

A. JARMOLOWSKY.

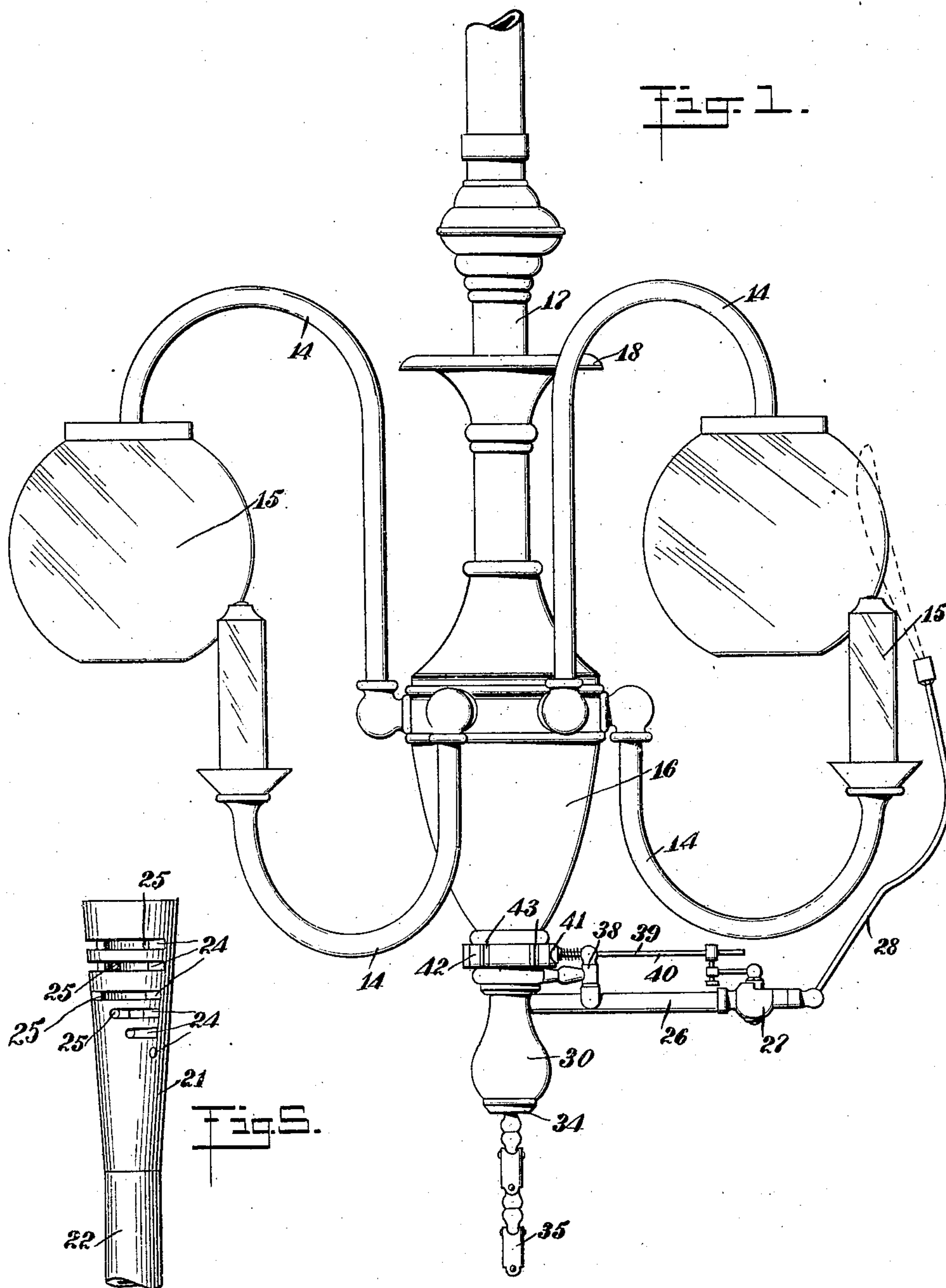
GAS FIXTURE.

APPLICATION FILED JUNE 9, 1909.

946,226.

Patented Jan. 11, 1910.

