

DR. G. B. PENNEBAKER, NEW TREASURER OF THE TENNESSEE ACADEMY OF SCIENCE



Dr. G. B. Pennebaker, the new treasurer, was born in western Kentucky and received his elementary and

secondary education in the public schools of that state.

From 1918 to 1921 he served as a seaman in the United States Navy. During World War II he was director of the Flight Service War Training Program at Morehead, Kentucky.

In 1926 he was graduated with honors in the fields of botany and chemistry from the University of Kentucky, and in 1928 he was granted the Master of Science degree in the Biological Sciences from the same institution. In 1931-32 and again in 1936-37 he pursued graduate work on a fellowship in the field of genetics at the University of Wisconsin and was awarded the Ph. D. degree by that institution in 1938. He served as instructor to associate professor in biology from 1927-40 at Murray (Kentucky) State College. He became the Chairman of the Department of Biology—Director of the Division of Science at Morehead (Kentucky) State College in 1940 and served in that capacity until 1946.

He joined the staff of the Tennessee Polytechnic Institute in 1946 as Chairman of the Department of Biology. In 1948 he became Director of the School of Arts and Sciences and at present is Dean of that School.

He is a member of Sigma Xi, a life member and past-president of the Kentucky Academy of Science, a Fellow of the American Association for the Advancement of Science, and a Fellow of the Tennessee Academy of Science. He is listed in *Who's Who in America*.

He has done research in the fields of genetics, embryology, and sex control, but his major interest is in the field of genetics.

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crushed ore, called olivine. The entire facility will constitute the Medical Division's whole-body counter, capable of measuring minute amounts of radioactive material in patients' bodies, not usually detectable because of interference from natural radiation in the atmosphere, earth, and building materials.

The steel chamber was fabricated from metal manufactured prior to 1945, because steel manufactured after that year contains traces of radioactive fallout that would impair the low-background characteristics of the counter. The concrete housing around the steel box is also formed from material with low-activity constituents.

The crushed olivine ore surrounding the structure is a geological rarity. It is a pale green mineral mined near Waynesville, N. C., formed deep inside the earth and extruded up through the earth's crust, and has the unusual property of being nearly free of the usual radioactive contaminants found in local rock such as potassium, radium, thorium, and uranium.

When completed, the whole-body counter will be able to measure low-level radiation from a patient's body with minimum distortion or "static" from other radioactivity in the area.

The new facility will permit clinical investigations with radioactive tracers in amounts that are a small fraction of the already low doses now used in diagnostic procedures. It will be used to study normal metabolic processes through the use of biological compounds labeled with radioactive tracers, and to study a variety of disorders by evaluating turnover rates and patterns of such compounds. It is expected that the Institute facility will represent a significant contribution in the design of whole-body counters in its ability to measure normal bodily radioactivity at low levels matched by few, if any, research centers in this country.

The 60-ton box arrived at Southern Railway's Blair Station, near the Oak Ridge Gaseous Diffusion Plant,

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