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C. SEVERIN

FILAMENT FOR INCANDESCENT LAMPS OR SIMILAR ARTICLES

Filed Dec. 4, 1926

Fig. 1

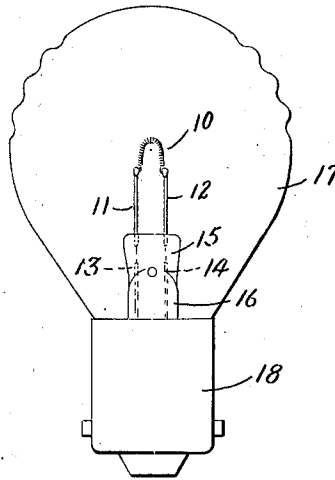


Fig. 2

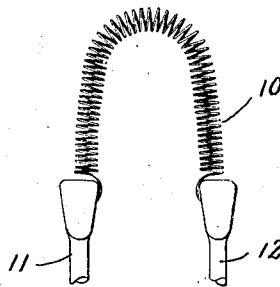
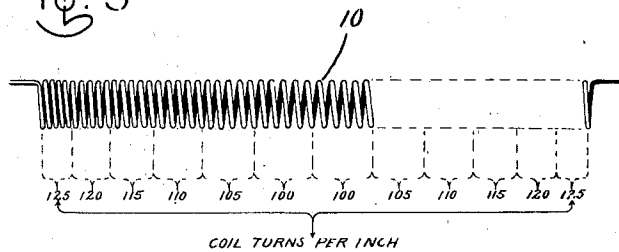


Fig. 3



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FILAMENT FOR INCANDESCENT LAMPS OR SIMILAR ARTICLES.

Application filed December 4, 1926. Serial No. 152,699.

My invention relates to electric incandescent lamps and similar devices comprising a filament or other energy translating body and more particularly to the said filament or translating body per se. Still more particularly my invention relates to coiled filaments which have a U or V shape comprising two straight leg portions connected by a bend portion.

It is desirable in the case of coiled filament to have a uniform spacing of the turns since this causes the various portions of the filament to be heated to a uniform temperature, thus avoiding hot spots. The practice has been to deliver the straight sections of the coiled filaments to the operator for mounting who, in the process of mounting, bends the filament in the desired shape. Heretofore in the straight sections of the filament thus applied, there has been a uniform spacing of turns and the mounting causes an ununiform spacing since the bending of the filament causes the coils at the bend portion to come closer together on the inside than do the coils on the extreme ends or leg portions. I have found that by spacing the coils more closely together at the end portions and comparatively far apart at the intermediate portions of the straight sections of the filament, that coils inside of the bend portion will be spaced apart substantially the same distance as the coils in the leg portions.

In the drawing, Fig. 1 is an elevation of an electric incandescent lamp comprising a filament made in accordance with my invention; Fig. 2 is an enlarged elevation of a mounted filament; and Fig. 3 is a partially broken away elevation of a straight section of a filament ready for mounting.

In the drawing the filament 10 is of coiled metal, ordinarily tungsten, and is mounted upon the rigid conducting supports 11—12 which are united to the leading-in conductors 13—14 sealed into the flattened portion 15 of the glass stem 16, said stem being sealed into a lamp which comprises the usual

bulb 17 and base 18. As shown in Fig. 3, the straight section of filament consists of a coil ordinarily of drawn tungsten. The coil is wound with a variable pitch, that is, the spaces of the coil are narrower at the ends of the section than in the middle as indicated in the drawing. The number of turns per inch runs from one hundred twenty-five at the extreme ends to one hundred at the middle portion. When such a filament is mounted in the U shape, as shown in Fig. 2, there is substantially uniform spacing of the coils around the inside of the filament. This result can be obtained for various sizes of filament. By suitably varying the spacing of the coils, a uniform spacing may be secured in filaments of various sizes and shapes.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. In an electric incandescent lamp or similar device, a coiled filament comprising two leg portions connected by an intermediate or bend portion and having its coils substantially uniformly spaced from each other along the inside the filament.

2. The method of making and mounting bent coiled filaments for incandescent lamps and similar devices which consists in coiling said filament with a variable pitch such that the coils are more widely spaced at what is to be a bent portion, and then bending and mounting said filament on its supports.

3. In the manufacture of incandescent lamps and similar devices comprising a filament and supports therefor, the method which consists in coiling said filament with a variable pitch such that in the intermediate portion of the filament the coils are more widely spaced than in the end portions, and then mounting said filament on said supports so that it assumes a substantially U shape.

In witness whereof, I have hereunto set my hand this 1st day of December, 1926.

CARL SEVERIN.