

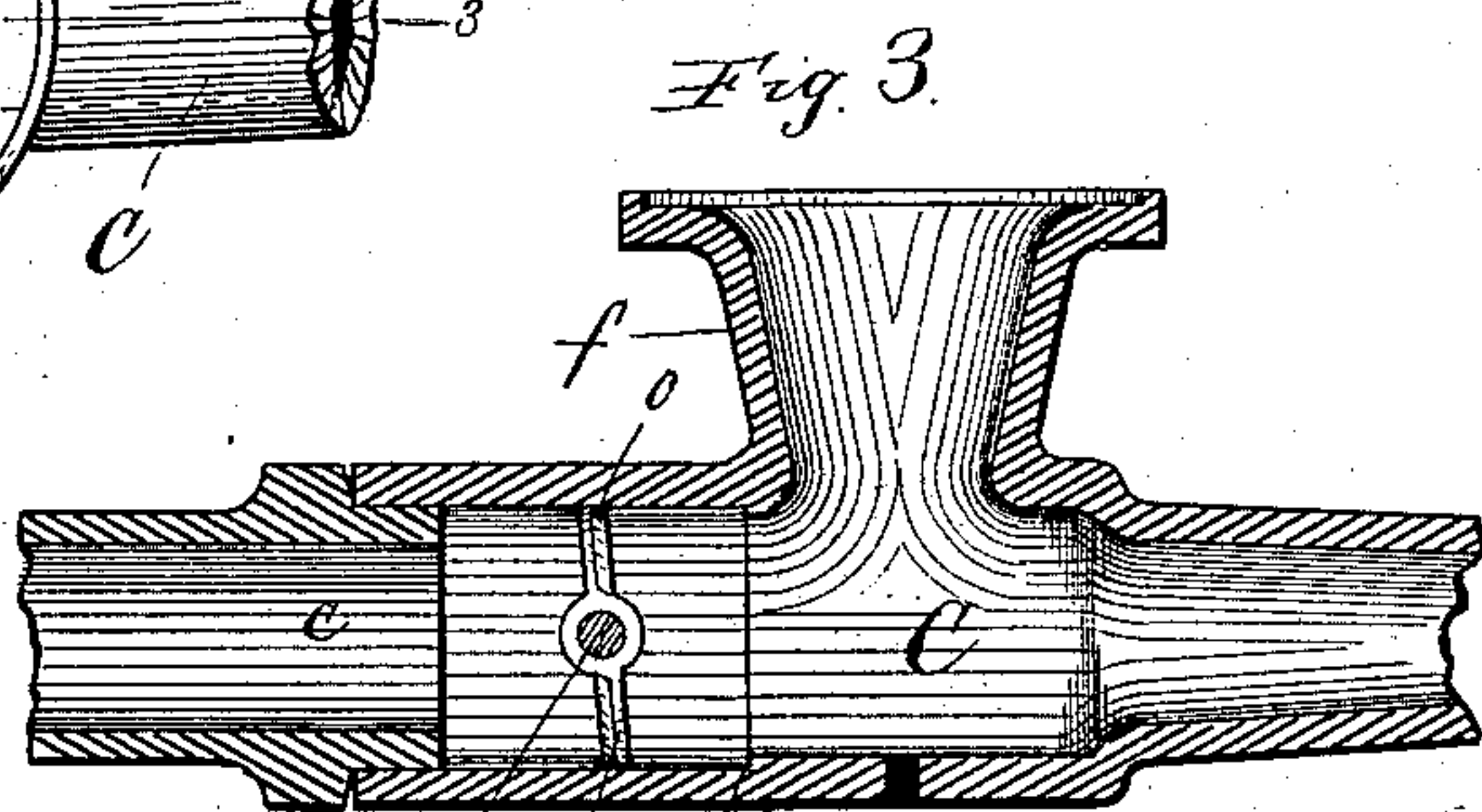
