

(No Model.)

2 Sheets—Sheet 1.

D. HAGERTY.
UNDERGROUND CABLE CAR CONDUIT.

No. 372,749.

Patented Nov. 8, 1887.

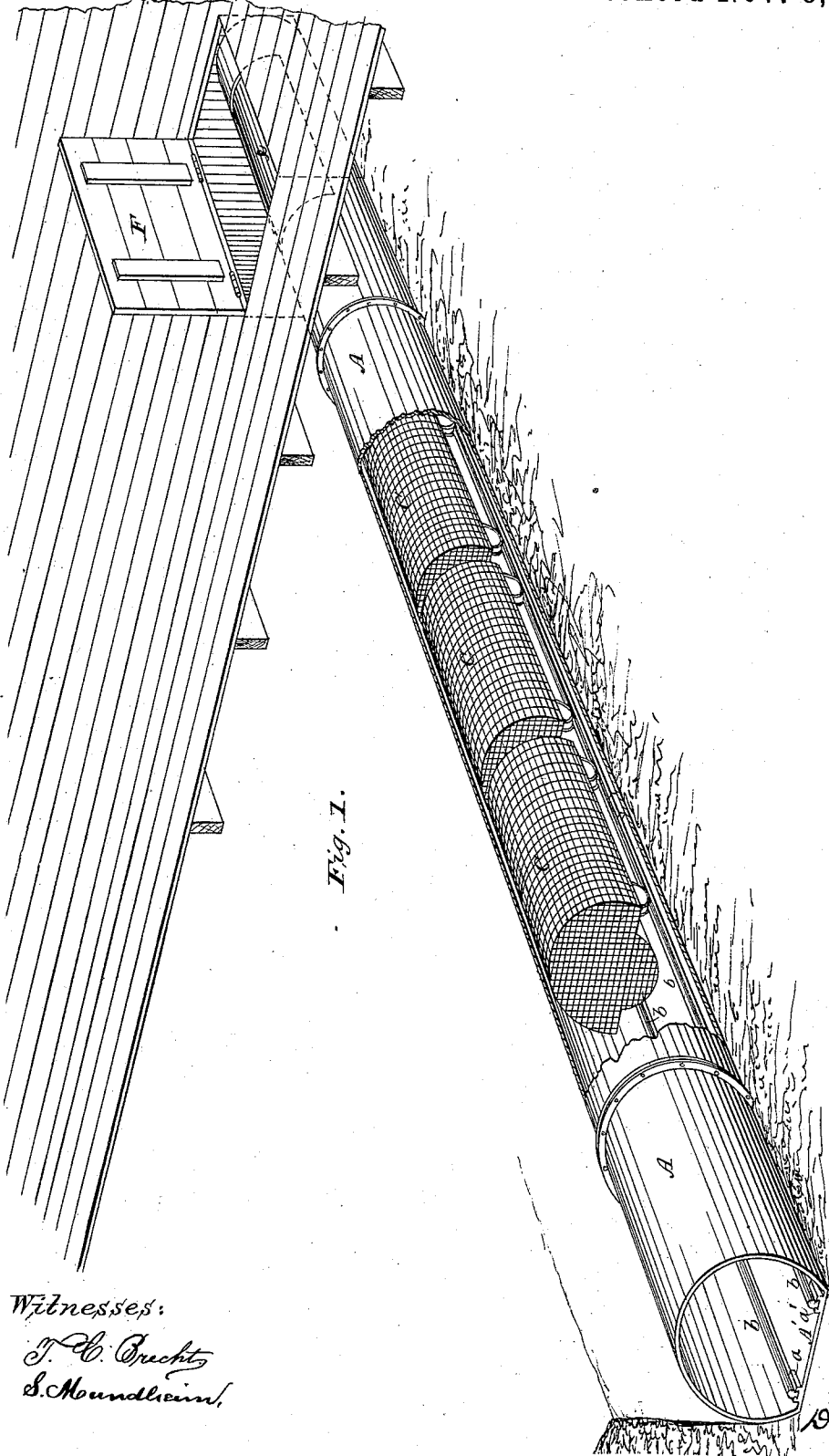


Fig. 1.

