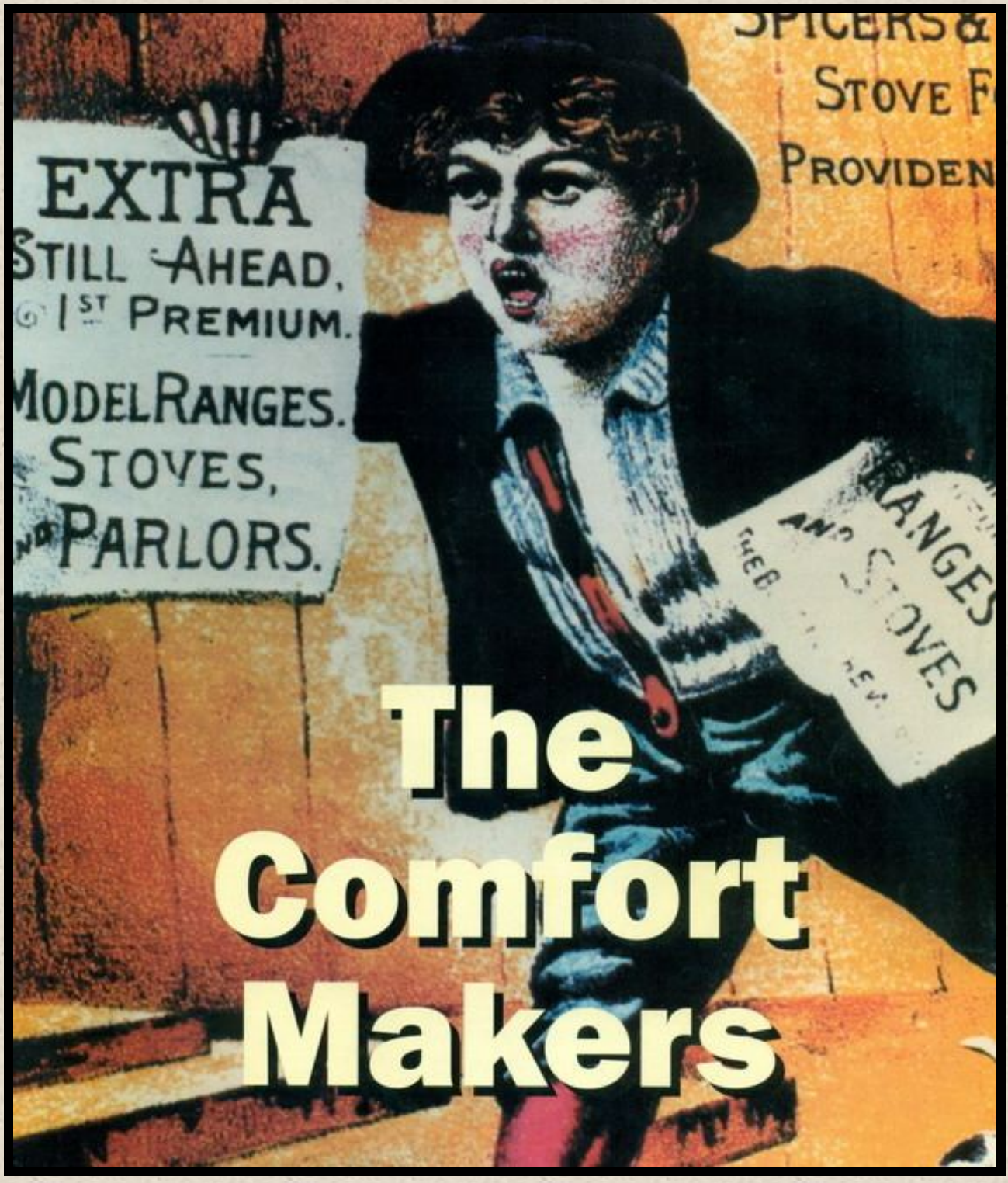


BRIAN ROBERTS
CIBSE HERITAGE GROUP
2013

Introductory Note

The Comfort Makers **was conceived, researched and written in the late 1990s and published by ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc) in 2000 [ISBN I-883413-84-2].**

