(No Model.)

H. D. BURNETT & S. E. DOANE.

MANUFACTURE OF INCANDESCENT ELECTRIC LAMPS.

No. 522,964. Patented July 17, 1894.

FIG. 2.

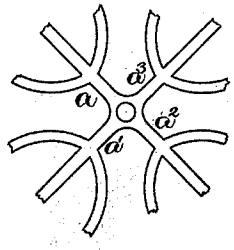
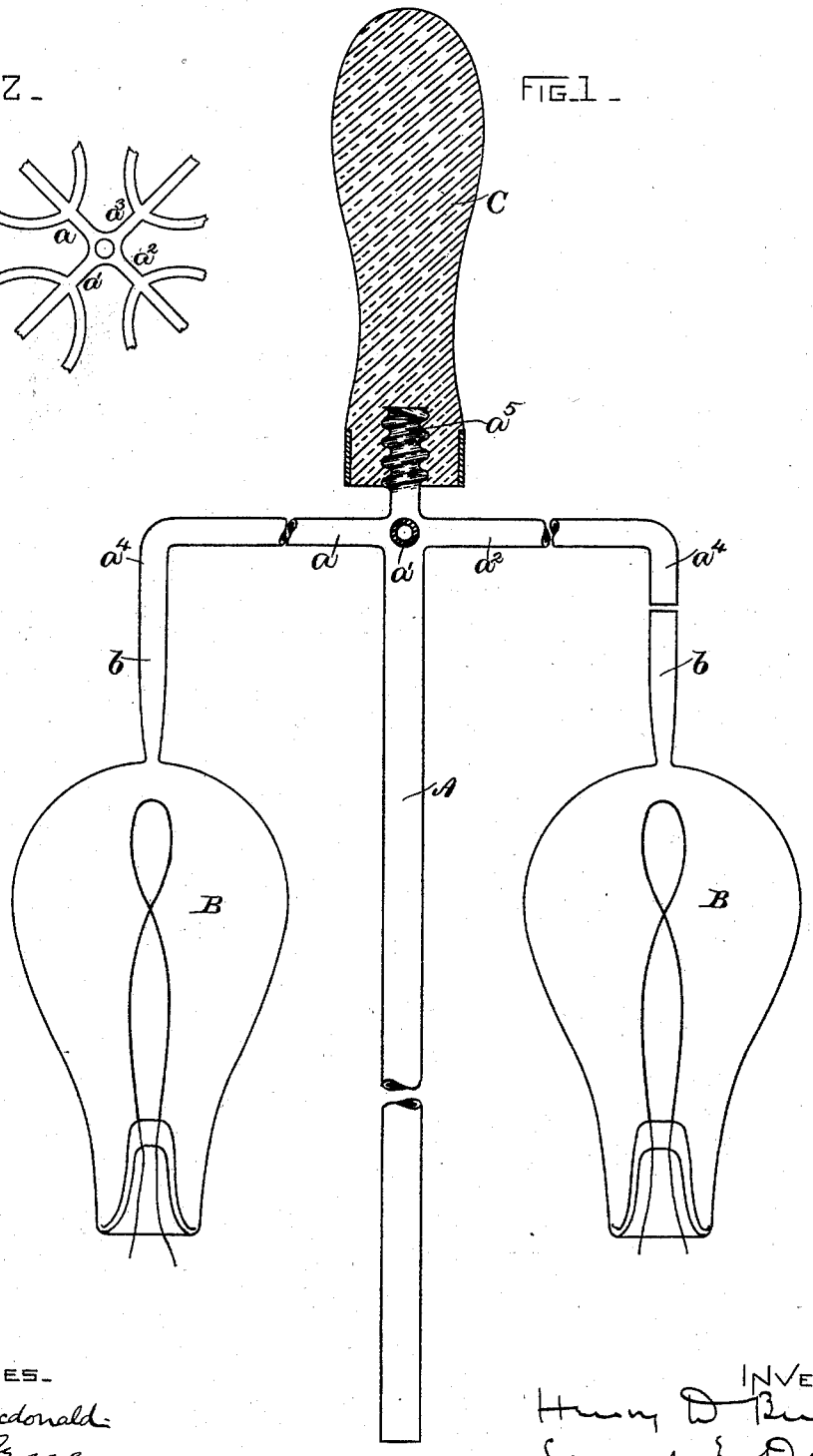


FIG. 1.



