

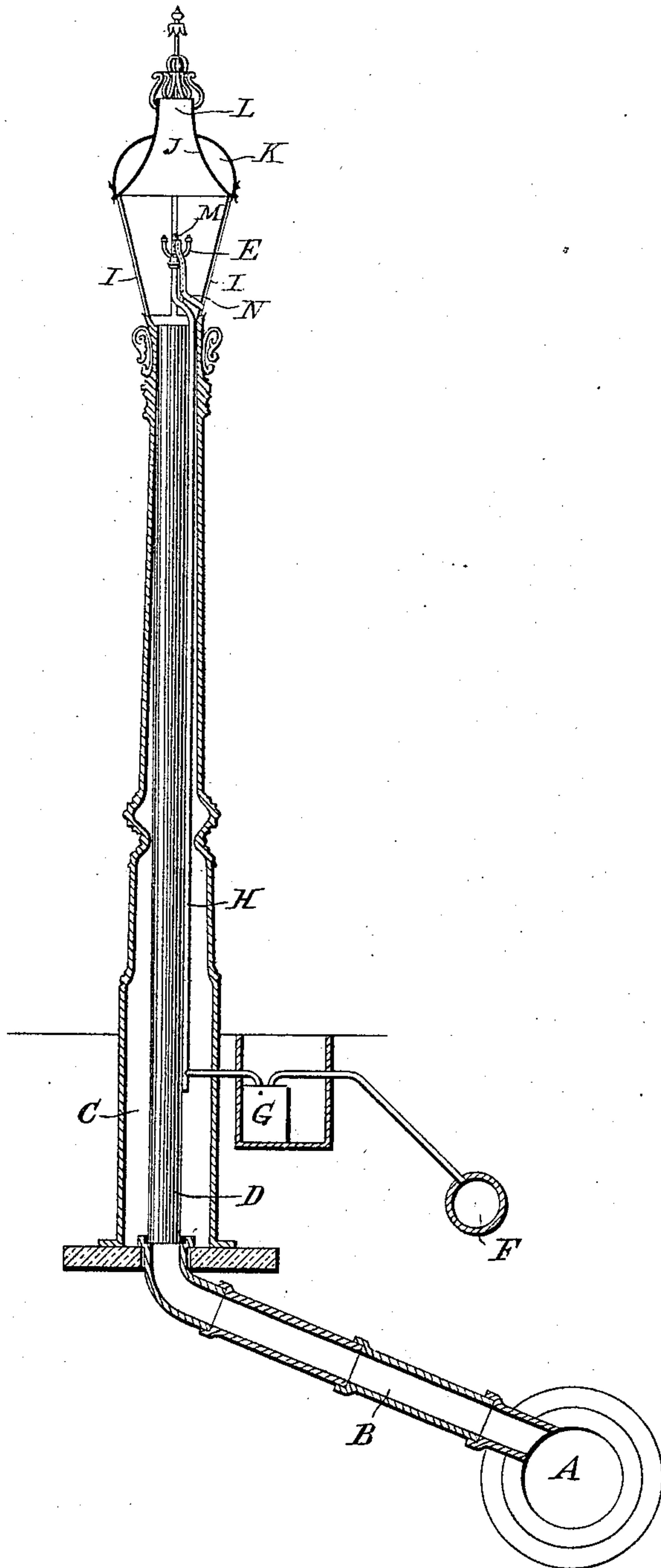
(No Model.)

J. E. WEBB.

EXTRACTION AND DESTRUCTION OF SEWER GAS.

No. 539,459.

Patented May 21, 1895.



WITNESSES.

Philip M. Justice
James Boles

INVENTOR.

Joseph Edward Webb

UNITED STATES PATENT OFFICE.

JOSEPH EDMUND WEBB, OF BIRMINGHAM, ENGLAND.

EXTRACTION AND DESTRUCTION OF SEWER-GAS.

SPECIFICATION forming part of Letters Patent No. 539,459, dated May 21, 1895.

Application filed May 7, 1894. Serial No. 510,389. (No model.) Patented in England June 14, 1892, No. 11,127.

To all whom it may concern:

Be it known that I, JOSEPH EDMUND WEBB, a subject of Her Majesty the Queen of Great Britain, residing at Hockley, Birmingham, in the county of Warwick, England, have invented a certain new and useful Improvement in the Extraction and Destruction of Sewer-Gas, (in part patented to me in Great Britain under date of June 14, 1892, No. 11,127,) of which the following is a specification.

The object of this invention is to extract the obnoxious gases and vapor from a sewer and at the same time to effectually destroy their noxious properties. For this purpose I propose to utilize ordinary lighting gas which may at the same time be used for street or other lighting purposes.

The accompanying drawing, which forms part of the specification, shows in sectional elevation an arrangement of apparatus for carrying the invention into effect.

A is the main sewer; B, the connecting pipe terminating at the base of lamp post C; traveling through which and hermetically attached to pipe B is pipe D terminating at a point beneath the main gas jets E which are supplied from the gas main F through meter G and pipe H. A small by pass jet M is kept constantly burning the air to support combustion being fed thereto through a small air pipe N, the object being to relight the main jets E if they should be temporarily extinguished owing to a sudden flushing of the sewers during a storm or at other times when it would be impossible to draw the requisite air or gas from the sewer to support the combustion of the main jets. The lamp when used for illuminating purposes will be provided with the usual glass sides I which are hermetically sealed either to the top of pipe D or to post C if that is air tight. Surmounting the glass is a curved funnel shaped head J preferably enameled or lined with heat deflecting material, the object being to produce an intense heat at the point of combustion, say from 600° to 800° Fahrenheit. As any such heat would be rapidly transmitted by radiation it is proposed to provide the head J with an external sealed air jacket K or to cover it with non heat conducting substance.

An outlet L is provided for the escape of the products of combustion.

With this construction of parts it will be noted that the air or gas to support the combustion at the main jets or burners E must be drawn from the sewer, and by experiment it has been found that with ordinary flat flame burners such as are employed in street lighting the sewer gas can be drawn a distance of from five hundred to a thousand yards, and as it is compelled to pass practically through the flame, or at all events through a sealed chamber in which the temperature is, as stated, very considerable, all germs and noxious qualities of such sewer gas are destroyed before eventually passing out through the opening L to the air.

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

1. In devices for extracting and destroying sewer gas, the combination with a sewer, and a gas main, of a pipe leading from said sewer, a pipe leading also from said gas main and provided with main gas jets located above the sewer pipe, a by-pass or auxiliary gas jet having an air supply, a lamp hermetically fitted to said pipes, an inverted funnel shaped head surmounting said lamp and having openings in its top, and a sealed air jacket surrounding said head, substantially as shown and for the purpose described.

2. In devices for extracting and destroying sewer gas, the combination of a sewer pipe connection, a lamp head sealed thereto, burners in said lamp head and a small separate air supply to prevent the flame being extinguished, substantially as set forth.

3. In devices for extracting and destroying sewer gas the combination of a sewer pipe connection, a lamp head provided with separate air supply, burners in said lamp head, and a closed sealed hood surmounting said head, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH EDMUND WEBB.

Witnesses:

PHILIP M. JUSTICE,
JAMES BOLES.