

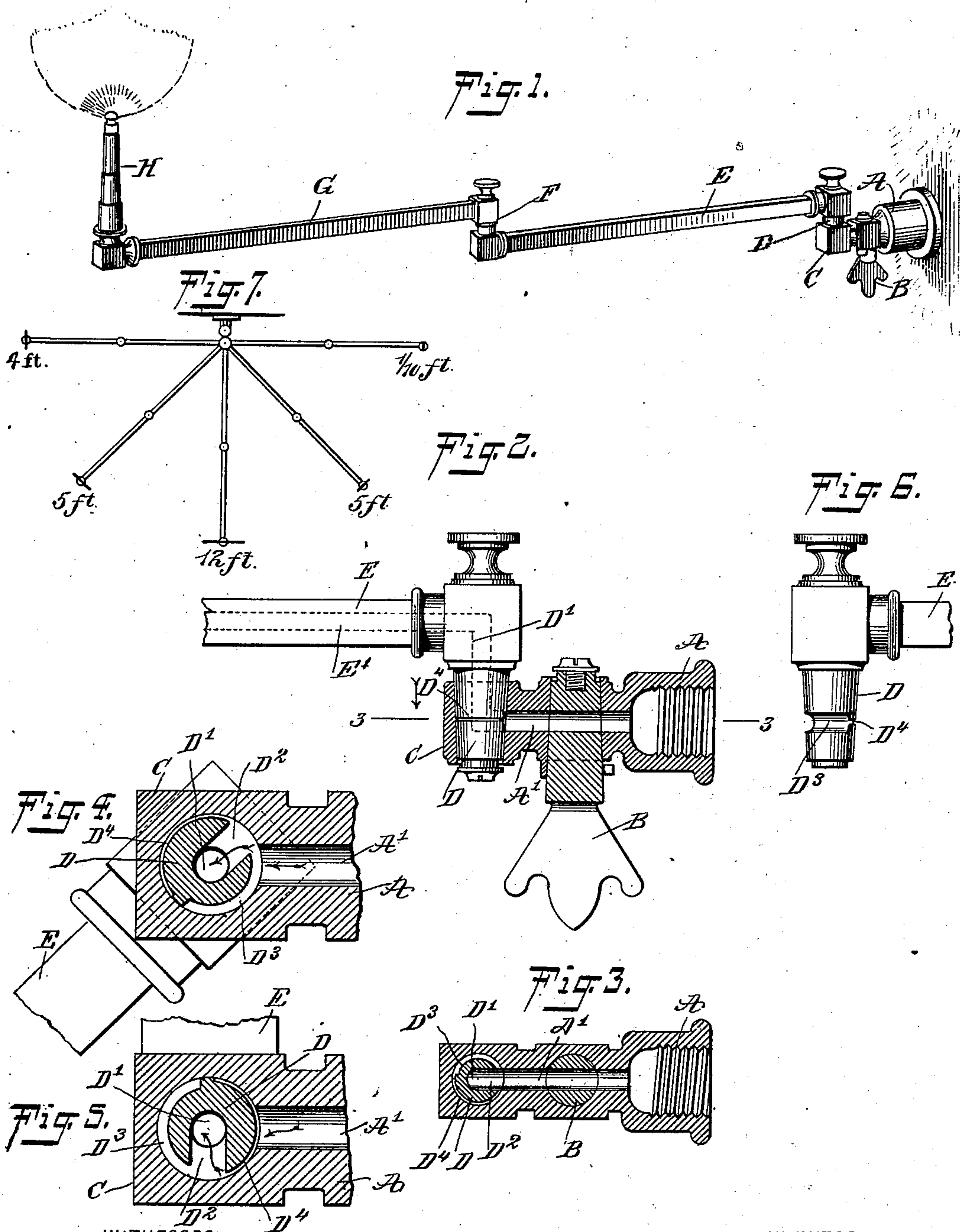
No. 724,434.

PATENTED APR. 7, 1903.

D. CAVANAGH.  
GAS BRACKET.

APPLICATION FILED MAY 3, 1902.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

DANIEL CAVANAGH, OF NEW YORK, N. Y.

## GAS-BRACKET.

SPECIFICATION forming part of Letters Patent No. 724,434, dated April 7, 1903.

Application filed May 3, 1902. Serial No. 105,770. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL CAVANAGH, a citizen of the United States, and a resident of the city of New York, borough of Manhattan; in the county and State of New York, have invented a new and Improved Gas-Bracket, of which the following is a full, clear, and exact description.

The invention relates to gas-fixtures; and its object is to provide a new and improved gas-bracket arranged to permit the user to burn the gas with a flame ranging from the maximum to the minimum power without turning the key ordinarily employed for turning the gas on or off, the gas-bracket being very simple and durable in construction and easily manipulated to obtain a flame of the desired power.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement as applied. Fig. 2 is an enlarged sectional side elevation of the improvement. Fig. 3 is a sectional plan view of the same on the line 3 3 of Fig. 2. Fig. 4 is an enlarged inverted sectional plan view of the same, parts being in a different position. Fig. 5 is an enlarged inverted sectional plan view of the same, showing the parts in another position. Fig. 6 is a side elevation of the arm having the plug; and Fig. 7 is a diagrammatic plan view of the improvement, showing different positions of the bracket.

