

G. F. ROSE.

DEVICE FOR CONDUCTING ELECTRICITY TO LAMPS, &c.

No. 541,121.

Patented June 18, 1895.

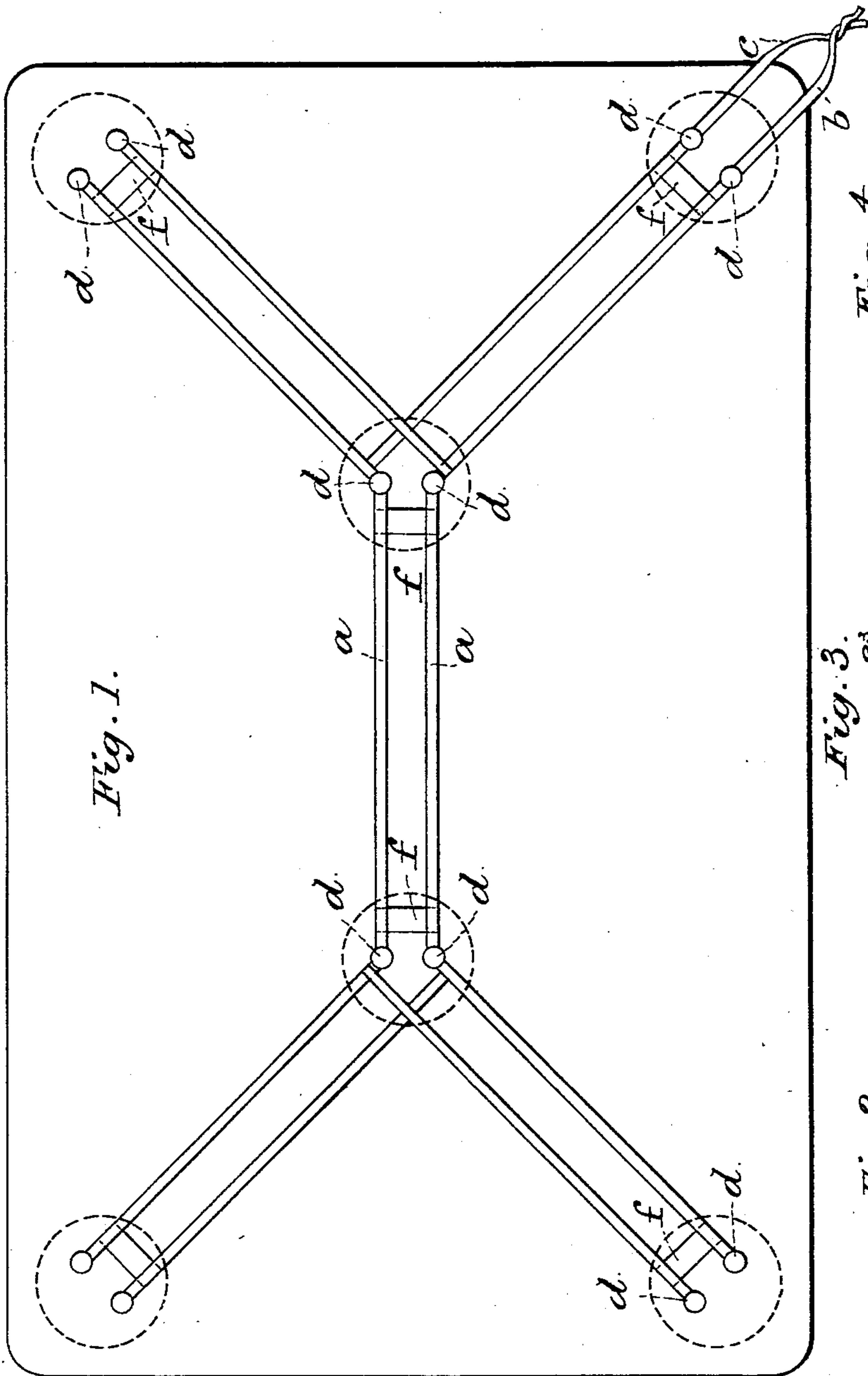


Fig. 1.

Fig. 4.

