

In Memoriam

Joyce Clennam Stearns

1893–1948

Joyce Clennam Stearns died at his home in Webster Groves, Missouri, on June 11. He had served as director of the Metallurgical Laboratory at the University of Chicago during the last year of the war and since July 1945 had been dean of the Faculties of Washington University in St. Louis.

Stearns was born in Meadville, Missouri, in 1893, studied Liberal Arts at Kingfisher College, took his Master's and Doctor's degrees in physics at the University of Chicago, and taught successively at Albion College and the University of Denver, where he was professor and eventually chairman of the Department of Physics. In the field of teaching, few physicists have earned as high a reputation as did Dr. Stearns. He was among the first to be drawn to Chicago in January 1942, when the atomic program was set up as an active war project.

The climax of his professional career was at Washington University, where, as dean of the Faculties he was the guiding spirit in rebuilding the staff after the disruption of the war.

Stearns' first major scientific work was a demonstration that magnetization of iron makes no considerable change in the positions of the atoms or the electrons of which the iron is composed. This result ruled out the older theory of magnetism, based upon the Bohr atom, according to which the electrons revolving in orbits constituted the elementary magnets that were oriented by the applied magnetic field. It was consistent, however, with the later theories according to which the electrons are themselves magnets that become oriented when the iron is magnetized. Stearns' experiment consisted of magnetizing a crystal of iron from which a beam of X-rays was reflected. He found that no change in the strength of the reflected beam as great as one part per thousand was caused by magnetization, whereas changes of several per cent should have been expected if the orbits in which the electrons revolved had followed the magnetic field.

Stearns also carried on several interesting experiments with cosmic rays, including tests of possible directional effect from the sun and of east-west asymmetry of cosmic-ray showers. His most notable achievement in cosmic-ray studies, however, was his establishment of the high-altitude laboratory on Mt. Evans, just west of Denver. Stearns secured the co-

operation of the Denver City Parks in building a road to the top of the mountain and in preparing the site, and persuaded the University of Denver, Massachusetts Institute of Technology, and the University of Chicago to cooperate with Mr. John Evans in building and maintaining the laboratory. He gave valuable aid to the many expeditions to Mt. Evans from several universities by offering his own laboratory at Denver as a low-altitude base of operations and by helping with the experiments in many ways. It would be a fitting tribute, indeed, to name the Mt. Evans laboratory after him.

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any aspect of human emotional-mental-social development, whoever can do something to clarify thinking even a little and very locally, whoever can help to remove a prejudice, soften a hate, increase the total of understanding and tolerance in the world, by that knowledge, training, insight, or ability is made responsible to do what he can in all possible places. Research is valuable but may remain sterile for long periods, and time is short. Erudite papers read to technical gatherings and published in technical journals have their important place, but may be futile unless appropriate action follows. Responsibility of the informed and technically qualified is to all people, not just to the enlightened.

The really noble example given by Kurt Lewin should continue to be an inspiration. His work and enthusiasm will continue to contribute greatly to present and future developments in the field of human relations. Some part of it can be carried on by every one of us.

Whoever can get at people in homes or schools or universities, in Parent-Teacher Associations, in Home and School Clubs, in youth groups, in churches or service clubs, by talking or writing, through lectures, radio, newspapers, magazines, books, or any other channels of communication, is obligated, by his ability, to serve the human race where he can to the limit of his equipment. Dare any of us say that he or she can do nothing about the desperate need of the world for better human relations?