2 Sheets—Sheet 1.

C. L. DRIESSLEIN.

Water-Supply Pipe.

No. 196,745. Patented Nov. 6, 1877.

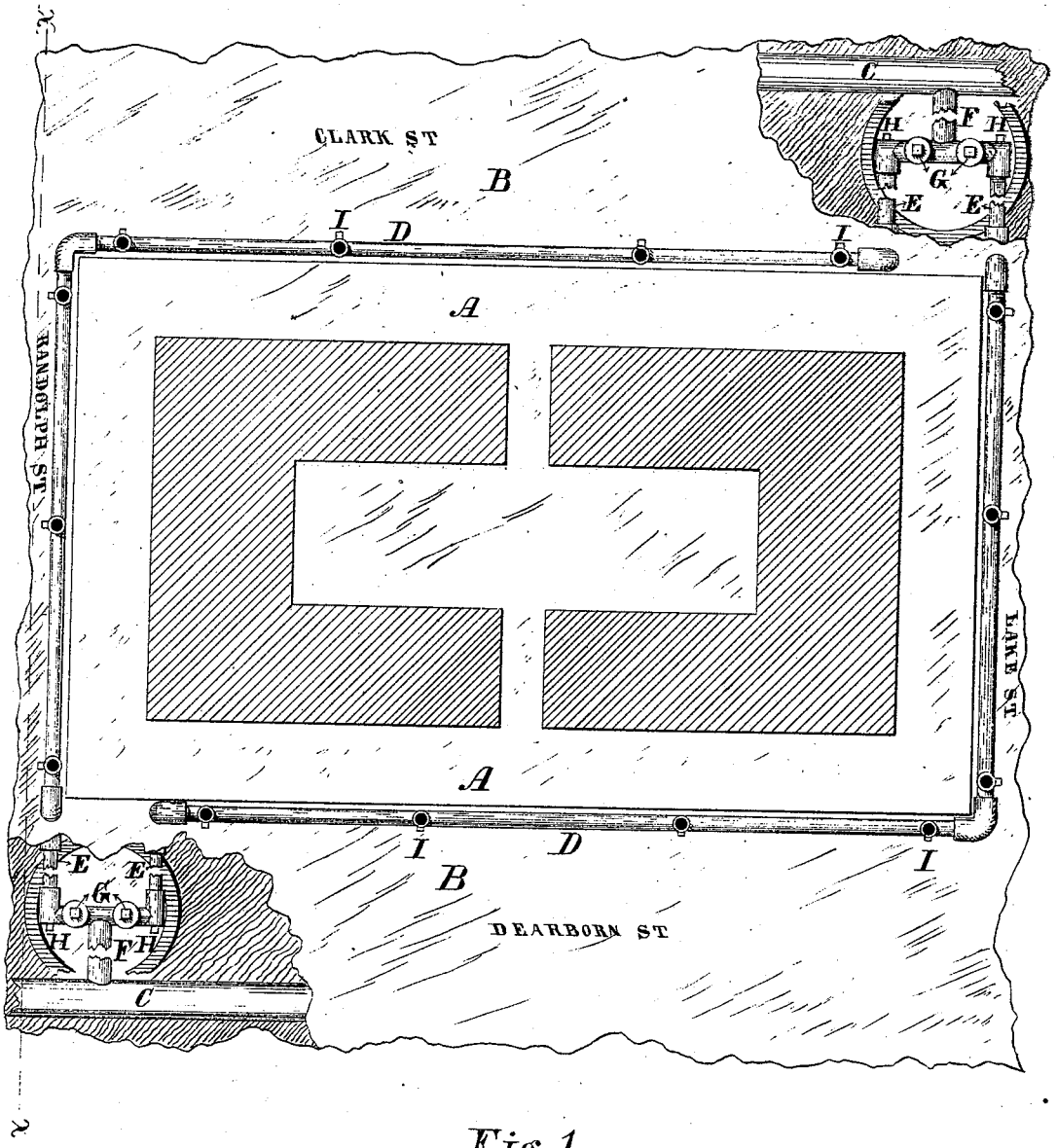

Fig 1

Witnesses

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2 Sheets—Sheet 2.

