

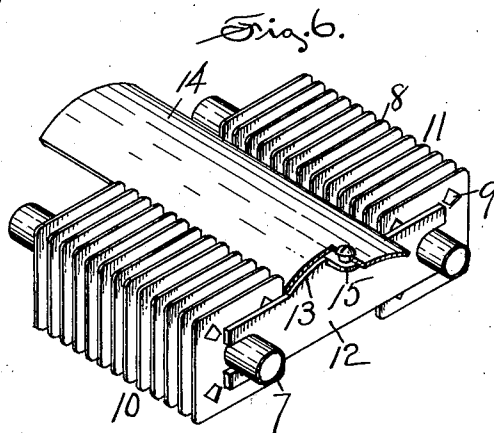
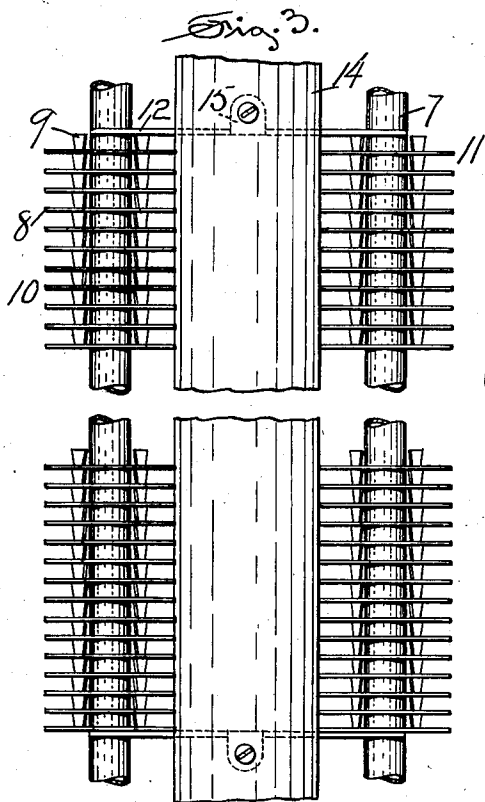
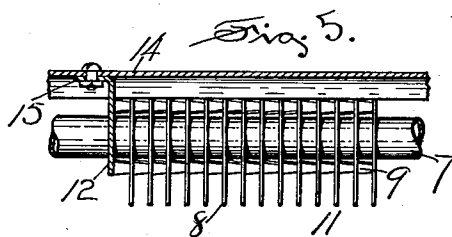
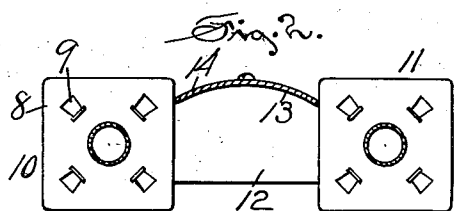
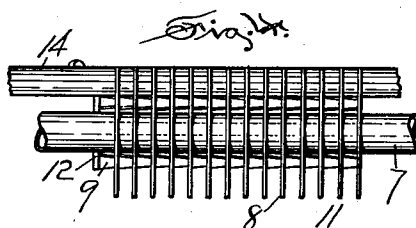
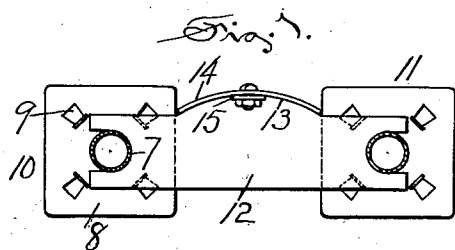
Aug. 18, 1936.

C. T. BAPPLER

2,051,402

RADIATOR

Filed Sept. 18, 1935



INVENTOR
Charles T. Bappler.
by
Arthur B. Jenkins.
ATTORNEY

UNITED STATES PATENT OFFICE

2,051,402

RADIATOR

Charles T. Bappler, Hartford, Conn., assignor to
The Bush Manufacturing Company, Hartford,
Conn., a corporation of Connecticut

Application September 18, 1935, Serial No. 41,156

5 Claims. (Cl. 257—124)

My invention relates to the class of devices which are employed for changing temperatures of fluids, and an object of my invention, among others, is to provide a radiator which shall be extremely efficient and particularly one which may be readily adapted to various conditions requiring a variation in sizes without varying the radiating efficiency.

