

## **ABSTRACT OF THE DISCLOSURE**

### **HEAT EXCHANGER**

A heat exchanger for exchanging heat with gas made to flow in a flow direction is disclosed. The heat exchanger is provided with: a plurality of plates each having a first side and a second  
5 side; a plurality of tubes configured to conduct a thermal medium, the tubes penetrating the plates and being arranged in parallel with each other and on a plurality of planes perpendicular to the flow direction, wherein the tubes on each plane are disposed adjacent to gaps between the tubes on any of adjacent planes  
10 so as to form a plurality of serpentine flow lines among the tubes; and a plurality of bridges projecting on the first sides of the plates, the bridges being respectively arranged to be perpendicular to the serpentine flow lines.

**(Figure 5)**