



Herbert Parker

(1910-1984)

Herbert Parker began his remarkable career in 1932 by being one of the scientists to develop what ultimately became known as the Manchester System for radium therapy. This technique enables physicians to arrange radium needles or tubes in configurations that would maximize the radiation dose to a tumor while minimizing the exposure to healthy tissue. This method became the most comprehensive and widely used and was considered a milestone in the field of radiology. At the start of WWII, he joined the Metallurgical Laboratory at the University of Chicago and became one of the first radiation protection specialists to adopt the title “health physicist.” Soon after, he left Chicago for Oak Ridge where he established the health physics program at what eventually became Oak Ridge National Laboratory. Among his many other accomplishments, he was instrumental in the development of the roentgen equivalent physical (“rep”) sometimes called the roentgen equivalent parker and roentgen equivalent biological (“reb”) units, predecessors to the rad and rem.

The free air ionization chamber is the primary instrument for measuring exposure rates (R/hr) in an X-ray beam. This instrument was built by Parker around 1937 at the Swedish Hospital in Seattle, Washington.