

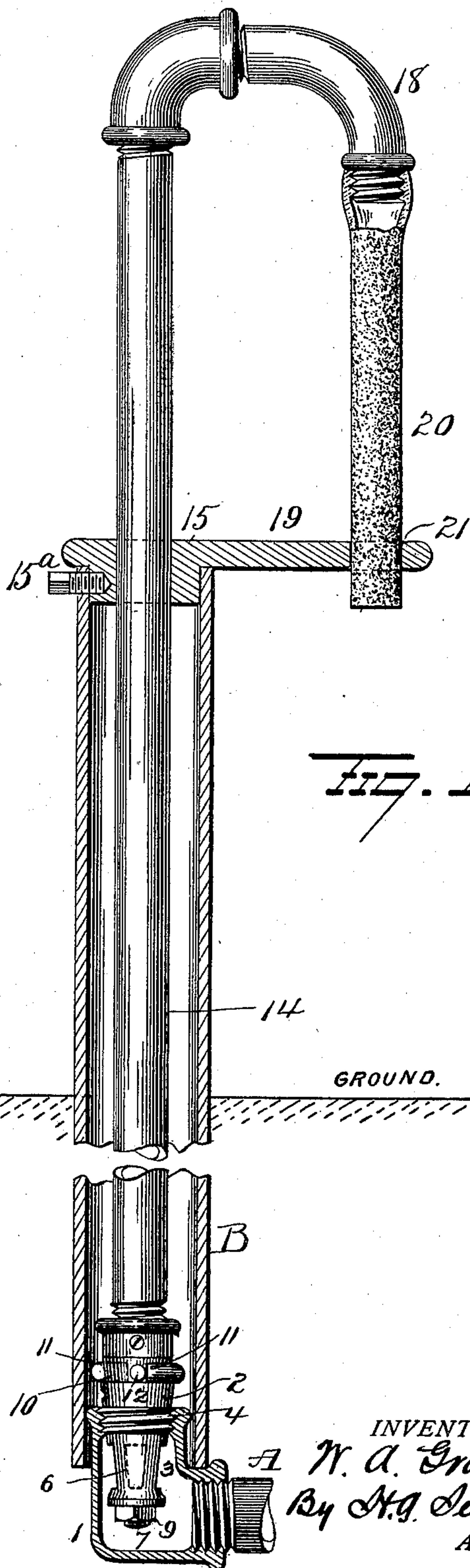
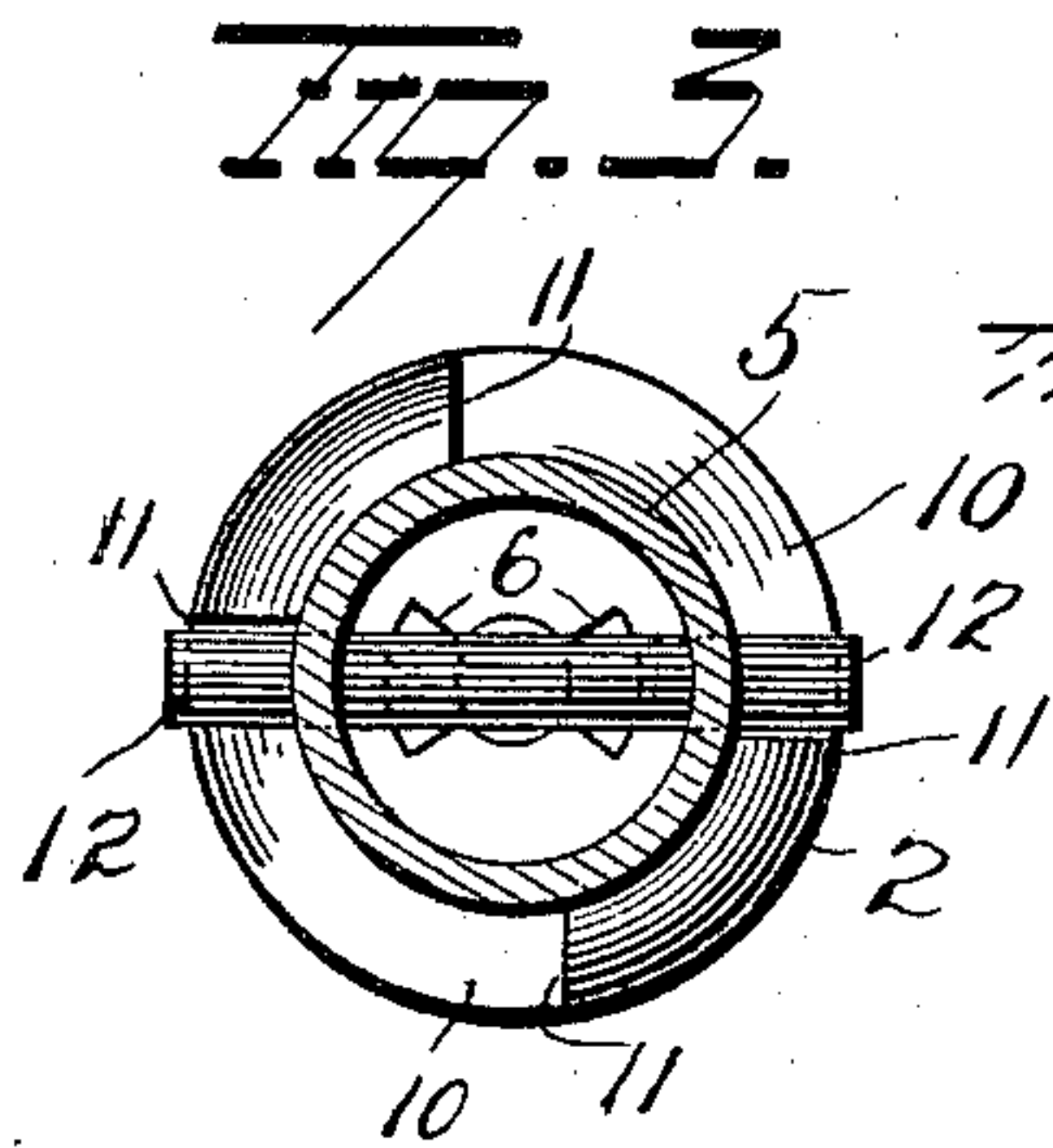
