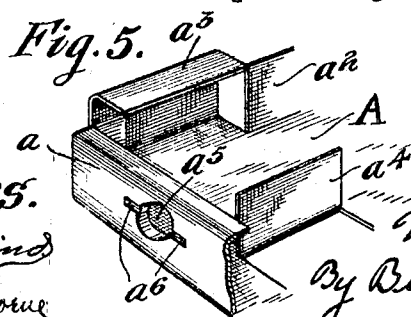
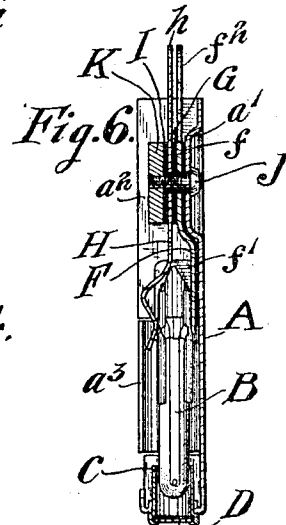
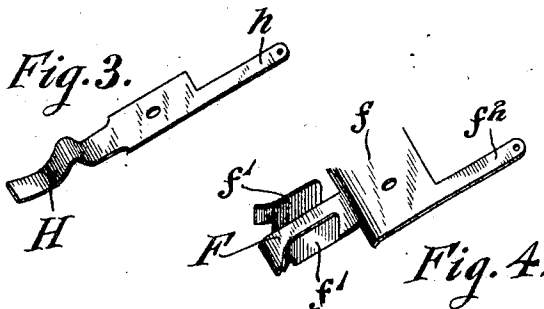
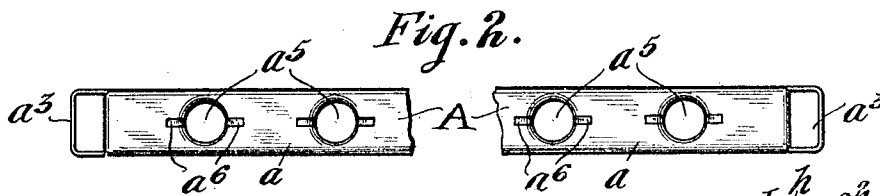
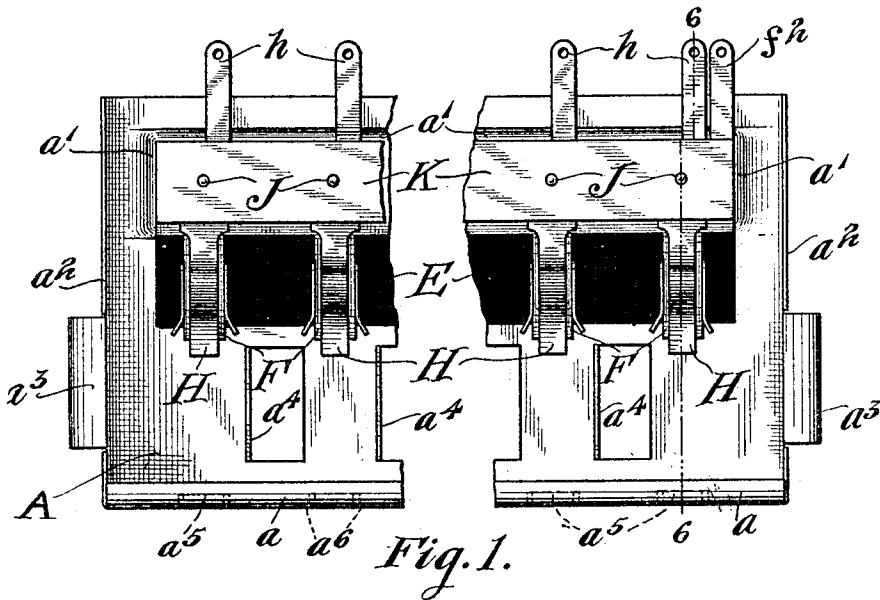


M. SETTER.
STRIP OF LAMP JACKS.
APPLICATION FILED JAN. 13, 1905.



Witnesses.

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STRIP OF LAMP-JACKS.

No. 819,085.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MICHAEL SETTER, a citizen of the United States of America, and a resident of Chicago, Cook county, Illinois, have invented a certain new and useful Improvement in Strips of Lamp-Jacks, of which the following is a specification.

