

No. 842,954.

PATENTED FEB. 5, 1907.

G. HOWE.
ELECTRIC SIGN.
APPLICATION FILED MAR. 16, 1906.

Fig. 1.

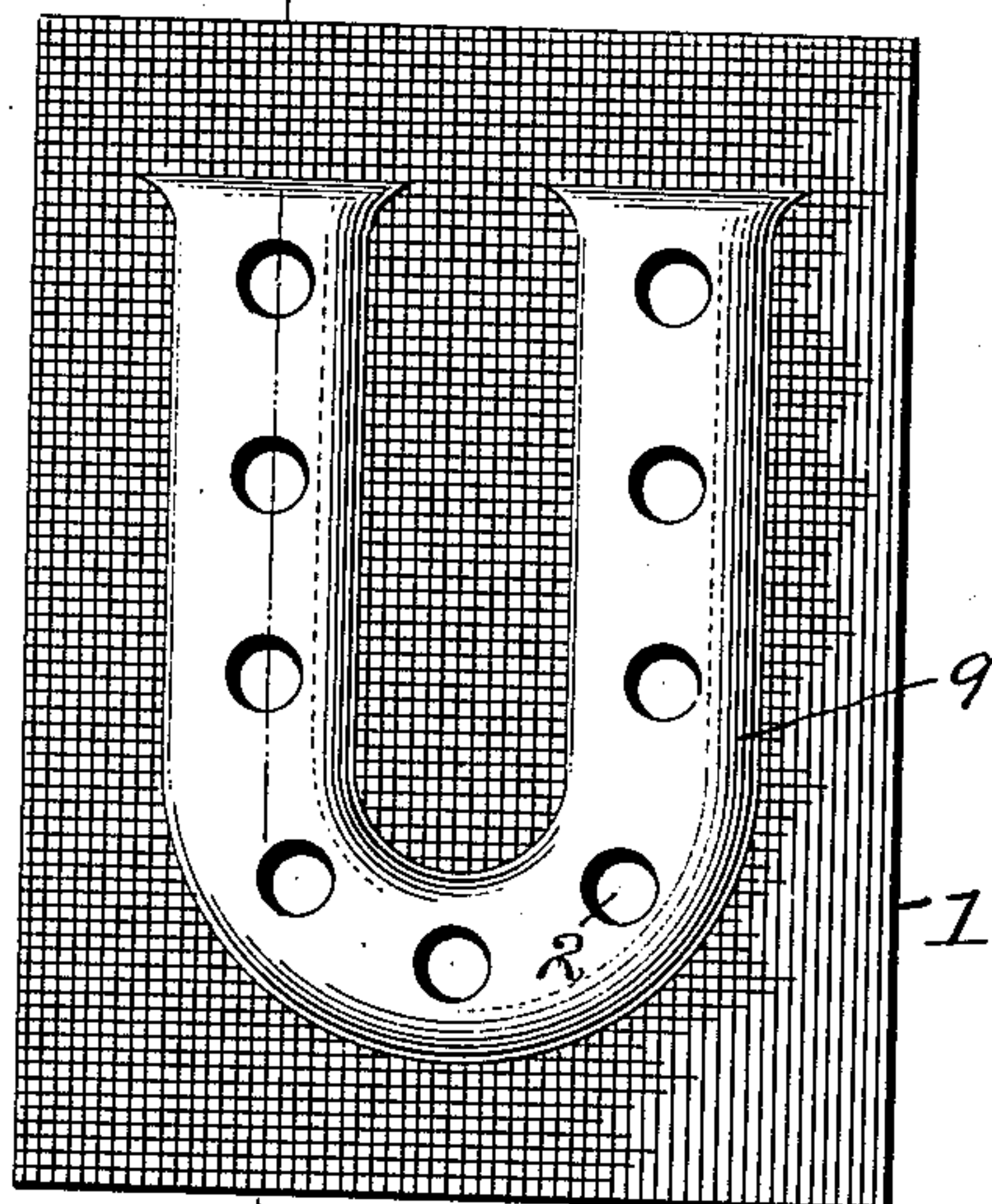


Fig. 3.

