



(11) Publication number : **0 533 455 A1**

(12)

EUROPEAN PATENT APPLICATION

(21) Application number : **92308434.7**

(51) Int. Cl.⁵ : **F24H 9/12**

(22) Date of filing : **16.09.92**

(30) Priority : **17.09.91 GB 9119830**

(43) Date of publication of application :
24.03.93 Bulletin 93/12

(84) Designated Contracting States :
DE DK IE

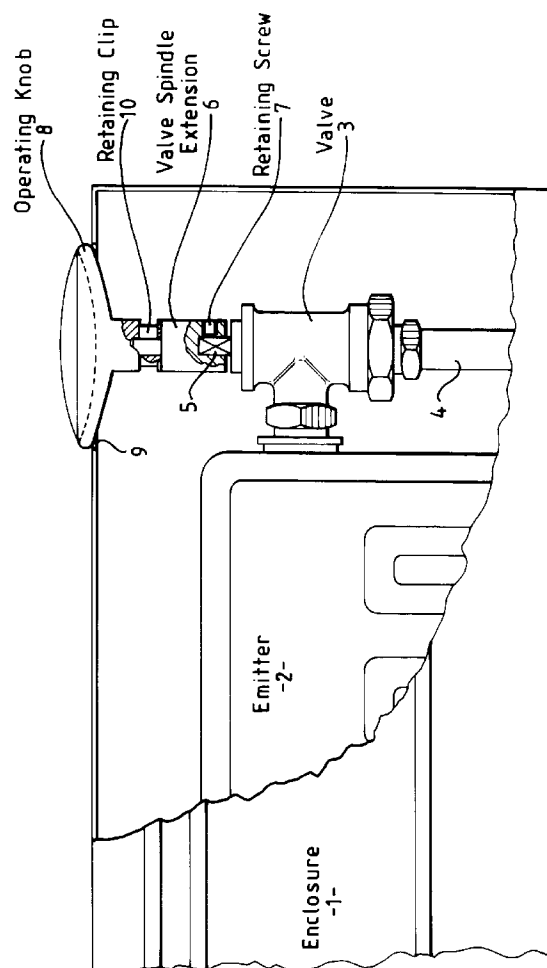
(71) Applicant : **BLUE CIRCLE HEATING LIMITED**
(formerly MYSON GROUP PLC)
Myson House, Railway Terrace
Rugby, Warwickshire CV21 3JH (GB)

(72) Inventor : **Howland, Alan Henry**
8 Tollgate Road, Hamsterley Mill
Rowlands Gill, Tyne and Wear NE39 1HF (GB)

(74) Representative : **Lawrence, Brian Richard**
59 Shenfield Place
Shenfield Brentwood Essex CM15 9AH (GB)

(54) **Heat radiators.**

(57) A low surface temperature heat radiator comprises an enclosure 1 encasing a heat emitter 2 having a control valve 3, the control valve having a spindle extension 6 and an operating knob 8 which extends through a hole in the enclosure 1 and affords access to the control valve 3 from outside of the enclosure 1.



This invention relates to heat radiators and more specifically to so-called low surface temperature heat radiators.

Low surface temperature (LST) heat radiators are used in situations where the temperatures reached by conventional radiators, typically 80°C, are unacceptable, e.g. in hospitals, clinics, retirement homes, etc. and consist of a conventional heat radiator, which may form part of a normal hot water central heating system, encased in an enclosure, the temperature of which is designed not to exceed a predetermined maximum e.g. 40°C. In such LST heat radiators it is usual to encase any exposed pipes and also the radiator valve in the enclosure and this means that some method has to be provided whereby access to the radiator valve is possible. This may be achieved, for example, by arranging that the enclosure can be pivoted forward at the top to allow access to the radiator valve or by provision of an openable access panel. Such arrangements often allow the high temperature parts of the radiator to be touched which is undesirable.

It is an object of the present invention to provide an improved form of LST heat radiator which provides ready access to the radiator valve without exposure of the high temperature parts.

According to the present invention there is provided a low surface temperature heat radiator comprising a heat emitter including a control valve encased in an enclosure, said radiator valve having a spindle extension and a knob which extends through said enclosure.

In carrying out the invention the control valve may be disposed near the top and at one end of said heat emitter, said knob extending through the top of said enclosure.

An exemplary embodiment of the invention will now be described, reference being made to the accompanying single figure drawing which is a partially cut-away drawing of a part of a LST heat radiator in accordance with the present invention.

