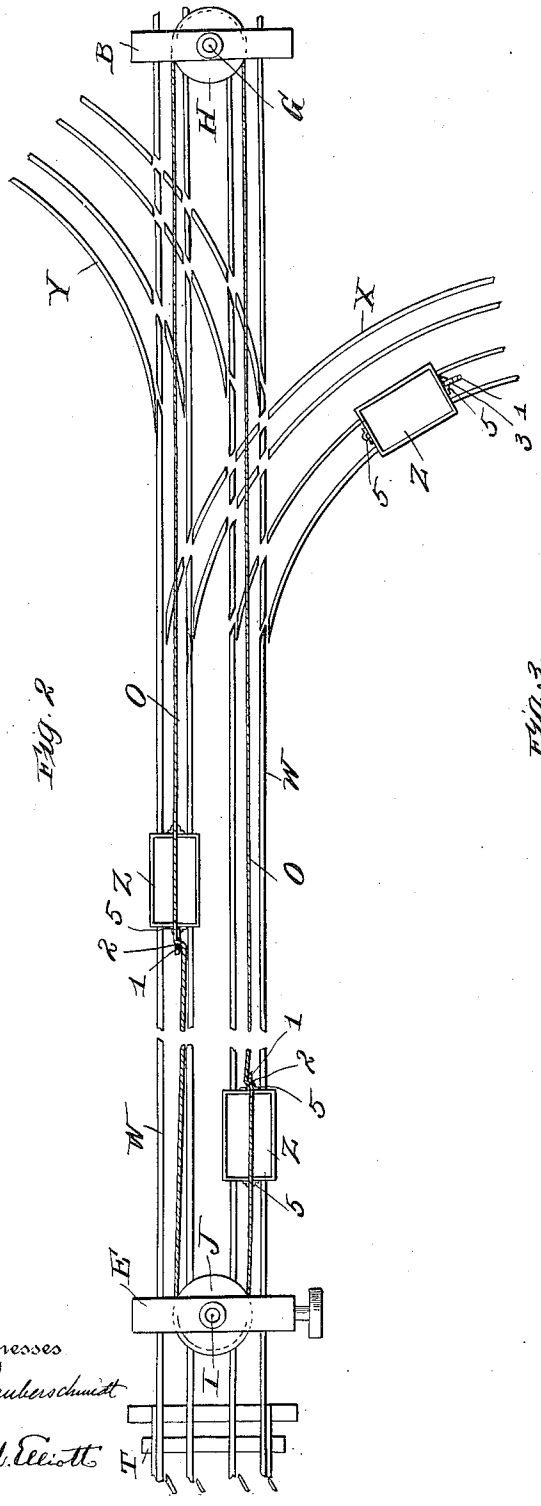
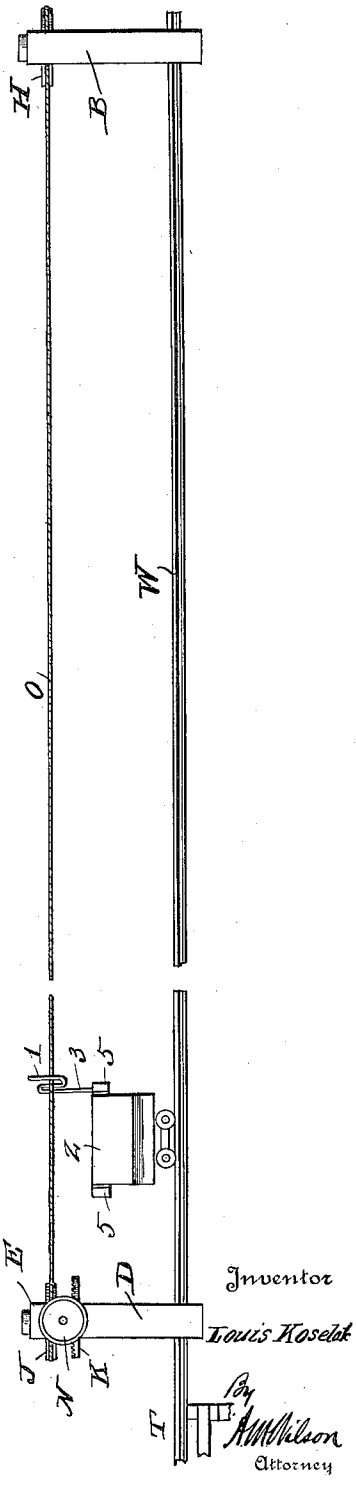


Fig. 3.



Witnesses

G. A. Sauberschmidt

R. M. Elliott

Inventor

Louis Koselak

By R. M. Wilson

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LOUIS KOSELAK, OF PRICEDALE, PENNSYLVANIA.

HAULAGE DEVICE FOR MINE-CARS.

1,101,635. Specification of Letters Patent. Patented June 30, 1914.

Application filed October 29, 1913. Serial No. 797,959.

To all whom it may concern:

Be it known that I, LOUIS KOSELAK, a subject of the King of Hungary, residing at Pricedale, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Haulage Devices for Mine-Cars, of which the following is a specification.

This invention relates to haulage devices for mine cars.

The object of the invention is to provide a simple and effective haulage mechanism whereby cars may be readily drawn from the mouth of the mine and conveyed to the tipple, where the load is discharged and the empty cars returned to the mine.

