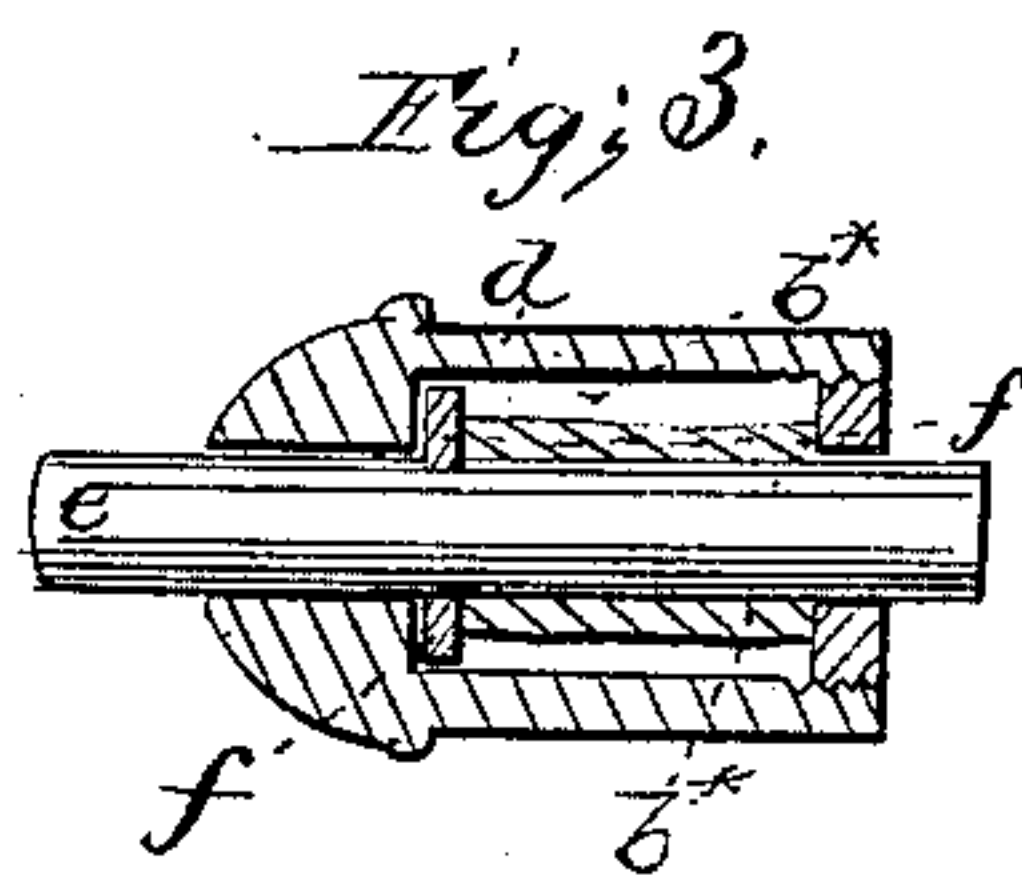
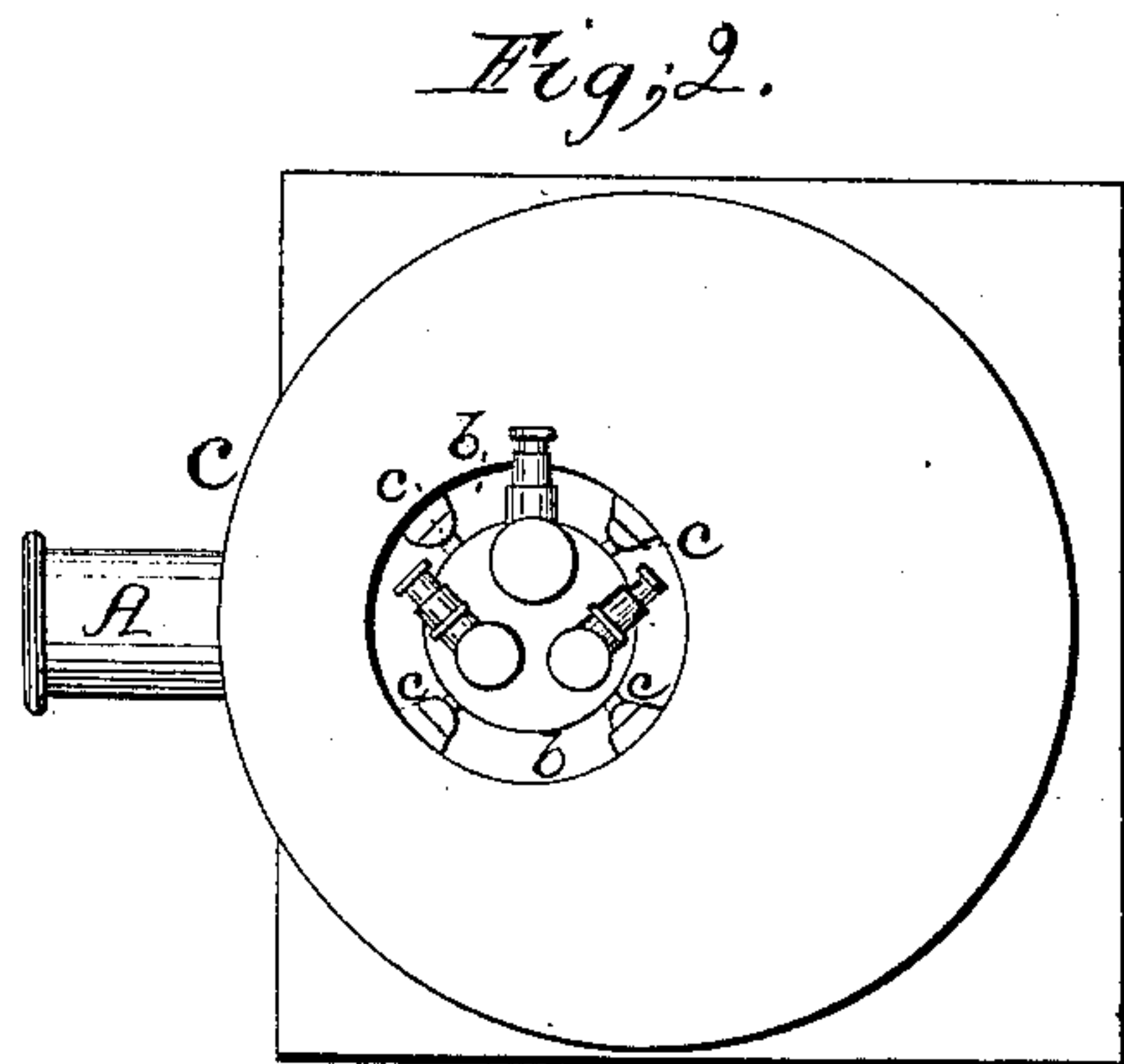
