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WICK FOR FUEL BURNERS

Filed Dec. 24, 1932

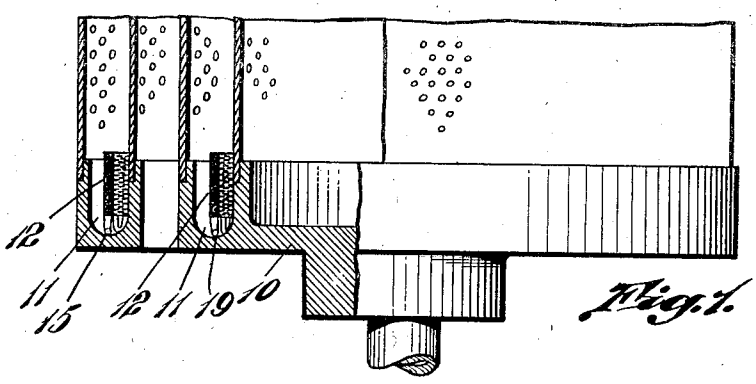


Fig. 1.

Fig. 2.

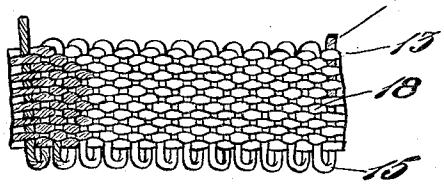


Fig. 5.

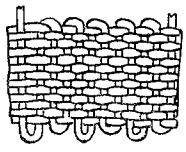
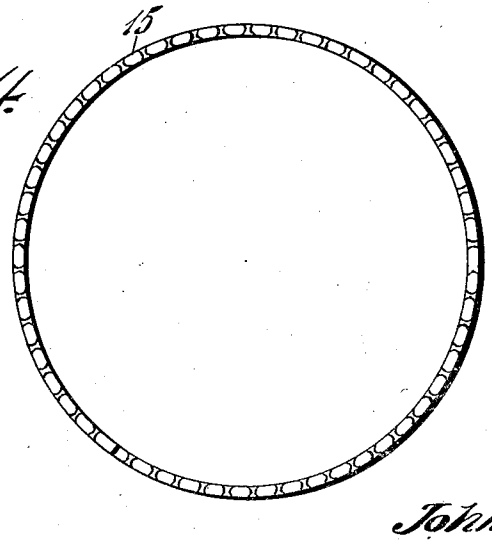


Fig. 3.



Fig. 4.



INVENTOR.
John R. Dennis
BY
Barlow & Barlow
ATTORNEYS.

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WICK FOR FUEL BURNERS

John R. Dennis, Providence, R. I., assignor to International Braid Company, a corporation of Massachusetts

Application December 24, 1932, Serial No. 648,739

9 Claims. (Cl. 67—69)

This invention relates to a wick for a liquid fuel burner and has for one of its objects the provision of a construction of wick which will permit circulation of the fuel under and about the same and prevent uneven distribution of the fuel in the wick groove.

Another object of the invention is the provision of a woven wick with its interwoven strands so arranged that they will provide projecting portions to support the wick above the bottom of the groove when resting on its edge along the wick groove in the burner base.

Another object of the invention is the provision of a woven wick with some of the picks of weft strands projecting beyond the edge of the warp strands and forming loops which will support the body of the wick when rested upon these loops and permit free circulation of the fuel about the wick.

A still further object of the invention is a provision of a wick formed of strands of asbestos having a stiffening core such as wire or the like, which wick will have portions at intervals extended beyond the edge of the wick to support the same and permit free circulation of fuel about the body of the wick in the burner.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is a side elevation partly in section of a portion of a burner showing two of my improved wicks positioned therein.

Fig. 2 is a view in elevation of the fabric wick showing the projecting edge portions.

Fig. 3 is an enlarged view of one of the strands which go to form the wick illustrating its stiffening core.

Fig. 4 is a bottom plan view of the wick in its usual circular form.

Fig. 5 is an elevation of a fragmental portion of a modified form of wick.

