Nov. 18, 1930. H. W. JEWELL 1,781,726

DISTRIBUTING CONDUIT

Filed Oct. 10, 1928

Fig. 1

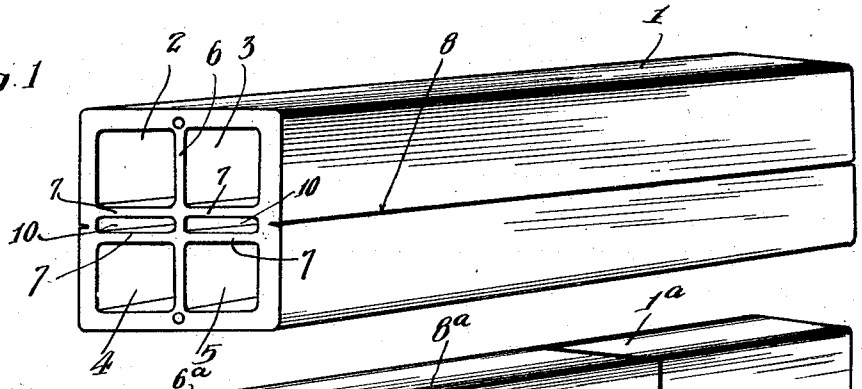


Fig. 2

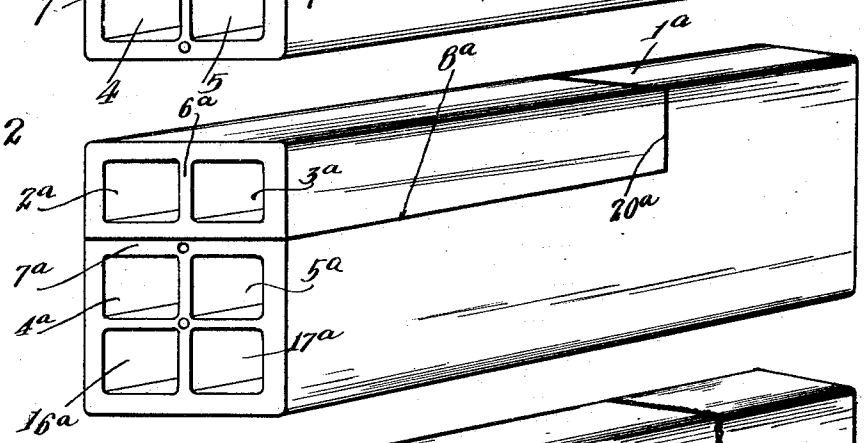


Fig. 3

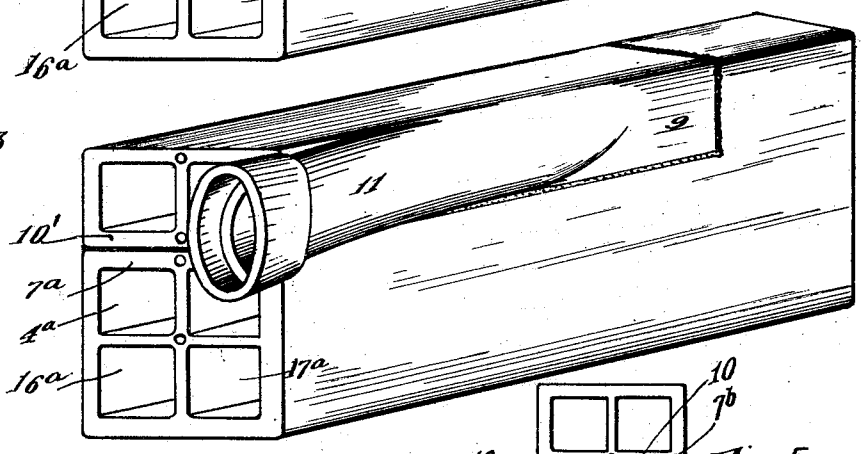


Fig. 4

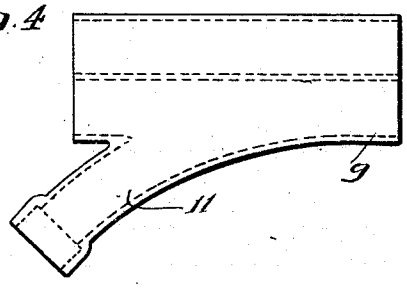
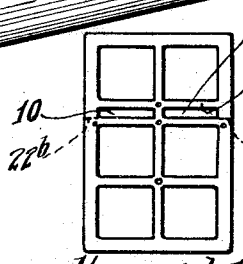


Fig. 5



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UNITED STATES PATENT OFFICE

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DISTRIBUTING CONDUIT

Application filed October 10, 1928. Serial No. 311,618.

This invention relates to a distributing conduit for use in multiple ducts of conduit sections in order to permit the taking off of a single line, or a plurality of lines, in a lateral or vertical direction from a multiple duct conduit formation of an underground conduit line.

In underground multiple conduit lines it is a common practice to employ clay tile which are formed in sections with multiple ducts for carrying the different lines, and in uniting these tile to form a complete conduit which is submerged and buried under the ground. These multiple conduits are located underground and when it is desired to take off a line from one of these conduits for the purpose of admitting new or altered service into the particular system, it has heretofore been necessary to break into the clay tiles, destroying one or more complete sections of the tile, with a consequent requirement of breaking through the entire line in order to thread such conduits back through the multiple duct tile.

This is an expensive operation, and it is the object of this invention to provide a distribution conduit which includes means for permitting the taking off of or the cutting out of lines from the multiple conduit line by the use of specially designed multiple conduit tiled sections which will permit the reaching of only the section of the multiple line desired, either to take off a line or to remove a line and restore the same to a conduit system.