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UNITED STATES PATENT OFFICE.

HENRY D. BURNETT, OF LYNN, AND SAMUEL EVERETT DOANE, OF SWAMPSCOTT, MASSACHUSETTS, ASSIGNORS TO THE GENERAL ELECTRIC COMPANY, OF NEW YORK.

MANUFACTURE OF INCANDESCENT ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 522,964, dated July 17, 1894.

Application filed December 3, 1892. Serial No. 454,010. (No model.)

To all whom it may concern:

Be it known that we, HENRY D. BURNETT, residing at Lynn, and SAMUEL EVERETT DOANE, residing at Swampscott, in the county of Essex, State of Massachusetts, have invented a certain new and useful Fork for the Manufacture of Incandescent Electric Lamps, of which the following is a specification.

Our invention relates to the manufacture of incandescent electric lamps, and its object is to facilitate and cheapen the work.

In the process of making incandescent lamps, it is necessary to weld the lamp bulb to a long glass tube by which it is afterward connected with the Geissler or other air pump to be exhausted. The long tube has at one end several branches, usually twelve, all connected, and forming what is known as the "fork." To each branch a lamp bulb must be welded. For this purpose a tube is attached to the bulb after it is blown. Heretofore this tube has been of considerable length, and it has been welded to the fork near the junction of the branches, being afterward bent at a right angle so that the lamp bulb may hang parallel with the central tube of the fork. It is an awkward and slow operation to handle, weld and bend these long tubes, and the present invention has been made to render the operation more easy and expeditious.

We provide the fork with arms bent at right angles near their ends. The tube on the lamp bulb is made short. The fork is provided with means for attaching a removable handle of wood or other nonconductor of heat, to enable the fork to be readily manipulated.

In the drawings, Figure 1 shows a sectional elevation of a fork and the removable handle. Fig. 2 is a plan, on a small scale, of the central portion of the fork.

The tube A is the one by which connection is made with the air pump. It has preferably four arms a a' a^2 a^3, each of which may be further subdivided into branches, as shown, the fork being usually made to carry twelve lamp bulbs B. The extreme end of each branch is bent at a right angle, as at a^4. Each bulb is blown with a short tube b projecting from the top. The abutting ends of the branch and this tube are welded together, thus connecting the bulb with the tube A as shown at the left of Fig. 1.

In order to render it easier to manipulate the fork both in attaching the lamps and in exhausting and sealing them afterward, the fork is provided with means for attaching a removable handle C, of wood or other non conductor of heat. The handle may be secured to the fork in any suitable manner, but we prefer to form a short tang a^5 on the fork, coarsely screw-threaded, and to provide the handle with a screw-threaded socket adapted to engage with said tang, whereby the handle is rigidly attached to the fork and gives a firm support and means for manipulating it, but is nevertheless easily removed when one fork has been filled with lamp bulbs, and an empty one is to be taken up.

What we claim as new, and desire to secure by Letters Patent, is—

1. A fork for the manufacture of incandescent electric lamps, provided with a removable handle of non-conducting material, substantially as set forth.

2. A fork for the manufacture of incandescent electric lamps, provided with a screw-threaded tang, and a handle of non-conducting material having a screw-threaded socket to engage with said tang, substantially as described.

In testimony whereof we have hereto set our hands this 23d day of November, 1892.

HENRY D. BURNETT.
SAMUEL EVERETT DOANE.

Witnesses:
JOHN W. GIBBONEY,
BENJAMIN B. HULL.