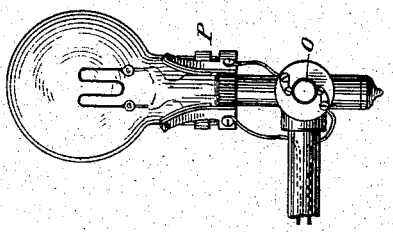
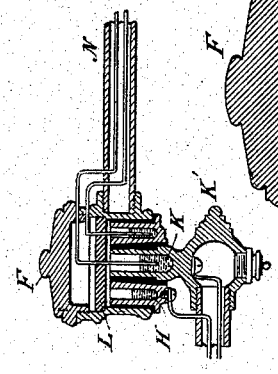
(No Model.)

E. WESTON.

BRACKET FOR INCANDESCENT LAMPS.

No. 263,829. Patented Sept. 5, 1882.





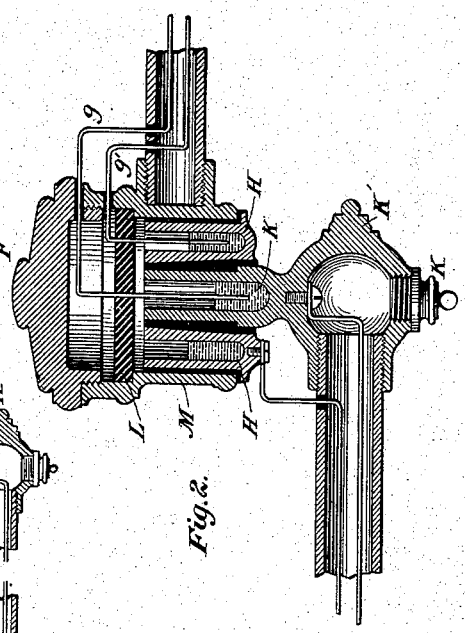
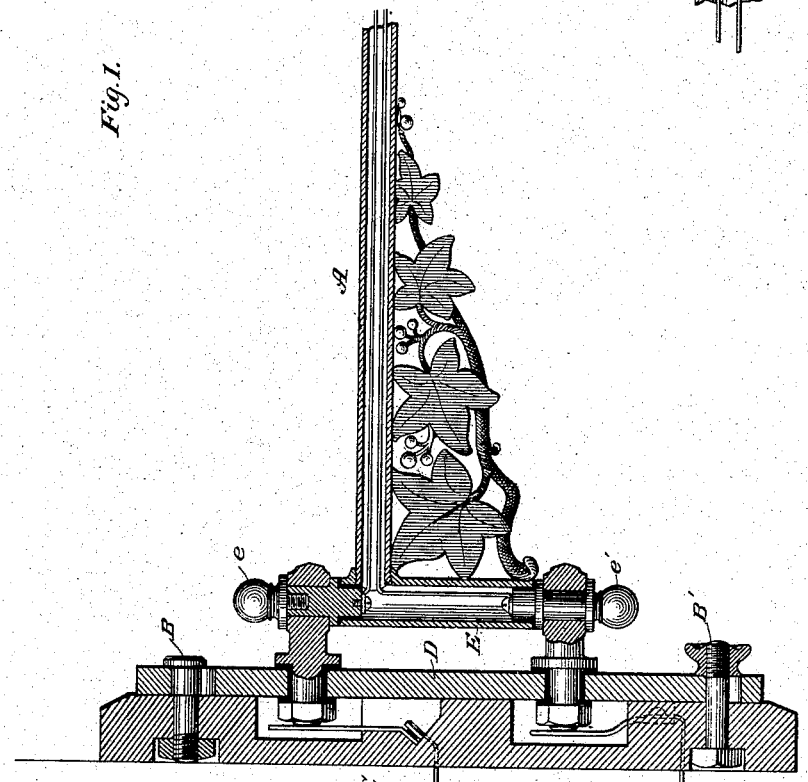


Fig. 2.

Fig. 1.



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BRACKET FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 263,829, dated September 5, 1882.

