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A GREAT AMERICAN SCIENTIST

Pasadena, Calif. — "Dr. Albert A. Michelson, 78, discoverer of the speed of light, and one of the greatest scientists of modern times, died here at 3:10 p.m. Saturday.

"Death came quietly to the man whose work made it possible to know the distance of the stars.

"It came on the eve of success of what he called his 'last experiment,' the most precise and extensive in physics—the exact determination of the speed of light."

So ran the opening paragraphs of a long and appreciative front page article in the Des Moines Sunday Register of May 10, 1931. And in a similar strain the press of the entire country told of the passing of this modest man of science, one of the greatest of modern times.

Professor Michelson was born in Strenlo, Poland, in December, 1852, and came to America with his parents when two years old. Little is known to the general public of his early life. Even Who's Who gives little information concerning these early years, perhaps because the available space is all required merely to list the many honors—medals prizes and memberships—that were bestowed upon him later by scientific societies in every scientifically in portant country in the world. It may be inferred that his educational advantages were adequate, otherwise he would have been unable to appeal successfully to President Grant in 1870 for an appointment to the U. S. Naval Academy, and to pursue successfully the rigid course of training administered there.

After graduating from the Naval Academy he was sent to sea for his first tour of duty as an officer. After a couple of years with the fleet he returned to the Naval Academy as an instructor in the department of physics and chemistry. He was already deeply interested in science, and consulted with professor N. M. Terry, then head of that department, concerning possible lines of research. Professor Terry suggested a more accurate determination of the speed of light, which had been cleaiming the attention of the French scientists, Fizeau and Foucault. This suggestion appealed to Michelson strongly. He undertook the work with such singleness of purpose that one of his superior officers in the Navy advised him to give more attention to duty and less to "this scientific stuff" if he ever expected to accomplish anything in the world. He also did it with such success that when his work was published in 1878 it was at once recognized as the most accurate that had yet been done. It continued to be so recognized until improved upon by Michelson himself nearly half a century later, in the remarkable series of experiments carried out on Mount Wilson, California, culminating in the one referred to above.

In determining the velocity of light, just as in the case of any other velocity, the problem is to measure the time consumed in traversing a measured distance. In Michelson's experiments a beam of light was reflected from a rotating mirror to a distant stationary one, and then back to the rotating one, from which, owing to the rotation, it was reflected along a different line from that originally followed. From the amount of divergence, and the measured speed of rotation of the mirror, the time required for the light to travel the double distance was computed.

The possible ways of improving on previous results were to measure more accurately either the time, or the distance. Michelson did both. To accomplish the former he in-