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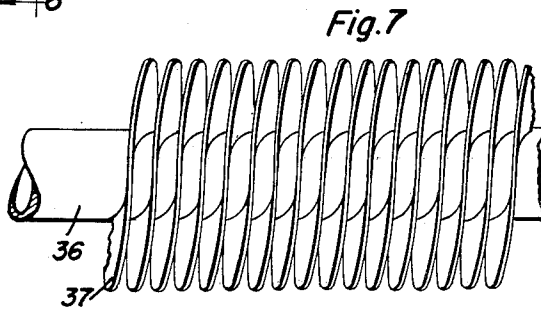
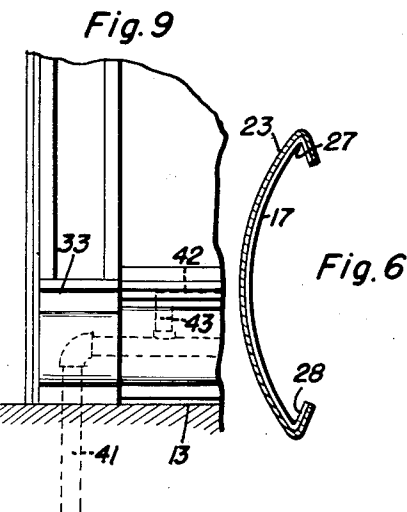
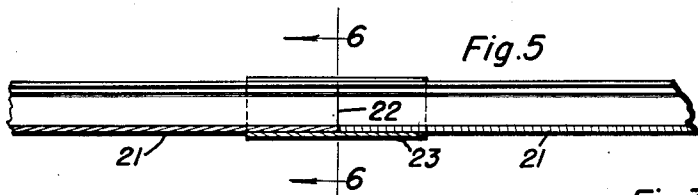
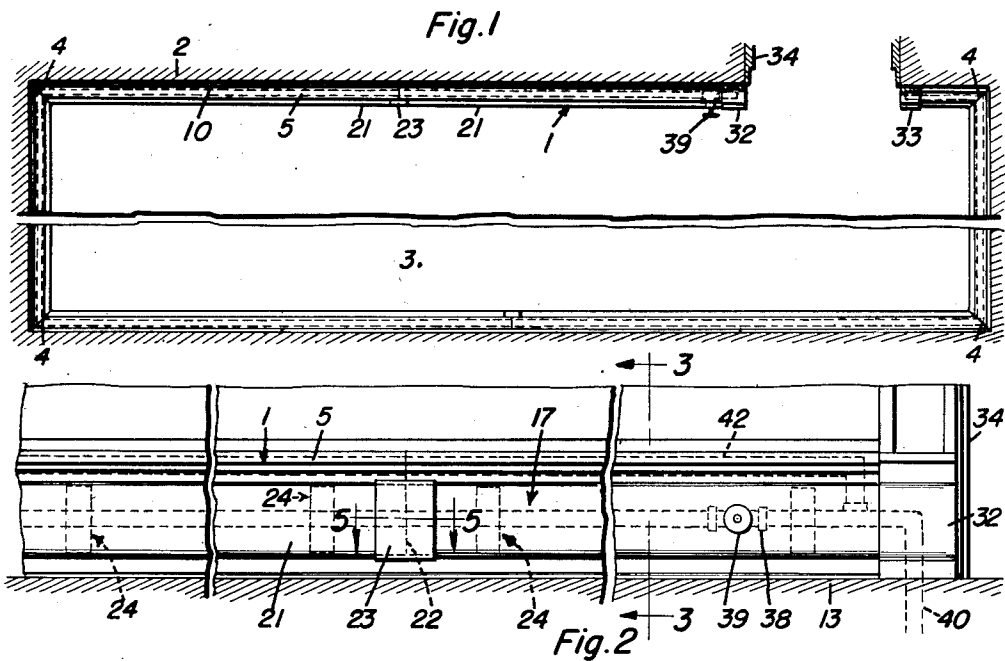
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2,651,504

