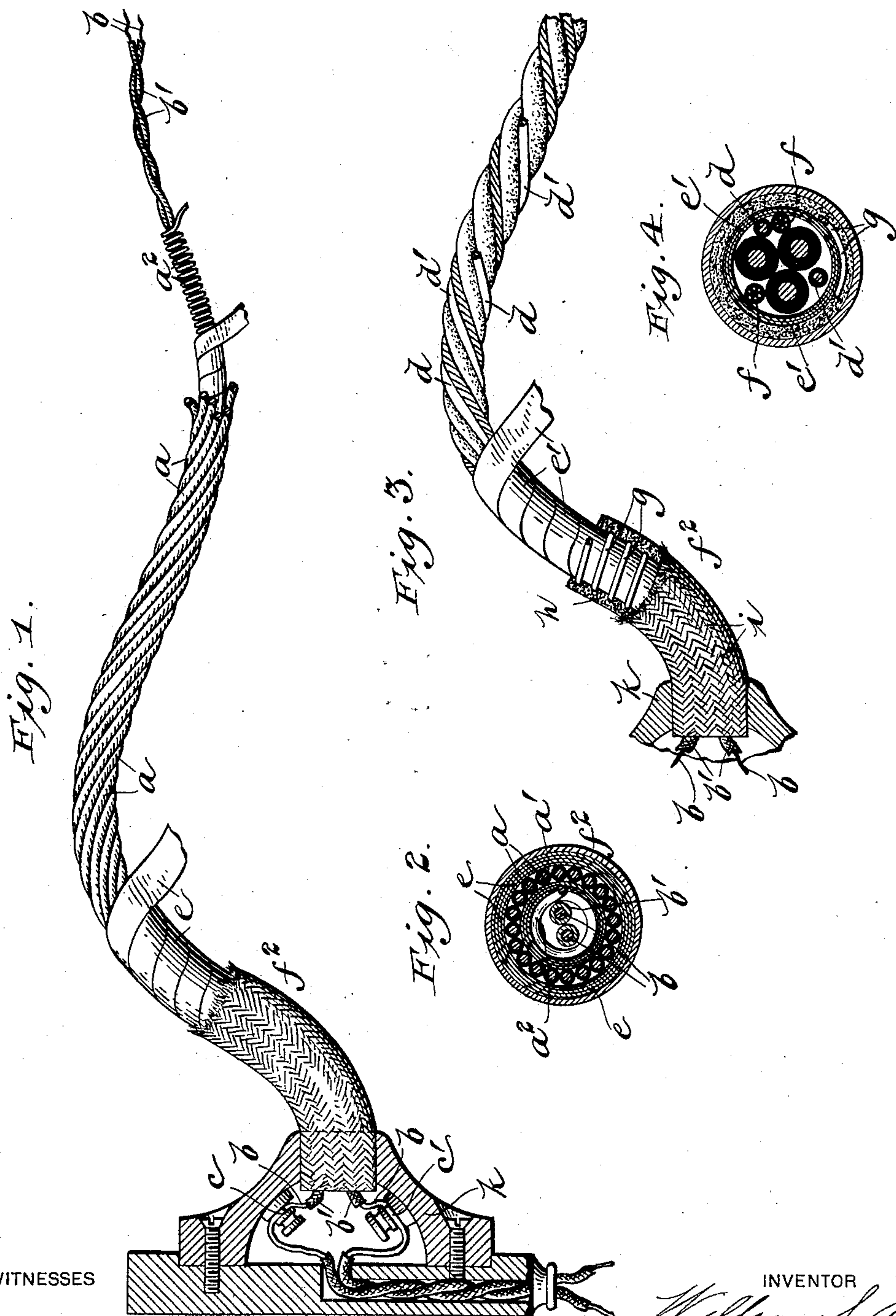


(No Model.)

W. S. ARNOLD.
HOLDER FOR ELECTRIC LAMPS.

No. 567,531.

Patented Sept. 8, 1896.



WITNESSES

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UNITED STATES PATENT OFFICE.

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HOLDER FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 567,531, dated September 8, 1896.

Application filed March 17, 1896. Serial No. 583,584. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. ARNOLD, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Holders for Electric Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to supports for electric lights; and it has for its object to provide a simple, cheap, and effective support for an ordinary incandescent light or similar device which, while being flexible and capable of being turned or bent to cause the lamp to assume various positions and relations to its supporting-base, is still sufficiently rigid to properly hold and maintain the lamp in the position in which it is placed.

To these ends my invention consists in a flexible support or bracket embodying the features of construction and arrangement substantially as hereinafter more particularly pointed out.

Referring to the accompanying drawings, Figure 1 is a side view showing the various features or elements of construction going to make up the holder, it being mounted in a socket shown in section. Fig. 2 is an enlarged transverse section of the preferred form of embodiment, and Fig. 3 is a side elevation showing the various features or elements of construction going to make up a modified form of holder.

In the ordinary use of incandescent electric lamps it is often desirable to adjust the lamp in some convenient position where the best illuminating effects can be obtained, and means heretofore have been suggested for attaining this object and providing a flexible support or bracket which shall be adjustable but still be of sufficient rigidity to maintain the lamp in the position placed, and at the same time shall supply a current to the lamp. By my invention these objects can be obtained in a thoroughly practical manner, in a simple, substantial, and effective structure, and at little expense.

