

C. M. DIBLER.

MINING CAR.

APPLICATION FILED DEC. 17, 1908.

920,033.

Patented Apr. 27, 1909.

Fig. 1.

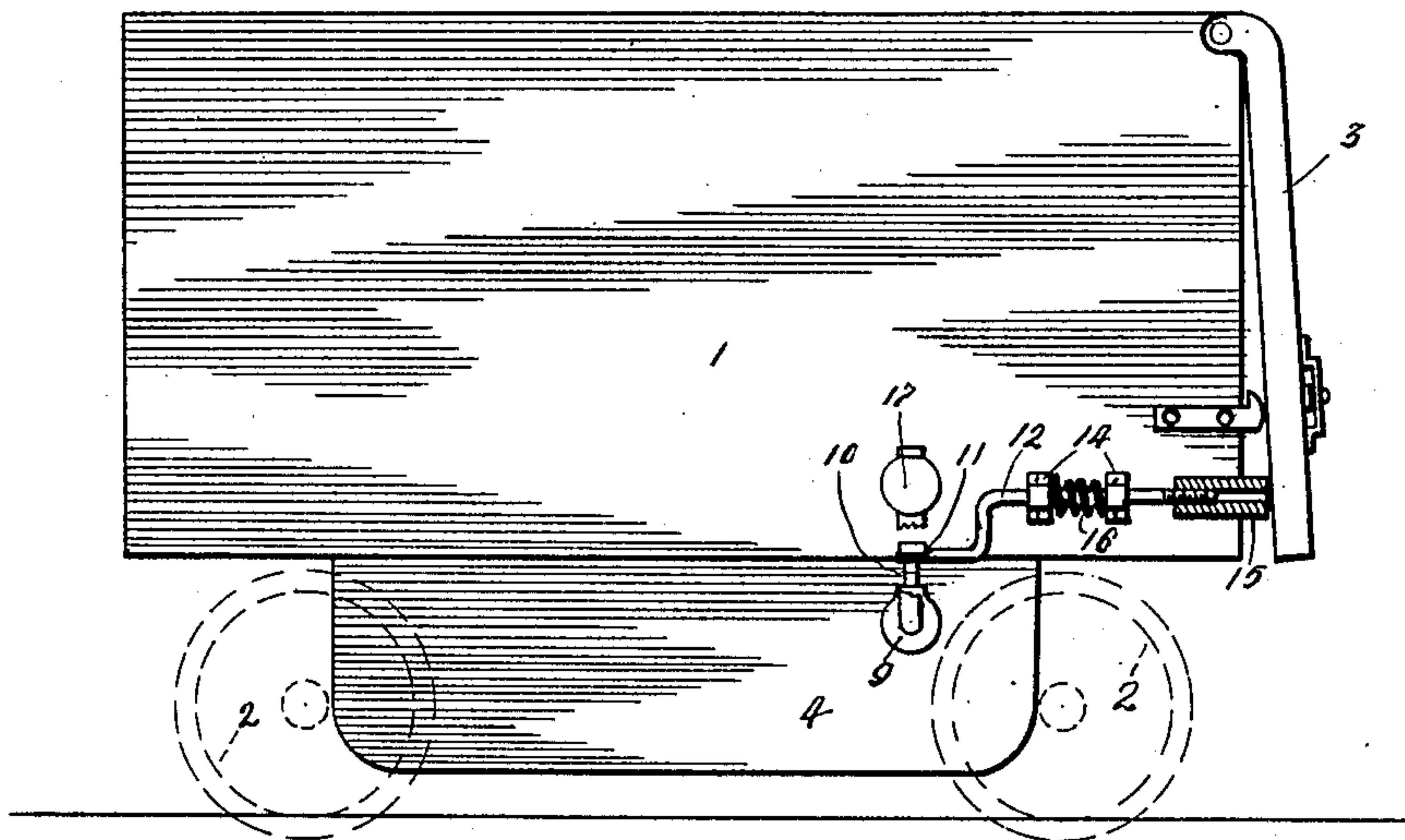
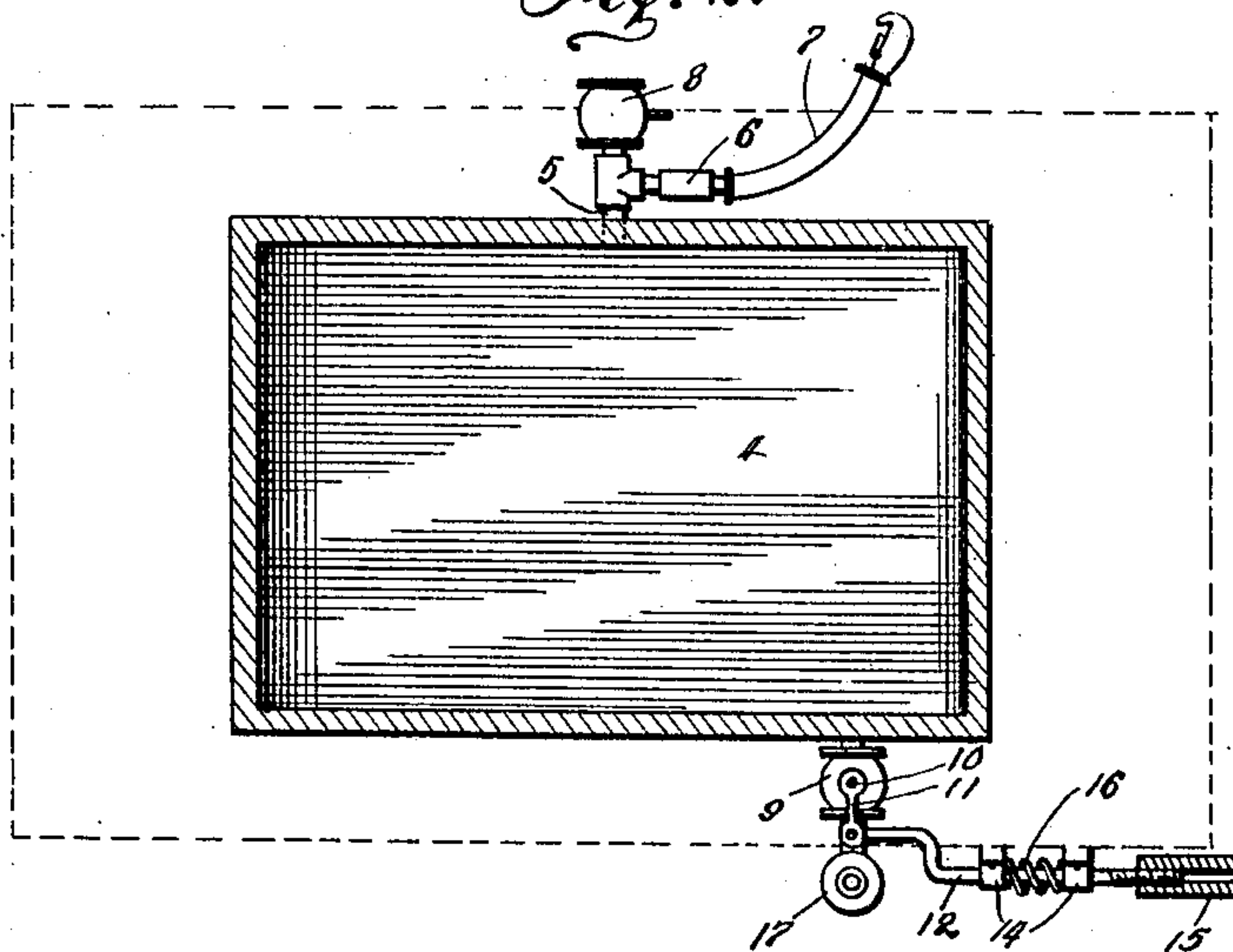


