to forming the heat-reactive plate thin. Additionally, the kind of metal used as the material of the heater is also limited due to the required physical characteristics such as weldability and cost requirements. Hence, there is substantially a limit to replacing the material of the heater with a material having high resistivity. Hence, the most effective way to increase the heating value of a heat-reactive switch ~~is~~ may be to reduce the cross-sectional area and stretch the overall length of a heater.

Solution to Problem

[0009]

An aspect of the present invention provides a heat-reactive switch comprising:

an airtight container formed by adhering a lid plate in an airtight manner to an open end of a metallic, long, dome-shaped housing;

two conductive terminal pins respectively inserted into two through holes provided in the lid plate, and each fixed in an airtight manner by an electrical insulating filler;

a fixed contact fixed to one of the conductive terminal pins inside the airtight container;

a heater having one end connected to the other of the conductive terminal pins and the other end connected to the lid plate inside the airtight container;

a heat-reactive plate having one end connected to an inner surface of the housing, and whose curving direction is reversed at a predetermined temperature; and

a movable contact provided on the other end of the heat-reactive plate, and constituting a pair of switching contacts with the fixed contact, wherein:

~~According to a heat reactive switch of the present invention,~~ a heating element of ~~a~~ the heater has ~~multiple~~ a plurality of meandering portions formed of a strip-shaped metal plate, and is arranged parallel to and between the lid plate and ~~a~~ the heat-reactive plate. The meandering portions are: arranged such that at least two of the meandering portions are opposite to each other with ~~a~~ the conductive terminal pin interposed therebetween; each aligned with an inner circumferential surface of ~~a~~ the housing; and are each bent with respect to a reference axis extending in the longitudinal direction of the housing, so that strip-shaped flat portions face each other.

Advantageous Effect of Invention

[0010]

According to ~~the heat reactive switch~~ embodiments of the present invention, by applying advantageous ideas to the shape of the heater, it is possible to reduce the cross-sectional area and extend the overall length of the heater. Hence, the heating value of the heater can be increased.

Brief Description of Drawings

[0011]

[Figure 1] Figure 1 is a front view of a heat-reactive switch of an embodiment.

[Figure 2] Figure 2 is a longitudinal section of the heat-reactive switch.

[Figure 3] Figure 3 is a cross-sectional view of the heat-reactive switch.

[Figure 4] Figure 4 is a perspective view of a heater.

[Figure 5] Figure 5 is a development of the heater.

[Figure 6] Figure 6 is a longitudinal section of a conventional heat-reactive switch.

[Figure 7] Figure 7 is a cross-sectional view of the conventional heat-reactive switch.

Description of Embodiment

[0012]

Hereinbelow, a description will be given of an embodiment of a heat-reactive switch to which the present invention is applied, with reference to the drawings. As shown in Figures 1 and 2, a heat-reactive switch 1 is an airtight container configured of a metallic housing 2 and a