

No. 632,670.

Patented Sept. 5, 1899.

J. T. BENTLEY.

PHOTOGRAPHIC CHARACTER.

(Application filed Feb. 11, 1898. Renewed Aug. 15, 1899.)

(No Model.)

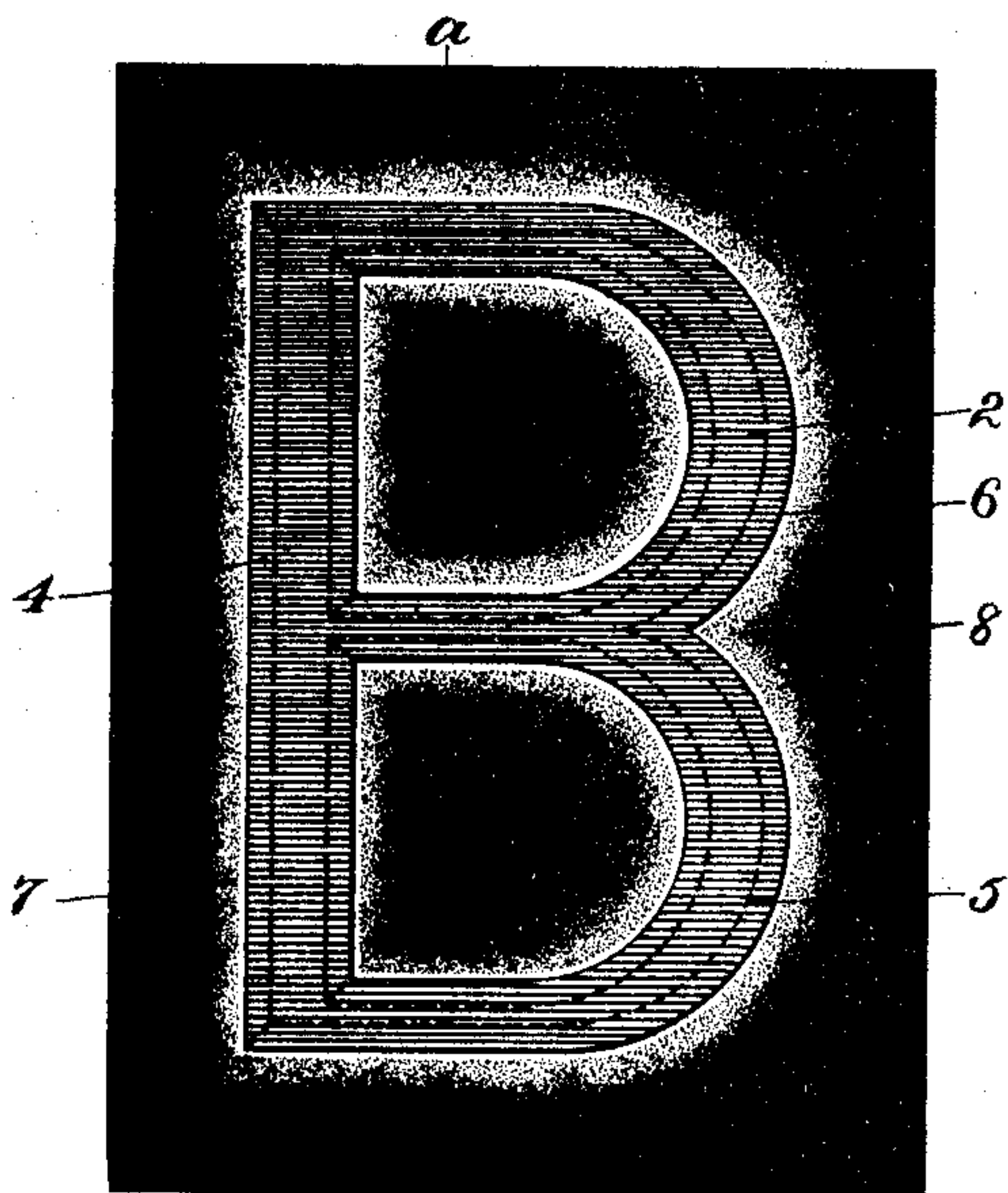


Fig. 1.

