

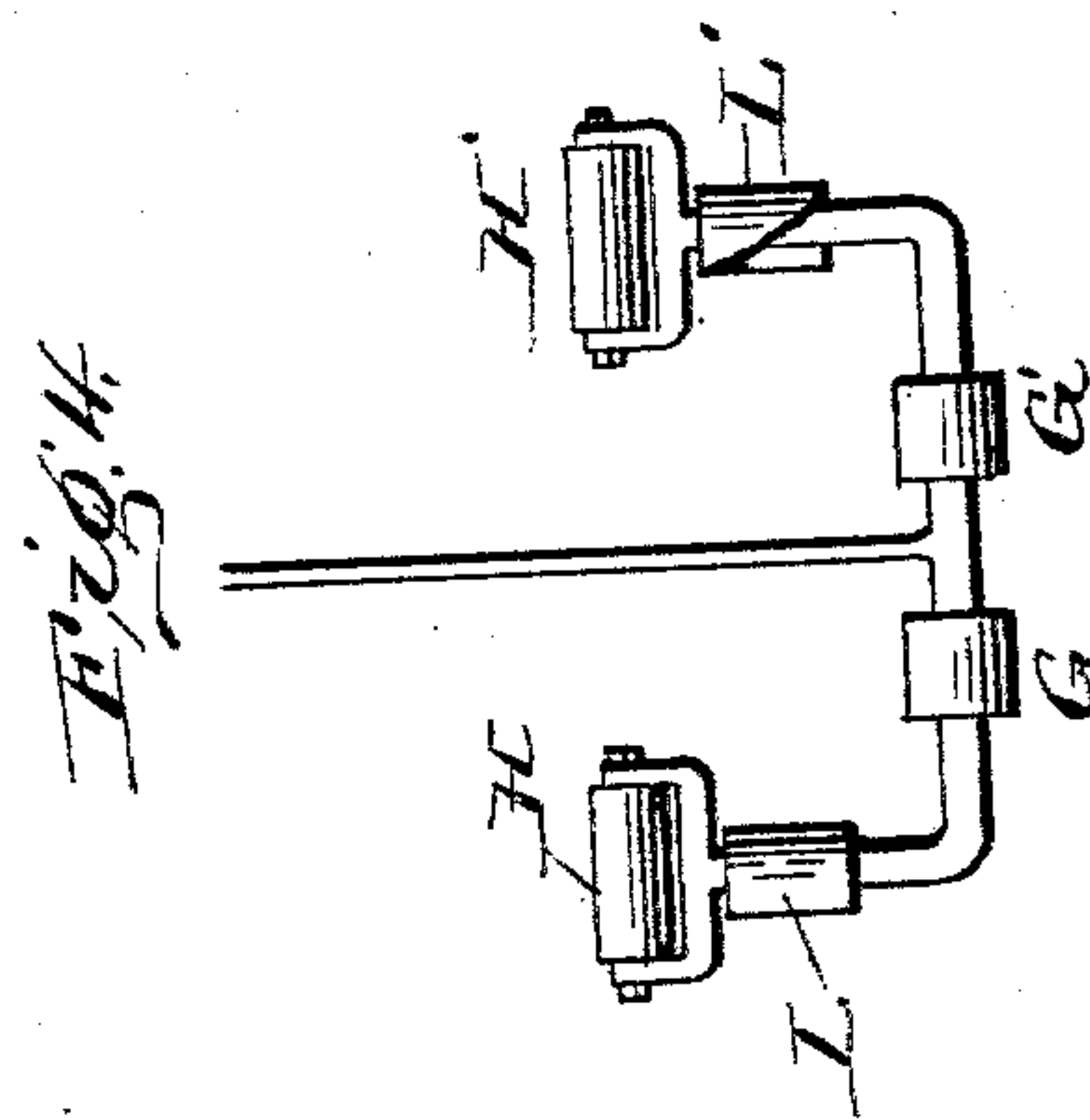
