(No Model.) 2 Sheets—Sheet 1.

J. S. DU BOIS.

UNDERGROUND CONDUIT.

No. 354,892. Patented Dec. 28, 1886.

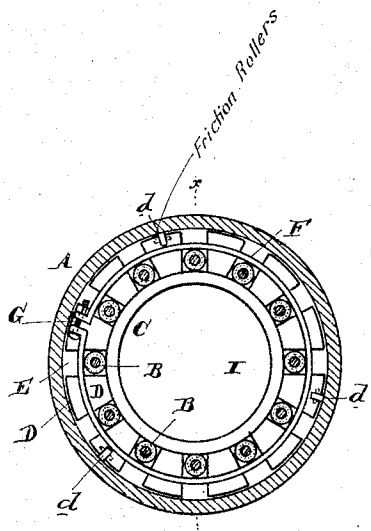


Fig. 1

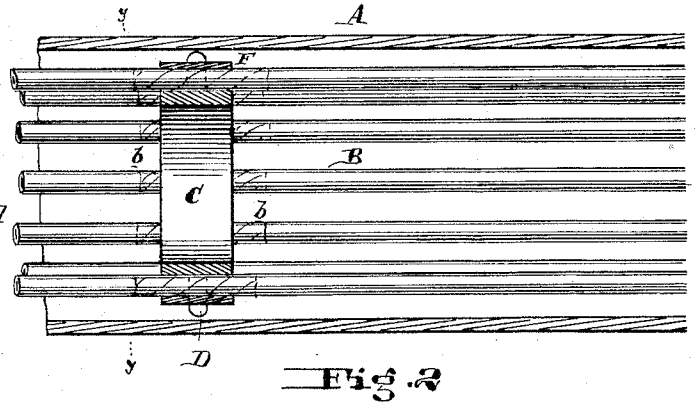


Fig. 2

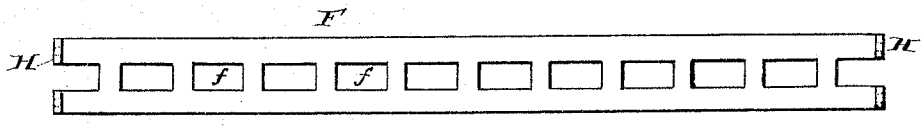


Fig. 3

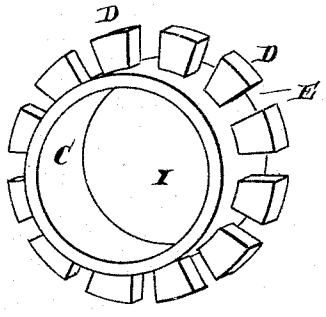


Fig. 4

Attest
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E. M. Brickenreed.

Inventor
Josiah S. DuBois
By his atty
[illegible]

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(No Model.) 2 Sheets—Sheet 2.

J. S. DU BOIS.

UNDERGROUND CONDUIT.

No. 354,892. Patented Dec. 28, 1886.

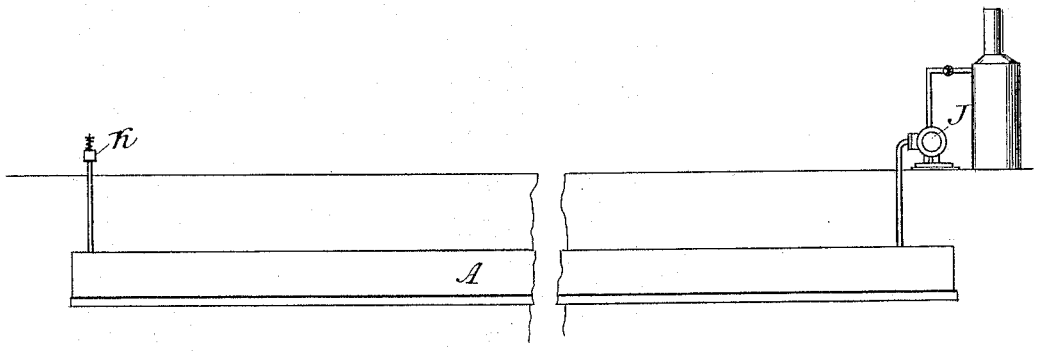


FIG. 5

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UNITED STATES PATENT OFFICE.

