Nov. 7, 1933. E. S. CORNELL, JR 1,933,711

BRANCH FITTING FOR WATER TUBES AND THE LIKE

Filed Feb. 12, 1931

Fig. 1.

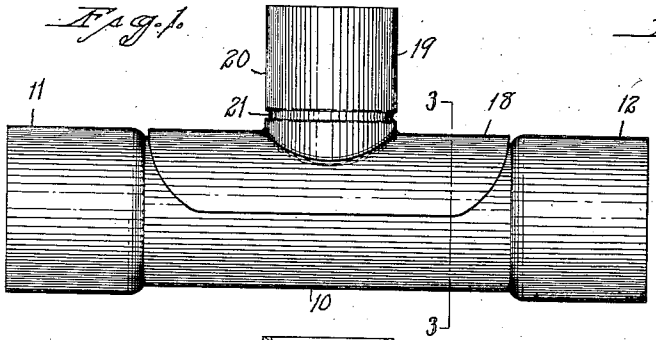


Fig. 3.

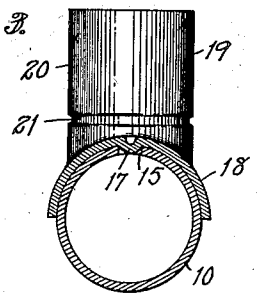


Fig. 2.

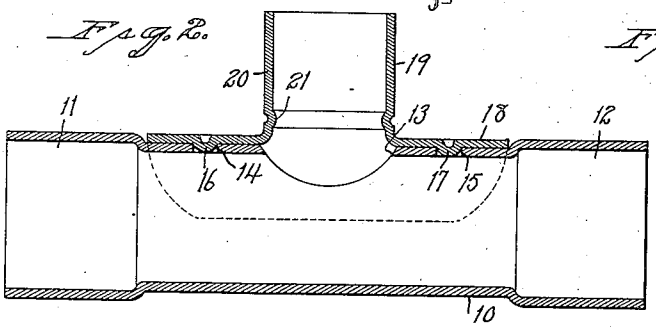


Fig. 6.

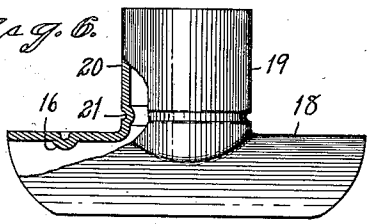


Fig. 4.

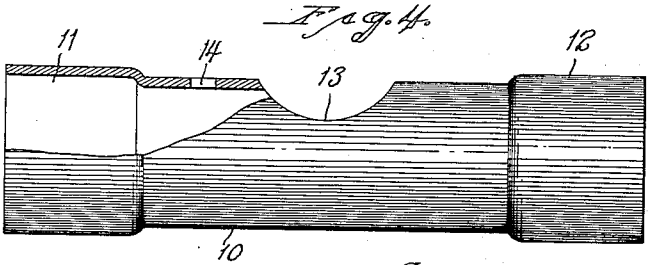


Fig. 7.

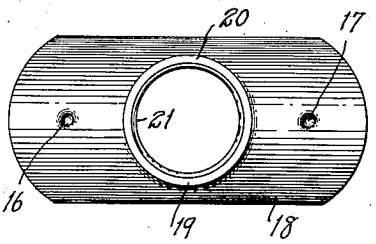


Fig. 5.

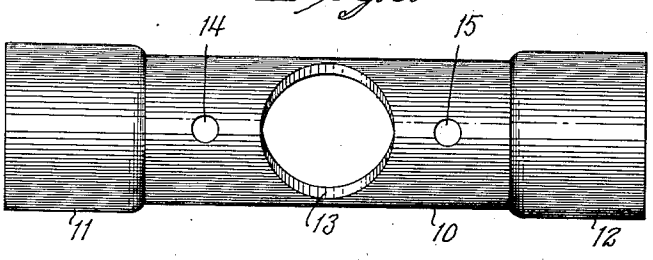


Fig. 9.

