

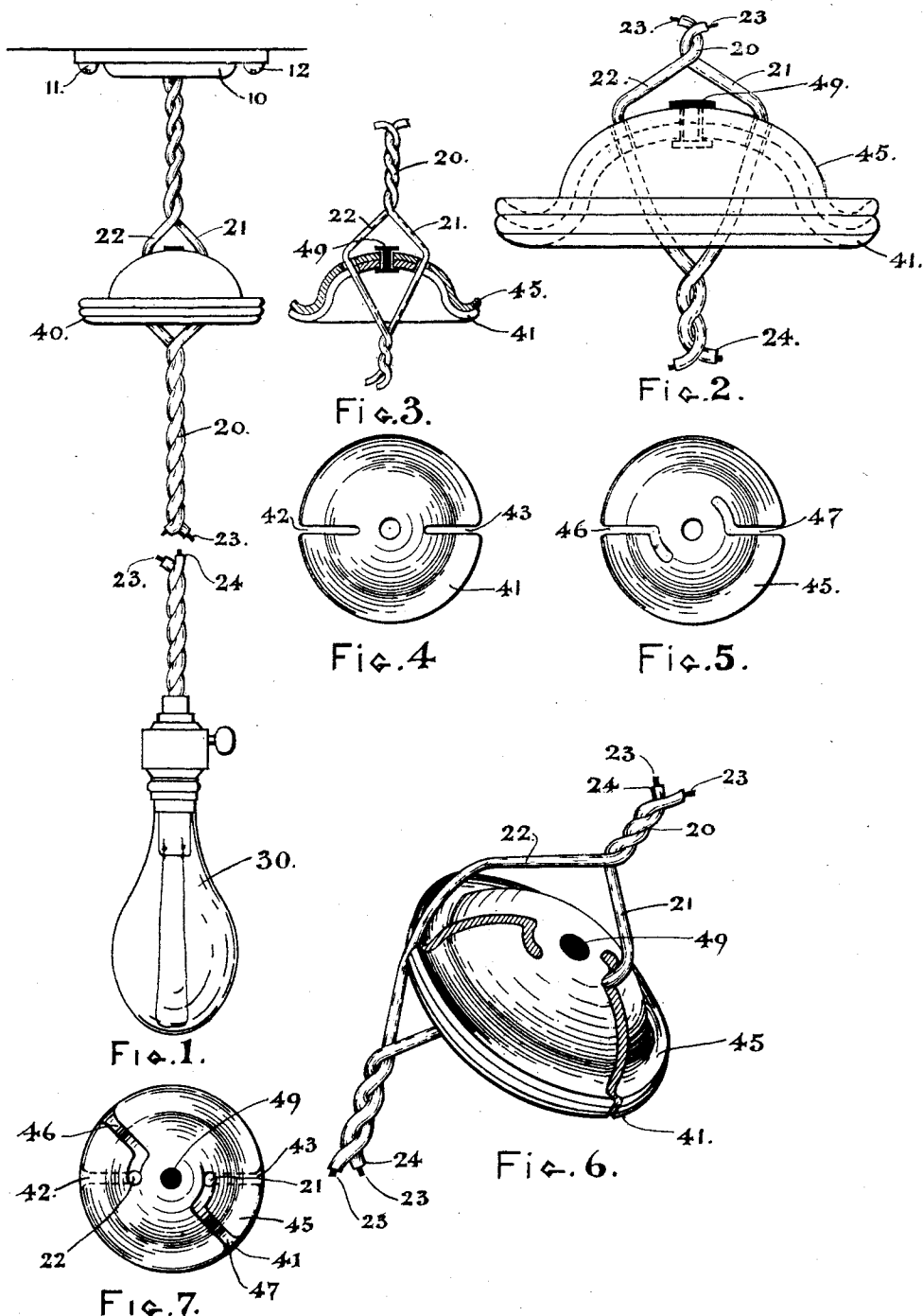
(No Model.)

3 Sheets—Sheet 1.

E. E. ANGELL & S. PORTER.
FIRE GUARD FOR LAMP CORDS.

No. 511,720.

Patented Dec. 26, 1893.