My invention relates to what are commonly known as "lamp-jacks," and more particularly to lamp-jacks arranged in strips or banks, each so-called "strip" of lamp-jacks involving a plurality of spring-jacks or spring-sockets each adapted to receive a miniature incandescent lamp—such, for example, as the lamps employed for signaling purposes in telephone-exchanges and for other analogous purposes.

Generally stated, the object of my invention is the provision of an improved, simplified, and highly-efficient strip of lamp-jacks.

A special object is the provision of an improved construction and arrangement by which the body of the strip of lamp-jacks may be made of sheet metal stamped or pressed into suitable form and whereby it will be impossible for the heat of the lamps to warp the front of the lamp-jack strip or to distort or injure other parts of the strip of lamp-jacks, as has heretofore often happened in lamp-jack strips having the front and other portions made of rubber or similar material.

It is also an object, of course, to provide certain details and features of improvement tending to increase the general efficiency and serviceability of a strip of lamp-jacks of this particular character.

To the foregoing and other useful ends my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 is a plan view of a strip of lamp-jacks embodying the principles of my invention, the central or middle portion thereof being broken away for convenience of illustration, it being understood that said strip may be of any suitable length and may involve any suitable or desired number of lamp-jacks for lamps of any suitable character. Fig. 2 is a front view of the strip of lamp-jacks shown in Fig. 1, it being observed that in neither of these figures are the lamps and light-transmitting members shown. Fig. 3 is a detail perspective of one of the upper or outer jack-springs.

Fig. 4 is a perspective of one of the inner or lower jack-springs. Fig. 5 is a detail perspective of one forward corner portion of the lamp-jack strip. Fig. 6 is a section on line 6-6 in Fig. 1.

As thus illustrated my improved strip of lamp-jacks comprises a body A, made, preferably, of sheet metal, stamped or pressed into the desired shape. At its front or at its lower edge, according to the position in which the strip is employed, the said body is provided with a flange or front plate *a*, formed integral with the said body. At its rear the said body is provided with a raised or pressed-up portion *a'*. The ends of said body are provided with flanges *a''* and with lugs *a'''* for securing the strip of jacks to the so-called "stile-strips." Furthermore, the flat portion of the body adjacent to the front plate is provided with partitions *a''*, each formed by cutting out a rectangular metal portion and bending it upward or outward. As will hereinafter more fully appear, these partitions separate the incandescent lamps B one from the other, and thus exclude the light of one from the others, and thereby prevent false signaling. As shown, the front plate *a* is provided with openings or sockets *a''*, each opening or socket being arranged directly in front of the forward or lower end of one of the miniature incandescent lamps B. The thimbles or sockets C are adapted to fit within the said openings *a''* and are each provided with a light-transmitting member D. It will be seen that each thimble extends inwardly and partially over the bulb or end of the incandescent lamp arranged opposite the opening in which the thimble is inserted. As a means of insuring the easy insertion and removal of the thimbles C each opening *a''* is provided at its sides with small notches or indentations *a'''*, adapted to receive the ends of a pair of tweezers or other like tool. In this way the end portion of said tool can be inserted at each side of the thimble and in such manner as to insure the easy removal of the latter.

A flat sheet of rubber or other like insulation E is laid flatwise upon the upper or outer surface of the body A and forms a rest or seating surface for the lower or inner jack-springs F. It will be understood that these lower jack-springs F can be formed from a piece of sheet metal, and thus connected in

common by a strip *f*. It is this strip *f* which bears upon and clamps the insulating-sheet *E* in place. The said lower inner jack-springs are each preferably provided with cheeks or guards *f'*, which receive the rear end of the incandescent lamp between them, and thereby insure accurate insertion of such lamp. A single terminal *f*², made integral with the strip *f*, serves for all of the lower or inner jack-springs. A second strip of rubber or like insulation *G* is then placed upon the top of the strip *f*. The upper jack-springs *H*, each provided with a terminal *h*, are then placed upon the strip *G* and in position above the lower or inner jack-springs. A third strip of rubber or other insulation *I* is then laid upon the said outer or upper jack-springs. The superimposed strips and springs are then all clamped in place by means of screws *J*, extending upwardly or outwardly through the body and into a metal clamping-strip *K*. In this way the jack-springs are securely and properly assembled in place upon the raised portion *a'* of the body and are held in position to receive the lamps. In other words, each pair of jack-springs, consisting of a spring *H* and a spring *F*, is arranged opposite one of the openings *a*². Consequently when current is caused to flow through one of said lamps it illuminates its allotted light-transmitting member *D* and produces the desired signal. Inasmuch as the body is in no way dependent upon anything but metal for its stiffness and rigidity, no part of it can be warped or distorted by the heat of the lamps. The jack-springs can be stamped or pressed out of sheet metal, thus insuring economy of manufacture. This is also true, as previously stated, of the body *A* of the strip of lamp-jacks.