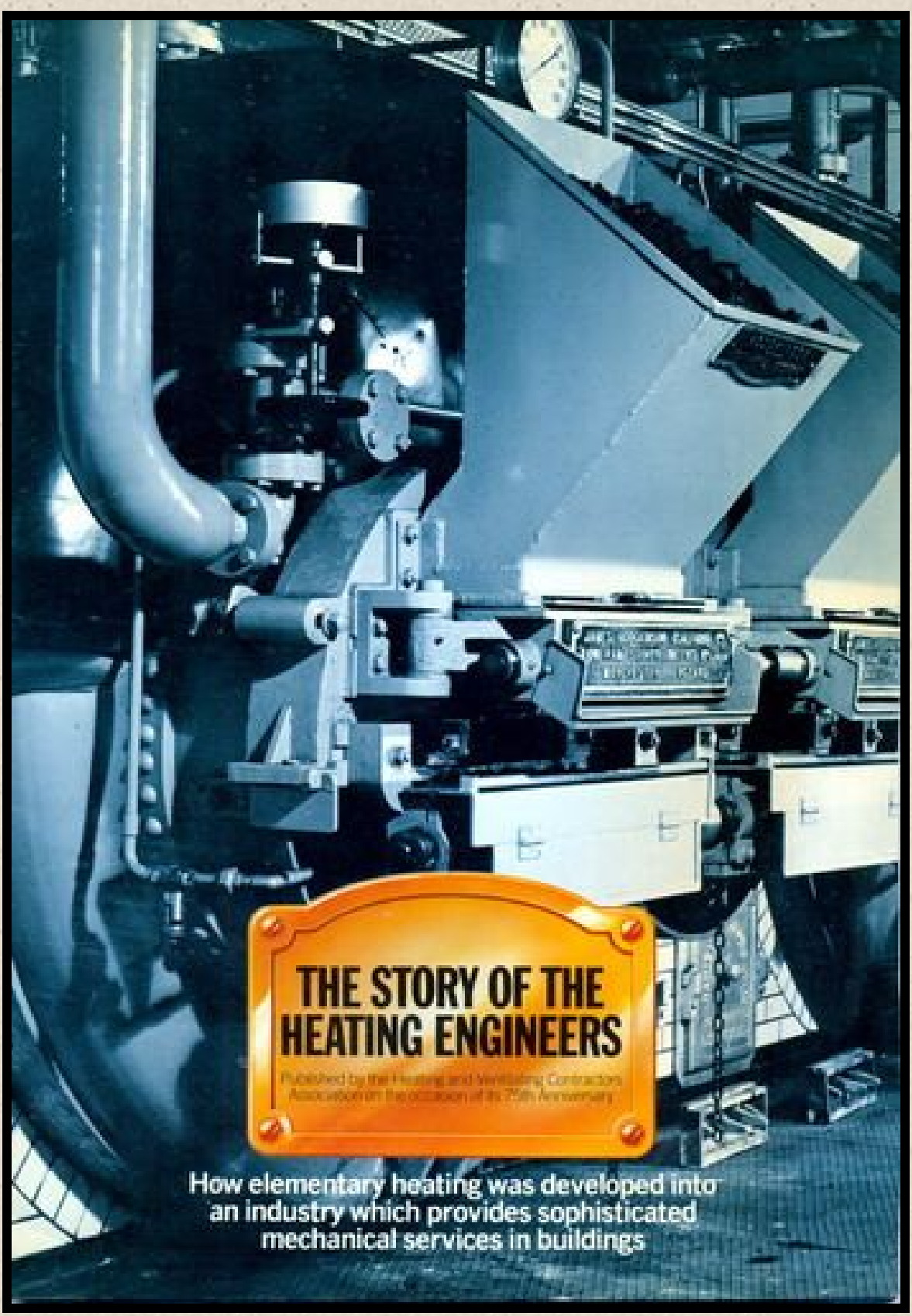
Now, some thirteen years later, the author has put together a modified electronic version to make the information on industry pioneers available to a wider audience through the CIBSE Heritage Group website. In addition, two Appendices have been added: *Pioneers in Acoustics* and *The Electric Motor Makers.* The original summary follows.

The Comfort Makers contains information on 270 pioneers who have contributed to our knowledge of heating, ventilating, refrigeration, and air conditioning over two millennia. The story is told in a series of mini-biographies with over 100 portraits and some 40 contemporary illustrations and advertisements.

These pioneers were engineers, architects, and scientists. Some were manufacturers of heating, ventilating, and cooling equipment or were controls specialists. Others were designers or installers. The biographies include many people famous in the HVAC&R field; others are virtually unknown. A number are world-famous for notable achievements in science or other areas and are included because of a particular contribution, often largely unrecognized, to the development of comfort engineering. These include doctors, writers, civil engineers, mathematicians, soldiers, horticulturists, a U.S. president, a Bavarian count, statesmen, ironmongers, philosophers, an artist, a curate, a cardinal, an abbott, a railway engineer, a meteorologist, and others from many walks of life or fascinating backgrounds.

To these are added the founders, organizers, and early presidents of some of the institutions, societies, and associations that helped establish the comfort industry: the American Society of Heating and Ventilating Engineers (1894), the American Society of Refrigerating Engineers (1904), and the Institution of Heating & Ventilating Engineers in London (1897).

Today, we take for granted comfort at home, at work, and at play. **The Comfort Makers** reminds us of just some of the people and organizations that made this possible.


THE STORY OF THE HEATING ENGINEERS
Published by the Heating and Ventilating Contractors Association on the occasion of its 75th Anniversary
How elementary heating was developed into an industry which provides sophisticated mechanical services in buildings

CONTENTS

Foreword

Introduction

The HEAT MAKERS 1

The VENTILATORS 21

The COLD MAKERS 33

The AIR CONDITIONERS 43

The COMFORT CONTROLLERS 55

The COMFORT PIONEERS 63

Some COMFORT ARCHITECTS 81

The COMFORT DESIGNERS 93

The COMFORT INSTALLERS 103

The COMFORT ORGANIZATIONS 111

Index of Biographical Entries 127

Bibliography 135

Appendices

[1] PIONEERS IN ACOUSTICS

[2] The ELECTRIC MOTOR MAKERS