It is found in the use of wicks for oil burners that a wick which rests in the channel or cup frequently obstructs the free flow of the fuel about the groove in which the wick rests which causes uneven burning and a formation of carbon at certain points in the burner, and in order that the flow will not be obstructed by the wick I provide a means for supporting the body of the wick above the bottom of the wick channel which means is a part integral with the body of the wick, and the following is a detailed description of the present embodiment of this invention illustrating the preferred means by which these advantageous results may be accomplished.

With reference to the drawing 10 designates a burner base having a wick groove 11 therein in which there is positioned a wick 12 in each of these grooves. This wick preferably consists of warp strands 13 extended lengthwise of the wick with which there is interwoven a filling strand 14 of the same material. Each pick of the filling extends outwardly as at 15 to provide a loop although the arrangement may be such that an alternate or a less number of picks may extend out to provide loop 15 of this construction, it being only necessary to provide a sufficient number of loops to support the body of the wick when in its heaviest state when soaked with oil.

Each of the strands which go to make up the warp and weft consist of a wire core 16 about which there are twisted the fibers 17 of asbestos or some similar noncombustible material which will absorb oil, and by capillary attraction cause it to feed throughout the body 18 of the wick.

Weft strands which are stiffened in this manner cause the loops to be of sufficient strength so that these loops will support the body 18 of the wick and hold it spaced above the bottom 19 of the wick grooves 11 that the liquid or gas in the fuel burner may circulate freely about the wick beneath the same and prevent clogging or uneven distribution of the fuel throughout the burner.

The wick is woven on a narrow fabric loom in extended lengths which are reeled and dispensed by cutting from the reel a desired quantity such as a length sufficient to provide an annular or ring shape formation as illustrated at 20 in Fig. 4.

While I have specified that asbestos is twisted about the wire strands forming a stiff core any similar strands may be provided with or without a stiff core so long as they will support the body of the wick and permit free circulation of the liquid about the wick and below the same.

While I have shown my formation along one edge it may extend along both edges if desired.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A wick for a liquid fuel burner comprising a body formed of intermeshing strands containing asbestos and some stiffening material such as wire with some of the strands extending beyond

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the body in spaced formation to leave openings substantially the size of the strands between them.

2. A wick for a liquid fuel burner comprising a body formed of warp strands and weft strands with certain of the weft strands extending in loops beyond the edge of the warps to form supporting projections and being sufficiently stiff to support themselves beyond the edge of the body.

3. A wick for a liquid fuel burner comprising a body formed of warp strands and weft strands formed of asbestos and wire with certain of the weft strands extending in spaced loops beyond the edge of the warps to form supporting projections.

4. A wick for a liquid fuel burner comprising a body formed of warp strands containing asbestos and weft strands formed of asbestos and wire with certain of the weft strands extending in spaced loops beyond the edge of the warps to form supporting projections on one edge.

5. A wick for a liquid fuel burner comprising a body formed throughout of closely interwoven longitudinal and lateral strands of absorbent material each having its own core of stiffening wire, some of said lateral strands along one edge extending beyond the longitudinal strands a distance greater than the thickness of one of the strands and spaced apart a distance to leave free passage between them of oil or gas when the wick is supported on these extending strands.

6. A wick for a liquid fuel burner comprising a body formed of relatively closely interwoven strands with some of the strands extending beyond the body in relatively loose or spaced formation along one edge to leave openings of substantially the size of the strands between them and being sufficiently stiff to support themselves beyond the edge of the body.

7. A wick for a liquid fuel burner comprising a body formed of relatively closely interwoven stiff strands with some of these stiff strands extending beyond the body in relatively loose or spaced formation along one edge to leave openings of substantially the size of the strands between them and being sufficiently stiff to support themselves beyond the edge of the body.

8. A wick for a liquid fuel burner comprising a body formed of intermeshing strands containing asbestos with some of these strands extending beyond the body in spaced formation to leave openings of substantially the size of the strands between them and being sufficiently stiff to support themselves beyond the edge of the body.

9. A wick for a liquid fuel burner comprising a body formed of warp strands and weft strands interwoven, and having some but not all of the weft strands extending substantially beyond the edge warp strand to provide a loose edge to support the body and leave openings of substantially the size of the strands between them and being sufficiently stiff to support themselves beyond the edge of the body.

JOHN R. DENNIS.

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