WITNESSES

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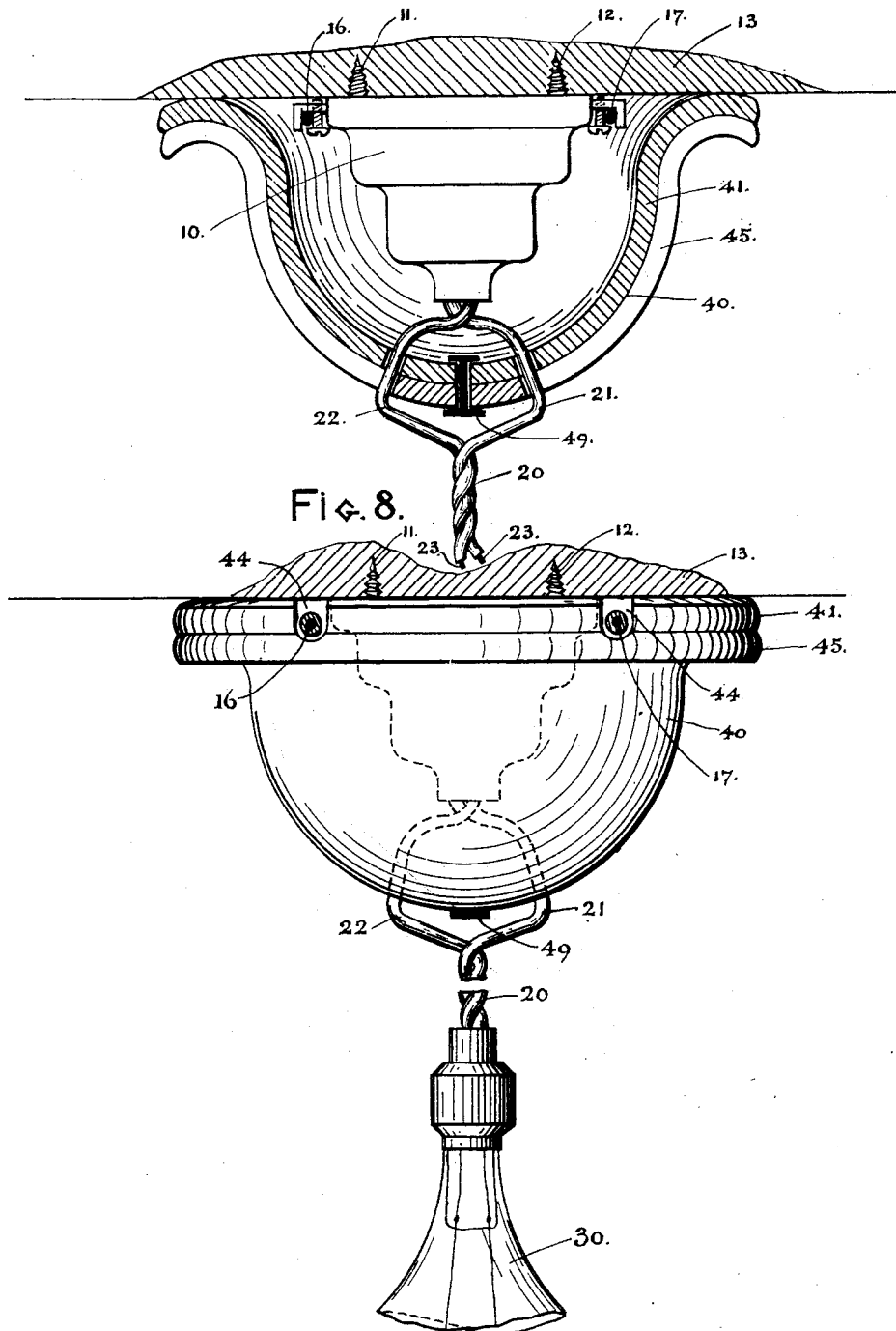


Fig. 8.