Other and further objects of this invention it is believed will be apparent from the following detailed description of a preferred embodiment thereof as illustrated in the accompanying drawings.

In the drawings:

Figure 1 is a perspective view of one form of distributing tile embodying my invention showing a four-duct tile.

Figure 2 is a similar perspective view of a modified distributing tile embodying my invention of the six-duct type.

Figure 3 is a perspective view of a distributing tile embodying my invention illustrating the distributing conduit as reformed when in position to include the distributing tile and form a means of taking a line from the multiple line transversely from the main run of the line.

Figure 4 is a top plan view of the distributing tile embodied in this invention illustrating the same on a reduced scale.

Figure 5 is a front elevation of a modified form of a conduit tile embodying this invention.

In the preferred embodiment of this invention illustrated in the accompanying drawings, 1 indicates a tile of a distributing conduit which is formed to provide a multiplicity of independent ducts 2, 3, 4 and 5 which are separated by a vertically extending web 6 and a horizontally extending web 7. The horizontal pair of ducts 2 and 3 is separated from the horizontal pair of ducts 4 and 5 by means of small core-ways 10. The core-ways 10 and ducts 2, 3, 4 and 5 are all formed at the same time by the use of a die through which the clay or like material is forced. This manner of forming duct tile is well known in the art. The tile is scored longitudinally of its length during its formation to form a scored line 8 along the tile.

In Figure 3 the same form of tile is illustrated with the exception that the tile 1^a illustrated in Figure 2 is formed with 6 independent ducts, 2^a, 3^a, 4^a, 5^a, 16^a and 17^a. The distributing tiles 1 and 1^a are of the same formation and this invention is not limited to the formation of a tile including any number of independent ducts, but any desired or required number of ducts may be included in a single tile as is common in the construction of similar multiple conduit lines.

