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B. BLACKMORE

1,766,701

RADIATOR

Filed July 18, 1927

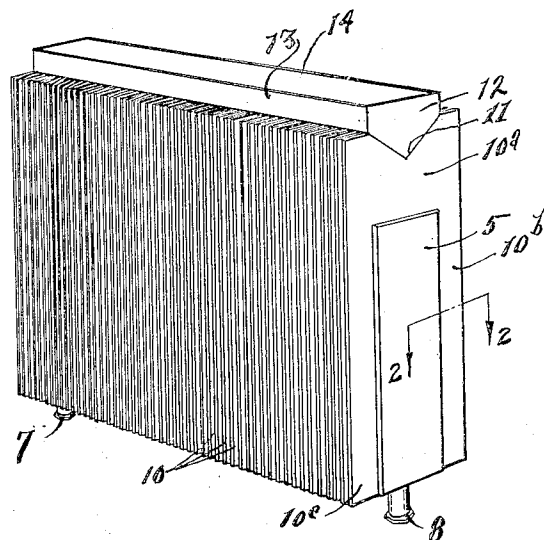


Fig. 1.

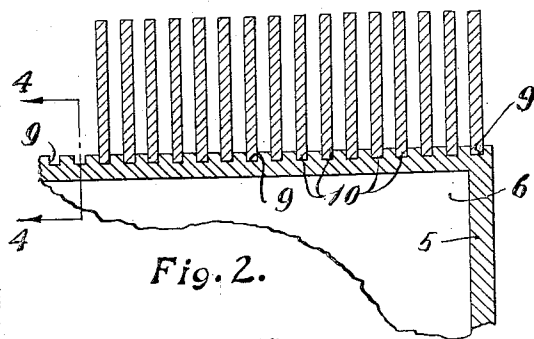


Fig. 2.

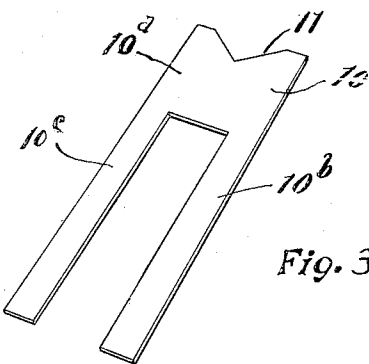


Fig. 3.

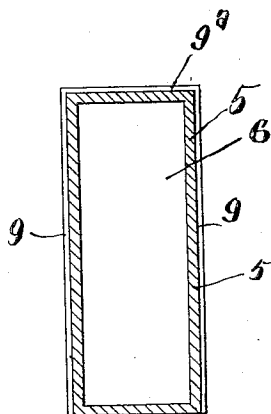


Fig. 4.

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RADIATOR

Application filed July 18, 1927. Serial No. 208,461.

This invention relates to new and useful improvements in radiators and has particular relation to a radiator adapted for use with hot water, vapor, or steam heating systems.

The invention contemplates an improvement in the radiator construction shown and described in my co-pending application, Serial Number 139,830, filed October 6, 1926. Briefly stated, objects of the invention are to provide a radiator of simple construction, which will be more efficient in use and less expensive to manufacture than radiators of ordinary construction.

An important object is to provide a hollow radiator body having radiating fins detachably secured thereon and to provide a groove in the radiator body to secure each fin whereby the fins will contact with a relatively large surface of the body and will be properly spaced apart and securely held in position thereon.

A further object is to provide a radiator of the character above indicated and to provide a water pan of improved construction which is held in place thereon by being seated in aligned notches in the radiating fins and to thereby provide simple, efficient means to humidify the atmosphere of the space to be heated.

The above and additional objects are accomplished by the novel construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawing, wherein I have shown a preferred form of the invention, it being understood that changes and modifications may be made and resort had to substitutions which come within the scope of the claims hereunto appended.