It will be understood, of course, that the lamps are not shown in Fig. 1. A lamp properly adjusted in place is shown in Fig. 6.

What I claim as my invention is—

1. A strip of lamp-jacks having a body made of sheet metal bent into shape to provide an integral front plate having a plurality of lamp-openings, and lamps in said jacks.
2. A strip of lamp-jacks comprising a body made of sheet metal bent into shape to provide a raised base, and also an integral front plate having a plurality of lamp-openings, together with a plurality of jack-springs arranged in pairs and suitably secured upon said raised portion of the body, and lamps in said jacks.
3. A strip of lamp-jacks comprising a pressed sheet-metal body having an upturned integral front plate provided with a plurality of openings, and having jack-springs arranged in pairs and suitably mounted upon said body, each pair being mounted opposite one of said openings, the lower or inner jack-springs of the different pairs being

formed of a sheet-metal strip stamped and pressed into shape to provide several forwardly-extending jack-springs connected in common, and a miniature incandescent electric lamp removably held in each jack, together with an upper clamping-strip *K* and screws *J* by which both upper and lower jack-springs are clamped in place, said metal strip of the lower jack-springs having said screws extending therethrough, all in combination, substantially as set forth.

4. A strip of lamp-jacks comprising a metal body having an integral upturned front plate provided with a plurality of openings, a chamber back of said plate, thimbles removably inserted in said openings, each thimble being provided at its outer end with a light-transmitting member, spring-jacks mounted upon said body, and miniature incandescent lamps inserted in said spring-jacks, the jacks and lamps being in the chamber back of said front plate, and the bulb of each lamp projecting into the inner end portion of one of said thimbles.

5. A strip of lamp-jacks comprising a body made of sheet metal stamped and pressed into shape to provide an integral front plate having a plurality of openings, and to provide a plurality of partitions, spring-jacks mounted upon said body, and miniature incandescent lamps inserted in said spring-jacks, said lamps being separated from each other by said partitions.

6. A strip of lamp-jacks comprising a sheet-metal body provided with an integral front plate having a plurality of openings, and provided with integral partitions, and a plurality of spring-jacks mounted upon said body, said openings being arranged opposite the said spring-jacks, and said partitions alternating with the said jacks.

7. A strip of lamp-jacks comprising a sheet-metal body provided with an integral front plate having a plurality of openings, each opening having notches or indentations at each side thereof, lamps in said jacks and thimbles each provided with a light-transmitting member and adapted to be inserted in said openings, said notches or indentations permitting the insertion of a tool for the purpose of removing said thimbles, and said jacks having lower springs provided with side portions adapted to cooperate with the said thimbles in preventing lateral displacement of the lamps.

8. A strip of lamp-jacks comprising a sheet-metal body having an integral front plate provided with a plurality of openings, and having integral lugs or flanges at its ends, together with spring-jacks mounted upon said body and each arranged opposite one of said openings, said jacks having upper and lower springs arranged in upper and lower rows extending substantially from one lug to the other.

9. A strip of lamp-jacks comprising a suitable support, a plurality of lower or inner jack-springs connected in common by an integral strip of metal, upper or outer jack-springs each arranged to cooperate with one of said inner or lower jack-springs, each upper or outer jack-spring provided with a terminal, and the lower or inner jack-springs provided with a terminal which is integral with said metal strip, all of which jack-springs have their free ends pointing toward the front of the structure, and all of said terminals projecting rearwardly, a strip of insulation interposed between the said metal strip and the said upper or outer jack-springs, and a miniature incandescent electric lamp removably held in each jack, together with an upper clamping-strip K and screws J by

which both upper and lower jack-springs are clamped in place, said metal strip of the lower jack-springs having said screws extending therethrough, all in combination, substantially as set forth. 20

10. A strip of lamp-jacks comprising lower or inner jack-springs each provided with a pair of cheeks or guards, and upper or outer jack-springs each arranged to cooperate with one of said lower or inner jack-springs, together with means for securing said springs in place. 25

Signed by me at Chicago, Cook county, Illinois, this 9th day of January, 1905. 30

MICHAEL SETTER.

Witnesses:

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R. C. GIFFORD.