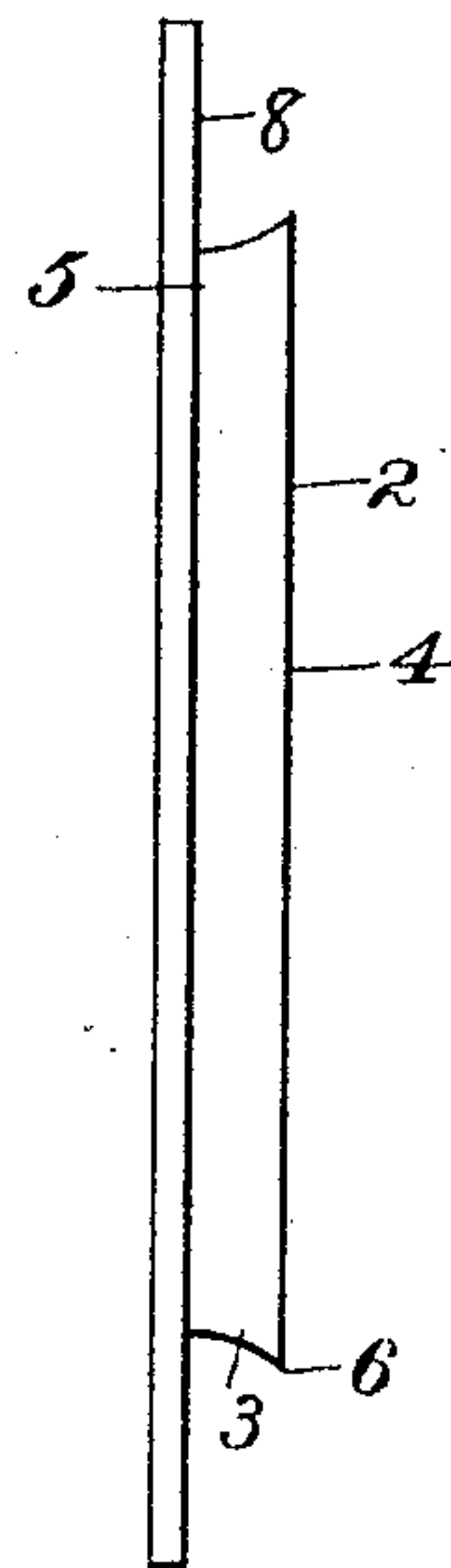
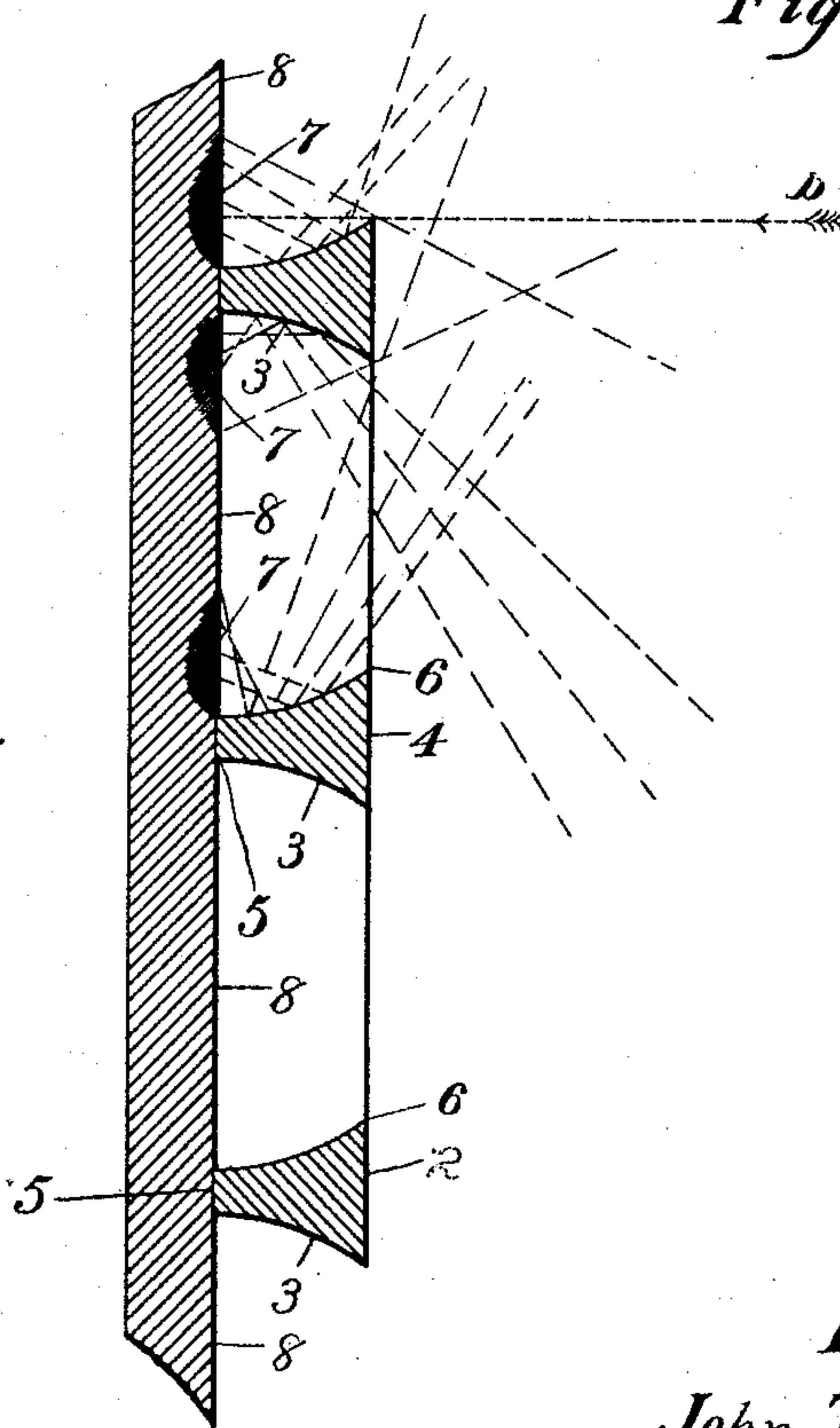


