

No. 736,722.

PATENTED AUG. 18, 1903.

W. M. HALL.
ILLUMINATED SIGN.
APPLICATION FILED MAR. 8, 1902.

NO MODEL.

Fig. I

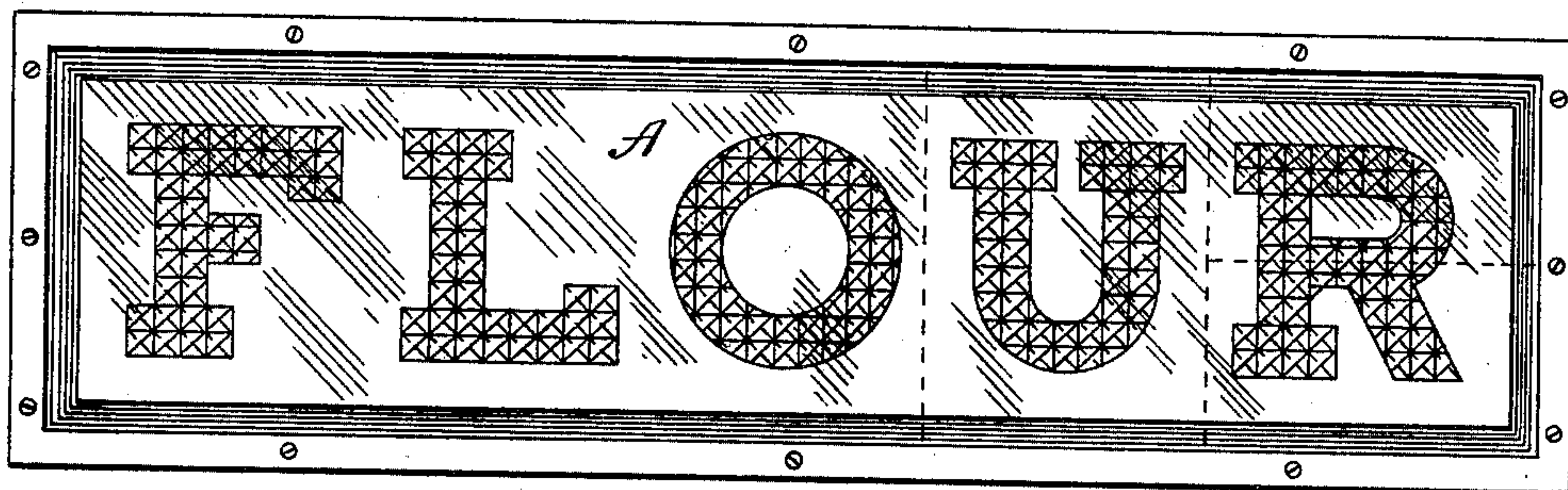


Fig. II

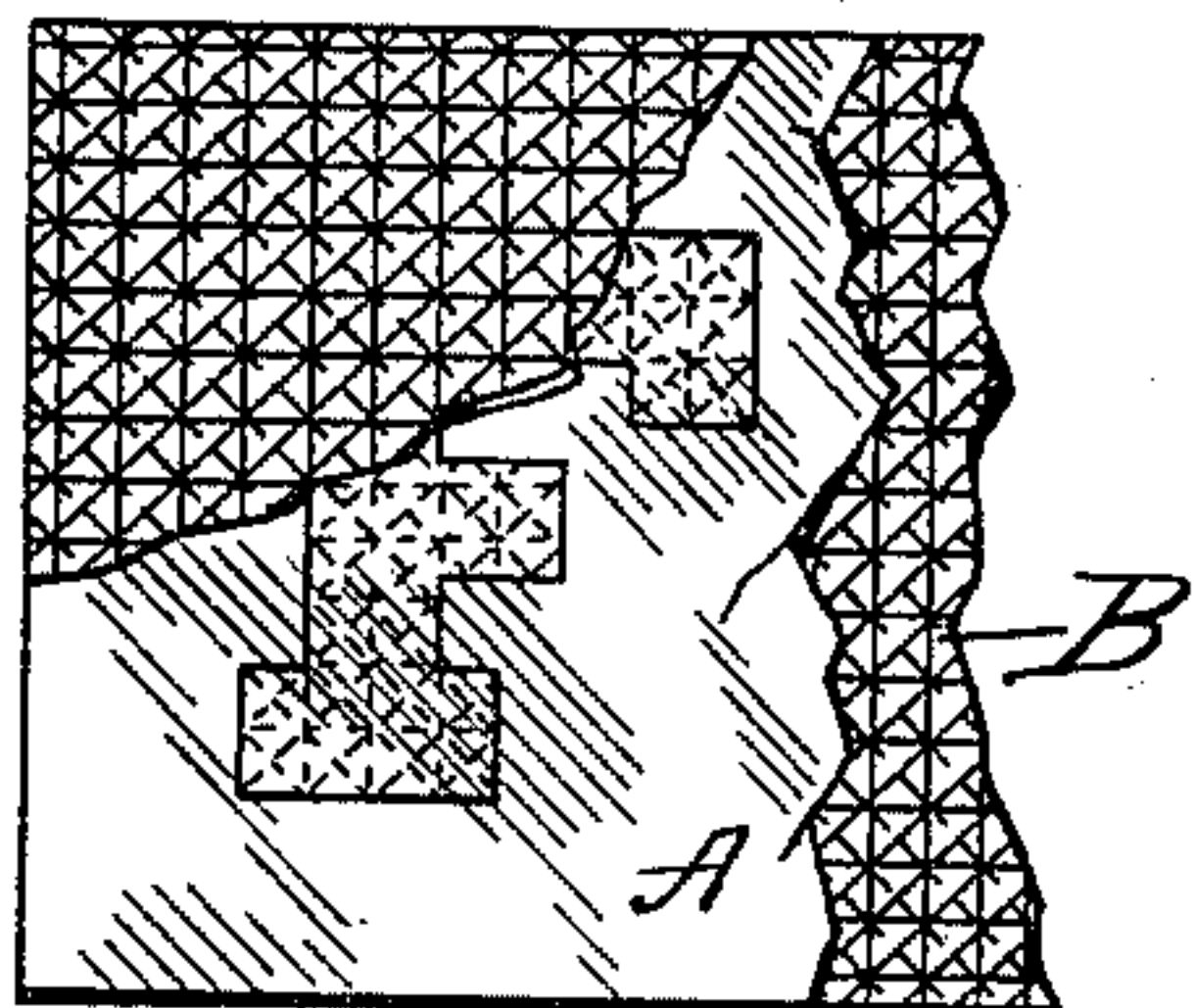


