W. LUMLEY.

GAS FIXTURE.

APPLICATION FILED JAN. 24, 1908.

981,206. Patented Jan. 10, 1911.

2 SHEETS—SHEET 1.

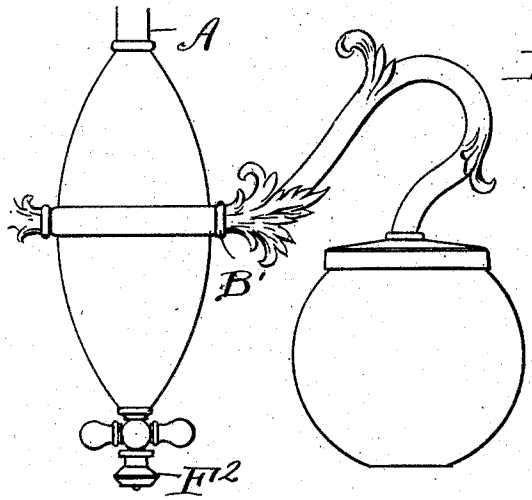

Fig. 1.

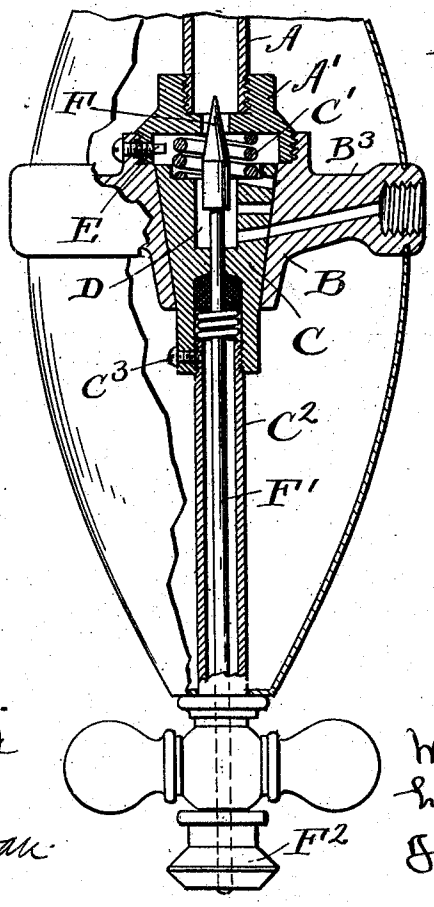

Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

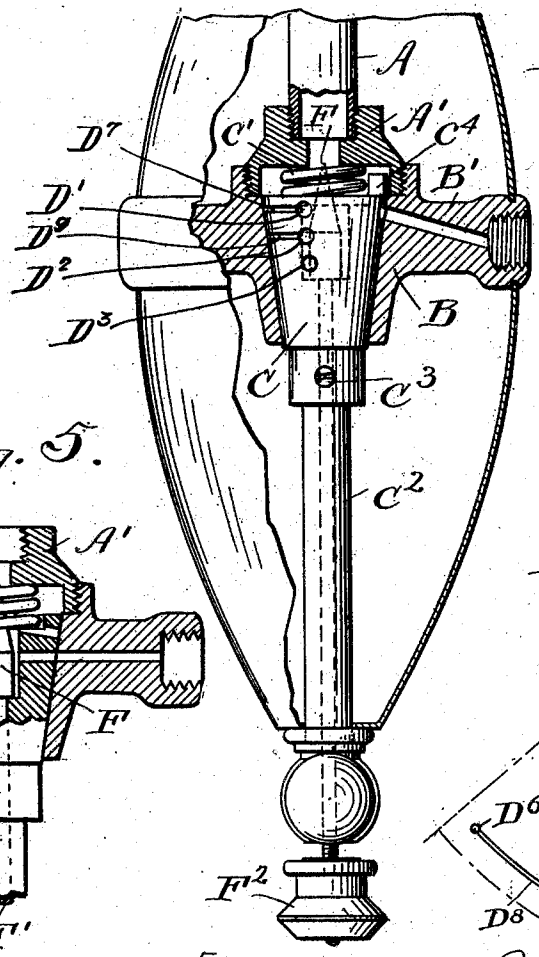


Fig. 5.

Fig. 6.

