



No. 17,698/24.

APPLICATION DATED

10th May, 1924.

Applicant (Actual Inventor) ... THOMAS CRAWFORD McDOWELL.
Application and Complete Specification ... Lodged 10th May, 1924.
Application and Complete Specification Accepted Acceptance Advertised (Sec. 50) 19 May, 1925.
 5th May, 1925

Classes 23.3 ; 23.5 ; 24.8.

Drawing attached.

COMPLETE SPECIFICATION.

"A hydrocarbon heat radiator."

I, THOMAS CRAWFORD McDOWELL, of 55 York Street, Sydney, in the State of New South Wales, Commonwealth of Australia, Merchant, hereby declare this invention, and the manner in which it is to be performed, to be fully described and ascertained in and by the following statement:—

This invention relates to a petrol heat radiator such as those used for heating rooms for small and irregular periods and the object of the invention is to provide a simple and efficient heat radiator more especially for use in districts which have not the benefit of an electric supply or gas reticulation system.

The invention consists in providing a metal mantle which is heated to a red heat by the combustion of vapourised petrol or other similar volatile fuel, the mantle being situated at the focus of a concave polished reflector supported in an ornamental frame. It is proposed to raise the wire mantle to a red heat only. I am aware that it has previously been suggested in connection with gas heating radiators to employ incandescent mantles.

The invention will be described with reference to the accompanying drawing which

illustrates a radiator constructed according to the invention.

The heat radiator consists of a frame or stand 2 which supports a reflector 3 and an inverted U shaped tube 4, one end 5 of which passes through the reflector, the tube being supported by the member 6 from the top of the frame 2.

The mantle 7 which is constructed of a woven metal wire such as monel metal or nichrome is attached to the U tube 4 as shown. Petrol is supplied under pressure from an external reservoir (not shown) through the pipe 8 and control valve 9 to the jet 10 from which it issues as a vapour and passes to the mantle through the tube 4.

The operation and regulation of the frame is similar to that of the well known petrol incandescent lamp.

The mantle is raised to a red heat by the combustion of the vapourised petrol and the heat is radiated by the reflector, the incoming petrol being vapourised owing to the proximity of the pipe 11 to the heated mantle.

A protecting screen is fitted across the front of the reflector.

Having now fully described and ascertained my said invention and the manner in

which it is to be performed, I declare that what I claim is:—

1. In hydrocarbon heat radiators in which the liquid fuel is supplied by pressure a
5 heating element consisting of a wire mantle and means for raising said mantle to a red heat as herein described and illustrated in the drawings.

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2. The improved hydrocarbon heat radiator as herein described and illustrated in the drawings.

Dated this 8th day of May, A.D. 1924.

THOMAS CRAWFORD McDOWELL,

By his Patent Attorney,

T. C. ALLEN.

Witness—N. M. Goddard.

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THOMAS CRAWFORD McDOWELL.

Heat Radiator.

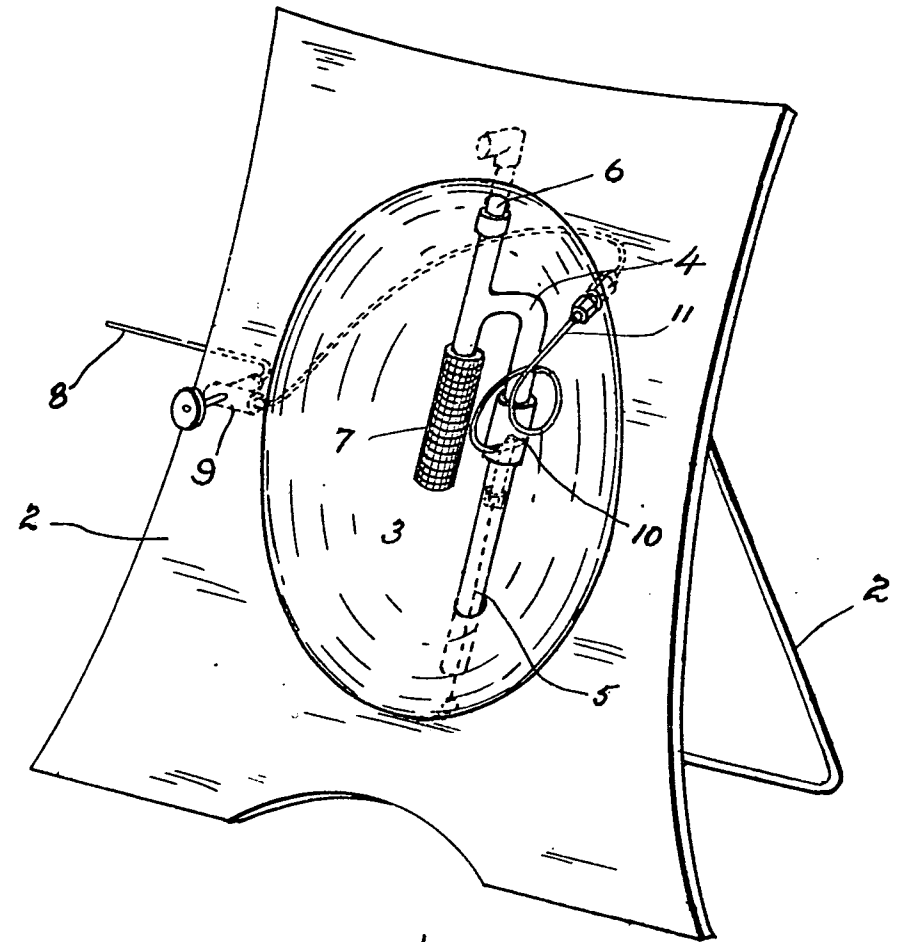


Fig. 1.