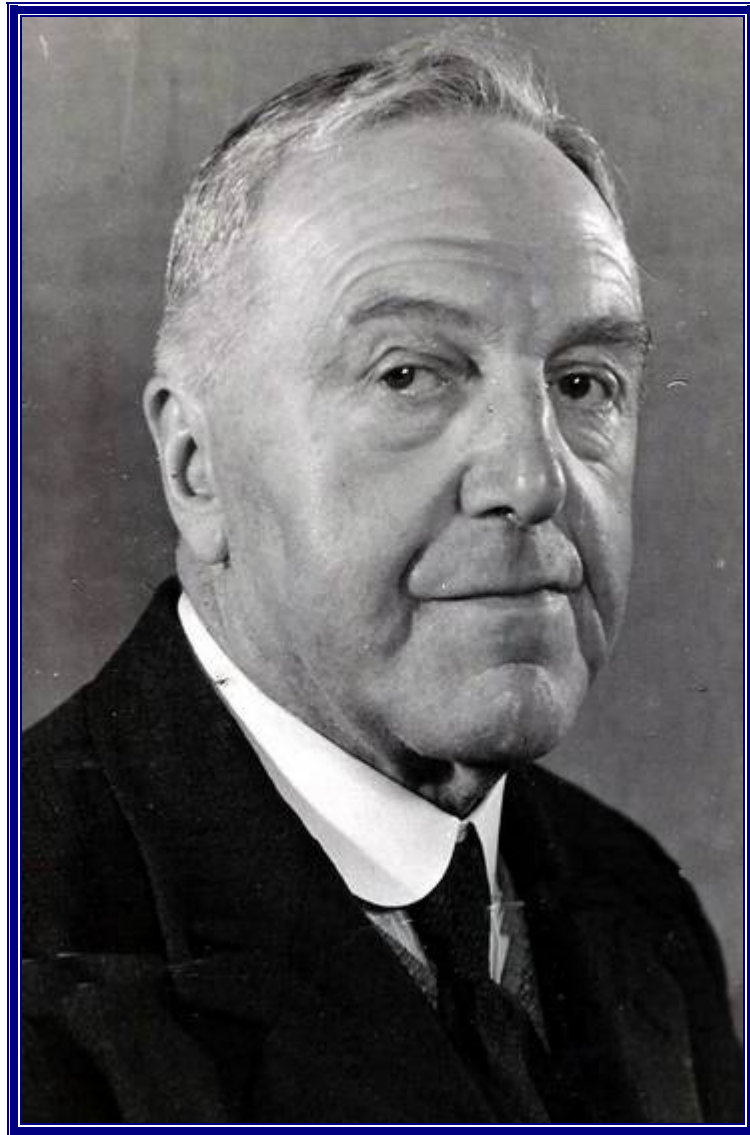


ARTHUR HENRY BARKER

By EurIng Brian Roberts, CIBSE Heritage Group



Arthur H Barker 1870-1954, President IHVE 1922-23

Arthur Barker was born in Pontefract, Yorkshire, in May 1870, the son of W Hurst Barker JP of Castle House. At the age of 15, he won the Salt Scholarship to the University of Leeds. Next, he was awarded two Whitworth Scholarships, taking the first place in two successive years and obtained both Science and Art Degrees at London University. He went on to have a long and distinguished career in both industry and in education.



On leaving University, he entered the works of Henry Berry & Company Ltd, hydraulic engineers of Leeds, as a Fitter-Improver. From there he gained further experience as Turner & Erector with Hudsell, Clarke & Company Ltd, locomotive engineers of Leeds. During these periods he wrote his books on *Graphical Calculus* and *Graphic Methods on Engine Design*.

Barker then took up a six months post as assistant to the Professor of Engineering at Leeds University before returning to practical work as a pattern maker with Gwynne & Company of London, a pump manufacturer. At this time he wrote *The Management of Engineering Workshops*. At Gwynnes he was promoted, firstly to Foreman and then to Chief Draughtsman. He then moved to Hull as Work's Manager for Rose, Down & Thompson.

18 ADVERTISEMENTS.

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HOT WATER RADIATORS of special designs.

