

HEATING AND VENTILATING DESIGN BEFORE 1982

Chapter 1 Introduction

This Large E-Book is the tenth in the CIBSE Heritage Group Series and includes the complete Chapter 13: *Heating and Ventilating Design* taken from the book *Building Services Design: A Review of Its Development*, co-authored by the late Neville Billington & Brian Roberts and published in 1982.

Chapter 13 is largely the work of Neville and in this E-Book has been supplemented by a number of selected pages and diagrams from pre-1982 textbooks and IHVE Guides with illustrations of various calculating devices, as shown on those pages with red borders (all taken from the Archives of the CIBSE Heritage Group).



Neville Billington

A Personal Tribute to Neville Billington OBE MSc PPIHVE

I first met Neville in 1955 when he was Head of the National College for Heating, Ventilating, Refrigeration and Fan Engineering and I was a student on the Diploma Course. I got to know him better in 1956-57 as one of eight Research students on the Associateship Course.

His career started in 1937 when he joined the Building Research Station investigating the heating and ventilation of buildings. In 1950, having become a Principal Scientific Officer at the BRE he was appointed Head of the National College. In 1958 he became the first full-time Director of what became the Heating and Ventilating Research Association (HVRA), continuing until his retirement in 1975 when the Association became the Building Services Research and Information Association (BSRIA).

In the 1970s, I served on the Technical Committee of HVRA during which time I used the resources of their library to carry out research with a view to writing a book on the history of building services engineering. My activities were noticed by Neville, who unknown to me was writing a similar history, and he kindly suggested

we work as co-authors, a collaboration which continued until publication of *Building Services Heritage* in 1982.

Neville was a founding member of the IHVE Archaeology Working Party, later the CIBSE Heritage Group, serving from 1973 until 1991 and we again worked together when, in 1984, I became Chairman of the Group to which he made many valuable contributions.

He was one of the 20th century giants of the Building Engineering Services industry. Though not a practising engineer he was scientist, educator, author, researcher and communicator. He was considered the UK's leading authority on heat transmission in buildings, a subject on which he wrote numerous papers and several textbooks. He developed the theories of unsteady heat flow and intermittent heating and pioneered our knowledge about vapour transfer and condensation in buildings. He was a familiar face at both national and international conferences. He spoke French, some German and a smattering of Russian.

Neville's outstanding contributions to our industry was recognised in many ways, including the following:

1966 award OBE

1969 awarded the Gold Medal of the French Sciences of Artificial Climate.

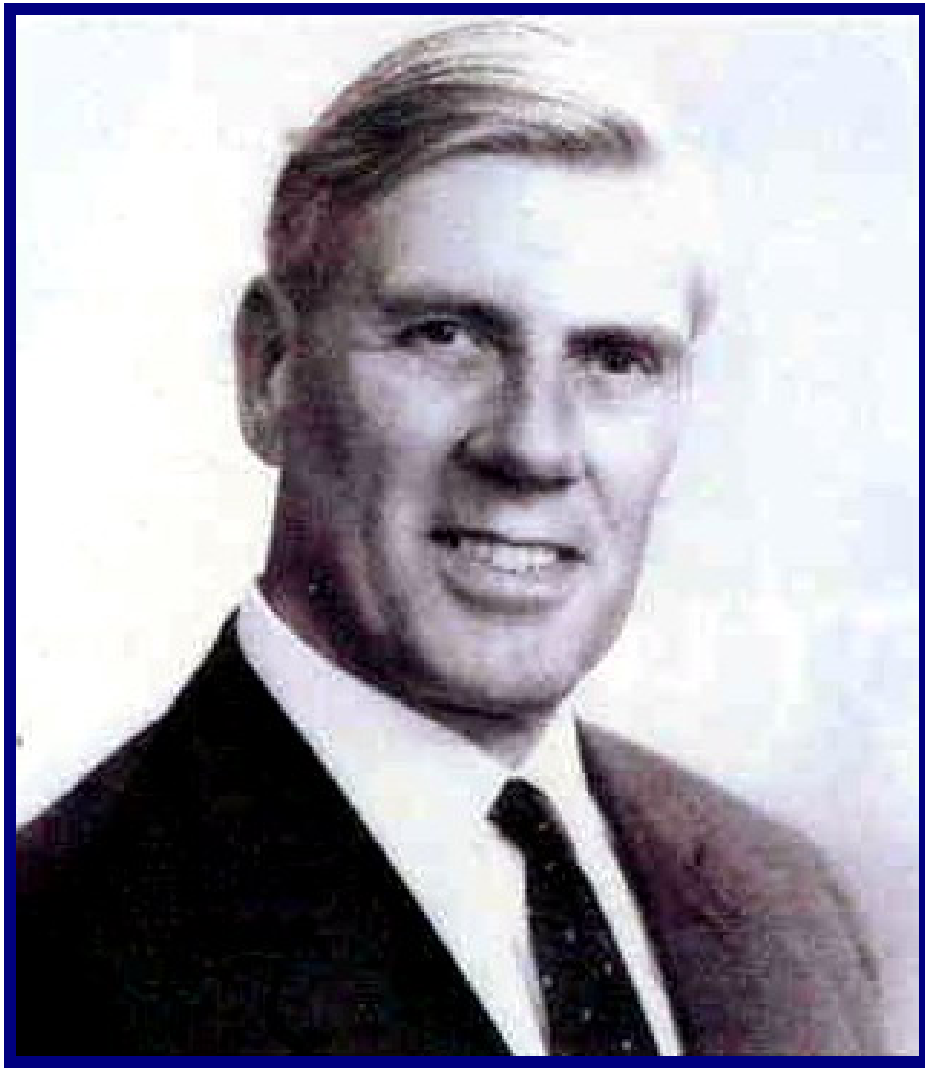
1970-71 President of the IHVE.

