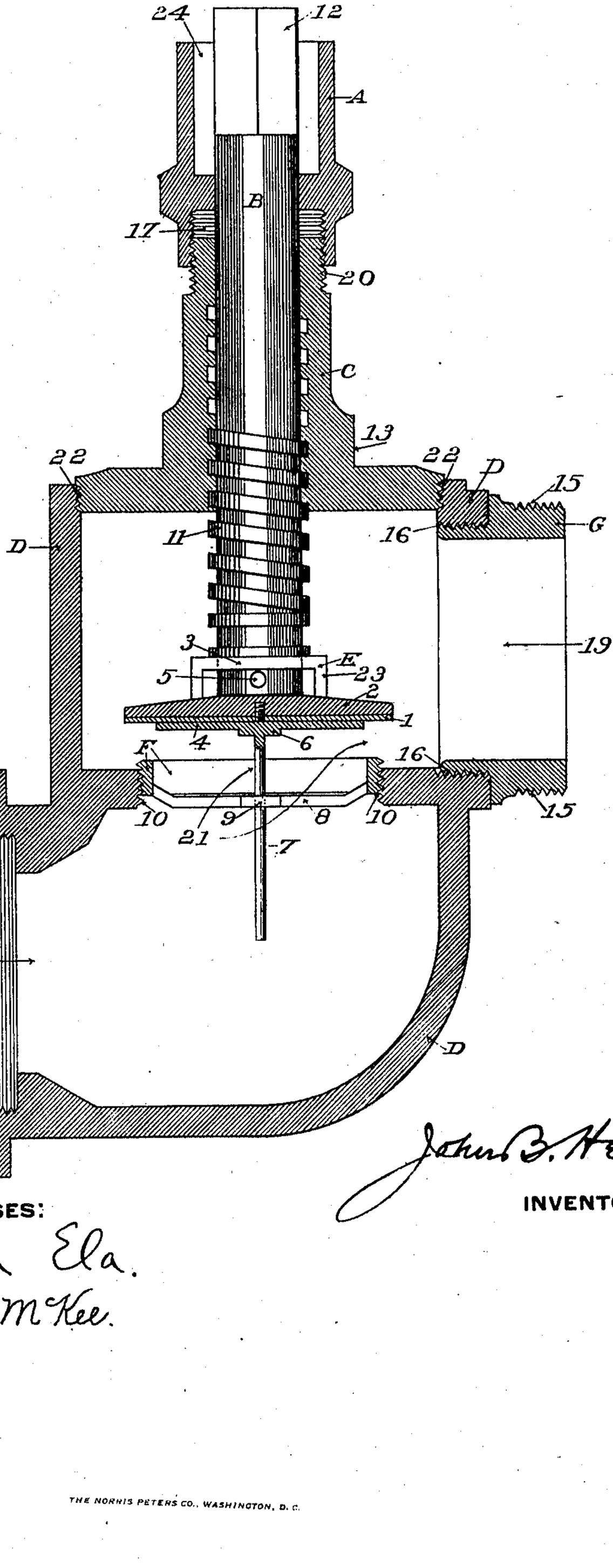
J. B. HEIM.

SPRINKLING VALVE FOR HYDRANTS.

APPLICATION FILED APR. 13, 1906.

970,707. Patented Sept. 20, 1910.



WITNESSES:

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JOHN B. HEIM, OF MADISON, WISCONSIN.

SPRINKLING-VALVE FOR HYDRANTS.

970,707. Specification of Letters Patent. **Patented Sept. 20, 1910.**

Application filed April 13, 1906. Serial No. 311,426.

To all whom it may concern:

Be it known that I, JOHN B. HEIM, a citizen of the United States, residing at Madison, Dane county, Wisconsin, have invented a new and useful Sprinkling-Valve for Hydrants, of which the following is a specification.

My invention relates to improvements in sprinkling valves for hydrants specially adapted to be attached to water works,—street hydrants—for the purpose of drawing water from the hydrant during the time when, and in latitudes where, the water need not be shut off below freezing level, and the objects of my improvement are to provide a valve which may be attached to a hydrant to save the wear on the hydrant valve caused by the continuous opening and closing to withdraw water for sprinkling carts and other uses in temperate weather; and which will be durable in construction, and easy and inexpensive to repair. I reach these results by the mechanism shown in the accompanying drawing which is a section view of the valve complete for attachment upon the hydrant.