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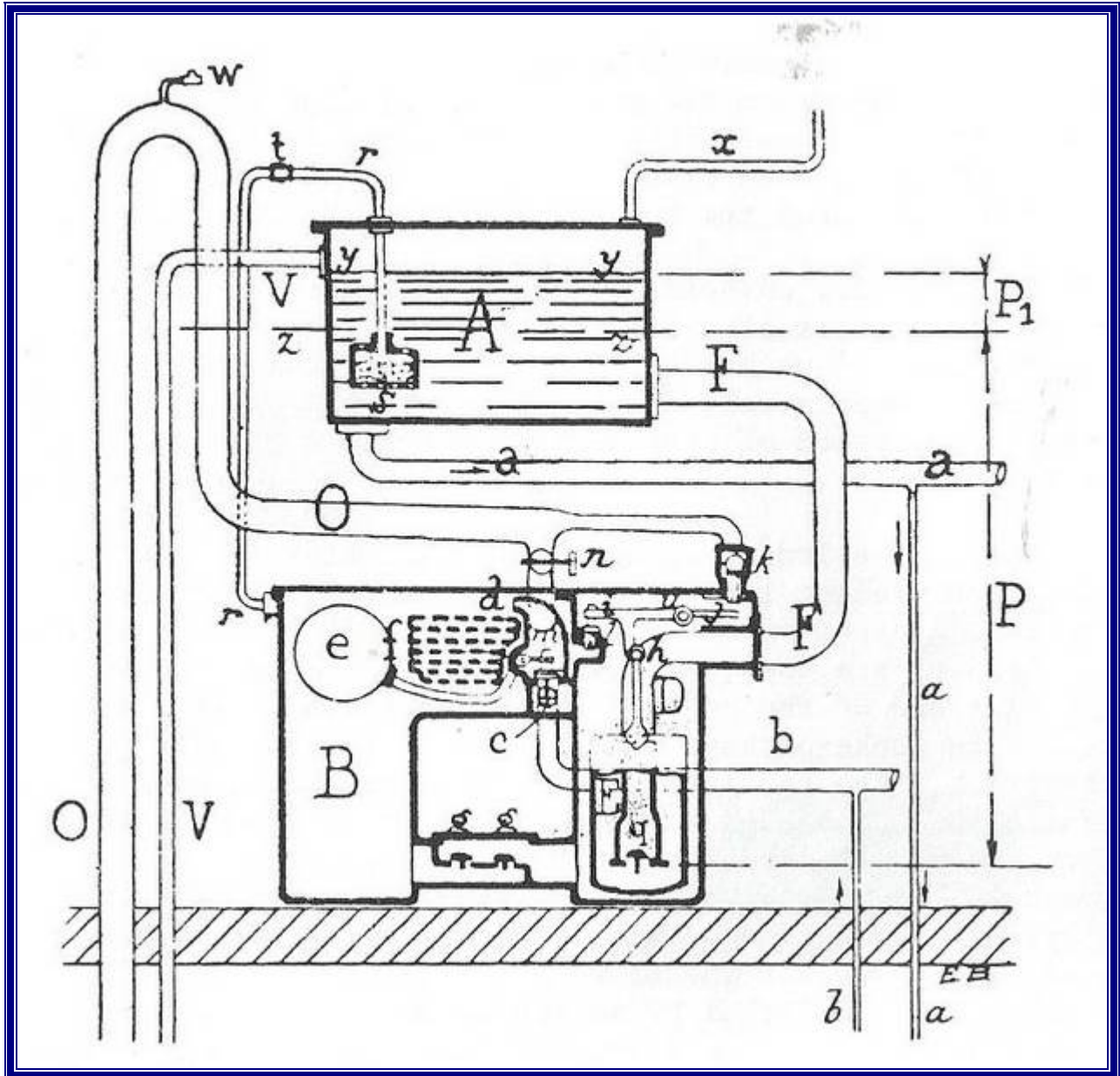
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Barker commenced his association with the heating industry when around 1900 he took up employment with G N Haden & Sons Ltd of Trowbridge where he was in charge of the Heating & Ventilating Department, staying for the next ten years. He joined the IHVE in 1903 and published his book *Lectures on Works Management*. That same year he took out a British Patent for a steam accelerator, the "Cable System," designed to promote hot water circulation and which worked on a different principle to that devised by Captain A B Reck of Copenhagen in 1902. Barker acquired US Patent 796,283 of 1905 for his accelerator.



