

ING ENGINEERS, thousands of the real leaders of thought and action in heating, ventilating, and air conditioning have gathered about that standard and carried it proudly before them far along the way of outstanding accomplishment. They may be identified among engineering groups by the distinctive emblem which was adopted by the Charter Members.

The first Annual Meeting was held in New York, N. Y., January 22-24, 1895, and the organization was incorporated that same year, under the laws of the State.

A.S.H.V.E. RESEARCH LABORATORY

Since 1919 THE AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS has maintained a permanent research staff and facilities devoted solely to the study of fundamental problems in the field of heating, ventilating and air conditioning. During the past quarter century much has been done to advance the art by establishing scientifically sound data which the engineer can apply in the design, operation, and maintenance of heating, ventilating, and air conditioning systems and equipment.

For twenty-five years the Society's Research Laboratory was located at the U. S. Bureau of Mines Building, Pittsburgh, Pa. The Laboratory was moved to Cleveland in 1944, and early in 1946 the Society purchased premises at 7218 Euclid Avenue. In addition to work at the Society's Laboratory, a substantial part of the research program has been carried on through the medium of cooperative agreements with leading educational institutions of the United States and Canada.

All research activities are planned and supervised by the Committee on Research of 15 elected members, assisted by various Technical Advisory Committees of the Society. The research activities are financed from Society funds, of which a portion comes from membership dues and from its publications, and these funds are amplified by contributions from friends in the industries engaged in the general field of heating, ventilating, and air conditioning.

The major results of 30 years of A.S.H.V.E. research may be briefly stated as follows:

Comfort Standards for Winter and Summer: Original studies by the Society established, some 30 years ago, the limits of indoor temperature and humidity within which normally clothed people felt comfortable in winter. Standards for summer air conditioning followed. Studies with larger, mixed groups have covered various degrees of activity and different climatic conditions. Today, heating and air conditioning engineers, here and abroad, use A.S.H.V.E. comfort standards to produce acceptable indoor conditions the year round.

Physiological Effects of Severe Environmental Conditions: Exposure to high temperatures and humidities during severe physical or mental activity leads to fatigue and a rapid decrease in the quantity and quality of work performed. A.S.H.V.E. research has shown what remedial measures can be taken to offset this type of physiological stress.

Design Data for Heating Systems: Capacity tables for components of steam and hot water heating systems, now universally used, resulted directly or indirectly from Society research carried on many years ago in its own laboratory or in cooperating universities and colleges. Industry groups have translated these data into codes of practice.

Thermal Properties of Building Materials: The development of standard methods for measuring heat transfer through common building materials and typical constructions was followed by the evaluation of other physical properties that influence heat flow and heat storage. Sound data, established by an unbiased authority, are essential for the calculation of heating and cooling loads for all types of construction.

Properties of Air and Water Vapor Mixtures: Accurate knowledge of the thermodynamic properties of moist air is essential in the design and operation of an air conditioning system. Data which are now accepted internationally were developed through studies sponsored in part by the Society.

Cooling Load Calculations: The significance, in the calculation of cooling loads, of such factors as solar heat gain through walls, roofs and glass areas, instantaneous heat loads, and period heat flow has been determined largely by Society research and sponsored studies.

Room Air Distribution: The quality of the air distribution is the yardstick by which an air conditioning system is judged. Society studies on air flow and air mixing have already produced valuable basic and practical data and are a continuing and major activity at the laboratory and three cooperating colleges.

Instruments and Measurements: The Society's research has played its part in developing instruments for laboratory and field work and in defining methods of use and application. Society sponsored codes, developed through research, have served as starting points for industry codes and standards.

THE GUIDE

A distinctly new service was inaugurated by the Society in 1922 when it established THE GUIDE. Now in 1950, as the 28th Edition of the HEATING VENTILATING AIR CONDITIONING GUIDE makes its appearance, it is notable that THE GUIDE has served effectively not only the membership but the entire profession and the allied industries, and has received world wide recognition as a reliable and authoritative compendium of useful heating, ventilating and air conditioning data.

Throughout the 28 years of its service THE GUIDE has become a reference book of unchallenged position in its special field of engineering. The intention of its founders, to provide an instrument of service containing reference material on the design and specification of heating, ventilating and air conditioning systems and containing essential and reliable information concerning modern equipment, has been carefully safeguarded by those responsible for the compilation of each Edition.

Steadily through the succeeding years THE GUIDE has grown in size, in service and in importance, so that the current edition contains 1422 pages of authoritative up-to-date information pertaining to the design and specification of heating, ventilating, air conditioning and piping systems, as well as a comprehensive Catalog Data Section on the modern equipment of leading manufacturers.

THE GUIDE exerts today one of the most positive influences tending to elevate, improve and extend the whole Art and Industry of Heating, Ventilating and Air Conditioning. It is universally recognized as the most useful and authoritative work in its field, being used by practicing engineers and manufacturers in all parts of the world, and as a text-book by a growing number of the world's principal engineering institutions.