The arm A of the gas-bracket is fixed to the wall or other suitable support and is provided with the usual key B for turning the gas on or off, and on the forward end of the said fixed arm A is formed the seat C for the plug D to turn in, the said plug being secured on the inner end of the arm E, having a plug connection F at its outer end with a second arm G, carrying the burner H.

The plug D and its seat C form the pivot for the arm E to swing on the fixed arm A, and this plug D is formed with the usual

duct D' for connecting the bore A' in the fixed arm A with the bore E' in the swinging arm E. (See Fig. 2.) Into the entrance end D<sup>2</sup> of the duct D' lead the grooves D<sup>3</sup> and D<sup>4</sup>, formed on the peripheral surface of the plug D and extending in opposite directions from the said entrance end D<sup>2</sup>, and the said grooves D<sup>3</sup> and D<sup>4</sup> are of different sizes, the grooves D<sup>3</sup> forming a feed-groove and the other groove D<sup>4</sup> forming a pilot-groove, for the purpose presently to be described. The grooves D<sup>3</sup> and D<sup>4</sup> have their terminal ends separated from each other at a point approximately diametrically opposite the entrance end D<sup>2</sup>, as will be readily understood by reference to Figs. 3, 4, and 5.

Now when the arm E stands in alinement with the arm A, as indicated in Fig. 1, then the entrance end D<sup>2</sup> is in full register with the bore A' of the arm A to allow a full supply of gas to pass from the arm A through the pivot to the arm E and through the plug connection F to the arm G and burner H to burn this gas with a flame of maximum power.

When it is desired to decrease the power of the flame without manipulating the key B, which remains in an open position, it is only necessary for the user to swing the arm E to the left, (see Fig. 4,) so that the entrance end D<sup>2</sup> is gradually cut off from the bore A' and communication is established between the said bore A' and the entrance end D<sup>2</sup> by the feed-groove D<sup>3</sup>. Thus a less amount of gas passes from the bore A' to the duct D' to reduce the power of the flame on the burner H. Continuing to turn the arm E in the same direction until it reaches a right-angular position relative to the arm A causes a complete cutting off of the entrance end D<sup>2</sup> from the bore A', and a limited supply of gas is fed to the duct D' from the bore A' by way of the feed-groove D<sup>3</sup> and the entrance end D<sup>2</sup>.

Now when it is desired to produce a flame of minimum power the operator swings the arm E from the position shown in Fig. 1 to the right, so that the entrance end D<sup>2</sup> moves out of register with the bore A' and the pilot-groove D<sup>4</sup> moves opposite the bore A', so that but an extremely-small amount of gas can pass from the bore A' by way of the pilot-groove D<sup>4</sup> to the entrance end D<sup>2</sup> and the duct D' to reduce the flame on the burner H to a



minimum. Thus the operator by swinging the arm E in the desired direction can graduate a flame from the maximum to the minimum, as above described.

5 It is expressly understood that the plug D remains in full-open position as long as the flame is desired at the burner H, and the key is only used for turning on the gas full in the bracket A or for completely shutting it off  
10 when no flame is desired.

By the use of the device a large quantity of gas which is now frequently wasted by persons who do not take the time to shut off the gas when called away from their work is com-  
15 pletely saved, and hence this device is very serviceable on desks and on the benches of watch-repairers, cigar-makers, and other persons liable to be called frequently away from their work to attend to customers in the store  
20 or other place.

It is understood that all that is required of the person using the bracket is to swing it into the proper position to obtain a flame of the desired power without danger of the flame  
25 becoming extinguished.

The device is also very serviceable for use in bed-rooms, hallways, &c., where a low light is often desirable.

30 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A gas-bracket having a pivot for the bracket-arm to swing on as the fulcrum, and

provided with a duct extending centrally in the said pivot and having an entrance end 35 leading to the periphery of the said pivot, the said entrance end being connected with peripheral grooves of different sizes and extending in opposite directions from the said entrance end, as set forth. 40

2. A gas-bracket, having a plug for the bracket-arm to swing on as the fulcrum, and provided with a duct extending centrally in the plug and having an entrance end leading to the periphery of the plug, the said entrance 45 end being connected with a feed-groove and with a pilot-groove, the said grooves extending in opposite directions from the entrance end of the duct on the peripheral face of the plug, as set forth. 50

3. A gas-bracket, comprising a fixed key-arm having a turn-on and turn-off key, a swing-arm, a plug pivotally connecting the swing-arm with the said key-arm and having a duct for establishing communication be- 55 tween the said arms, the said plug having a feed-groove and a pilot-groove leading to the entrance end of the said duct on opposite sides thereof, as set forth.

In testimony whereof I have signed my 60 name to this specification in the presence of two subscribing witnesses.

DANIEL CAVANAGH.

Witnesses:

THEO. G. HOSTER,

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