

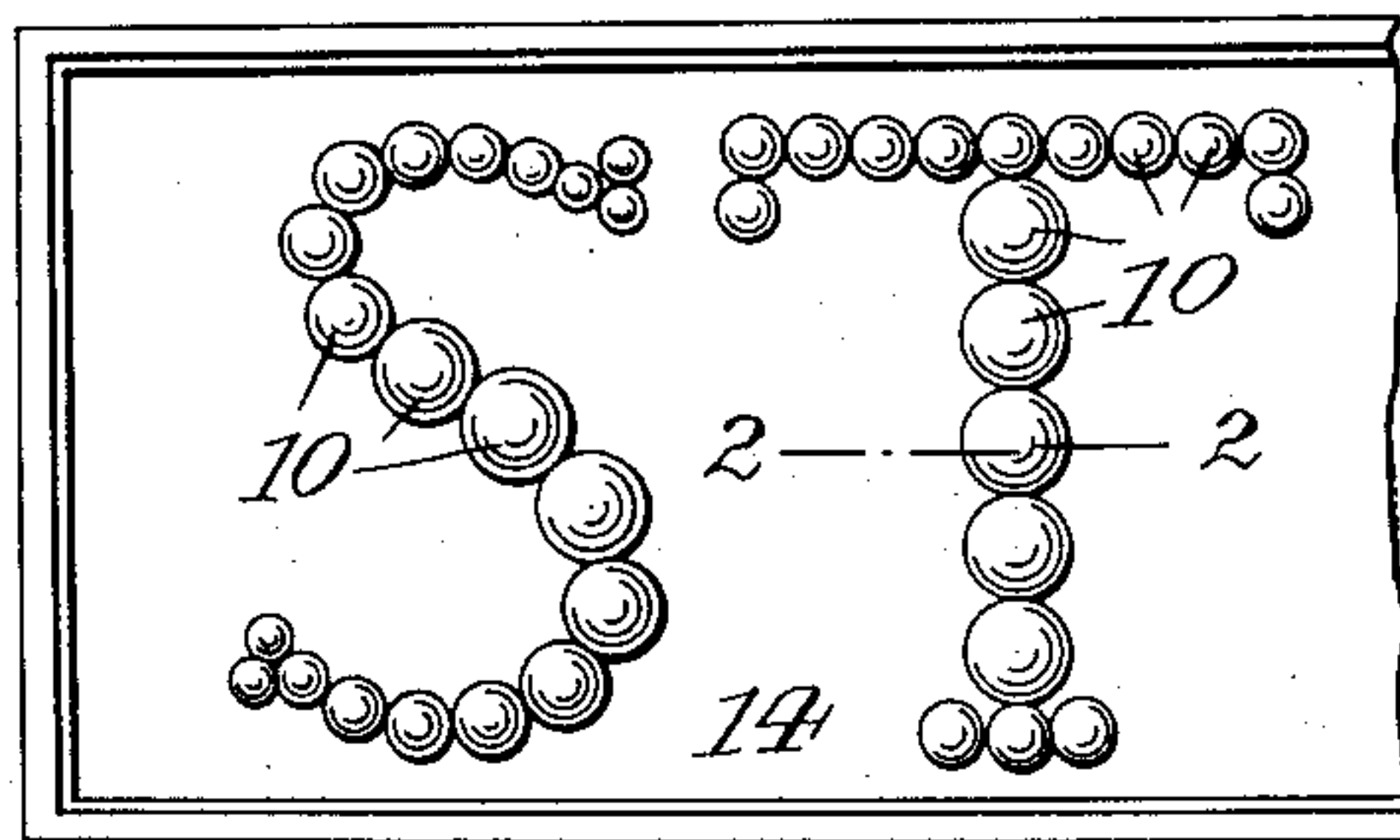
O. BOEHM.  
SIGN.

APPLICATION FILED AUG. 17, 1908.

