

FOREWORD

TH IS SECOND VOLUME OF *Memorial Tributes* issued by the National Academy of Engineering covers the period from January 1979 through April 1984. It is the second in what is expected to be a series of such volumes, to be published periodically, honoring the deceased members and foreign associates of the Academy. Publication of this second volume of NAE *Memorial Tributes* contributes to the observance of the twentieth anniversary of the founding of the **NAE**. It is intended that this and succeeding volumes will stand as an enduring record of the many contributions of engineering to the benefit of mankind. In all cases, the authors of the tributes had personal knowledge of the interests and engineering accomplishments of the deceased members and foreign associates.

The National Academy of Engineering is a private organization established in 1964 to share in the responsibility given the National Academy of Sciences under its congressional charter signed by President Lincoln in 1863 to examine and report on questions of science and engineering at the request of the federal government. Individuals are elected to the National Academy of Engineering on the basis of significant contributions to engineering theory and practice and to the literature of engineering or demonstrated unusual accomplishments in the pioneering of new and developing fields of technology.

Alexander **H.** Flax
Home Secretary

Memorial Tributes