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E. W. STARKE
RADIATOR
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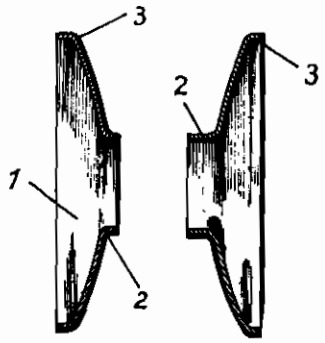

Fig. 1

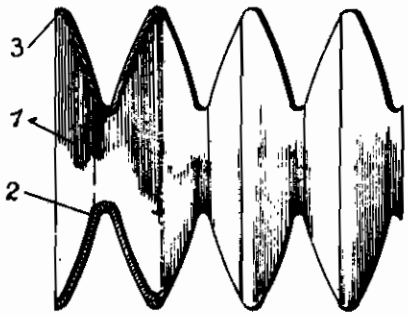

Fig. 2

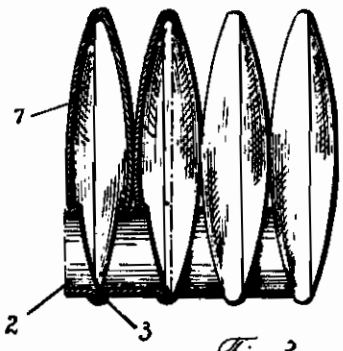

Fig. 3

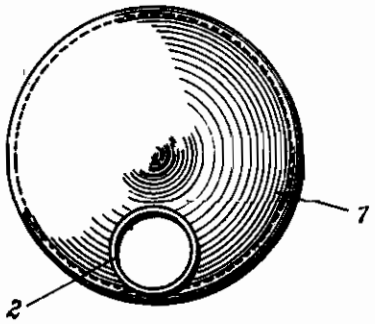

Fig. 4

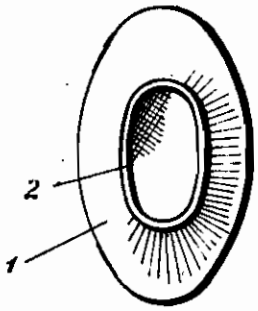

Fig. 5

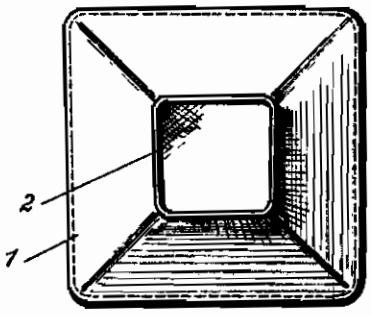

Fig. 6

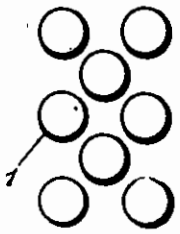

Fig. 7

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ALIEN PROPERTY CUSTODIAN

RADIATOR

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This invention relates to a radiator built up from punched and drawn sheet-metal laminae.

The invention is illustrated by way of example in the accompanying drawing, in which

Figure 1 shows two laminae;

Fig. 2 shows a combination of laminae of the kind illustrated in Fig. 1;

Figs. 3 and 4 shows special kinds of lamellae connected by a peripheral flange;

Figs. 5 and 6 show, respectively, an oval and a prismatic lamella; and

Fig. 7 indicates a staggered arrangement of a number of lamellar units to form a heater.

The lamellae 1 shown in Figs. 1, 5 and 6 are each provided in their central portion with a drawn flange 2, and the diameter of the flanges is chosen so as to permit telescoping. There are always two lamellae 1 telescoped and united by rolling of their flanges 2, and each lamella 1 has at its circumference a bent edge 3, as shown in Figs. 1 and 2, one of the telescoped lamellae having a slightly smaller diameter and a narrower bent edge 3 than the other (Fig. 2).

Heaters of any length can be built up from such units comprising two lamellae united at their flanges 2 by rolling by inserting a unit of smaller diameter in a unit having a larger diameter and broader edge. In this way, hollow gills or ribs are built up from the lamellae 1 whose flanges 2 form a piping, as shown in Fig. 2.

A radiator of this type is chiefly intended for use in air heaters, etc. where it may be employed in vertical position. In order to adapt a heater according to the invention to operation in horizontal position and to prevent the accumulation of water therein, the flanges 2 are disposed at the periphery thereof, as shown in Figs. 3 and 4. Radiators of this type can be used in horizontal position without any fear of accumulating water.

Compared with the known radiators making use of a tube with attached ribs, the radiator according to the invention affords the advantage of a larger heating surface and shorter heat path combined with lower weight and, further, facilitates assembling in air heaters if the vertical type is employed. In this case, air resistance is lower also.

The heating units according to the invention permit, furthermore, a better staggered arrangement, as indicated in Fig. 7. This is of particular importance for vertical installation in air heaters, etc. so as to be able to accommodate more heating elements in a smaller space and to increase the heating effect.

EMIL WALTER STARKE.