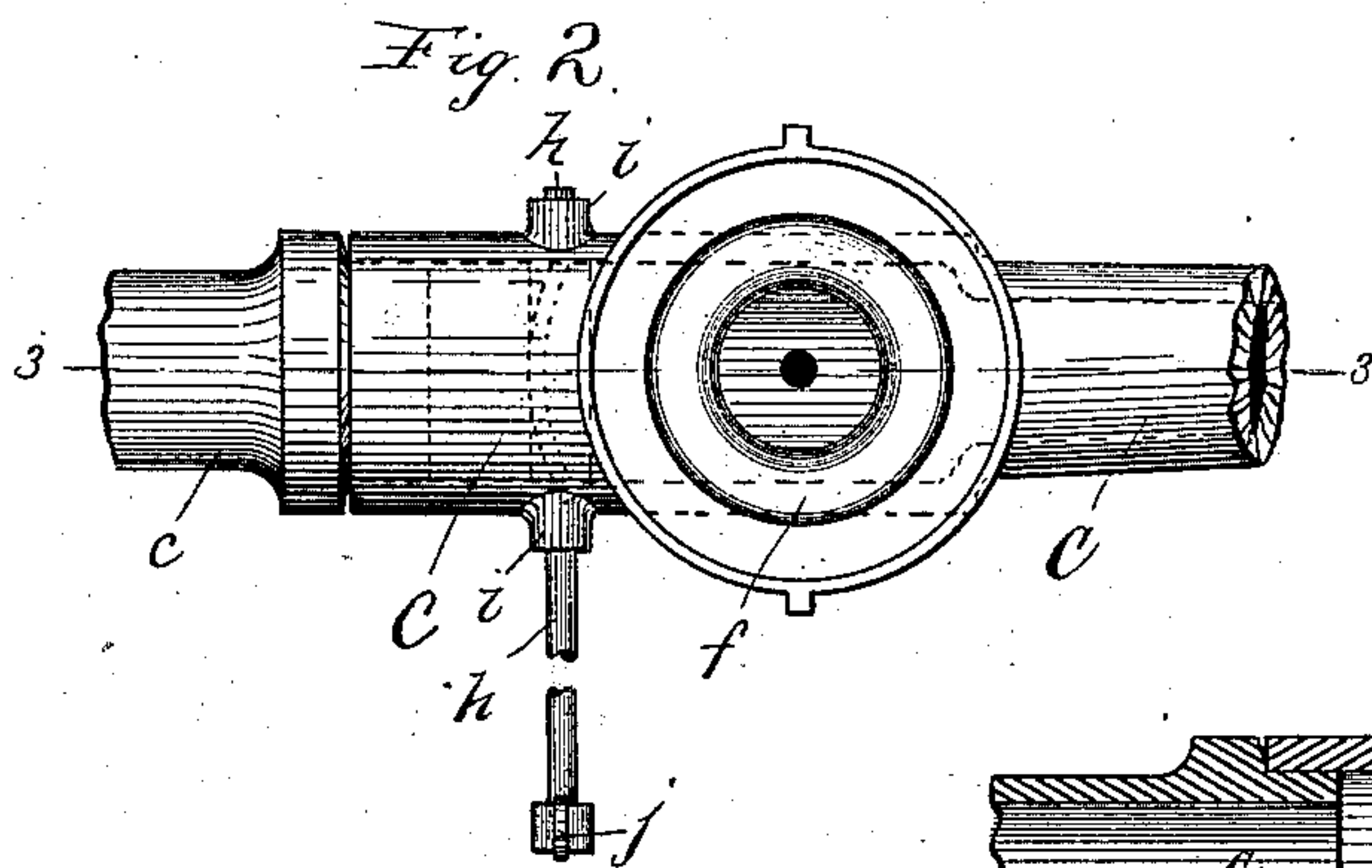