1976-78 President of REHVA (Representatives of European Heating & Ventilating Associations).

1976 awarded the IHVE Gold Medal.

Neville Billington died in 2009 at the age of 93. His many works still contribute to the education of students and remain a source of information for today's engineers.

BMR
Tadworth
2018



Neville Billington 1915-2009

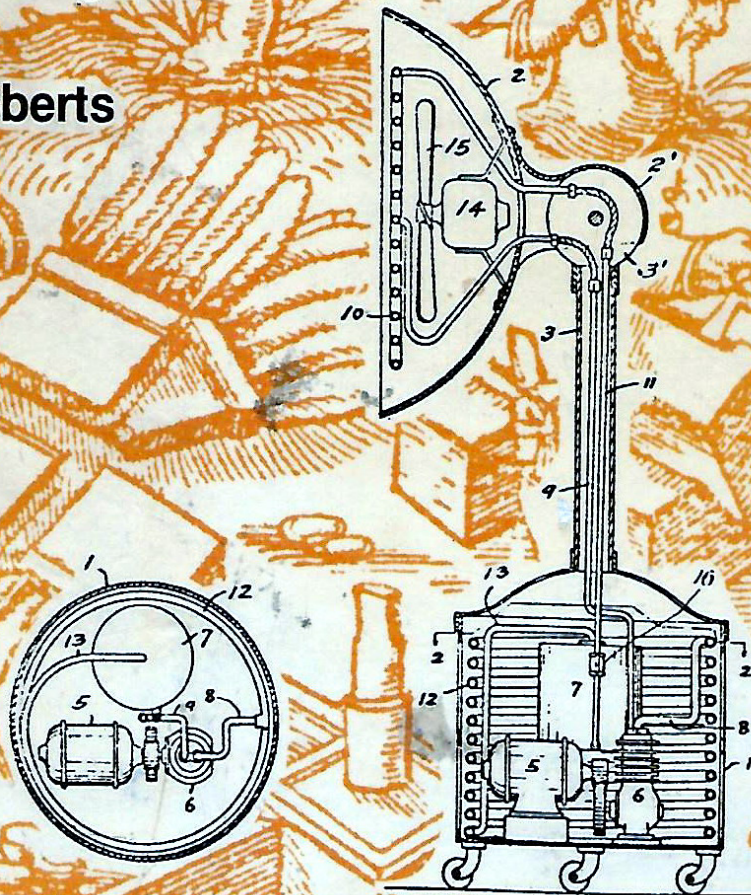
Neville Billington was a true gentleman, a professional of the highest order, who played a colossal part in the technical development of our industry and inspiring others who work in it.

*Industry Mourns the Death of Building Services Icon,
Peter Jackman, Obituary in the CIBSE Journal*

Building Services Engineering

A Review of Its Development

Neville S. Billington
and
Brian M. Roberts



PERGAMON PRESS

International Series on
Building Environmental
Engineering, Volume 1

1982

Postscript

I also remember Neville as an accomplished painter of landscapes in water colours.

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