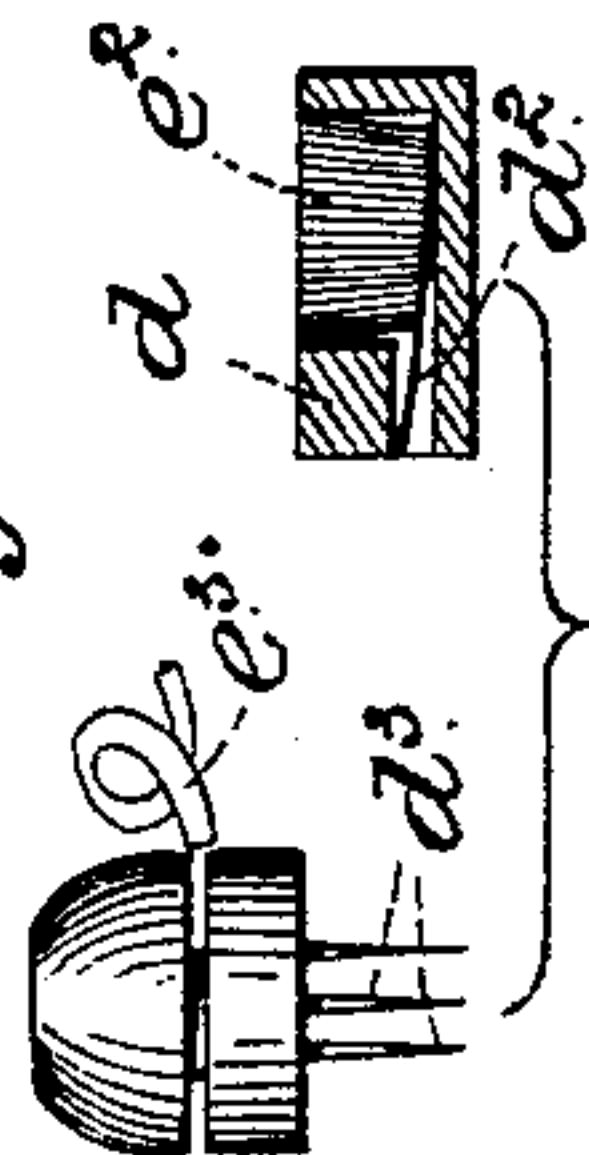


Fig. 3.