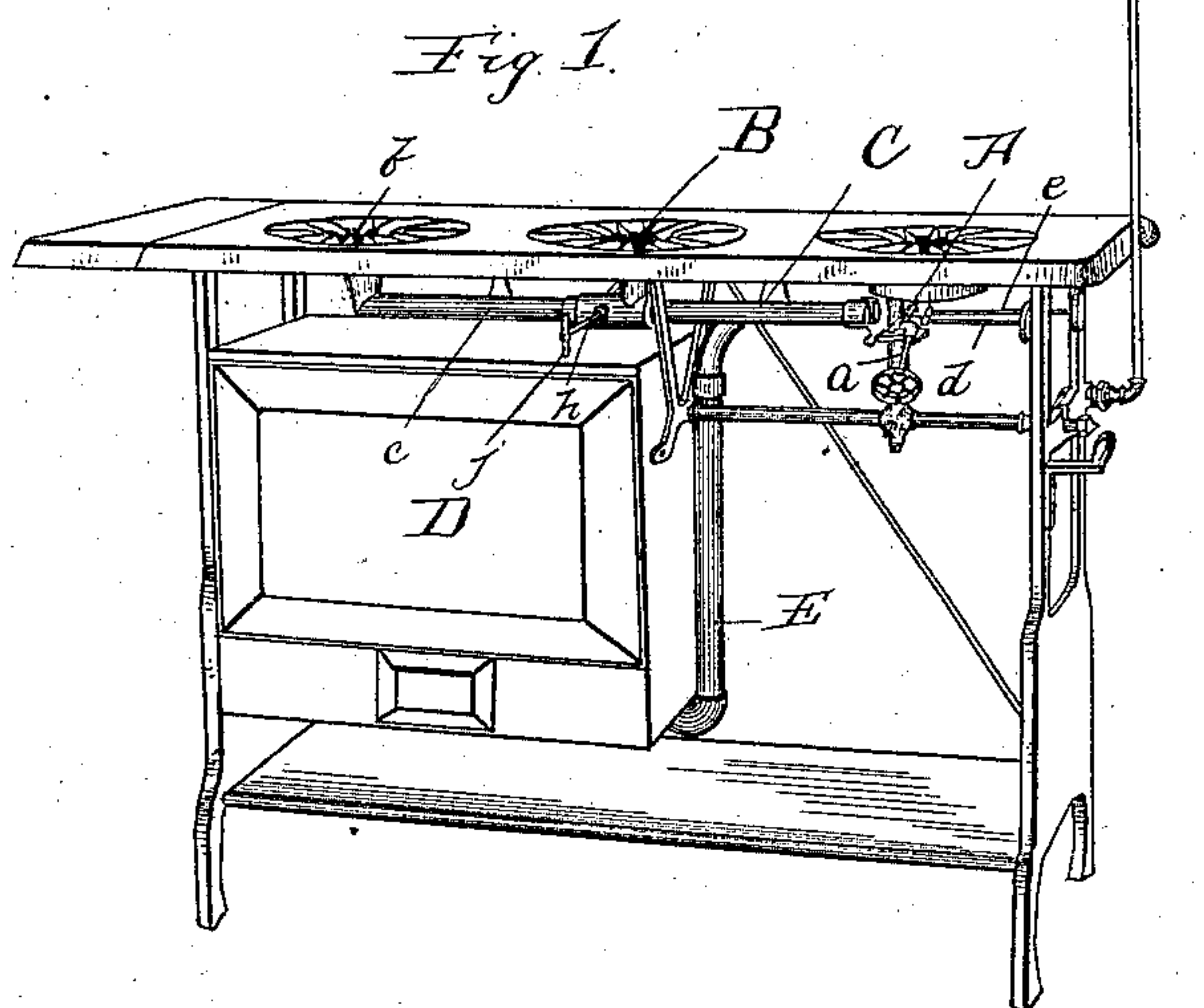
