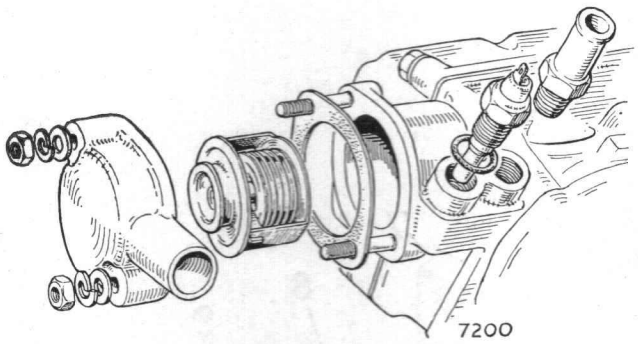

Fig. 2. *Bellows type thermostat and thermostat housing.*

To refit

Position a new or the original thermostat on its seat in the cylinder head, ensure that both the cylinder head and housing jointing faces are free from foreign matter then position a new gasket over the mounting studs and onto its seat.

Refit the thermostat housing and secure it in position with the two nuts, plain and spring washers.

Refill the cooling system in accordance with the instructions given under the appropriate heading.

Testing bellows type thermostat

Remove the thermostat from its housing in the manner previously described, then submerge the thermostat in water which is in the course of being treated to the working temperature. Additionally, place a thermometer in the heated water, so that at the precise moment the thermostat valve relieves, a reading can be recorded.

After starting to open within 2·2° to 2·8°C (4° to 5°F) of its specified opening temperature, the thermostat should be fully open within a further 5·6° to 6·7°C (10° to 12°F).

Testing wax type thermostat

Before deciding to fit a new thermostat, the suspect unit should be checked in the following manner:—

Examine the thermostat visually to ensure that the riveted or soldered joints are secure.

Ensure that the jiggle pin is in position and free to float.

Check that the rubber seal on top of the wax type element is not cracked or perished and that no wax is exuding from beneath it.

Fully immerse the thermostat in cold water, taking care not to allow it to touch the bottom or sides of the container. Suspend it from a fixed part of its structure in order not to interfere with its action of opening.

Raise the temperature of the water gradually to 2·2° or 2·8°C (4° or 5°F) above the specified opening temperature stamped on the thermostat, and hold it steady at this temperature for two or three minutes.

Continue to raise the temperature gradually to boiling point and again soak for the recommended period.

The thermostat should start to open within 2·2° to 2·8°C (4° to 5°F) of its specified temperature. At 98·9° to 100°C (210° to 21°F) it will be approximately $\frac{1}{4}$ in. (6·3 mm.) open, but will not reach its fully open position until several degrees above normal atmospheric boiling point.

When the valve has opened, ensure that its seating is clear of foreign matter. The valve must not be operated manually.

Remove the thermostat from the hot water and submerge it in cold water (at room temperature) to check that the valve re-seats securely within 15 to 20 seconds.

The wax-type thermostat is shown in Fig. 3. This new design supersedes the bellows type.

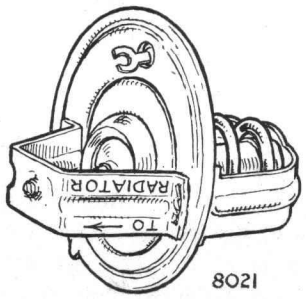

Fig. 3. *Wax-type thermostat.*