D is an elbow made of cast metal or any suitable material threaded, as shown at 14, to engage threads on the street hydrant so as to be attached and detached at will; the casting is also threaded at 10 to engage threads on the valve seat, F, hereafter described, and to retain said valve seat in position; it is also threaded at 22 to receive and retain the cap C, and at 16 to receive and retain the hose connection, G, D has an inlet, 18, at the street hydrant, and an outlet 19, offset against the opening caused by lifting the valve E from the valve seat F.

F is a valve seat of any suitable material adapted to form a contact with the valve E when it is closed to prevent the passage of water; the valve seat is externally threaded at 10′ to engage the threads of 10 of the casting D as above described; within the seat is formed an opening, 21, which is of the same size as the outlet of the street hydrant, or inlet, 18 of the casting, D, obstructed only by the cross strip or bar, 8. The cross bar, 8, is provided with a central hub with an opening, 9, therein, to receive and retain and direct the course of the guide rod, 7, tapped into the valve so that the valve E will be guided in its movement and always seat accurately.

E is the valve proper; it has a circular contact layer or washer, 1, consisting of rubber, leather or fiber, covering the entire lower side of the part, 2, which is a solid circular plate of metal of sufficient strength to withstand any water pressure. 2 is tapped to receive the guide rod, 7, which is constructed preferably integral with the metal plate, 4, and squared to receive wrench at 6 so that the whole serves both to guide the valve E to accurate seating in its downward course and also to retain in place the contact layer or washer, 1; E is also provided with a lug, 23, designed with a central hub with an opening at 3 to receive the stem, B, which seats and unseats the valve.

B is the stem reaching from the valve to the exterior and shaped at 12 to receive either the hydrant wrench or wheel handle in any desired form; it is provided with a heavy set screw, 11, either right or left hand, to engage the screw threads of the cap, C, to drive the valve, E, to position on the valve seat and keep it there against pressure and to release it when desired; the stem is connected with the valve at 3 so that the valve does not necessarily revolve as the stem is screwed up and down; the end of the stem comes in contact with the upper surface of the part, 2, of the valve, E, and exerts pressure thereon to hold the valve in place when seated; the pin 5, through the stem B serves to hold the valve E to the stem B. C is a cap, threaded at 22 to engage threads in D as above set forth; it is shaped at 13 to receive wrench for tightening or loosening; it is slightly larger in diameter than the valve E or the valve seat F, so that when the cap C is removed, all the interior parts of the device will readily be removed for repair or change; it is threaded at 20 to engage the threads of A and retain it in position.

G is the hose connection, threaded at 16 to engage like threads in D, and threaded at 15 to engage and retain threads in hose connection. The opening, 19, through G and D is offset against the opening in the valve when it is released, permitting free flow of the full volume of the water, unobstructed by the valve.

A is a counter sunk cap with space at 17 to receive packing material, and counter sunk at 24 so that when the stem B is in position for closing the valve, the outer end of B is not higher than the rim of A. The

counter sunk part, 24, is circular and large enough to receive either proper hydrant wrench or wheel handle.

The water from the street hydrant passes in at 18, through the open valve at 21, and out at 19. The ordinary hydrant valve is located below the frost level and is difficult to reach or repair in case it becomes out of order; and much usage, especially constant use for street sprinkling, is very apt to injure it and cause it to become out of order. By attaching this springling valve to the hydrant, the hydrant valve may be opened in early spring and left open without any use or wear until freezing weather sets in again; the sprinkling valve here shown being perfectly tight, easy to repair, and allowing a full, free flow of water at all times when opened.

What I claim, and seek to secure by Letters Patent, is:—

In a sprinkling valve, the combination of a hydrant attachment having means for attaching to the hydrant; a hose connection thereon, offset against a valve opening within the hydrant attachment; a valve seat and valve within the hydrant attachment; a pliable washer to form the contact between the valve and the valve seat; means for controlling the valve from outside the hydrant attachment and for increasing the pressure on the valve without revolving the valve on the valve seat; a cap on the hydrant attachment larger in diameter than either the valve or the valve seat, with a counter-sunk portion thereon to effectually encompass the means for closing the valve when in position for closing the valve, all substantially as set forth.

JOHN B. HEIM.

Witnesses:
BESSIE MCKEE,
EMERSON ELA.