## 2. Edmund Gibbs by Marion Gibbs

Edmund was a kind, calm and interesting person. He was my friend for 30 years and my husband for 23. We were a late marriage. Always thinking rationally, Edmund never acted in haste-hence the difference of 30 and 23!

His father worked for the London County Council as an ordinary clerk, but he wrote beautiful handwriting, using impeccable grammar, studied Spanish, and played the violin; and he remained alert and active until his death aged 98. He encouraged Edmund from an early age to write well, read a lot and appreciate good literature. Unlike his son, he was short-tempered and quick to take offence. In later years when father and son met, they quarrelled, but in between meetings they exchanged polite, well-written letters. Edmund's parents were churchgoers and Edmund dutifully went with them, but he insisted to me that he disapproved from the age of three! When Edmund was 26 his mother died of cancer and his father soon remarried (too hastily in Edmund's opinion) and became more religious and evangelical. This was partly the cause of their quarrels.

Edmund regretted that he did not have the dexterity of his father and he therefore took the greatest pains to write clearly and neatly at all times. Like his father he was meticulous in all that he did and he had strict routines for carrying out everyday tasks. As a young man he started to learn to play the bassoon, and persevered for a year, but reluctantly decided that his coordination was not sufficiently good.

An old schoolfellow recalls that Edmund was one of the most brilliant boys in their school-and also one of the most outrageous. It would seem that he misbehaved partly in rebellion against his father's possessiveness and partly out of boredom. On one occasion he took to school a small electric grill and, in a lesson, started to cook sausages under his desk, soon producing smells of food and loud sizzling noises; his punishment was to work out the cost of the wasted electricity-which was no hardship.

Another characteristic which father and son had in common was a compulsion to hoard. Edmund always worked at a clear desk but he had a 'glory-hole' of a study piled high with bookcases, filing cabinets, drawers and boxes filled with books and papers and potentially useful objects. Among the papers I found just one personal diary kept for just eight months, January to August 1967, nine years before he and I met. Most of the entries contain comments about his work, and included in the period is January 13, the day of what is now the Gibbs derivative, so I have brought with me a copy of that entry.

This brief diary gives a typical slice of Edmund's personal life and a good impression of working life at the National Physical Laboratory at the most fruitful time of his long career there. It was a very busy and hectic time at NPL, with much interchange between the scientists who were all contriving to

**JANUARY 13** In the jast two weeks, real progress has been made and codefying the elementary applicable of Walsh-torine transforms. of what seemed so difficult yesterday - an operational definition of the logical It was reached via the Walsh transform of so, which, together with the analogy of the Fourier kernel, ruggests which was extended to k by means of the logical convolution theorem. ormula was then taken as the is and twelve theorems properties derived very stimulating in for Gebbu. Peter trayne was in **JANUARY** 

Figure 0.2. A page from the diary of J. Edmund Gibbs with the first formulation of the definition of Gibbs derivatives (Courtesy of Ms. Merion Gibbs).

obtain better computers and to get programs to run. There was much working late and working at weekends, communicating with each other at home, and thinking of ideas in bed at night. Evidently, Edmund got on well with all his colleagues: juniors, his slave-driver of a boss, and the young ladies who regularly brought him flowers for his office desk. He was always interested to exchange a few words with shopkeeper, tradesman or fellow-walker in the park, and he recorded such snippets of conversation.

Edmund was a romantic, and he was interested in classical music, opera, theater and poetry. He wrote poems including a number of love poems; he was very concerned with using different meters and rhyming schemes and he enjoyed writing parody. He recalled with pleasure singing in school and college choirs. In retirement Edmund amused himself making new English translations of the poems of the German Lieder, and Heinrich Hoffmann's Der Struwwelpeter.

One of his girlfriends was from Finland and he studied Finnish and drove to Finland in his small sports car, in winter, to visit her. She married a Finnish diplomat but Edmund kept in touch with her father and, years later, when we married, she met us briefly in London and gave us an ornament of Finnish glass as a present.

Edmund had a remarkable affinity with words; all his thoughts were verbalised. Often, at mealtimes, we solved cryptic crossword puzzles. Between us, at table, we had a small rotating bookcase filled with reference books for checking spellings, pronunciations, alternative meanings and derivations of words, and for looking up literary allusions. When we were tackling the trickiest of the puzzles, he could bring to mind the most unusual and complicated words. I used to say: "Oh, you know everything!", and he would say: "1 knew I'd seen a word for that, I never forget a word-it's just a matter of retrieval". But he could not do anagrams; it was as though the spelling of a word was sacrosanct and there should be no jumbling.

His memory was exceptional in many ways, including a strange facility for forgetting bad things. If I referred to any particularly bad spell of his illness he would say: "Oh, surely not; I have no recollection of that", and he would laugh at me for remembering trivial things and embarrassing moments. He could retain a large amount of information in short term memory. After I retired, we had a routine of walking daily into town to our favourite coffee shop and, if it was quiet there, we read our 'popular science' paperbacks for about an hour. Frequently, on the half-hour walk home, he would relate to me what he had been reading, in detail and in correct order. Odd items of information he did not retain at all; he conducted his daily business by reference to notes. Upstairs and downstairs we each had in- and out-trays and we used to communicate by written notes placed in those trays. He could not remember our car number;

he could not remember our telephone number but he did have a formula for working that out.

One of his most notable characteristics was his single-mindedness. He would not have radio or television on unless he was giving it his whole attention, and he found any interruption of his train of thought very frustrating. If he was expounding a topic and I tried to chip in a comment he would hold up his little finger and plead: "Semi-colon". In company, with several people talking at once, he was quite lost.

Edmund never panicked. If I got excited about something going wrong, he would say: "Enjoy the emergency!". One entry in that diary reads: "Yesterday I received a card from John Chamberlain about a possible error in our paper about which he was anxious. He was to return on Monday or Tuesday, so his concern could have waited." As far as possible, Edmund ignored his illness and did his best to carry on as normal. He studied his ailments and selected the most positive line of thought, said there was no use speculating and demanded "No negative thoughts, please".

Edmund was sincere, loyal, clever, witty and fun, and I am privileged to have been close to him.

Marion Gibbs