Fig. 2.

Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN T. BENTLEY, OF ENGLEWOOD, NEW JERSEY, ASSIGNOR TO THE
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PHOTOGRAPHIC CHARACTER.

SPECIFICATION forming part of Letters Patent No. 632,670, dated September 5, 1899.

Original application filed May 26, 1897, Serial No. 638,192. Divided and this application filed February 11, 1898. Renewed
August 15, 1899. Serial No. 727,331. (No model.)

To all whom it may concern.

Be it known that I, JOHN T. BENTLEY, a
subject of the Queen of Great Britain, resid-
ing in Englewood, in the county of Bergen,
5 and State of New Jersey, have invented cer-
tain new and useful Improvements in Produc-
tion of Characters, of which the following is
a specification.

This invention relates to the production of
10 symbols or characters—such, for instance, as
letters of the alphabet and figures.

The object of the invention is to produce a
character or symbol having a special con-
struction whereby it may be used for various
15 purposes.

A further object of the invention is to fur-
nish a character so constructed that when the
light is properly directed thereon it will pro-
duce a luminant zone entirely around the
20 same, so that when reproduced by photogra-
phy the reproduced character will stand out
with great clearness and intensity and be
more legible than characters as usually con-
structed.

25 In the drawings accompanying and form-
ing part of this specification, Figure 1 is a
face view of a character—such, for instance,
as a letter—constructed in accordance with
this invention and shown with the light so
30 directed thereon that the luminant zone, here-
inafter referred to, is obtained around the
same on the support carrying such letter.
Fig. 2 is a side or edge view thereof; and Fig.
3 is a vertical sectional view taken in line *a a*,
35 Fig. 1, and illustrates, on an enlarged scale,
the manner in which the luminant zone is ob-
tained around such letter.

Similar characters of reference designate
corresponding parts in the different figures of
40 the drawings.

