

[72] Inventor **Harold Withers**
35 Ohio Ave., Poland, Ohio 44514
[21] Appl. No. **876,355**
[22] Filed **Nov. 13, 1969**
[45] Patented **May 25, 1971**

3,431,873 3/1969 Durand 110/18
3,498,240 3/1970 Trott 110/18
Primary Examiner—Kenneth W. Sprague
Attorney—Webster B. Harpman

[54] **LEAF BURNER ATTACHMENT FOR LAWN MOWERS**
4 Claims, 3 Drawing Figs.

[52] U.S. Cl. 110/18
[51] Int. Cl. F23g 9/00
[50] Field of Search 110/18, 18
(C)

[56] **References Cited**
UNITED STATES PATENTS
3,070,047 12/1962 Sherman 110/18
3,391,662 7/1968 Sailors 110/18

ABSTRACT: A leaf burner attachment for lawn mowers includes a cylindrical combustion chamber with a centrally disposed vertically standing perforated vent stack which extends from a bottom portion of the cylindrical combustion chamber and through a top portion thereof, leaves and air are introduced at one side of the cylindrical combustion chamber near the bottom thereof through an opening which communicates with a duct positioned on a tangent with respect to the wall of the cylindrical combustion chamber so that air and leaves introduced into the cylindrical combustion chamber will spin centrifugally therein and around the centrally disposed perforated vent stack.

