

A. W. GAST.
ELECTRIC LIGHT.
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1,043,821.

Patented Nov. 12, 1912.

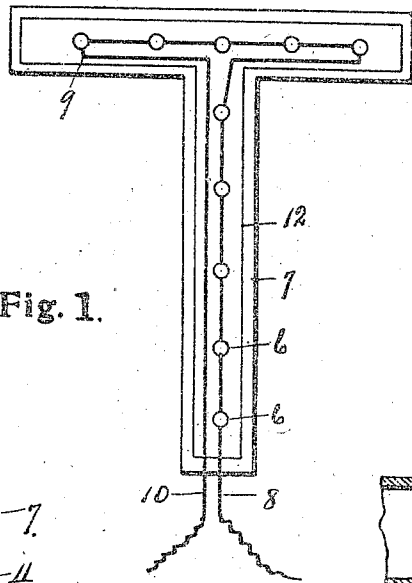


Fig. 1.

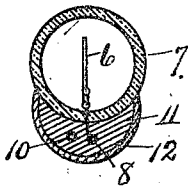


Fig. 3.

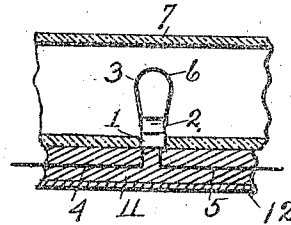


Fig. 4.

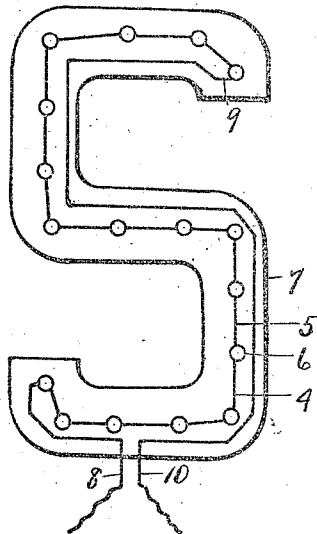


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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ELECTRIC LIGHT.

1,048,821.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ADOLPH W. GAST, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Electric Lights, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to electric lights.

It has for its object an electric light made in a shape to be used for advertising purposes and constructed to produce a light that is diffused to a greater extent throughout the exhausted tube than a light in which the incandescent member is large and concentrated in a single place or a single loop along the tube. In the lamp in which this invention is embodied, in place of the single incandescent filament heretofore used, a large number of small filaments are inserted at intervals along the conductor line, the main part or metallic part of which extends outside of the tube with the incandescent part included within the tube and the metallic connection between the incandescent part and the metallic conductor extending through the glass and sealed into it; the metallic part of the circuit extending along the outside of the tube is covered by a cement compound and a metallic guard covers the cement compound and is held to the glass by the cement, thus securely protecting the more or less friable cement from accidental abrasion.

In the drawings are shown two letters which characterize the construction and which may be used as indicating the character of the invention which is applicable to any and all letters or figures suitable to be used for advertising purposes.

Figure 1, shows the letter T embodying the invention; the figure is not strictly either elevational or in plan, but is rather diagrammatic, to bring out the relation of the electrical elements and the glass tube. Fig. 2, similarly diagrammatic, shows the letter S and characterizes the invention when employed in a letter or figure of curved outline. Fig. 3, is a cross section

through the tube. Fig. 4, is a longitudinal section through the tube and the guard applied thereto.

The main part of the character is formed as a glass tube constructed to represent any letter or character that may be desired. Through that wall of the tube, which for the purpose of clearness may be considered the back wall, conductor members 1 and 2 are sealed into the glass in any suitable manner; the filament 3 preferably what is known now as the tungsten filament is secured to the inner ends of the conductors 1 and 2 and the outer ends of the conductors 1 and 2 are secured to the ends of pieces 4 and 5 of an ordinary copper or similar metallic wire. All of the included filaments of which there may be such number as may be desired, are in series on the same conductor from 8 to 9, and the same conductor is continued back to 10 along the outer surface of the tube 7. That part of the wire upon which the filaments are secured and that part of the wire which may be considered the return are then covered in by cement compound 11 and the cement compound itself is covered in by metallic backing or coating 12, which adheres to the cement compound and is held by the cement compound to the glass of the tube. The glass tube thus constructed is protected by the metallic protecting piece 12 which extends along the entire back of it, following the sinuosities of its curves, and the insulating plastic material which covers the conductor wire is protected from abrasion by the same metallic covering 12.

All of the lights 6 are in series on the electric circuit, generally each light is of small intensity and the entire collection of lights in the series no more than equal a single large light in their aggregate intensity, but being spread at short intervals along the length of the tube, they contribute to form a light which at a short distance is so commingled that the separate elements are not readily distinguishable.

Preferably the filament is so arranged with respect to the axis of the tube that the two branches thereof and the cross member thereof are spaced along the axis of the tube and the reflective action of the tube in which the filaments are mounted serve to in-

crease the evenness in the degree of the light and render the distinctive character of the separate lights less apparent.

What I claim is:—

1. In an electric sign lamp, an exhausted tube having a part of its axis offset from a straight line, and means to illuminate the tube at spaced points along such axis.

2. In an electric sign lamp, a plurality of filaments spaced independently upon a line conforming to a predetermined sign charac-

ter, an exhausted tube embracing said filaments and conforming to the same character, and means to supply an electric current to said filaments to raise said filaments to incandescence. 15

In testimony whereof, I sign this specification in the presence of two witnesses.

ADOLPH W. GAST.

Witnesses:

CHARLES H. PUSCHECK,

WALTER A. PUSCHECK.