

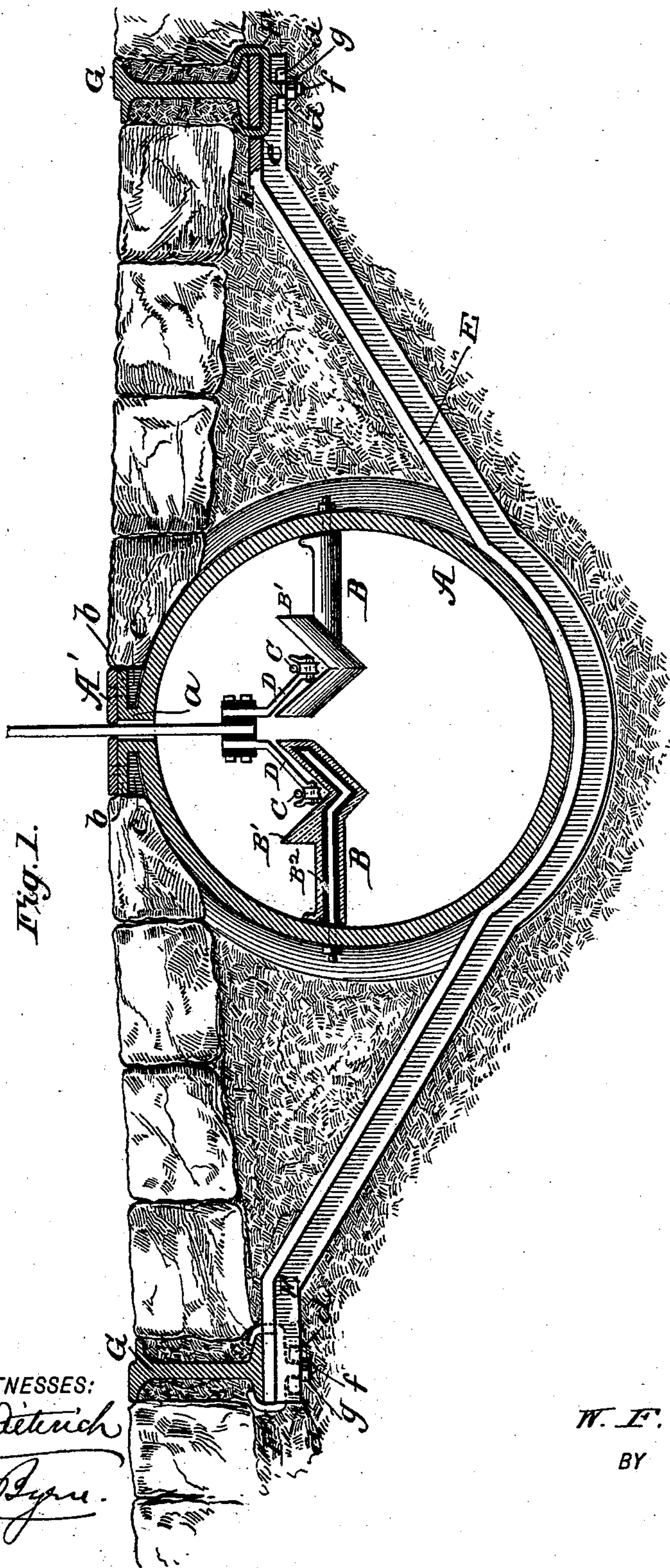
(No Model.)

2 Sheets—Sheet 1.

W. F. JENKINS.
UNDERGROUND CONDUIT RAILWAY.

No. 517,749.

Patented Apr. 3, 1894.



WITNESSES:

Fred G. Dietrich
Edw. W. Byrne

INVENTOR

W. F. Jenkins

BY

Murray & Co

ATTORNEYS.