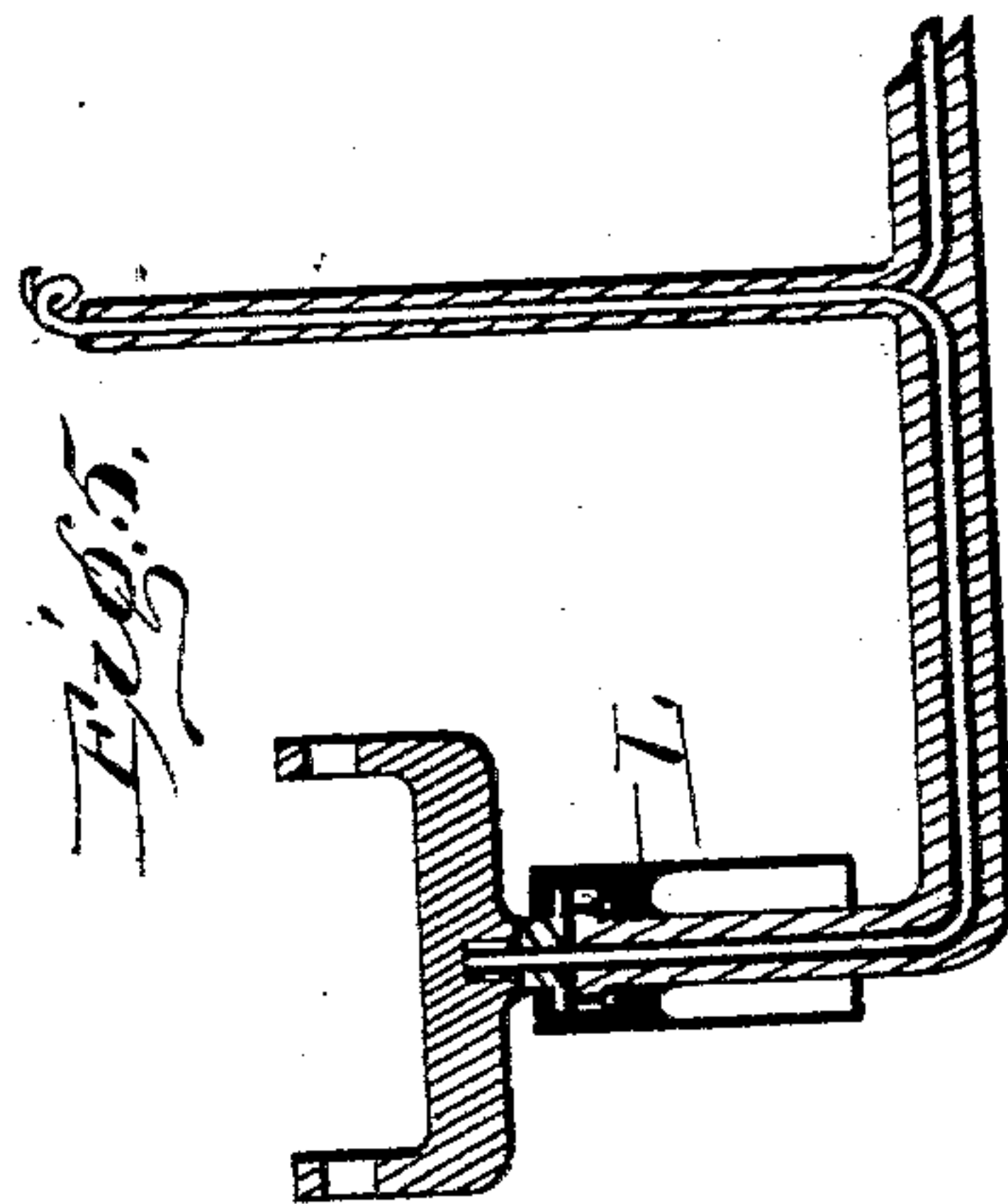
