

E. WEINTRAUB.
ELECTRODE.
APPLICATION FILED JUNE 2, 1911.

1,009,608.

Patented Nov. 21, 1911.

Fig. 1.

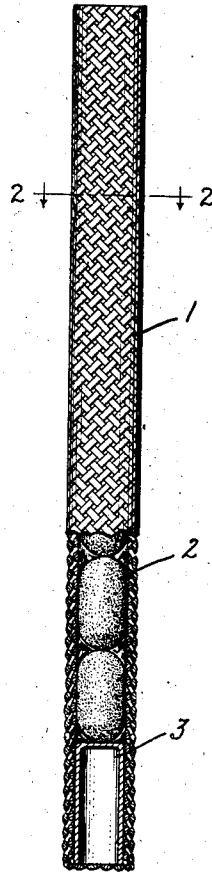


Fig. 2.



Witnesses:

George W. Tilden
J. Ellis Allen

Inventor:

Ezechiel Weintraub,

by *Allen H. Quinn*
His Attorney.

UNITED STATES PATENT OFFICE.

EZECHIEL WEINTRAUB, OF LYNN, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

ELECTRODE.

1,009,608.

Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed June 2, 1911. Serial No. 630,834.

To all whom it may concern:

Be it known that I, EZECHIEL WEINTRAUB, a citizen of the United States, residing at Lynn, county of Essex, State of Massachusetts, have invented certain new and useful Improvements in Electrodes, of which the following is a specification.

My invention has reference to a novel electrode and particularly a flexible electrode.

In the manufacture of electrodes, it is desirable to obtain in the electrode as long a life as is consistent with efficient operation, as the expense of trimming is one of the principal items that enters into the cost of operation of arc lamps. In the old open arc lamp, the carbons were consumed so rapidly that they would run but one night, and it was therefore necessary to trim the lamp each day and the trimming item in the cost of operation was correspondingly high. In the inclosed carbon lamp, the life of the carbons was lengthened, but this was accomplished at the expense of the efficiency.

I have produced an electrode which while it is efficient has a life of practically any desired length, and I have accomplished this by making my electrode flexible, so that it may be wound upon a drum and fed to the arc therefrom.

While my invention is useful with electrodes in which the light is given by the carbon itself, as is the case of the open carbon arc and the inclosed carbon arc mentioned above, it is particularly useful in electrodes which produce a luminous or flaming arc, that is an arc in which the light is emitted by the arc itself instead of by the incandescent tip.

My invention is shown in the accompanying drawings in which—

Figure 1 is a side view of my electrode partly in section; Fig. 2 is a cross-section on the line 2—2 of Fig. 1.

My electrode is made by taking a flexible

sheath 1 of a suitable size for an electrode, which may be made by braiding strands of fine wire into a sheath or otherwise suitably forming the same. Within the sheath are placed sections 2 of magnetite or any other suitable material for feeding the arc, which are rounded on their ends so that adjacent sections may readily turn on each other. These sections may be made by casting, in case magnetite mixture or other fusible materials are used, or by compressing powdered material of the desired composition into pellets, and in fact they may be made in any desired manner. The end of the sheath may be conveniently closed by a thimble 3 which is of such a diameter that it is frictionally held within the end of the sheath and retains the sections of arc feeding material in position.

An electrode made in accordance with my invention may be wound upon a drum and fed to the arc by any suitable mechanism. An arc lamp mechanism suitable for this purpose is disclosed in an application, Serial No. 564,488, filed June 1st, 1910, by William G. Abbott, Jr. It is to be understood, however, that any suitable mechanism may be used for feeding my electrode into the arc.

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

1. An electrode having a flexible sheath filled with sections of arc feeding materials.

2. An arc light electrode having a flexible metallic braided sheath filled with sections of arc feeding materials.

3. An arc light electrode having a flexible metallic sheath filled with oblong pieces of magnetite, disposed end to end.

In witness whereof, I have hereunto set my hand this thirty-first day of May, 1911.

EZECHIEL WEINTRAUB.

Witnesses:

JOHN A. McMANUS, Jr.,

CHARLES A. BARNARD.