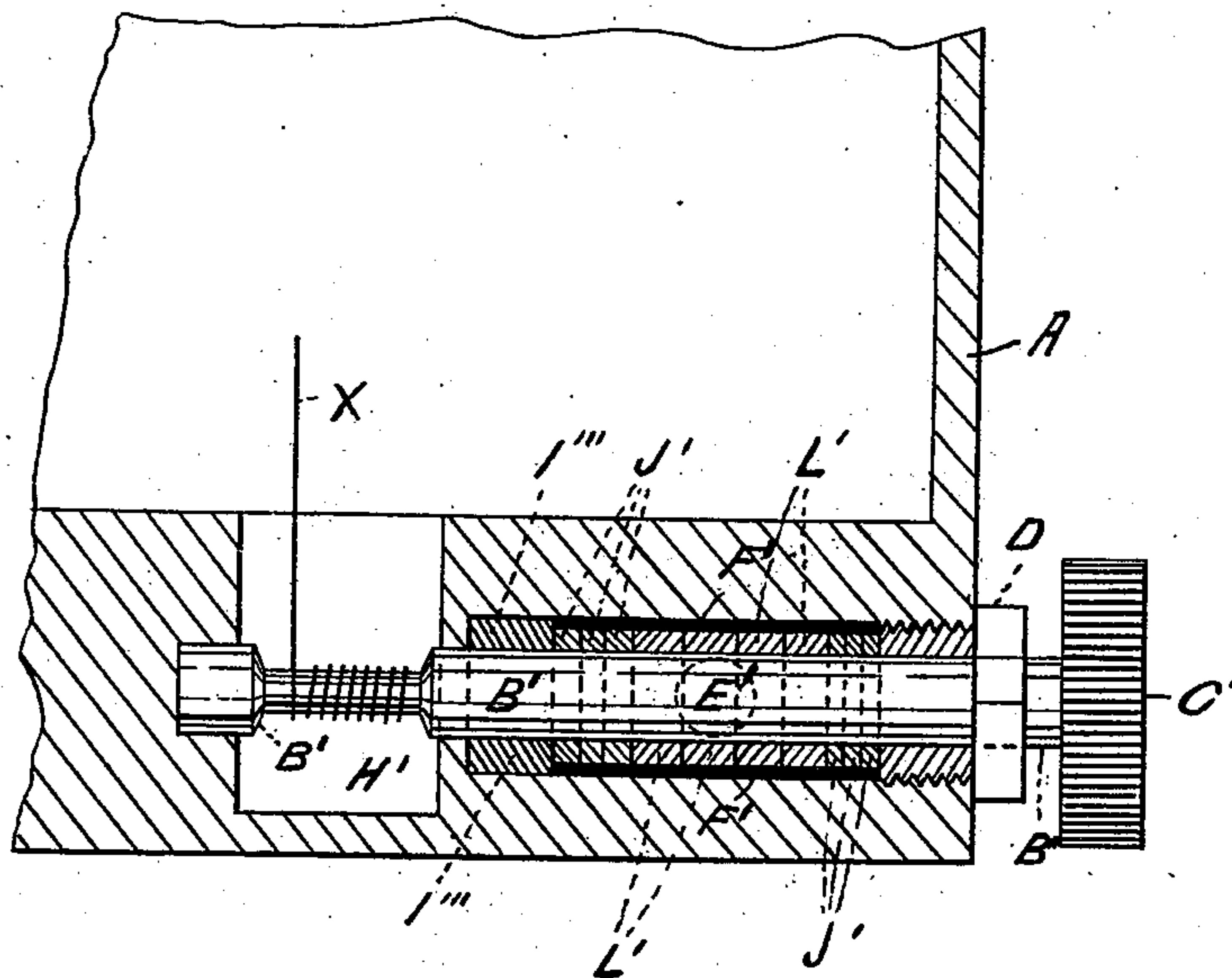


W. SAWYER.
Electric Lamp.

No. 227,390.

Patented May 11, 1880.



WITNESSES.

E. R. Howles.

F. L. Rowland.

INVENTOR.

Wm. Sawyer.

UNITED STATES PATENT OFFICE.

WILLIAM SAWYER, OF NEW YORK, N. Y., ASSIGNOR TO THE EASTERN ELECTRIC MANUFACTURING COMPANY, OF MIDDLETOWN, CONN.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 227,390, dated May 11, 1880.

Application filed January 17, 1880.

To all whom it may concern:

Be it known that I, WILLIAM SAWYER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Electric Lamps, of which the following is a full, clear, and exact description.

My invention relates to that method of electric lighting in which a pencil of carbon hermetically sealed in a glass globe charged with nitrogen gas is rendered incandescent by the passage of the electric current, and is more particularly an improvement upon the electric-lamp invention of Mr. W. E. Sawyer, Letters Patent of the United States No. 219,771, dated September 16, 1879. I have so remodeled the lamp of Mr. W. E. Sawyer's invention that the costly and complicated electro-magnetic feeding device shown and described in the Letters Patent referred to is dispensed with, and a simple, cheap, and effective lighting device produced.

Referring to the drawing accompanying and constituting a part of this specification, the figure is a sectional view of the feeding mechanism of my lamp.

C' is the thumb-nut of the feeding-shaft B'. This shaft passes from one side of the base A, as shown, into and across a sunken space, H', in the base, the fine steel or copper wire X, by which the carbon is fed upward, winding up upon the shaft.

The outward annular space about the shaft B', I pack as follows: First, cork I''', fitting closely to the shaft B' and the end of the annular space; second, with soft-rubber washers J'; third, with iron washers L'; and, lastly, with soft-rubber washers J'. I next set down upon the same with great force by means of

screw-plug D, in which the shaft B' closely fits.

The joint thus made is practically hermetical, but as a further safeguard I pour quicksilver F' into the space about the washers L', thus forming a hydraulic joint. To do this I provide the base with a hole, E', which may be closed up with cement, or, as I prefer, with an iron screw.

Having thus fully described my invention, what I claim as such, and desire to secure by Letters Patent, is—

1. In an electric lamp operating by incandescence, the combination of a compressed cork, rubber, or other elastic packing with the shaft B' and quicksilver surrounding the packing, as and for the purpose set forth.

2. The combination of the shaft B', cup A, ring-packing, quicksilver F', surrounding the packing, and screw-nut D, as and for the purpose set forth.

3. The packing of the shaft B', consisting of the cork I''', rubber or elastic packing J', and metal L', combined substantially as described.

4. The packing of the shaft B', consisting of the cork I''', rubber or other elastic packing J', and metal L', in combination with the quicksilver F', substantially as described.

5. The packing of the shaft B', consisting of the cork I''', rubber or other elastic packing J', and metal L', in combination with the quicksilver F' and screw-nut D, substantially as described.

6. The cup A, having the recess H', in combination with the shaft B' and wire X, as and for the purpose set forth.

WM. SAWYER.

Witnesses:

WM. G. CONKLIN,
ADOLPH FRANKE.