

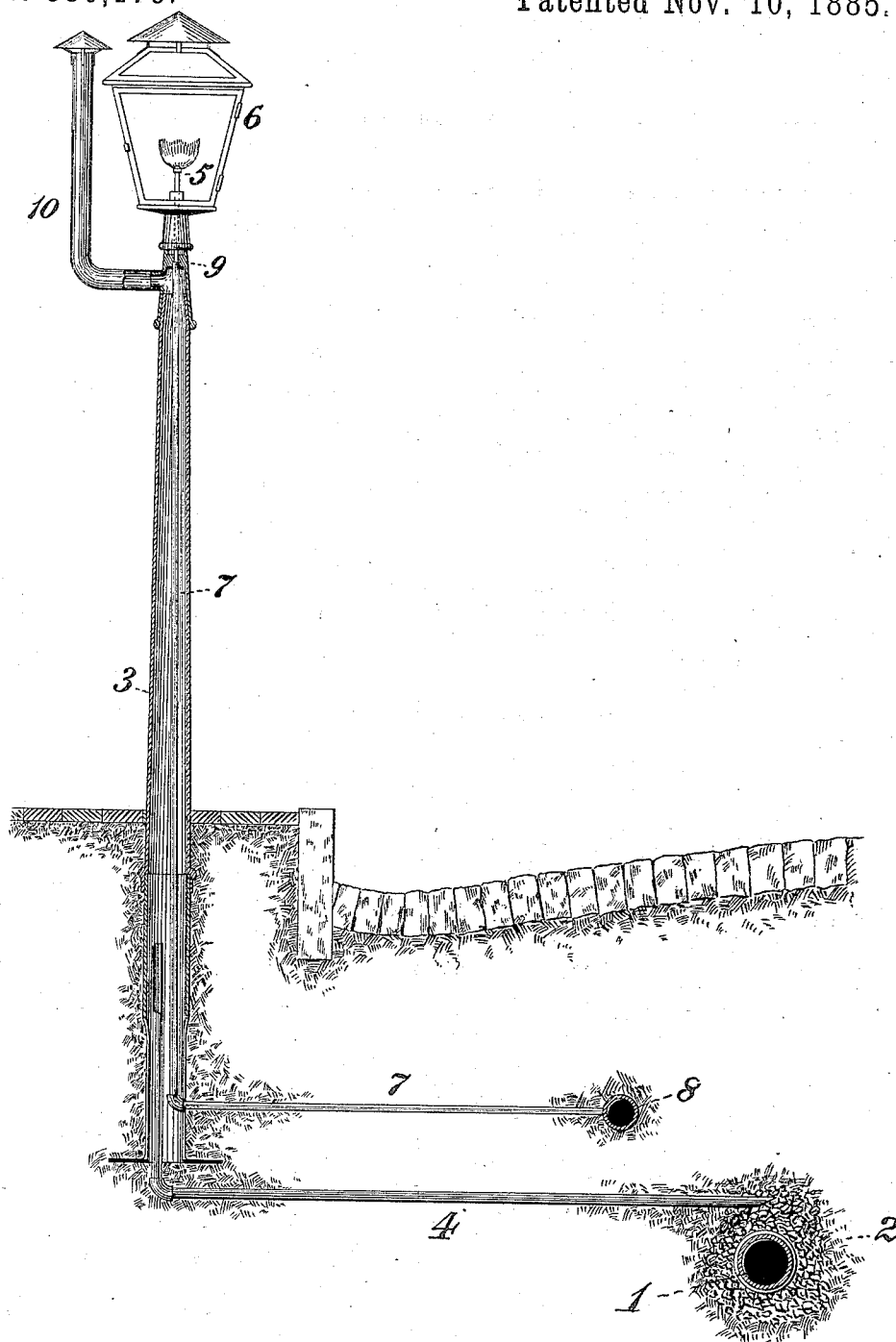
(No Model.)

G. WESTINGHOUSE, Jr.

MEANS FOR DETECTING AND CARRYING OFF LEAKAGE FROM GAS MAINS.

No. 330,179.

Patented Nov. 10, 1885.



WITNESSES:

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GEORGE WESTINGHOUSE, JR., OF PITTSBURG, PENNSYLVANIA.

MEANS FOR DETECTING AND CARRYING OFF LEAKAGE FROM GAS-MAINS.

SPECIFICATION forming part of Letters Patent No. 330,179, dated November 10, 1885.