2 SHEETS—SHEET 1.



WITNESSES

*W. H. Holt*

INVENTOR

*Abraham Jarmolowsky*

BY *Munn & Co*

ATTORNEYS

A. JARMOLOWSKY.

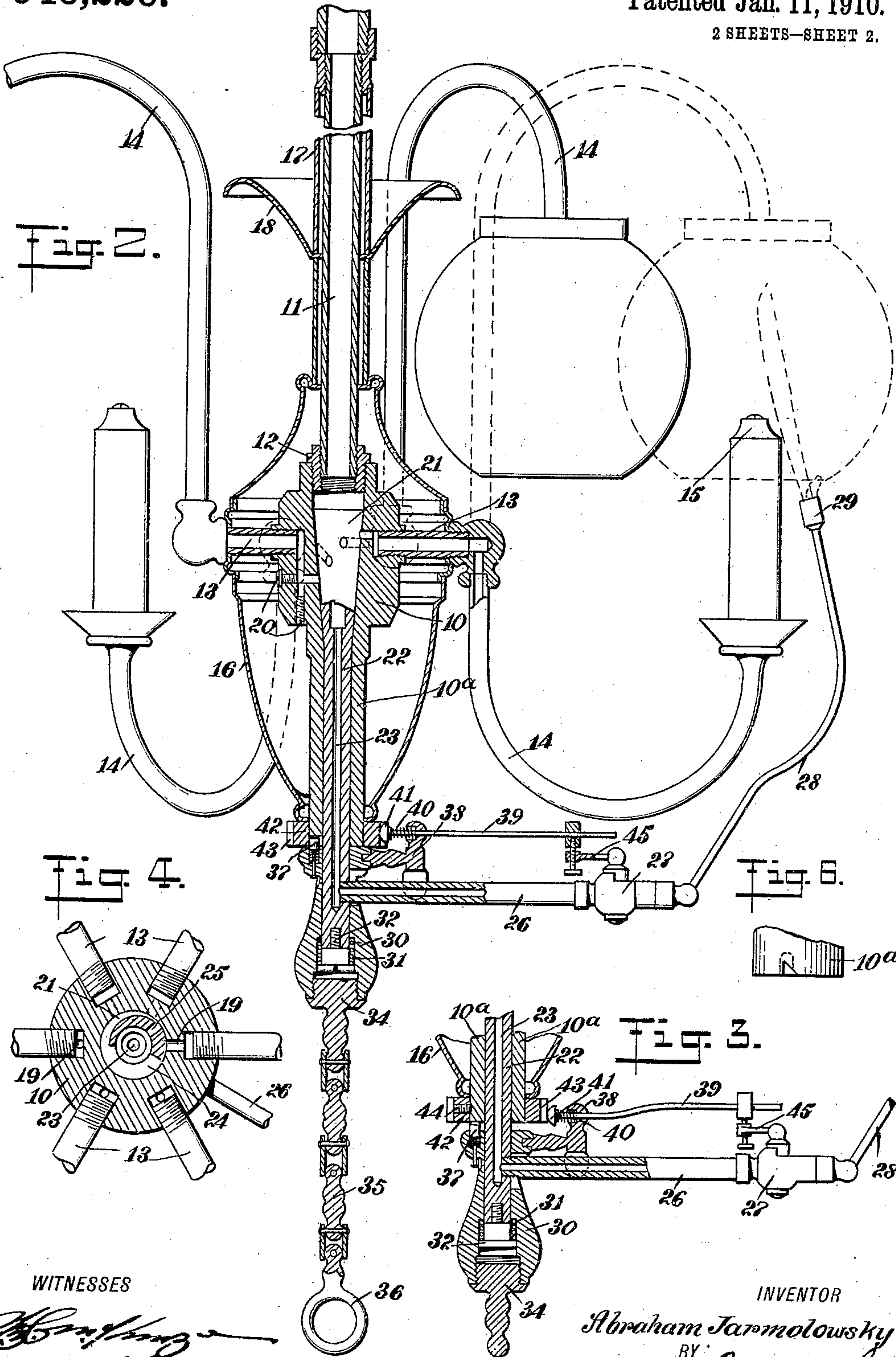
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BY

*W. H. H. H.*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

ABRAHAM JARMOLOWSKY, OF NEW YORK, N. Y.

## GAS-FIXTURE.

946,226.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed June 9, 1909. Serial No. 501,027.

*To all whom it may concern:*

Be it known that I, ABRAHAM JARMOLOWSKY, a subject of the Czar of Russia, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Gas-Fixture, of which the following is a full, clear, and exact description.

The invention is an improvement in gas fixtures of the character disclosed in Letters Patent Number 917,446 granted to me April 8, 1909, in which a number of gas burners are arranged around and connect with a common central casing, as in a chandelier, and in which the casing has a controlling valve for the gas supply to the lights and carrying and feeding a revoluble gas lighter.

The present invention has in view a construction of this nature in which the lighter as it is revolved moves the controlling valve to turn on the gas to the several lights or burners in successive order, the flow of gas in each burner starting at the time the burner is reached by the lighter.