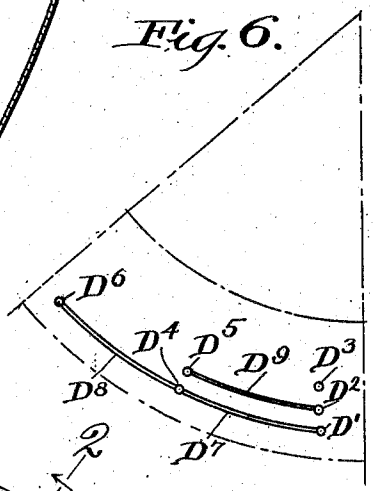
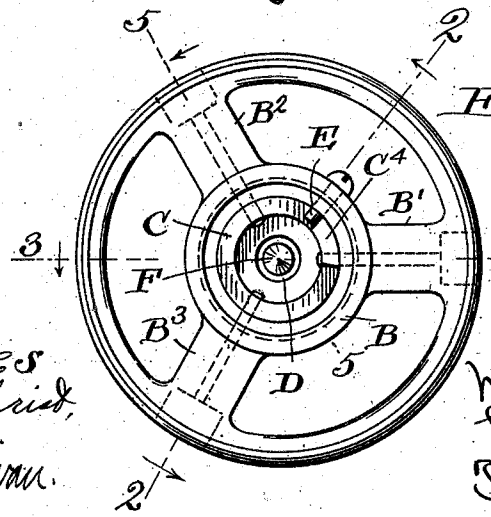


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILFRID LUMLEY, OF EAST CONNEAUT, OHIO.

GAS-FIXTURE.

981,206. Specification of Letters Patent. **Patented Jan. 10, 1911.**

Application filed January 24, 1908. Serial No. 412,423.

To all whom it may concern:

Be it known that I, WILFRID LUMLEY, a citizen of the United States, residing at East Conneaut, in the county of Ashtabula and State of Ohio, have invented a certain new and useful Improvement in Gas-Fixtures, of which the following is a full, clear, and exact description.

The object of the present invention is to provide an improvement in gas fixtures whereby the control of a plurality of lights fed from a common source may be had without complication of apparatus or uncertainty of action.

The invention resides more particularly in the provision of a valve which shall control the various jets in a manner suitable for the ordinary purposes of illumination and shall have the structural advantage of being operable by a single hand piece which may be located in an accessible position.

The structure which I have devised is especially applicable to those chandeliers to which the inverted incandescent mantles are applied, giving certain advantages of operation and affording the designer a wider field for producing attractive ornamentation than is had at present.

The advantages above referred to will be seen from the detailed description appearing in the following specification, reference being had to the accompanying drawings in which—

Figure 1 is an elevation of my device for controlling a plurality of lights from a single point, an inverted light being shown in connection with the same. Fig. 2 is a view partly in vertical section on the line 2—2 of Fig. 4 looking in the direction of the arrow showing details of the valve. Fig. 3 is a section taken at 120 degrees to that of Fig. 2, on the line 3—3 of Fig. 4, looking in the direction of the arrow, the valve and some associated parts being shown in elevation. Fig. 4 is a plan looking down on the valve in its seat with the feed pipe and the spring for holding the valve in place removed. Fig. 5 is a vertical section on the line 5—5 of Fig. 4, looking in the direction of the arrow. Fig. 6 is a development of the conical valve showing the relation of the various ports through the valve.

The feed pipe A, through which the gas is fed to the fixture, may be supported in any suitable manner, and has secured to its lower end a union A′ connecting it with a spider B having radiating arms B′ B^2 B^3 through which conduits lead from a central chamber and to which the branch pipes for the illuminating jets are secured. In the center of the spider is the valve chamber, the valve C being an inverted frusto-cone in exterior contour, and having a spring C′ above the same to hold it in proper engagement with its seat. A tubular stem C^2 is screwed into the lower end of the valve and locked in position by a set screw C^3,—this tubular stem having at its lower end a handle of any suitable construction by which it may be turned and thus transmit rotary motion to the valve.

The valve is shown shaped with a central cavity D from which radiate the passages or ports D′, D^2, D^3, D^4, D^5, D^6 to the exterior surface, which passages are designed to come into registration with the conduits in the legs of the central spider. A stop pin E projects into the upper portion of the valve casing and by engaging a lug C^4 on the upper periphery of the valve limits the rotary movement of the latter in each direction.

A choke valve F governing the inlet from the feed pipe into the valve chamber is mounted upon a valve stem F′ passing through the controlling valve and through a gas tight packing down through the tubular stem and beneath the operating handle therefor. At the lower end of the choke valve stem a finger piece F^2 is provided, whereby it may be moved up into position to choke down the flow of gas into the valve chamber, for the purpose of lowering the lights without manipulating the controlling valve, for reasons which will be obvious from the general character of the device.

