

No. 885,623.

PATENTED APR. 21, 1908.

H. F. KEIL.  
REINFORCING MEANS FOR METAL PLATES.  
APPLICATION FILED AUG. 21, 1906.

Fig. 1.

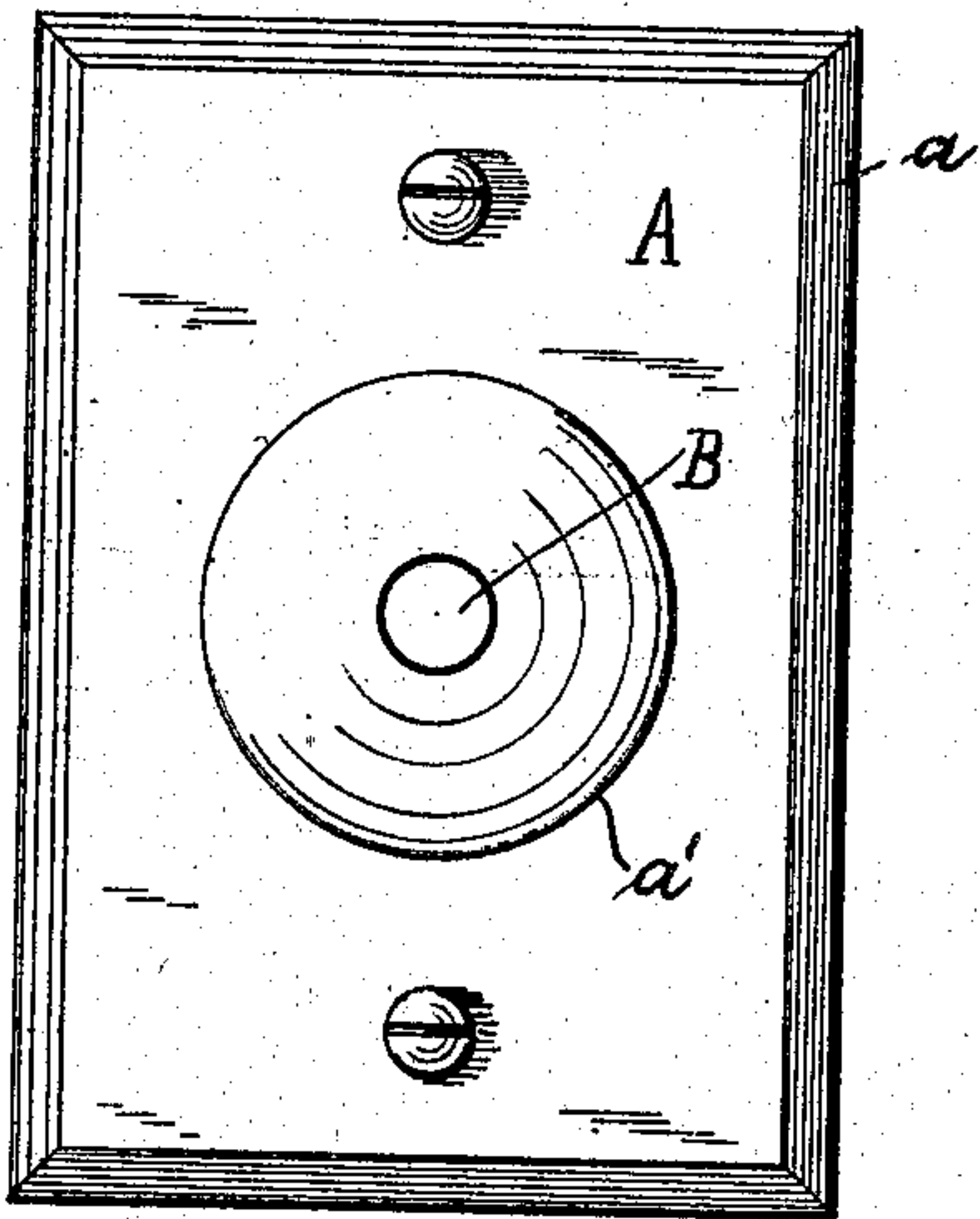


Fig. 2.