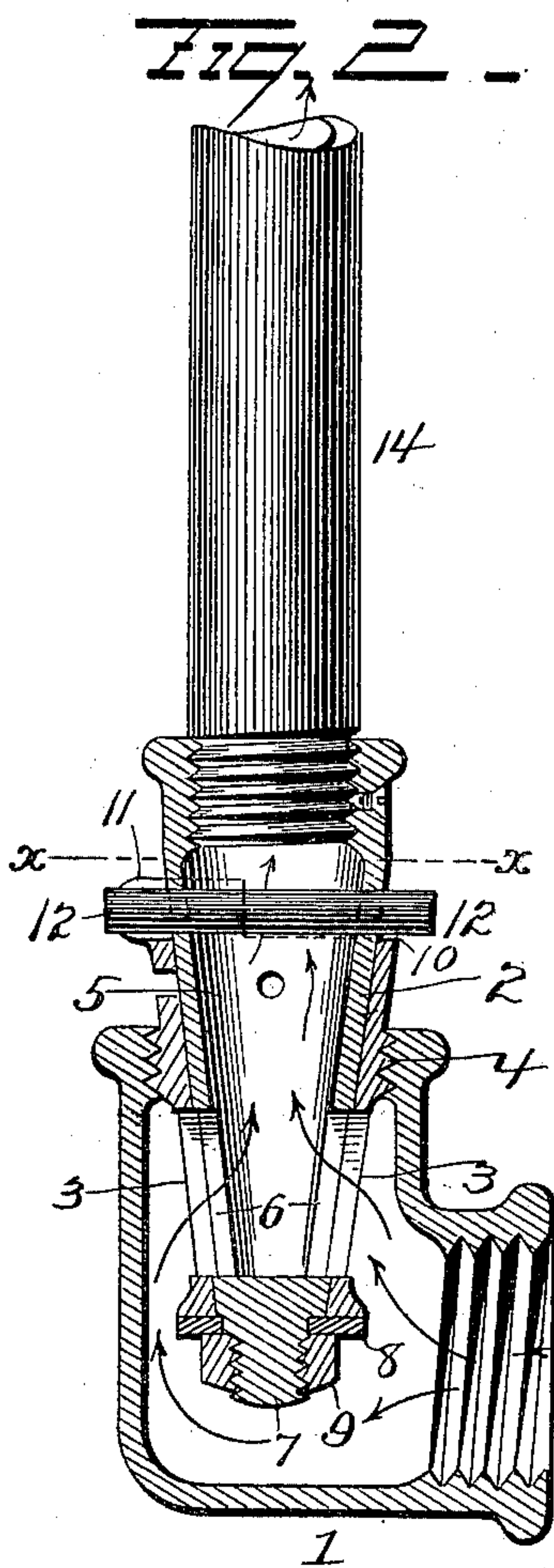
No. 627,III.