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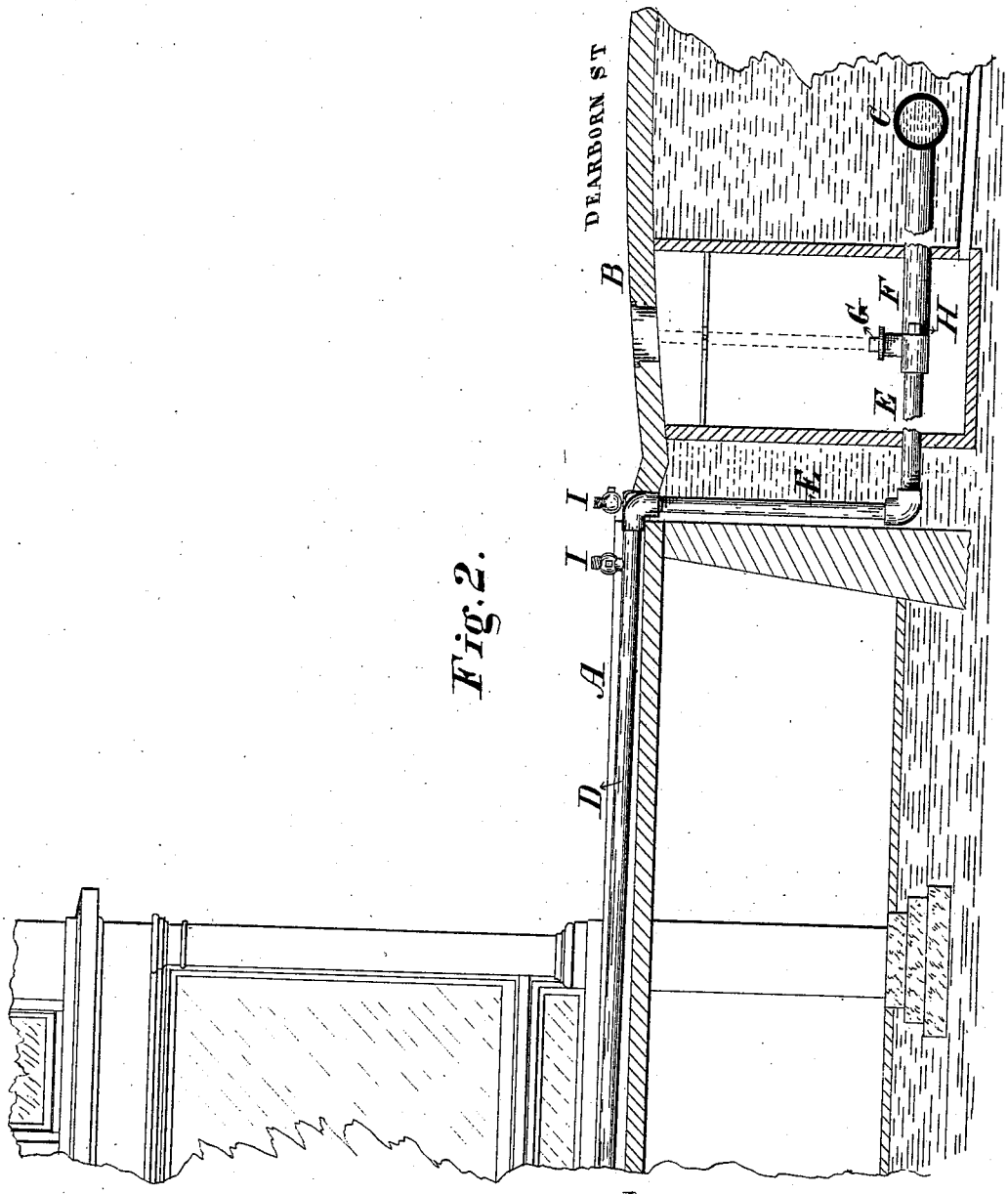

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES L. DRIESSLEIN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WATER-SUPPLY PIPES.

Specification forming part of Letters Patent No. **196,745**, dated November 6, 1877; application filed September 22, 1877.

To all whom it may concern:

Be it known that I, CHARLES L. DRIESSLEIN, of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Water-Supply Pipes, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of a square or block with my auxiliary water-pipes laid around it; and Fig. 2, a detail section, on an enlarged scale, taken on the line *x x*, Fig. 1.

The object of my invention is to provide for a large supply of water, in case of fire, at the immediate locality of the fire, which can be made available for the supply of water to an engine placed close by the burning building.

The invention consists in auxiliary water-pipes laid around a square of buildings, or a portion thereof, above the ground, and connected with the main supply-pipes, so that the water from the latter may be turned into the former at will.

It also consists in arranging the auxiliary pipes in a slightly-inclined position, so that the water may be entirely drained from them when not in use.

