May 3, 1966 M. E. WATSON 3,248,907

PATIO TORCH

Filed Sept. 24, 1964

Fig. 1.

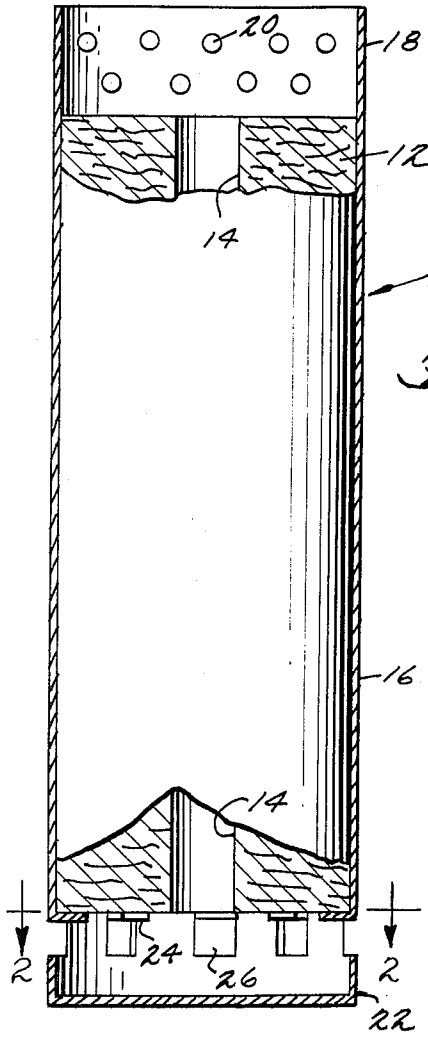


Fig. 2.

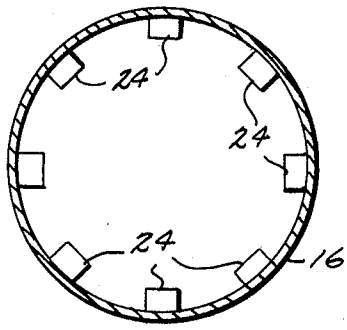
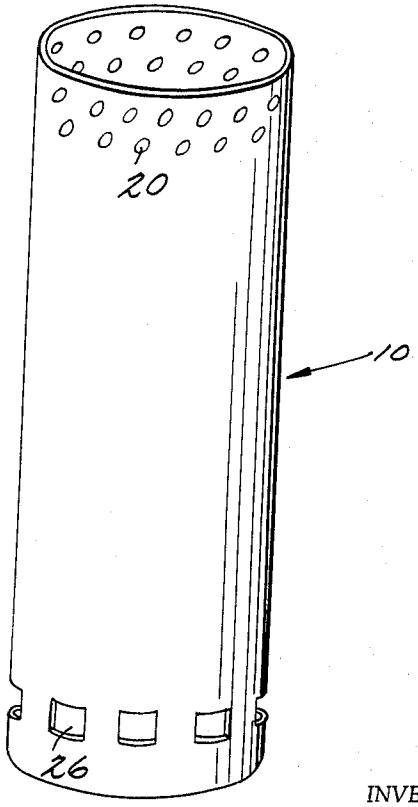


Fig. 3.



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PATIO TORCH

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This invention relates to combustible illuminators and more particularly to a torch including a block of combustible material having a combustion chamber formed therein and a casing of non-inflammable material.

An object of the invention is to provide a patio torch or the like that will burn with very little smoke as compared to conventional kerosene-fueled torches.

Another object of the invention is to provide a patio torch that produces a brighter flame than conventional torches.

Another object of the invention is to provide a cleaner type of patio torch i.e. no liquid fuel to spill, no soot or carbon deposits and considerably less smoke as related to kerosene-fueled torches.

Still another object of the invention is to provide a disposable patio torch that maintains a constant flame height.

Other features and advantages of the invention will hereinafter appear.

In the drawings accompanying this specification similar characters of reference indicate corresponding parts wherein possible in the several views in which:

FIGURE 1 is an axial sectional view of the torch made in accordance with the invention;

FIGURE 2 is a cross-sectional view of the torch taken along lines 2—2 of FIGURE 1; and

FIGURE 3 is a perspective view of the torch.

Referring to FIGURES 1 and 3, the torch shown therein, is indicated generally by the numeral **10**. It consists of a tubular block **12** of compressed papier-mache impregnated with an inflammable fuel such as paraffin wax. The block **12** is provided with a longitudinal opening **14** that extends the length of the block.

In the embodiment of the invention illustrated herein, the block **12** is encased in a cylindical non-inflammable jacket or container **16** that projects axially beyond both ends of the block. The container is preferably composed of a relatively rigid material such as aluminum sheet, fireproof fiberboard, or similar materials. As best seen in FIGURE 1, the upper portion of the container generally indicated at **18** projects beyond the block to effectively shield the flame from wind and is provided with a plurality of air openings **20**. The lower portion of the container generally indicated at **22** is provided with a plurality of laterally extending projections **24** that support the tubular block **12**. Located at the bottom of the container **16** and below the block **12** are a series of air openings **26** formed from bending the laterally extending projections **24** inwardly. The openings **26** permit air to enter below the bottom of block **12** and pass up through the opening **14** to support combustion within the opening peripherally of the inner surface of the block **12**. Accordingly, the block **12** does not burn away in a downward direction and the height of the flame within the upper extended portion **18** of the container **16** is uniform throughout the burning process. The principal burning action takes place at the bottom of the block **12** thereby consuming the fuel from the bottom upward. As a result of this burning action no device is required to push the block **12** upwardly relative to the container **16** since the top of the block does not burn away.

A suitable fuel for impregnating the block may be

a petroleum wax, synthetic wax or any similar material that burns with less odor and smoke than liquid fuels.

It is to be understood that the block **12** and container **16** can be of any suitable shape. In the broadest sense, the block **12** may be peripherally surrounded by a non-inflammable material such as aluminum foil rather than a container of metallic sheet material as shown in the drawings. In this event, a suitable metal bracket would be devised to incorporate points **18**, **20**, **24** and **26**.

The block **12** may be prepared in any suitable manner. Broadly stated, the method of making the block comprises compressing papier-mache in a mold to a suitable form and then soaking the block in liquid wax until it is completely saturated internally with the wax.

Various other modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit or scope of the invention as hereinafter defined by the appended claims.

I claim:

1. A torch comprising a block of compressed papier-mache impregnated with an inflammable wax and means defining a passage longitudinally therethrough, said block being peripherally surrounded by a non-flammable material.

2. A torch according to claim **1** wherein said non-inflammable material is aluminum foil.

3. A torch according to claim **1** wherein the non-flammable material projects axially beyond one end of the block; and further comprising means defining a plurality of openings through said non-flammable material in the portion thereof extending axially beyond the block.

4. A torch according to claim **3** further comprising means defining a block support on said non-inflammable material in engagement with the said block adjacent the other end of the block.

5. A torch according to claim **4** wherein the block support comprises an extension of the non-inflammable material axially beyond said block other end; and a plurality of lateral projections on said non-inflammable material on the extension thereof beyond said block other end, said lateral projections engaging said block other end.

6. A torch according to claim **5** wherein the block support further includes means defining a plurality of openings through said non-inflammable material in the portion thereof projecting axially beyond the block other end.

7. A torch according to claim **6** wherein said lateral projections comprise tabs deformed radially inwardly and axially upwardly from said non-inflammable material to a generally horizontal condition so as to each present a surface upwardly; said block being supported on said surface of each tab, the last-mentioned openings being thereby defined in said non-inflammable material below the lower end of said block.

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