Fig. III

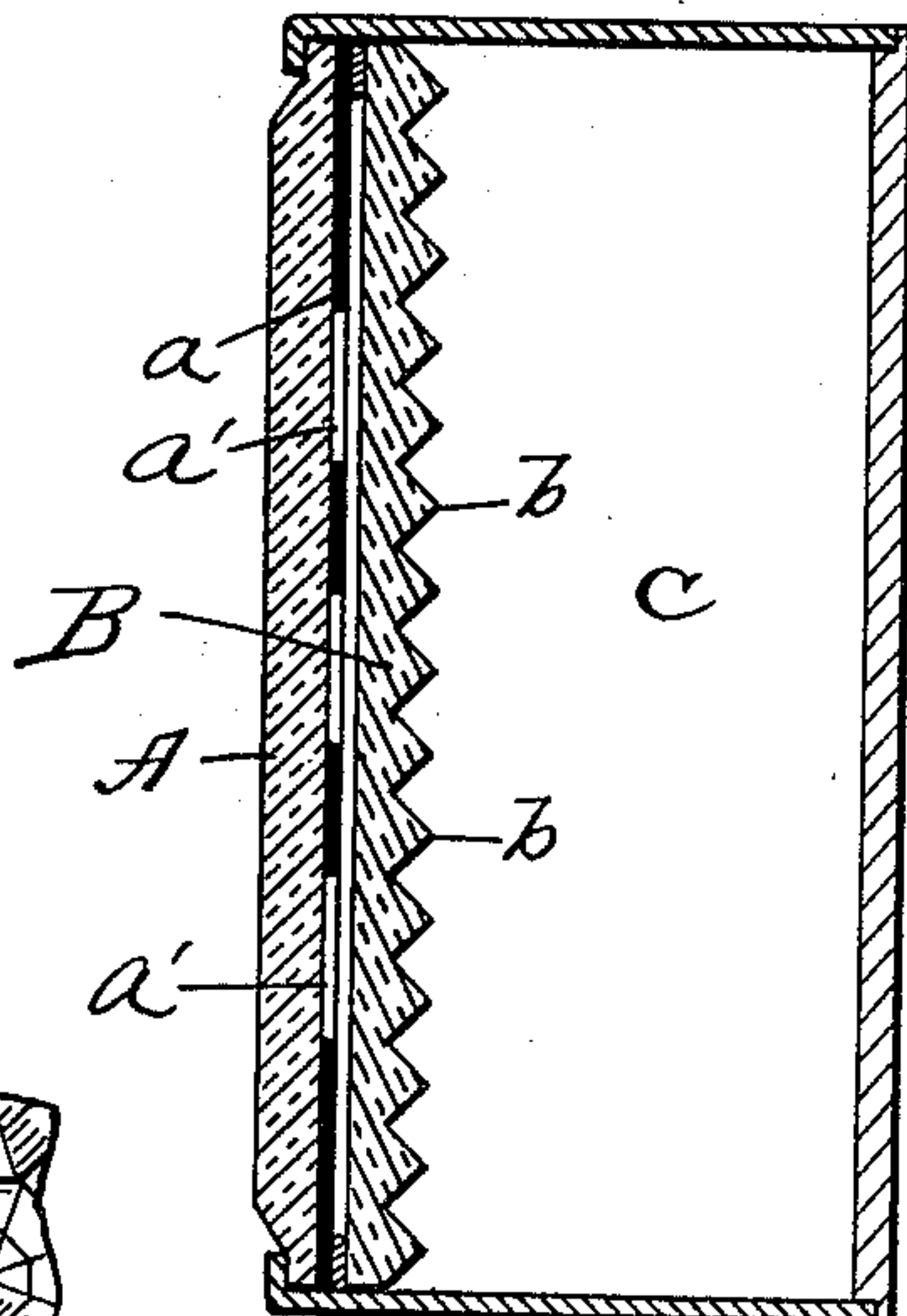
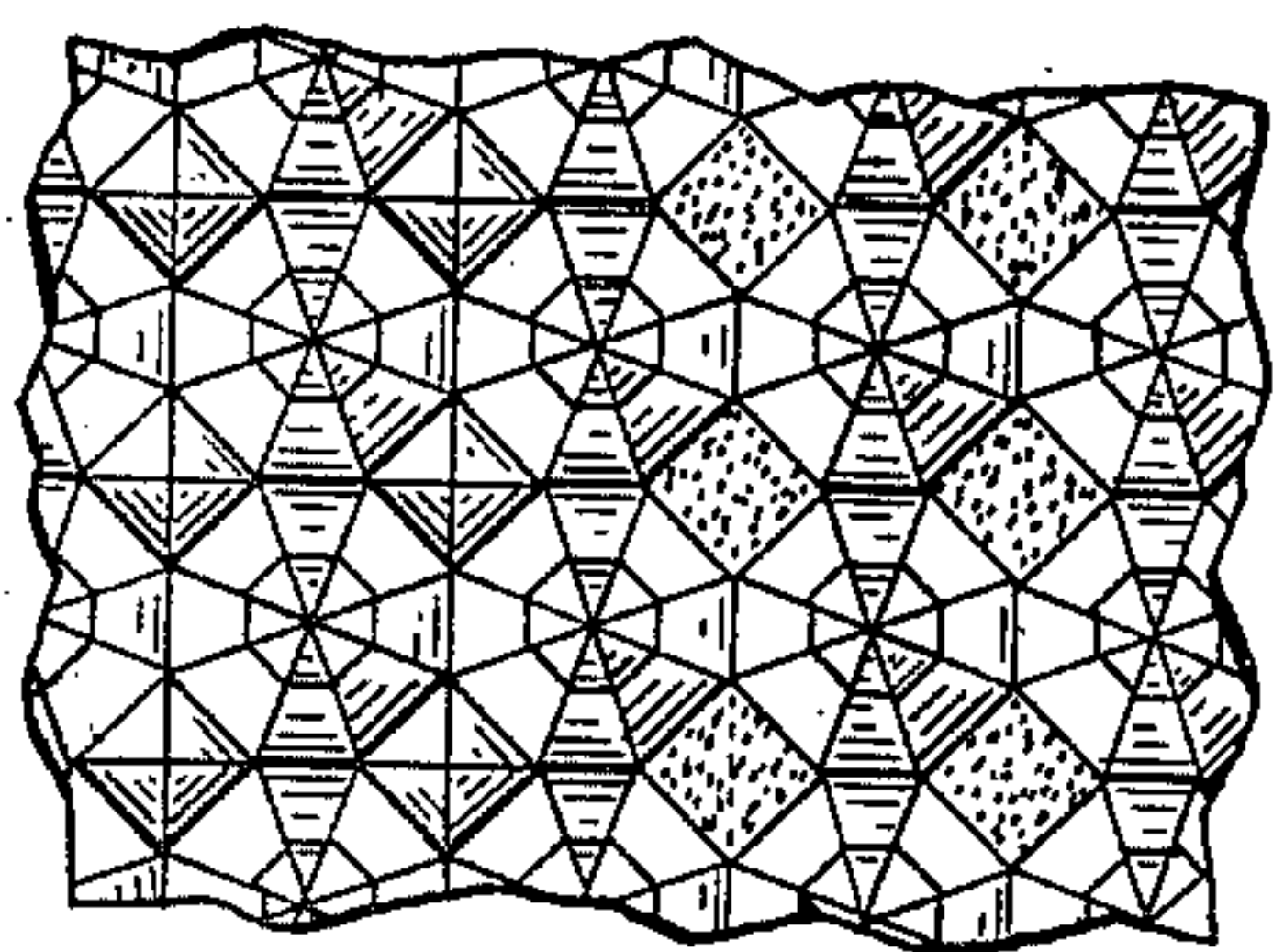