Fig. 9

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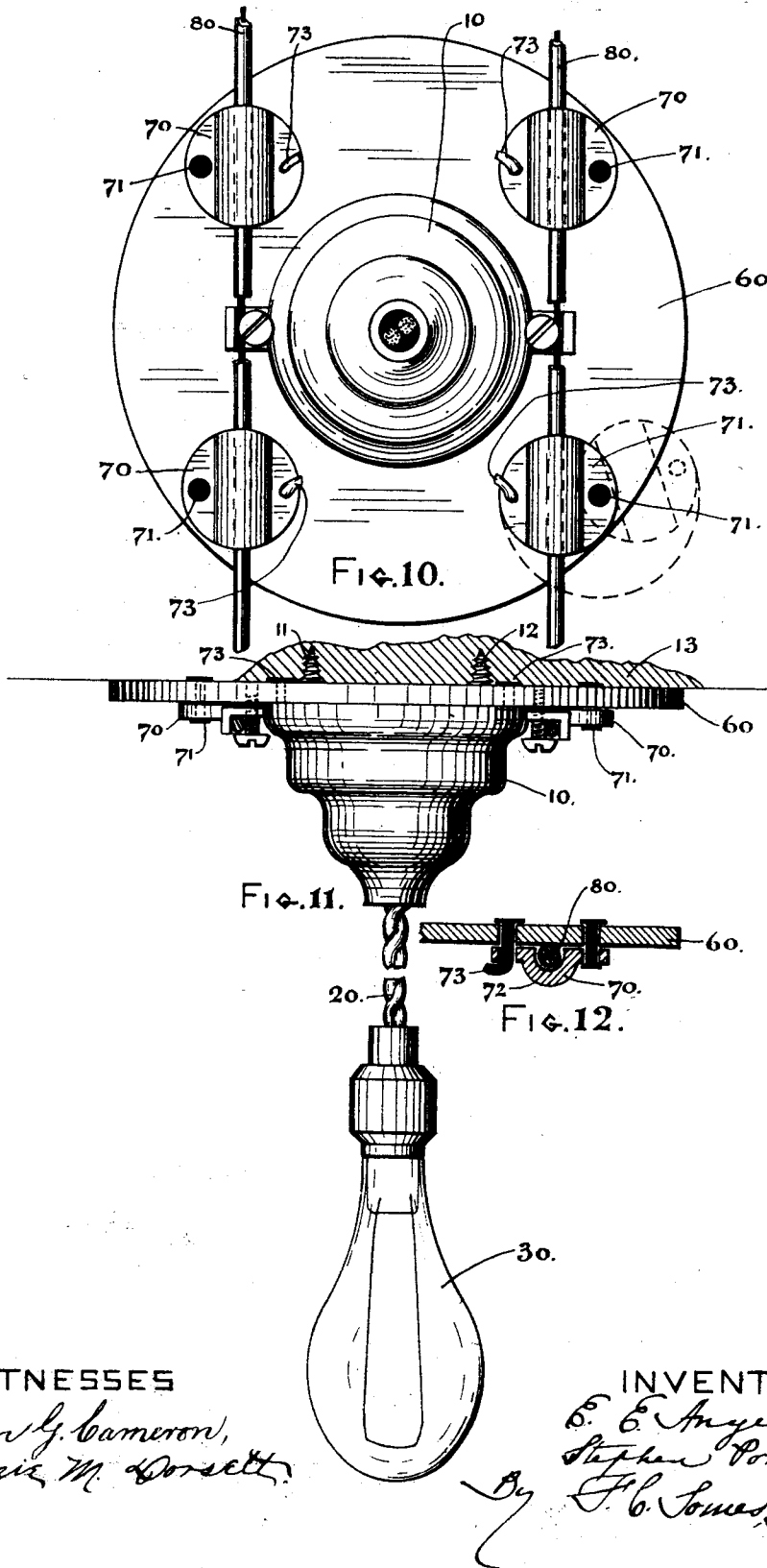
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UNITED STATES PATENT OFFICE.

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FIRE-GUARD FOR LAMP-CORDS.

SPECIFICATION forming part of Letters Patent No. 511,720, dated December 26, 1893.

Application filed April 20, 1893. Serial No. 471,129. (No model.)

To all whom it may concern:

Be it known that we, EDWIN ELLIOT ANGELL, residing at Somerville, in the county of Middlesex, and STEPHEN PORTER, residing at Boston, in the county of Suffolk, in the State of Massachusetts, citizens of the United States of America, have invented certain new and useful Improvements in Fire-Guards for Lamp-Cords, of which the following is a specification.

This invention relates to a fire guard or protector, especially adapted for the suspending cords of incandescent electric lamps. The drop cords for suspended incandescent electric lamps are composed of two conducting wires, each provided with an insulating covering composed of silk or cotton. These cords, when used in factories, packing houses, store houses, work shops and offices, are often handled by unclean and greasy hands, and the coverings soon become saturated with oil or other inflammable material. The cord is subjected to the most wear just above the lamp socket, and when the wires become exposed at any point the current is short circuited and an electric spark occurs between the two wires. This spark often sets fire to the insulated covering and the fire thus started will work its way upward along the cord to the ceiling and set fire to the building.

The object of this invention is to prevent damage to the building by the ignition of the lamp suspending cord.

