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PREFACE TO THE 26th EDITION

THE 26th edition of The Heating, Ventilating, Air Conditioning Guide continues the tradition of previous Guides in presenting current engineering practice and up-to-date products of manufacturers.

Among the chapters given most extensive revision in the 1948 edition, the following should be noted:

Chapter 10, Air Contaminants, contains revised limits for toxic gases, vapors, fumes, mists and dusts, in conformity with recent conclusions of industrial hygienists.

Chapter 11, Instruments and Measurements, has been enlarged to include a greater number of instruments, as well as more information on test methods and the use of instruments.

Chapter 12, Physiological Principles, incorporates some additional findings based upon recent research.

Chapter 13, Air Conditioning in the Prevention and Treatment of Disease, has been revised to agree with current thought and research.

Chapter 14, Heating Load, includes an enlarged list of approximately 350 localities, including city office and airport stations, for which weather data and design temperatures are given. The list includes data obtained from the U. S. Weather Bureau and Canadian Air Services, Meteorological Division. A new map showing isotherms of outdoor temperature has been provided.

Chapter 15, Cooling Load, has been increased to 45 pages to permit inclusion of an enlarged list of 315 localities for which weather data are listed. The chapter has also been rewritten to assist the user in applying the principles of periodic heat flow, and the data from most recent ASHVE research on solar heat transmission.

Chapter 20, Estimating Fuel Consumption for Space Heating, includes an enlarged list of 211 U. S. cities and 25 Canadian cities showing monthly degree-day values. The information has been obtained from latest statistics of the U. S. Weather Bureau and Canadian Air Services, Meteorological Division.

Chapter 21, Gravity Warm Air Systems, has been rearranged to facilitate use of the design tables.

Chapter 22, Mechanical Warm Air Systems, contains an added section referring to method of designing large systems.

In Chapter 23, Steam Heating Systems and Piping, revised descriptions of various types of systems keep the chapter up to date. Many new diagrams have been added to illustrate current practice.

In Chapter 25, Radiators, Convectors and Coils, there has been added a section on baseboard radiation.

In Chapter 26, Unit Heaters, Unit Ventilators, Unit Humidifiers, piping diagrams and text have been changed to comply with current practice.

In Chapter 27, Pipe, Fittings and Welding, the section on welding has been expanded with reference to proper welding procedure and applicable code requirements.

Chapter 30, Electric Heating, includes an enlarged list of pertinent references.

Chapter 32, Fans, has been improved by addition of typical sound level curves to the fan performance curves. A new diagram illustrating accepted designations of direction of rotation and discharge for fans has been added. The chapter also contains a section on attic fans which has been transferred from Chapter 36.

Chapter 34, Automatic Control, has been rewritten to include more detailed treatment of typical controls and control combinations for all types of systems.

Chapter 36, Unit Air Conditioners, Unit Air Coolers, has been revised and improved in both text and illustrations.

Chapter 37, Spray Apparatus, has been rearranged and includes new information on design and use of air washers, cooling towers and spray ponds.

Chapter 40, Air Distribution, has been completely revised by the ASHVE Technical Advisory Committee on Air Distribution and Air Friction. It contains new definitions and formulas for air distribution. Charts have been included for graphical solution of problems involving flow of air from slots and jets, residual velocity and size of openings. Information on location of outlets has been enlarged, and more information is given on control of air streams in spaces.