No. 852,651. PATENTED MAY 7, 1907.

C. S. CANNON.

OIL BURNER WICK.

APPLICATION FILED JUNE 12, 1906.

Fig. 1.

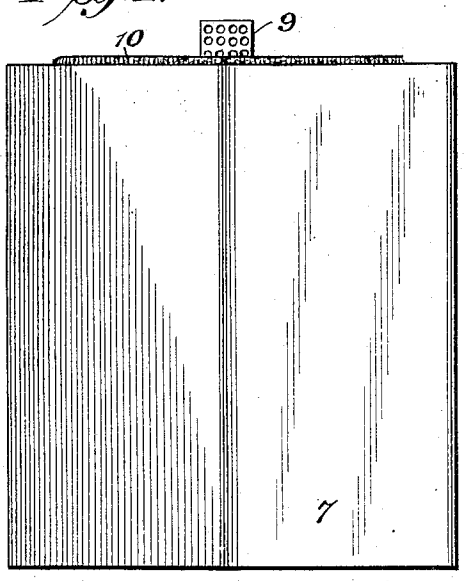


Fig. 3.

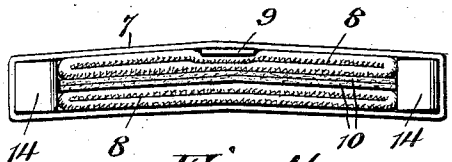


Fig. 4.

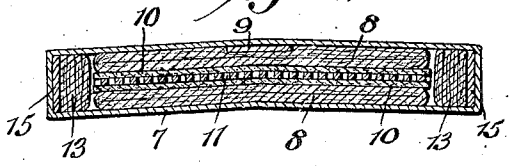


Fig. 2.

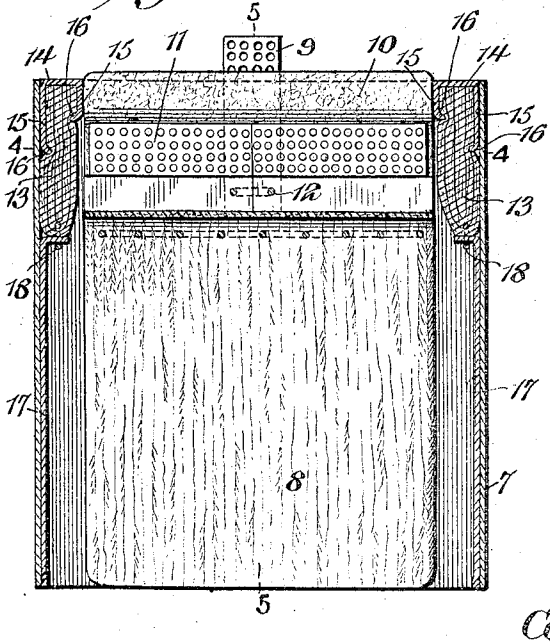


Fig. 5.

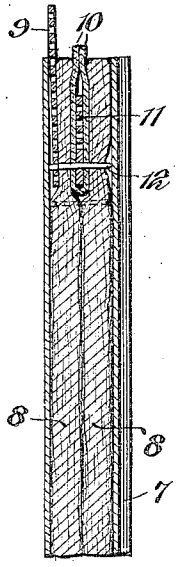
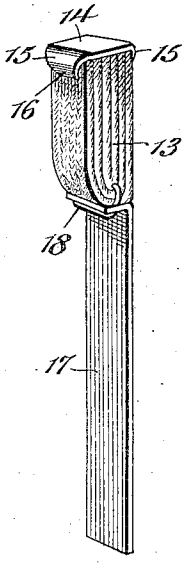


Fig. 6.



Witnesses

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OIL-BURNER WICK.

No. 852,651. Specification of Letters Patent. Patented May 7, 1907.

Application filed June 12, 1906. Serial No. 321,403.

To all whom it may concern:

Be it known that I, CORODON S. CANNON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Oil-Burner Wick, of which the following is a specification.

This invention relates to wick structures, and is more particularly intended for use in burners of the character disclosed in co-pending application, Serial No. 321,401, though perhaps features of the present invention are useful in other relations. As set forth in said application, the burner is of a type wherein the hydrocarbon is vaporized prior to its being burned, and a wick is employed for conveying the oil from the reservoir or font to the place of vaporization.

One of the principal objects in the present invention is to provide a wick for a structure of the above character, that is not liable to be consumed during operation, is readily adjustable to secure the highest degree of efficiency, and may be employed in igniting and effecting a preliminary heating of the burner.

Another object is to provide a novel structure that will properly coöperate with the other parts of the burner in order to avoid wear and derangement of the wick.

In the accompanying drawings:—Figure 1 is a side elevation of a wick tube having the improved wick structure therein. Fig. 2 is a vertical sectional view through the same. Fig. 3 is a top plan view. Fig. 4 is a cross sectional view on the line 4—4 of Fig. 2. Fig. 5 is a vertical sectional view on the line 5—5— of Fig. 2. Fig. 6 is a detail perspective view of one of the plug wicks.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a wick tube 7 is in the form of an open ended tube, and is oblong in cross section, the opposite side walls being transversely bent throughout their length so that the opposite portions of said wick tube are located at an obtuse angle, to each other, as clearly shown in Figs. 3 and 4.