In the drawings, like characters of reference are used to denote like parts as the same may appear in any of the several views and in which:—

Figure 1 is a perspective view of a radiator constructed in accordance with this invention,

Figure 2 is a fragmentary view taken in horizontal cross section as indicated by the lines 2—2 of Figure 1,

Figure 3 is a perspective view of one of the fins employed in carrying out the invention,

Figure 4 is a vertical, cross sectional view taken as indicated by the lines 4—4 of Figure 2.

In the drawings the numeral 5 is used to denote the radiator body which may be of any suitable shape, but which is preferably rectangular in form. The body 5 is provided with a cavity 6 which is adapted to hold steam or hot water under pressure. The numerals 7 and 8 denote inlet and outlet pipes which project downwardly from the radiator body 5 and communicate with the cavity 6. The body 5 is provided on each lateral face thereof with a plurality of parallel, spaced, vertical grooves 9. Each groove 9 communicates with a like groove 9^a which extends across the upper face of the radiator fin which is preferably formed of sheet copper, brass or other suitable material. Each fin 10 comprises an upper portion 10^a having depending therefrom spaced parallel side portions 10^b and 10^c. Each fin 10 is provided on the upper side thereof with a V-shaped notch 11 which is formed therein for a purpose hereinafter described. The grooves 9 are formed of a width which will snugly receive the inner edges of the downwardly depending portions 10^b and 10^c and the lower edge of the portion 10^a. The portions 10^b and 10^c are arranged a sufficient distance apart so that each will be positioned in the bottom of one of the grooves 9, when the fins 10 are positioned on the body 5.

When assembling, a radiator constructed in accordance with this invention, the fins are positioned directly over the body 5 and the inner edges of the portions 10^c and 10^b are entered in the grooves 9 at the upper edge of the body 5. The fin 10 is then pushed downwardly from the radiator body until the lower edge of the upper portion 10^a is snugly received in one of the communicating grooves 9^a which extends along the upper edge of the body 5.

It will be seen that with the fins 10 thus positioned in the radiator body 5 that the notches 11 will be in alinement thereby forming

ing a V-shaped seat extending longitudinally of the radiator. A pan 12 is preferably formed of a length which will extend longitudinally of the radiator body. A pan 12 is
5 trough shaped having a V-shaped bottom wall adapted to fit in the notches 11 and having side walls 13 and 14 which extend upwardly from said bottom wall thereby forming a container for water which may be used to humidify the atmosphere to be heated. The lower
10 wall of the pan or trough 12 serves to deflect outwardly atmosphere heated by the radiator.

It will thus be seen that I have provided a radiator of simple construction which may
15 be manufactured at a low cost and which will be very efficient in use.

Having thus illustrated my invention, and described the same in detail, what I claim as new and desire to secure by Letters Patent
20 is:—

1. In a radiator, a chambered radiator body, said body provided on opposite sides thereof with a plurality of parallel grooves, each of the grooves located in the same plane
25 with a like groove on the opposite sides of the body and fins detachably secured on said body, each fin comprising a sheet of metal having an opening adapted to receive said body and being mounted thereon with the inner edges
30 of said fin seated in one of the grooves on each side of the body.

2. In a radiator, a chambered radiator body, said body provided with parallel side walls, each of said side walls provided on the
35 exterior face thereof with a plurality of parallel grooves, each of the grooves being positioned in the same plane with the like groove on the opposite side of the body and fins detachably secured on said body, each fin extending
40 around three sides of the body with the inner edge thereof seated in said grooves.

3. In a radiator, a chambered radiator body, said body provided with parallel side walls, each of said walls and the top wall of
45 said body provided on the exterior face with a plurality of closely spaced grooves, and a plurality of fins each extending around the sides and top of said body with the inner edge of each fin seated in one of said grooves.

4. In a radiator, in combination, a chambered radiator body, said body provided with
50 parallel side walls, each of said walls having a plurality of closely spaced grooves, each groove extending around the side walls and the top wall of the body and a fin seated in
55 each of said grooves, each of said fins provided in the upper edge thereof with a triangular notch, said fins arranged with said notches in alinement to form a seat extending longitudinally of said radiator and adapted to hold
60 a pan therein.

In testimony whereof I have hereunto set my hand.

BENJAMIN BLACKMORE.