Witnesses:

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S. Moundkian,

Inventor
Daniel Hagerty

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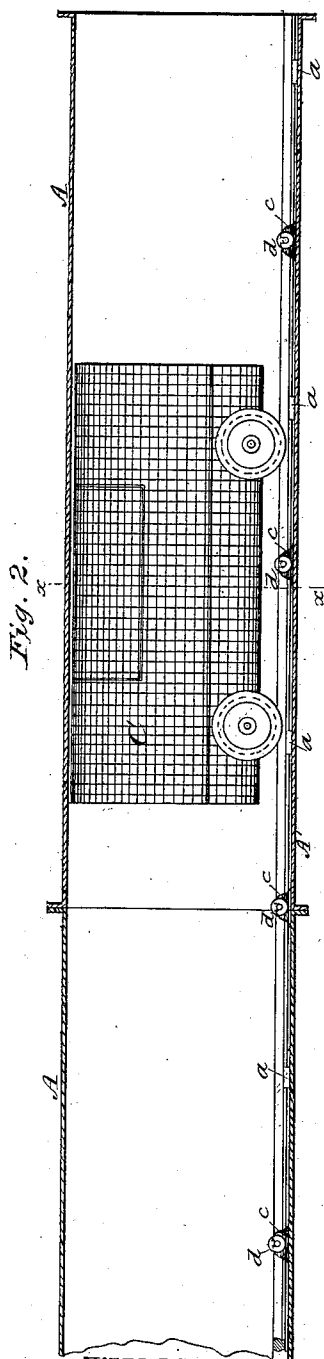


Fig. 2.

Fig. 3.

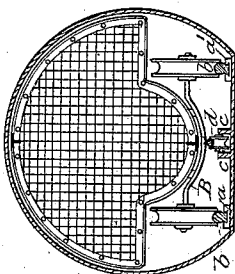


Fig. 4.

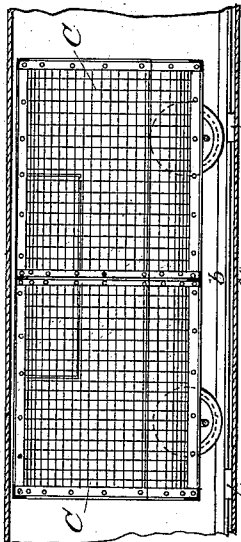


Fig. 6.



Fig. 5.

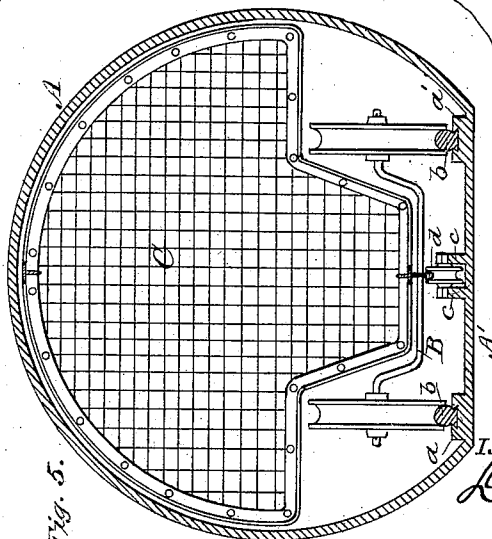
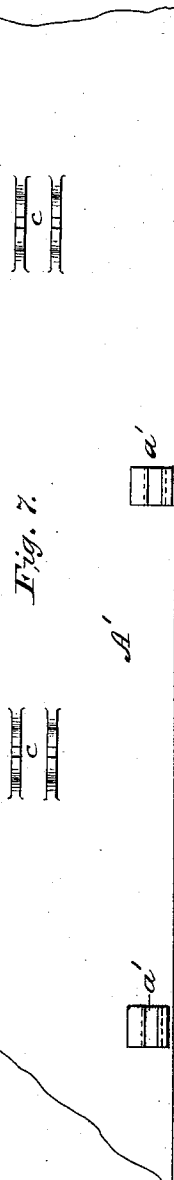


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

DANIEL HAGERTY, OF BALTIMORE, MARYLAND.