W. A. GRAHAM.
HYDRANT.

Patented June 20, 1899.

(Application filed Feb. 8, 1899.)

(No Model.)



WITNESSES
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HYDRANT.

SPECIFICATION forming part of Letters Patent No. 627,111, dated June 20, 1899.

Application filed February 8, 1899. Serial No. 704,991. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. GRAHAM, of Carlisle, in the county of Cumberland and State of Pennsylvania, have invented certain
5 new and useful Improvements in Hydrants; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the
10 same.

My invention relates to an improvement in hydrants, the object of the invention being to so construct a hydrant or similar apparatus as to effectually obviate all possibility of
15 the exposed parts becoming frozen and thereby rendered inoperative.

A further object is to so construct a hydrant that the stand-pipe, the valve, and the valve-seat can be disconnected from the main and
20 bodily removed and easily replaced without the necessity of digging.

A further object is to produce a hydrant which shall be simple in construction, in which splashing will be effectually prevented, and
25 which will perform all its functions in an efficacious manner.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of
30 parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation, partly in section. Fig. 2 is an enlarged view in section of the valve
35 and its connection to the main. Fig. 3 is a cross-sectional view on the line *xx* of Fig. 2.

A represents a water-main provided with a suitable coupling 1, and B represents a casing adapted to be planted in the ground and
40 terminate at its lower end in close proximity to the main.

A valve-casing 2, having inlet-ports 3, projects within the coupling 1, so as to receive water from the main, and said valve-casing
45 is provided with external screw-threads 4 to mesh with similar threads in the coupling. A tubular plug-valve 5 is disposed within the valve-casing 2 and is provided with ports 6, which when the valve is turned in one direc-
50 tion will aline with the ports in the valve-casing and permit the water to enter said

valve. The lower end of the valve is provided with a shank 7, which projects through the end of the valve-casing 2, and with a washer 8 and a nut 9. The upper end of
55 the valve-casing is slotted, as at 10, whereby to form four shoulders 11, against which pins 12, projecting from the valve, can abut when the latter is moved to one or the other end of its throw. The valve 5 projects some dis-
60 tance above the upper end of its casing 2, and its upper end is internally threaded for the reception of the externally-threaded lower end of the stand-pipe 14.

From its connection with the valve the
65 stand-pipe projects upwardly and passes loosely through a cap 15, mounted on the casing B. The cap 15 is retained in place by means of a set-screw 15^a.

A spigot or spout 18 is secured to the up-
70 per end of the stand-pipe, and the cap 15 of the casing B is provided with an arm or flange 19, which projects outwardly under the mouth of the spigot or spout. A flexible tube 20 is applied to the mouth of the spout or spigot,
75 and the arm or flange 19 is made with a hole 21, through which said tube passes loosely.

From the construction and arrangement of parts above described it will be seen that by turning the stand-pipe the valve will be
80 opened or closed and that as the valve-casing is secured directly to the coupling of the main the water can pass only through the stand-pipe and never around it. There will therefore be no possibility of the parts above the ground
85 becoming frozen, as is the case where the construction is such as to permit the admission of water between moving parts.

When the spigot or spout is turned to open or close the valve, the flexible tube will move
90 freely in the hole in arm or flange 19 of the cap 15 and splashing will be reduced to a minimum.

When it is desired to remove the valve and its casing for any purpose, this can be readily
95 done by simply turning the stand-pipe until the pins 12 engage two of the shoulders 11 and then continuing to turn the stand-pipe until the valve-casing becomes unscrewed from the main-coupling, when the stand-pipe, valve-
100 casing, and valve can be removed bodily.

My improvements are simple in construc-

tion, cheap to manufacture, and effectual in all respects in the performance of their functions.

5 Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope, and hence I do not wish to limit myself to the precise details herein set forth.

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

1. The combination with a coupling adapted to be attached to a water-main and a revolvable stand-pipe provided at its upper end with
15 a spout, of a valve-casing adapted to screw into said coupling, a valve revolvably mounted in said casing and communicating with the stand-pipe, means for rigidly securing said valve and stand-pipe together so that the
20 stand-pipe can be turned in both directions without becoming detached from the valve, oppositely-disposed shoulders on the upper end of the valve-casing and a horizontally-disposed pin secured to the valve and projecting
25 beyond the same so as to engage said shoulders on the valve-casing when the stand-pipe is turned backwardly for the purpose of re-

moving the valve and its seat from the main and permitting them to be withdrawn, bodily with the stand-pipe. 30

2. The combination with the spout or spigot, of an arm disposed under the mouth of said spout or spigot and having a hole therein, and a flexible tube attached to the mouth of the
35 spout or spigot and passing loosely through said arm, substantially as set forth.

3. The combination with a casing, a water-main, a stand-pipe and a valve connected with the stand-pipe and adapted to communicate with the water-main, of a cap on the casing
40 and through which said stand-pipe has free movement, an arm projecting from said cap and having a hole therein, a spout on the stand-pipe and a flexible tube attached to said spout and passing loosely through the hole in said
45 arm.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM A. GRAHAM.

Witnesses:

C. S. DRURY,

G. F. DOWNING.