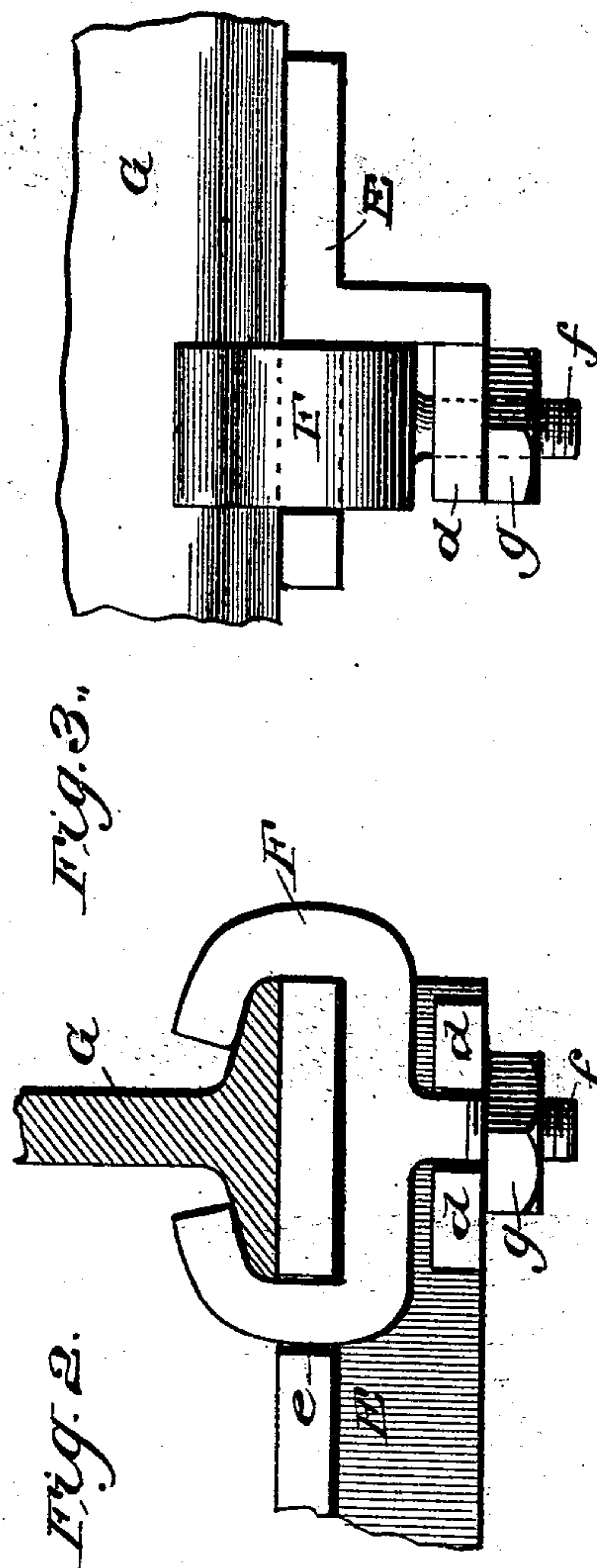
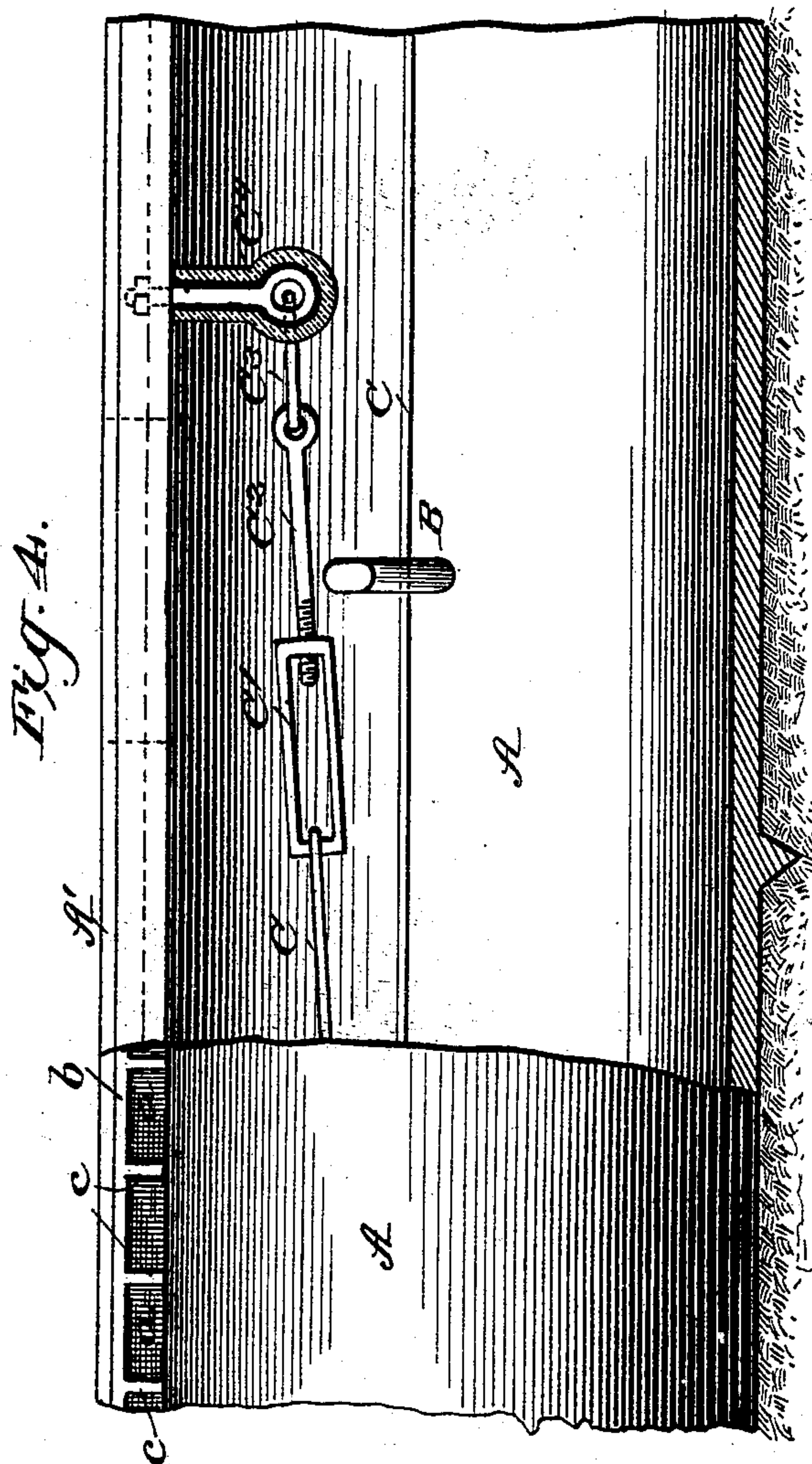
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UNITED STATES PATENT OFFICE.

