

No. 639,724.

Patented Dec. 26, 1899.

H. GANTKE.  
ILLUMINATING CONTRIVANCE.

(Application filed Dec. 20, 1898.)

(No Model.)

Fig. 1

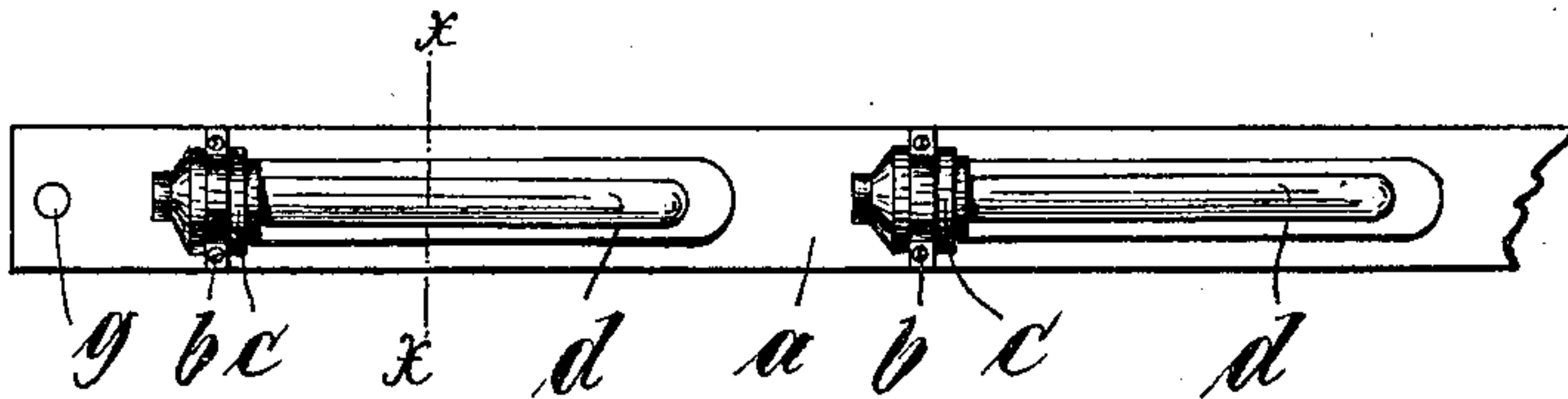


Fig. 2



Fig. 3

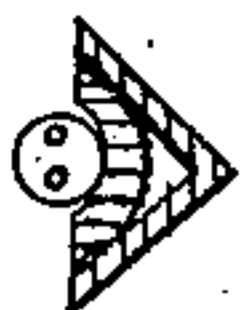


Fig. 4

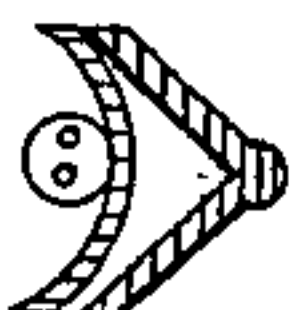


Fig. 5