One form of a radiator embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained is illustrated in the accompanying drawing in which

Figure 1 is an end view of my improved radiator with the conducting tubes in section.

Figure 2 is a view in cross section through the same.

Figure 3 is a top view of a portion of the radiator with a portion broken out intermediate the ends.

Figure 4 is a side view of the same.

Figure 5 is a view in lengthwise section through a portion of the radiator.

Figure 6 is a perspective isometric view of a portion of the radiator.

In the manufacture of radiators of the fin type, to which my invention is particularly adapted, it is common practice to construct the units each to comprise a single tube with a number of fins evenly distributed along the tube. It is frequently desired to increase the width of a structure, consisting of a number of units, without increasing the radiating surface, and it is also important in such structures that the radiating efficiency shall not be impaired. My invention has to do particularly with radiators of this type wherein the size, as to width, may be increased and in which the radiating surface is not increased, such a radiator being shown in the accompanying drawing in which the numeral 7 denotes the conducting tube of a radiator unit and 8 denotes fins secured to the tube and spaced apart along the tube, as by means of spacers 9.

As hereinbefore mentioned it is sometimes desired to increase the size of a radiator composed of a number of units, as by spacing the units apart widthwise of the structure without varying the radiating function as by the flow of air currents between the units, and I therefore provide means to prevent such currents and to cause all of the air currents to pass between the fins.

The units 10—11 are spaced apart as shown in

Figs. 1 and 2 and are held in this spaced relation as by means of spacing plates 12 provided at suitable intervals to rigidly support the structure. These plates are preferably curved along one edge as at 13 at that portion occurring between the units to provide a support for a baffle 14 which is also preferably curved and which covers the space between the fins as shown in Figs. 1 and 2.

In a preferred construction an ear 15 is out-turned from the edge of the spacing plate 12 and a screw bolt extending through the baffle and ear secures the baffle firmly in place.

It will be understood that the baffle is secured to a number of the spacing plates, depending upon the length of the structure, such baffle extending for the full length of such structure. It will be further understood that any number of units 10—11 may be employed, as may be desired, to suit a structure of any size, and the arrangement of the conducting tubes will be such as is common to structures of this type, in each case a baffle being employed to cover the space between all of the adjacent units.

In accordance with the provisions of the patent statutes I have described the principles of operation of my invention together with the device which I now consider to represent the best embodiment thereof; but I desire to have it understood that the device shown is only illustrative and that the invention may be carried out by other means and applied to uses other than those above set out.

I claim:

1. A radiator including a plurality of units each unit comprising a tube with fins distributed therealong and supported thereby, means for securing the units in spaced relation side by side to increase the width of the radiator, and a baffle located between the edges of the fins to obstruct flow of fluid between the units without changing the influence of such flow as to each unit.

2. A radiator including a plurality of units each unit comprising a tube with fins distributed therealong and supported thereby, means for securing the units in spaced relation side by side widthwise of the radiator to increase its width, and a baffle located between the edges of the fins to obstruct flow of fluid vertically between the units without changing the influence of such flow as to each unit.

3. A radiator including a plurality of units each unit comprising a tube with fins distributed therealong and supported thereby, spacing plates attached to the units to secure them in spaced

relation side by side to increase the width of the radiator, and a baffle secured to the spacing plates between the edges of the fins to cover the space between the units and effect unchanged
5 circulation relative to each unit.

4. A radiator including a plurality of spaced units each unit comprising a tube with fins distributed therealong, spacing plates attached to the units to hold them in spaced relation, said
10 plates each having a curved supporting edge between the units, and a baffle of curved form se-

cured to said supporting plates to cover the space between the units.

5. A radiator including a plurality of spaced units, each unit comprising a tube with fins distributed therealong, spacing plates attached to
5 the units to hold them in spaced relation, an ear outturned from each spacing plate at one edge thereof, and a baffle attached to said ear on each spacing plate and covering the space between the
10 units.

CHARLES T. BAPPLER.