

E. S. GARDNER.

Railroad Track.

No. 19,736.

Patented March 23, 1858.

Fig. 1.

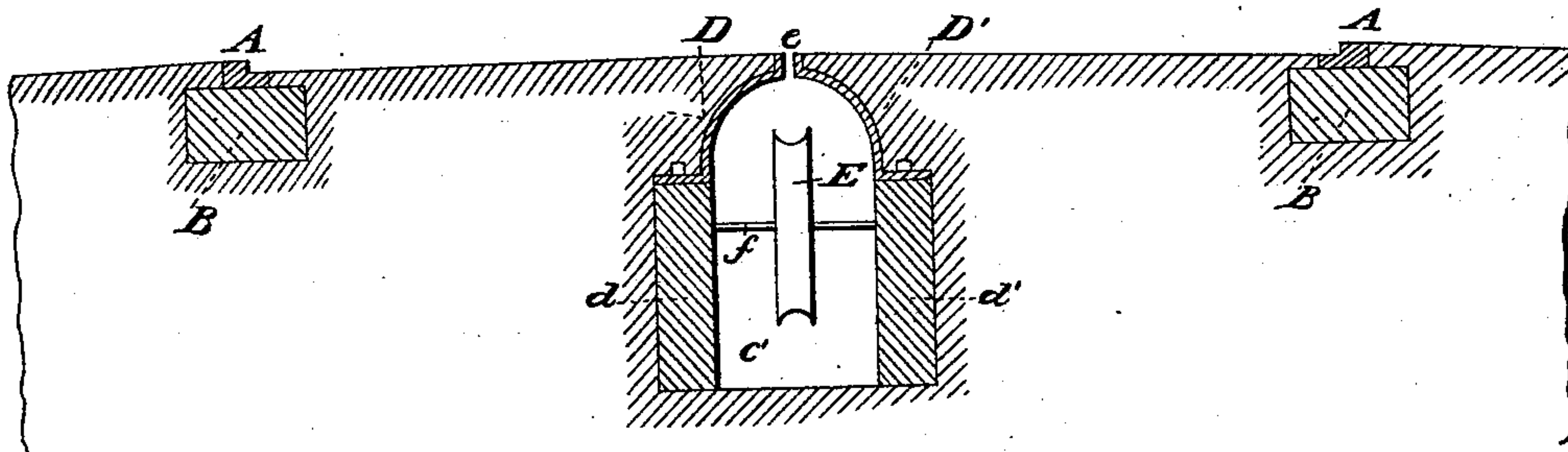
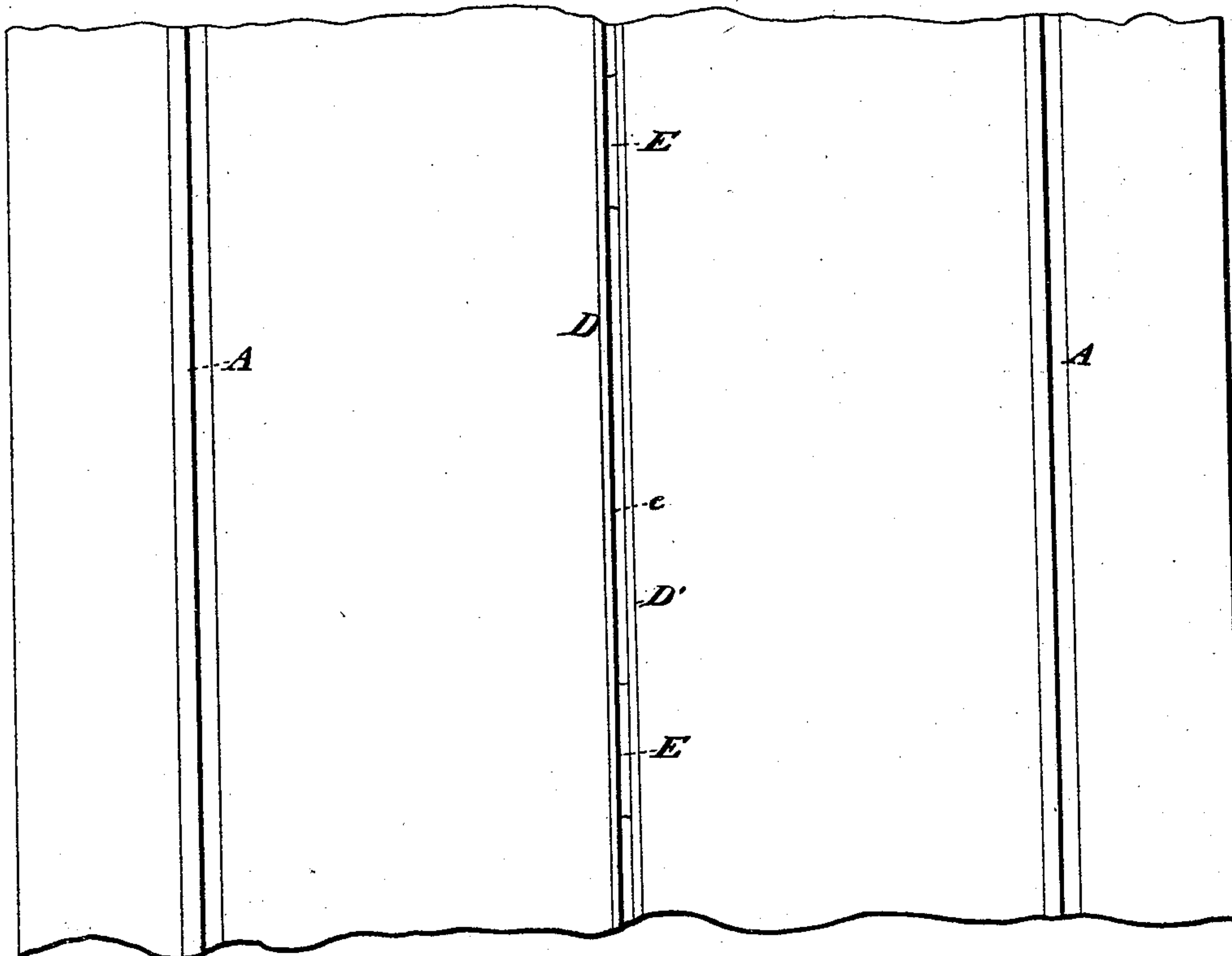


