

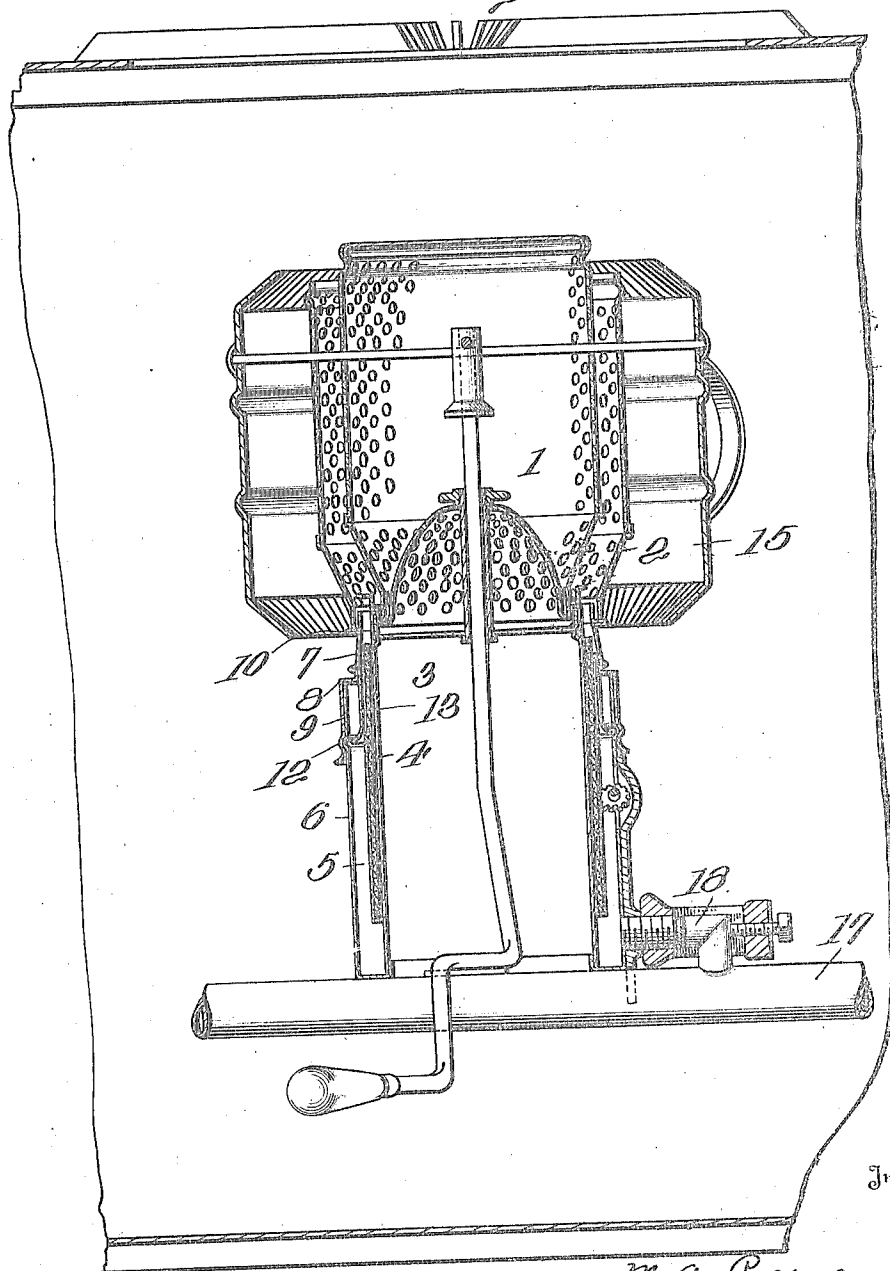
Jan. 9, 1923.

M. A. POSSONS ET AL.
BLUE FLAME OIL STOVE.
FILED MAR. 27, 1922.

1,441,880.

3 SHEETS—SHEET 1.

FIG. 1.