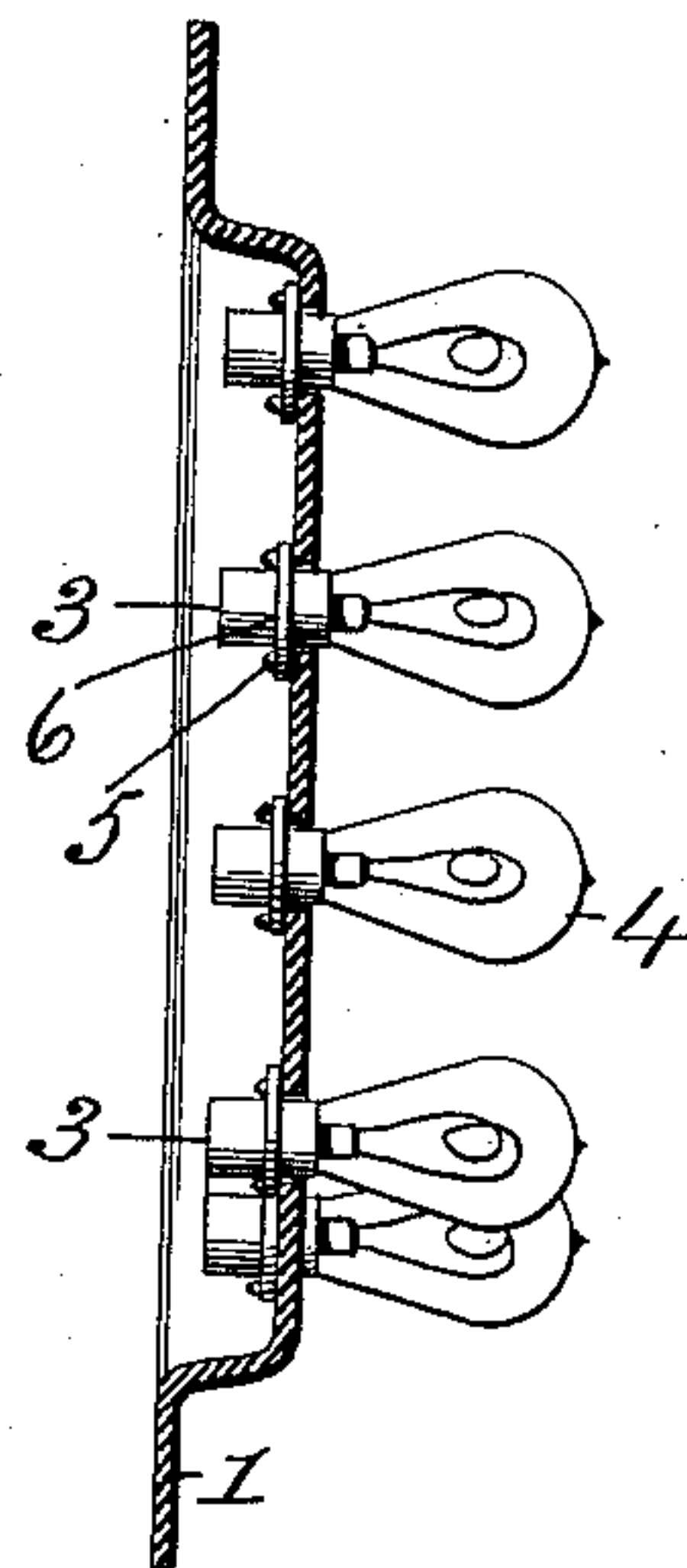
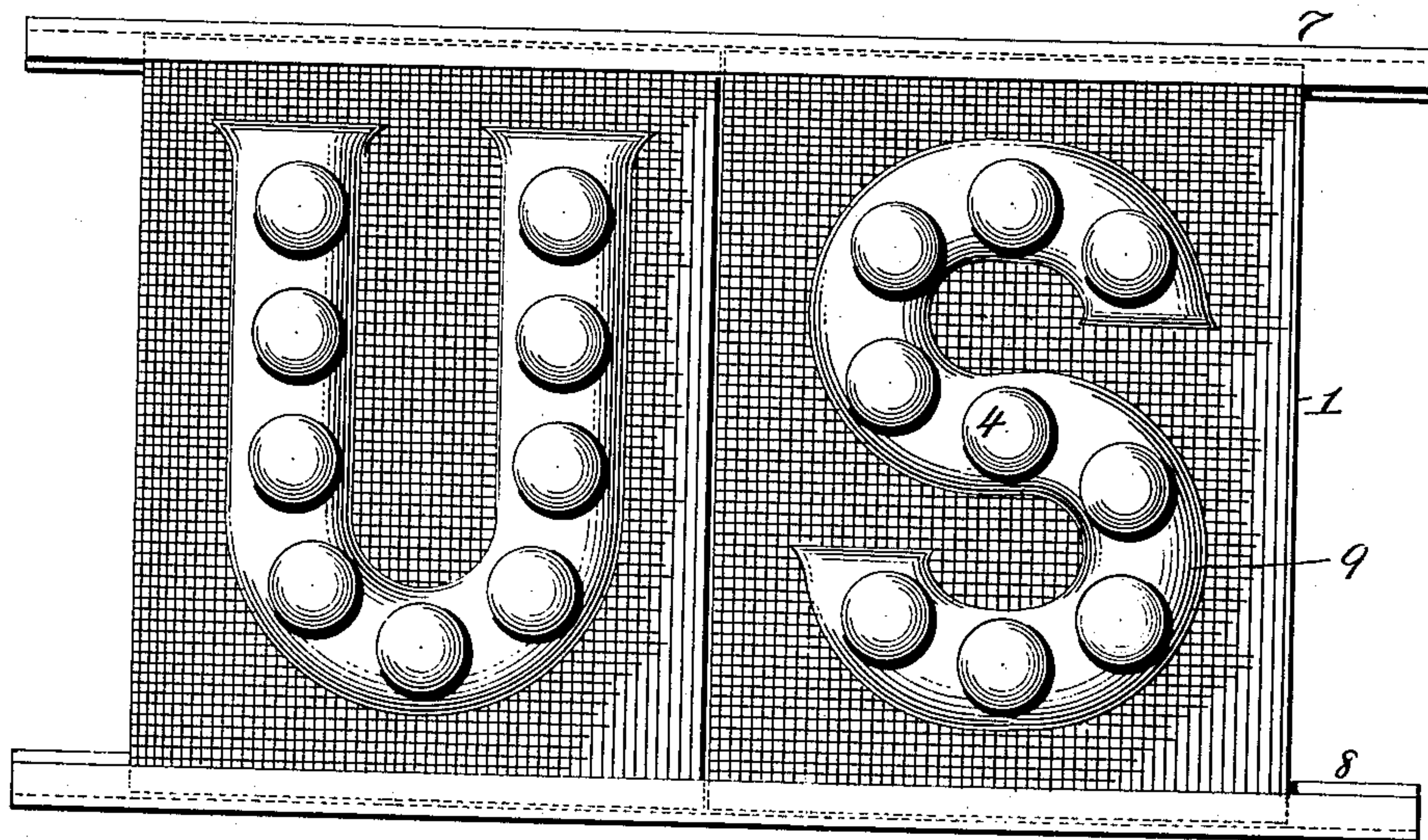


