CLAIMS

~~1. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline, which is provided with a first-flow guiding pipe member (101) of one or more than one route, the first-flow guiding pipe member (101) is made of a heat conductive member, and the pipe hole of the first flow guiding pipe member (101) is formed as a first-flow path (102), two ends of the first flow path (102) are respectively through a first flow gathering chamber (103) and a first fluid inlet/outlet port (104), thereby allowing a first thermal energy body (105) formed in a fluid state to flow in or flow out; and the exterior of the first-flow guiding pipe member (101) is sleeved and installed with the second flow guiding pipe member (201) of one or more than one route having an inner diameter larger than the outer diameter of the first flow guiding pipe member (101), thereby forming a structure having two layers of pipelines, the second-flow guiding pipe member (201) is made of a heat conductive member, and the diameter difference defined between the larger inner diameter of the second flow guiding pipe member (201) and the outer diameter of the first flow guiding pipe member (101) forms a second flow path (202) having an annular cross section, two ends of the second flow path (202) are respectively through a second flow gathering chamber (203) and a second fluid inlet/outlet port (204), thereby allowing a second thermal energy body (205) formed in a fluid state to flow in and flow out, wherein the outer layer of the second flow guiding pipe member (201) is in contact with a third thermal energy body (305) formed in a gaseous or liquid state or a solid thermal energy body, thereby forming a three-layer annular tri-piece thermal energy body heat exchanger, so the heat exchanging and transferring can be performed among the second thermal energy body (205) and the first thermal energy body (105) and the third thermal energy body (305).~~

12. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim in claim 1, wherein thecomprising: a first flow guiding pipe member (101) isbeing made of a heat conductive member and pipe hole of the first flow guiding pipe member (101) constitutes a first flow path (102) with each end of the first flow path (102) being in fluid communication with a respective first flow gathering chamber (103), so that the first flow path (102) is connected in series with thea first flow path (102) of at least one first flow guiding pipe member (101) throughdisposed in fluid communication with the first flow gathering chamber (103), and two ends of the series-connected first flow path (102) terminate atare respectively leaded to a respective first fluid inlet/ and outlet port (104), thereby allowing a first thermal energy body (105) formed in a fluid state to flow in or flow out; an exterior of each first flow guiding pipe member (101) is sleeved and installed with a second flow guiding pipe member (201) and the second flow guiding pipe member (201) havinghas an inner diameter larger than the outer diameter of the first flow guiding pipe member (101) is sleeved and installed at the exterior of the first flow guiding pipe member (101), thereby forming a structure having two layers of pipelines, the second flow guiding pipe member (201) is also made of a heat conductive member, and the diameter areadifference defined between the larger inner diameter of the second flow guiding pipe member (201) and the outer diameter of the first flow guiding pipe member (101) forms a second flow path (202) having an annular cross section, with the second flow path (202) isbeing connected in series with athe second flow path (202) of at least one second flow guiding pipe member (201) through thea second flow gathering chamber (203), and then two ends of the series-connected second flow path (202) terminate atare respectively

~~leaded to~~ a respective second fluid inlet and ~~/~~outlet port (204), thereby allowing a second thermal energy body (205) ~~formed~~ in a fluid state to flow in and flow out, wherein the outer layer of the second flow guiding pipe member (201) is in contact with a third thermal energy body (305) ~~formed~~disposed in a gaseous or liquid state or a solid thermal energy body, thereby forming a three-layer annular tri-piece thermal energy body heat exchanger, so ~~the~~ heat exchanging and transferring ~~can be performed among~~occur between the second thermal energy body (205) and the first thermal energy body (105) and between the second thermal energy body (205) and the third thermal energy body (305).

2~~3~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1 ~~or 2~~, wherein the ~~mentioned~~ first flow guiding pipe member (101) and the second flow guiding pipe member (201) ~~can be~~are configured by pipe members formed in circular or rectangular or oval or other geometric shapes.

3~~4~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1 ~~or 2~~, wherein the ~~mentioned~~ first flow guiding pipe member (101) and the second flow guiding pipe member (201) ~~can be~~are configured by pipe members having the same or different shapes.

4~~5~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1 ~~or 2~~, wherein the ~~mentioned~~ first thermal energy body (105) and the second thermal energy body (205) ~~can be formed by~~are of the

same or different fluids.

5~~6~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 4~~1 or 2~~, wherein the ~~mentioned~~ fluids can be ~~formed by the~~ gaseous or liquid fluid or the fluid ~~capable of~~ convert~~in~~ged into a gaseous state from a liquid state or convert~~in~~ged into a liquid state from a gaseous state.

6~~7~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein the ~~mentioned~~ third thermal energy body (305) ~~can be formed by~~is a fluid or solid member.

7~~8~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein when the third thermal energy body (305) is ~~formed by~~a fluid, a fluid pump (400) ~~can be~~is additionally installed for pumping the third thermal energy body (305) thereby enhancing the heat exchange effect.

8~~9~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein the flow direction of the first thermal energy body (105) flowing in the first flow guiding pipe member (101) and the flow direction of the second thermal energy body (205) flowing in the second flow guiding pipe member (201) can be the same or different.

9~~10~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein the sleeved multi-layer pipe members includes being configured by two or more layers of heat conductive members, and the flow guiding pipe members having the corresponding quantity are therefore formed, so the same or different fluids can be adopted to flow in each pipe member, and the flow direction in which the fluid flowing in different flow guiding pipelines arranged in adjacent layers can be the same or different.

10~~11~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein the second flow guiding pipe member (201) ~~can be~~is further installed with a heat conduction fin (1000).

11~~12~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein a spiral flow guiding sheet (222) is further formed between the exterior of the first flow guiding pipe member (101) and the interior of the second flow guiding pipe member (201) and/or a spiral flow guiding sheet (111) is further formed at the interior of the first flow guiding pipe member (101), so as to enhance the heat transfer effect.

12~~13~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1~~ or 2~~, wherein a spiral flow guiding sheet structure (222) in the same spiral flowing direction is installed between the exterior of the first flow guiding pipe member (101) and the interior of the second flow

guiding pipe member (201) and/or a spiral flow guiding sheet structure (111) in the same spiral flowing direction is installed at the interior of the first flow guiding pipe member (101).

13~~14~~. A tri-piece thermal energy body heat exchanger having multi-layer pipeline and transferring heat to exterior through outer periphery of pipeline as claimed in claim 1 ~~or 2~~, wherein a spiral flow guiding sheet structure (222) in different spiral flowing direction is installed between the exterior of the first flow guiding pipe member (101) and the interior of the second flow guiding pipe member (201) and/or a spiral flow guiding sheet structure (222) in different spiral flowing direction is installed at the interior of the first flow guiding pipe member (101).