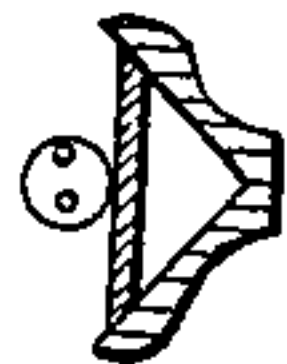


Fig. 6

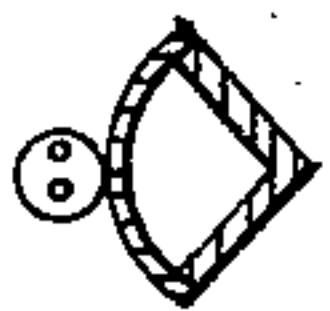


Fig. 7

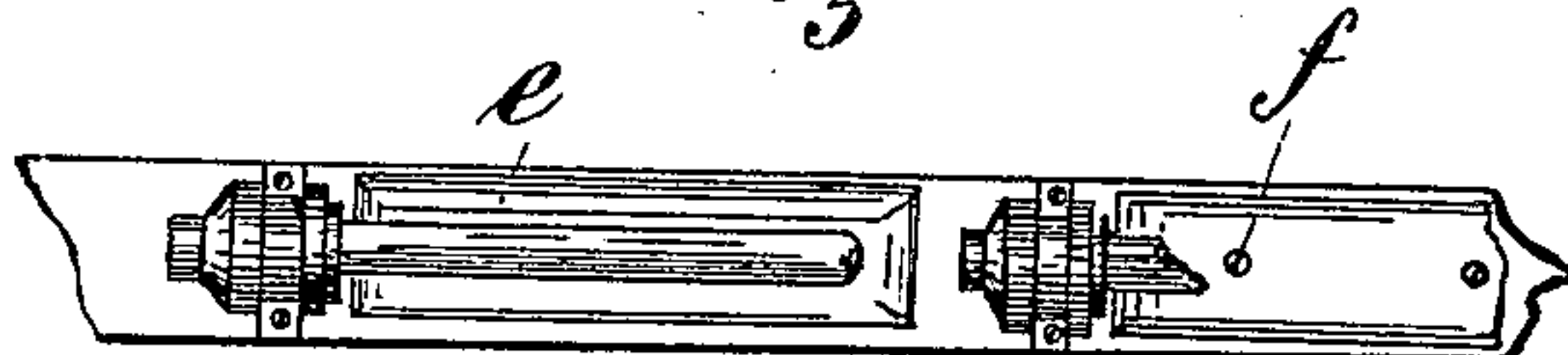


Fig. 8

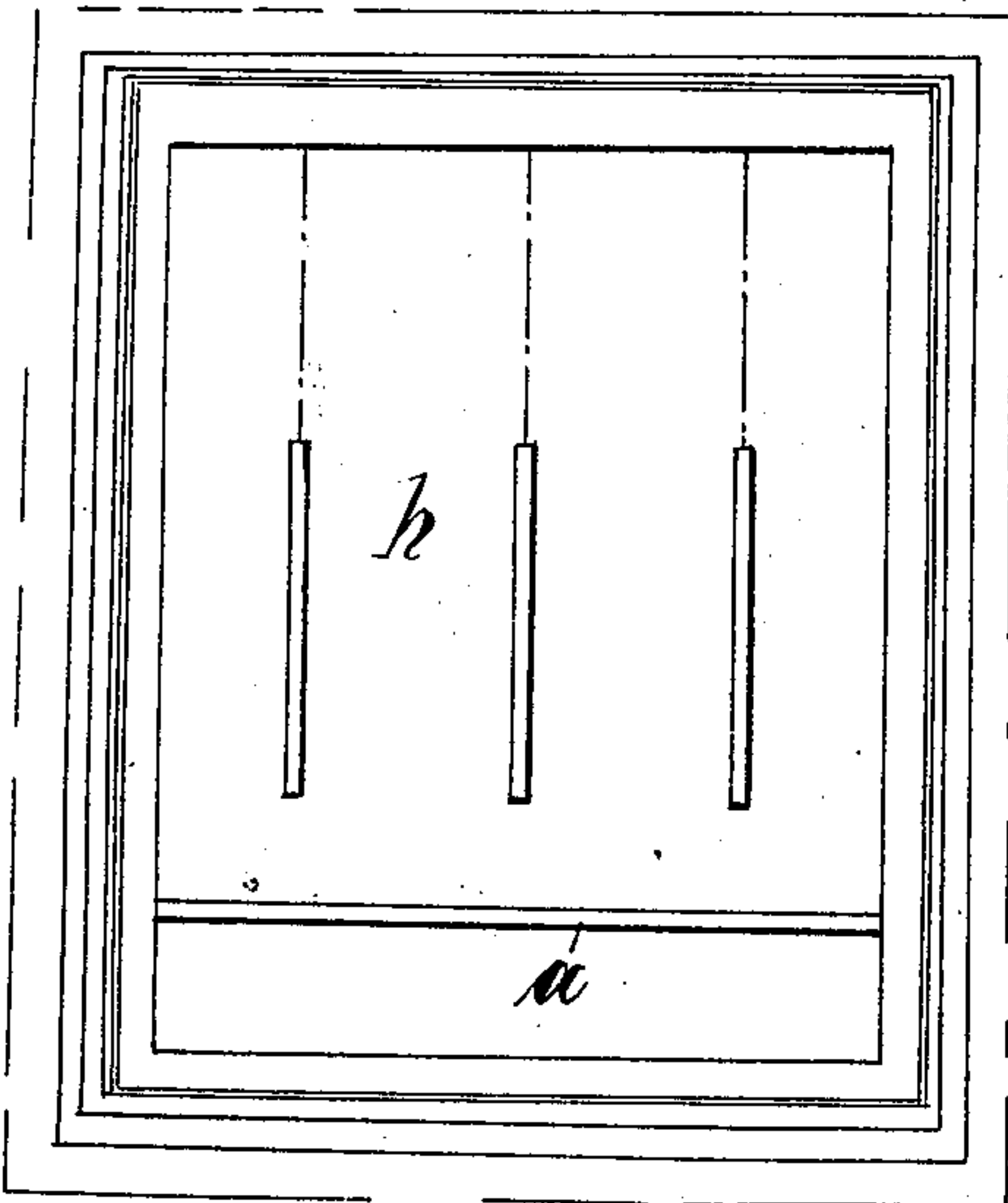
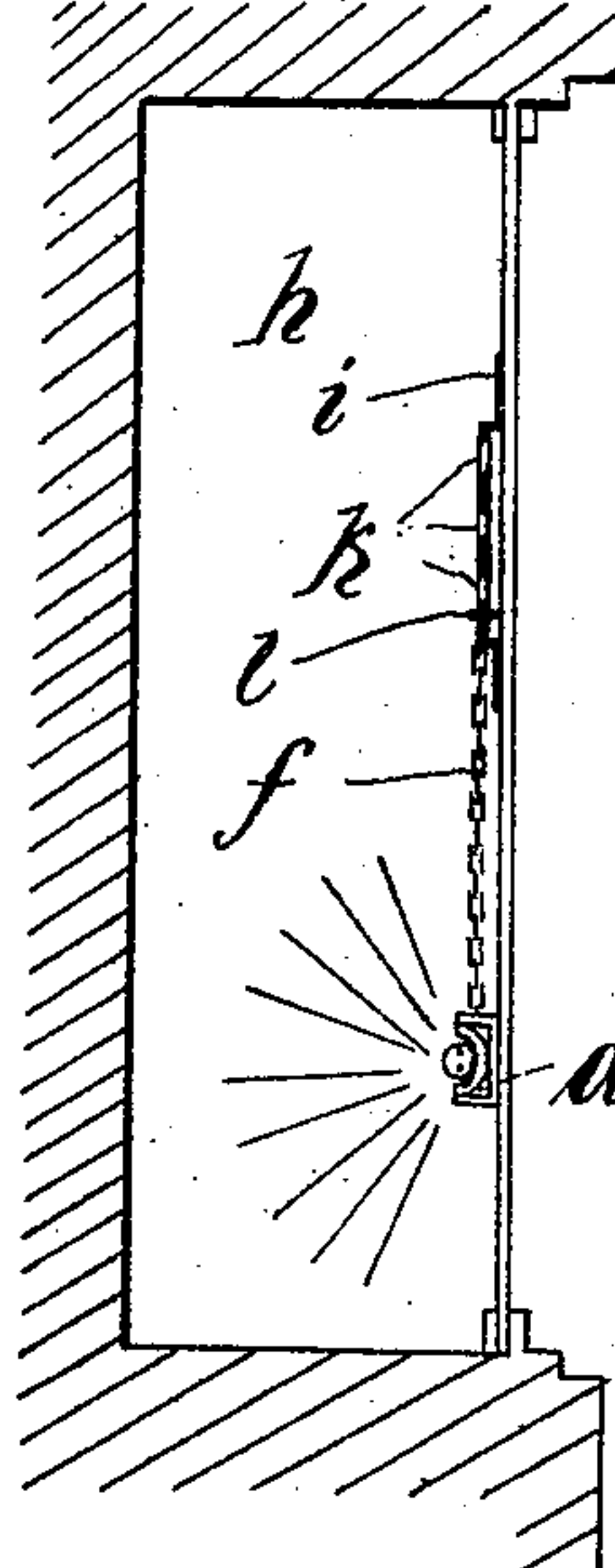


Fig. 9



Witnesses:

Max Hillend.  
Julius Polyzinski.

Inventor  
H. Gantke  
by Frederick M. Smith  
Attorney.

# UNITED STATES PATENT OFFICE.

HUGO GANTKE, OF BERLIN, GERMANY.

## ILLUMINATING CONTRIVANCE.

SPECIFICATION forming part of Letters Patent No. 639,724, dated December 26, 1899.

Application filed December 20, 1898. Serial No. 699,880. (No model.)

