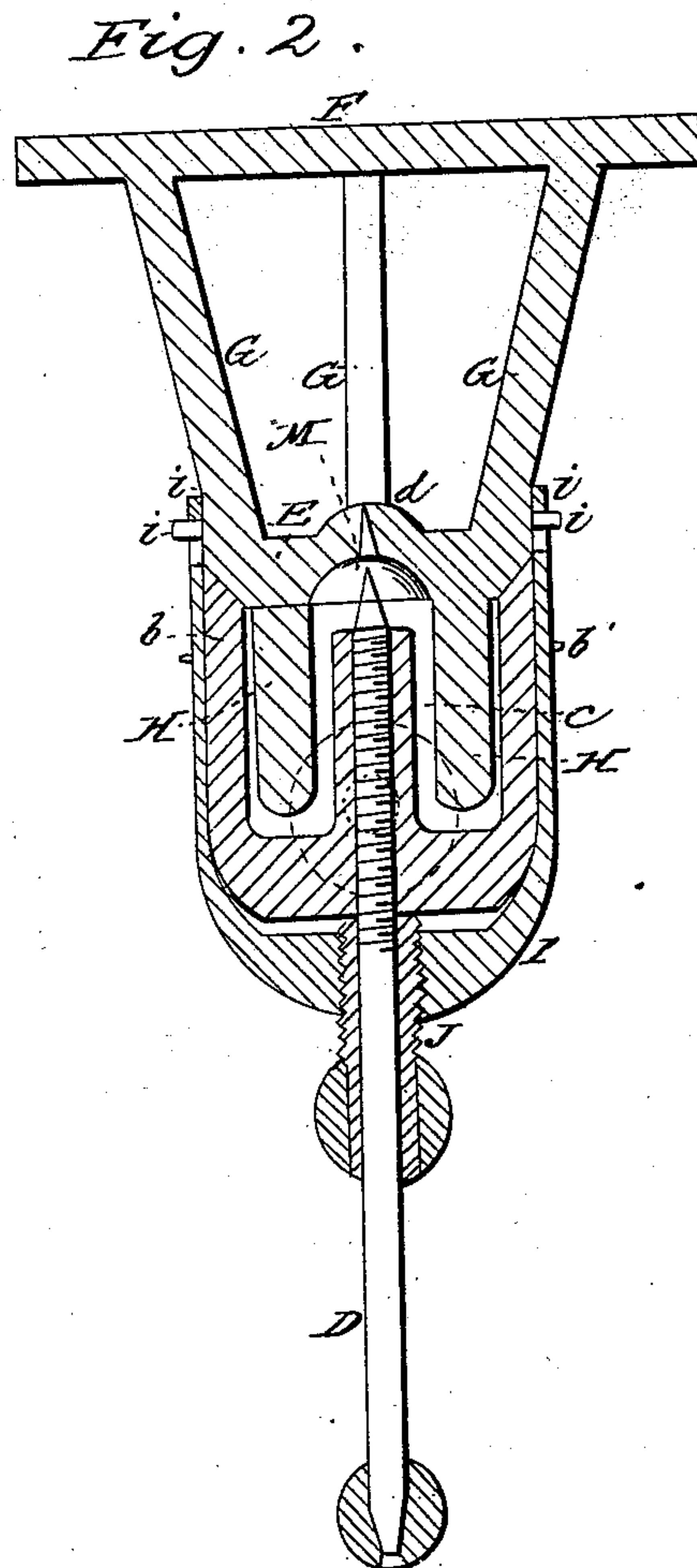
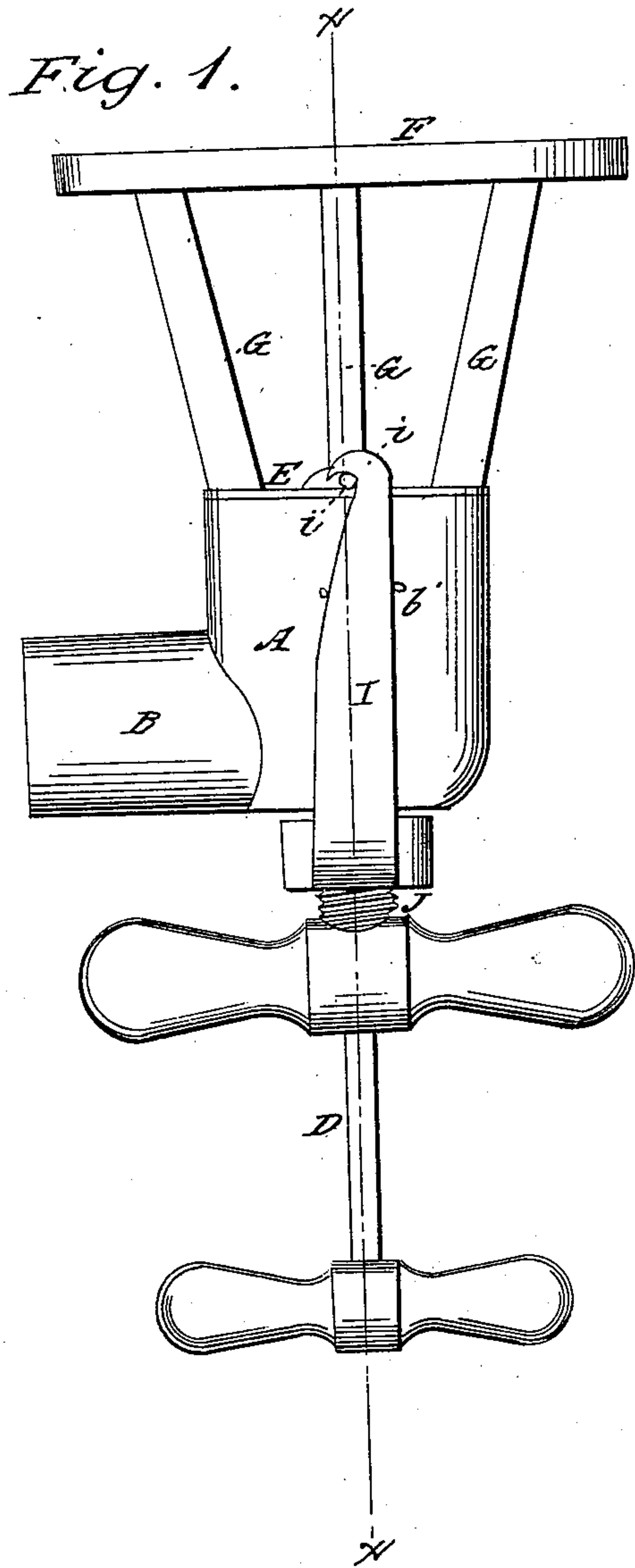


