(No Model.)

G. H. GREGORY

GAS FITTING.

No. 409,577. Patented Aug. 20, 1889.

Fig. 1

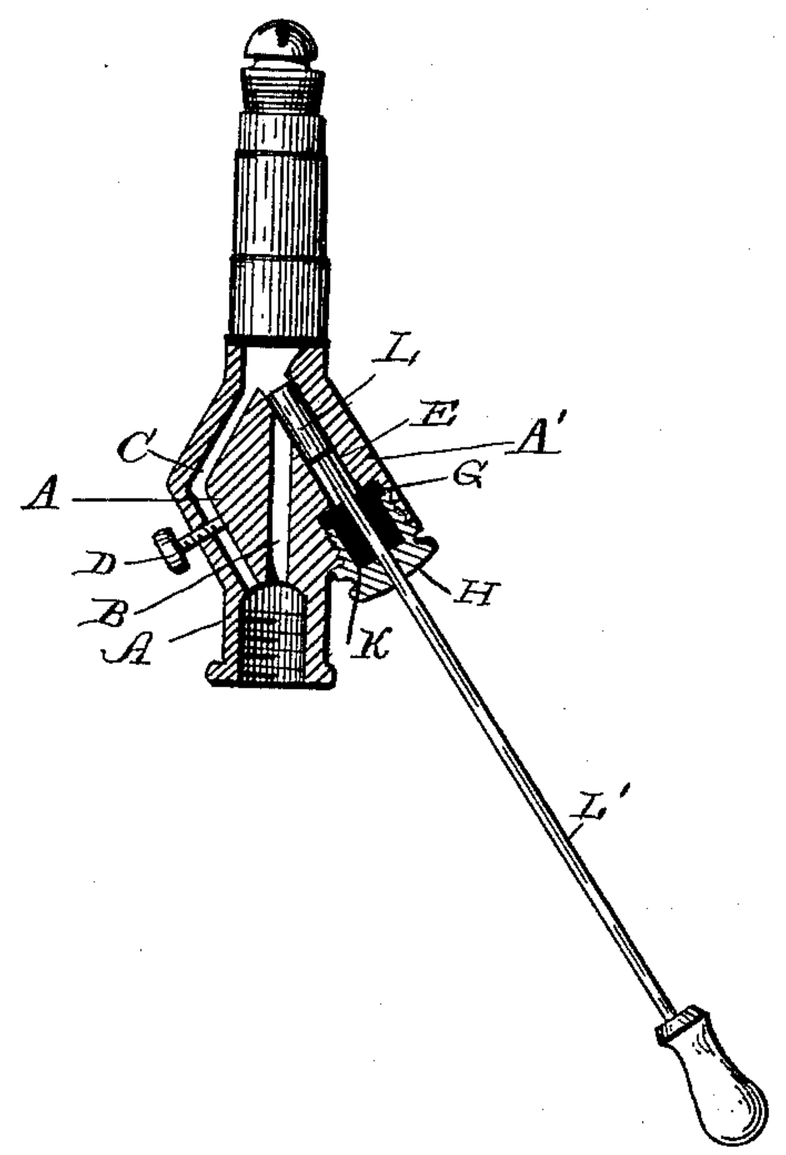


Fig. 2.

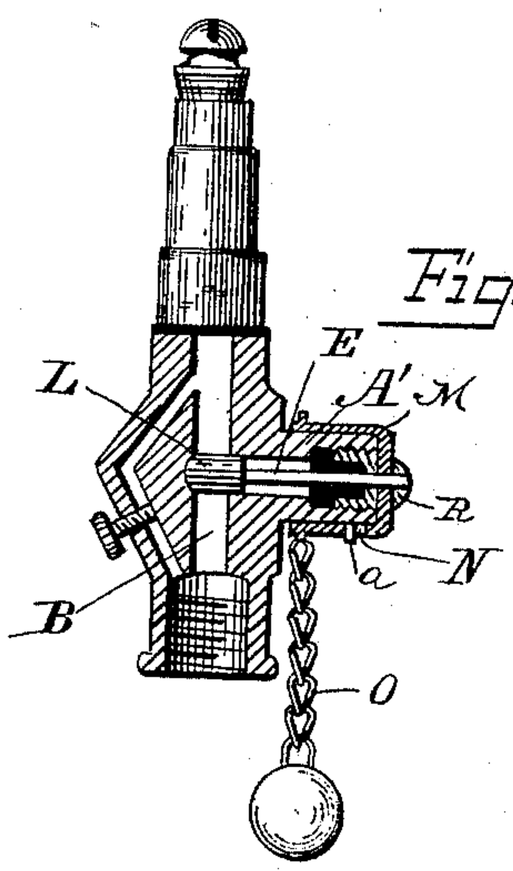
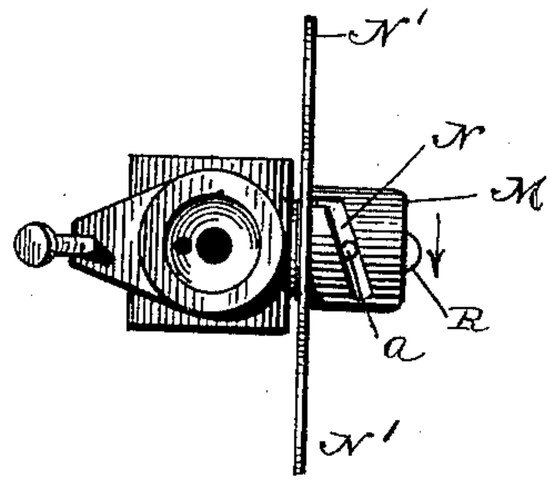


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE H. GREGORY, OF NEW YORK, N. Y.