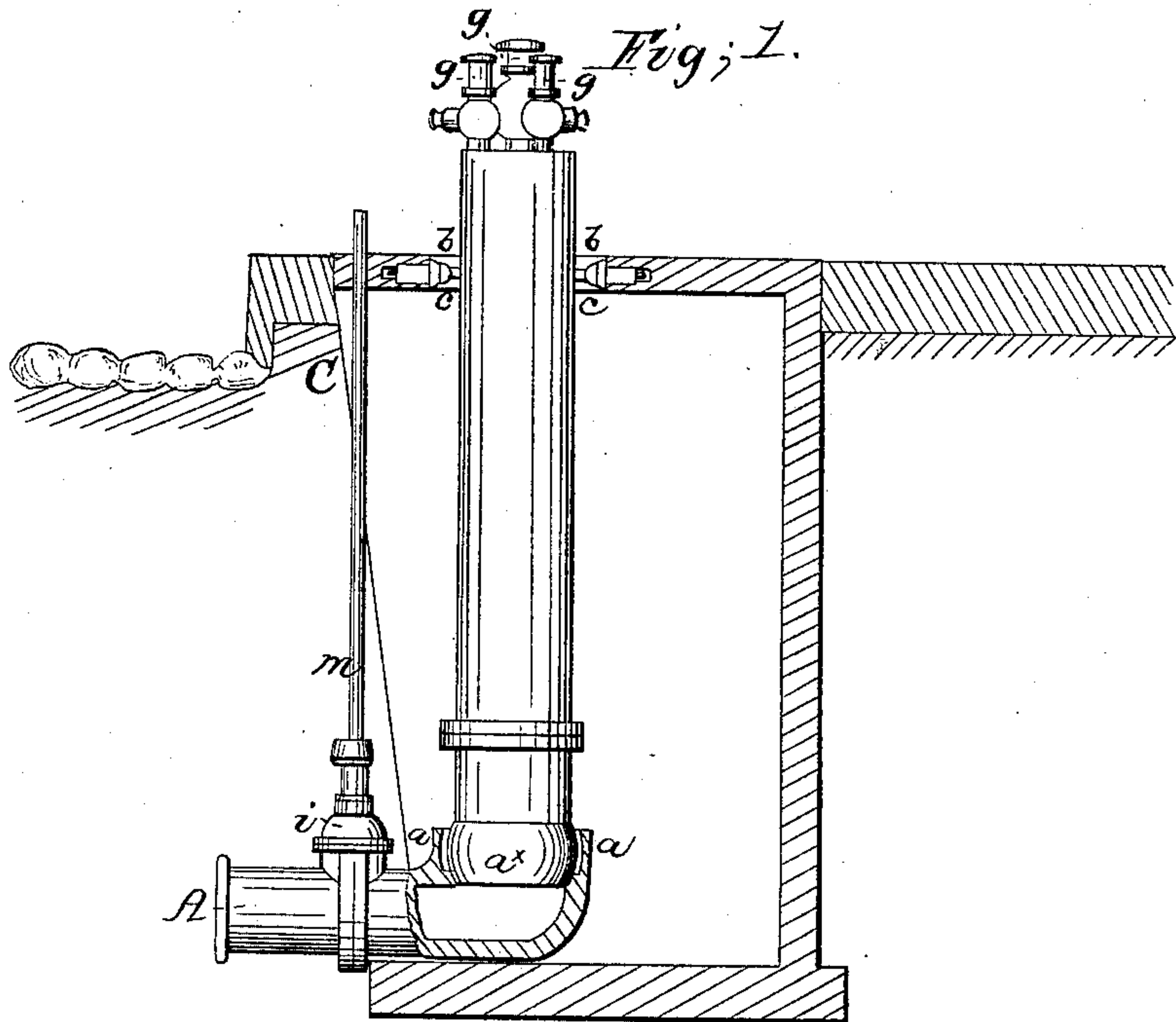


