

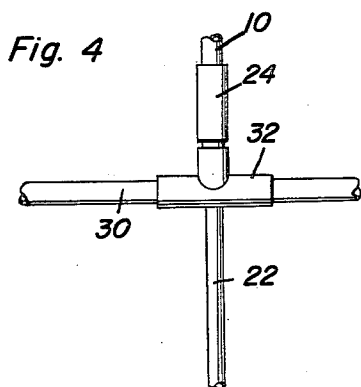
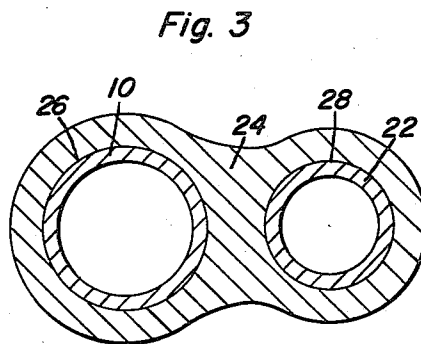
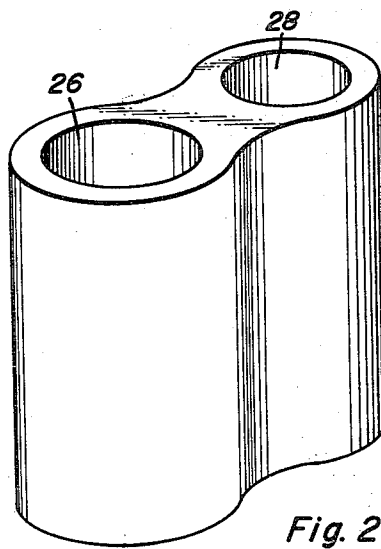
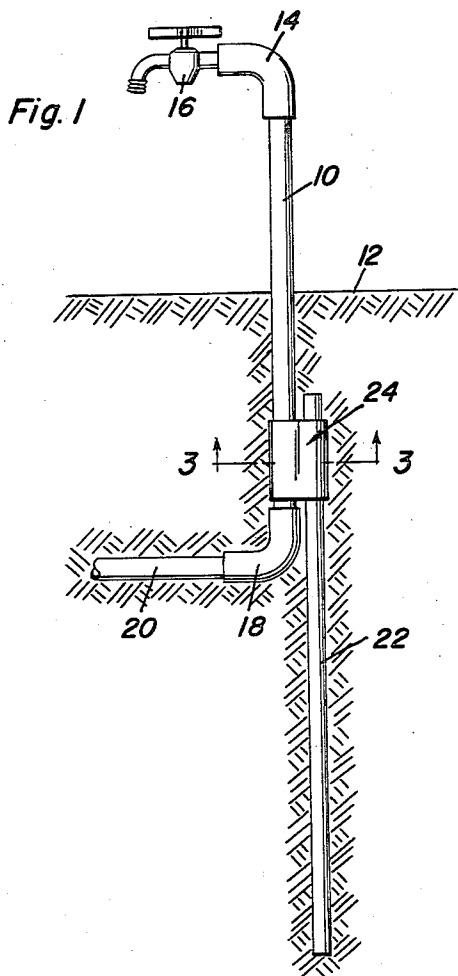
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RISER PIPE STABILIZER

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1

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RISER PIPE STABILIZER

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2 Claims. (Cl. 137-236)

This invention relates to a method and means for more effectively and economically stabilizing riser pipes which project above the ground and are communicatively connected to an underground supply conduit.

It is therefore a primary object of this invention to provide a stabilizer for vertical riser pipes to which faucets, hose couplings or the like are connected for supplying water to a lawn for example, to thereby avoid knocking over of the riser pipe or damaging it or its connection to the supply conduit below ground.

Another object of this invention is to provide a method and arrangement for stabilizing riser pipes which involves a minimum of parts and efforts and yet is more effective than previous methods or stabilizing devices.

A further object of this invention is to provide a riser pipe stabilizer which involves the embedding of a stabilizer pipe section entirely below ground level in parallel spaced relation to the riser pipe and connecting the upper portion of the pipe section to the lower portion of the riser pipe adjacent to its connection to the supply conduit by means of a fitting or connector, the latter member preventing lateral movement of the pipe section and riser pipe relative to each other whereby the riser pipe is stabilized. The pipe section extends below the supply conduit to which the riser pipe is connected and thereby will counteract and resist lateral displacing forces in any direction that may be applied to the riser pipe from above ground. The arrangement is such therefore, that effective stabilization is provided by means hidden and disposed below ground which not only is more advantageous from an appearance and from an economic standpoint, but utilizes the lateral pressure of the earth itself to more effectively resist displacing forces that may be applied to the riser pipe portion which projects above the ground.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevational view of a riser pipe stabilizer arrangement shown embedded in its underground installation.

FIGURE 2 is a perspective view of the stabilizer connector member of the present invention.

FIGURE 3 is a sectional view taken through a plane indicated by section line 3-3 in FIGURE 1.

FIGURE 4 is a front elevational view of a riser pipe stabilizer arrangement associated with a different supply conduit arrangement from that shown in FIGURE 1.