The invention resides, more particularly, in a novel form of cable grip for detachably-connecting the car with the propelling cable, the grip being of such construction as to permit of its being readily brought into operative engagement with the cable, and as readily connected with the car at either end, so that as the endless cable is propelled, cars may be moving constantly toward the tipple and toward the mine mouth.

With the above and other objects in view as will appear as the nature of the invention is better understood, the same consists in the novel construction and arrangement of parts of a haulage device for mine cars as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts: Figure 1 is a perspective view displaying the device as it appears when ready for operation. Fig. 2 is a top plan view, somewhat in the nature of a diagram, showing the arrangement of tracks leading from the mine mouth to the tipple, and also the position of the haulage device relatively to the tracks. Fig. 3 is a view in side elevation of the arrangement shown in Fig. 2. Fig. 4 is a perspective detail view showing the novel form of cable grip employed in conjunction with the invention. Fig. 5 is a fragmentary detail view showing a modified form of cable propelling mechanism.

In carrying the invention into effect, there is arranged adjacent to the mouth of the mine and the tipple T, a frame work, that disposes adjacent to the mouth of the mine comprising two vertical uprights A, and two cross-beams B and C, that arranged adjacent to the tipple being similarly constructed and comprising two vertical uprights D and two cross-beams E and F. Journaled in suitable bearings arranged in the cross-beams B and C is a shaft G carrying a grooved sheave H, and journaled in suitable bearings in the cross-beams E and F is a shaft I carrying a grooved sheave J and a gear wheel K, the latter being engaged by a pinion L mounted upon the inner end of a shaft M that is journaled within one of the uprights B and projects beyond the same and carries on its outer end a pulley N which may be connected with any suitable source of power not shown to drive the shaft M mechanically, and through the motion transmitted to the gear K to rotate the sheave J, this motion being transmitted to the sheave H through an endless cable O. While it will generally be preferred to drive the shaft M by mechanical power, as shown in Fig. 5, two shafts P and Q may be journaled in the uprights D, each of which carries at its inner end a pinion R and S respectively, which mesh with the gear wheel K, each of the shafts carrying on its outer end a crank U and V respectively, and by this arrangement the gear may be actuated by hand to drive the cable.

As shown in Fig. 2, the tracks W leading from the mouth of the mine to the tipple are provided with side switches X and Y so as to adapt the apparatus to operate in several mine mouths with the same facility as it would operate in conjunction with a single one.

The essential feature of the present invention resides in the novel form of cable grip for connecting the mine cars Z with the cable, and as the cars may be of any usual preferred construction, a detailed description thereof is omitted. The grip as shown in detail in Fig. 4, consists of a bar of metal that is bent downward adjacent to its upper end to provide a seat *a* and then upward to provide crotch 1 that is designed to receive the cable as clearly shown in Fig. 1, and impart a kink 2 thereto which will be thoroughly effective in holding the grip combined with the cable without slippage between the parts. The lower end of the shank 3 of the grip is reduced to provide a shoulder 4, and this lat-

ter is designed to rest upon a keeper 5 secured to the end wall of the car, there being one at each end of the car to permit of the grip being transferred from end to end thereof. The relative positions of the bent seat —*a*— and crotch —*l*— are such that the cable O extends within both the seat and crotch and the bending of the cable is effected by binding it between the opposing vertical walls *x*, *x'*.

In the operation of the device let it be assumed that a car has been loaded at the mine and is to be transferred to the tracks W for transportation to the tipple. Whether the car be upon one of the sidings, or upon the straight section of the track is immaterial, the only requisite being to propel the car manually from the mine mouth to a point in advance of the frame work adjacent to the mine mouth so as to permit the operator to bring the grip into engagement with the cable and seat its lower end in the keeper 5 at the forward end of the car, thus kinking the cable in the manner described to obtain an effective frictional contact between the grip and the cable. The mechanism for driving the cable is now set in motion, and as soon as the car approaches within a certain distance of the framework at the tipple of the mine, the operator lifts the grip out of engagement with the keeper and thus disconnects the car from the cable. The car in now propelled manually or otherwise to the tipple, where its contents are discharged, and is then switched on to the return tracks, and in a like manner the grip is again brought into engagement with the cable, but is combined with the keeper at the opposite end of the car.

It will be seen from the foregoing description that although the structure herein described is exceedingly simple in construction, it will be thoroughly efficient for the purposes designed and may be readily combined with an ordinary mine dump car without requiring any alteration whatever in the structure other than to provide at each end the keepers 5.

What I claim as new is:—

1. The combination with a mine car provided with a keeper at each end, of an endless cable, means for driving the cable, and a grip comprising a bar bent downward to provide a seat and then upward to provide a crotched member and two opposing vertically-disposed surfaces between which the cable is bent, said grip being detachable from said keepers to release the car from the cable.

2. An apparatus of the character described, comprising an endless cable, means for driving the same, a car having at each end a keeper, and a cable grip bent to form a seat and a crotched member to receive and impart a kink to the cable, the lower end of the grip being reduced to provide a shoulder for limiting the insertion of the shank of the grip within either of the keepers.

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

LOUIS KOSELAK.

Witnesses:
JOHN MILIALY,
JOHN SIMKO.

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