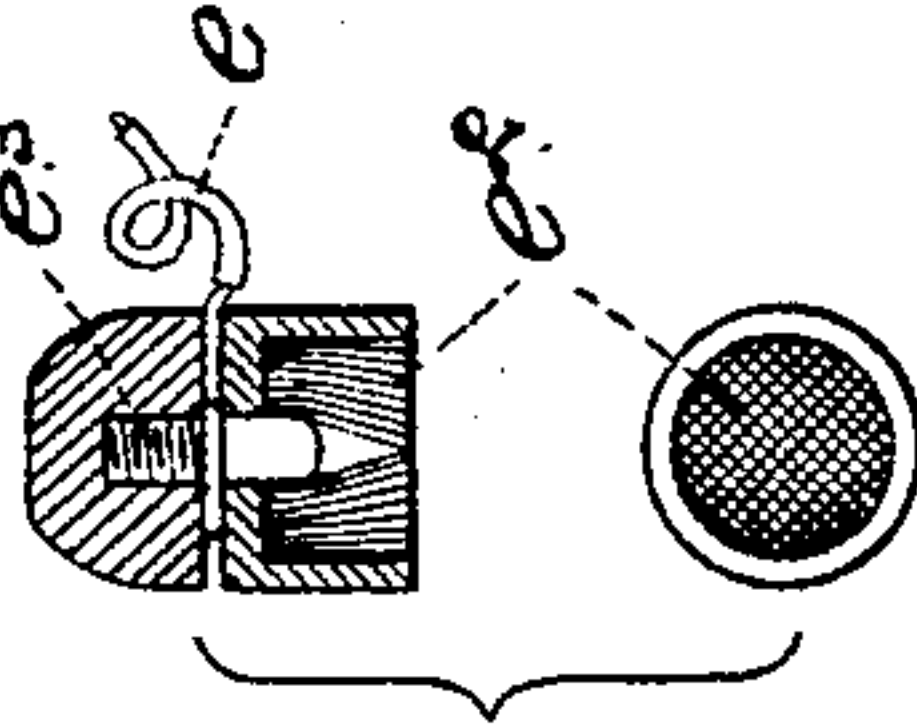
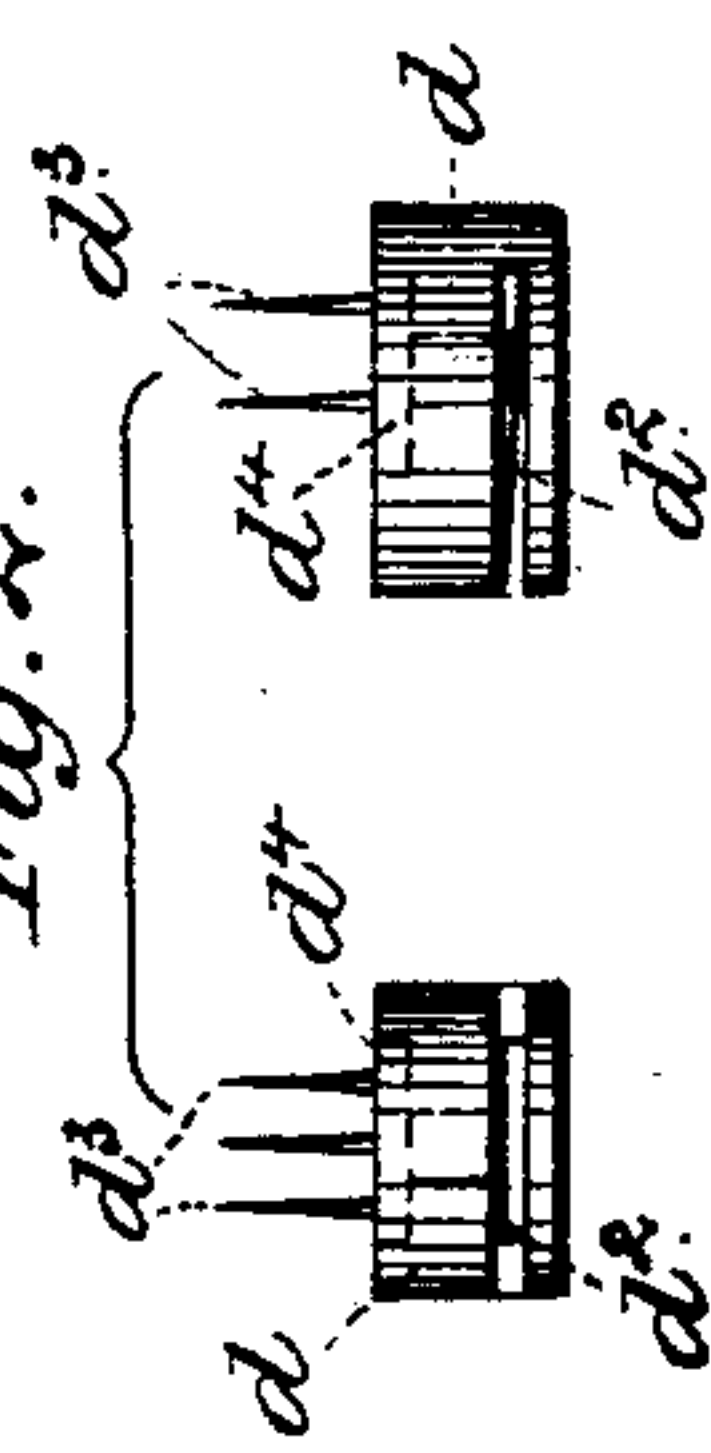


Fig. 2.



Attest  
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(No Model.)

