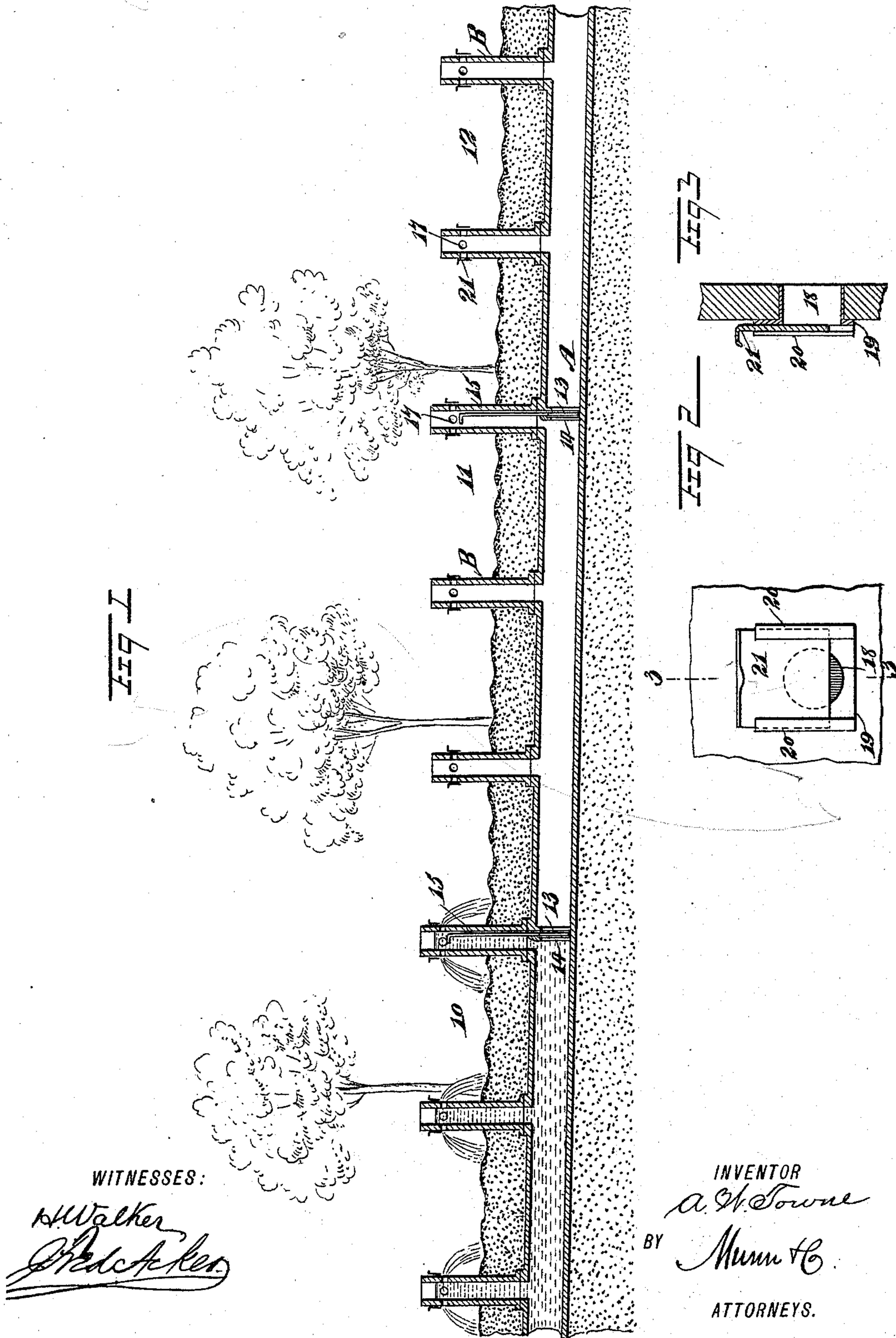


(No Model.)

A. W. TOWNE.
IRRIGATING PLANT.

No. 572,842.