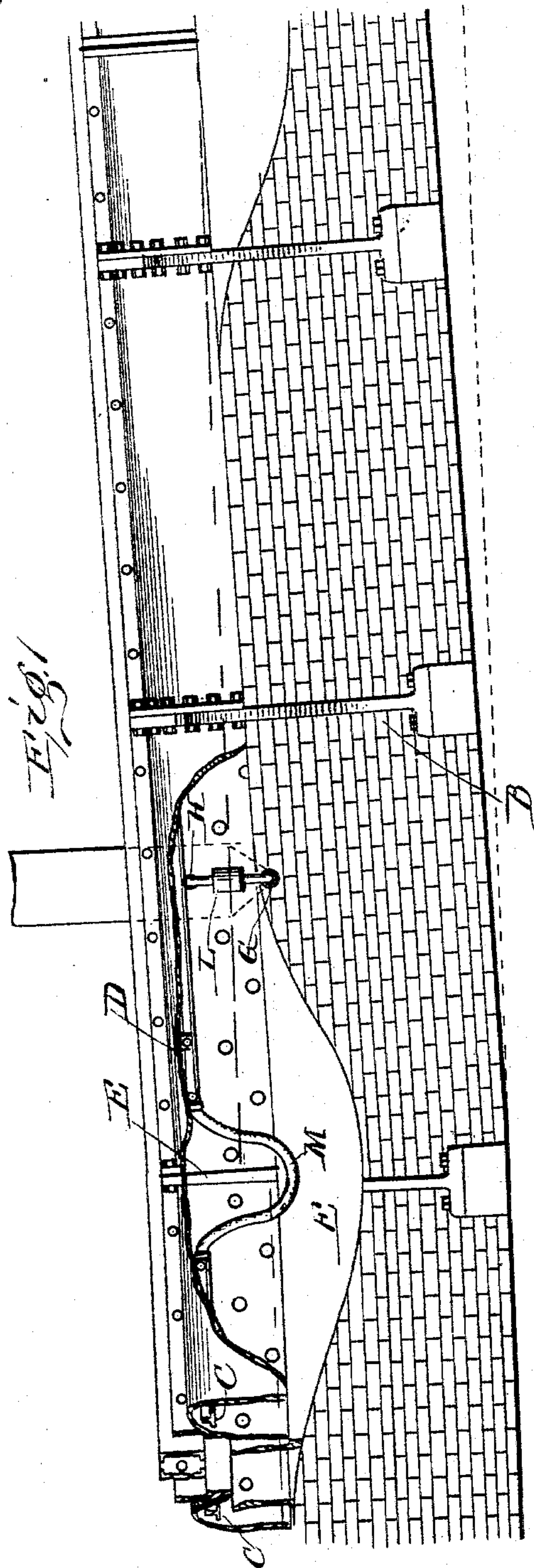
(No Model.)

