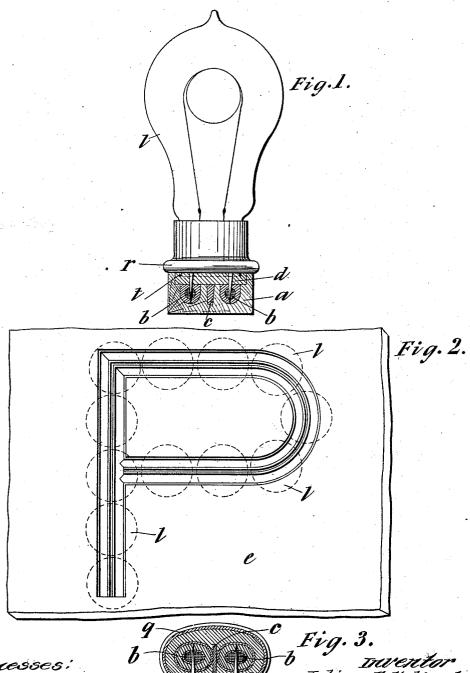
## J. A. HALFORD.

## CONDUCTOR AND CONTACT FOR ELECTRICAL GLOW LAMPS.

(Application filed Sept. 10, 1900.)

(No Model.)



Witnesses: Cestesles Dinnis Sumhj. Fig. 3.

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# UNITED STATES PATENT OFFICE.

JULIAN A. HALFORD, OF BAYSWATER, ENGLAND, ASSIGNOR TO THE ELEC-TRIC LIGHTING BOARDS, LIMITED, OF PALL MALL, LONDON COUNTY, ENGLAND.

## CONDUCTOR AND CONTACT FOR ELECTRICAL GLOW-LAMPS.

SPECIFICATION forming part of Letters Patent No. 671,338, dated April 2, 1901.

Application filed September 10, 1900. Serial No. 29,581. (No model.)

To all whom it may concern:

Be it known that I, JULIAN ADOLPHE HAL-FORD, a citizen of England, residing at 22 Chepstow Villas, Bayswater, in the county of Lon-5 don, England, have invented certain new and useful Improvements in Conductors and Contacts for Electrical Glow-Lamps, (for which I have applied for a patent in Great Britain, dated April 10, 1900, No. 6,727,) of which the

10 following is a specification.

Electric glow-lamps and stands for them have been made having their leading-in wires connected to a pair of conducting-spikes, and tables, boards, and other surfaces have been made with pairs of covered penetrable conducting-strips laid side by side on them, the strips of each pair connected to opposite terminals of a source of electricity, so that on thrusting the two spikes of a lamp or its stand 20 one into each strip they make contact and the lamp becomes at once supplied with current.

The present invention relates to the construction of conductors for supplying with current lamps, stands, or other connections 25 each provided with a pair of spikes of the kind above referred to, the main object of the invention being to provide in apartments, shop-windows, advertising sites, or other places convenient means of placing glow-30 lamps at various points and in various orders along conducting-lines, as will be described with reference to the accompanying drawings.

Figure 1 is a side view of a glow-lamp supplied by a conducting-bar, which is shown in 35 section. Fig. 2 is a plan view illustrating a base or board provided with the conductor shaped to form a letter P, with the covering therefor removed, the position of the lamps being indicated in dotted lines. Fig. 3 is a 40 section of a flexible conductor or cable with a suspended lamp attached to it.

In the several figures like letters are em-

ployed to denote like parts.

Referring first to Figs. 1 and 2, a support 45 or strip of wood  $\alpha$  is grooved to receive two parallel conductors, each consisting of a bundle b of fine wires, of copper or other good conducting metal, each bundle being inclosed in a non-conducting penetrable sheath, such as 50 asbestos or other comparatively loose fabric. Between the two grooves holding the conduc- | bundles of conducting-wires mounted thereon,

tors there is a middle groove in which is fixed a partition c, of non-conducting materialsuch, for instance, as wood or vulcanized fiber. The conductors and partition are covered by 55 a band d of easily-penetrable non-conducting material—such, for instance, as the floor-cloth, which consists mostly of cork-dust.

Anywhere along the support or conductingbar a lamp l can be placed, its spikes pene- 60 trating the cover d and the wire bundles b, which are connected, respectively, to the opposite terminals of a source of electricity.

As shown in Fig. 2, a board  $\epsilon$  may be grooved according to a pattern, such as the letter P, 65 the groove and their contents and cover being like those described with reference to

The head of the lamp l is preferably made with a head-ring r, to which the fingers can 70 be applied for pushing the lamp onto the support or conducting-bar, and with an annular projecting rib t, which when the lamp is pushed onto the support or conducting-bar seats itself in the yielding material of the 75 cover d and prevents entrance of damp.

The flexible support or conductor (shown in Fig. 3) consists of the two wire bundles b, each with an insulating covering and between them a non-conducting partition c, the whole 80 inclosed in non-conducting flexible and penetrable material p and tape q, varnished or otherwise waterproof. The lamp having a ring r for pushing it into place is secured in position by a spring-clip s or otherwise.

Having thus described the nature of this invention and the best means I know of carrying out the same into practical effect, I claim-

1. A support, a pair of insulated bundles of conducting-wires mounted therein, a cover 90 for the said wires, a lamp, and a pair of spikes carried by said lamp and adapted to penetratesaid covering and bundles of conducting-

2. A flexible support, a pair of insulated 95 bundles of conducting-wires mounted therein, a non-conducting penetrable covering for said bundles, a lamp, and a pair of spikes carried by said lamp and adapted to penetrate said covering and bundles of conducting-wires.

3. A flexible support, a pair of insulated

a non-conducting covering for said bundles, a lamp, and means carried by said lamp and engaging said bundles of wire for connecting

the lamp thereto.

4. A flexible support, electrical conductors carried thereby, a non-conducting partition interposed between each of said conductors, a lamp, and means carried thereby and adapted to engage said conductors for connecting to the lamp to said support.

5. A support provided with suitable grooves, electrical conductors mounted therein, a non-

conducting partition interposed between each of said conductors, a lamp, and means carried thereby and adapted to engage said conduc- 15

tors for connecting the lamp to said support.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit-

nesses.

## JULIAN A. HALFORD.

Witnesses:

WILMER M. HARRIS, GERALD L. SMITH.