Inventor

M. A. Possons,
By *A. J. Blackford,*
A. R. Patton

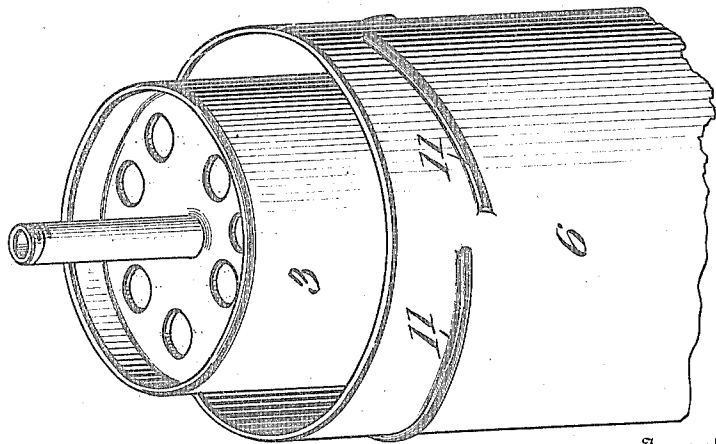
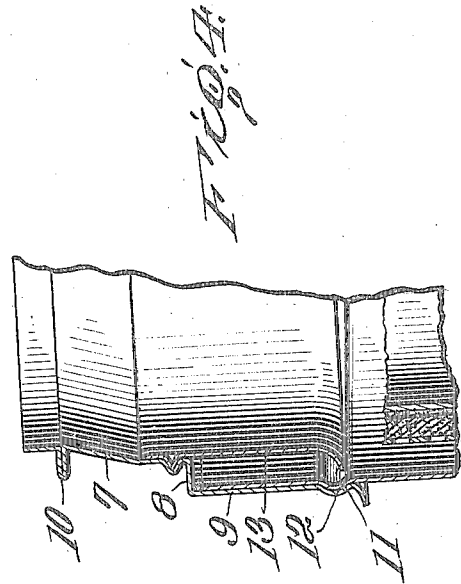
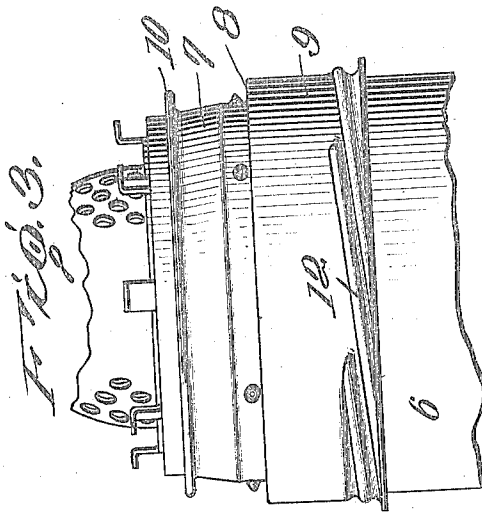
Attorney

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3 SHEETS—SHEET 2.



Inventor

M. A. Possons,
of Blackford.
By A. Patterson

Attorney

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3 SHEETS—SHEET 3.

FIG. 6.

