

(No Model.)

T. M. MORTON.
CONDUIT FOR UNDERGROUND WIRES.

No. 437,445.

Patented Sept. 30, 1890.

Fig. 1.

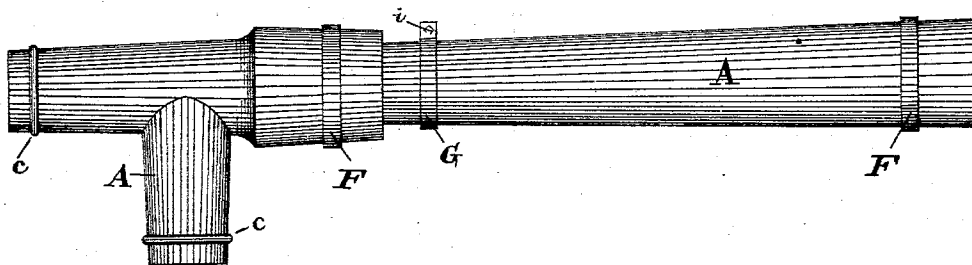


Fig. 2.

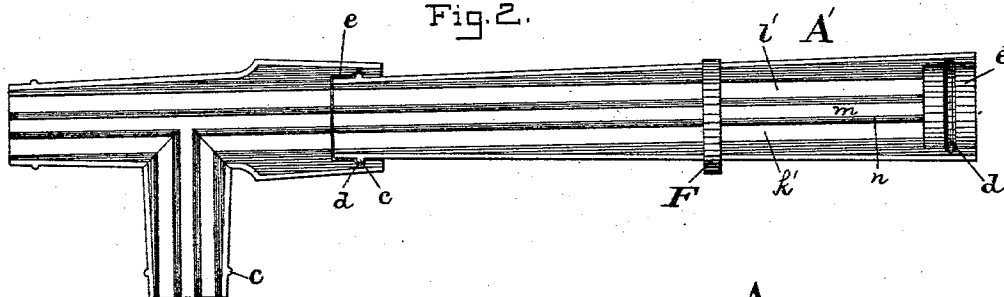


Fig. 3.

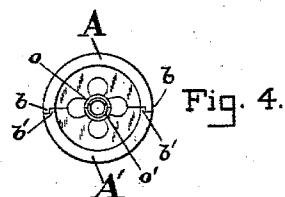
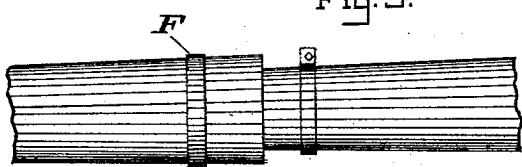


Fig. 5.

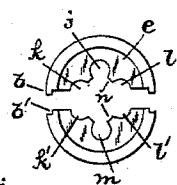


Fig. 6.



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CONDUIT FOR UNDERGROUND WIRES.

SPECIFICATION forming part of Letters Patent No. 437,445, dated September 30, 1890.

Application filed June 24, 1890. Serial No. 356,523. (No model.)

To all whom it may concern:

Be it known that I, THOMAS M. MORTON, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Conduits for Underground Wires, of which the following is a specification.

This invention relates to a conduit for underground wires; and it consists in tapered sections of pipe of peculiar construction, as hereinafter described.

Referring to the drawings, Figure 1 is a plan view showing a section and a T-joint of the conduit. Fig. 2 is an inside view of one-half of the part shown in Fig. 1. Fig. 3 shows the jointed ends of two sections. Fig. 4 is an end view of a cross-section of the conduit. Fig. 5 is an end view of the two parts or halves of the conduit-tube separated. Fig. 6 shows two views of the inner tube. Fig. 7 shows the split ring or clamp.

