A catalyzer is disclosed for a gas-consuming device. The catalyzer may simply be a corrugated tube. Alternatively, the catalyzer may include a corrugated tube and a mesh installed at an end of the corrugated tube. In another aspect, the catalyzer may include a first corrugated tube, a first circular tube installed in the first corrugated tube, a second corrugated tube installed in the first circular tube, a second circular tube installed in the second corrugated tube and a mesh installed on the tubes.
Fig. 2
Fig. 7
PRIOR ART
CATALYZER FOR GAS-CONSUMING DEVICE

FIELD OF INVENTION

The present invention relates to a catalyzer for a gas-consuming device.

BACKGROUND OF INVENTION

FIG. 7 shows a conventional catalyzer 10 for a gas-consuming device. The catalyzer 10 is made of a metal mesh that is shaped like a cap. The catalyzer 10 is installed on a gas device (not shown). As gas blows through the catalyzer 10, the gas is oxygenated because the catalyzer 10 is made of platinum. Because of the oxygenation, the gas is ignited efficiently. Since the catalyzer 10 is a mesh, the area of contact between the catalyzer 10 and the gas is limited. That is, oxygenation of the gas by means of the catalyzer 10 is limited.

The present invention is therefore intended to obviate or at least alleviate the problems encountered in prior art.

SUMMARY OF INVENTION

The primary objective of the present invention is to provide an efficient catalyzer for a gas-consuming device.

According to an aspect of the present invention, a catalyzer is simply a corrugated tube.

According to another aspect of the present invention, a catalyzer includes a corrugated tube and a mesh installed at an end of the corrugated tube.

According to another aspect of the present invention, a catalyzer includes a first corrugated tube, a first circular tube installed in the first corrugated tube, a second corrugated tube installed in the first circular tube, a second circular tube installed in the second corrugated tube and a mesh installed on the tubes.

Other objects, advantages, and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the drawings.

BRIEF DESCRIPTION OF DRAWINGS

The present invention will be described through detailed illustration of several embodiments referring to the drawings.

FIG. 1 is a perspective view of a catalyzer for a gas-consuming device according to a first embodiment of the present invention.

FIG. 2 is a perspective view of a cigarette lighter equipped with the catalyzer of FIG. 1.

FIG. 3 is a perspective view of a heat gun equipped with the catalyzer of FIG. 1.

FIG. 4 is a perspective view of a catalyzer according to a second embodiment of the present invention.

FIG. 5 is a perspective view of a catalyzer according to a third embodiment of the present invention.

FIG. 6 is a perspective view of a heat gun equipped with the catalyzer of FIG. 5.

FIG. 7 is a perspective view of a conventional catalyzer.

DESCRIPTION OF EMBODIMENTS

Referring to FIG. 1, according to a first embodiment of the present invention, a catalyzer is simply a corrugated metal tube 21.

FIG. 2 shows a cigarette lighter 30 equipped with the corrugated metal tube 21. The cigarette lighter 30 includes a nozzle 31, a container (not shown) for containing gas and a pipe (not shown) leading to the nozzle 31 from the container. The corrugated metal tube 21 is installed in the nozzle 31. An electrode (not shown) of an ignition device (not shown) is installed in the nozzle 31. The cigarette lighter 30 includes a button 32 for actuating the ignition device (not shown) in order to ignite gas sprayed through the nozzle 31.

FIG. 3 shows a heat gun 40 equipped with the corrugated metal tube 21. The heat gun 40 includes a nozzle 41, a container (not shown) for containing gas and a pipe (not shown) leading to the nozzle 41 from the container. The corrugated metal tube 21 is installed in the nozzle 41. An electrode (not shown) of an ignition device (not shown) is installed in the nozzle 41. The heat gun 40 includes a regulator 43 for regulating the rate at which the gas is sprayed. The heat gun 40 includes a button 42 for actuating the ignition device (not shown) in order to ignite gas sprayed through the nozzle 41.

FIG. 4 shows a catalyzer according to a second embodiment of the present invention. The second embodiment is identical to the first embodiment except for including a metal mesh 25 attached to the corrugated metal tube 21.

FIG. 5 shows a catalyzer according to a third embodiment of the present invention. The third embodiment is identical to the second embodiment except for including a first circular tube 22 installed in the corrugated tube 21, a second corrugated tube 23 installed in the first circular tube 22 and a second circular tube 24 installed in the second circular tube 23. The mesh 25 is installed on the corrugated tubes 21 and 23 and the circular tubes 22 and 24.

FIG. 6 shows the catalyzer shown in FIG. 5 installed in the nozzle 41 shown in FIG. 3.

The present invention has been described through detailed illustration of the embodiments. Those skilled in the art can derive variation from the embodiments without departing from the scope of the present invention.

Therefore, the embodiments shall not limit the scope of the present invention defined in the claims.

1. A catalyzer for a gas-consuming device, the catalyzer comprising a corrugated tube for providing a large area of contact with gas.

2. The catalyzer according to claim 1 wherein the corrugated tube is made of metal.

3. The catalyzer according to claim 1 comprising a mesh installed at an end of the corrugated tube.

4. A catalyzer for a gas-consuming device, the catalyzer comprising a first tube, a second tube installed in the first tube, a third tube installed in the second tube and a fourth tube installed in the third tube.
5. The catalyzer according to claim 4 wherein the first tube is a corrugated tube.

6. The catalyzer according to claim 4 wherein the second tube is a circular tube.

7. The catalyzer according to claim 4 wherein the third tube is a corrugated tube.

8. The catalyzer according to claim 4 wherein the fourth tube is a circular tube.

9. The catalyzer according to claim 4 comprising a mesh installed at an end of the first, second, third and fourth tubes.

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