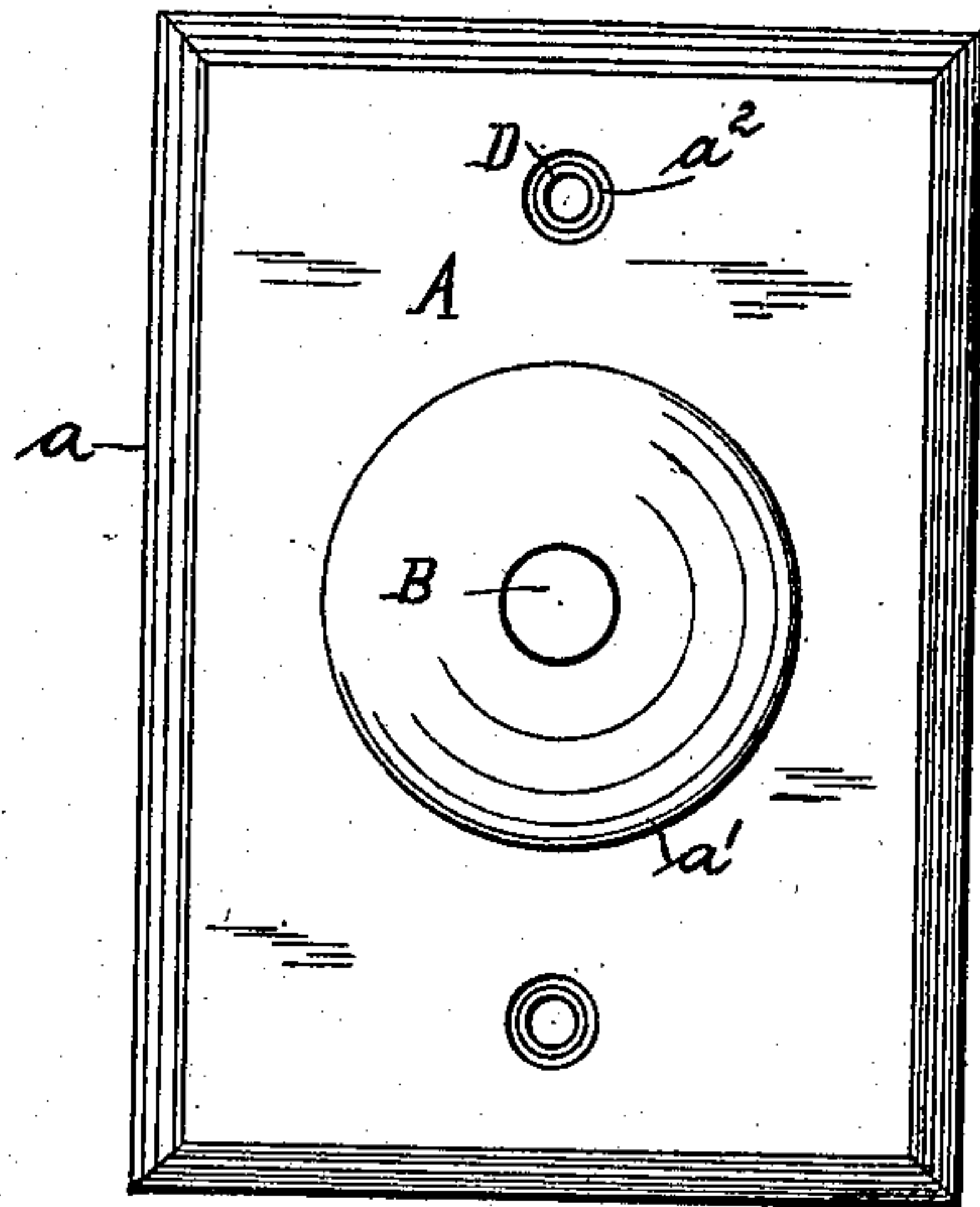


Fig. 3.