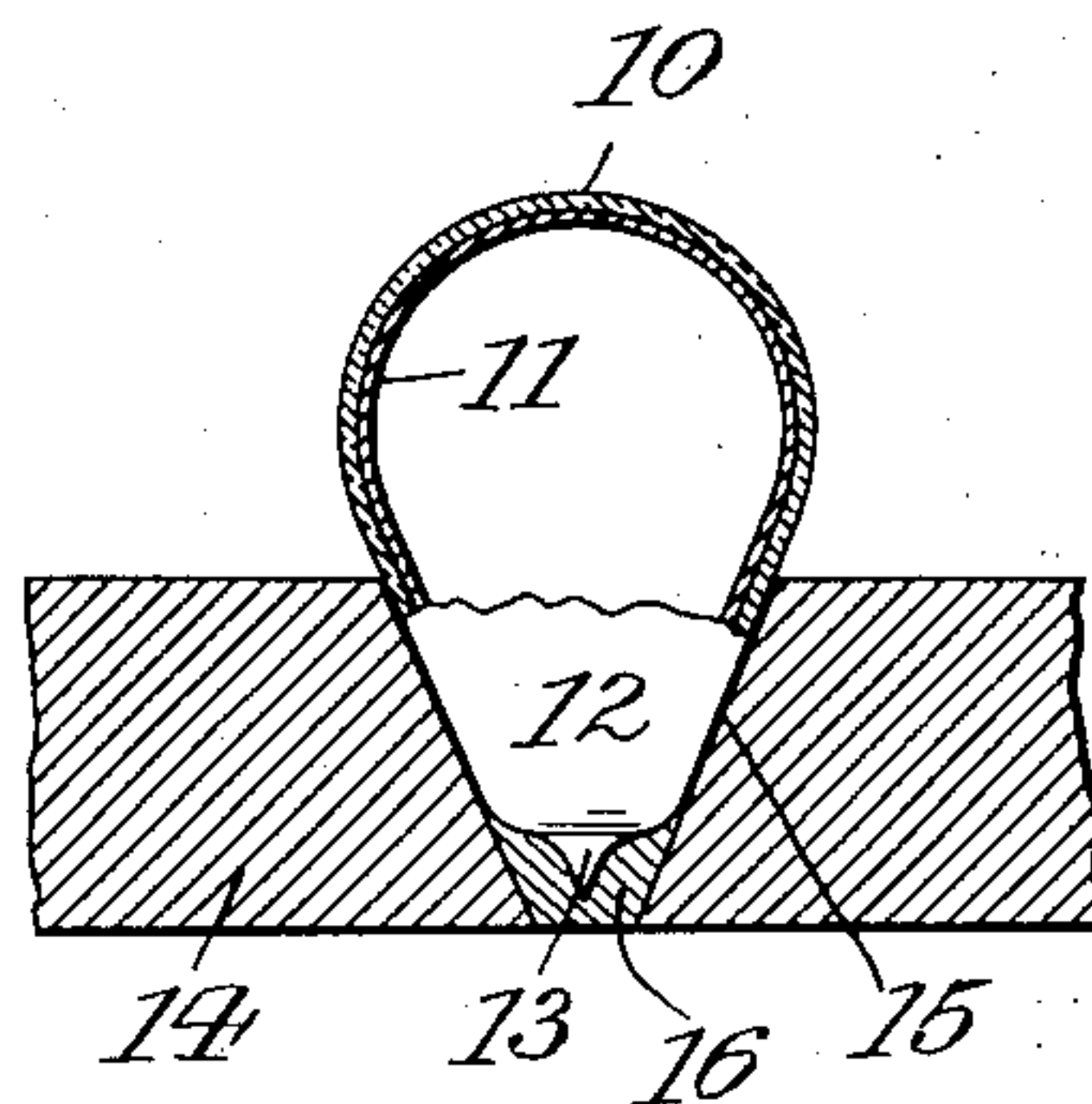
919,310.

