(No Model.)

W. W. MILLARD.

ELECTRIC ARC LAMP.

No. 503,799. Patented Aug. 22, 1893.

Fig. 1.

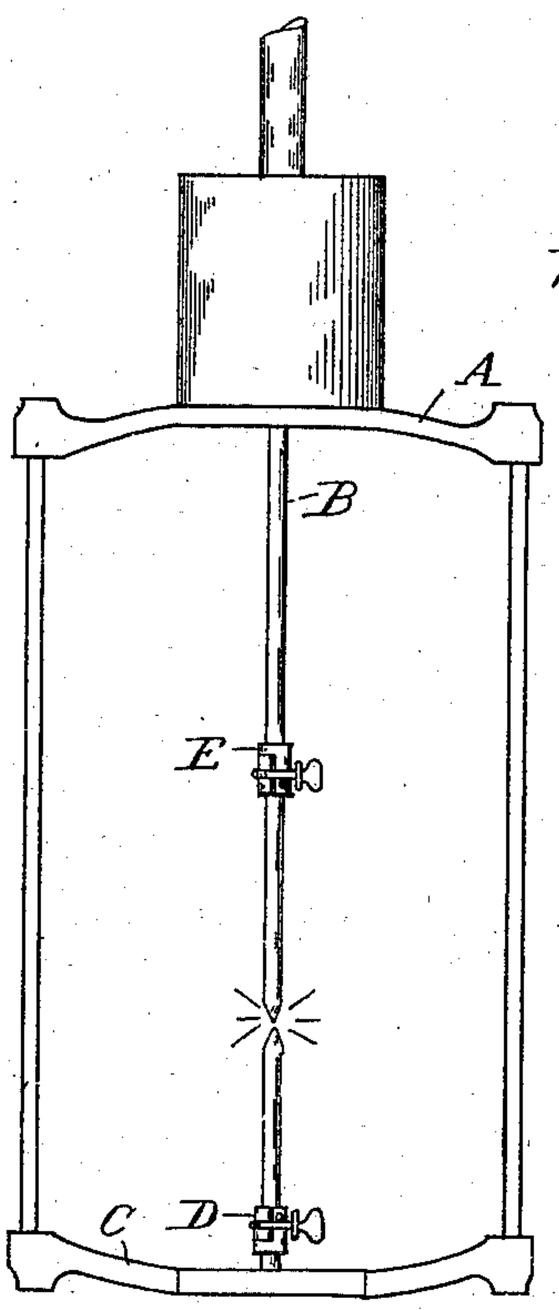


Fig. 2.

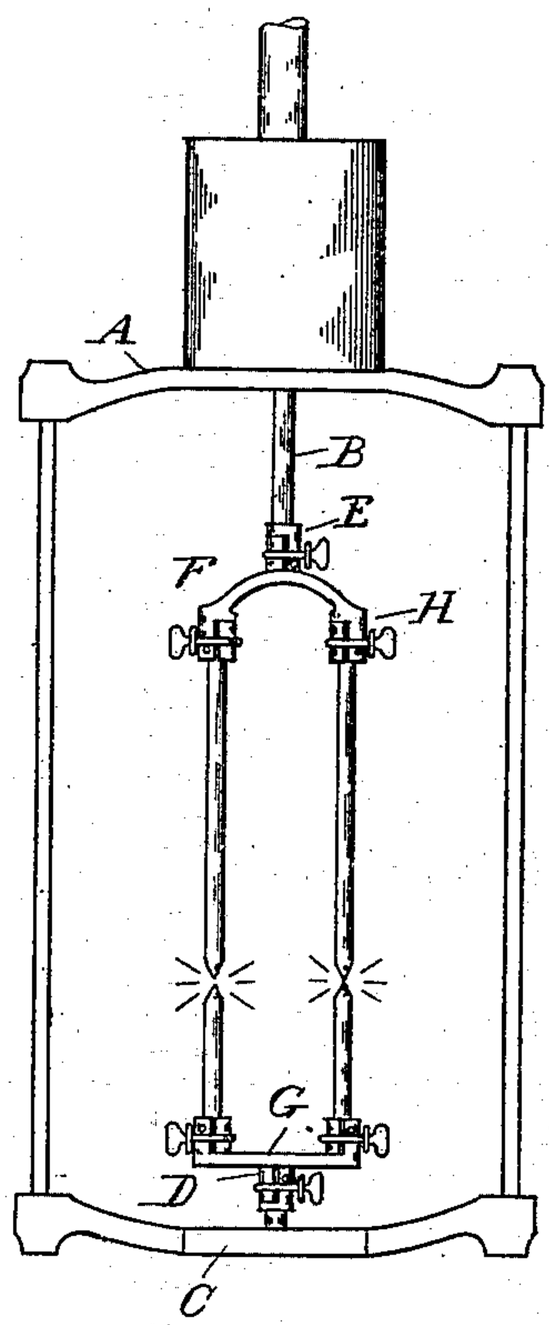
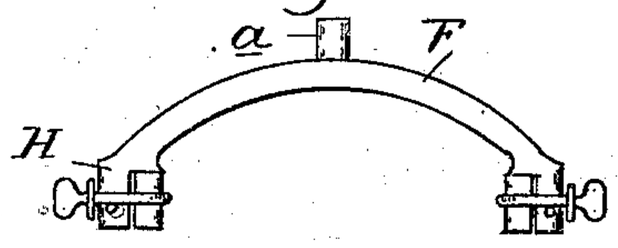
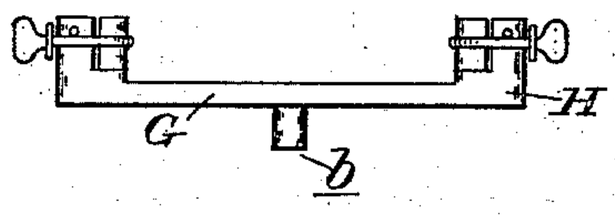