BASEBOARD HEATING APPARATUS FOR ROOMS

Filed Dec. 15, 1950

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

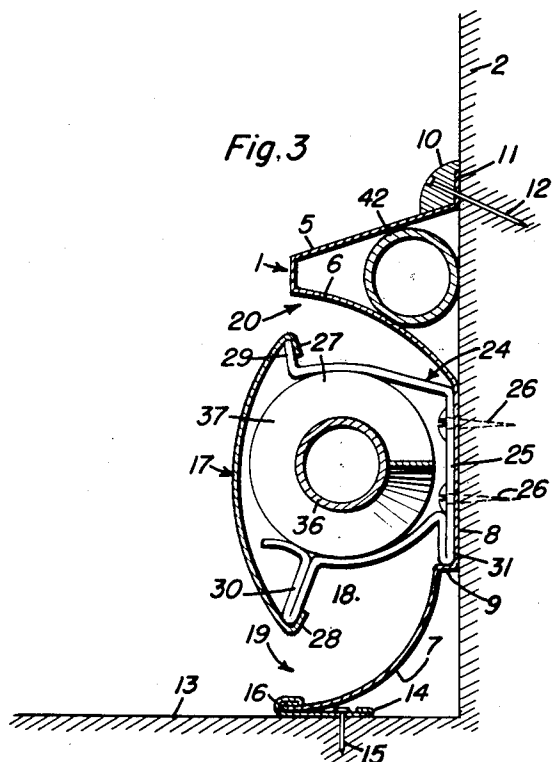


Fig. 8

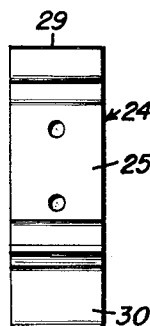
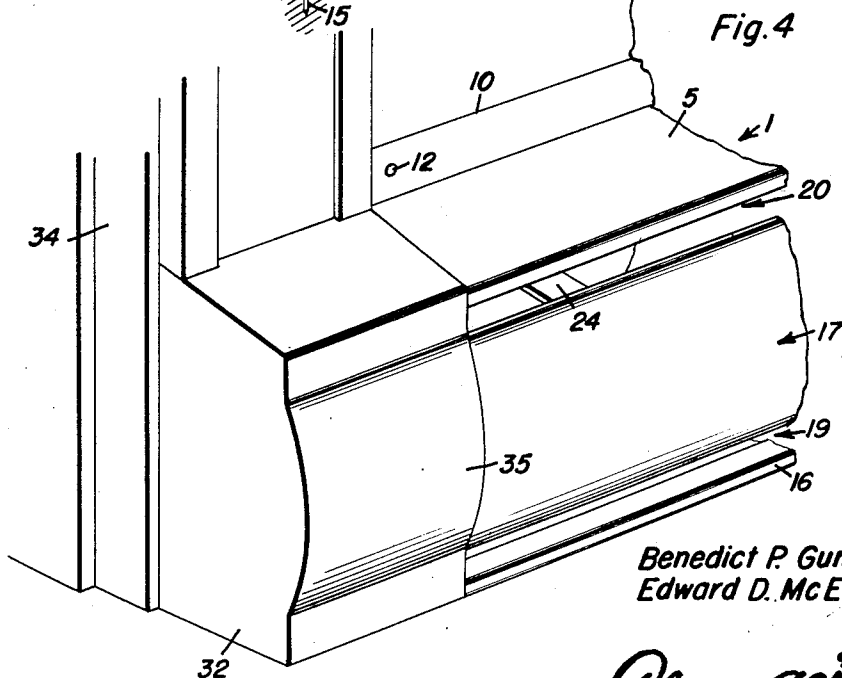


Fig. 4



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2,651,504

BASEBOARD HEATING APPARATUS FOR ROOMS

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2 Claims. (Cl. 257-133)

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Our invention relates to improvements in so-called baseboard heating apparatus for the rooms of dwellings, and other buildings.