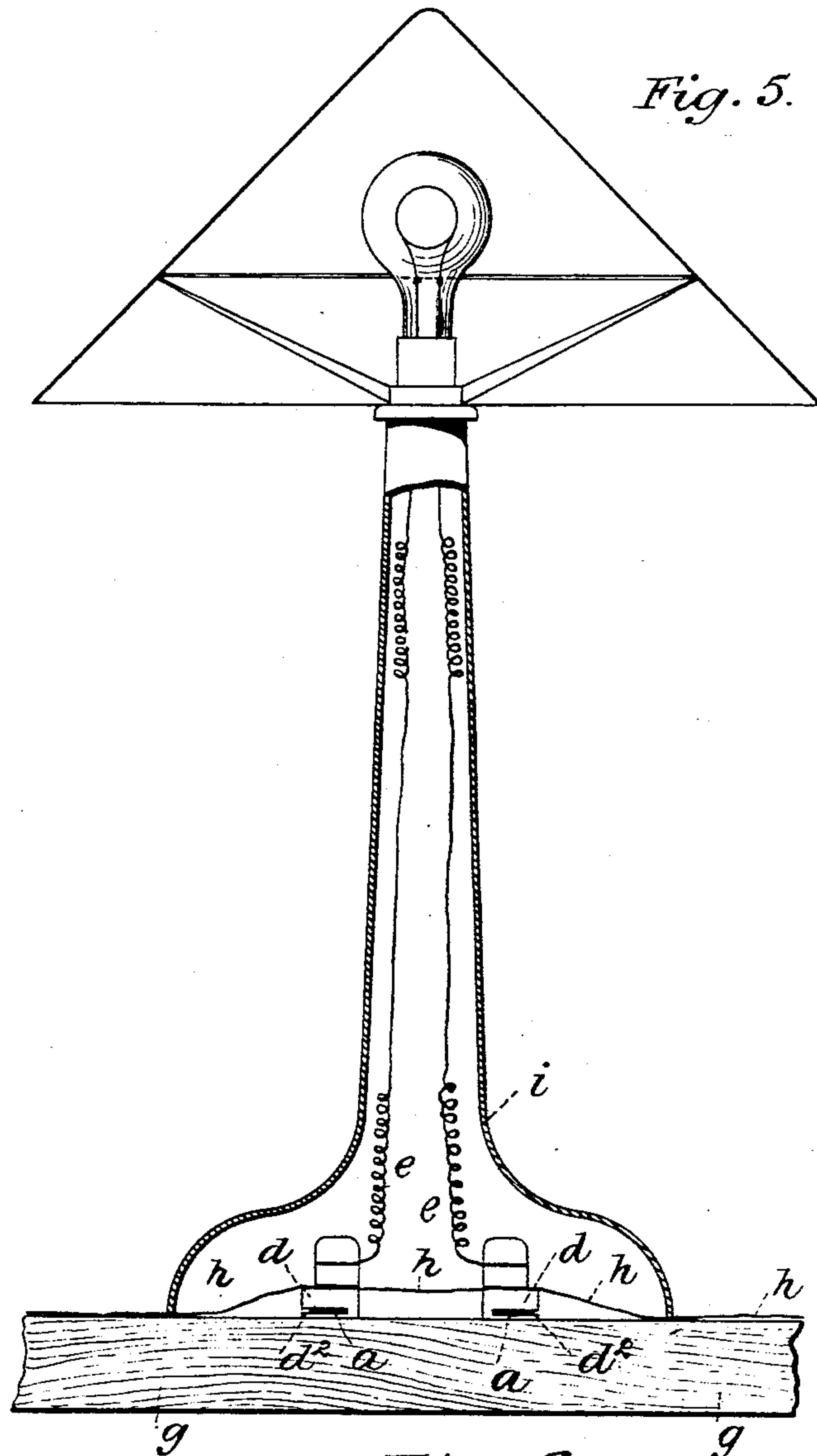
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G. F. ROSE.