J. H. Rhodes.

Hydrant.

No 78,393.

Patented May 26, 1868.



Witnesses;
J. W. Coomb,
A. H. Clere

Inventor;
J. H. Rhodes
Per Brown, Coomb & Co
Atty

United States Patent Office.

JOHN H. RHODES, OF BROOKLYN, NEW YORK.

Letters Patent No. 78,393, dated May 26, 1868.

IMPROVEMENT IN FIRE-PLUGS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN H. RHODES, of Brooklyn, in the county of Kings, and State of New York, have invented a new and useful Improvement in Hydrants for Fire-Engines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a vertical transverse section of a hydrant made according to my invention.

Figure 2 is a plan view of the same.

Figure 3 is a longitudinal section of one portion of the same.

Similar letters of reference indicate corresponding parts in all the figures.

This invention consists in a hydrant, having its lower end working on a universal joint, communicating with the water-main, and its upper end supported by suitable springs, in such manner that the hydrant is enabled to yield or move laterally to the impulse communicated thereto by the unequal flow of the water in the hose or pipe connecting the same with the fire-engine, when in use, and induced by the action of the pump-valves of such engine; the destructive jarring incident to the ordinary hydrant from this cause being by this means entirely avoided.

To enable others to understand the nature and construction of my invention, I will proceed to describe it with reference to the drawings.

A represents the water-main, with which the hydrant is connected, and which has formed upon it a shell, α , so shaped as to constitute the outer portion of a ball-and-socket joint, the inner portion of which is formed by the bulb-shaped lower end α^* of the hydrant B; this ball-and-socket joint enabling the hydrant, within certain limits, to move or tilt laterally, as will be hereinafter further set forth. Placed around the hydrant is a casing, C, of any suitable material, and which has an opening, b , provided in its top, through which the upper end of the hydrant extends, as shown more fully in fig. 1; the hydrant, under ordinary circumstances, being retained in a vertical position, at or near the centre of the opening, by springs, indicated at c , and arranged within the opening and around the hydrant, as represented more fully in fig. 2. These springs may be of any suitable construction, but preferably made as shown in fig. 3, in which d is a cylindrical case, having passed longitudinally therethrough a rod, e , provided with a collar or flanch, f , between which and the opposite end of the case d , and surrounding the rod e , is a tubular piece or block, b^* , of India rubber or equivalent material. The cases d being fitted into suitable cavities provided in the sides of the opening b' , and with the ends of the rods e in contact with the sides of the hydrant, the India-rubber pieces or blocks b^* are enabled to act upon the rods e , and, by their elasticity, retain the hydrant in position, as hereinbefore mentioned.

The hydrant may be furnished with any desired number of suitable nozzles, g , and, when thought proper, the main, A, may be furnished with a stop-cock at i , operated, when required, by a vertical rod, m , extending up through the top of the casing C.

When the hydrant is connected with the fire-engine, by the ordinary or any suitable means, the throbbing or irregular movement communicated to the current of water, in its passage to the pump of the engine, by the action of the valves of such pump, instead of jarring and consequently injuring the hydrant, as is found to be the case when the latter is permanently fixed, serves only to slightly move the same laterally, the springs surrounding the upper part thereof yielding sufficiently to permit such lateral movement in any direction.

What I claim as my invention, and desire to secure by Letters Patent, is—

The hydrant, having its lower end working on a universal joint communicating with the water-main, and its upper end sustained by suitable springs, substantially as and for the purpose specified.

JOHN H. RHODES.

Witnesses:

SAML. T. WATERHOUSE,
DANIEL SMITH.