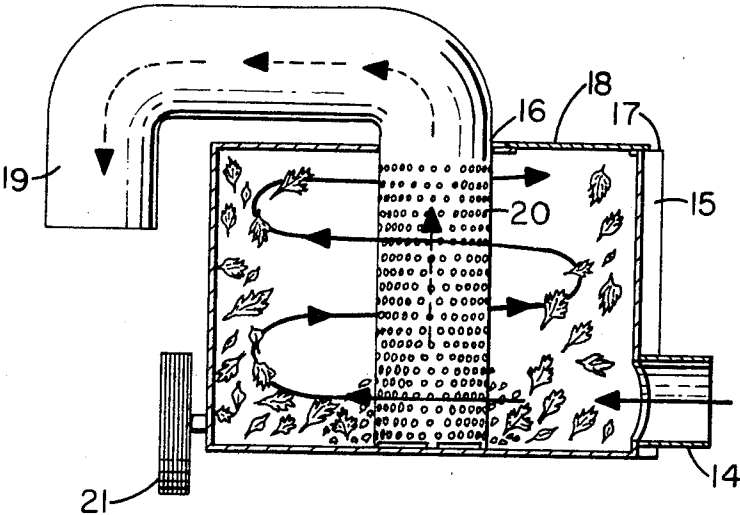


FIG. 1

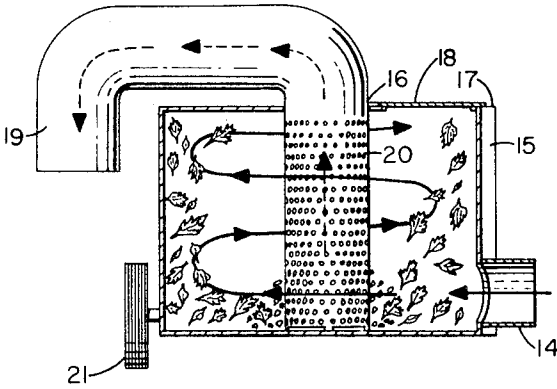
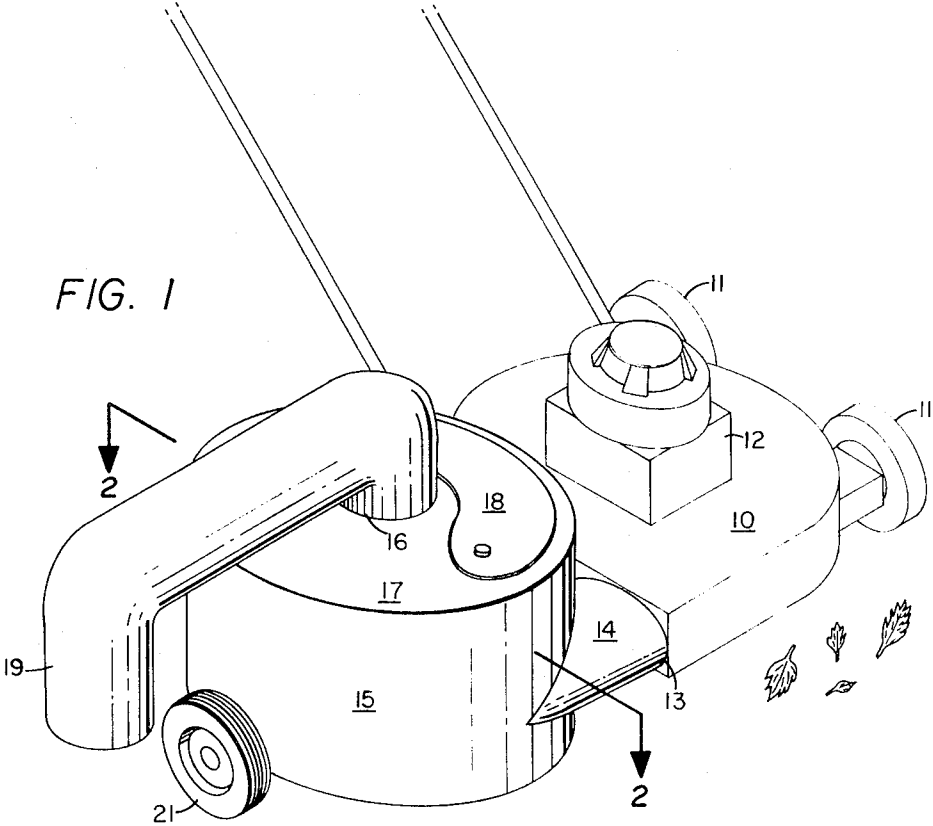


FIG. 3

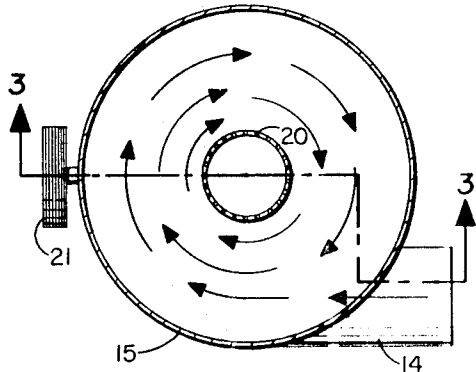


FIG. 2

INVENTOR.
HAROLD WITHERS
BY *W. T. B. Harpman*
ATTORNEY

LEAF BURNER ATTACHMENT FOR LAWN MOWERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to leaf and trash burners of the type employed to provide a means of consuming trash and leaves in the manner of an incinerator.

2. Description of the Prior Art

Prior structures of this type have employed various forms of combustion chambers including perforated containers and solid wall containers and wherein the products to be incinerated were introduced directly into the same such as for example in U.S. Pat. Nos. 2,905,963; 2,952,226; 2,994,367; 3,391,662; 3,026,551 and 3,431,873. This invention differs from the prior art structures by arranging the combustion chamber and the duct means for introducing air and leaves thereto with the duct positioned on a tangent to the combustion chamber and thereby capable of causing the leaves and air to spin centrifugally in the combustion chamber to insure total combustion thereof.

SUMMARY OF THE INVENTION

A leaf burner attachment for lawn mowers is so formed that leaves and other similarly shaped consumable articles such as pieces of paper and the like may be directed into the combustion chamber through a duct arranged on a tangent thereto to create a spinning column of air, leaves and other articles to be burned with the same spinning around the central perforated vent stack. DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the leaf burning attachment in communication with a rotary lawn mower.