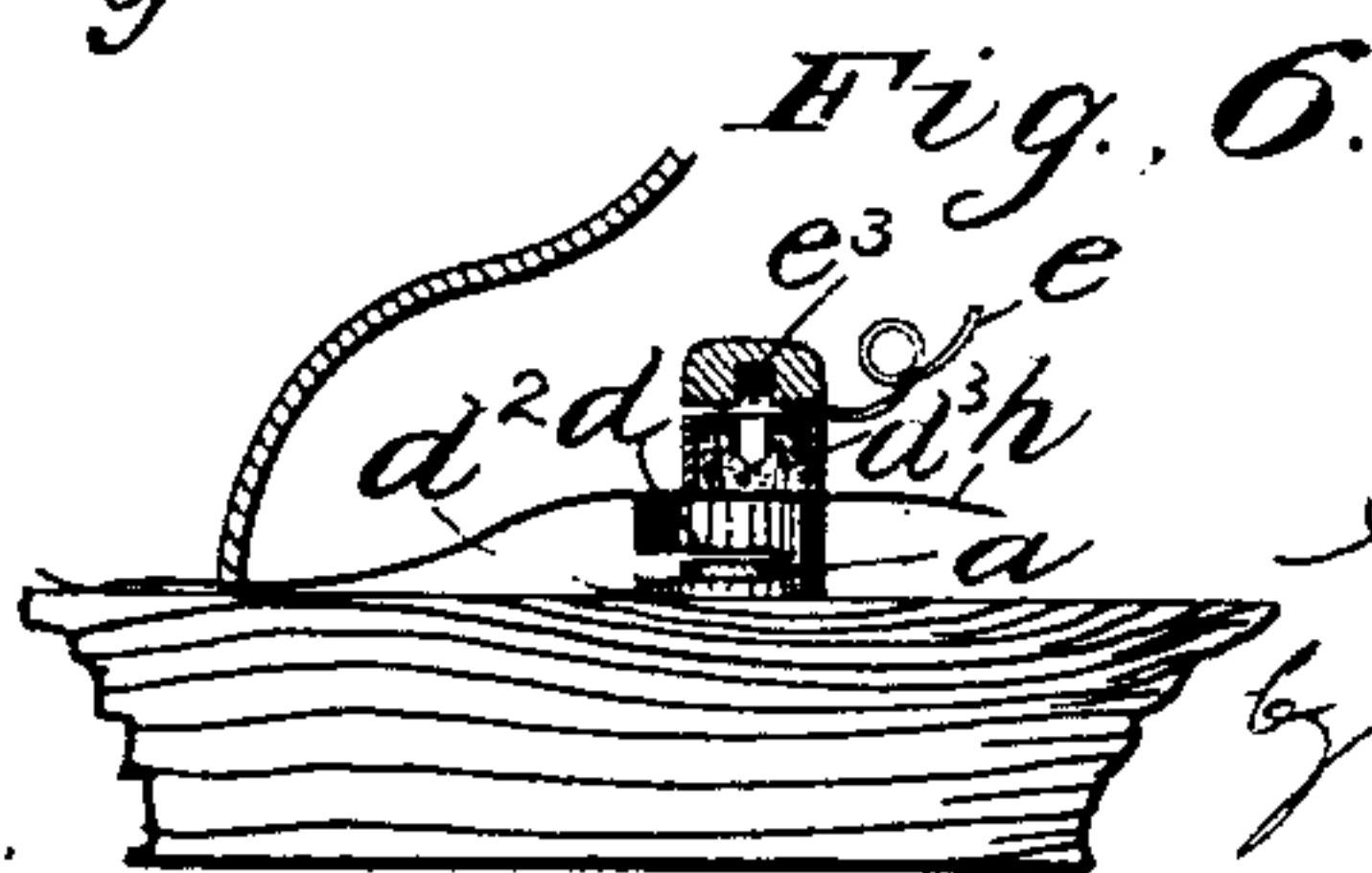
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*H. R. Edelen.*



*Inventor:-*  
*George F. Rose*  
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# UNITED STATES PATENT OFFICE.

GEORGE F. ROSE, OF LONDON, ENGLAND.

## DEVICE FOR CONDUCTING ELECTRICITY TO LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 541,121, dated June 18, 1895.

Application filed February 27, 1895. Serial No. 539,932. (No model.) Patented in England December 24, 1891, No. 22,542.

*To all whom it may concern:*

Be it known that I, GEORGE FITZHARDINGE ROSE, china and glass dealer, a subject of the Queen of Great Britain and Ireland, residing at 175 Oxford Street, in the city of London, England, have invented certain improvements in devices for conducting electricity to lamps or the like on dining-tables or on other analogous articles or places where it is desirable to employ concealed conductors, (for which I have, in conjunction with George Phillips, of 175 Oxford Street aforesaid, obtained a patent in Great Britain, No. 22,542, dated December 24, 1891,) of which the following is a specification.

This invention has for its object to provide means whereby devices for conducting electricity to lamps or the like on dining tables or on other analogous articles or places can be applied so that the said devices are concealed, and so that there is no necessity to cut, or otherwise injure the table, mantel shelf, sideboard or the like to which the devices are applied.