It also consists in special combinations of devices for connecting the auxiliary pipes with the mains, and providing for the coupling of hose to the former, all of which will be hereinafter more fully set forth.

In the drawings, A represents the sidewalk between the houses and curb-stone; B, the pavement of the street adjacent; and C, the supply-pipe or water-main laid along the street under ground, in the usual manner. An auxiliary water-supply pipe, D, is laid above the ground, extending along next to the curb. This pipe is preferably arranged upon two sides of the square, as shown in Fig. 1 of the drawings, so that two pipes will be employed to surround the entire square. These auxiliary pipes are connected with the main supply-pipes in two opposite streets at diagonally-opposite corners of the square by means of service-pipes E, one of which is connected to each end of the pipes D, and is extended down into the ground, and then outward, to connect with a T branch pipe, F, extending inward from the main supply-pipe. The connections between the branch pipe and service-pipes may be located within a trap or pit, if desired, so as to be readily accessible.

Suitable stop-cocks G are inserted in the cross-pipe of the branch coupling F, so that communication may be opened and closed between the main pipes C and either one or both of the auxiliary pipes D, at pleasure. The pipes D are laid in a slightly-inclined position, so that at the corners of the squares around which they pass in running from one street to another, their position will be higher than at any other point, and therefore all water may be drained from them, after communication with the main pipes is closed, by means of an intermediate outlet, conveniently located for this purpose immediately above or underneath the ground.

In the drawings a plug, H, is represented as inserted in the ends of the service-pipes, where they join the branch coupling F, by means of which this draining of the auxiliary pipes may be accomplished; but an outlet may be provided at any other point which will permit the same result to be effected.

The pipes D are provided along their entire length with suitable hose-couplings I, controlled by a stop-cock or valve of any ordinary construction. These couplings may be arranged at such intervals along the street as may be desired, one being placed opposite every house in the square, if wished.

The pipes D are made of large size, so as to take a large quantity of water from the street-main, and therefore, whenever a fire occurs, several engines can be located close to the burning building, and supplied with water from the pipe D by coupling to the plugs I.

It is evident that by this means the difficulty of forcing water through long lengths of hose from an engine stationed at some distance from the fire is entirely obviated, and thereby a great saving in the cost of hose is effected, and also the force of the engine is almost entirely utilized in throwing water directly into or upon the building, instead of losing a large percentage in forcing the water long distances through hose. The supply of water will always be sufficient and in readiness, and obtained by

simply turning the plugs G at one or both ends of one or more of the auxiliary pipes, thereby opening communication with the mains.

After use, and especially in cold weather, communication between the mains and auxiliary pipes should be closed, and the latter drained, as above described. In ordinary weather the plugs I, at the lowest points of the pipe, may be used for this purpose; but when there is danger of freezing the draining-outlets should be under ground.

It is not absolutely necessary to put these auxiliary pipes around every square in a city, as it is evident that by surrounding each alternate square there would be one of these supply-pipes in every street, within convenient distance of the houses thereon; but of course the supply of water will be much greater if the auxiliary pipes are laid around every square.

Instead of the arrangement described, the pipe D may be laid along the street parallel to the main C, and connected at every square, or two or more squares, with the main, as described, so that the water from the main may be diverted into the auxiliary pipe, and returned again to the same main pipe. The auxiliary pipe should be made as large, or nearly so, as the main, where the latter is small, so that nearly the entire supply of water may be diverted from the main into the auxiliary pipe.

The couplings in the auxiliary pipes may also be used for attaching hose directly thereto without the intervention of an engine for service in case of fire, or any other use desired; and if "stand-pipes" are employed, they may be coupled to the auxiliary pipes whenever occasion requires.

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

1. The auxiliary water-supply pipes D, laid in the street above the ground or pavement, around or along a square or block of buildings, and provided with a series of plugs, I, in combination with the water-main C, with which the auxiliary pipe is connected, so that water may be admitted to or shut off therefrom, substantially as and for the purpose set forth.

2. The auxiliary pipes D, extending around two sides of a block or square, connected with the mains in two opposite streets, and laid in an inclined plane, as described, substantially as and for the purpose set forth.

3. The auxiliary pipes D, arranged upon the street, above the surface thereof, as described, in combination with the main supply-pipes C, the service or connecting pipes E, coupling F, and valves G, substantially as described.

4. The service-pipes E, in combination with the branch coupler F, main pipe C, valves G, and plugs H, substantially as and for the purpose set forth.

CHAS. L. DRIESSLEIN.

Witnesses:
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