"But друзья, my gentle friends, More than science on you depends, While you change to наш язык Papers tedious and thick".

D.B. Spalding, Professor of Heat Transfer, Great Britain

FOREWORD

The foremost heat and mass transfer specialists from France, Germany, Japan, the United Kingdom and the United States, took the initiative to begin the International Journal of Heat and Mass Transfer in 1960.

To represent the Soviet Union, Academician A. V. Luikov was invited to join the Editorial Board. Well known and respected throughout the world, Academician Luikov was the director of the Institute of Heat and Mass Transfer of the Academy of Sciences of the Byelorussian SSR in Minsk.

In order to provide a central venue for articles from the USSR, Academician Luikov created an editorial office of the Journal, unique in the Soviet Union at that time, and designated me as the managing editor. One year before, I had graduated from the Teachers' Foreign Language Institute in Minsk, where high school instructors for foreign languages, rather than translators, were being trained.

Professor Luikov well understood that the task of preparing adequate manuscripts for submission to the Journal was a very difficult one for Soviet scientists, especially the younger ones, because the manuscripts had to follow Western specifications. This responsibility fell upon the editorial office in Minsk. In addition to having to adhere to the manuscript submission rules, our office was also responsible for translating the articles and reports into English. Moreover, we had the task of translating all the presentations of the Institute's staff at international conferences and at the All-Union Heat and Mass Transfer Conference, held in Minsk every four years at the initiative of Academician Luikov, with the participation of many scientists from other countries.

Because I did not possess any translating skills, and had all the enormous responsibility for the quality of our editorial office's output, I was forced to begin my education in both translation and the subject matter of the Journal.

The first text that I thoroughly studied was Pumpiansky's book, Reading and Translation of English Technical and Scientific Literature, in which examples of exact and correct translations from English and American scientific and technical literature were cited. I transcribed all the examples into a card file in reverse order; that is, starting with the Russian and followed by the English. The file was then arranged alphabetically using the basic words and word combinations. This was the beginning of the creation of a translating manual, to which I referred whenever I encountered difficulties in the lexicographical and grammatical aspects of the translation

Though Pumpiansky's book was written primarily for chemists, the examples were taken from various areas of science and technology. This helped me greatly in translating similar engineering texts.

It was indeed Pumpiansky's book that guided me in constructing this dictionary. Following this example, I selected sentences, phrases, and terms from 1) original English-language sources and their Russian translations published here, usually under the editorship of leading scientists; 2) original Russian sources and their English translations, edited and published in the United States or the United Kingdom; 3) English-language abstracts of articles published in the International Journal of Heat and Mass Transfer, and their Russian equivalent, edited by leading specialists from the Institute; and 4) the Russian versions of the Journal of Engineering Physics and the Journal of Applied Spectroscopy, published in Minsk, and their English versions published in the United States. The dictionary also includes examples, in English only, taken from Western publications used during the translation process.

At the time of my retirement, I has accumulated a large volume of material, which has served me well for over 35 years in the editorial office, and I thought it would be useful for other translators in their difficult labors, if it were presented in a book form. I found great support from Natalia Shveyeva, who took over my job in the editorial office, and took on the enormous task of processing one-half of my files to develop the hierarchy of presentation, and frequent editorial changes. As a token of my appreciation for her enormous contribution, without which this book could not have been published, I have decided to place her name on the title page as a co-author of this dictionary.

Also, I would like to express my thanks to Clara Gisina for typesetting the first half of this book, and to Larisa Shemet for typesetting the second half and marking up of the entire work, and for her enormous patience whenever we came up with new ideas and she had to, stoically, enter corrections and redo entire chapters.

Should this book prove useful to anyone, I shall be very happy to know that many years of my labor were not in vain.

Greta Malyavskaya