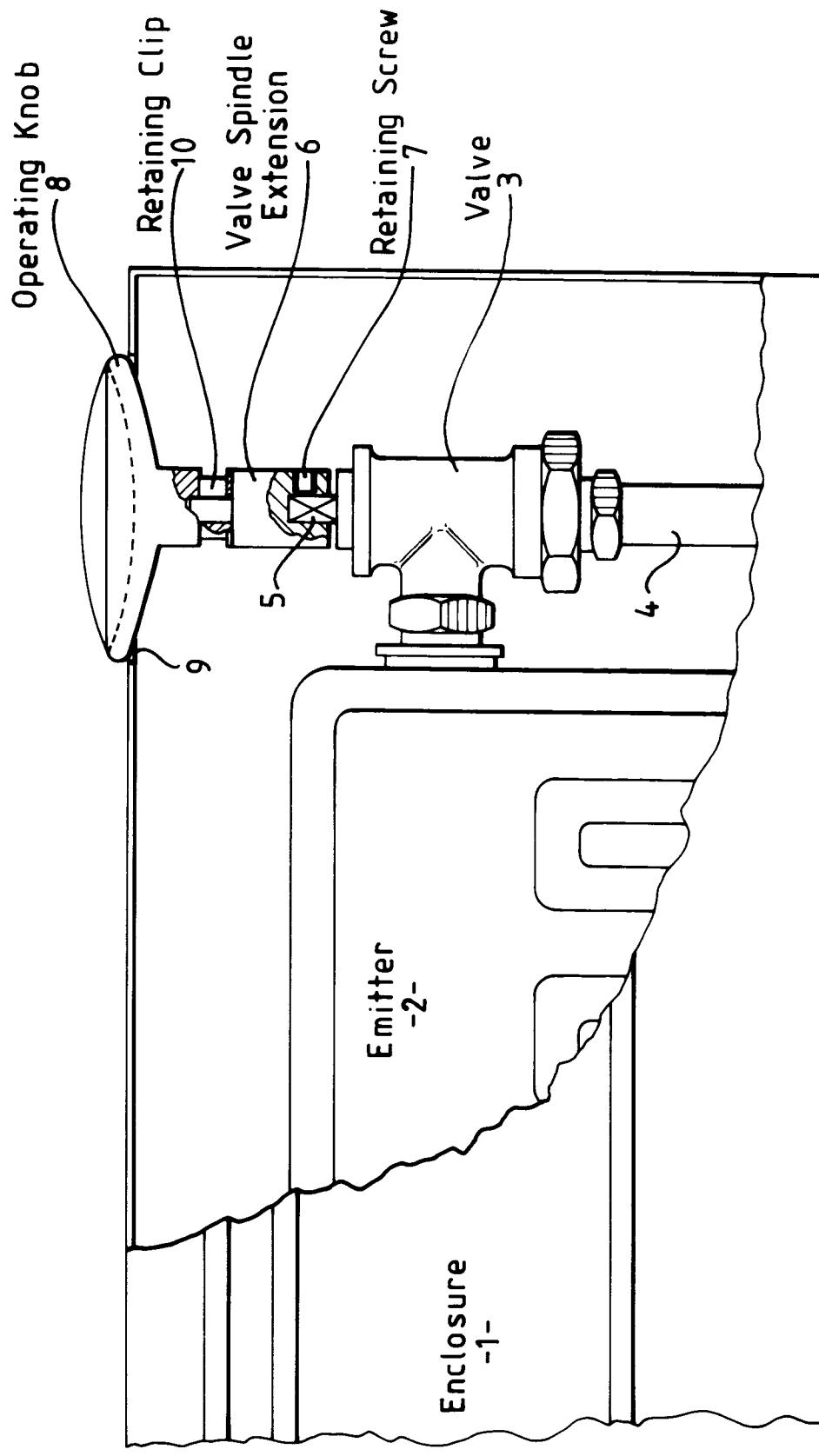
In the drawing there is shown part of the enclosure 1 of a LST heat radiator which encases a heat emitter 2 of conventional form and which may form part of a conventional hot water central heating system. The heat emitter 2 is provided with a manually adjustable radiator valve 3 by means of which it is connected to a flow pipe 4, the radiator valve 3 being provided with a spindle 5 for receiving an adjusting knob which is used to operate the radiator valve 3.

As has already been mentioned the knob (not shown) of the radiator valve 3 is normally provided within the enclosure 1 and some means needs to be provided to gain access to it. In order to obviate this the spindle 5 of the radiator valve 3 is provided with a spindle extension 6 which is attached to it by means of a retention screw 7. An operating knob 8 is provided which extends through a hole 9 in the enclosure 1 and

which engages the spindle extension 6 and is retained on it by a retaining clip 10. By this means direct access to the radiator valve 3 within the enclosure 1 is obtained from outside the enclosure. It will be appreciated that although in the embodiment described the spindle extension 6 and the knob 8 are shown as separate items, in some applications they could be formed as an integral part.

Claims

1. A low surface temperature heat radiator comprising a heat emitter including a control valve encased in an enclosure, said radiator valve having a spindle extension and a knob which extends through said enclosure.
2. A heat radiator as claimed in claim 1, in which said control valve is disposed near the top and at one end of said heat emitter, said knob extending through the top of said enclosure.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 30 8434

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	GB-A-2 187 823 (DANFOSS A/S) * abstract *	1	F24H9/12
A	GB-A-2 050 899 (ARMSTRONG) * abstract *	1	
A	FR-A-1 435 173 (ETS. P. PIEL) * the whole document *	1	
A	GB-A-1 321 773 (WAINWRIGHT) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			F24H F24D F16K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 17 NOVEMBER 1992	Examiner VAN GESTEL H.M.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P0401)