

FROM THE EDITORS

ISAAK PAVLOVICH GINZBURG

(ON HIS SIXTIETH BIRTHDAY AND FORTIETH YEAR OF
SCIENTIFIC AND PEDAGOGICAL ACTIVITIES)



March 10, 1970, marked the 60th birthday and 40th year of scientific and pedagogical activity of the prominent Soviet hydrogasdynamicist and thermophysicist, Doctor of Physicomathematical Sciences, Prof. Isaak Pavlovich Ginzburg.

I. P. Ginzburg was born in the small town of Monastyrshchina in the Smolensk district. In 1931 he graduated from Leningrad State University. He worked for a while at the Central Aerohydrodynamics Institute, and then in 1932 returned to Leningrad State University, where he presently works in the mathematicomechanical department, having covered the path from graduate student and assistant to Professor, Doctor of Sciences, and Director of the gasdynamics laboratory. Since 1944 he has simultaneously headed the Department of Aerodynamics and Flight Dynamics, which he created at the Leningrad Mechanical Institute.

The scientific, pedagogical, engineering, and organizational activities of Isaak Pavlovich are manifold and fruitful. He is the author of more than 100 scientific articles, monographs, and textbooks. His books on applied hydrogasdynamics, convective heat and mass transfer, and flight dynamics have won the wide recognition of specialists, and gained great popularity among students, scientists, and engineers.

The major investigations of I. P. Ginzburg are devoted to problems of the movement of gases in pipes, problems of the discharge of gas from vessels through long pipes and local resistances in the presence of friction and heat transfer. In particular, he was the first to prove the impossibility of a one-dimensional, rectilinear, laminar, steady flow of gas. I. P. Ginzburg's contribution to the theory of water hammer is considerable. He obtained an analytic solution of unsteady motion of a liquid in the presence of water hammer in a long pipe whose diameter and wall thickness vary over the length, and also in pipes of a viscoelastic material. The results of this cycle of investigations are generalized in the monograph "Applied Hydrogasdynamics," published in the USA.

Investigation in the field of hydrodynamics of a viscous fluid are being elaborated by I. P. Ginzburg and are being fruitfully developed together with his pupils. Here it is necessary to indicate first of all the theoretical and experimental investigation of an extensive range of jet streams (steady discharge of a viscous

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gas from a cylinder through a movable slit, underexpanded gas jets, etc.), and also problems of the turbulent boundary layer of an airfoil and axisymmetric body. The results of these investigations have found reflection in a number of articles, in the book "Aerogasdynamics," published in 1966, and in the monograph "Theory of Resistance and Heat Transfer" to be published.

The problem of convective heat and mass transfer occupies a major place in the scientific activities of I. P. Ginzburg. Even in the early period of his creative work he performed an important investigation into the decay of a random discontinuity in the case of a gas not obeying Clapeyron's equation. Here, in addition to development of the general theory of the problem, he gave for the first time the solution of the problem of the propagation of plane and spherical blast waves.

Widely known are the many works of I. P. Ginzburg on a turbulent boundary layer on a permeable surface, and also in the case of the motion of a mixture of gases in the presence of diffusion and dissociation, heat radiation, and magnetic and electric fields.

During the Second World War I. P. Ginzburg worked in the Elabuzh Branch of Leningrad State University.

In recent years Isaak Pavlovich published a number of important results of his investigations of the dynamics of the regulation of hydraulic turbines and stabilization of bodies on oscillating platforms, and a number of others.

I. P. Ginzburg is a marvelous lecturer, teacher, and educator of youth. He has prepared about 80 Candidates of Sciences, of which six have become Doctors of Science. He is the organizer and director of All-Union seminars on gas jets and heads the section of the Scientific Council of the State Committee of the USSR Council of Ministers for Science and Technology concerned with the problem "Mass and Heat Transfer in Technological Processes."

For his great scientific achievements and successful training of cadres, I. P. Ginzburg has been awarded two orders of the USSR and has been repeatedly singled out by the USSR Ministry of Higher and Special Secondary Education.

I. P. Ginzburg is filled with vital forces, new creative concepts, and untiring energy. We wish him good health and great success for the good of our Soviet Motherland.