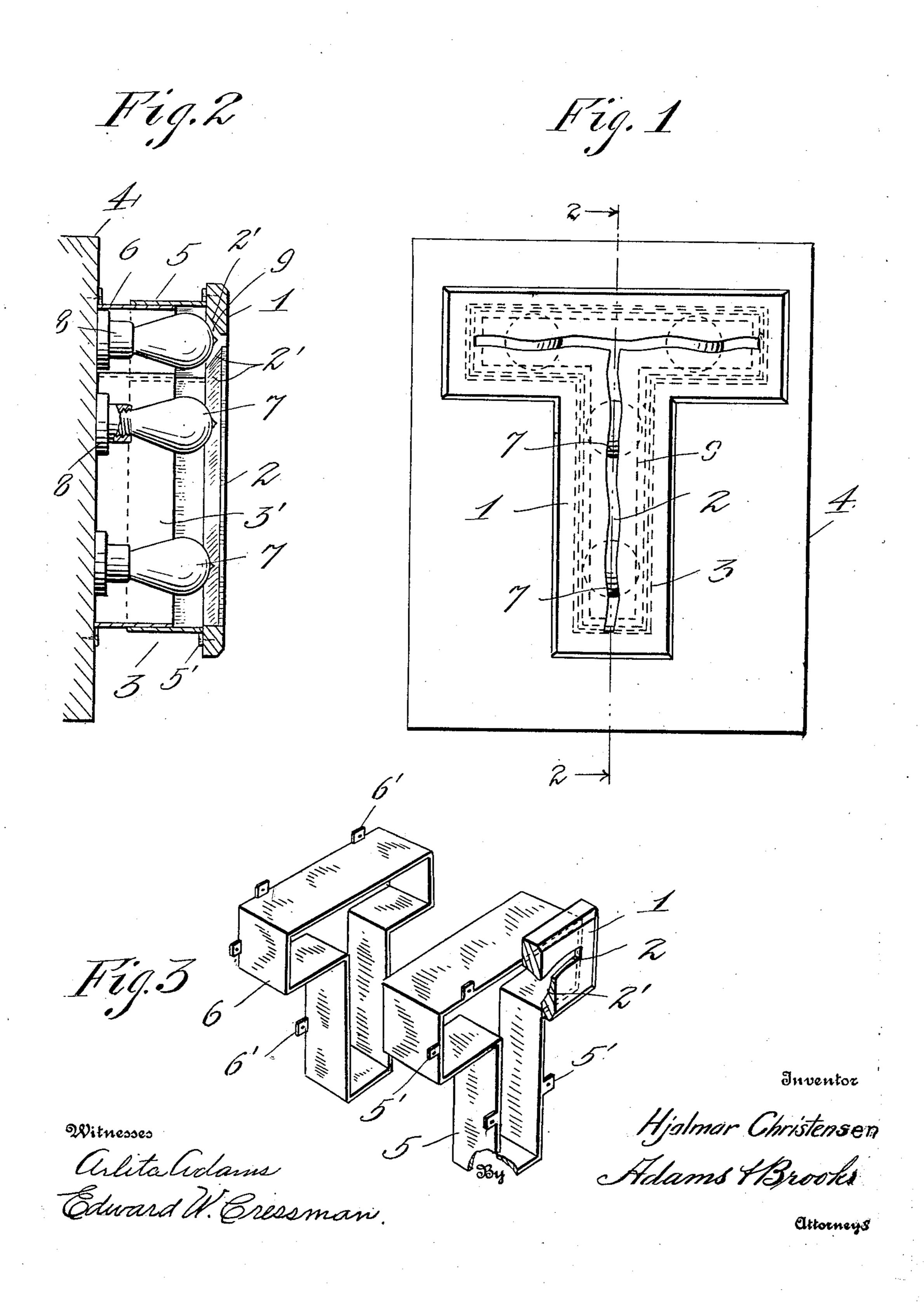
## H. CHRISTENSEN.

SIGN.

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## UNITED STATES PATENT OFFICE.

HJALMAR CHRISTENSEN, OF SEATTLE, WASHINGTON.

## SIGN.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HJALMAR CHRISTENsen, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Signs, of which the following is a specification.

My invention has for its primary object to provide an illuminated sign in which the letters or symbols will be presented by bold and clearly-defined faces during the day and in

brilliant clear-cut forms by night.

With the above and other desirable objects referred to in the following views my invention resides in the construction, combination, and arrangement of parts, as set forth in this specification and defined in the ap-

pended claims.

