To all whom it may concern:

Be it known that I, HENRY HARRISON DOTY, of London, in the Kingdom of England, have invented new and useful Improvements in Means or Apparatus for Producing the more Complete Combustion of Paraffine and other Hydrocarbon Oils; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention relates to a lamp for producing the more complete combustion of paraffine and other hydrocarbon oils; and consists in combining air-conducting cylinders with the wick-holder, and with a receptacle for oil, and brackets for the support of the chimney, rack, and pinions for operating the wick-holder and chimney-bracket.

A series of tubes or cylinders of different diameters, corresponding with the number of burners, are arranged vertically, one within the other, and uniformly brazed or soldered at the lower end to a plate or disk in such manner as to leave alternate air and cotton or wick spaces, the said air-spaces being continued through the plate or disk, and having a second series of movable tubes or cylinders passing through them, on the top of which are placed the flanged rings for projecting the air into the flame, the said cylinders and flanges being raised and lowered by a screw and pinion, or any other well-known means. These said cylinders have ribs either on the outside or inside, (or both,) for dividing the air-spaces into equal parts, and the interior cylinders and flanged rings may be dispensed with when required.

A bracket for carrying the chimney, also raised and lowered by rack and pinion, encircles and may be fastened to the outer cylinder, so that both the bracket and cylinder may be raised and lowered together, if required, the said bracket having perforations for the admission of air to the outside of the flame.

The burners and disk are supported on columns, or otherwise, resting on a receptacle for containing a supply of oil, the communica-
ing hydrocarbon oils, consisting of the wick-holder \( f \), cylinders \( b \), receptacle \( l \), communicating-tubes \( m \), the chimney-bracket \( h \), and pinions and racks \( d \) and \( e \) and \( t \) and \( k \), respectively, operating the wick-holders and chimney-bracket, the whole combined and arranged in the manner and for the purpose specified.

Done at London, England, this 27th day of July, 1868.

HENRY HARRISON DOTY.

Witnesses:

EDWARD THOMAS HUGHES,
123 Chancery Lane, London.

HENRY ROGEN,
123 Chancery Lane, London.