PORTER & BROWN.

Vapor Burner.

No. 65,005.

Patented May 21, 1867.



Witnesses:

J. W. Myster
Isodore Lang

Inventors:

A. W. Porter.

J. H. Brown.

by their Attys.

Baldwinson.

United States Patent Office.

ALONZO W. PORTER AND J. HAMILTON BROWN, OF NEW YORK, N. Y., ASSIGNORS TO
ALONZO W. PORTER AND JAMES S. GRAY, OF SAME PLACE.

Letters Patent No. 65,005, dated May 21, 1867.

IMPROVEMENT IN VAPOR-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, ALONZO W. PORTER and J. HAMILTON BROWN, both of New York city, have invented certain new and useful improvements in Vapor-Burners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings which make part of this specification, and in which—

Figure 1 is a view in elevation of our improved burner; and

Figure 2 a vertical section through the same, at the line *xx* of fig. 1.

In vapor-burners using heavy oils much difficulty has heretofore arisen from the clogging or gumming of the burners by the residuum deposited by the oil, and owing to the construction of the burners used it is very difficult to clean them. Now it is the object of our invention to remedy this defect, and to this end our invention consists in a novel method of constructing a vapor-burner so that it can be readily taken to pieces to clean it.

In the accompanying drawings, which shows one way of carrying out our invention, B represents the supply pipe leading into a retort or generator, A, containing a central pipe or collar, C, through which the stem D of a regulating valve, M, works to regulate the flow of gas through the jet *d*. The retort is open at top, and has a sloping edge, *b*, ground to receive a correspondingly ground plug or cover, E, to which the heater-cap F is connected by conductors G. Supplementary conductors H are arranged on the under side of the plug so as to surround the collar C, and thus give additional generating surface. The ground surfaces make a gas-tight joint, but to bind the two parts firmly together, I employ a yoke, I, having hooks *i* on its ends to catch in lugs or pins *i'* on the plug. This yoke embraces the generator, and has a sleeve-screw, J, passing through it. The valve-stem D works through the sleeve-screw, which latter bears against the bottom of the retort when screwed in, as shown in fig. 2, and binds the two parts B E of the burner firmly together and prevents any escape of gas. By releasing the screw, the plug E can be turned in its seat so as to release the pins *i'* from the hooks *i*, when the plug-heater cap and conductors can quickly be removed to cleanse the burner, and as readily replaced. The yoke also serves as an additional conductor of heat. The yoke should be connected to the retort by guides *b'* which will allow it a slight vertical play, and the yoke should also have a slight horizontal movement around the retort to facilitate the separation of the parts. The yoke might also be so arranged as to work in a groove cast in the retort.

What we claim as our invention and desire to secure by Letters Patent, is—

1. Mounting the heater-cap and conductors on a plug having a ground edge fitting into a corresponding ground surface on the top of the retort, substantially in the manner described, for the purpose of readily separating the heater-cap from the retort to cleanse the latter.

2. The combination, substantially in the manner described, of a locking-yoke, embracing the retort with a detachable plug supporting the conductors for the purpose set forth.

3. The combination of the retort, the central pipe, and the valve-stem with the sleeve-screw and yoke, for the purpose specified.

4. A yoke which embraces the retort, and serves both to lock the parts together and as an additional heat-conductor.

In testimony whereof we have hereunto subscribed our names.

A. W. PORTER,
J. HAMILTON BROWN.

Witnesses:

H. CADY STANTON,
E. PEIRSON.