Referring now to the drawing in detail, FIGURE 1 illustrates a typical riser pipe stabilizer arrangement pursuant to the principles of the present invention. It will therefore be observed that a riser pipe 10 is shown with an upper portion projecting above the ground level 12 and connected by means of elbow fitting 14 to a faucet device 16 in a conventional manner. It should also be understood that the riser pipe 10 may be connected alternatively to a hose coupling fitting for lawn watering purposes if so desired. It will also be noted that a substantial portion of the riser pipe 10 extends below the ground level 12 and is connected by an elbow fitting member 18 to one end of a water supply conduit 20 which is disposed underground. Such riser pipe connec-

2

tions are often broken by being knocked over accidentally or by the pull of a hose if connected thereto. Many forms of stabilizer devices have heretofore been used in order to resist the lateral displacing forces applied to the riser pipe most of which stabilizer devices are mounted above ground and require anchoring thereof both to the riser pipe and in the ground. Such stabilizer devices in addition to being costly in manufacture require considerable effort to install and to effectively anchor in the ground in order to resist the lateral displacing forces applied to the riser pipe. The stabilizer arrangement of the present invention however more effectively accomplishes the aforementioned function of the previous stabilizer devices in an astonishingly simple but yet unique and novel manner.

It will therefore be observed in FIGURE 1 that a stabilizer pipe section 22 is disposed entirely beneath the ground with an upper portion thereof being disposed in spaced parallel relation to a lower portion of the riser pipe 10. It will also be observed that the stabilizer pipe section 22 extends substantially below the supply conduit 20. Interconnecting the upper portion of the stabilizer pipe section 22 and the lower portion of the riser pipe 10 adjacent to the elbow fitting 18, is a stabilizer connector member generally referred to by reference numeral 24. The stabilizer connector member as more clearly seen in FIGURES 2 and 3 has formed therein a pair of parallel spaced bores 26 and 28 which are of different diameters to slidably receive with a snug fit the riser pipe 10 and stabilizer pipe section 22 respectively. It will therefore be apparent that the stabilizer connector member 24 will prevent lateral movement of the riser pipe and stabilizer pipe section relative to each other. Accordingly, lateral displacing forces applied to the riser pipe 10 will be resisted by the pressure of the earth applied to the stabilizer pipe section 22. It will further be apparent, that the length of the connector member 24 is sufficient to prevent bending of the connected portions of the riser pipe and stabilizer pipe section.

From the foregoing, it will be observed that the stabilizer connector member 24 by having bores 26 and 28 of different diameters may accommodate different diameter riser pipes. Accordingly, the stabilizer pipe section selected for use in the disclosed stabilizer arrangement will depend upon the bore available after the riser pipe has been inserted.

It will be understood, that the stabilizer arrangement as hereinbefore disclosed, may be applied to riser pipes regardless of the type of supply conduit systems with which it is associated. In FIGURE 1, the riser pipe section 10 is illustrated and connected to an end of the supply conduit 20. In FIGURE 4 on the other hand, a supply conduit 30 is connected by a T-coupling 32 to the riser pipe 10. It will therefore be appreciated that the supply conduit may be connected to a plurality of riser pipes each connection having the stabilizer connector device 24 and stabilizer pipe section 22 associated therewith as described with respect to FIGURE 1. It should be further understood, that the stabilizer connector member 24 may be cast in one piece with minimum expense and that the arrangement may be equally useful for plastic pipe and galvanized pipe plumbing.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

3

What is claimed as new is as follows:

1. In combination, a water conducting and supply pipe, a complemental riser pipe at right angles to and having a lower end operatively and communicatively joined to said supply pipe by and through the medium of a coupling, an anchoring and stabilizing pipe in proximity to said coupling and having an upper end portion parallel to the riser pipe and terminating at its upper end adjacent said lower end of said riser pipe and having its median and lower end portions, depending well beyond said coupling and at right angles to the axis of the supply pipe, and a connector for assembling and connecting the riser pipe and stabilizing pipe comprising a one-piece casting having end portions with open-end bores disposed in spaced parallelism and slidably embracing said riser pipe and stabilizing pipe, respectively.

2. In combination, a water supply pipe line providing a conduit and embedded in the ground below the surface of the ground, a riser pipe vertically disposed and having a lower end portion communicatively coupled to said conduit and having an upper portion projecting above the surface of the ground in a manner to accommodate and accessibly support a garden hose faucet, a vertically elongated pipe section constituting stabilizer means embedded in the ground below the surface of the ground and having a substantial portion thereof staked and anchored in the ground below the level of the coupling and having an upper portion projecting above the

4

level of the coupling and assuming a position in close spaced parallelism to a lower coupled end portion of said riser pipe, and a one-piece connector rigidly joining the upper end of said pipe section and the lower end portion of said riser pipe to each other in a manner to distributively transfer certain abnormally excessive forces that might be imposed on the riser pipe to the stabilizer pipe section through the medium of said connector, said connector comprising a one-piece casting embodying a pair of corresponding elongated end portions, said end portions being cylindrical in cross-section and each end portion having an open-ended smooth-finished bore extending lengthwise therethrough, said end portions being united by an integrating web and said bores slidably but snugly embracing a portion of the riser pipe and stabilizer pipe section cooperating therewith.

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