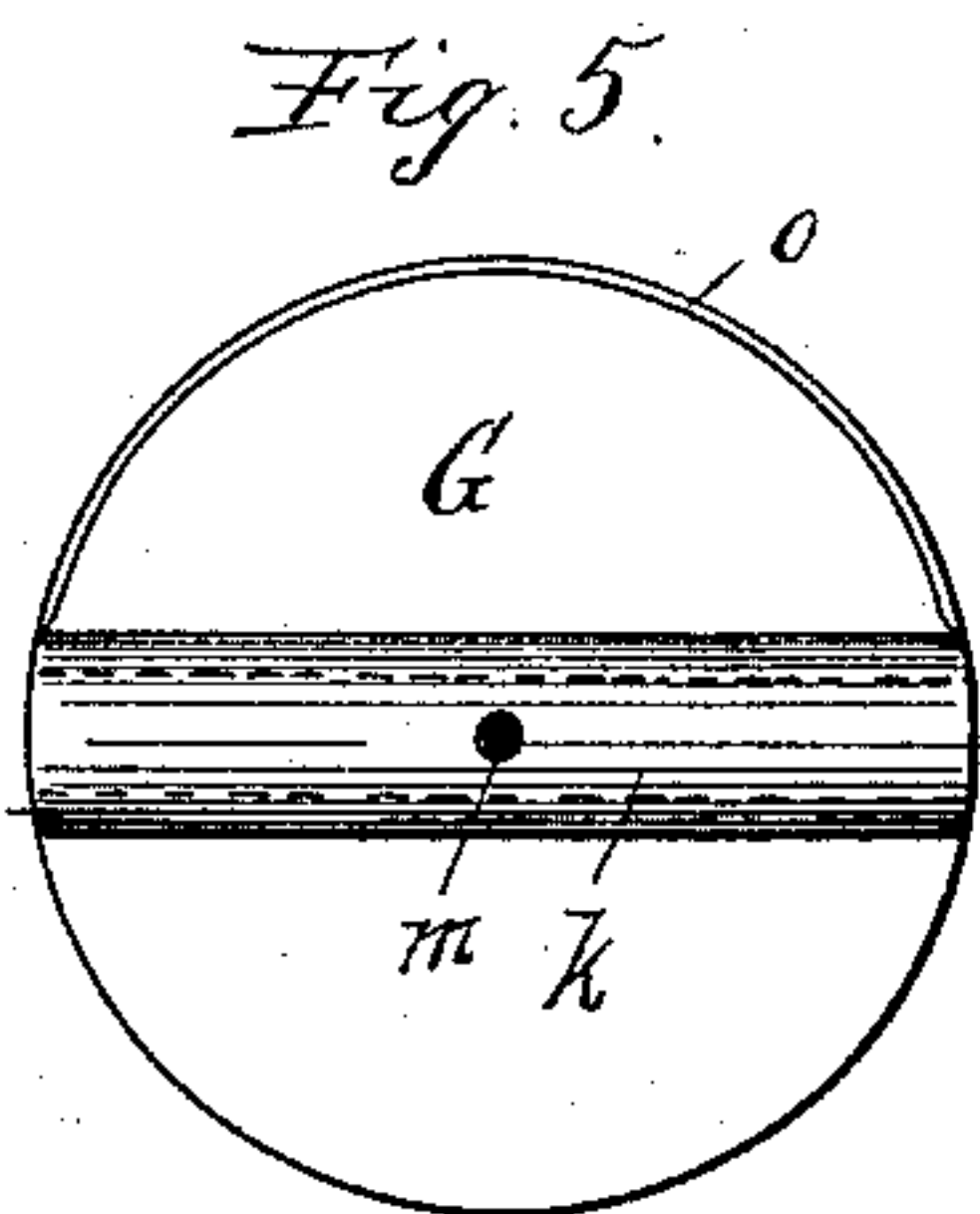
