

No. 722,988.

PATENTED MAR. 17, 1903.

W. R. JEAVONS.
LIGHTING DEVICE FOR HYDROCARBON BURNERS.
APPLICATION FILED DEC. 22, 1902.

NO MODEL.

FIG. 1.

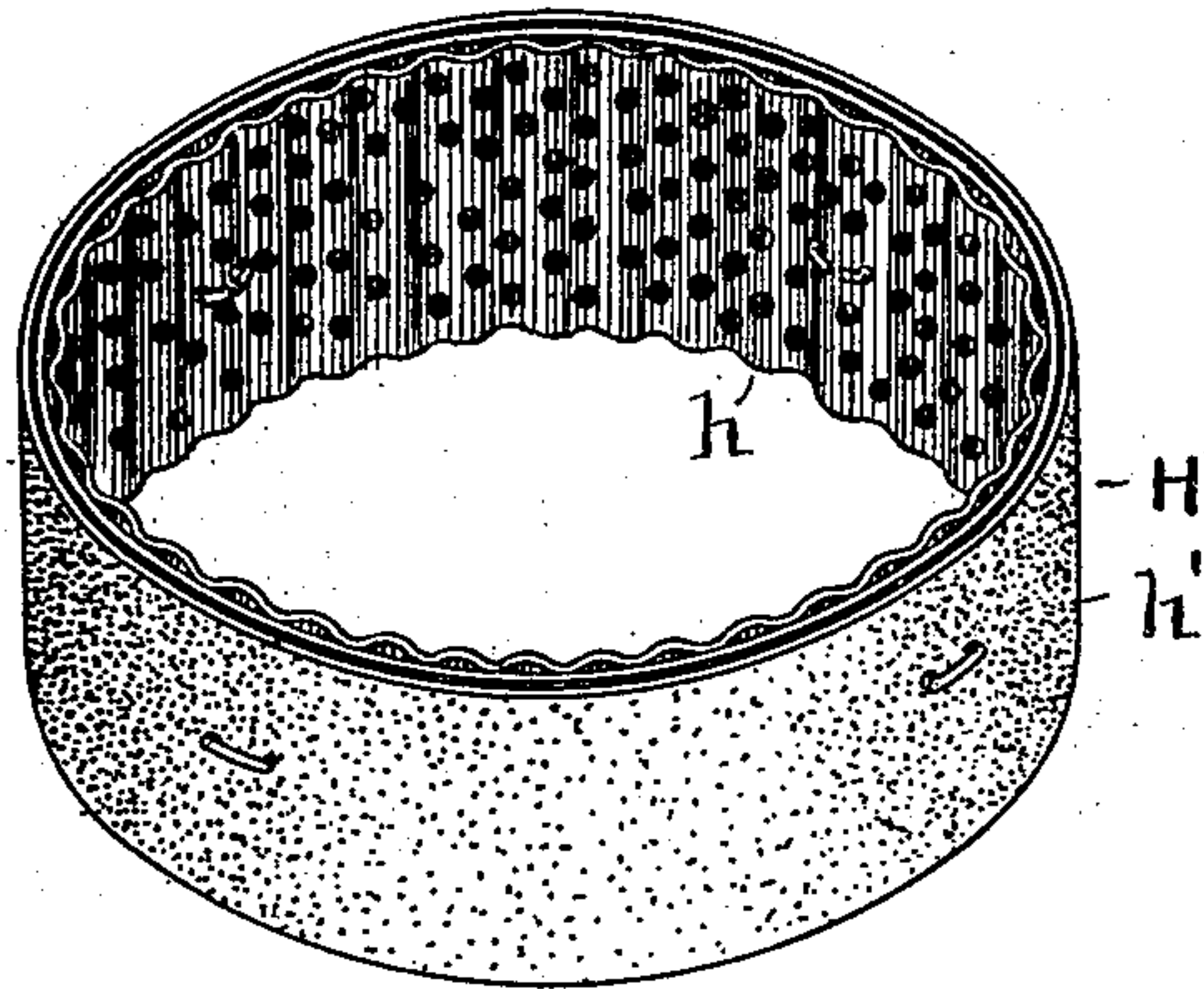
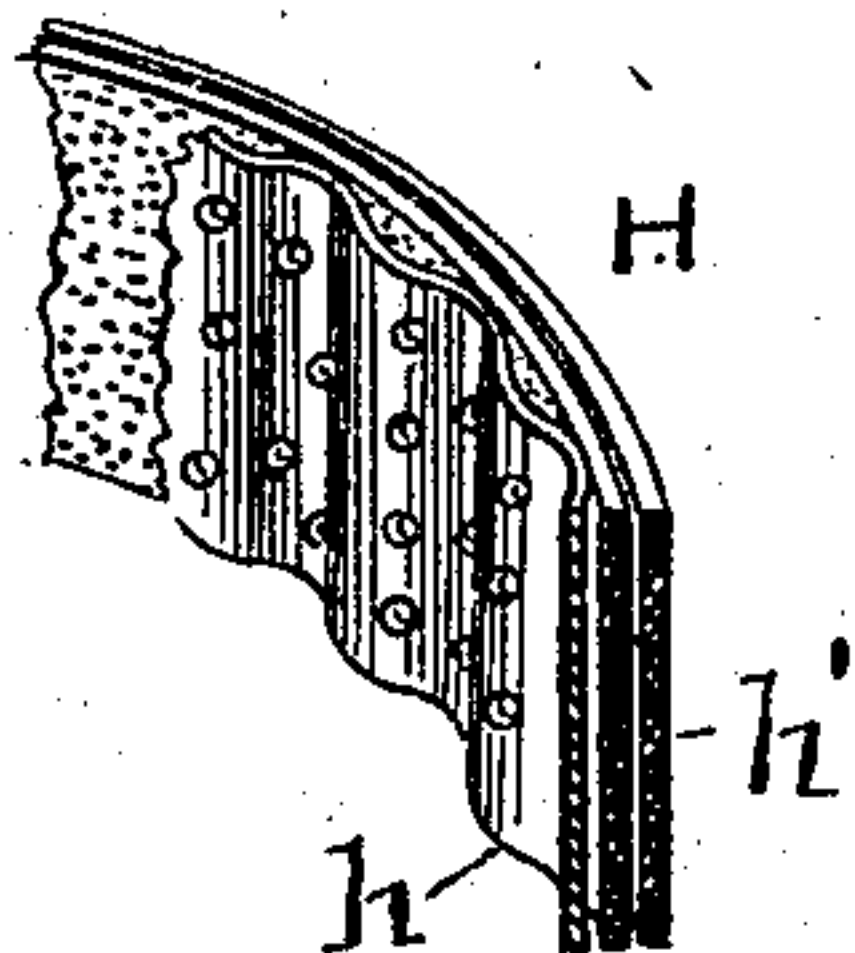