The horizontal web 7^a of the tile 1^a is formed of greater thickness than the vertical web 6^a so as to permit a piano wire being run longitudinally of the tile 1^a before the tile is dried to form a slit 8^a longitudinally of the tile for a portion of its length The extent of the slits 8^a is dependent upon the length to which the distributing tiles 9 are formed so that when the portion slit from the distributing conduit 1^a is broken away, the distributing conduit 9 will fit within the recess broken from the distributing conduit 1^a.

In forming the distributing conduits 1 and 1^a in some instances it may be desirable to form the thick web 7^a or core-way web 7 as the vertical web of the tile rather than the horizontal web and permit the breaking away of the portion of the conduit vertically rather than horizontally.

The thickened webs 7 and 7^a are formed of substantially twice the thickness of the narrow webs 6 so that the portions of the conduit above and below the slit lines 8 and 8^a are substantially equal to the thickness of the bottom plate 10′ of the distributing tile 9 which is to be positioned in the distributing conduit when it is desired to take off a line from the distributing conduit and leave the resultant formation in the same form as before the distributing tile 9 was interposed in the structure.

The conduit sections and distributing tiles embodied in this invention may be made from such substances as fire clay which in its green state is formed by dies or other suitable means into the shape desired by a well-known process and then vitrified. Prior to the vitrification of the tiles the slits 8 and 8^a are formed in the structure.

The distributing tile 9 is formed with an angled branch 11 which extends laterally from the main body of the distributing tile 9 and provides a means for taking the line laterally from the main multiple conduit line.

During the formation of the conduit tile 1, in some cases it may be found desirable to score the tile at the end of the slit 8^a, as indicated at 20^a, prior to the burning or drying of the clay forming the tile, so that the section of the tile formed between the score line 20^a and slit 8^a may be broken away more easily when it is desired to use the conduit tile 9.

If it should be desired to take from the entire system a line and return the conduit to its original condition before such a distributing tile 9 had been interposed in the system, the tile 9 can be broken from the multiple conduit and a section of conduit tile similar to the distributing tile 9, by omitting the lateral branch 11, can be placed into the recesses formed by breaking out the section of the original tile 1 or 1^a and in this manner replace or return the system to its original condition.

In the modified form of conduit tile illustrated in Figures 1 and 5, the structure is substantially the same as the structure of the tile illustrated in Figure 2, with the exception that the transverse web 7 is here formed cored, as indicated at 10, to form the web 7 solid and eliminate the use of the slit 8^a. An equivalent tile is in this case obtained by scoring the ends and side of the tile, as indicated at 8, prior to the burning or drying of the clay of which the tile is formed, so that a score line will be formed for a portion or the whole of the length of the tile extending longitudinally of the tile in the same manner as does the slit 8^a in the case of the tile illustrated in Figure 2. This form of tile may be made up to include any desired number of ducts, depending upon the use of which such form of tile is desired to be put and the conditions of the particular conduit system.

Having fully described my invention, it is to be understood that I do not wish to be limited to the details herein set forth, but my invention is of the full scope of the appended claims.

I claim:

1. A multiple duct conduit including exterior walls and a plurality of interior webs dividing said conduit into ducts, one of said webs being substantially twice the thickness of the exterior walls, said web being cored to facilitate separation of the conduit through the center of said web, the remaining webs being of a thickness not exceeding the thickness of the exterior walls.

2. A six-duct conduit including exterior walls, a longitudinal web and two spaced transverse webs, one of said transverse webs being substantially twice the thickness of the exterior wall, said web being cored to facilitate separation of the conduit through the center of said web, the remaining transverse web and the longitudinal web being of less thickness than said exterior walls.

3. A multiple duct conduit including exterior walls and interior webs in planes at right angles to each other, dividing said conduit into ducts, one of said webs being substantially twice the thickness of the exterior wall, said web being cored to facilitate separation of the conduit through the center of said web into two sections, the webs at right angles to such cored web being of less thickness than said exterior walls.

Signed at Los Angeles, Calif., this 8 day of Sept., 1928.

HOWARD W. JEWELL.