JOSIAH S. DU BOIS, OF CAMDEN, NEW JERSEY.

UNDERGROUND CONDUIT.

SPECIFICATION forming part of Letters Patent No. 354,892, dated December 28, 1886.

Application filed November 17, 1885. Serial No. 183,074. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH S. DU BOIS, of Camden, county of Camden, and State of New Jersey, have invented an Improvement in Underground Conduits, of which the following is a specification.

My invention has reference to underground conduits for electric wires, but more specifically to the means of supporting and keeping them separate within the tube or conduit, and is especially applicable to the invention set forth and claimed in Letters Patent granted to Rudolph M. Hunter, No. 275,387, and dated April 10, 1883, all of which is fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

The object of this invention is to provide a suitable support for the electric wires, whereby they shall be supported clear of each other and from the conduit, be positively retained in position, and allow of the free passage of air and gas through the conduit.

In the drawings, Figure 1 is a cross-section on line *y y* of a conduit, wires, and support therefor embodying my invention. Fig. 2 is a longitudinal sectional elevation of same on line *x x*. Fig. 3 is a plan view of the binding-strap before being bent. Fig. 4 is a perspective view of the wire-support, and Fig. 5 is an elevation showing the conduit combined with means to create a pressure therein.

A is the conduit, which may be built of iron or formed of any other material desired, though an ordinary pipe of cast-iron is well suited to the purpose.

B are the wires, shown as electric-light wires, and are arranged in the notches E of the wire-support C, being supported by the extension D. The lateral edges of the supports project upon each side of the extension D, to form circular flanges upon which the wires are clamped, as set forth hereinafter. These supports are preferably formed of cast metal, and are made like a hollow cylinder with projections D, which are made of such a length as to project beyond the wires laid in the notches E, and thus insure them being held clear of the tube or conduit A. The wires, where they are inserted in the notches E, are preferably wrapped with extra insulation *b*, and are clamped close to the ring and upon the flanges of the support by the strap F, which is provided with holes *f*, through which the projections D pass and by which the strap is retained in position about the support. The ends H of the strap are turned up and are drawn together by bolts G. If desired, two straps may be used, one located on each side of the projection D, or simply one of these straps may be used; but I prefer the construction of strap shown in Fig. 3. These supports C are secured to the wires B every half-foot apart, and are drawn into the tube A in this completed condition, and to facilitate the said travel of the wires and supports through the conduit the supports may be provided with rollers *d*, so distributed that they keep the supports clear of the conduit and allow of their being easily drawn through the tube. These supports are made with the apertures I, to allow free passage of the compressed gas or vapor, which is driven into the conduit by the suitable pumping device, J, (shown in Fig. 5,) and is allowed to escape under pressure from the valve K, at the other end, thereby admitting all the necessary circulation.

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

1. The combination of the longitudinal conducting-wires with a cylindrical casting of considerable width, and having a circular row of radiating projections of much less width, forming spaces between said projections, into which the wires are placed and caused to rest upon the wide surface of the cylinder, a tightening-band having perforations to fit over the projections on the cylinder and adapted to clamp the wires down upon the cylinder upon each side of the projections, and suitable means, substantially as set forth, for tightening the band, substantially as and for the purpose specified.

2. The combination, with the parallel electric wires B, of the support C, consisting of a band provided with projections D, furnished with two or more rollers, *d*, and spaces E, in which latter the wires are placed, and straps to hold said wires down clear of the outer edges of the projections, and a conduit of approximately the same shape as the periphery of the

projections D, substantially as and for the purpose specified.

3. The combination, with the parallel electric wires B, of the support C, consisting of a band provided with projections D, and spaces E, in which latter the wires are placed, and straps to hold said wires down clear of the outer edges of the projections, consisting of strap F, having holes *f* and ends H, and tightening-bolts G, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

JOSIAH S. DU BOIS.

Witnesses:
E. M. BRECKINREED,
ANDREW ZANE, Jr.