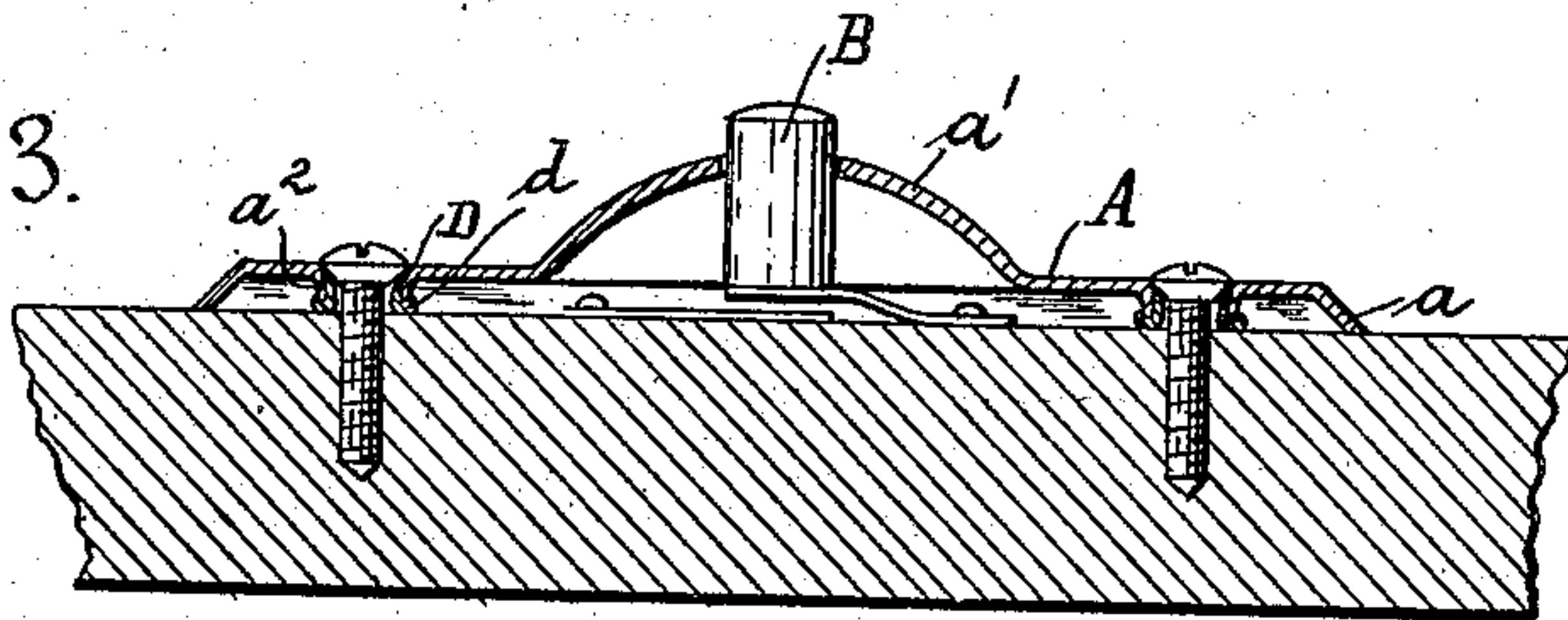


Fig. 4.



Fig. 5.

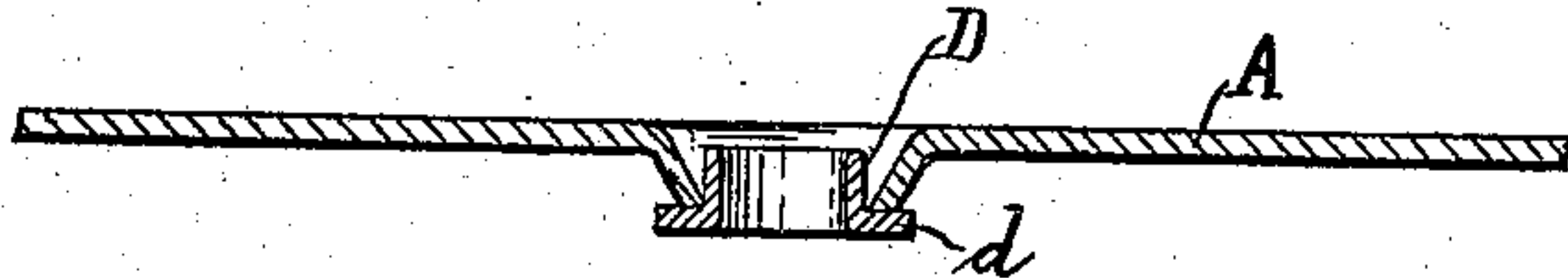
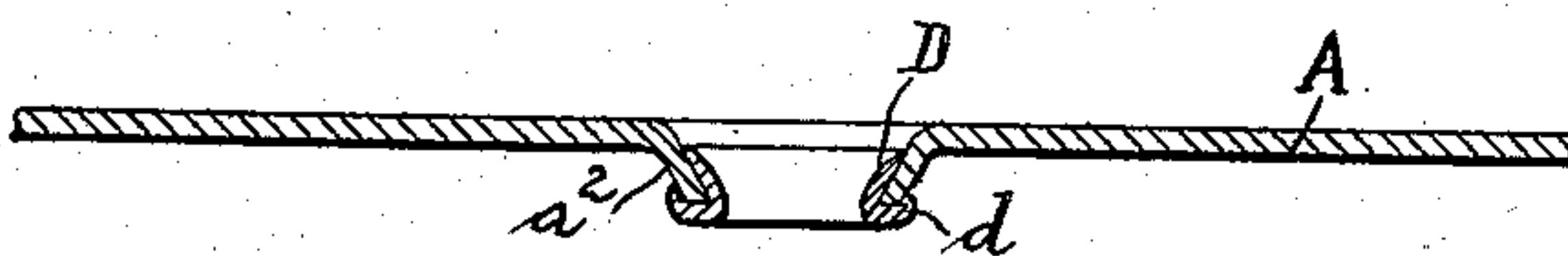