Patented Dec. 8, 1896.



UNITED STATES PATENT OFFICE.

ALLAN W. TOWNE, OF POMONA, CALIFORNIA.

IRRIGATING PLANT.

SPECIFICATION forming part of Letters Patent No. 572,842, dated December 8, 1896.

Application filed October 15, 1895. Serial No. 565,748. (No model.)

To all whom it may concern:

Be it known that I, ALLAN W. TOWNE, of Pomona, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Irrigating Plants, of which the following is a full, clear, and exact description.

The object of this invention is to provide superior means for irrigating land, and particularly for irrigating orchards. I attain this end by means of an inclined trunk-pipe having a gate or a series of gates arranged therein and having a plurality of hydrants arising from the trunk-pipe between each gate, the discharge-orifices of the hydrants between each gate being respectively in the same plane.

The invention will be fully described hereinafter and finally embodied in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through one of the trunk-pipes, illustrating a line of hydrants connected therewith in different planes, the hydrants being also in section. Fig. 2 is a front elevation of one of the gates of a hydrant, illustrating its attachment to said hydrant; and Fig. 3 is a vertical section on the line 3 3 of Fig. 2.

In illustrating the invention the trunk-pipes A are shown applied to an orchard on a hillside, and the trunk-pipes are run from the head to the foot of the orchard transversely of the furrows at predetermined distances apart and are given an inclination downward from the head of said orchard. The trunk-pipes are placed a predetermined distance below the surface of the ground, in order that the cultivation of the ground shall not in the least be interfered with or traffic over the ground be obstructed.

Each trunk-pipe is provided with a number of hydrants B, extending a predetermined distance above the ground, and these hydrants are arranged in planes, a predetermined number of hydrants being located in each plane. In the drawings the hydrants

are shown as being grouped in three planes, designated, respectively, as 10, 11, and 12.

The hydrants in the upper plane 10, which is at the head of the orchard, extend higher than those in the intermediate plane 11, while the hydrants in the lower plane 12 are of less height than those in the intermediate plane. The several planes are separated from one another in each trunk-pipe by means of gates or valves 13, held to slide in suitable ways 14 made in the trunk-pipe, and each valve is preferably provided with a stem 15, which extends upward within one of the hydrants; but the stem may be carried outside of the hydrant if desired. Each plane and level is supplied through the main or trunk line.

Each hydrant is provided with a given number of openings 17, located below the level of the water in the hydrant, and a collar 18 is introduced into each opening 17, the collar being attached to the outer or face plate 19, having suitable slideways 20, (shown in Figs. 2 and 3,) while a gate 21 is mounted in the slideways 20 of each plate, being capable of entirely closing an opening, or partially closing the same, according to the amount of water deemed necessary to be delivered from the opening.

In the operation of the irrigating plant the water is first turned on to the upper plane sections of the trunk-pipes A, the gates at the lower end of the section being closed. Water will then be supplied to all of the hydrants communicating with the said upper sections of the trunk-pipes and will be delivered from the several openings in the several hydrants to the furrows. When the furrows controlled by the hydrants of the upper plane have received a sufficient quantity of water, the gate 13 of that section is opened and the water will be drawn from the upper hydrants into the plane below and the water remaining in the upper plane section will run into the next plane section below, the gate controlling that section being closed, and the land adjacent to this next lower section will be irrigated in the same manner as that at the head of the orchard. This process of irrigation is carried on until all of the land has been suitably

moistened. When irrigating, one can commence at any plane desired.

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

An irrigating plant consisting of an inclined trunk-pipe, a gate for the trunk-pipe, and a series of hydrants rising from the trunk-pipe on each side of the gate, the gate form-

ing in the trunk-pipe two divisions, and the 10 hydrants of each division having their discharge-orifices respectively in the same horizontal plane, substantially as described.

ALLAN W. TOWNE.

Witnesses:

WILLIAM L. HAMLEN,
J. H. DUNN.