Application filed February 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD WESTON, a subject of the Queen of Great Britain, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Brackets for Incandescent Lamps, of which the following is a specification.

My present invention is designed as an improvement in brackets for incandescent lamps, its object being to produce a sectional or jointed bracket by means of which the lamp may be brought to different positions, and in which the conductors are inclosed and protected, so that a closed circuit may be maintained at all times, whatever the relative position of the sections, without injuring the conductors or allowing them to come into contact with each other.

In the drawings hereto annexed, Figure 1 represents in part section a bracket embodying my invention; Fig. 2, a portion of the same, including the joint, in section and on a larger scale.

The first section, or that which attaches to the wall or other support, has been described in other applications of even date herewith.

It consists generally of a tube, A, secured to a tube, E, which is pivoted by insulated heads *e e'* to contact-posts fixed in a plate, D. The plate D is slotted and arranged for attachment to a base-plate, C, by means of the bolts B B'. When the plate D is in position the circuit is made to the contact-posts by terminal contact-springs placed in recesses in plate C.

On the end of the tube A is a hollow spherical attachment, K', provided with an opening which may be closed by a screw-cap, *k*. The part K' is metal, and is formed with a tubular extension, K, for containing mercury.

H is an annular trough or cup, of metal, fitting over the cap *k* and insulated from it.

M is a cylinder, of metal, carrying the second joint or section, N. It is fitted over a jacket of hard rubber, vulcanite, or other insulating material, which surrounds the annular cup H and is designed to turn thereon. The cylinder M is closed by a screw-cap, F, and contains a plate, L, of insulating material. Both the tube K and cup H are to be partially filled with mercury and the wires contained in the section A connected to them, substantially as shown. They thus become circuit terminals. The naked ends of insulated wires *g g'* are passed through the plate L—one at a point where it will dip into the mercury in tube K, the other so that it will extend into the cup H, which is concentric with tube K. The other ends of the wires *g g'* connect with the terminals of a switch, O, employed with a lamp or lamp-holder, P.

In whatever direction the cylindrical cover M is turned, it is evident that a perfect electrical connection is maintained between the wires in tube N and those in tube A, and that such connection is made and maintained without moving the wires in either tube.

As mercury amalgamates with many metals, it is important that those portions of the bracket which come in contact with it, as well as the wires that dip into the cups, should be of some metal that is not affected by it. For this purpose the cups K and H should be made of iron and the wires *g g'*, or at least those portions that dip into the mercury, of either iron or steel, preferably the latter.

The above-described construction may be varied in many unessential particulars—as, for instance, by dispensing with the outer mercury-cup and completing one-half the circuit by means of the bracket itself.

These brackets, so far as outward appearance and manipulation are concerned, resemble exactly an ordinary gas-bracket, presenting the same advantages, and at the same time providing against such accidents as would be likely to arise from the use of electric wires. The number of sections is obviously a matter of choice.

I do not claim broadly a jointed bracket or supporting-frame for incandescent lamps; nor do I wish to be understood as confining myself to the specific devices shown, my purpose in the above-described construction being mainly to protect, by the described or similar means, the conductors of a jointed bracket both from exposure without the bracket

and from injury within. It is evident that the wires, by a proper construction of the bracket, may be entirely inclosed.

Having thus described my invention, what I claim is—

1. The combination, with a jointed bracket for electric lamps and the conductors contained therein, of a mercury cup or cups placed at or forming the joints and arranged to maintain the continuity of the circuit through the wires, substantially as shown.

2. The combination, in a jointed bracket, with section A and section N, and conductors contained therein, of mercury-cup K and annular cup H, placed at or forming the joint between the said sections, substantially as and for the purpose set forth.

3. In a bracket for electric lamps, the combination, with the sections of the bracket and wires contained therein, of a conducting-joint consisting of mercury-cup K, annular cup H, cap M, and insulating-plate L, these parts being combined substantially in the manner described.

In testimony whereof I have hereunto set my hand this 11th day of February, 1882.

EDWARD WESTON.

Witnesses:

W. FRISBY,

R. F. BARNES.