2 Sheets—Sheet 1.

R. F. THOMPSON.
ELECTRIC RAILWAY CONDUIT SYSTEM.

No. 597,036.

Patented Jan. 11, 1898.



Witnesses:
J. M. Fowler
Barber & Sweet

Inventor:
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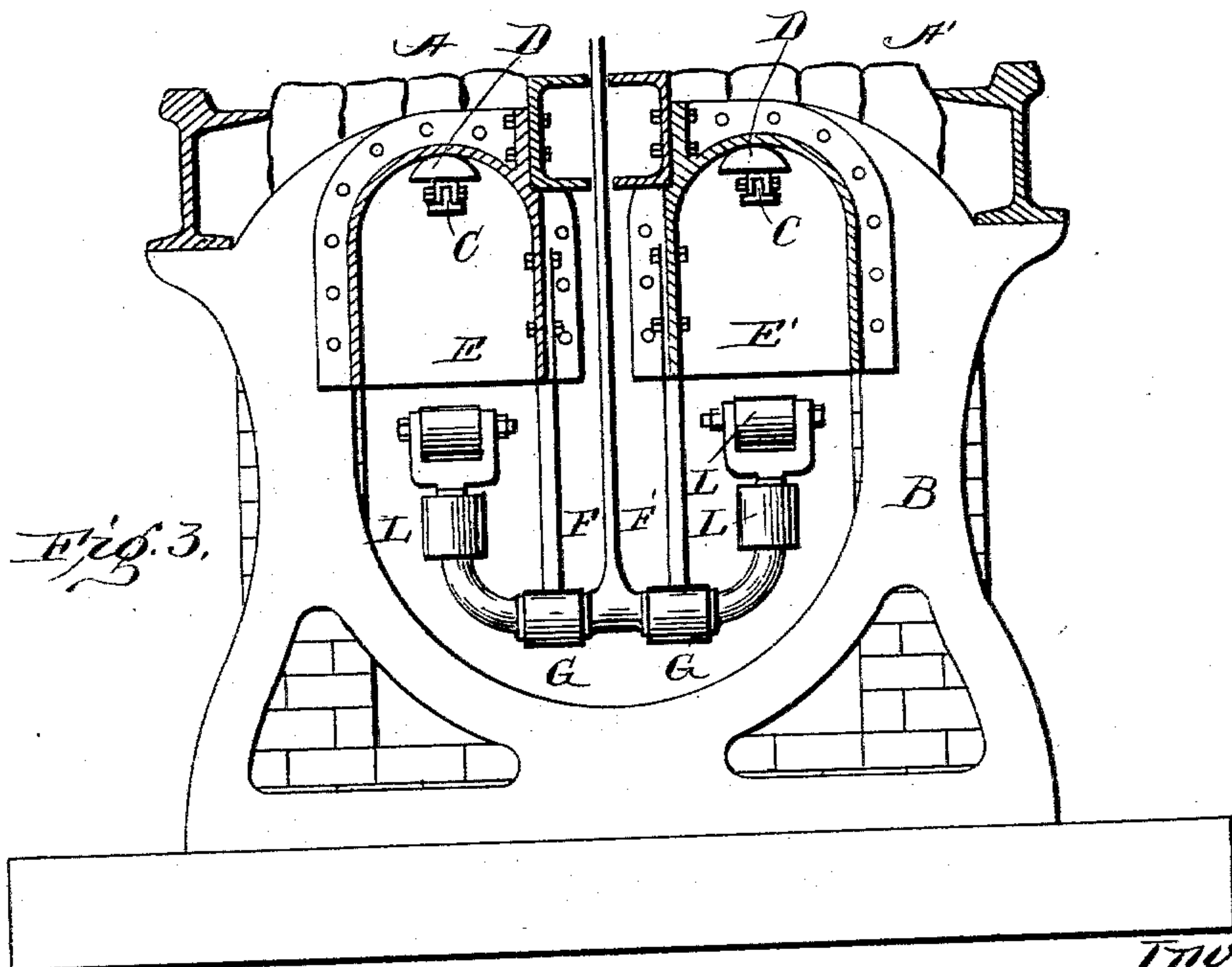
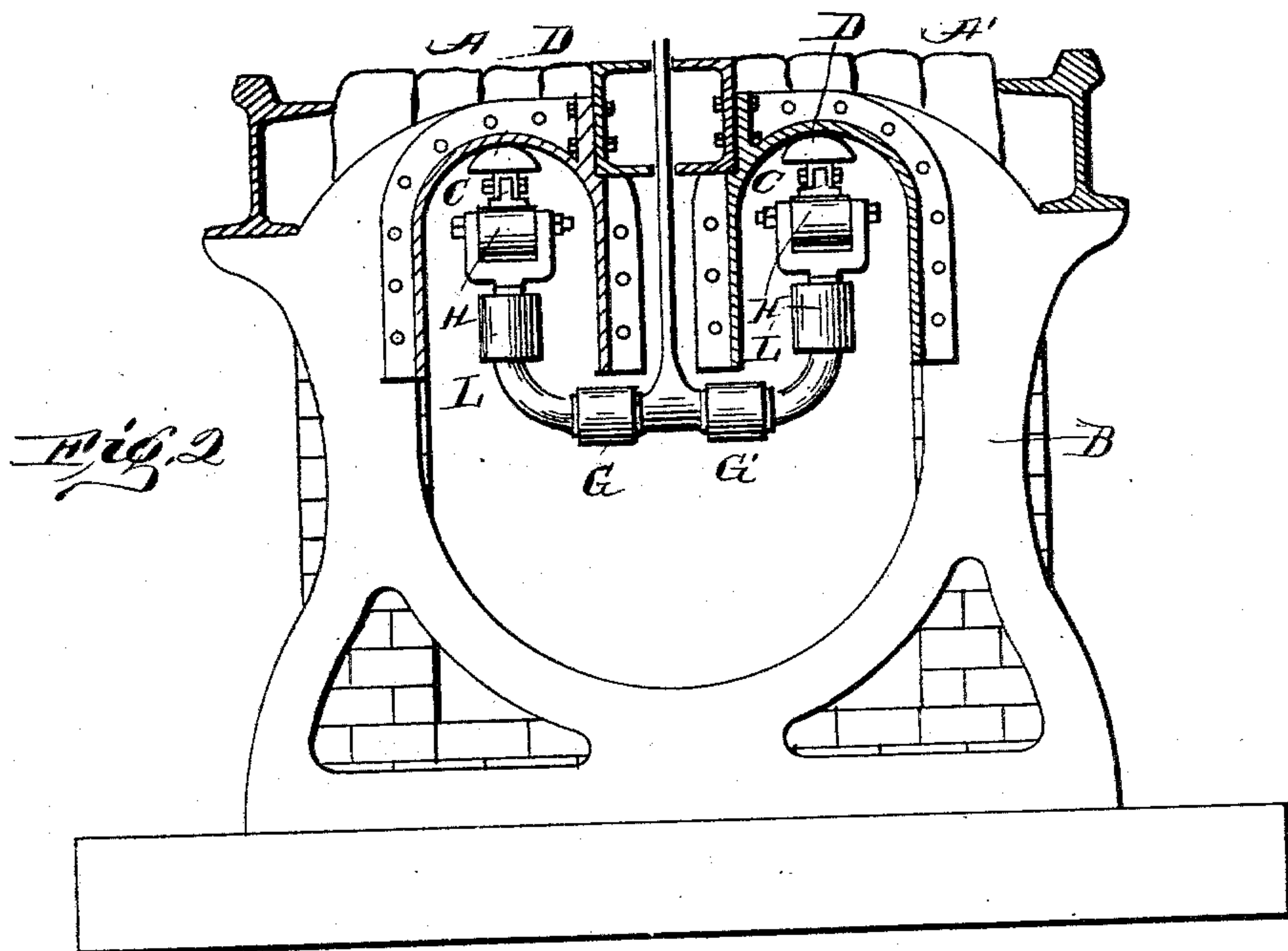
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2 Sheets—Sheet 2.