The primary object of our invention is to provide for economically heating a room all around the base of all walls to uniformly and quickly heat a room so as to obviate cold zones, particularly at outside walls, and hot zones such as are caused by conventional radiators and registers.

Another object is to provide apparatus for accomplishing the above which is adapted to be easily and quickly installed in any room, and which is easy to take apart and maintain clean, and will simulate in appearance the conventional baseboard.

Other and ancillary objects together with the precise nature of our improvement will be readily understood when the succeeding description and claims are read with reference to the drawings accompanying and forming part of this specification.

In said drawings:

Figure 1 is a view in horizontal section, partly broken away, and illustrating a room equipped with our improved baseboard heating apparatus in the preferred embodiment thereof;

Figure 2 is a fragmentary view in front elevation, partly broken away, and shown in section and drawn to a larger scale;

Figure 3 is a view in vertical transverse section taken on a line 3-3 of Figure 2 and drawn to a larger scale;

Figure 4 is a similarly enlarged, fragmentary view in perspective of one end of the apparatus;

Figure 5 is a fragmentary view in horizontal section taken on a line 5-5 of Figure 2 and drawn to a larger scale;

Figure 6 is a view in vertical transverse section taken on the line 6-6 of Figure 5 and drawn to the same scale as in Figure 3;

Figure 7 is a fragmentary view in front elevation of the hot water pipe drawn to a larger scale;

Figure 8 is a view in front elevation of one of the brackets;

Figure 9 is a fragmentary view in front elevation, partly in section, of the other end of the apparatus.

Referring to the drawings by numerals, according to our invention as illustrated, a simulated baseboard panel 1, preferably of sheet metal, is provided around the base of the wall structure 2 of a room 3 and which may be continuous or formed of sections having suitably connected bevel end, butt joints 4 at the corners of the room 3.

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The baseboard panel 1 is of dished cross section and includes a longitudinal, forwardly extending, top ledge 5 flaring rearwardly in cross section and hollow, and provided with a forwardly and upwardly inclined and arched heat deflector bottom 6, said baseboard panel 1 further including a bottom cool air deflecting portion 7 concave and curving upwardly and rearwardly in cross section, a vertical, flat longitudinal wall engaging back portion 8 intermediate said ledge 5 and bottom portion 7, and a longitudinal horizontal shoulder 9 at the juncture of said bottom portion 7 and back portion 8. The baseboard panel 1 is secured at its top to the wall structure 2 by means of a wooden molding strip 10 fitting on top of the ledge 5 against a longitudinal upstanding rear flange 11 on said ledge, said strip 10 being nailed, as at 12, to the wall structure 2 through the flange 11. At its bottom, the baseboard panel 1 is secured to the floor 13 by means of a sheet metal keeper strip 14 coextensive with said baseboard 1 and nailed, as at 15 to the floor 13 with a rearwardly opening, front edge channel 16 fitting over the edge of said bottom portion 7. The keeper strip 14 may be formed in one piece, or of sections, joined like the baseboard panel 1 if made in sections.

A longitudinal, sheet metal, front strip 17 extends along the baseboard panel 1 at the front thereof and is mounted, by means presently described, in spaced relation to the front edge of the ledge 5 and the bottom and back portions 7 and 8 to form with said ledge 5, bottom portion 7 and back portion 8 a longitudinal heating chamber, or recess, 18 in said baseboard panel 1 having a comparatively narrow, bottom air inlet slot 19 and a similar top air outlet slot 20. The front strip 17 is preferably formed in sections 21 arranged end to end with butt joints 22 and with connecting sleeves 23 slidable thereon over said joints for connecting purposes and also slidable clear of said joints for disconnecting said sections 21, as occasion may require for detaching the sections and attaching the same in a manner presently seen. The sections 21 may be jointed at the corners of the wall structure 2 like the baseboard panel 1.