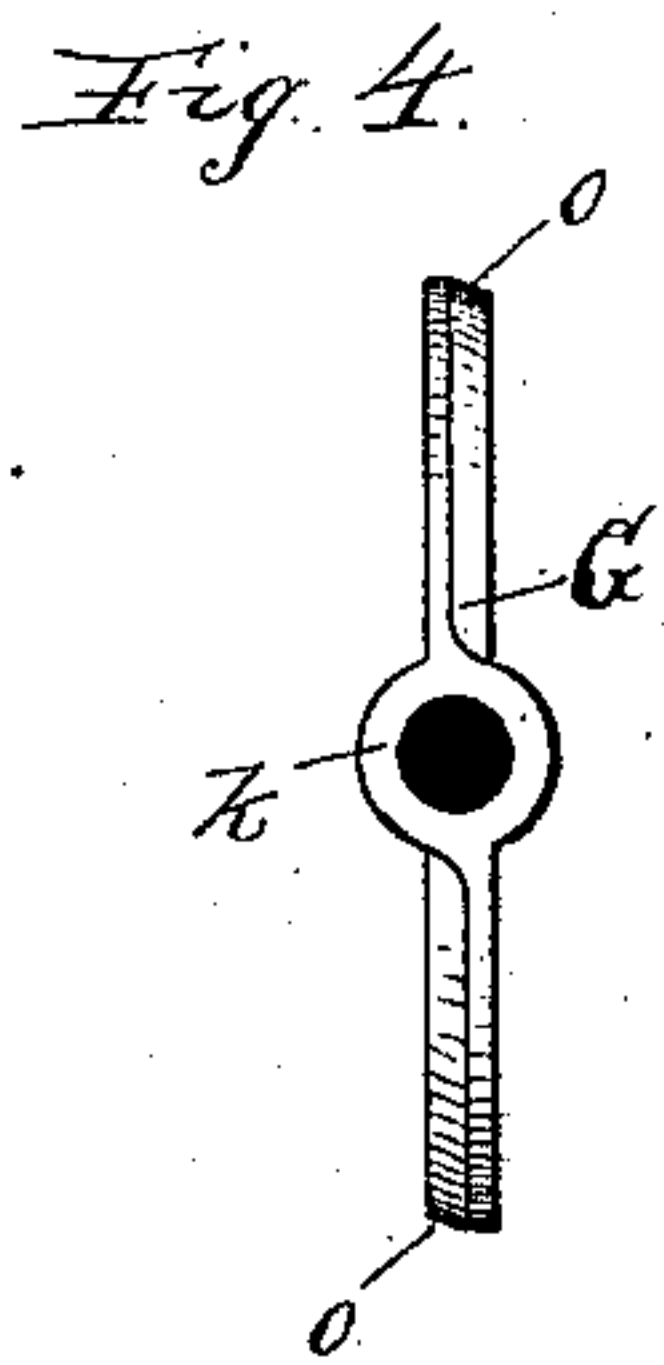
(No Model.)