It will be seen that the conduits in the spider legs incline toward the valve chamber at different angles, and that the ports in the valve chamber are arranged at different levels so that communication may be established with the conduits in the spider leg therethrough, and by referring to Fig. 6 showing the development of the valve it will be seen that it is possible to so turn the valve that three of the valve ports D^6, D^5, D^3 on three different levels may be simultanously in registration respectively with the conduits through the three spider legs B′, B^2, B^3. But it will be seen also that I provide two additional ports D^4, D′ for one level and one additional port D^2 for a second level, so that I may have one jet turned on without

moving the valve to the point where the other two jets are opened, or I may have two jets turned on without moving the valve to the point where the third jet is opened. I have shown the several ports at each level connected by means of channels on the exterior surface of the valve, as D^7, D^8 for one level and D^9 for the second level, these channels being for the purpose of permitting the first jet, or the first and second jets and so on, to be supplied with gas after having been once lighted, while the valve is being moved on to open up the succeeding jets. I prefer that these channels should not be of sufficient cross section to permit a full free flow of gas to the jet, such as is had when the port in the valve itself is in registration with the conduit in the spider leg. This is of some practical utility in that, after the first jet is lighted and the valve is turned to open the second conduit, the first jet will be diminished until the valve is turned to the point where the second port for the first jet comes into exact registration with its conduit, at which the first jet will then flare up owing to the increased gas supply and thus serve as an indication that the valve is at exactly the right point for the full registration of the port for the second conduit with said second conduit.

It will be seen that with my invention the problem of installing a plurality of inverted incandescent mantles upon a single feed pipe, as in a chandelier, is solved with simplicity and cheapness. As is well known to those skilled in this art, it has been necessary heretofore to place the individual valves for controlling the separate inverted incandescent mantles at a considerable distance from the light, owing to the fact that the mantles must be suspended from above and must be high enough not to interfere with the passage of people beneath the same. This has obviously made it necessary to turn the feed pipe down for the purpose of bringing it low enough for an ordinary cock to be reached. Such prior construction has resulted in a monotonous series of designs for such chandeliers, the conventional goose neck being the only form of pipe which could be practically used. With my construction, however, it is not necessary to bring the feed pipes to the bottom of the chandelier, where individual cocks could be reached, but instead the various pipes may spring from the upper portion of the chandelier and be properly shaped and curved to produce such a variety of decorative designs as may be desired. Furthermore, it will be seen that the construction is, in point of fact, capable of greater efficiency for controlling the flow to the different jets, since it is possible to make a perfectly fitting single valve, which shall control the flow to all of the jets, more cheaply than it would be possible to make a number of such perfect valves for controlling the jets separately.

It will be seen that the arrangement not only possesses the advantages referred to above, but fulfils the necessary requirements for such a lighting arrangement, in that one or any other number of lights on the chandelier may be lighted without having all the jets in use; and, regardless of the number of jets in use, all of the lights may be lowered or allowed to rise to their full brilliancy by the use of the choke valve F which may be pushed up to close the inlet passage as shown in Fig. 2, or lowered to open it wide as shown in Figs. 3 and 5.

Having thus described my invention, I claim:

1. A gas fixture comprising a valve chamber, conduits leading therefrom on different planes, and a valve in said chamber having separate series of ports arranged on different planes and adapted to communicate with said conduits upon said different planes in succession to bring said conduits into communication with said valve chamber in predetermined order, and means in each plane for connecting the ports in said planes respectively.

2. A gas fixture comprising a valve chamber, a feed pipe communicating with the valve chamber, a plurality of conduits leading from said chamber to separate jets, and a valve in said chamber having independent means of communication with said conduits, said valve in its movement establishing communication between one of said conduits and said chamber and subsequently establishing communication between the chamber and another of said conduits, and means for maintaining a continued decreased supply of gas to one conduit while the communication for the other conduit is being established.

3. A gas fixture comprising a valve chamber, a feed pipe communicating with the valve chamber, a plurality of conduits leading from said chamber to separate jets, and a valve in said chamber, said valve having means for establishing communication between one of said conduits and said chamber and subsequently establishing communication between the chamber and another of said conduits, means for maintaining a continued supply of gas to the first conduit while the communication for the second conduit is being established, said means for continuing the gas supply to the conduit with which communication is first established being of less capacity than the full supply permitted by the valve.

4. A gas fixture comprising a feed pipe communicating with the valve chamber, a plurality of conduits leading from said chamber to separate jets, and a valve in said chamber, said valve having means for establishing communication between one of

said conduits and said chamber and subsequently establishing communication between the chamber and another of said conduits, means for maintaining a continued supply of gas to the first conduit, while the communication for the second conduit is established, said means for continuing the gas supply to the conduit with which communication is first established being of less capacity than the full supply permitted by the valve, and said valve having means for reestablishing the full supply to the said first conduit at the point where communication is established for the second named conduit.

5. A gas fixture comprising a feed pipe, a valve chamber and a plurality of conduits communicating therewith and leading therefrom, a valve in said chamber having means for establishing communication with said conduits to any desired number, and a choke valve mounted within said valve chamber and adjustable with respect to the first said valve.

6. A gas fixture comprising a feed pipe, a valve chamber and a plurality of conduits communicating therewith and leading therefrom, a spring-seated valve in said chamber having means for establishing communication with said conduits, and a choke-valve mounted upon a stem extending through said valve and extending within said valve chamber.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

WILFRID LUMLEY.

Witnesses:

E. B. GILCHRIST,

H. R. SULLIVAN.