Patented Apr. 27, 1909

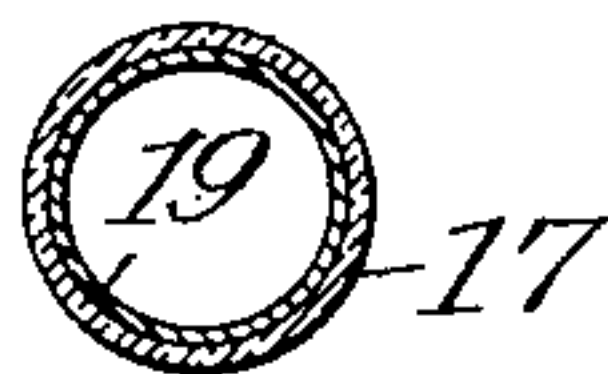
*Fig. 1.*



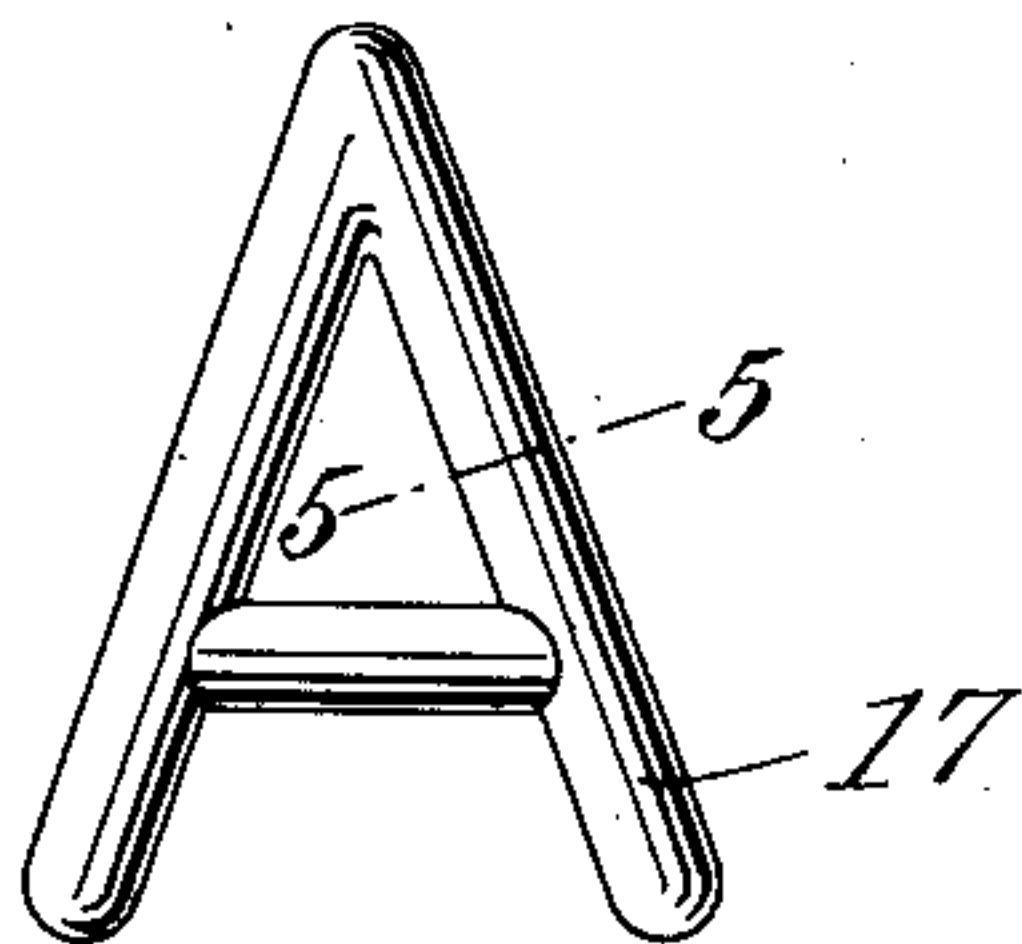
*Fig. 2.*



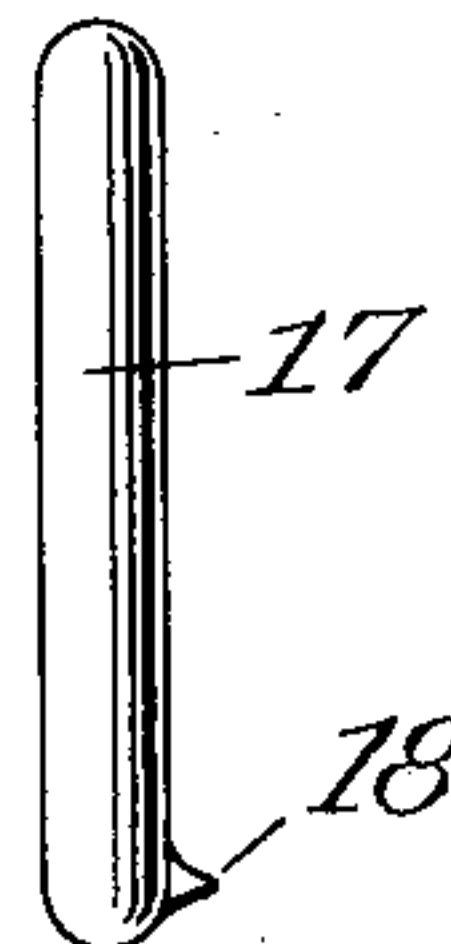
*Fig. 5.*



*Fig. 3.*



*Fig. 4.*



Witnesses:  
*H. R. Schulz.*  
*August Miner*

Inventor  
*Oscar Boehm*  
By his Attorney  
*Arthur E. Gump*



# UNITED STATES PATENT OFFICE.

OSCAR BOEHM, OF NEW YORK, N. Y.

## SIGN.

No. 919,310.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed August 17, 1908. Serial No. 448,791.

*To all whom it may concern:*

Be it known that I, OSCAR BOEHM, a citizen of the United States, residing at New York city, Manhattan, county of New York, State of New York, have invented new and useful Improvements in Signs, of which the following is a specification.

This invention relates to a sign the letters or ornaments of which are composed of glass bodies provided with a light-reflecting backing.

The invention more particularly relates to novel and effective means for permanently excluding atmospheric air and moisture from the backing, so that any oxidation or corrosion of the same is prevented.

In the accompanying drawing: Figure 1 is a front view of part of a sign embodying my invention; Fig. 2 an enlarged cross section on line 2—2, Fig. 1; Fig. 3 a front view of a modified form of a sign-letter; Fig. 4 a side view thereof, and Fig. 5 a cross section on line 5—5, Fig. 3.

The various letters of the sign illustrated in Figs. 1 and 2, are composed of a series of hollow closed bodies 10 of glass or other transparent material. The inner surface of each body 10 is provided with a light-reflecting backing 11, such as a layer of metallic silver. The light-rays in striking the reflecting bodies 10, will give them a most brilliant appearance. The bodies may either be of plain or colored glass, so that different effects may be readily obtained. Thus for instance, letters of light-brown glass, provided with a silver backing will have the appearance of brilliant gold letters.

Bodies 10 are closed, as above stated, and are evacuated to positively insure the absence of all moisture from the interior thereof. By such closing of the bodies, the outer atmospheric air and moisture is permanently prohibited from coming into contact with the reflecting layer 11, so that any oxidation or corrosion of the same is prevented.