The letters A A' designate the upper and lower halves of a T-joint or section of a conduit longitudinally divided. Both the upper and lower halves are hollow. The upper half A of the section or T-joint is made with a downward-projecting flange *b* on each edge, which overlaps an upward-projecting flange *b'* on the edges of the lower half of the same section. Each half forms a semicircle in cross-section, and when both are together they form a tube, which has a circular cross-section. (See Fig. 4.) The sections are also of a conical shape, being smaller at one end than at the other, so that the small end of one section can enter the large end of an adjoining section. On the outside the small end of each section or T-joint has a circular ring or swell *c* formed on the upper and lower half of the section. (See Figs. 1 and 2.) On the inside the large end of each section or T-joint has a ring-groove *d*, which receives the ring or swell *c* on the small end of an adjoining section. (See Fig. 2.) The circular groove *d*, like the swell *c*, is partly in the upper half and partly in the lower half of each section or joint. A slip-ring *F* is large enough to pass over the small end and the swell *c* of a section and serves to bind together the two halves A A' of a section at the large end, and an adjustable split ring *G*, which has two ears *h h'*, through which pass a tightening bolt or screw

i, binds the small end. It will be seen that by this arrangement not only the two halves A A' of a section are held together, but the small end of an adjoining section as well, for the reason that the small end of one section is clamped between the large ends of the next section.

In the center of the upper half of each section is a channel-way *j*, which extends longitudinally from the small end of the section to the enlarged opening or counterbore *e*. On either side of said channel-way *j* are half channel-ways *k l*. (See Fig. 5.) In the center, and at the bottom of the lower half of each section and extending longitudinally from the small end of the section to the enlarged opening or counterbore *e*, is a channel-way *m*, similar to the channel-way *j* in the upper half of the section. (See Fig. 5.) On either side of said channel-way *m*, and extending longitudinally from the small end of the section to the enlarged opening or counterbore *e*, are half channel-ways *k' l'*. The said two half channel-ways *k' l'* of the lower half of the section combine with the said two half channel-ways *k l* of the upper half of the section, and thus form two full channel-ways when the said upper and lower halves of the section are brought together. (See Fig. 4.)

Between any two of the channel-ways is a ledge *n*, which separates one from the other. Upon these ledges *n* (in the present instance four in number) rest the halves *o o'* of an inner tube, which, like the halves A A', have edge flanges *p*, and when the upper half *o* of the inner tube is brought down upon the lower half *o'* the flanges overlap, and when in this position the inner tube is also circular in cross-section. This inner tube is cut into lengths equal to the lengths of the outer sections, and one end of each length is reduced and has a shoulder *q*, and the other end would have a counterbore (not shown) for the reception of the said reduced end of an adjoining length. This mode of joining together the different lengths of the inner tube therefore is similar to joining the respective lengths of the outer sections, with the exception that neither an interior ring-groove nor an exterior ring-swell is used. By this arrangement a union or joint between any two lengths is obtained. The inner tube *o o'* is in contact

with the four longitudinal ledges n of the outer sections, and thus the channel-ways $j k l m$ are converted into separate passages or conduits, which extend through the sections. It will be seen that five distinct passages or conduits are formed, and each one is capable of receiving wires or pipe containing wires. Of course the joints or connections of the sections and tube may be made tight by any of the well-known methods employed for this purpose.

The number of channel-ways, passages, or conduits to be included in one structure may vary from that here shown and may be more or less; also some of the details of construction may vary.

The leading features of construction here shown—that is, making the conduit-sections in halves with channel-ways and ledges, and providing an inner tube to make contact with the said ledges, also the taper and rings or collars—enable the conduit to be laid and filled with wires simultaneously.

Having described my invention, I claim—

1. A conduit consisting of tapered tubular sections, each longitudinally divided and provided at the small end with an exterior ring-swell and at the large end with a counterbore having an interior ring-groove to receive said exterior swell, and an exterior slip ring or collar, as set forth.

2. A conduit consisting of tapered tubular sections, each longitudinally divided and hav-

ing interior channel-ways extending lengthwise of the sections, and a tube, which, when placed within the exterior sections, converts the said channel-ways into separate and distinct passages for the reception of wires.

3. A conduit having in combination exterior tapered tubular sections, each of which is longitudinally divided and each division provided with edge flanges and each section having at the large end a counterbore and provided with longitudinal channel-ways and ledges extending from said counterbore to the small end, an internal longitudinal tube in contact with the said ledges, and an exterior slip-ring or collar, as set forth.

4. A conduit consisting of tubular sections, each longitudinally divided into an upper and a lower half, each half having a central channel-way $j m$, and a half channel-way on either side thereof, said half channel-ways of the one half of the section combined, respectively, with said half channel-ways of the other half of the section, separating ledges n between the channel-ways, an inner tube longitudinally divided into halves and extending lengthwise of the exterior section and in contact with the said ledges, as set forth.

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

THOMAS M. MORTON.

Witnesses:

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