Fig. IV



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM M. HALL, OF CLEVELAND, OHIO.

ILLUMINATED SIGN.

SPECIFICATION forming part of Letters Patent No. 736,722, dated August 18, 1903.

Application filed March 8, 1902. Serial No. 97,234. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. HALL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Illuminated Signs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to so-called "illuminated signs," and more especially such as are designed to be illuminated at night-time, presenting a brilliant and at the same time artistic effect, both at the night-time and during the day.

The object of my invention is to attain a sign having the above characteristics in the most economical manner, and also obviate the necessity of or reducing to a minimum the cementing of the decorative portions employed to produce the effect.

My invention consists in employing plates of glass provided with projections at their rear side for the purpose of backing up the several designs of the sign; also, in the employment of one or more plates for each of the characters, which may be of the same or different colors or designs.

My invention further consists in other features of construction, which will be hereinafter fully set forth and claimed.

In the drawings, Figure I is a view in front elevation of a sign embodying my invention, illustrating the employment of a single plate for a number or character, a single plate for a single character, and two plates of different design or color for the same character. Fig. II is a detail sketch with parts broken away, illustrating more clearly the structural features of the sign. Fig. III is a cross-sectional view taken through any one of the characters, illustrating the method which I prefer to employ in assembling the sign parts. Fig. IV is a modified construction of a backing-plate which may be employed instead of the one shown in Figs. I, II, and III.

The following describes, in connection with the drawings, my preferred method of constructing or forming the sign.

A represents a plate of glass, which is the

face-plate of the sign. This plate A is ordinarily provided with characters formed by painting over the rear face of the plate, as at *a*, Fig. III, in such a manner as to produce the characters and leave the same transparent or highly translucent; but these characters may be formed by interposing any opaque or mainly opaque substance to the rear of the glass of the plate A and forming the characters therein.

B represents a plate of transparent material, which is provided at its rear side with prismatic or other projections *b b*, which are adapted to transmit light through the plate B and thence through the character-openings *a' a'*.

The design of the projections *b b* may be varied, as may also the color of the plate B. The front of the plate B is made plain, and said plate is made thin, preferably, at the points of intersection of the projections *b*.