Fig. 2.



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ELECTRIC SIGN.

No. 842,954.

Specification of Letters Patent.

Patented Feb. 5, 1907.

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To all whom it may concern:

Be it known that I, GEORGE HOWE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Electric Signs, of which the following is a specification.

The invention relates to electrically-illuminated signs, and consists, first, in outlining letters or characters by raising them by stamping or the like above the general surface of a metal sheet; second, utilizing the raised character as a projecting pedestal or support for electric incandescent lamps, which thus become disposed in the shape of said character and at the same time illuminate its surface; third, utilizing the depressions or recesses formed by striking up the characters as receptacles for the sockets of the said lamps.

In the accompanying drawings, Figure 1 is a front view of a plate of sheet metal having an integral letter formed by striking up the metal of said sheet and provided with openings in said struck-up portion for receiving the sockets of incandescent electric lamps. Fig. 2 shows two of such plates disposed in juxtaposition in a suitable frame, the incandescent lamps being in place in the openings. Fig. 3 is a section on the line $x x$, Fig. 1, also showing the lamps in place.

Similar numbers of reference indicate like parts.

1 is a sheet of metal upon which is integrally formed, by any suitable striking-up means, a character, here the letter "U." In the protruding struck portion forming said letter are made circular openings 2, of suitable size to receive the sockets 3 of incandescent electric lamps 4. Said sockets may be secured in said openings by any suitable means—as, for example, screws 5 passing through a flange 6 on each socket, said flange bearing on the back of the plate. It will be observed that by reason of the protrusion of the struck-up portion the lamp-sockets may all lie in the recess or depression on the rear side of the plate, and hence do not protrude beyond the flat or non-struck-up part thereof. This renders the sign more compact and protects the sockets. As shown in Fig. 2, two or more of such plates may be held be-

tween the parallel members 7 and 8 of a frame, being placed with their edges in longitudinal grooves in said members or secured in any other desired way, so that successive letters may be grouped to form a word or otherwise to constitute a definite sign. The flat part of the plate on the exposed side is preferably covered with an enamel dark in color, and hence more absorptive of light-rays than the struck-up portion, which may be enameled white, so that the rays of the lamps will be strongly reflected from the letters or characters.

In producing the struck-up letters it is preferable that their edges should be rounded, as shown at 9. The result then is that the light-rays will be diffused over the rounded portions, so that the letter will be visible and legible, even when viewed at a small angle to the plane of the plate. This is an important advantage, which is not gained when the front surface of the letter is flat and lies in a plane at a sharp right angle to its sides. The said sides are then always in shadow, and the flat outer surface, as the angle of view with respect to the plane of the plate diminishes, so rapidly becomes reduced in apparent width that the form of the character quickly becomes unrecognizable. Another advantage is cheapness of production, since the struck-up character can easily be produced by dies. As electric signs are commonly exposed to the weather, another important feature is the absence of any joints, either in the letter itself or in the junction of letter and plate into which moisture can enter and produce rust. Hence the durability of the sign is greatly increased. So, also, a vitreous enamel can be applied much more conveniently to the continuous surfaces. Even when the lamps are not in operation the raised letter will stand out much more clearly from the plate than when it is simply marked on the flat surface.

I claim—

1. As a new article of manufacture, a metal sheet having an integral character or letter formed by striking up the metal of said sheet and provided with openings in said struck-up portion to receive the sockets of electric incandescent lamps.

2. The combination of a metal sheet hav-

ing an integral character or letter formed by striking up the metal of said sheet and provided with openings on said struck-up character, and incandescent-lamp sockets disposed in the recess formed on the rear side of the sheet by said struck-up character and secured in said openings.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE HOWE.

Witnesses:

A. A. POPE,
WALTER NEUMULLER.