Fig. 2.



UNITED STATES PATENT OFFICE.

ELEAZER S. GARDNER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND JOHN H. GOULD, OF SAME PLACE.

IMPROVEMENT IN TRACKS FOR CITY RAILWAYS.

Specification forming part of Letters Patent No. 19,736, dated March 23, 1858.

To all whom it may concern:

Be it known that I, ELEAZER S. GARDNER, of the city of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Tracks for City Passenger-Railroads; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in forming between the rails of a railway-track an underground tunnel having in the inside a series of pulleys and near the level of the ground a longitudinal slot, (the whole being arranged in the manner set forth hereinafter,) in order that a traction-rope may be used for drawing the cars along the track without impeding the passage of ordinary vehicles across the same.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the drawings, which form a part of this specification, Figure 1 is a sectional view of my improved city railroad-track; Fig. 2, a ground plan of the same.

A A are the rails, resting on and secured to the sleepers B B in the usual manner.

C is a tunnel formed beneath the ground and midway between the two rails A A, the top of the tunnel being composed of the two curved pieces of metal D and D', between which and near the level of the ground is a narrow longitudinal slot, *e*. The tunnel, with the curved pieces D and D' and their slot *e*, traverses the whole length of the track. Within the tunnel, and at convenient distances apart, are the shafts *f*, on which hang a series of pulleys for supporting a traction-rope, the shafts *f* revolving in suitable boxes on the opposite sides of the tunnel.

The traction-rope may be driven in any convenient manner at the end of the track, and may pass up the tunnel of the track in one street and down the tunnel of the track in another street, the rope being endless and moving continually in one direction.

A catch projecting from each car and passing through the longitudinal slot *e* is so arranged as to be under the control of the conductor, who is thus enabled to seize the rope and release it at pleasure when he desires to start or to stop the car.

The catch may be constructed in a variety of ways, and, as it forms no part of my present invention, needs no illustration or description.

It will be seen that the tunnel, with its pulleys and slot presents no obstacle to the passage of ordinary vehicles. The tunnel is made large enough to afford every facility for cleansing it of dirt, &c., which may fall through the slot *e*.

Disclaiming the exclusive use of a continuous tube with a slot on the top as a device employed in atmospheric railways, I claim and desire to secure by Letters Patent—

Forming between the rails of a city railroad-track an underground tunnel and hanging a series of pulleys within the same, said tunnel having a longitudinal slot near the level of the ground, and being otherwise so arranged that a rope may be used for drawing the cars along the track without impeding the passage of vehicles across the same.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

E. S. GARDNER.

Witnesses:

HENRY HOWSON,
CHARLES D. FREEMAN.