FIG. 2.



ATTEST.

T. B. Moser

A. N. Moser

INVENTOR.

William R. Jeavons

BY *H. J. Fisher* ATT. Y.

UNITED STATES PATENT OFFICE.

WILLIAM R. JEAUVONS, OF CLEVELAND, OHIO.

LIGHTING DEVICE FOR HYDROCARBON-BURNERS.

SPECIFICATION forming part of Letters Patent No. 722,988, dated March 17, 1903.

Original application filed March 8, 1898, Serial No. 673,045. Divided and this application filed December 22, 1902. Serial No. 136,145. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. JEAUVONS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lighting Devices for Hydrocarbon-Burners; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to a lighting device for hydrocarbon-burners; and the invention consists in a device in the form of a capillary non-combustible conductor for the oil and which is constructed and adapted to operate substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my new lighting device as it appears in ring shape or form, and Fig. 2 is a perspective view of a section or portion thereof.

As thus shown, H represents the entire device, consisting in this instance and preferably of a more or less perforated and corrugated or otherwise unevenly formed metallic body or strip *h*, and a comparatively thin strip or sheet of asbestos paper *h'*, which is shown here as wrapped about the part *h* and preferably doubled thereon, which provides a capillary space between the faces of the layers of asbestos strips or sheets as well as next to said body part *h*. There may be one or more of such wrappings about the outside of said body or one or more on each side thereof or all within or over the inside of said body or strip, as is obvious, and which would not materially affect or change the operation of the invention.

By corrugating or fluting the body *h* transversely or giving it an equivalent construction a greater vertical or upward capillary capability is induced than it would have if the surface were perfectly plain.

Asbestos paper, especially after having been heated a few times, has very little absorbing capacity, and when oil is fed to one portion of the ring, as sometimes may happen, the capillary spaces induce the distribution of said oil not only laterally around the ring, but also

to the top of the device, where it may be lighted in a very short space of time after the oil has been first introduced to the ring.

The asbestos paper is anchored to the metal ring with a few small staples, which pass through holes in the said ring, or by other suitable means. Asbestos without the metal affords capillary spaces and travel for the oil; but the metal body *h*, while giving desirable stability to the thin asbestos paper, also contributes an increased measure of capillary space for lateral or vertical transmission of oil without presenting any absorbing or detaining qualities or conditions.

The metal strip *h* is so formed that when in place beside the asbestos strip its side area or a portion thereof is determinately spaced from the side area of the asbestos strip, thus insuring capillary spaces of such definite width as are best suited to the needs of the device.

The perforations in the metal strip admit of the escape of vapor formed in the capillary spaces when the device is in heated condition. If the metal strip be not provided with perforations through which vapor may escape, such vapor will often forcibly jet out of the top of the capillary spaces and tend to produce an uneven flame.

What I claim is--

1. In a lighting device for hydrocarbon-burners, a corrugated support and a strip of asbestos laid around one side of said support, substantially as described.

2. In a lighting device for hydrocarbon-burners, a strip of asbestos, a metallic strip at the side of said asbestos strip having projecting portions for preventing extended contact of its side with the side areas of the said asbestos strip, thereby forming capillary spaces between said areas, substantially as described.

3. In a lighting device for hydrocarbon-burners, a strip of asbestos and a metallic strip adapted to serve as a support therefor, said metallic strip constructed and arranged to prevent extended contact of its side area with the side area of the said asbestos strip, thereby affording capillary spaces between itself and said asbestos strip, substantially as described.

4. In a lighting device for hydrocarbon-burners, a strip of asbestos, and a perforated metallic strip adapted to serve as a support therefor, said metallic strip constructed and arranged to prevent extended contact of its area with the side area of the said asbestos strip, thereby affording capillary spaces between itself and said asbestos strip, substantially as described.

10 5. In a lighting device for hydrocarbon-burners, a strip of asbestos and a supporting-strip therefor arranged along its side, one of said strips having projecting portions for preventing an extended contact of the side areas
15 of said strips thereby affording capillary spaces between them, substantially as described.

6. In a lighting device for hydrocarbon-burners, a strip of perforated metal and a strip of asbestos side by side, one of said strips 20 having projecting portions for preventing an extended contact of the adjacent sides, thus forming capillary space between the strips, substantially as described.

7. In a lighting device for hydrocarbon- 25 burners, a corrugated strip of perforated metal and a strip of asbestos arranged side by side, substantially as described.

Witness my hand to the foregoing specification this 18th day of December, 1902.

WILLIAM R. JEAVONS.

Witnesses:

R. B. MOSER,
H. T. FISHER.