UNDERGROUND CABLE-CAR CONDUIT.

SPECIFICATION forming part of Letters Patent No. 372,749, dated November 8, 1887.

Application filed August 25, 1887. Serial No. 247,849. (No model.)

To all whom it may concern:

Be it known that I, DANIEL HAGERTY, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Underground Cable-Car Conduits; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to underground cable-car conduits; and its object is to carry the United States letter-mail and mail-matter of all kinds, including small parcels of merchandise or other valuables, from the central office to the branch offices and railway-depots of cities, conveying the same with safety, economy, and without interference with the ever-increasing surface conveyances, as well as with the general traffic, so often dangerously impeded through crowded thoroughfares.

The nature of my invention, in attainment of the general object stated, consists in the details of combination and construction as pointed out in the claims and illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of my invention with the conduit-tube partly broken away. Fig. 2 is a longitudinal section of the tube, showing the car in elevation. Fig. 3 is a cross-section of Fig. 2 on line *x x*. Fig. 4 shows a longitudinal section of both the tube and car. Fig. 5 is an enlarged cross-section of my invention. Fig. 6 represents an elevation of part of the road-bed. Fig. 7 is a plan of the same.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings, A represents the conduit-tubes, cast of iron, and, in order to stand level, firm, and unshaken on the ground, made with flat bottom and round, square, or arched top and sides, in either cylindrical or segmental sections of any practical length or given diameter, said sections being suitably connected by flanged joints cast on them and bolted together, or by a bell-joint leaded together, as are gas and water pipes. On the flat bottom of the disconnectible conduit-tubes A there are integrally cast, first, at proper intervals and parallel distances, a series of lugs

or dovetails, *a a' a'*, which securely hold the removably-inserted track-rails *b* fastened together by fish-joints or otherwise, and, second, the pillar-blocks *c c*, in which move on steel axles fitting into proper apertures the grooved cast-iron sheaves *d d*, that, carrying the wire cable, form the cable-way, as the entire flat bottom of the tube, with its appurtenances just described, constitutes the road-bed A' of the device. These sectional tubes A, which, being manufactured as ordinary piping, can be constructed and placed in position at much less cost than tunnels of ordinary construction of masonry, are provided at optional intervals and near the way ends with suitable top openings, *e*, corresponding to the trap-doors F at the way-stations and termini of the road, whereby easy access is established to the conduit in the loading and unloading of the cars within.

B shows the car-axle, which, for the purpose of gaining space, is made bent and shaped to reach as near the bottom of the conduit tube as the lugs and pillar-blocks thereon will allow. This purpose of economizing space is an essential one with my device of transporting mail and other valuables under ground, and for this reason said purpose is never lost sight of in any modification of construction to adapt either the track to switching or the car-axle to a separate and independent action of the wheels whenever such modification is required by the carrying of the traction-cable and the operating of the cars around curves and corners in the conduit.

C is the car, which, for the double object of lightness and holding capacity, is constructed, as to material, of iron ribs, with latticed or netted wire body, preferably open at top, and as to form is shaped to snugly correspond to and in its outlines nearly meet the perimeter of the conduit, thus making the latter almost equal in carrying capacity to that of a pneumatic tube of like diameter.

Having now fully described my invention, what I desire to claim and secure by Letters Patent is—

1. A flat-bottomed cast-iron conduit-tube with the rail-holding lugs and cable-guide integral therewith, in combination with the light cage-car, made of wire, with iron ribs, and mov-

ing on endless chain therein, the said car being shaped to nearly meet in its outlines the perimeter of the conduit-tube, for the purpose set forth.

- 5 2. In an underground cable-car conduit, the combination of the metal tube A, provided with bolting-flanges and openings *e*, the dove-tails *a a' a'*, the pillar-blocks *c c*, the grooved sheaves *d d*, the bent car-axle B, and the wire

cage-car C, all constructed and operating substantially as and for the purpose set forth. 10

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

DANIEL HAGERTY.

Witnesses:

H. J. FINLEY,

G. F. PAGE.