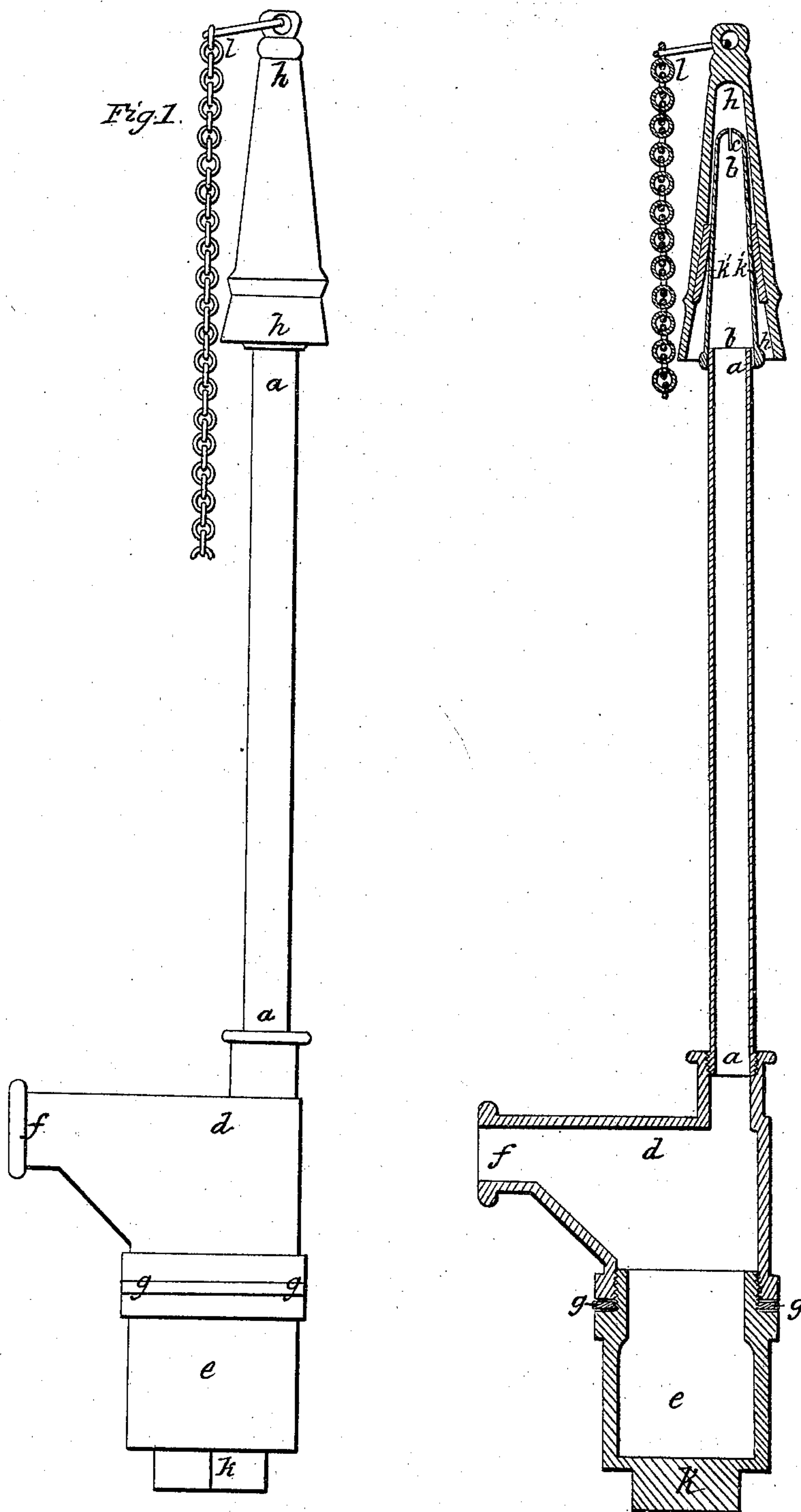


SHAW & PARKER.
Street Gas-Lamp Attachment.

No. 10,760.

Patented April 11, 1854.



UNITED STATES PATENT OFFICE.

WILLIAM A. SHAW AND GEORGE PARKER, OF BOSTON, MASSACHUSETTS.

STREET GAS-LAMP.

Specification of Letters Patent No. 10,760, dated April 11, 1854.