Barker's steam accelerator of 1906

According to his obituary, he started in practice as a Consulting Engineer in 1911. His Presidential Record states he became Managing Director of Middleton & Barker. What is certain that in 1912 he published his most famous work *Barker on Heating*, a mammoth volume of 640 pages with an Appendix of some 33 detailed Tables. Advertisements in the back of this book show he was Technical Managing Director of J F Phillips & Son, Heating & Ventilating Engineers with offices in London, Leeds, Brighton & Liverpool and had also formed Barker Patents Syndicate Ltd.

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& SON,
**Heating & Ventilating
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PREPARED FREE.

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J F Phillips advertisement of 1912 showing Barker as Technical Managing Director

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ACCELERATED CIRCULATION
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HOT WATER HEATING

CAN BE INSTALLED BY ANY FIRM OF
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- ¶ Some of the *largest and most difficult installations* in this country and abroad have been *carried out* and are working with complete success *under our patents*.
- ¶ We are prepared to report on existing installations in any part of the country. Unsatisfactory installations may in most cases be adapted to one or other of our patent systems and perfect satisfactory working obtained.

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199, Strand, W.C. Telephone Gerrard 5363.

The book *Barker on Heating* deals with virtually all aspects of that subject beginning with properties of heat, air, water, steam and fluid flow, continuing with ventilation, air movement and fans, and then deals with heat transmission, heat losses, methods of heat supply, room temperatures, combustion and boilers, finishing with detailed information on pipe sizing for hot water and steam systems. However, much of this information is based, with some modifications, on the research and writings of Dr Ing Hermann Rietschel (1847-1914) of Germany, now acknowledged as shaping much of the technology of heating and cooling.

In his British Patent (BP 28477 of 1907) Barker claims to have introduced low-temperature radiant heating by means of hot-water panels in the floor or fixed to walls, but this is not discussed in his 1912 book. However, his work on this topic has earned him the title “Father of Radiant Heating.” He acquired US Patents in 1928 and 1930 for radiant panel devices.

Barker was Head of the Department of Heating and Ventilating Engineering at University College, London, for ten years, where he carried out much original research. In 1922, he became President of the IHVE, his Presidential Address being “Co-operation with Kindred Institutions.” He served on many Committees of the Institution and the IHVE Guide records that he contributed eighteen technical papers to the Journal.

Barker died in January 1954 at the age of 83 years.

References

Barker on Heating, A H Barker, The Carton Press, London, 1912

A H Barker: President 1922-23, JIHVE, 1922

Obituary: Mr A H Barker, JIHVE, March 1954

Index to Journal & Proceedings, IHVE Guide Book A, 1971

Appendix: Barker's US Patents

No. 796,283.

PATENTED AUG. 1, 1905.

