

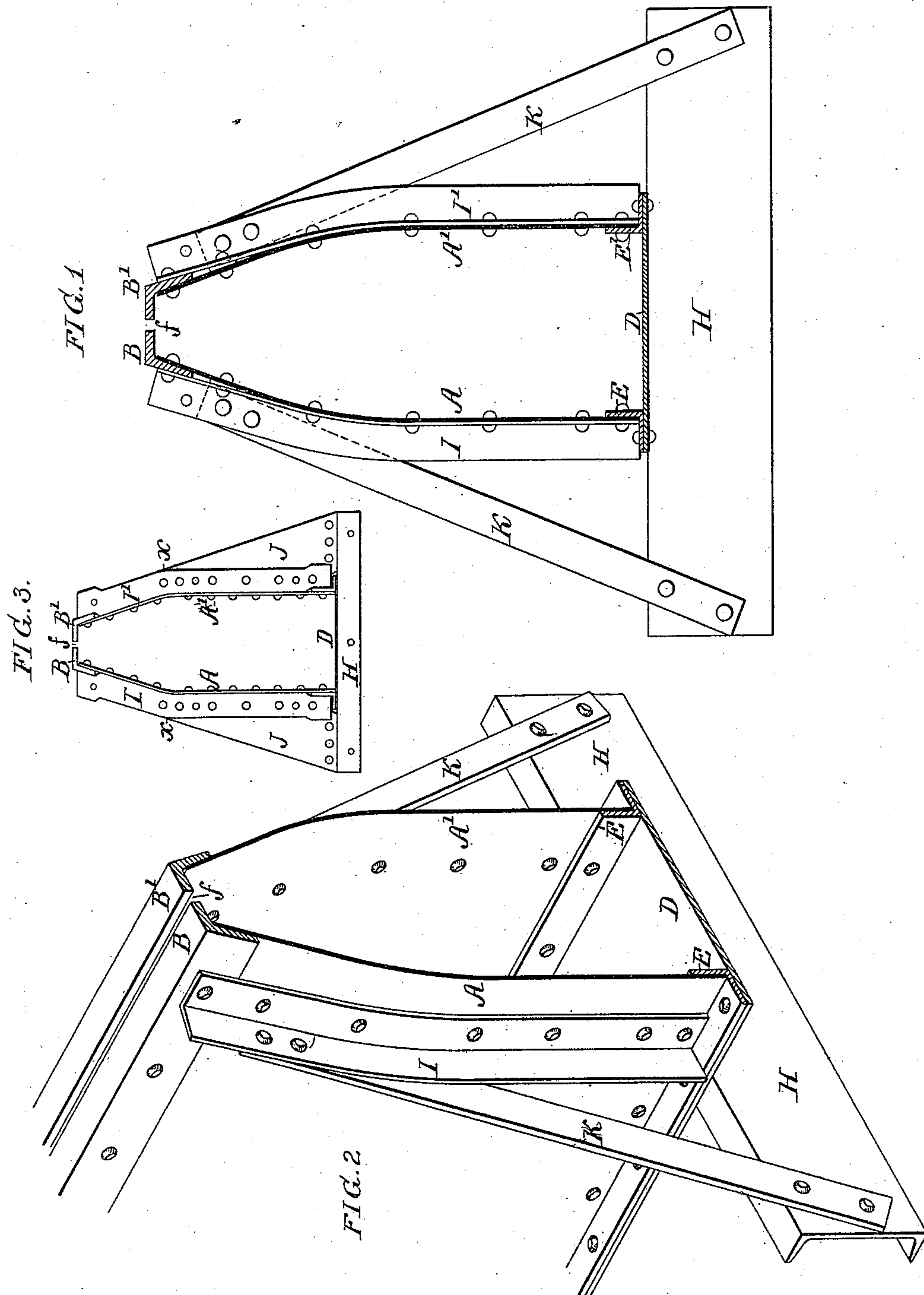
(No Model.)

A. BONZANO.

CONDUIT FOR TRACTION ROPE RAILWAYS.

No. 287,220.

Patented Oct. 23, 1883.



WITNESSES:

John C. Parker
James F. Johnson

INVENTOR:

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UNITED STATES PATENT OFFICE.

ADOLPHUS BONZANO, OF PHOENIXVILLE, PENNSYLVANIA.

CONDUIT FOR TRACTION-ROPE RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 287,220, dated October 23, 1883.

Application filed September 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, ADOLPHUS BONZANO, a citizen of the United States, and a resident of Phoenixville, Chester county, Pennsylvania, have invented certain Improvements in Conduits for Traction-Rope Railways, of which the following is a specification.

My invention consists of an improvement, fully described hereinafter, in the conduit for traction-rope railways for which Letters Patent No. 281,440 were granted to me July 17, 1883, the object of my present improvement being to impart additional lateral strength to the upper portion of the conduit.

In the accompanying drawings, Figure 1 is a transverse section of my improved conduit; Fig. 2, a perspective view of part of the same, and Fig. 3 a section drawn to a reduced scale of my patented conduit.

The conduit is made in sections, each of which is composed of the opposite side plates, A A', the upper portions of the latter converging toward each other, the angle-iron bars B B', riveted to the plates at the upper edges of the same, and the bottom plate, D, extending, preferably, throughout the entire length of the section, and secured to the side plates by angle-irons E E'.

The above-described parts, which are similar to those described in my said patent, constitute a self-contained girder, of which the angle-iron bars B B' are the upper chord and the plate D and angle-irons E E' the lower chord. This girder-like section of a conduit has in the top a continuous slot, *f*, large enough to admit the arm which extends from the car to the traction-rope within the conduit, the slot being formed by arranging the angle-irons B B' at a suitable distance apart.

In my former patent I strengthened the girder laterally at the top, so that it would resist the action of crossing vehicles or other pressure from the top or side by securing to the under side of each section, at suitable intervals, bars H, of angle-iron, as shown in Fig. 3, and where these bars occurred by securing to the opposite side plates angle-iron ribs I I', extending from the bottom nearly to the top of the girder; and I further

strengthened and braced the structure by introducing brace-plates J, riveted to the beams H and ribs I I'. In practice I have found that this system of bracing the side plates was insufficient to maintain them in their proper lateral position at the upper ends, as the brace-plates extended upward as far only as the points *x*, where the side plates commenced to take an inclined course, as seen in Fig. 3. In order to overcome this difficulty, I discard the bracing-plates described in my former patent, secure to the under side of the conduit a much more substantial and longer beam H than the angle-iron of my former patent, and to the beam I rivet the lower ends of two inclined braces, K K, the former near one end and the latter near the opposite end of the said beam. Both of these inclined braces extend nearly to the top of the conduit, and are riveted, one brace to the angle-iron rib I on one side of the conduit, and the other to the angle-iron rib I' on the opposite side of the conduit; or they may be connected in any suitable manner directly to the side plates of the conduit. As these braces extend upward past the points where the opposite sides of the conduit begin to converge, much more strength is imparted to the opposite sides of the conduit than by the brace-plates described in my former patent. I prefer to make the beam H of channel-iron, as shown in the drawings.

I claim as my invention—

The combination of a conduit having a bottom plate, D, and side plates A A', the upper portions of which converge toward each other, with the transverse beam H, and braces K, secured at their lower ends to the said beam, and at their upper ends to the side plates above the points where the latter begin to converge, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLPHUS BONZANO.

Witnesses:

JOHN E. PARKER,
HARRY SMITH.