WILTON F. JENKINS, OF RICHMOND, VIRGINIA.

UNDERGROUND-CONDUIT RAILWAY.

SPECIFICATION forming part of Letters Patent No. 517,749, dated April 3, 1894.

Application filed August 8, 1893. Serial No. 482,641. (No model.)

To all whom it may concern:

Be it known that I, WILTON F. JENKINS, of Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Improvement in Underground Electric Railways, of which the following is a specification.

My invention is in the nature of certain improvements in underground conduit railways, and it consists in a novel means for connecting the rails to the transverse yokes of the conduit, and in the peculiar construction of the conduit, as will be hereinafter fully described.

Figure 1 is a transverse section of the conduit and road bed. Fig. 2 is an enlarged side view, and Fig. 3 an end view of the connection between the rails and conduit yoke, and Fig. 4 is a partly side view and partly longitudinal section of the conduit.

In the drawings A represents the conduit which is cast in one piece as a cylindrical tube about eighteen inches in diameter with a slot at its upper side. The edges of the tube adjoining the slot are formed in a peculiar manner. That is to say, they are cast with a wall *a* forming the slot, a horizontal overhanging flange *b*, and wings or web sections *c* connecting at intervals the overhanging flange to the body of the tube, as shown in Figs. 1 and 4, so as to give the requisite stiffness to the overhanging flange to resist the weight of traffic in the street. To this overhanging flange *b* is permanently riveted a wrought iron or steel slot plate A' whose upper surface is suitably roughened to prevent the slipping of teams. The object of forming the conduit cylinder with the wall *a*, overhanging flange *b*, and stiffening webs *c*, is to give a vertical distance from the top of the slot rail to the outer periphery of the cylinder sufficient to allow blocks of stone or other paving material to be laid in sufficient vertical depth close up to the slot rail, so as to make a substantial finish.

E is one of the yokes which passes under the bottom of the cylindrical conduit A, and at its outer ends is connected with the track rails. This yoke is made of wrought or cast iron bars which have a T-shaped cross section. Near each end of these yokes there is formed in one of its horizontal flanges a slot *e*, and projecting horizontally from the lower

edge of the vertical flange are two juxtaposed lugs *d d*. F is a metal clamp having at its upper end two claws adapted to clutch the base of the rail and having in the middle a downwardly projecting central screw stem *f* with nut *g*. This clamp F is adjusted to the yoke laterally with one claw extending through the slot *e* in the yoke, and the other claw overlapping the end of the yoke, and the two claws clamping the base of the rail on opposite sides of the same. The screw stem *f* fits between the lugs *d d*, and when the nut *g* is tightened, by screwing it up against the lugs *d d*, it draws the claws of the clamp F tightly down and firmly holds the rail to the yoke. This connection, it will be seen, requires no corresponding holes in the base of the rail and yoke, and no bolts, and which holes are objectionable for the reason that the holes in the rail rarely coincide accurately with the holes in the yoke, and require to be fitted or adjusted to each other at a cost of much time, trouble, and expense. The connection described by me is a universal one, permitting the fastening of the yoke to the rail at any point along the length of the rail, and as close together or as far apart as may be desired, and without the expense and delay of adjusting the holes and fitting bolts therein.

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

1. In an underground railway system, the combination of a conduit, yokes passing under the conduit, longitudinal surface rails resting upon the ends of the yokes at right angles and a downwardly drawing screw clamp connection provided with double claws for grasping both sides of the rail base and adapted to be applied laterally to the yoke for fastening the yokes to the rails at any point along their length without the use of bolts substantially as shown and described.

2. The double-clawed clamp F having central screw stem *f* depending therefrom with nut *g*; in combination with the yoke arranged transversely beneath the rail and provided with the slot *e* for the passage of one of the claws, and lugs *d d* as a bearing for the screw nut, substantially as and for the purpose described.

3. The cylindrical cast iron conduit having
a longitudinal slot with a slot wall α , horizon-
tal overhanging flange b , webs c uniting the
flange to the exterior of the conduit, and a
5 surface slot plate A' for giving a vertical depth
between the slot plate and curved external
surface of the conduit sufficient to receive

paving material substantially as shown and
described.

WILTON F. JENKINS.

Witnesses:

O. F. WEISIGER, Jr.,

V. A. HARVEY.