The invention further contemplates a construction of the lighter such that the flow of gas therethrough will be automatically diminished as the lighter passes in the intervals between the several burners, and also the diminishing of the flow of gas to the burners as they are lighted, until the lighting of the last burner.

Reference is to be had to 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 side elevation of a chandelier constructed in accordance with my invention; Fig. 2 is a central vertical section of the same; Fig. 3 is a vertical central section through the lower portion of the fixture, showing the parts in a relatively different position from that shown in Fig. 2; Fig. 4 is a fragmentary horizontal section of the fixture taken through the upper portion of the controlling valve; Fig. 5 is a side view of the upper portion of the controlling valve; and Fig. 6 is a side view of the lower end portion of the shank of the valve casing.

The gas fixture in the embodiment of the invention shown has a valve casing 10 provided with a depending tubular shank 10<sup>a</sup>, the bore of the shank forming a continuation of a conical valve seat in the upper portion of the casing, at the top of which the

casing connects with the main supply pipe 11 through the intermediary of a reducer 12. Radiating from the casing opposite the valve seat and arranged at the same elevation or in the same horizontal plane are a number of nipples 13, each having an attached tubular arm 14 at its outer end, leading to and carrying a burner or light 15, the alternate arms being shown to be reversely curved to the remaining arms, whereby one-half of the burners are supported from the base and the other half from the top, thus producing an ornamental appearance. This ornamentation is further carried out by inclosing the valve casing 10 and nipples 13 by a shell 16, as well as a portion of the main supply pipe, the remaining portion of the latter being covered by a tube 17, made in two sections, with an ornament 18 extending between and clamped between them. These ornamental features form no part of my present invention but are simply illustrated and described for the reason that they are features of the chandelier as constructed in practice.

An outlet opening 19 leads from the valve seat of the casing to each nipple 13, the points at which these openings pass from the valve seat being arranged one below the other in passing in one direction about the casing, whereby no two of said openings are arranged in the same horizontal plane. These outlet openings are preferably formed in the walls of the casing, as best shown in Fig. 2, from which it can be seen that the upper outlet opening is drilled or otherwise formed in the casing at the top of the recess, receiving the inner end of the nipple, and in the lowest and all other outlet openings out of alinement with the nipple, recesses are formed by drilling an intersecting vertical and horizontal hole in the walls of the casing, and plugging up the outer end portion of each hole by a screw or other suitable device 20.

Revoluble within the casing is a controlling valve 21 having a shank 22 extending from the head of the valve through and a substantial distance below the lower end of the tubular shank 10<sup>a</sup>, the valve having a gas passage 23 passing from the top and terminating short of its lower end, that portion of the passage within the head of the valve being enlarged or counterbored, as clearly shown in Figs. 2 and 4. The head of the controlling valve is of conical construc-



tion to conform to the seat in the casing, with the enlarged portion arranged at the top, and has a number of outlet openings 24 passing through the side from the inner passage 23, the openings being arranged one above the other, each in the same transverse plane with one of the outlet openings 19 in the casing. The openings in the valve successively increase in length in passing from the lower to the upper opening, with one edge or side of all of the openings arranged in approximate vertical alinement. The opposite side of the top or longest opening merges into a circumferential groove in the side of the valve, as best shown in Fig. 4, the inner wall of which is eccentrically arranged with respect to the valve, gradually reducing the width of the groove in passing from the slotted portion, with the most contracted portion of the groove connecting with the bore of the valve through an aperture 25. The gas openings or outlets below are likewise formed, with the corresponding apertures 25 arranged successively closer to the opposite edge or side of the outlet until the two bottom outlets are reached, where, as best shown in Fig. 5, in the case of the upper outlet, the grooved portion extends in the opposite direction, and the lower outlet is in the form of a small aperture. By this disposition of the outlets in the valve, when the latter is in the position shown in Fig. 4, all of the outlets 19 in the valve casing are lapped, and by revolving the valve to the right, the upper outlet 24 uncovers the top outlet 19, and a full flow of gas passes through the passage afforded by the connecting nipple 13 and arm 14, to the attached burner. On a continued revolution of the valve in the same direction, the next lower opening uncovers the outlet in the casing of the next adjacent light, and this is continued until the gas is turned on to all of the burners, at which time the apertures 25 of the outlets 24 are in register with the outlets 19 of the casing. In moving the valve to this position, a full flow of gas is initially given to each burner in successive order and is thereafter gradually diminished until the outlets 19 are reached by the apertures 25, when a full flow of gas is again given to all of the burners simultaneously, this obviously being the case by reason of the inner walls of the grooves leading from the slots 24, gradually approaching the periphery of the valve.