Bodies 10 are shown to be made in the form of bulbs having tapering ends 12, but it is obvious that they may be of any other shape or design, without departing from the spirit of my invention.

During the process of manufacture, the

bulb 10 is first blown or molded into the shape desired, whereupon the inner surface of the bulb-wall is provided with the silver backing 11. The air within bulb 10 is now rarefied, and all moisture removed therefrom by externally heating the bulb for a length of time. Bulb 10, while still hot, is finally closed by sealing teat 13. If it is desired to create a higher vacuum within the bulb, the air may be withdrawn therefrom by a suitable pump, whereupon teat 13 is sealed.

A sign board 14 serves for the support of bulbs 10, for which purpose said board is provided with conform perforations or sockets 15, adapted for the reception of the tapering ends 12 of bulbs 10. A suitable paste or cement 16 may be introduced into perforations 15, to fill the space not occupied by bulbs 10.

In the modification shown in Figs. 3—5, each letter is made of but a single hollow glass body 17, which is shaped corresponding to the letter which it is to represent. Body 17 is evacuated and closed by a teat 18, while a reflecting layer 19 covers the inner surface of the body-wall.

It will be seen that by my invention, the sign retains its brilliancy for an unlimited time, as the atmospheric air and moisture is permanently and effectively excluded from the oxidizable backing, so that no destructive influences will act thereon. The sign may thus be cleaned, washed and scrubbed as often as desired, without running any risk that the brilliancy thereof will ever decrease.

What I claim, is:

1. In a sign, a hollow transparent body, said body being exhausted to form a vacuum chamber, and a light-reflector within said chamber, substantially as specified.

2. In a sign, a sealed evacuated transparent body, and a light-reflecting coating on the inner surface thereof, substantially as specified.

Signed by me at New York, N. Y., this 12th day of August 1908.

OSCAR BOEHM.

Witnesses:

ARTHUR E. ZUMPE,  
JOHN KEIM, Jr.