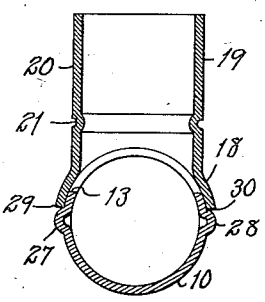
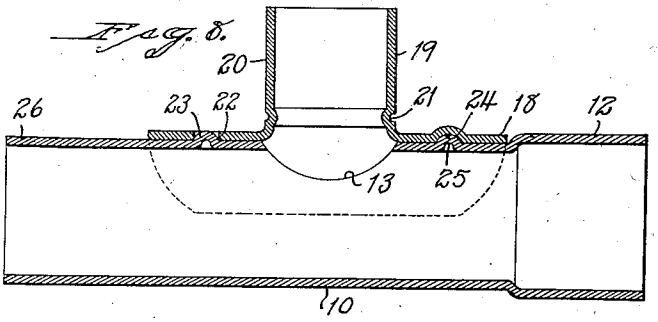


Fig. 8.



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BRANCH-FITTING FOR WATER-TUBES AND THE LIKE

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Application February 12, 1931. Serial No. 515,313

3 Claims. (Cl. 285—105)

This invention relates to an improvement in branch-fittings for water-tubes and the like, such as T's and crosses, and particularly to branch-fittings in which a so-called "line-member" and a so-called "branch-member" are independently formed so as to be assemblable on the job if desired, to meet the necessities of varied installation requirements.

The main object of this invention is to provide a branch-fitting of the character referred to with means for facilitating the assembly of the parts in their correct relationship.

With the above and other objects in view as will appear from the following, my invention consists in a branch-fitting characterized by a tubular line-member and a complementary branch-member, each independently formed and assemblable together to form a branch-fitting and each provided with positioning-means engageable with the positioning-means upon the other member for locating the two said members with respect to each other.

My invention further consists in a branch-fitting characterized as above and having certain details of construction and arrangements of parts as will be hereinafter described and particularly recited in the claims.

In the accompanying drawing:

Fig. 1 is a side view of a branch-fitting embodying my invention, in the form of a T;

Fig. 2 is a vertical central-longitudinal sectional view thereof;

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1;

Fig. 4 is a view partly in side elevation and partly in longitudinal section of the line-member of the branch-fitting shown in the preceding figures;

Fig. 5 is a top or plan view thereof;

Fig. 6 is a view partly in side elevation and partly in longitudinal section of a branch member adapted to be assembled with a line-member of the type shown in Figs. 4 and 5;

Fig. 7 is a top or plan view thereof;

Fig. 8 is a vertical central-longitudinal sectional view of a T constructed in accordance with my invention and showing other forms which the positioning-means may assume; and

Fig. 9 is a transverse sectional view illustrating still another form which the positioning-means may assume.

In the embodiment of my invention herein chosen for illustration in Figs. 1 to 7 inclusive, I employ what I shall for convenience of description designate as a "line-member" 10, which in the particular figures referred to, is bell-mouthed at its respective opposite ends to provide sockets 11 and 12 for the telescopic reception respectively of line-tubes or pipes. About midway between its respective bell-mouthed ends 11 and 12, the periphery of the line-member 10 is formed, either at the time of manufacture or by the workman on the job, with a lateral opening or port 13, with which latter the flow-passage in a branch-member is adapted to be registered as will be hereinafter described.

Located on opposite sides of the port 13 and adjacent the bell-mouthed sockets 11 and 12 of the line-member, are a pair of complementary positioning-holes 14 and 15, which are adapted to receive respectively, and engage against the outer surface of, complementary bosses 16 and 17, downwardly pressed out from the under-surface of the saddle-portion 18 of what I shall for convenience of description designate as a "branch-member" 19.