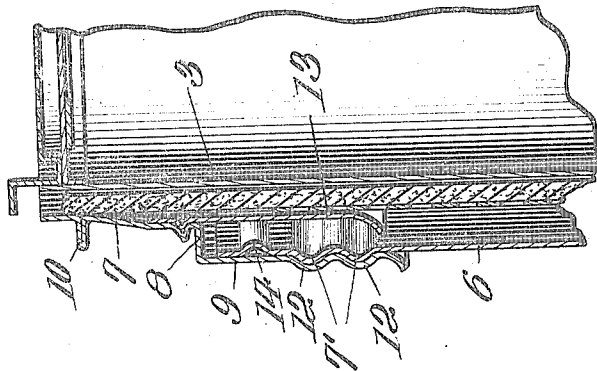
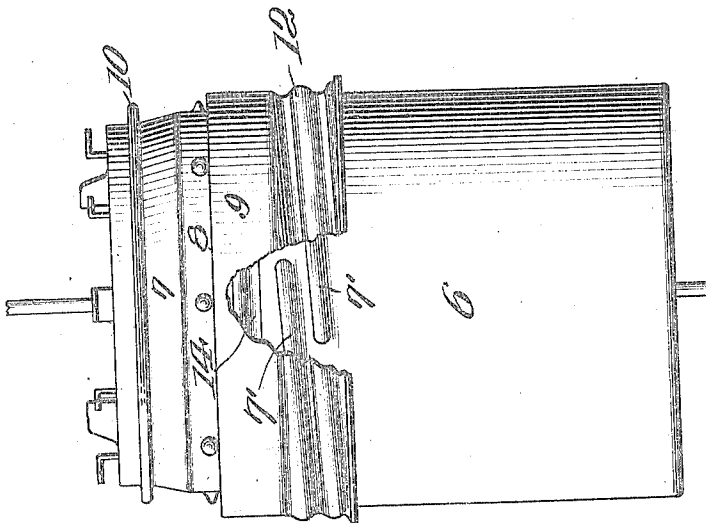


FIG. 5.



Inventor

M. A. Possons,
by A. J. Backford,
Attorney

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Attorney

UNITED STATES PATENT OFFICE.

MINARD A. POSSONS AND ATWELL J. BLACKFORD, OF CLEVELAND, OHIO, ASSIGNORS
TO AMERICAN STOVE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW
JERSEY.

BLUE-FLAME OIL STOVE.

Application filed March 27, 1922. Serial No. 547,224.

To all whom it may concern:

Be it known that we, MINARD A. POSSONS and ATWELL J. BLACKFORD, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Blue-Flame Oil Stoves, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in blue flame oil stoves and the improvement pertains particularly to the removable head for the outer wick tube wall and also the removable wick tube head combined with a combustion section having a tapered lower end.

The primary object of the improvement is to make the head of the outer wick tube removable whereby the wick is readily removed, and is readily accessible to the user.

Another object of the present improvement is to keep the burner cool while in operation whereby the wick is not charred.

A further object of the invention is to add to the cooling effect by combining with the removable head for the outer wick tube, a combustion section having a tapered lower end.

Other objects of the invention will appear from the following description:—

In the accompanying drawings—

Fig. 1 is a vertical sectional view of a burner embodying the invention showing our present improvement applied thereto.

Fig. 2 is a perspective view of the upper end of the wick tubes, showing the head of the outer wick tube removed.

Fig. 3 is a side elevation of the improvement.

Fig. 4 is a vertical section looking through one side of the improvement.

Fig. 5 is a side elevation partly in section showing a modification in construction.

Fig. 6 is a vertical section through one side of Fig. 5.

In the type of burners to which the present improvement belongs there is a removable combustion section 1 having a tapered lower end 2 which fits around the upper end of the wick tubes. There is an inner wick tube 3 around which the wick 4 fits and this wick tube extends to the top of the burner. In the form of burner here shown there is a

side space 5 formed between the inner and the outer wick tube, whereby there is ample room for the movement of the wick, while the wick below fits the wall of the inner wick tube 3. The outer wick tube 6 is located some distance from the inner wick tube 3 to form the space 5 and it stops considerably below the upper end of the inner wick tube as shown. There is provided a removable head 7 for the upper end of the outer wick tube and this head is so shaped that it extends in to, or substantially to, the wick. By providing the head 7 with an outwardly extending portion 8 and a depending portion 9 it fits the upper end of the outer wick tube 6. The upper end of the removable head 7 is provided with an outwardly extending lateral flange 10 which forms a support for the lower tapered end 2 of the combustion section 1.

The upper end of the outer wick tube 6 is provided with an improved screw-threading arrangement 11 which consists of broken threads, and the depending portion 9 of the head 7 is provided with a screw portion 12 which fits the broken threads 11.

