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ELEMENTARY MECHANICAL REFRIGERATION

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A Simple and Non-Technical Treatise

BY

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and American Society of Refrigerating Engineers

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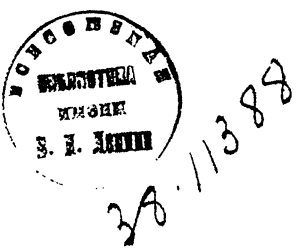

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PREFACE

THE rapidly growing application of mechanical refrigeration, to new as well as to old industries, has given rise to the need of a more general understanding of its elementary principles. So rapid has been its development, in fact, that in the mechanical world both laymen, and specialists in other lines formerly having little or nothing in common with the art of refrigeration, have suddenly awakened to the fact that at least a casual understanding of the subject has become almost indispensable. While the theme has been a not unpopular one among writers of more or less technical text, yet an ample opportunity still remains to help the busy man at the desk, the drawing board and the throttle, to a better understanding of the principles involved and the methods employed. If the following exposition should be fortunate enough to save the valuable time of a busy man or lighten the burden of the overworked one, its purpose will not be unaccomplished.

In its brief life of less than one century the art of mechanical refrigeration has developed from the scattered and rather unscientific application of a few more or less imperfectly understood natural laws, to an industry of almost universal application and of importance second to none in the working out of the momentous problems of domestic, national, and international economy. To allow the manufacturer to produce better goods, to allow the farmer to market his products in better condition, to facilitate distribution, to lengthen the period of consumption and thereby eliminate market glut and famine; to provide more wholesome food for man—such is the beneficent work of mechanical refrigeration.

F. E. MATTHEWS.

February, 1912.