GAS-FITTING.

SPECIFICATION forming part of Letters Patent No. 409,577, dated August 20, 1889.

Application filed October 19, 1888. Serial No. 288,561. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. GREGORY, a citizen of the United States, and a resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Gas-Fittings, of which the following is a specification.

My invention is an improvement in gas-fittings; and it consists of the construction, combination, and arrangement of parts disclosed in the following specification, of which the accompanying drawings forms a part, and in which similar letters of reference designate like or equivalent parts wherever found throughout the several views.

Figure 1 is a central vertical section of a gas-cock or cut-off provided with my improvement, and Figs. 2 and 3 show a modification thereof.

Referring to Fig. 1, A represents the body of a gas-fitting, which may be of any desired form, and is provided with a main gas-passage B and a by-pass C, controlled by a screw D, by means of which a small jet may be kept constantly burning when desired.

Within a shoulder or projection A′, formed upon the body of the fitting opposite the by-pass, is formed a bore or passage E, which communicates with the main gasway B. The outer portion of this passage is enlarged, as shown at G, and the inner surface of the enlarged portion is provided with a screw-thread designed to receive a corresponding screw-thread formed upon a cap or plug H. The plug H is provided with a cavity K, as shown, and within this cavity is placed a packing K′, of asbestus or other preferred material. Within the passage E is placed a piston-valve L, and attached to the outer end of this valve is a rod or shaft L′, which passes through the cap and packing. In attaching these parts to the body of the fitting the packing and cap are first placed upon the rod L′, the valve attached to the rod is inserted in the passage E, and the cap H, with the inclosed packing, is then screwed home, the packing pressing against the shoulder at the end of the passage E, formed by the enlargement therein, and against the valve stem or rod within the hollow cap, providing a perfectly secure and gas-tight connection. By hollowing out the cap and forming the packing so as to fill the space thus formed I am enabled to secure a greater bearing-surface for the packing on the valve stem or rod without lengthening the parts, and thus provide a more secure connection, and at the same time a more compact fitting. At the point where the passages B and E communicate is provided a seat for the piston-valve L, which may be of any desired form or construction, and by means of this simple and comparatively inexpensive device I provide a gas-fitting absolutely safe and not liable to get out of working order, the gas being admitted to the burner-tip or cut off therefrom by simply sliding the valve L back and forth by means of the rod or shaft L′.

In Figs. 2 and 3 I have shown a modification of the form of construction hereinbefore described. In these views the main gas-passage, the by-pass, the bore or passage E, in which the valve works, the cap H, and its inclosed packing are all the same as in Fig. 1, with the exception of the passage E, which is here formed at right angles to the main passage B to adapt the same to the modified form of valve-operator to which this part of my invention relates. In place of the rod or shaft L′, by which the valve is operated and which in some positions of the burner is probably preferable, I employ in Figs. 2 and 3 a cap M, provided with a slot N and arms N′ N′, to which are attached chains O in the well-known manner. Formed upon or attached to the shoulder or projection A′ is a lug *a*, and in the head of the cap M is a hole through which the rod L′, attached to the valve, passes. In assembling these parts the valve L, with its attached rod or shaft L′, is placed in the passage E and the screw-cap, with its inclosed packing, is screwed into position. The cap M is then placed upon the projection A′, the lug *a* entering the slot N, forming an ordinary bayonet-joint. The outer end of the rod L passes through the cap M, and may be riveted thereto or held firmly in position by a screw-nut R. To operate the valve and admit the gas to the burner, it is only necessary

to pull upon one of the chains O, when the cap M will be turned, the lug *a* moving in the slot N, forcing said cap, with the attached valve, outward and opening the passage B. To cut off the gas from the burner, the operation is reversed, the chain attached to the opposite arm is pulled, the cap M is turned in the opposite direction, and the lug *a*, working in the slot N, forces the valve back upon its seat.

My invention is not limited to the specific form of construction herein shown and described, as it is evident that many other modifications might be made in the means for operating the valve and rendering the parts secure against the passage of gas without departing from the scope of my invention.

Having fully described my invention, its construction, and operation, I claim, and desire to secure by Letters Patent of the United States, the following:

1. The combination of the body A, having the longitudinal passage B and the side passage E, communicating therewith, the outer portion of the side passage being enlarged, as shown, the cap H, having the cavity K, the packing K′ in said cavity and filling the space between the cap H and the shoulder formed by the enlargement of passage E, and the piston-valve, said valve being provided with a rod or shaft which extends through the packing and cap by which the valve is operated, substantially as shown and described.

2. The combination, with the body A of a gas-fitting provided with the projection or shoulder A′ and having a main passage B, and a side passage E, extending through the shoulder A′, of the valve L, provided with the rod L′, the cap H, packing K′, cap M, provided with the slot N, and the lug *a* on the projection A′, substantially as shown and described.

3. The combination, with the body A of a gas-fitting provided with the projection or shoulder A′ and having a main gas-passage B, and a side passage E, extending through the shoulder A′, of a valve L, the cap H, packing K′, cap M, provided with the slot N and arms N′, and lug *a* on the projection A′, substantially as shown and described.

Signed at New York, in the county of New York and State of New York, this 18th day of October, A. D. 1888.

GEORGE H. GREGORY.

Witnesses:

DANIEL E. DELAVAN,

SADIE SMITH.