At the lower end portion of the shank 22 of the valve, a laterally-extending tubular arm 26 connects below the shank 10<sup>a</sup> of the casing and is in communication with the passage 23. The outer end portion of the arm 26 is provided with a valve 27, and at a point beyond the valve carries an upwardly-extending tubular arm 28 having a pilot burner

29 at its outer end, arranged at the outside and in the path of the burners of the several lights. On the lower end portion of the shank 22 of the controlling valve 21, is slidably carried a knob 30 having a counter-bored lower end portion, in which is arranged a spring 31, the spring bearing on the knob and on the head of a screw 32 threaded into the lower end of the shank 22, and tending to force the knob to an elevated position. The under side of the knob is closed by a plug 34 having an attached chain 35 provided with an operating ring 36, by which the knob may be drawn down to the lower limit of its movement. The knob in its upper position seats against the lower end of the tubular shank 10<sup>a</sup>, and is provided with a spring-pressed pin 37 entering a recess in the said shank when the controlling valve of the gas supply is in its cut-off position, as shown in Fig. 4. The outer portion of this recess is V-shaped as shown in Fig. 6 to admit of the revolution of the knob in one direction only. The knob is slotted to pass around the tubular arm or pipe 26, above which it carries a laterally-extending T-shaped arm 38, the lower end of which is slotted to engage over and lock with the pipe 26, and the upper portion serving as a guide for a rod 39, the latter being normally forced inwardly by a spring 40 bearing on its head 41 and pressing said head to a wheel 42 fixed to the lower end portion of the tubular shank 10<sup>a</sup>, and having ribs or cams 43, equal in number to the number of lights of the chandelier. The wheel is adjustably secured to the casing shank by a set-screw or other suitable device 44, admitting of the proper location of the wheel relatively to the burners. The outer end portion of the rod 39 is operatively connected to the lever 45 of the valve 27, such that when the rod is forced outwardly, the valve is further opened and the flow of gas to the pilot burner increased; the valve, when the rod occupies its innermost position, being only slightly opened. With the spring-pressed pin 37 of the knob 30 in engagement with the tubular shank 10<sup>a</sup>, the supply valve and attached lighter are locked against rotation. By, however, drawing the knob downwardly, the spring-pressed pin is lowered sufficiently to strike the inclined edge of the recess in the tubular shank, and will ride out thereon when the knob is turned.

Assuming the lighter to be lighted, and the controlling valve for the gas supply in the position shown in Fig. 4, on revolving the lighter to the right, the head of the rod 39 rides upon the adjacent rib or cam 43, increasing the flow of gas to the pilot, which shoots up a flame adjacent to one of the burners, as indicated in dotted outline in Fig. 2. At this time the slotted side of the



top outlet of the controlling valve has been moved sufficiently to uncover the outlet of the burner opposite the pilot, and the out-flowing gas consequently lighted. On moving the pilot to the next burner, the head of the rod passes off of the cam and the flow of gas to the lighter diminished until the next burner is reached, at which time the flow of gas through the lighter is again increased and the next lower outlet opening of the valve passes into register with its respective outlet in the valve casing. This is continued until the pilot reaches the last burner, at which time a full flow of gas passes to all of the lights, the latter brightening up simultaneously. This gives the effect of instantaneous lighting, notwithstanding that the lights are lighted successively, the initial flow of gas to each burner being full, to facilitate the lighting operation.

By reason of the particular locking mechanism for the valve, it will be impossible to turn the valve in the wrong direction in lighting the several burners.

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

1. The combination in a gas chandelier, of a valve casing, burners arranged about the casing and having supply passages leading therefrom, a lighter for the burners revoluble about the casing, and a controlling valve revoluble in the casing and operated by the lighter, having outlet openings arranged to respectively and successively register with the supply passages of the burners at the time each burner is reached by the lighter.

2. The combination of a gas chandelier having burners arranged thereabout, a lighter carried by the chandelier, revoluble about the burners, and means to successively turn on the gas to each burner as it is reached by the lighter.

3. The combination of a gas chandelier having burners, a lighter movable thereabout, and means controlling the flow of gas to the burners, actuated by the lighter.

4. The combination of a gas chandelier having burners arranged thereabout, a lighter for the burners movable thereabout, and means automatically operated to give an increased flow of gas through the lighter as it reaches each burner.

5. The combination of a gas chandelier having burners arranged thereabout, a full flow of gas to each burner of the chandelier to move about the burners, and means automatically operated by the revolution of the lighter to increase the flow of gas through the lighter as it reaches each burner.