The mounting for said front strip 17 comprises a plurality of forwardly extending, bifurcated resilient brackets 24 spaced longitudinally in the heating chamber 18, as desired, and having a straight back 25 secured to the back portion 8 of the baseboard panel 1 and to the wall structure 2 by wood screws 26, to anchor said brackets 24 in vertical position in the heating chamber 18. The sections 21 of the front strip

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17 are formed with top and bottom channel edges 27, 28 and said sections 21 are formed of resilient metal and bowed outwardly, in cross section, so that the sections 21 may be flexed to snap said channel edges 27, 28 on and off of top and bottom lugs 29, 30 on the brackets 24, so that said sections 21 may be easily attached to and detached from said brackets. A bottom, rear depending lug 31 on each bracket 24 seats on the shoulder 9 to prevent said brackets 24 from sagging and to align the same horizontally.

The described baseboard panel 1, and front strip 17 terminates at ends thereof at vertical boxes 32, 33 arranged at opposite sides of the doorway 34 and closing the ends of the heating chamber 18, said boxes having closed fronts 35 bulging outwardly to match the front strips 17.

A hot water pipe 36 with a spiral heat transfer fin 37 thereon extends around the room 3 to substantially the boxes 32, 33 and is clamped and supported by the brackets 24 in the heating chamber 18 directly behind the front strip 17. A water control valve 38 with a hand wheel 39 extending outwardly of the front strip 17 connects one end of the hot water pipe 36 to a hot water line 40 extending upwardly through the floor 13 into one box, for instance 32, from a suitable source of hot water, not shown. The other end of the hot water pipe 36 is suitably connected in the other box 33 to a hot water return line 41 extending downwardly through the floor 13 to said source.

A water bypass line 42 is suitably connected at one end to said hot water pipe 36, between the control valve 39 and the hot water line 40, and extends upwardly into the ledge 5 and then along said ledge horizontally inside the same with a terminal end 43 extending downwardly to said pipe 40 adjacent the hot water return line 41.

Referring now to the operation of our invention, with the water control valve 38 open, hot water is circulated in the hot water pipe 36. The heated air in the heating chamber 18 rises and is deflected by the bottom 6 of the ledge 5 at the top of said chamber 18 forwardly and upwardly out of the outlet slot 20 to be replaced by cool air drawn into the bottom of the heating chamber 18 through the bottom inlet slot 19 and deflected upwardly to the hot water pipe 36 by the deflecting portion 7 of the baseboard 1. Thus, uniformly heated air is discharged into the room 3 at the base of all walls to uniformly heat the room 3 and so that cold walls are obviated and both cold and hot zones prevented. If the valve 38 is closed, the hot water from the hot water line 40 is bypassed through the ledge 5 to the hot water return line 41 so that the heating capacity of the apparatus is reduced for low temperature heating by merely heating the ledge 5 which, because of its hollow construction,

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forms a heating chamber extending along the top of the baseboard panel 1.

The foregoing will, it is believed, suffice to impart a clear understanding of our invention, without further explanation.

Manifestly, the invention, as described, is susceptible of modification, without departing from the inventive concept, and right is hereby reserved to such modifications as fall within the scope of the appended claims.

Having described our invention, what is claimed as new is:

1. Room heating apparatus comprising a simulated base board panel of dished form in cross section adapted to open forwardly of a wall of the room to provide a longitudinal recess in front of the wall coextensive with said panel, and having a back attachable to the wall, an upwardly and rearwardly curved integral bottom edge portion for directing air upwardly into said recess, and a forwardly and upwardly curved top edge portion for deflecting air out of said recess and completing the recess at its top, resilient forwardly extending brackets spaced longitudinally in said recess and secured to said back midway between said edge portions, a hot water pipe clamped by said brackets and extending longitudinally of said recess, and a longitudinally extending strip narrower than said recess and extending along the front of said recess in front of said pipe and brackets and forming with said edge portions longitudinal narrow top and bottom air outlet and inlet slots at the front of said recess, and longitudinal flexible edge channels on said strip fitting over said brackets with a snap action for removably retaining said strip in place.

2. Room heating apparatus according to claim 1, and a channeled edge keeper strip attachable to the floor and fitting over and under said bottom edge.

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