I prefer that the projections *b b* be formed as illustrated in Figs. I, II, and III and that the same be closely grouped together; but this is not absolutely essential, inasmuch as the design may be changed, as suggested in Fig. IV, as may also a space be left between the projections *b b* on the plate, it being only essential in carrying out my invention that the projections *b b* shall be integral with the plate B and be of sufficient number to produce the given design or coloring of the letter.

In practice and for the sake of economy I prefer that the plate A be formed with the characters or openings *a'* by means of painting the back thereof and that the individual characters be provided each with a separate backing-plate B, having the projections on the rear side or face and that said plate B be cemented at the outer edges (the upper and lower) or all edges to the back of the plate A and close up to the same.

Heretofore and before my invention it has been common to produce signs of analogous type by forming the openings as I suggest, forming them in the plate A by painting the rear side of said plate and illuminating the openings by separate individual pieces of glass called "jewels;" but in this construction it is essential that each individual jewel be separately handled, located, and cemented and that a cement be used which is as far as

possible transparent, colorless, and clear, and hence the construction of a sign according to this idea is expensive both in material, as the individual pieces are costly, and in work-
 5 manship, as it requires judgment in setting the jewels and providing the proper cement. Also there is a liability, owing to the imperfection of the cement or other cause, of one or more of the jewels becoming detached,
 10 which results in disfiguring the sign.

The above objectionable features are avoided in my invention, as will be clearly seen, and the results attained, as far as illumination is concerned at night and effect in day,
 15 are far greater, inasmuch as there is no cement intervening between the ornamental backing and the open spaces of the characters.

By my invention a sign having a better effect can be more quickly formed and assembled and is cheaper in every respect than where individual so-called "jewels" are employed.

In setting forth this invention I have stated
 25 that I prefer that the open characters be formed on the back of the front plate A; but I may, if found convenient, necessary, or desirable, form the characters by painting over the front face of the plate B, leaving the
 30 character-spaces clear, and facing the plate B with a plain glass plate, and while this construction or formation is not in my opinion a desirable one, still it may be employed, and hence I do not wish to limit myself to the ex-
 35 act construction, formation, or assemblage set forth, nor do I wish to be limited to the design of the projections *b b* on the rear of the plate B nor to the color of the plates.

I prefer that the plate B be filled at its rear
 40 face with projections suitably designed either as shown in Figs. I, II, and III or as suggested in Fig. IV and that the front plate A be formed of glass; but it is apparent that any transparent or highly-translucent material
 45 may be employed.

As illustrated in Fig. III of the drawings, I may form a box-chamber C to the rear of the plate B, the same being adapted to in-
 50 close means for illuminating the sign artificially when it is desired to employ such type

of sign. The means of artificial illumination may, if desired, be electric and automatically intermittent; but this feature I do not lay any claim to excepting in combination with the sign construction as a whole.

What I claim is—

1. In a sign of the type set forth, the combination of a transparent or translucent front plate, having an opaque background secured to the rear face thereof, said background hav-
 60 ing openings therein forming suitable characters, and a transparent back plate secured to the rear of said background with integral projections on the back thereof, and means for binding the whole together to form a sign,
 65 substantially as described.

2. In a sign of the type set forth, the combination with a transparent or translucent front plate, having a background of paint, or like substance affixed to its rear face, with
 70 character-openings formed therein, with a transparent back plate for each individual character, means for securing said back plate to the background said back plate formed with integral rear projections and flat or plain
 75 front, for the purpose set forth.

3. In a sign of the type set forth, the combination with a front plate having character-openings in a background on its rear face, said openings being transparent or translu-
 80 cent, of a transparent rear plate having integral prismatic projections on its rear face adapted to transmit light, the whole forming an illuminated sign, substantially as set forth.

4. In a sign of the type set forth, the com-
 85 bination of a transparent or translucent front plate having characters borne by its rear face, a transparent back plate cemented at its outer edges to the said front plate, said back plate formed with integral prismatic projections on
 90 its rear face adapted to transmit light and provided with a flat or plain front face, for the purpose set forth.

Signed at Cleveland, in the county of Cuyahoga and State of Ohio, this 5th day of March, 1902.

WILLIAM M. HALL.

Witnesses:

E. B. DONNELLY,
 W. E. DONNELLY.