A main wick is employed, which preferably is composed of flat sections 8, formed of fabric, or other suitable absorbent material, and arranged against each other. Secured to one side of the body and projecting above the same is a perforate plate 9 that also extends above the upper edge of the wick tube 7, and constitutes means, whereby the wick may be raised and lowered. The upper portion of the body furthermore contains an incombustible section, preferably formed of a sheet of asbestos that is doubled to provide separate leaves 10. This incombustible section is located between the upper portions of the body sections 8, and projects above the same, as shown. A perforate shaping plate 11 is arranged between the leaves of the incombustible section, and is thus embedded in the same, and in the upper portion of the body. The various parts may be secured together by any suitable means, as for instance, a fastener 12.

The main wick is of less width than the wick tube, and the upper portions of the spaces thus left are filled with plug wicks 13 that are interposed between the edges of the wick, and the edge walls of the wick tube. These plug wicks have metallic caps 14 comprising strips that extend over the tops of the plugs, and have depending terminal portions 15, the lower ends of which are bent inwardly, as shown at 16, and are embedded in the material of the plug wicks. Said plug wicks furthermore have depending legs 17, comprising metallic strips, the upper ends of which are fastened, as shown at 18 to the lower ends of the plug wicks, the lower ends of said legs being located in the bottom of the wick tube.

In actual practice, the upper ends of the body sections 8 do not project above the upper edge of the wick tube and may be disposed below the same. The projecting portion of the incombustible section, however, preferably projects above the wick tube, and constitutes means, which may be ignited in starting the burner. The oil, carried by capillary attraction to the top of the body, will, during its passage, be heated in the tube by the flame, and thus be vaporized. Inasmuch, however, as the upper ends of the body sections 8 are disposed at or below the top of the tube, the flame will not come into contact therewith, and there is seldom danger of burning. Of course in time, the structure becomes scorched and wasted a trifle on top, but trimming is seldom needed. However, when it becomes necessary to rearrange the wick, the same will be raised out of the tube by means of the plate 9, and if necessary, additional sections may be added to the lower end. The metallic plate, embedded in the upper portion of the wick serves to maintain its shape, and prevents

buckling of the wick so that it will at all times be properly shaped to the wick tube. The plug wicks serve to close the upper ends of the spaces between the wick and the edge walls.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a wick structure, the combination with an absorbent body, of an absorbent incombustible section having its lower portion embedded therein and its upper portion projecting above the body, a metallic shaping strip embedded in the section and terminating short of the top of the body, and securing means passing through the body, the lower portion of the section and the strip.

2. In a wick structure, the combination with an absorbent body comprising sections, of an absorbent incombustible section having its lower portion located between the body sections and its upper portion projecting above the body, and a perforate metallic shaping strip embedded in the incombustible section and terminating short of the top of the body.

3. In a wick structure, the combination with an absorbent body comprising sections, of an absorbent incombustible section comprising a doubled sheet having its end edges projecting above the body and its doubled end located between and in contact with the body sections.

4. In a wick structure, the combination with an absorbent body comprising sections, of an absorbent incombustible section comprising a doubled sheet having its end edges projecting above the body and its doubled end located between and in contact with the body sections, and a perforate metallic shaping strip located in the incombustible section and terminating short of its upper end.

5. In a wick structure, the combination with a wick tube, oblong in cross section and having a single opening therethrough, of a main wick located in the opening and extending across the same but terminating short of one of the walls of said tube, a separate plug wick arranged in the opening and filling the space between the said wall and the main wick, said plug wick terminating short of the lower end of the wick tube, and means connected to the plug wick and depending within the tube for supporting said plug wick in the upper portion of said tube.

6. In a wick structure, the combination with a wick tube, of a main wick located therein, and a separate plug wick arranged in the tube at one edge of the main wick, said plug wick having a metallic cap.

7. In a wick structure, the combination with a wick tube, of a main wick located therein, a plug wick located along side the main wick, and a depending metallic leg secured to the plug wick and extending downwardly into the tube alongside the main wick.

8. In a wick structure, the combination with a wick tube, of a main wick located therein and terminating short of the opposite edge walls of the tube, plug wicks arranged between the upper portion of the main wick and the edge walls, said plug wick terminating short of the lower end of the main wick, metallic caps covering the plug wicks, and depending metallic legs carried by the plug wicks and depending below the same between the main wick and the edge walls of the tube.

9. In a wick structure, the combination with a wick tube, transversely bent throughout its length, of a main wick located in the tube and terminating short of certain of the edge walls thereof, said main wick comprising absorbent body sections, an incombustible section located between the upper portions of the absorbent sections and projecting above the same, a shaping plate embedded in the incombustible section, plug wicks located at the opposite sides of the main wick and arranged in the wick tube, metallic caps for the plug wicks, and depending legs carried by the plug wicks and extending downwardly alongside the main wick.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CORODON S. CANNON.

Witnesses:
LOUIS GROTHMAN,
JOHN J. HANNAN.