As a preface to a further description of this
improved symbol or character I desire to
state that while a letter of the alphabet is
herein shown constructed in accordance with
45 my invention it will be understood, however,
that other objects or symbols may be given
the same construction, thereby to adapt them
for use in the photographic-reproduction
process referred to in my contemporaneously-

pending application, filed May 26, 1897, Se- 50
rial No. 638,192, of which this is a divisional
application, and therefore within the scope of
this invention is considered any matter or ob-
ject which may be given structural formation
substantially similar to that herein shown and 55
described.

In that construction of character shown in
the drawings the letter 2 is provided with a
reflecting edge, border, or boundary 3, ex-
tending entirely around the same at its inner 60
and outer edges and which border is shown
disposed in a general direction inclined to
the plane in which the letter itself is located,
and in the preferred form thereof shown here-
in said general direction is downward and in- 65
ward from the outer plane or face 4 of the
character, said border being so disposed that
the rays of light when properly directed
thereon will be reflected from said border-
surface onto the plane or surface on which 70
the letter is located or adjacent to which it is
disposed. In practice this border or edge 3
is made of a curved, preferably concaved,
construction and is preferably such that the
face 4 of the letter is of greater area than the 75
rear portion 5 thereof. By means of this con-
cavous border or edge 3 it will be seen, Fig.
3, that when this improved character is used
for the purposes of photographic reproduc-
tion and is disposed adjacent to or on an 80
illuminable surface 8 and the rays of light
are properly directed thereon such rays will
strike the curved or concaved edge or border
3 thereof and be diffused therefrom and form
a luminant zone 7 on such surface 8 entirely 85
around the letter and within the body of such
letter, the reflected rays being centralized in
a relatively narrow zone immediately back
of the outer edge 6 of said letter, whereby a
greatly-intensified illumination is obtained, 90
that part of the luminant zone substantially
in alinement with the line of sight (by the
extreme edge of the letter, see arrow *b*) being
the most brilliant, such zone gradually merg-
ing into the normal light area of the illumin- 95
able support 8. The letters so constructed
and assembled to form the matter to be re-
produced may be supported in position by

any desired instrumentality adapted for the purpose—as, for instance, by being carried on or adjacent to an illuminable supporting-surface 8 in the manner set forth in my contemporaneously-pending application above referred to.

From the above it will be seen that each symbol or character forming the original matter to be reproduced is provided with a concaved border or edge 3 intermediate its front and rear faces, whereby when used for the purposes of photographic reproduction a luminant zone is obtained owing to the reflecting characteristics of such concaved border entirely around the letter, so that in the reproduction process the edges of the reproduced character will be brought out with great sharpness and clearness, as set forth in said application above referred to.

I desire to state that when this letter or character is used for other purposes than for photographic reproduction the luminant zone formed around the letter greatly increases the visibility, whereby the letter stands out with greater prominence than letters or symbols which are not structurally formed to produce this luminant zone, hereinbefore set forth, so that these improved letters or symbols can be smaller, if desired, and yet more legible than letters of larger size.

I claim as my invention—

1. A symbol or character having a concaved edge or border extending around and located within the outer border-line of said object or character.

2. A letter or analogous character having a concaved border in the rear of its outer or

front face and extending entirely around and within the body portion thereof.

3. A character or symbol having its front or outer face of greater area than its rear face, and a curved border intermediate thereof, adapted to produce a luminant zone.

4. A letter or figure having its front face of greater area than its rear face, and a concaved border intermediate thereof.

5. A design, character or figure having a front and a rear face, and a concaved border or edge extending around said symbol between said front and rear faces, and adapted to constitute a reflecting medium for the diffusion of rays of light.

6. In combination with an illuminable surface, of a design, symbol or character supported adjacent thereto or thereon and provided with a concaved border intermediate its front and rear faces, and adapted to produce on said illuminable supporting-surface a luminant zone, whereby the matter is adapted for photoreproduction.

7. In combination with an illuminable supporting-surface, of a character, letter or figure supported adjacent thereto or thereon, and having a front face of greater area than its rear face, and provided with a curved border intermediate said front and rear faces, and adapted to produce on said illuminable supporting-surface a luminant zone, whereby the matter is adapted for photoreproduction.

JOHN T. BENTLEY.

Witnesses:

C. A. WEED,
FREDERICK NIEMEYER.