FIG. 2 is a horizontal section on line 2-2 of FIG. 1 and

FIG. 3 is a vertical section on line 3-3 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

By referring to the drawings and FIG. 1 in particular it will be seen that a rotary lawnmower comprising a housing 10 having a plurality of ground engaging wheels 11 supporting the same is illustrated and that it includes an internal combustion engine 12 which, as will be understood by those skilled in the art, spins a rotary lawnmower blade within the housing 10. The discharge orifice of the housing 10 is indicated generally by the numeral 13 and it will be seen that a duct 14 is in communication therewith and which duct 14 is formed on a cylindrical combustion chamber wall 15 and arranged on a tangent thereto as best seen in FIG. 2 of the drawings wherein arrows indicate the flow of air and leaves through the duct 14 and into the cylindrical combustion chamber 15.

By referring again to FIG. 1 of the drawings it will be seen that the uppermost portion of a vent stack 16 extends through a top portion 17 of the cylindrical combustion chamber and that a closure 18 normally closes an access opening in the top 17 thereof. The upper portion of the vent stack 16 is preferably shaped so as to extend horizontally with respect to the combustion chamber 15 and then downwardly by way of a down turned end portion 19 so that the ash and small amount of smoke resulting from the combustion of leaves in the cylindrical combustion chamber 15 will be directed away from the operator and downwardly toward the ground.

By referring now to FIGS. 2 and 3 of the drawings, it will be seen that the portion 16 of the vent stack heretofore described communicates with a centrally disposed vertically standing perforated cylinder 20 which may be formed of wire mesh or perforated sheet metal as desired. It will also be seen that the

cylindrical combustion chamber 15 has a closed bottom portion so that the air and leaves introduced into the cylindrical combustion chamber 15 by the rotary power mower and by way of the duct 14 will spin around the central perforated cylinder 20 until they are burned, and that the lower end of the perforated cylinder 20 is spaced with respect to the bottom portion of the combustion chamber 15, and that the resulting ash and smoke, if any, will then enter the perforated cylinder 20 and be vented upwardly through the upper portion 16 thereof and outwardly and downwardly through the down turned portion 19 of the vent stack. The cylindrical combustion chamber 15 is provided with a support wheel 21 on the side thereof opposite to the lawnmower and it will be observed that the leaf burner attachment is therefore carried partially on the rotary lawnmower and it is moved along a lawn surface thereby.

It will occur to those skilled in the art that the heavier and larger leaves will spin in a circular path adjacent the walls 15 of the cylindrical combustion chamber while they are being consumed and as the particles become smaller they will move toward the centrally disposed perforated cylinder 20 and they and the smaller leaves and pieces of leaves and other burnable trash will eventually find their way in the form of ashes and other products of combustion into the perforated cylinder 20 and outwardly therefrom by way of the vent stack 16 as heretofore described.

It will occur to those skilled in the art that leaf sweepers and similar lawn appliances may be substituted for the rotary lawn mower described and disclosed herein and that the leaf burner attachment will work equally well with any device which is capable of delivering air, leaves and trash to the combustion chamber where the spinning action retains the leaves and/or trash until they are consumed whereupon a total incineration of the leaves and/or paper and trash is realized.

Although but one embodiment of the present invention has been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention. Having thus described my invention what I claim is:

I claim:

1. A leaf burner attachment for rotary lawn mowers and the like and consisting of a cylindrical combustion chamber having a closed bottom and a top portion having a vent stack communicating with a central opening therein, a perforated cylindrical member positioned in said cylindrical combustion chamber centrally thereof and communicating at its upper end with said vent stack, means for introducing leaves and trash into the combustion chamber and consisting of an opening in the side thereof, a duct communicating with said opening and arranged on a tangent with respect to said cylindrical combustion chamber, said duct forming a means of communication with said rotary lawnmower so that leaves and air picked up and moved by the rotary lawnmower will enter the combustion chamber therethrough and spin centrifugally around the perforated cylindrical member in the center thereof.

2. The leaf burner set forth in claim 1 and wherein said leaf burner is partially carried on said lawnmower and a ground-engaging wheel.

3. The leaf burner set forth in claim 1 and wherein said vent stack extends from said central opening in said top portion to one side thereof.

4. The leaf burner set forth in claim 1 and wherein said top portion has a second opening therein and a lid for normally closing said second opening.