Referring to the accompanying drawings, in which similar reference-numerals designate corresponding parts throughout, Figure 1 is a front elevation of a letter or symbol constructed in accordance with my invention. Fig. 2 is a vertical sectional view taken on line 2 2 of Fig. 1; and Fig. 3 is a fragmentary view in perspective, showing the sections of the letter-frame separated from each other.

vide facings, as 1, shaped in accordance with the type of letters or symbols desired and formed with broad limb portions or component parts in which are openings, as 2, in the form of letters or symbols. The opening 2 appears in the facing 1 as a narrow slit and is, as shown, of such general outline as to present the appearance of the same letter or

symbol of a different type as that of the

40 facing.

Reference-numeral 3 designates a letter-frame connected with facing 1 and secured to a suitable support or backing, as 4, the said frame conforming in shape to the outline of the facing, but having its wall spaced inwardly from the margin of said facing, so that the latter will be presented in bold relief in tront of the support or backing.

The frame 3 is preferably composed of sections 5 and 6, fitting snugly but slidably one within the other and provided with lugs 5' and 6', respectively, which are secured to the facing 1 and support or backing 5, respectively.

Within the frame 3 are illuminating means, conveniently consisting of electric-light

bulbs, as 7, which have screw-threaded connection with respective sockets 8, secured to the support or backing 4. The width of opening 2 is considerably less than the diam- 60 eter of the light-bulb 7, and I preferably provide opposite inwardly-diverging surfaces, as 2', adjacent the outer end portions of said bulbs, which conveniently consist of the walls of a recess 9, formed in the back por- 65 tion of facing 1 along said opening. These surfaces serve to intercept light-rays emanating from the light-bulbs and reflect them within the light-chamber 3' for a more even distribution of the light-rays, thereby caus 70 ing the openings 2 to appear at night in brilliant and clearly-defined form without obtaining a glaring and dazzling effect.

It will be observed that the width of the opening 2 is considerably less than that of 75 the limbs of facing 1, and in consequence the said opening will be scarcely observed in the

day-time when reading the sign.

The elevation at which the sign stands above the street-level governs the amount of 80 light required to give a readable effect to the openings 2 at night and also, to a certain extent, governs the distance that the facing 1 should stand off from the support or backing to obtain a clear bold readable effect during 85 the day. The higher the sign is placed the greater the strength of light required and the greater the degree that the facings should stand off from the support or backing.

By employing the telescoping or extensible 90 letter-frame 3 it is obvious that the facing 1 can be readily adjusted to accommodate light-bulbs of the required power to give the amount of light desired, the degree of adjustment required to accommodate the length of 95 the lamp-bulb employed at a given elevation of the sign being substantially the same as required to bring the facing 1 the proper distance from the support or backing.

When desired to replace or substitute the 100 light-bulbs, the facing 1 is removed, with its frame-section, to give access to the light-

chamber.

Having thus described my invention, what I claim as new, and desire to secure by Let- 105 ters Patent of the United States of America, is—

1. In a sign, a chamber having an opening forming a letter or symbol, electric lamps in said chamber, there being rearwardly-diverging reflecting-surfaces at opposite sides of said opening, between which said lamps project.

2. In a sign, an extensible frame comprising sections in the form of a letter or symbol fitting one within another.

3. In a sign, an extensible frame, electric lights removably supported therein, and a facing carried by said frame having an opening in the form of a letter or symbol.

4. In a sign, a chamber formed with extensible and contractible side walls, and an end wall having an opening forming a letter or symbol, and electric-light bulbs removably supported in said chamber.

5. In a sign, an extensible frame, electric lights removably supported therein, and a facing in the form of a letter or symbol carried by said frame having an opening forming a second letter or symbol.

6. In a sign, a backing, a facing in the form of a letter or symbol, and extensible means to movably support said facing for adjustment relatively to said backing.

7. In a sign, a backing, electric lights removably mounted thereon, and an extensible letter-frame embracing said lights.

8. In a sign, a backing, a letter-frame projecting therefrom, a facing at the outer edge of said frame in the form of a letter or symbol, said facing projecting laterally from the outer sides of the frame and having an open-

ing forming a letter or symbol, and illuminat- 30 ing means supported in said frame.

9. In a sign, a backing, a frame projecting therefrom, electric-light bulbs supported in said frame, and a facing on said frame in the form of a letter or symbol having an opening 35 forming a letter or symbol, said opening being of less width than the diameter of said bulbs.

10. In a sign, a backing, an extensible letter-frame projecting therefrom, electric-light 45 bulbs removably supported in said frame, a facing on said frame in the form of a letter or symbol having an opening forming a second letter or symbol, said opening being of less width than the diameter of said bulbs, there 45 being rearwardly-diverging reflecting-surfaces at opposite sides of said opening.

11. In a sign, a facing in the form of a letter or symbol having an opening forming a letter or symbol, there being reflecting-surfaces at 50 opposite sides of said opening diverging rearwardly.

Signed at Seattle, Washington, this 6th day of February, 1906.
HJALMAR CHRISTENSEN.

Witnesses:
D. B. Trefethen,
Jno. Bronson.