Figure 1 of the accompanying drawings represents a suspended incandescent lamp, the drop cord of which is provided with this fire guard disposed between the lamp and the ceiling block. Fig. 2 represents an enlarged side elevation of this fire guard and portions of the lamp suspending cord with which it is connected. Fig. 3 represents a diametrical section of this fire-guard connected with the suspending cord. Fig. 4 represents a plan view of one of the disks of this fire-guard showing the two radial slots for connection with the cord. Fig. 5 represents a plan view of the other disk of this fire-guard, showing the two bayonet slots for connection with the cord and for closing the slots of the disks. Fig. 6 represents a perspective view of this fire-guard, the disks thereof being turned so that the slots thereof are in

register for the insertion of the cord. Fig. 7 represents a plan view of the fire-guard in closed position. Fig. 8 represents a vertical section of this fire-guard disposed in reversed position on the lamp guard and inclosing the ceiling-block. Fig. 9 represents a side elevation thereof.

The same reference numbers indicate the same parts in all the figures.

A ceiling block or rosette 10, to which the lamp supporting cord is attached and in which the said cord is connected with the line wires for supplying the current, is of any suitable construction. This block is attached by means of screws 11 and 12, or otherwise, to the ceiling 13.

The lamp suspending cord 20 is of ordinary construction comprising two strands 21 and 22, one of which is negative and the other positive. Each strand is composed of a core conducting wire 23, and an insulator covering 24 composed of cotton, wool or silk applied in the ordinary manner.

The lamp 30 may be of any suitable construction, and is suspended from the lower end of the cord 20 in the usual manner.

A fire-guard 40 is interposed between the lamp and the ceiling. This fire-guard comprises two disks 41 and 45 composed of any suitable incombustible material, preferably asbestos board or sheathing, such as that in common use for covering steam pipes or portable furnaces. These disks are preferably cup-shaped, disposed one within the other, and united by a central rivet 49. The disk 41 is provided with two radial slots 42 and 43 disposed at opposite points, and the disk 45 is provided with two angular or bayonet slots 46 and 47, each bayonet slot having a straight or radial outer portion and a curved inner portion substantially concentric with the pivot of the disk. The disks are adapted to turn on each other so that the radial portions of the bayonet slots of disk 45 will register with the radial slots of 41 or serve to close the latter.

In forming the cup-shaped fire-guard two flat disks of the asbestos or other fabric are separately subjected to the action of suitable cutting dies which stamp out the slots. The disks are then placed one over the other and both are subjected simultaneously to the

action of suitable molding or shaping dies, whereby they are pressed into shape. By shaping both at once in one mold, they are made to fit closely together. If desired they may be shaped in separate molds.

In applying this fire-guard to use, the suspension cord 20 is untwisted at a point between the ceiling block and the lamp, and the strands thereof pulled apart. The disks 41 and 45 are so turned relatively to each other that the slots of each register with those of the other. Then one of the strands of the suspension cord is inserted in one set of the registering slots to the inner ends of the radial portions thereof and the other strand of the suspension cord is inserted in the other set of registering slots to the inner ends of the radial portions thereof. Then the disk 41 having the radial slots is rotated slightly so that said strands are pushed to the inner ends of the curved portions of the bayonet slots of the other disk. This rotation of one disk on the other, closes the slots of both and closely clamps the cord. When placed in position and closed, the fire-guard prevents any fire that may have been caused by a short-circuit, or otherwise, from creeping up the cord above the guard.

In the use of the fire-guard shown in Figs. 8 and 9, it is applied to the drop cord 20 at a point just below the ceiling-block in such relation as to surround and inclose the block. In this case the edges or lips are provided with notches 44 through which the line wires 16 and 17 pass.

We claim as our invention—

1. A fire guard for a lamp cord comprising two connected disks provided with slots for receiving the lamp cord, the slot or slots of each disk being closed by the other disk.

2. A fire guard for a lamp cord comprising two connected disks provided with slots for

receiving said cord, said disks being adapted to turn on each other to close said slots.

3. A fire guard for a lamp cord comprising two connected disks, each disk being provided with slots for receiving the strands of the lamp cord, said disks being adapted to turn on each other to close their slots.

4. A fire guard for a lamp cord comprising two cup-shaped disks provided with slots for receiving the lamp cord, said disks being adapted to turn on each other to open and close their slots.

5. A fire guard for a lamp cord comprising two cup-shaped disks, each disk being provided with slots for receiving the strands of the lamp cord, said disks being adapted to turn on each other to open and close their slots.

6. A fire guard for a lamp cord comprising two disks provided with straight and angular slots, said disks being adapted to turn on each other to open and close their slots.

7. A fire guard for a lamp cord comprising two disks, one of said disks being provided with straight slots, and the other disk being provided with angular slots, said disks being adapted to turn on each other to open and close their slots.

8. A fire guard comprising two slotted disks adapted to turn on each other for engaging and disengaging the strands of the lamp cord, said disks being provided with notches for the passage of the line wires.

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