W. B. S. TAYLOR.

GAS DROP-LIGHTS.

No. 195,054. Patented Sept. 11, 1877.

Fig. 1.

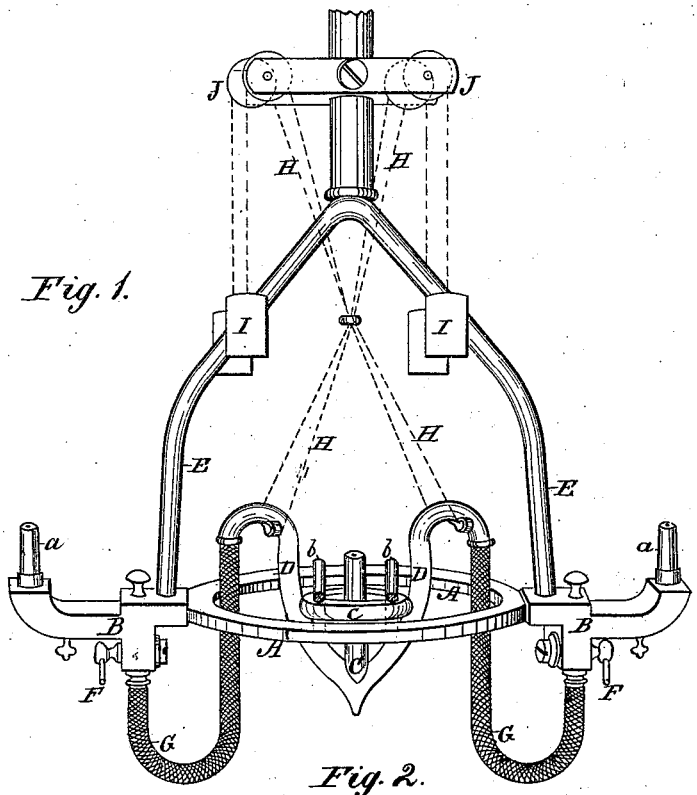
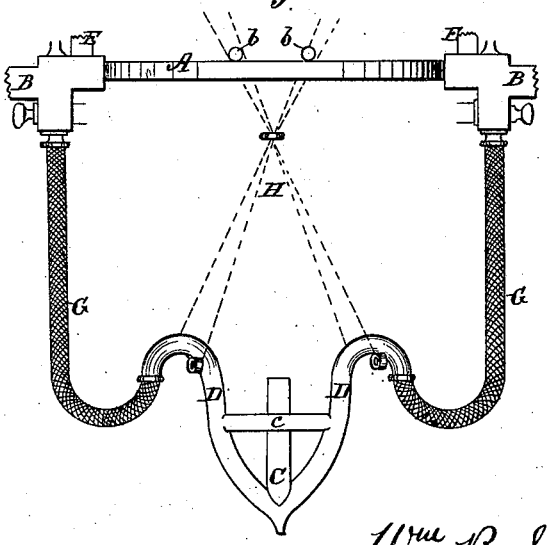


Fig. 2.



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WILLIAM B. S. TAYLOR, OF WESTFIELD TOWNSHIP, UNION COUNTY, N. J.

IMPROVEMENT IN GAS DROP-LIGHTS.

Specification forming part of Letters Patent No. **195,054**, dated September 11, 1877; application filed May 9, 1877.

To all whom it may concern:

Be it known that I, WILLIAM B. S. TAYLOR, of the township of Westfield, in the county of Union, State of New Jersey, have invented a certain new and useful Improvement in the Manufacture of what are known as "Drop-Lights" and "Suspension Light Chandeliers;" and I do hereby declare that the following is a full and correct description thereof, reference being made to the annexed drawings and the letters of reference thereon.

The nature of my said invention is such an arrangement and application of flexible tubing to such drop-lights or chandeliers as will protect the tubing from injury by unnecessary coiling or rubbing, and the heat of the lights when the chandeliers or drop-light is in use, and will carry it out of the way when it is not in use.

I am aware that flexible tubing has been used before in making suspension-light chandeliers; but it has always been placed where the heat of the lights acted upon it so powerfully that no flexible tubing could be made which would resist it and remain serviceable for any considerable length of time. Besides, it was either coiled up in a hollow ball or worked over rollers, or in some way was subjected to so much friction and pulling that its speedy destruction was made inevitable. For this reason the use of flexible tubing in connection with such drop-lights and suspension-light chandeliers has been reluctantly abandoned by gas-fixture makers, and different kinds of jointed and sliding devices substituted for the purpose of conveying the gas from the stationary part to the movable or suspending part of such fixtures. Such substitutes are necessarily more or less defective from their nature, it being impossible to make metal joints or slides so tight as never to leak any gas and yet have them work freely and easily, especially when heated.

In my improved method of constructing such chandeliers and drop-lights the tubing is always to be attached to the lower parts both of the suspending and of the stationary parts of the fixture, and is allowed to hang or is festooned in a manner agreeable to its nature.

In accompanying drawing, Figure 1 is a perspective view of a suspension-light chandelier, showing the light or lamp proper elevated. Fig. 2 is a side view of part of the chandelier, showing the light drawn down.

A is the large oval ring usual in this class of fixtures; E, the gas-conducting tubes; and B, lateral arms carrying burners *a*. All these parts are rigidly connected, and constitute the stationary portion of the chandelier. The light or lamp C, having the outwardly and upwardly curved tubular arms D D, is the movable part of the chandelier, the same being vertically adjustable, with reference to the ring A, in consequence of its suspension by chains H passing over pulleys J, and having counter-balance weights I attached.

The lamp C is connected with the rigid metal tubes E by means of the elastic flexible tubing G, which is shown attached at its respective ends to collars or tubular projections of the arms B, and to the outer ends of tubes or lifting-pipes D. The latter may in some cases be dispensed with, and the flexible tubing G attached directly to the lower part of the body of the lamp C.

The cross-bars *b*, which are attached to the ring A, limit the upward movement of the lamp C, Fig. 1, and the chains H limit its adjustment in the opposite direction, Fig. 2, by reason of the weights I coming into contact with the cross-head in which the pulleys J are pivoted. The tubing G is thereby prevented from being stretched or strained in the adjustment of the light higher or lower.

It will also be seen that said tubing G is attached to the fixed or immovable part of the chandelier at a point which precludes injury from the heat of the light, which is the inevitable result when such tubing is attached and suspended directly above the light, as usual heretofore, and is likewise not injured by wear, by reason of being wound in a coil.

The lifting-tubes D serve to suspend the inner ends of the tubing G, so that when the light is raised, Fig. 1, the tubing will be, as it were, festooned or suspended in graceful curves, but always out of the sphere of the active and permanent injury of the heat.

The gas consumed in light C passes through tubes E, and is admitted to tubing G by the regulating-cocks F.

What I claim is—

1. In combination with the metal gas-tubes E, constituting the most essential part of the stationary portion of the chandelier, the light C, suspended by weighted chains to render it vertically adjustable in position, and the flexible tubing G connecting the light with the lower ends of said tubes E, and the weighted chains for suspending said light, as shown and described, whereby the tubing is arranged laterally of the light, and thus preserved from danger of injury by heat, and from rapid wear by coiling or uncoiling, as set forth.

2. The combination, with the portion E of the stationary chandelier-frame, of the curved goose-neck pipes D D, rigidly attached to the body of the lamp or light C, and extending upward and outward, as shown, and the short pieces of flexible tubing G attached to the lower ends of the part E, and the weighted chains for suspending said light, as set forth, whereby, when the light is raised, the tubing is suspended in the manner specified.

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