6. The combination in a gas chandelier having burners, of a lighter movable thereabout, and means to turn on substantially a full flow of gas to each burner of the chan-

delier as it is reached by the lighter, and then diminish the flow while the lighter is passing to the last burner of the chandelier, actuated by the lighter.

7. The combination of a valve casing, gas burners arranged around and having supply passages leading from the casing, a valve revoluble in the casing having outlets for the gas, arranged to successively register with said passages, and a lighter for the burners by which the valve is revolved.

8. The combination of a valve casing, gas burners arranged about and having supply passages leading from the casing, and a lighter for the burners, connected to and serving as means to actuate the valve.

9. The combination in a gas chandelier having burners, of a lighter supported to move about the burners, and means constructed and arranged to successively diminish the flow of gas from the burners during the period of lighting the first and last burner, actuated by the lighter.

10. The combination of a gas fixture having burners arranged thereabout, a lighter for the burners revolubly supported on the fixture, and means controlling the flow of gas to the burners, having gas outlets for each burner arranged and constructed to turn on substantially a full flow of gas to each burner as it is reached by the lighter, and then diminish the flow until the last burner is reached.

11. The combination of a valve casing, gas burners supplied from the casing and arranged thereabout, a tubular valve revoluble in the casing, having gas outlets arranged to successively turn on the gas to the burners, a lighter for the burners connected to and fed through the valve, a controlling valve for the lighter, and means to diminish the flow of gas through the lighter as the latter is moved in the interval between the burners, operatively connected with the valve and actuated by the revolution of the lighter.

12. The combination of a valve casing, gas burners supplied from the casing and arranged thereabout, a tubular valve revoluble in the casing, having gas outlets arranged to successively turn on the gas to the burners, a lighter for the burners connected to and fed through the valve, a controlling valve for the lighter, means to diminish the flow of gas through the lighter as the latter is moved in the interval between the burners, operatively connected with the valve and actuated by the revolution of the lighter, and means for locking the valve and lighter against rotation.

13. The combination of a valve casing, gas burners arranged about and fed from the casing, a tubular valve to control the flow of gas to the burners, revoluble in the casing, a lighter for the burners connected to and



movable with the valve, a controlling valve for the lighter, a cam wheel fixed relatively to the valve casing, and a member spring-pressed to the cam wheel and operatively  
5 connected to the controlling valve of the lighter.

14. The combination of a valve casing, gas burners arranged about and fed from the casing, a tubular valve having gas out-  
10 lets arranged to successively feed a supply of gas to the burners, a lighter for the burners fed through the valve and revoluble therewith, a controlling valve for the  
15 said lighter controlling valve to increase the flow of gas through the lighter as the lighter reaches each burner.

15. The combination of a valve casing, gas lights arranged about and fed from the casing, a valve to control the flow of gas to the lights, revoluble in the casing, a  
20 lighter for the burners rigidly connected to the lower portion of the valve and revoluble therewith, and a spring-pressed member  
25 slidable on the lower end portion of the valve and having means to lock the valve and lighter against rotation.

16. The combination of a valve casing having a depending tubular shank, gas burn-  
30 ers arranged about and fed from the casing, a valve to control the flow of gas to the burners, revoluble in the casing and having a tubular stem extending through and below said shank, a lighter for the burners  
35 fed through the stem of the valve and connected to the extended portion thereof, a controlling valve for the lighter, and means for actuating the lighter controlling valve,

automatically operated by the revolution of the lighter.

17. The combination of a valve casing having a depending shank, gas burners arranged about and fed from the casing, a valve to control the flow of gas to the burners, revoluble in the casing and having a  
45 tubular stem extending through and below said shank, a lighter for the burners fed through the stem of the valve and connected to the extended portion thereof, a controlling valve for the lighter, cams carried by  
50 the shank of the casing, a rod spring-pressed to the casing in the path of said cam and operatively connected to the lighter controlling valve, and a spring-pressed locking member slidable on the extended portion  
55 of the tubular stem of the valve and having means to engage with the shank of the casing and lock the lighter and valve against rotation.

18. The combination in a gas fixture, of  
60 a series of burners, a lighter movable from one burner to another, and means controlling the flow of gas to the burners, constructed to give a full flow of gas to each burner at the time it is lighted and after the light-  
65 ing of the last burner, and diminish the flow of gas to each burner after it is lighted as the lighter is moved to the next unlighted burner.

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

ABRAHAM JARMOLOWSKY.

Witnesses:

W. W. HOLT,

PHILIP D. ROLLHAUS.