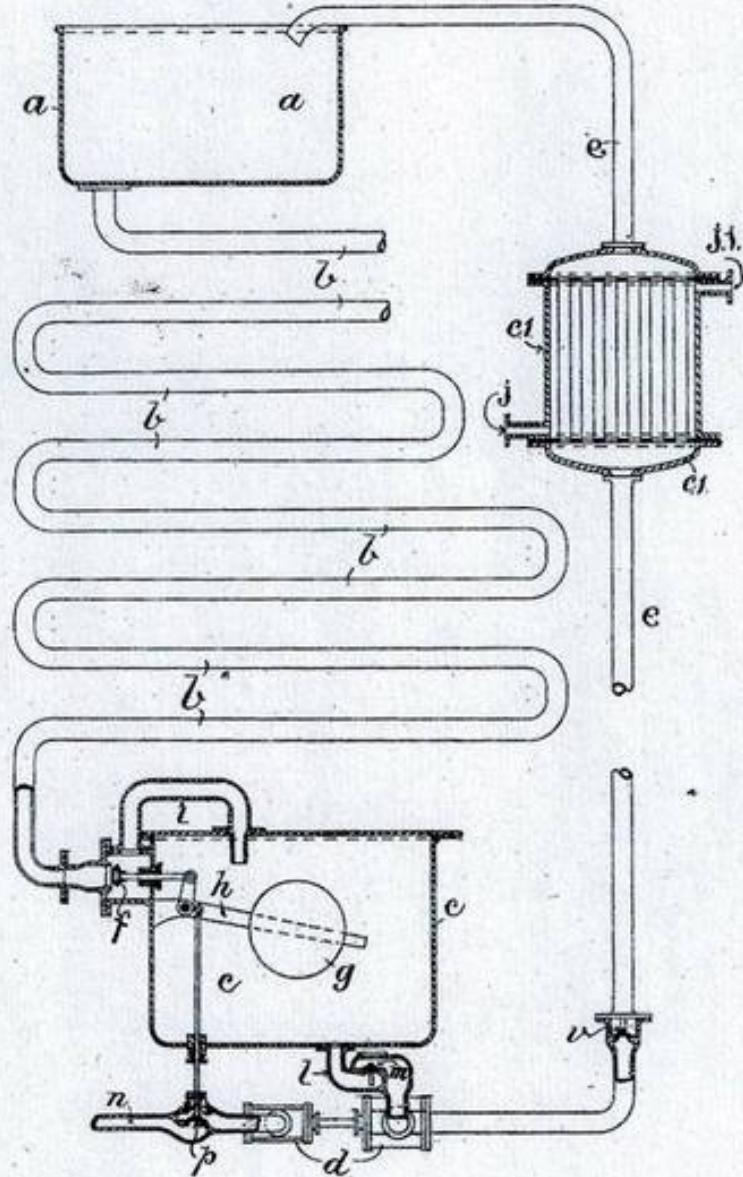
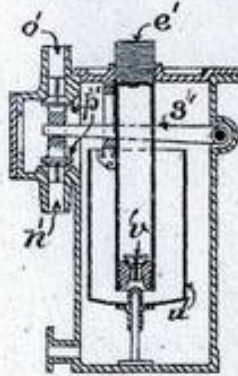
A. H. BARKER.
APPARATUS FOR HEATING WATER AND CIRCULATING THE HEATED WATER
BY MEANS OF STEAM.

APPLICATION FILED AUG. 27, 1904.

3 SHEETS—SHEET 1.

Fig. 1.

Fig. 4.



Clifford John Offer.
Frank Wilkins Kempf. } Witnesses

Arthur Henry Barker.
Inventor.

May 29, 1928.

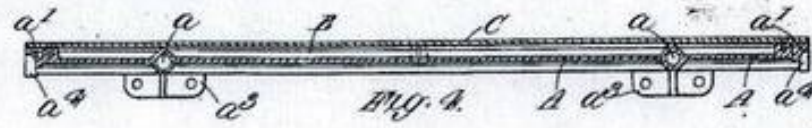
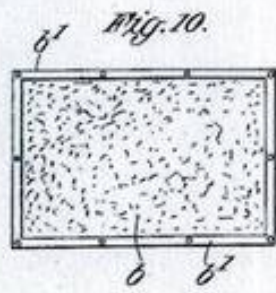
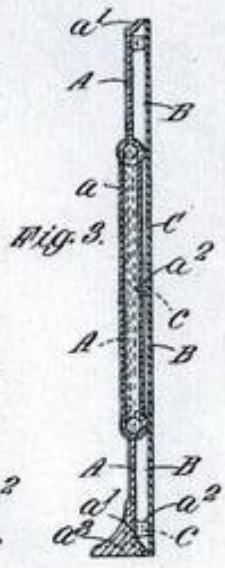
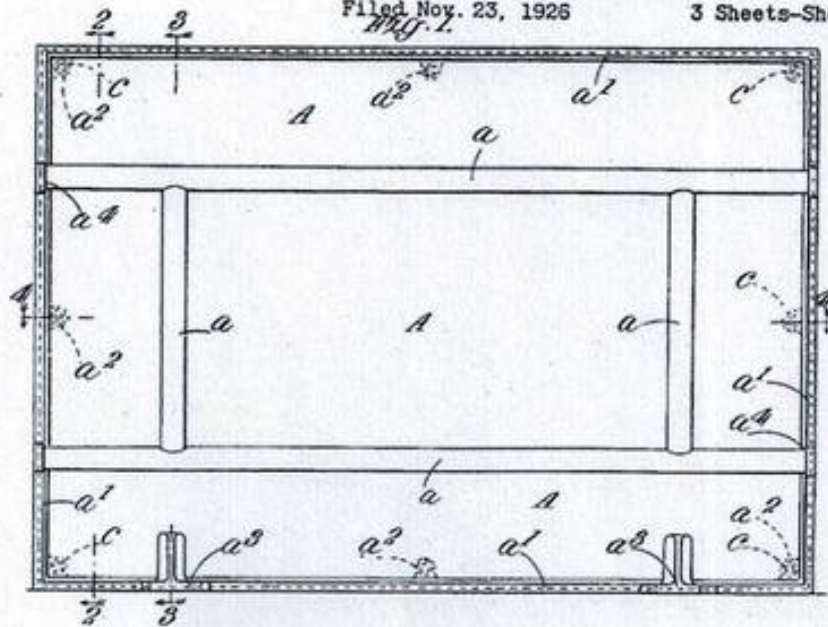
1,671,568

