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PREFACE

IN an effort to render a greater service to the science of heating and ventilating than heretofore, this, the third annual edition of THE GUIDE, has been increased in size and usefulness by the addition of many important technical subjects and by improving the character of manufacturers' catalog data.

While desiring to provide the engineer, architect, contractor, estimator, purchasing agent and draftsman with a complete, convenient and reliable reference data book on modern heating and ventilating practice and equipment, the Guide Publication Committee finds that as progress is made in the industry, changes will be necessary and each GUIDE will represent the best known engineering practice at the time of publication. As in the case of the first edition issued in 1922 and the second edition published in 1923 the new GUIDE has been compiled with the idea of assisting the engineer, architect and contractor in designing and producing the most effective installations for heating and ventilating various types of buildings.

This third edition is designated THE GUIDE 1924-25 as it is the judgment of the Guide Publication Committee that this later appearance in the year permits more effective handling of the work and fits in more advantageously with the Society's meetings and has the additional value of reaching the users at a most logical time. Future editions are to be designated 1925-26, etc.

The Technical Data have been amplified by additions to both the Heating and Ventilation Sections. The Code for Testing Low Pressure Heating Boilers, Pumps for Heating and Ventilating Service, Oil Burning, and Pipe Sizes for Water Service Lines are new features in the Heating Section while new data are given on Infiltration, Capacities of Steam Heating Risers and Hot Water Heating.

For the Ventilation Section, new chapters outline the present status of the science, give facts about Air Washers, Duct Design, the Pitot Tube and additional data on the Comfort Zone and Effective Temperatures as well as a complete revision of the Ventilator Chapter.

In every case the various chapters are the product of several specialists and revisions have generally been made by the original authors. Other publications of the Society have been drawn upon for some material and credit has been given in each case.

Great care has been taken to maintain a logical arrangement of data in order that it may be most useful. Briefly the points covered are: Consideration of the required system, the figuring of heat losses, choice of proper equipment for heating by steam, hot water or warm-air with