J. B. WALLACE.

VAPOR STOVE.

No. 382,021.

Patented May 1, 1888.



Witnesses:

Lewis B. Curtis
J. M. Munday.

Inventor:

J. Bennett Wallace.

By Munday Evans & Adcock
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UNITED STATES PATENT OFFICE.

J. BENNETT WALLACE, OF CHICAGO, ILLINOIS, ASSIGNOR TO GEORGE M. CLARK & COMPANY, OF SAME PLACE.

VAPOR-STOVE.

SPECIFICATION forming part of Letters Patent No. 382,021, dated May 1, 1888.

Application filed November 19, 1887. Serial No. 255,612. (No model.)

To all whom it may concern:

Be it known that I, J. BENNETT WALLACE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Vapor-Stoves, of which the following is a specification.

This invention relates to that class of vapor-stoves employing a single generating-burner and two or more non-generating burners fed by said generating-burner and placed in series upon a single vapor conduit or pipe.

It is a well-known fact that the deposit of solid matter which takes place in the pipes of vapor-stoves is a serious hinderance to the operation of the valves employed therein, the deposit being of a gummy nature, which hardens with age and heat and adheres with tenacity to the inner surface of the pipes and to those parts of the valves which are exposed to the vapor.

My invention concerns the construction of the feed-pipe, through which the non-generating burners are supplied, and of the valves usually located in said pipe and adapted to shut off the vapor from one or more of the burners thereon; and it consists in the novel construction and combinations of parts herein-after set forth, and specified in the claims.

The accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, show, at Figure 1, a perspective view of a stove to which my present improvement has been applied; at Fig. 2, a plan of that portion of the feed-pipe in which my invention is located; at Fig. 3, a vertical section upon the line 3 3 of Fig. 2; at Fig. 4, an edge view, and at Fig. 5 a side view of the valve.

In said drawings, A represents the generating-burner; B *b*, the non-generating burners, and C *c* the parts composing the feed-pipe supplying the latter burners, one non-generating burner being located upon each part of the pipe and connected therewith by branch *f*. The stem of the needle-valve regulating the admission of vapor to the feed-pipe is shown at *d* and that of the generating-burner valve at *a*.

D is the ordinary oven; E, the vapor-feed pipe leading to its heating-burner, and *e* the stem of the needle-valve controlling its supply.

The oven and its appurtenances may or may not be present in the stove.

The feed-pipe C *c* is made in two parts, as shown at Fig. 3, with the junction between the burners B *b* and at the point where the valve is located. The construction of the joint is immaterial so long as it is tight enough to prevent leakage. The part C, which carries also the branch *f*, on which burner B is mounted, is bored out from its extreme end back to the point *g* to render such bored portion truly cylindrical interiorly, thereby enabling a close fit or joint to be made with the valve G, which is located in such bored part and shuts off the supply of vapor to the farther burner, *b*. The same boring also prepares the pipe C to form a close joint with the pipe *c*, the point of which latter enters within the pipe C, as illustrated.

The valve G is mounted upon an axis, *h*, extending across the pipe and provided with bearings *i* at either side thereof, and is adapted to close the pipe when turned to a position nearly perpendicular to the axial line of the latter. It is operated by a thumb-piece, *j*, upon the outstanding end of its axis. It is made of a flat piece of metal having a central enlargement, *k*, which is bored to receive its axis *h*, and is secured by a key inserted at *m*.

To secure the requisite tightness of fit between the valve and its seat in the pipe C the edge of the valve is turned in a lathe to the exact diameter required, while held in an inclined position relative to the axis of its rotation in the lathe, such method of turning resulting in the formation of the beveled-edge surfaces *o*, such surfaces being the ones which come in contact with the bored seat, and as they describe a true circle when the valve is slightly inclined, as in Fig. 3, it follows that a close joint is formed between the pipe and the valve. I have found by long use that this valve not only frees itself of accumulations of the solid matter deposited by the vapor, but keeps its seat free therefrom also, so that its efficiency is not impaired by such matter. This may be due to the thinness of the valve, which enables it to free its edge easily and to act as a scraper upon the pipe-surface. It is also very cheap in construction.

I do not claim herein any subject-matter which is shown both in this and in my prior

application, No. 188,817, filed January 18, 1886, except as specifically appears in my claims in this case; nor do I claim herein any subject-matter claimed in my said prior application.

5 I claim—

1. The combination, with the non-generating burners of a vapor-stove and the two-part feed-pipe by which they are supplied, of a damper-valve, G, constructed with beveled edges *o* and located in said pipe at the junction of the parts thereof, substantially as specified.

2. In a vapor-stove, the combination, with the feed-pipe C *c*, carrying the non-generating
15 burners, the part C having its end bored to render it true for the valve and the end of the

part *c*, of a valve, G, having bevel-surfaces *o* and located within such prepared part of the pipe C, substantially as specified.

3. In a vapor-stove, a feed-pipe made in two parts, C and *c*, each carrying a non-generating burner, the part C being interiorly bored from one end to the point *g*, as set forth, and the part *c* being fitted in such bored end, in combination with a valve, G, located in the
25 bored portion of part C and controlling the farther of said burners, substantially as specified.

J. BENNETT WALLACE.

Witnesses:

EDW. S. EVARTS,

H. M. MUNDAY.