Fig. 6.



WITNESSES

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INVENTOR

H. F. Keil -  
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ATTORNEY



# UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

## REINFORCING MEANS FOR METAL PLATES.

No. 885,623.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed August 21, 1906. Serial No. 331,536.

*To all whom it may concern:*

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Reinforcing Means for Metal Plates.

This invention relates to supporting or reinforcing means for embossed or other plates having a preferably central raised portion whereby an interior chamber is formed, and it has for its object the provision of a device of the kind set forth, simple in construction, inexpensive to manufacture and efficient in practical use.

To attain the desired end, this, my invention, consists in the construction, combination, arrangement and operation of parts herein set forth.

In order to enable the invention to be fully understood, I will proceed to explain the same by reference to the drawings, illustrative of one embodiment of the invention, which accompany and form a part of this specification, and in which Figures 1 and 2 represent plan views of an article constructed according to my invention; Fig. 3 is a longitudinal section of Fig. 1; and Figs. 4, 5 and 6 are enlarged views in detail of the manner in which my invention is produced.

Like letters of reference indicate like parts in all the views.

Referring particularly by letter to the drawings A denotes a plate, as the base plate of a push button, having the ordinary raised central portion  $a^1$  containing an orifice for the push button B and a turned down edge  $a$  to form an interior chamber, and also being provided with depending walls  $a^2$  of orifices for screws. In each of the said orifices  $a^2$  is inserted a sleeve eyelet or bushing D having a horizontal flange  $d$ .

After being placed in position the upper part or neck of the sleeve D is forced outwardly in flaring form and the edge of the flange is bent toward the wall  $a^2$  of the orifice, so that the wall  $a^2$  becomes firmly grasped between the neck of the sleeve or bushing

and the flange thereof, and being thus clenched upon both sides of said wall is thus held rigidly attached to the said plate and forms an enlarged and stiffened rim for the edge of the said wall. Care should be taken that the bottom face of the flange shall be in the plane of the bottom of the edges  $a$ .

By means of this device, whenever screws are inserted in the orifices  $a^2$ , they pass through the sleeve or bushing D (the flange of which rests against the wall or other support of the plate A) and consequently the pressure of the screw head comes directly against the supporting wall, and all liability of distorting or bending the top face of the plate is obviated which trouble often occurs with plates of this character made in the ordinary manner and which are not provided with any supporting or reinforcing means.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

What I claim as my invention is;

A plate having turned down edges to serve as an outer support for the plate, and having an orifice with a depending flaring tubular wall extending downward a less distance than the said edges in combination with a supporting device consisting of an eyelet or bushing having a flange lying adjacent to the edge of the depending tubular wall and clenched thereto to form a flat base rim for the same, and to serve as an interior support for the plate, the bottom faces of the interior supporting device being in the plane of the bottom faces of the outer or edge support of the plate.

In testimony of the foregoing specification I do hereby sign the same in the city of New York, county and State of New York this 28th day of June 1906.

HENRY FRANCIS KEIL.

Witnesses:

F. A. WURZBACH,  
CHAS. H. AREUDT.