Fig. 2.



Inventor

Clayton M. Dibler.

Witnesses

G. L. Farrington.
A. H. Butler

By

H. C. Everett & Co.

Attorneys

UNITED STATES PATENT OFFICE.

CLAYTON M. DIBLER, OF JEANNETTE, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO WILLIAM RUWCIO AND JOSEPH TORCO, OF WEST NEWTON, PENNSYLVANIA.

MINING-CAR.

No. 920,033.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed December 17, 1908. Serial No. 467,935.

To all whom it may concern:

Be it known that I, CLAYTON M. DIBLER, a citizen of the United States of America, residing at Jeannette, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Mining-Cars, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to mining cars, and the invention has for its object to provide a car with novel means for conveying a quantity of fresh air into the galleries and pits of a mine, whereby the workmen or miners employed within the mine can be furnished with fresh air, instead of entirely inhaling the gases and impure air of a mine. To this end, I provide a mining or pit car with an air reservoir or tank, which is charged each time the car is unloaded. In connection with the tank I use a safety valve and an automatically actuated discharge valve, the valve being operated when the gate of the pit car is closed at the mining or excavating point of a mine.

The detail construction entering into my invention will be hereinafter more fully described and then specifically pointed out in the appended claims, and referring to the drawing forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of a car constructed in accordance with my invention, and Fig. 2 is a horizontal sectional view of the tank carried by a car.

In the accompanying drawing, I have illustrated a mining or pit car 1 supported upon a conventional form of truck 2. The car 1 is provided with a pivoted end gate 3, whereby when the car is placed upon a tippie coal can be discharged from the end of the car.

My invention resides in mounting beneath the car 1 upon the truck 2 an air tank 4, which is substantially rectangular in cross section. The tank can be suspended from the car body or from the truck, and is made air tight and as large as possible, whereby a large quantity of air can be stored or compressed within the tank. One side of the tank is provided with an inlet pipe 5 having a conventional form of check valve 6, and hose connection 7, whereby when the car reaches

a tippie it can be charged with air, the air being retained within the tank 4 by the check valve 6. I provide the pipe 5 with a safety valve 8, said valve discharging air from the tank, when the contents of the same has been subjected to a predetermined pressure.

In order to discharge the air within the mine, when the car has reached its destination, I provide the side of the tank opposite the inlet pipe 5 with a discharge valve 9, the valve stem 10 of said valve being provided with a crank arm 11, the end of said arm being connected to an actuating rod 12 slidably mounted in brackets 14, carried by the side of the car 1. The end of the actuating rod 12 is provided with an adjustable sleeve 15, this sleeve being adjusted to engage the gate 3. Upon the rod 12 between the brackets 14 is mounted a coiled spring 16, said spring being connected to said rod and employed for holding the sleeve 15 normally in engagement with the gate 3. In connection with the discharge valve 9, I employ a sound deadener 17 of a conventional form, to prevent the escaping air from making a noise within the mine.

It is the common practice, after discharging the contents of a car at a tippie, to allow the gate 3 to remain open until the car reaches its destination within a mine, and when the gate 3 is in an open position, the spring 16 normally maintains the discharge valve 9 in a closed position, whereby the tank 4 at the tippie can be charged with air. After the car has reached its destination within the mine, and the miner closes the gate 3, the actuating rod 12 will open the discharge valve 9 allowing the compressed air within the tank 4 to gradually escape into the mine through the sound deadener 17.

It will be seen that my invention aims to improve the atmospheric conditions within a mine and provide better ventilation for workmen engaged in quarrying minerals.

My invention is extremely simple in construction, and ordinary mine cars can be easily and quickly equipped with an air tank.

Having now described my invention what I claim as new, is:—

1. The combination with a mining car having a hinged end gate, of an air tank mounted beneath said car, an air inlet pipe carried by said tank and having a check valve, a safety valve carried by said pipes, a dis-

charge valve carried by said tank and having a spring held actuating rod, and a sleeve adjustably mounted upon the end of said rod for engaging said gate.

- 5 2. The combination with a mining car having a hinged gate, of an air tank located beneath said car, an inlet pipe carried by said tank, a safety valve carried by said pipe, a discharge valve carried by said tank, a
10 valve actuating rod movably mounted upon said car, an adjustable sleeve carried by said rod for engaging said gate, and means to normally maintain said valve in a closed position.
- 15 3. The combination with a mining car having a hinged gate, of an air tank carried by said car and having an inlet pipe, a dis-

charge valve carried by said tank, means to normally hold said valve in a closed position, and means actuated by said gate to open said 20 valve.

4. The combination with a car provided with a hinged end gate, of an air tank carried by said car and having an air inlet, and means carried by the car and automatically 25 operated by the closing of said end gate to permit the escape of air from said tank.

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

CLAYTON M. DIBLER.

Witnesses:

MAX H. SROLOVITZ,
K. H. BUTLER.