In making the support or bracket I provide as a base or body of the support a number of wires having considerable rigidity, and yet sufficiently pliable to be readily bent into the form desired.

I have shown the core or body as consisting of a number of wires *a*. These wires may be of soft copper or other pliable material and may be covered with any suitable insulating-covering, as *a'*, or what is known in the art as "underwriters' wire." These wires are twisted about a central spiral coil of wire *a*² to form a substantial core or body which shall be able to practically support the lamp and hold it in the position desired.

It will be understood that any number of wires may be employed for said core, the number being governed by the cause for which they are used, the essential feature being to form a body having the proper degree of pliability and at the same time having sufficient rigidity for the purpose intended.

The conductors *b b* preferably consist of copper wires covered with suitable insulating material *b' b'*, and are connected to the terminals *c c'* of the socket and pass, preferably, through the passage formed by the spiral coil *a*². This core is then tightly covered with a binding, as insulating-tape *e*, which is shown as being wound spirally over the body of the core. The whole is then further covered with any suitable braided or ornamental covering.

The above-described core constitutes my preferred form, but I also contemplate forming a core in the following manner:

A number of insulated wires, preferably three, are twisted together to form a substantial core or body of sufficient rigidity to support the lamp in any desired position.

The conductors *f f*, preferably of insulated copper wire, are connected to the terminals *c c'* of the socket and are wound spirally around the core, fitting closely in the recesses between the wires of said core. It is desirable to strengthen this core, especially at the end at which it is supported, and I therefore apply thereto two or more strengthening-wires *d d'*, which are preferably twisted and formed so as to lie in the recesses of the core. These wires *d d'* are of different lengths, the

wire d extending about one-third and the wire d' two-thirds of the length of the support, which in this case is about eight inches.

Longer supports of course require more
5 strengthening-wires. By using different lengths of wire the support bends evenly its whole length, and such construction prevents the support bending at its point of contact with the socket K, thus remedying a defect
10 incident in prior brackets.

The whole core, with the conducting-wires and the strengthening-wires, is then preferably tightly covered with a binding, as insulating-tape e' , which is shown as being wound
15 spirally over the body of the core and conductors and serving to hold them in place, but at the same time permitting them to bend and assume the positions desired.

The whole core can further be covered with
20 any suitable covering f^2 , which may be braided onto the core, or which, as in the form shown, may consist of an ordinary gas-tubing or phonograph speaking-tubing as usually found in the market, and this tubing may or
25 may not have the spiral wire g . The inside wire, however, renders it an easy matter to screw the tubing upon the core and assists greatly in holding the tubing in place, in addition to preventing angular bends in the support. The tubing usually comprises a body
30 h , of rubber or like material, over which are one or more coverings i , or braided or otherwise applied material. This tubing or covering furnishes a finished appearance to the
35 bracket or holder and assists in maintaining the parts in proper relation to a greater or less extent, and also insures a thorough insulation of the holder.

Either of the above-described holders may
40 be applied to a suitable socket k and the conductors connected to binding-posts therein, or it may be secured to an electrolier or other support, and a lamp may be adjusted to its free ends, the lamp-terminals being secured to the
45 conducting-wires in the ordinary way.

By my construction of core shown in Fig. 1 I am enabled to provide a free passage for the circuit-wires from which they can be instantly removed for repairs or the insertion
50 of new ones.

While I have described and illustrated the preferred embodiment of my invention and its use as an electric-lamp support, it is evident that the holder can be used for other
55 purposes, and that the device may embrace other details of construction and arrangement

without departing from the general principles set forth, but when constructed in accordance with my invention it forms a simple, cheap, and substantial holder or bracket that
60 is well adapted for the purposes intended.

What I claim is—

1. A flexible support, the core or body portion of which comprises a number of ductile wires twisted together, and having the conducting-wires twisted and laid in the recesses
65 between the wires forming the core, and having strengthening-wires also lying in said recesses, substantially as described.

2. A flexible support, the core or body portion of which comprises a number of wires twisted together, and having the conducting-wires twisted and laid in the recesses between the wires forming the core, and having strengthening-wires also lying in said recesses,
70 substantially as described.

3. A flexible support, the core or body portion of which comprises a number of wires twisted together, and having the conducting-wires twisted, and laid in the recesses between
80 the wires forming the core, the whole being surrounded by a covering, substantially as described.

4. A flexible support, the core or body portion of which comprises a number of wires
85 twisted together, and having the conducting-wires twisted and laid in the recesses between the wires forming the core, a tape wound spirally around the wires and a tubing surrounding the tape, substantially as described.
90

5. In a flexible support for electric lamps, a core comprising a number of wires twisted together, conducting-wires laid in the recesses between the wires forming the core and strengthening-wires interwisted with said
95 core-wires, and being of different lengths, substantially as described.

6. In a flexible support for electric lamps, the combination with the solid core composed of a number of wires twisted together, of the
100 conductors twisted and laid in the recesses between the wires forming the core, strengthening-wires surrounding the core, a tape covering outside the same, and a tubing embracing the whole, substantially as described.
105

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM S. ARNOLD.

Witnesses:

N. A. ACKER,
LEE D. CRAIG.