There is secured to the inner side of the head 7 a depending annular flange 13, the upper end of this flange is substantially flush with the inner side of the head 7 and extends down parallel with the head and fits against the wick. In this way the head 7 is provided with the member 13 that serves to guide and hold the wick as it moves, while at the same time when the head is removed this member 13 is removed with it, leaving the space free for the replacing of the wick.

In Fig. 5 is shown a modification in the screw-threaded construction of the parts which consists in having the broken threads beyond each other as shown at 7'. Furthermore in this view and also Fig. 6, is shown above the broken threads 7' a groove 14 in the outer wick tube 6. The object of this is to give added strength to the upper end of the outer wick tube.

As stated herein one of the objects of the invention is to maintain the burner cool and it is found that the removable head in the construction here shown, very materially cools the burner in operation, and it is also found that this construction combined with the tapered combustion section cooperates to assist in keeping the burner cool. It is

found in operation that the wick does not char and the life of it is much extended by this combination.

In Fig. 1 has been shown the combustion section 1 surrounded by the usual head 15, and this is provided with a rod 16 by means of which it is elevated so that it can be lifted for the purpose of lighting the wick and lifted when the burner is extinguished to prevent oil creeping to the combustion section. There is also shown in Fig. 1 an oil supply pipe 17 with which there is a connection 18, all of which have nothing to do with the present improvement.

Having thus described our invention what we desire to secure by Letters Patent is:—

1. In a burner of the type described, a combination of an inner wick tube, an outer wick tube stopping below the end of the inner wick tube, and a removable head secured to the upper end of the outer wick tube and forming a continuation of the outer tube, for the purpose described.

2. In a blue flame burner, an inner wick tube, an outer wick tube stopping below the end of the inner wick tube, a removable head for the outer wick tube forming an extension of the outer wick tube, and a tapered combustion section, whereby the burner is cooled in its operation.

3. A burner comprising an inner wick tube, an outer wick tube stopping below the upper end of the inner wick tube, a removable head forming an extension of the outer wick tube and having at its lower portion a screw connection with the outer wick tube, whereby the burner is cooled in operation.

4. A burner comprising an inner wick tube, an outer wick tube stopping below the upper end of the inner wick tube, a removable head for the outer wick tube and forming an extension of the outer wick tube, the removable head and the outer wick tube having screw-threads below the end of the outer wick tube, for the purpose described.

5. A burner comprising an inner wick tube, an outer wick tube stopping below the end of the inner wick tube, a removable head

for the outer wick tube, the outer wick tube having broken threads at a point below its upper end, and the removable head having screw-threads cooperating with the broken threads.

6. A burner comprising an inner wick tube, an outer wick tube stopping below the upper end of the inner wick tube, the outer wick tube having broken threads below its upper end, a removable head for the outer wick tube having screw-threaded grooves to receive the broken threads and extending to the upper end of the inner wick tube.

7. A burner comprising an inner wick tube, an outer wick tube located away from the inner wick tube and stopping at a point below its upper end, a removable head the outer wick tube, the said head extending in against the wick, for the purpose described.

8. A burner comprising an inner wick tube, an outer wick tube removed from the inner wick tube, a removable head for the outer wick tube extending inward, and a depending collar attached to the inward extended portion of the removable head and extending downward alongside of the wick, for the purpose described.

9. A burner comprising an inner wick tube, a wick surrounding the tube, an outer wick tube removed from the wick and stopping at a point below the end of the inner wick tube, and a removable head for the outer wick tube extending in with its upper end in contact with the wick.

10. A burner comprising an inner wick tube, a wick surrounding the tube, an outer wick tube removed from the wick and stopping at a point below the upper end of the inner wick tube, a removable head having an inwardly extending upper end in engagement with the wick, and a collar connected to the inner side of the wick and extending down alongside of the wick.

In testimony whereof we hereunto affix our signatures.

ATWELL J. BLACKFORD.
MINARD A. POSSONS.