According to this invention the conductors proper are formed of flat strips of flexible conductive material (such as copper for instance) so that they present no objectionable projection when covered by a table cloth or the like. At the places where the lamp standards or the like are to be connected to the conductors there are secured pieces of conductive material, or contact making devices, through which the conducting strips can be passed, or which can be passed over the said strips, these pieces or devices being provided with a conductive spike or spikes. The said pieces or devices may be of non-conductive material and the spikes pass therethrough or be put in contact with a contact spring or the like, to make contact with the strips. The said spikes pass through a table cloth or the like, when it is covered over the table, or the like, and the conductive devices upon it. To secure rigidity of the devices there may be struts, or distance pieces or stretchers, connecting the aforesaid spiked pieces, or any two, or more, of them, that may be adjacent to each other, or the strips may be connected by such struts or distance pieces. The connection of the conductors of the lamps to the aforesaid spikes is effected by metal brushes, or webs, attached

to the conductors of the lamp and readily penetrated by the spikes when pressed upon them. The spikes may be connected with the lamp and the metal brushes or webs with the strips if preferred. The aforesaid conductors may be simply laid upon the table, or the like, and, being flexible, may be removed with the cloth or covering or the said devices may be put in, or on, a framing, or in, or on, a board to be laid upon the table or the like.

Figure 1 of the accompanying drawings represents a top plan view of a table, sideboard, or the like, to which my invention is applied. Figs. 2, 3, and 4 are detail views showing contact devices. Fig. 5 is a vertical section taken through the table and one of the lamp-standards arranged thereon, and Fig. 6 is a sectional view through the table and one of the contact devices.

Referring to the drawings, *a* are strips or ribbons of conductive material such as copper for example covered with insulating tape, or other material, except at the parts *d*, where the contacts for leading the current to the lamps are to be made. The said strips *a* are connected by the leads *b, c* from any suitable dynamo or other generator of electricity so that they constitute continuations of the said leads for completing the circuit through the lamps.

The devices for making contact consist of clips *d* (shown in elevations at right angles to each other in Fig. 2) of vulcanite, or other insulating material, containing contact springs *d*<sup>2</sup> electrically connected to spikes *d*<sup>3</sup> by the metal pieces *d*<sup>4</sup> so that when the said clips are passed over the bare parts of the outgoing and return leads constituted by the strips *a* they make electric contact with the said strips. The conductors *e* from, and to, the lamps are provided with contact devices (shown in vertical section and plan of under side in Fig. 3) containing metal wire net work or brushes *e*<sup>2</sup> in electrical connection with the metal pins and plates *e*<sup>3</sup>, so that when the said network or brushes, is or are, pressed over the spikes *d*<sup>3</sup> (as shown in Fig. 6), the circuit from the one lead to the other is established through the lamp.

In the drawings at Fig. 1 I have shown an arrangement for two lamps along the center, and one at each corner of the table or the like,



but there may be any other convenient arrangement of the leads and placement of the lamps. In using the device the strips or leads  $a$  are first placed on the table, or the like, and the clips  $d$  are put in place on the said strips or leads and a table cloth, or like covering being placed over all, the spikes  $d^3$  project there-through and the lamps are then placed in position and the wire-work terminations, or brushes  $e^2$  are pressed onto the said spikes  $d^3$  and the circuit through the lamp across the strips or leads is established. The strips or leads  $a$  should be as thin and flat as may be, so as to make as little projection as possible beneath the table cloth. In the arrangement described the lamps are in multiple arc, but they may be in series, if desired, by discontinuing the conductive material and making the contacts so that the lamp completes the circuit across the discontinuations. If desired the spikes  $d^3$  may of course, be at the ends of the lamp conductors, as shown at the left hand of Fig. 4 and the wire work or brushes  $e^2$  be in the clips  $d$  which are placed on the strips  $a$  and the spikes  $d^3$  be passed down-

ward through the table cloth, and into the wire-work or brushes.

$f$  are distance pieces, or struts of vulcanized fiber or other non-conductive material to keep the strips in a proper relative position.

Fig. 5 shows a portion of a table with a lamp in place. In this figure the parts shown in the other figures are marked with the same letters of reference.  $g$  is the table top.  $h$  is the table-cloth, or like covering, and  $i$  is the lamp standard.

I claim—

For electric lighting on dining tables, side-boards or other analogous places, flat conducting strips and contact devices consisting of spikes and metal brushes or webs for connecting the lamps thereto, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE F. ROSE.

Witnesses:

GEORGE BLOSS,

GEORGE EDMOND.