R. F. THOMPSON.
ELECTRIC RAILWAY CONDUIT SYSTEM.

No. 597,036.

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UNITED STATES PATENT OFFICE.

RALPH FOWLER THOMPSON, OF ALEXANDRIA, LOUISIANA, ASSIGNOR OF
ONE-HALF TO EDWARD JEREMIAH SULLIVAN.

ELECTRIC-RAILWAY CONDUIT SYSTEM.

SPECIFICATION forming part of Letters Patent No. 597,036, dated January 11, 1898.

Application filed July 13, 1897. Serial No. 644,388. (No model.)

To all whom it may concern:

Be it known that I, RALPH FOWLER THOMPSON, a citizen of the United States, and a resident of Alexandria, in the parish of Rapides and State of Louisiana, have invented new and useful Improvements in Electric-Railway Conduit Systems; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in electric-railway conduit systems, and particularly to that class of conduits which are placed underground and adapted to receive the wires or tracks upon which the trolley or plow, projecting below the car, runs.

The object of my invention is to protect the trolley-wires from the seepage-water that usually drops from the walls of the conduit or the water that passes in through the trolley-slot. This object I accomplish by means of two chambers of substantially inverted-trough shape, one chamber being located on either side of the trolley-slot, as shown in the drawings. The side walls and roof of these chambers are air and water tight, thus preventing any water leaking into the same, and the only manner in which water can enter the chambers is by means of the bottom when the conduits become flooded, and in that event the water cannot rise to a sufficient height to reach the trolley-wires, which are suspended from the roof of the chambers, by reason of the pressure of the air confined in the upper part of said chambers. The above construction is effective only when the tracks, and consequently the conduits, are perfectly level their entire distance. When, however, the grade changes, I provide air and water tight partitions or diaphragms—one in each chamber—and suitable means for permitting the trolley or plow to pass under the partitions, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 represents a side elevation of my improved system, with parts broken away to more fully illustrate my invention; Fig. 2, a longitudinal vertical section thereof, showing the trolley in its normal position ready for operation;

Fig. 3, a similar view showing the trolley or plow out of engagement from the electric current, and Figs. 4 and 5 detail views of the trolley-arms or plow.

Similar letters of reference occurring on the several figures indicate corresponding parts.

Referring to said drawings, A A' represent the air and water tight chambers, which, as already stated, are substantially of an inverted-trough shape and arranged one on each side of the trolley-slot and suitably secured to the yokes B, as shown.

C represents the trolley wires or tracks, attached to the insulators D in the roofs of the chambers A A'.

E E' represent the partitions or diaphragms, which are also air and water tight and are inserted in the chambers A A' at the beginning of the grade, so that the deviation from the level does not affect the height of water in the chamber at the lower portion, as fully shown in Fig. 1. As the tracks extend upward, and consequently the conduit, another set of partitions is inserted to prevent a dangerous rise of water between the two sets, the distance between the two sets being governed by the steepness of grade.

F F' are curved projections formed on the inner walls of the chambers and adjacent to the slot-opening, the object of which is such that the trolley-rollers G G' strike the same and cause the trolley to be depressed and allow the contact wheels or rollers H H' to pass under the partitions E E' and resume their normal position—that is, in contact with the trolley wires or tracks.

L L' represent insulators on the trolley-arms, which are employed for the purpose of insulating the trolley-arms, the rollers G G', and the plow from the trolley-wheels H H' or contact-shoes, even after having been submerged, while passing a partition.

A suitable insulated conductor or cable M passes beneath the lower edge of the partitions E E' and connects the trolley wires or tracks, as shown.

The current is carried from the trolley-wheels or contact-shoes to the car by means of the insulated conductors placed within the trolley-arms and plow. The plow, together with the trolley-arms, is drawn upward by

means of springs carried on the car to hold the trolley-wheels in contact with the trolley wire or track and therefore allow of their being depressed by the projections E E'.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An electric-railway conduit system, consisting of the conduit provided with the air and water tight chambers, one on each side of the trolley-slot and secured to the yokes; said chambers being provided with the insulators D, trolley-wires C, partitions E, E', and curved projections F, F', substantially as and
15 for the purpose specified.

2. In an electric-railway conduit system, the conduit provided with the air and water tight chambers, located one on each side of the trolley-slot, and having insulators D, trolley-wires C, partitions E, E', and curved projections F, F', in combination with the trolley-arms having contact-wheels H, H', friction-rollers G, G', and insulators L, L', substantially as and for the purpose specified.

In testimony whereof I affix my signature 25 in presence of two subscribing witnesses.

RALPH FOWLER THOMPSON. [L. s.]

Witnesses:

E. J. SULLIVAN,

JAS. LAURENCE.