A. H. BARKER

HEATING AND COOLING DEVICE FOR BUILDINGS

Filed Nov. 23, 1926

3 Sheets-Sheet 1



Inventor
Arthur Henry Barker
By
Francis Danvers Wood
Attorneys

Barker's US Patent of 1928 for a Heating & Cooling Panel

Jan. 21, 1930.

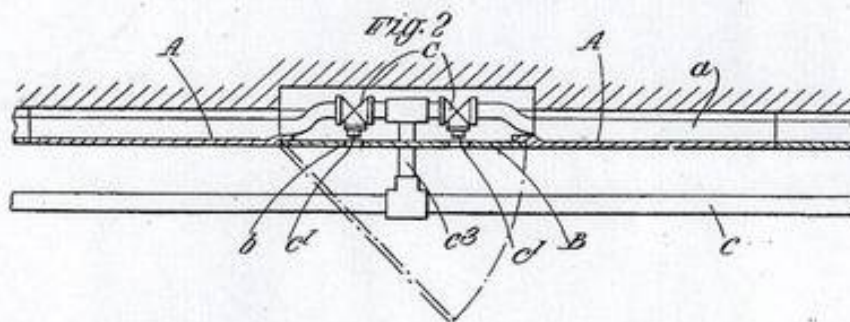
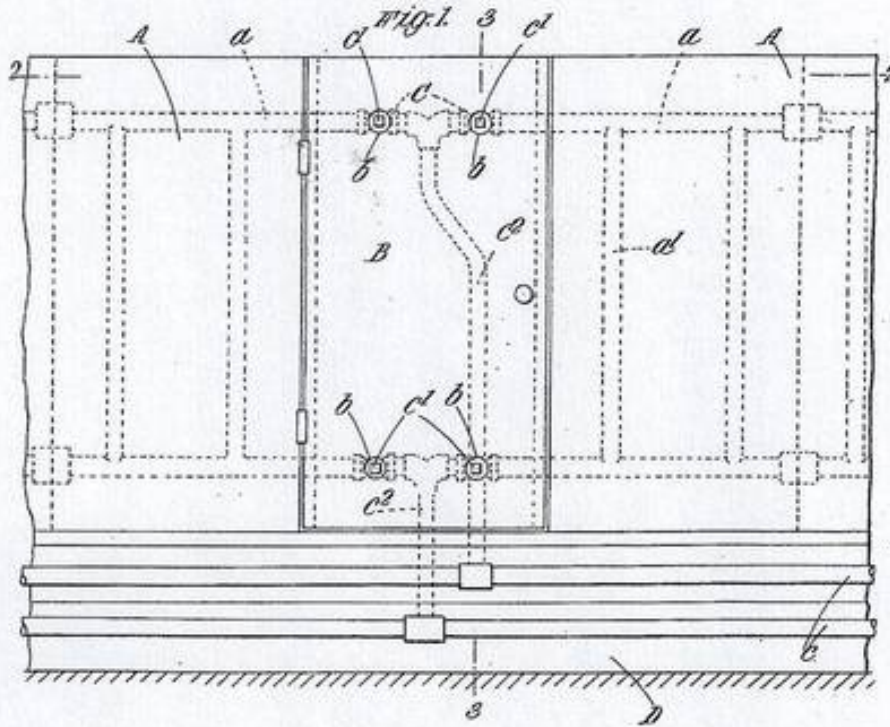
A. H. BARKER

1,744,517

HEATING AND COOLING DEVICE

Filed Jan. 19, 1929

2 Sheets-Sheet 1



Inventor
Arthur Henry Barker
By
Francis Davis Martin & Edmund
attorneys