

OBITUARIES

Edmond Bauer (1880-1963), physicist of Paris, was one of the friendliest of men: to this trait I owe thirty-seven years of friendship with him, and for this reason I have asked the privilege of commemorating him in *Physics Today*. Born in Paris in 1880, he enjoyed for almost half of the scriptural "three score and ten" years the pleasure of life in that wonderful city in the days of peace; and then he experienced almost half a century of the era of convulsions, perturbations, and occasional intervals of calm—a "time of troubles" during a part of which, the Nazi occupation of France, his troubles were aggravated because of Jewish blood. Few if any people witnessed as much as he of physics in France, and of the life of France, during those eighty-three years.

Of his early years in the prewar Paris I know little; it was probably an illustration of the saying that "happy times have no history". He made his doctorate at the Sorbonne under Marie Curie and Paul Langevin; his thesis was on the radiation of flames. This period culminated in his marriage in 1911 to Renee Kahn, and the birth of his two elder children. Then came war.

World War I was merciful to Edmond Bauer, though it cannot have seemed so at first. He encountered the full fury of the "guns of August", was left severely wounded on the battlefield at Charleroi during the great retreat which preceded the victory of the Marne, was captured by the Germans. After three years of captivity, he was exchanged and sent to Switzerland, where his wife was able to join him and his two younger children were born. Then he was allowed to return to France, under strict word of honor not to engage again in military service. Thus he came through the war that almost wiped out the men of his generation. At the end of the war France recovered Alsace, and restaffed with Frenchmen the University of Strasbourg, Pierre Weiss be-

ing made what we would call chairman of the Department of Physics. With him Bauer served for nine years, and his publications pertained partly though not wholly to ferromagnetism. Incidentally it was at Strasbourg that I met him; we went together to a conference at Zürich; and of this occasion I remember that Bauer and some other Frenchmen went to an outlying cafe to dine with some German physicists, and afterward he told me that this was the first friendly meeting between French and German physicists since 1914.

In 1928 he returned to Paris to be sous-directeur at Langevin's laboratory at the Collège de France. At that time he occupied, in a new building on the south side of Place de Panthéon, an apartment absolutely extraordinary. From its front balconies one feels as though one could almost touch the Panthéon and Saint-Etienne du Mont, and its windows on the other side command such a view of the rive droite as I have never seen from any other place, Notre Dame in the foreground and the Sacré-Coeur in the background. Fortunate are those who have enjoyed the hospitality of the Bauer family in this magnificent décor, particularly on evenings of the fourteenth of July when the sky was laced with fireworks.

Bauer also had a country place at St. Gervais near Chamonix; he cultivated mountaineering, and to the skills of a mountaineer he was quite possibly to owe his life. In these tranquil years his journal articles pertained mostly to the liquid state, in the border area where physics and chemistry merge; in many of his researches the Raman effect served as a tool. Also he published several short books or long essays of a kind then more usual in France than in the USA, and on what a variety of subjects! Bohr's theory, theory of relativity, introduction to group-theory and its use in quantum theory, measurements, theory of observation in quantum mechanics, interrelations between physics and philosophy . . . and these do not exhaust the list. Then war came again to break into his life, and this time more tragically than before.

In World War II he had to flee, for reasons of race, first to "Vichy" France; and then he found refuge in Switzerland as in 1915, but not in so simple a way. Over sixty at the time, and with his wife and his mother-in-law, he fled across the high snowclad mountains under the guidance of his second son, and made his and their escape across the frontier. This second son (Etienne) returned to France



Edmond Bauer

to his post in the *Résistance*, and came through the war. The eldest son (Michel), also in the *Résistance*, was arrested and died in one of the infamous Nazi prison camps. The second child and only daughter (Anne-Marie) was also a captive in a Nazi camp, and it was a long time thereafter before she regained her health. The third son (Jean-Pierre) got away to England, and served with the Free French forces in Africa and Oceania until war's end.

Returning to Paris at the time of the Liberation in 1945, Bauer then sixty-four years of age was given the last great assignment of his life, that of restoring the Institut de Chimie Physique. This, formerly the Institute of Jean Perrin, had been almost emptied by the long war of its equipment and its staff; there remained only the small group directed by Yvette Cauchois who in 1953 was to succeed him. In these eight years of Directorship (during which he was also professor of physical chemistry at the Sorbonne) he rebuilt the scientific staff to a total of nearly one hundred, and the scope of the Institute correspondingly. In these closing years his publications were few, but not his other activities, and here I quote phrases that I have received from France. "The work of Edmond Bauer is actually much more important than what has been published under his name. His extraordinary generosity led him to devote a great deal of his time to helping other investigators, some young and some not so young, some of them pupils of his, others who were barely known to him. Also and primarily he was a teacher who strove to pass on to the young something that he had learned from Langevin and Perrin his own masters: the love of work done well down to its least details. . . ."

On 18 October 1963, eight days before what would have been his eighty-third birthday, Edmond Bauer started from his home to go to Saclay. On the way he was stricken by the first coronary; and the second, supervening a few hours later, brought to its end the extraordinary life of this remarkable, valuable, and valued man.

Karl K. Darrow

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