Fig 3





Witnesses
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UNITED STATES PATENT OFFICE.

WALTER W. MILLARD, OF FENTON, MICHIGAN.

ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 503,799, dated August 22, 1893.

Application filed April 3, 1893. Serial No. 468,887. (No model.)

To all whom it may concern:

Be it known that I, WALTER W. MILLARD, a citizen of the United States, residing at Fenton, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Electric-Arc Lamps, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the peculiar construction of the carbon holder whereby a double carbon is employed.

The invention further consists in the peculiar construction of the parts whereby the ordinary carbon lamp is adapted to be changed to a double carbon lamp.

The invention further consists in the peculiar construction, arrangement and combination of the various parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a side elevation of the usual single carbon arc lamp. Fig. 2 is a similar view showing my improvements applied thereto. Fig. 3 are two carbon holders shown detached and in elevation.

A is the lamp frame. B is the carbon rod having any suitable feeding device. C is the lower cross-bar of the frame having the usual socket D for the carbon. The lower end of the rod B is provided with the usual socket E. The parts thus constructed are adapted to be used in connection with a single carbon. In order to adapt this lamp to use a double carbon or two carbons I employ two cross-heads F and G respectively. These cross heads are provided centrally with shanks *a b* adapted to engage in sockets E and D respectively to secure them to the carbon rod and frame. These cross-heads are provided at their ends with sockets and clamping device H. Now being provided with an ordinary single carbon lamp in order to adapt it to two carbons, the operator has simply to secure the two crossheads F and G in position as shown in Fig. 2 secured in the sockets H at each end of these cross-heads. The currents being supplied, the arc will be formed between the pair of carbons which contact and these will continue to supply light until the resistance becomes too great, when as the feeding device lowers the carbon rod B, the other pair of carbons will be made to approach each other more nearly and the arc will be formed between the other pair, as it is well known that the electric current will pass through the circuit of least resistance. In this manner I am enabled to use the ordinary single carbon lamp for an all-night lamp, practically doubling its time of burning.

What I claim as my invention is—

1. In an electric arc lamp, the combination of the movable carbon rod, a cross head thereon, a detachable connection for the rod and cross head and two carbon sockets on said cross head, substantially as described.

2. In an electric arc lamp, the combination of the movable carbon rod having a socket at the end, a cross head having a central shank on said cross head adapted to be secured in the socket in the rod, and two sockets in the cross head adapted to receive carbons, substantially as described.

3. In an electric arc lamp, having a carbon rod with a terminal socket, and the frame having a carbon socket, of cross heads, adapted to be secured in said sockets, and sockets in the ends of the cross heads adapted to receive carbons, substantially as described.

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

WALTER W. MILLARD.

Witnesses:

CLARENCE TINKER,

D. S. FRACKELTON.