To all whom it may concern:

Be it known that we, WILLIAM A. SHAW and GEORGE PARKER, both of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in the Apparatus for Street Gas-Lamps, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact specification of the same, wherein we have set forth the nature and principles of our said improvements by which our invention may be distinguished from others of a similar class, together with such parts as we claim and desire to have secured to us by Letters Patent.

The figures of the accompanying plate of drawings represent our improvements.

Figure 1, is an elevation of our apparatus with burner and cap attached. Fig. 2, is a longitudinal central section of the same.

In the apparatus for street gas lamps, as heretofore constructed, the pipe, in consequence of the materials of which the gas is made, and from other causes, becomes filled with water and sediment which obstructs the passage of the gas. This result occurs more especially in bracket lamps, or those which are attached to buildings instead of to posts, as the sediment accumulates in the bend formed by the horizontal pipe and the vertical pipe which bears the burner. As the stop-cock has to be kept lubricated, in order to work well, the action of heat and of the gas used for the purpose, soon causes a solid incrustation which prevents the plug from being turned without first loosening its screw at the bottom, which only has the effect to make the cock leak. The burner also is always exposed to moisture so that its slot soon becomes filled with water, which not only causes an imperfect flame, but soon renders the burner rusty. This accumulation of rust makes it often necessary to cut out the slot, and, as is well known, the enlargement of the slot causes a dull and smoky flame, and the unnecessary consumption of a great quantity of gas. From this it will be seen that the apparatus, as now constructed, must require frequent cleaning and repairs, and that from its complicated nature, this must be attended with considerable expense and trouble.

By our improvements the cleaning and repairs can not only be effected with much less trouble and expense, but the amount of

sediment or rust is materially diminished, and a brilliant and uniform flame produced. These results we have secured by placing at the bend of the pipe or at the bottom of the pipe which bears the burner and immediately under the lantern, a drop box or receptacle to receive the sediment deposited, which box can be readily removed and cleaned, and by dispensing entirely with the stop-cock and using instead a proper cap to cover the burner, which cap protects the burner from dust &c., and also prevents any water or moisture from entering through its slot and producing rust or other impediment to obstruct the passage of the gas.

a a in the drawings represents the vertical pipe to which the burner *b b* is attached. The aperture *c* in this burner is a slot which produces a fan shaped flame. To the bottom of the pipe *a a* is attached a drip-box or receptacle for receiving the sediment which may be deposited from various causes. This box consists of two parts *d—e*, the upper part *d* being attached to the pipe *a a* and having a branch *f* into which the supply pipes is inserted. The lower part *e* of the box is attached to the upper part *d* by a screw, with a proper leather washer *g* in the joint between the two parts of the box, so that by simply applying a wrench to the projection or nut *h* on the bottom of the box, the lower part *e* can be readily unscrewed, and any sediment which may have collected therein be removed.

We shall now proceed to describe the manner in which we avoid the use of the stop cock, some of the difficulties and objections attending the use of which, we have herein above stated. As a substitute for the stop-cock to stop the flow of the gas, we place over the top of the burner, in which is the aperture *c*, a cap *h h*, corresponding on its inner surface to the shape of the burner, which is lined with a band of vulcanized rubber *k' k'*, so as to fit air tight, over the mouth of the burner. This cap is attached to the inside of the lantern by a chain *l, l*, and is placed, when the gas is lighted, with its mouth downward upon the bottom of the lamp, so as to keep its interior dry. By this means the gas is prevented from escaping, as must necessarily occur in the stop-cock, while any dust water or other foreign matter is effectually excluded from entering the burner and clogging it so as to check the free passage of the gas.

From the above it will be seen that the first cost of our apparatus and the expense attendant upon its use, is much less than that of the complicated apparatus heretofore used, as the parts which compose our apparatus are simple and fewer in number and can be made of cheaper material, and the necessity of frequent cleaning and repairs is obviated, while a uniform and brilliant flame is produced instead of the dull and smoky one which so frequently occurs in the use of the apparatus hitherto employed.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is a substitute for the stop cock, to stop the passage of the gas, is—

The above described cap lined with vulcanized rubber or other proper material which cap fits air tight over the mouth of the burner as above set forth.

WILLIAM A. SHAW.
GEORGE PARKER.

Witnesses:

JOSEPH GAVETT,
EZRA LINCOLN.