The saddle-portion of the branch-member is curved to snugly fit the periphery of the line-member 10 and is provided with a tubular projection 20 which is adapted to be registered with the lateral opening or port 13 in the line-member and to provide for the connection of a branch-tube or pipe. Preferably, the tubular projection 20 of the branch-member is provided internaly with an annular stop-bead 21 against which a branch-tube is adapted to be seated.

Preferably, the line-members and the saddle-members will be made in various sizes and types capable of being assembled together (i. e., a line-member and a branch-member).

A line-member and a branch-member are preferably assembled together by solder and in the form of branch-fittings shown in Figs. 1 to 7 inclusive, the bosses 16 and 17 respectively of the branch-member are seated in the perforations 14 and 15 in the line-member so that the said branch-member may be definitely located with respect to the port 13 after which the application of solder or brazing material will serve to permanently anchor the two members together.

The locating-means with which each of the complementary members of my improved branch-fitting are provided may assume a variety of forms, for instance, instead of forming one or more perforations in the line-member, I may if desired, form the saddle-portion 18 of the branch-member with a perforation such as 22 in Fig. 8, and provide the line-member with a complementary pressed-out upstanding nib or boss 23 fitting

within, and having its outer surface engaged by, the perforation 22 just referred to.

If desired, the saddle-member may be upset to form a downwardly-facing socket 24 for the reception of an upstanding boss or nib 25 formed upon the periphery of the line-member, as shown in the right-hand portion of Fig. 8, in which figure the line-member is of the type known as "male-to-female" inasmuch as it is provided with but one bell-mouth 12 and has its opposite end 26 left plain as shown, for telescopically fitting within another fitting.

In Fig. 9 I have shown the line-member 10 formed at substantially diametrically opposite points with bosses or ribs 27 and 28 which are positioned to engage respectively the lower edges 29 and 30 of the saddle-portion 18 of the branch-member so as to position the latter upon the line-member.

It will be understood by those skilled in the art that my invention may assume varied physical forms without departing from my invention concept and I, therefore, do not limit myself to the specific embodiment herein chosen for illustration, but only as indicated in the appended claims.

I claim:

1. A metal branch-fitting for tube installations comprising: a tubular line-member having a saddle-receiving portion intermediate its ends, said saddle-receiving portion being provided with a lateral port; a tubular branch-member having a saddle-portion at one end preformed independently of the line-member to fit the intermediate saddle-receiving portion of the said line-member over an area surrounding the said lateral port and to be joined thereto by soldering or the like; one of said members being provided with integral means comprising a pressed-out boss adapted to have a portion of its surface engage an integral abutment on the other member to relatively position said members with said lateral port registering with the opening of the tubular branch-member.

2. A metal branch-fitting for tube installations comprising: a tubular line-member having a saddle-receiving portion intermediate its ends, said saddle-receiving portion being provided with a lateral port; a tubular branch-member having a saddle-portion at one end preformed independently of the line-member to fit the intermediate saddle-receiving portion of the said line-member over an area surrounding the said lateral port and to be joined thereto by soldering or the like; the saddle-portion of the branch-member and the underlying saddle-receiving portion of the line-member being provided with integral complementary means interengageable to relatively position said members with said lateral ports registering with the opening of the tubular branch-member, said interengageable means comprising a boss on one of said members and a socket on the other member.

3. A metal branch-fitting for tube installations comprising: a tubular line-member having a saddle-receiving portion intermediate its ends, said saddle-receiving portion being provided with a lateral port; a tubular branch-member having a saddle-portion at one end preformed independently of the line-member to fit the intermediate saddle-receiving portion of the said line-member over an area surrounding the said lateral port and to be joined thereto by soldering or the like; the saddle-portion of the branch-member and the underlying saddle-receiving portion of the line-member being provided with integral complementary means interengageable to relatively position said members with said lateral ports registering with the opening of the tubular branch-member, said interengageable means comprising a boss on one of said members and a perforations in the other member.

EDWARD S. CORNELL, JR.