Application filed October 8, 1885. Serial No. 179,314. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WESTINGHOUSE, Jr., residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, a citizen of the United States, have invented or discovered a certain new and useful Improvement in Means for Detecting and Carrying Off Leakage from Gas-Mains, of which improvement the following is a specification.

In the accompanying drawing, which makes part of this specification, the figure is a vertical section through a roadway and lamp-post, illustrating the application of my invention.

My present invention relates to improvements of the general class which is exemplified in Reissued Letters Patent No. 10,561, granted and issued to me under date of February 17, 1885; and its object is to suitably support, inclose, and protect the detector-pipes from unauthorized interference without involving the necessity of special structures therefor.

To this end my invention, generally stated, consists in the combination, with an underground gas-main, of a detector and escape pipe leading from a point adjacent to said main to the interior of a lamp-post and a discharge-pipe leading out of said post and having its outer end located at a sufficient distance from the lamp to avoid liability to ignition of the escaping gas by the flame of the lamp-burner.

The improvement claimed is hereinafter fully set forth.

In the practice of my invention I provide, as in Reissue No. 10,561 aforesaid, and in subsequent Letters Patent granted to me, a series of detector and escape pipes, 4, each leading from a point adjacent to an underground main, 1, used for the conveyance of natural gas or other gas, the escape of which into the earth is considered specially objectionable or dangerous, to a point at which the escape of such gas may be safely permitted. The lower ends of the detector-pipes 4 are located adjacent to joints or couplings of the main, stop-valves, connections with branch lines, or other points at which leakage from the main is apprehended, and may either open into bodies of loose packing of solid material 2, as shown in the drawing and in Reissue No. 10,561, or in compartments or chambers surrounding the

main or inclosing or communicating with a coupling thereof, as in my Letters Patent No. 301,191, of July 1, 1884, No. 318,840, May 26, 1885, &c.

As heretofore designed, I have proposed either to lead the detector and escape pipes to points above the surface of the ground and permit the gas to escape therefrom into the atmosphere or to fit them with burners where the quantity of leakage was such as to warrant so doing, and thereby use them for lighting purposes by consuming the escaping gas. In either case a special incasing or protecting column or casing is desirable, if not essential, and such involve expense as well as obstruct to a certain degree the roadway or sidewalk.

Under my present invention I avoid the necessity of employing special casings for the pipes 4 by utilizing for the purpose a series of lamp-posts, 3, located along the line of the street or roadway beneath which the main 1 is laid, each detector and escape pipe 4 opening into the hollow body of a lamp-post, 3, or where two or more of the pipes 4 are led from points more closely adjacent in the line of the main than two adjacent lamp-posts all of said pipes may be led into a single lamp-post. The burners 5 of the lamps 6 are supplied, as usual, with a constant quantity of gas through service-pipes 7, which may either lead from the main 1 or from a separate main, 8, conveying illuminating-gas, and in order to prevent the gas escaping from the pipes 4 from being ignited by the flame of the burners, and thereby unduly increasing its volume from time to time, as well as tending to break the lamp, the space within the lamp-post into which the pipe 4 delivers is closed at top by a partition, 9, through which the service-pipe 7 passes gas-tight, and a discharge-pipe, 10, communicating with the interior of the lamp-post, leads out of the same below the partition to a point, preferably above the lamp 6, at such distance therefrom as to allow the escape of the gas from the discharge-pipe without liability to ignition by the flame of the burner 5, as well as to permit the escaping gas to be ignited at the outer end of the discharge-pipe without injury to the lamp.

I claim herein as my invention—

1. The combination of an underground gas-

main, a detector and escape pipe leading from a point adjacent thereto to the inside of a lamp-post, and a discharge-opening in said lamp-post external to the lamp thereof, substantially as set forth.

5 2. The combination of an underground gas-main, a detector and escape pipe leading from a point adjacent thereto to the inside of a lamp-post, and a discharge-pipe leading out of said
10 lamp-post exterior to the lamp thereof, substantially as set forth.

3. The combination of an underground gas-main, a detector and escape pipe leading from

a point adjacent thereto to the inside of a lamp-post, a partition interposed in said lamp-post 15 between the delivery end of the detector and escape pipe and the lamp, and a discharge-pipe leading out of the lamp-post below said partition, substantially as set forth.

In testimony whereof I have hereunto set my 20 hand.

GEO. WESTINGHOUSE, JR.

Witnesses:

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