*To all whom it may concern:*

Be it known that I, HUGO GANTKE, engineer, a subject of the King of Prussia, German Emperor, residing at 15 Novalisstrasse, Berlin, Kingdom of Prussia, German Empire, have invented new and useful Improvements in Illuminating Contrivances, of which the following is a specification.

All the various means or contrivances for illuminating the inside of shop-windows, whether arranged at the top or bottom, employed up to the present time suffer from the great drawback that the illuminant is considerably removed from the article to be illuminated and that in view of the various ways proposed and employed for arranging the illuminant all those parts of the article which are right in front of the spectator are not illuminated.

The object of the present invention is a special arrangement of the illuminant or illuminants employed for showing purposes, so that the illuminant is situated between the spectator and the article to be advertised or illuminated.

A further object of the invention is to bring the illuminant as near as possible to the article or articles to be illuminated. As a result thereof a considerably greater illuminating effect will be attained with illuminants than was heretofore possible, or illuminants of reduced power may be employed for attaining effects equal to those of the illuminant when employed in the old fashion.

With these ends in view the invention consists in certain novel features of construction and combination of parts hereinafter described, and the essential elements of which are recited in the appended claim.

In order that the invention may be clearly understood, I will proceed to describe the same fully by aid of the accompanying drawings, in which—

Figure 1 shows an elevation of an illuminant from inside the shop-window. Fig. 2 is a cross-section on line  $x x$  of Fig. 1. Figs. 3 to 7 illustrate various modifications and details. Fig. 8 shows a front elevation of an illuminant as arranged at a shop-window,

and Fig. 9 shows a cross-section of the arrangement illustrated in Fig. 8.

The illuminating contrivance consists of the bar  $a$ , provided with a reflecting inner surface, to which, by means of screws  $b$  and suitable brackets  $c$ , the illuminants, preferably electric glow lamps  $d$ , are fastened. The bulbs of the glow lamps  $d$  are advantageously of tubular shape, as illustrated in the drawings. Any other suitable and desirable shape of bulbs may, however, be employed. The bar  $a$  may be of angular, round, or any other suitable cross-section, the surface facing the observer being advantageously ornamented or decorated to present an appearance pleasant to the eye, and instead of having the bar  $a$  constructed so as to possess a reflecting-surface special reflectors  $e$  may be employed. These reflectors  $e$  are fastened to the bar  $a$  by any suitable means—such, for instance, as screws  $f$ —which would preferably be inserted immediately behind the lamps  $d$ . The details and modifications shown in Figs. 2 to 6 demonstrate that the reflectors  $e$  may either be provided with plane or curved surfaces, whereby the dispersion of the rays of light increases as the reflecting-surface approaches a plane, is a plane, or, finally, is convex. The reflector may be of any suitable material, the term “reflector” as used in the present specification denominating light-reflecting surfaces in general. The reflecting-surface may also be unpolished.

The illuminating contrivance is fixed in position in the following manner: A bar  $a$ , mounted with the illuminants  $d$ , is suspended on both sides of the window, at the inside of the latter, by means of chains  $f$  of suitable and variable length, which chains  $f$  are secured to the bar  $a$  by being hooked into a hole  $g$  or by other suitable means, on the one hand, and to a rack  $i$ , fast on the window-frame on either side of the window  $h$ , on the other hand. The rack  $i$  is provided with a series of holes for the purpose, which, moreover, enables the height of the bars to be varied by the hook  $l$  of the chain  $k$  engaging in a higher or lower hole.

The illuminating contrivance may also be



fixed in a perpendicular or inclined direction, although I have found the horizontal position to be the most advantageous one. The improved illuminating contrivance may also be  
5 employed for the illumination of ornamental ceilings, walls, or like surfaces, pictures, signs, focias, and the like.

Having now particularly described my invention, what I claim as new, and desire to secure by Letters Patent, is—  
10

In illuminating contrivances for shop-windows or the like having the illuminants placed between the object to be observed and the observer, in combination, a reflecting-bar  $\alpha$  of  
15 any desired cross-section having the illuminants, suitable electric glow lamps with bulbs of tubular shape, arranged at the inside un-

noticeable to the observer; a chain  $f$  fast to either end of said bar; a rack  $i$  secured on the window-frame on either side of the window and at the inside thereof, said rack provided with a series of holes, and hooks  $l$  at the top end of the chains  $f$  engaging with these holes to vary the height and position of the bar carrying the illuminants, substantially as, and for the purposes set forth.  
25

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HUGO GANTKE.

Witnesses:

C. H. DAY,  
HENRY HASPER.