

1945-47 : PT KCL Student & Electronic Engineer

September 1945 - December 1947

I continued as a part-time student at KCL while earning a living using my electronics expertise. I went into the College from time to time, attending lectures as necessary. As Christmas 1946 approached Physics students were treated to a fun Lecture with such party tricks of making a coil of lead act as a spring by immersing it in liquid nitrogen, igniting a cigarette by blowing with the mouth holding a small amount of liquid oxygen and so on. I am fairly sure that the lecturer was Dr. Maurice Wilkins, who had just joined KCL and was to become a Nobel prizewinner for his DNA work. I would certainly like it to have been for it would mean that, with my later encounter with Watson & Crick at the Cavendish Laboratory, I had met (in the sense of observing them in an informal small-group situation) all three of the DNA pioneers. Later I had the task of rejecting on behalf of a Journal a paper co-authored by Crick.

Around this time I was introduced in the College refectory to a U.S.S.R. man - it was the first time I met someone from behind what became known as the Iron Curtain. I was having a cup of tea when I walked Dr. Henderson, Dean of the Faculty of Natural Sciences, accompanied by a visitor to the College. Dr. Henderson beckoned me over and introduced me. Apparently the visitor was a member of a USSR Trade Delegation who had asked to be shown over KCL. I chatted with the visitor - his English was very good. He offered me a cigarette, saying it wasn't like an English cigarette - most of its length was a hollow tube with just a little tobacco at the tip. I accepted and pointed out that asthma cigarettes I used to smoke before atomisers became available were of the same construction. He asked me what I was doing and when I said I was running a business while continuing my studies, he looked disapproving. Apart from that, however, our conversation was quite cordial. I very much doubt if this encounter led to the later Iron Curtain contacts.

Just before TV broadcasting resumed in June 1946 I was asked by a customer to get a TV set, one of the mere 15000 bought just before the war, in working order. TV circuitry was quite new to me and I had to read up on it. I got the TV set going and the new knowledge served me in good stead. The first postwar TV broadcast - from Alexandra Palace, the only TV Transmitter in the country - was on 7th June 1946, in time for outside broadcasts of the Victory Parade the following day.

Sometime in 1946 I decided I needed some help in studying for the degree. A fellow KCL Physics student, Ernie Mazukawa, who had graduated in 1945, was happy to oblige. For a small hourly fee he would come to my home in North Kensington and provide great help in revision. Ernie was the son of a Professor of Oriental Languages and lived at the family home just off Westbourne Grove so it wasn't too far for him to come. He was a delightful person - very English and gentlemanly - and I enjoyed his company as well as his tuition. Ernie later changed his name to Mattheson. We lost touch when we moved out of London but I met him and his wife years later at the home of a mutual friend in Cambridge and again at Leicester University where he was a Lecturer, when I went to the graduation ceremony of one of my daughters.



I recently came across a reminder of the link between the Physics Department of KCL and the Regent Street Polytechnic. H.T. Flint (left) was the guest of honour and presenter of the prizes at the 1946 Poly School Speech Day, presided over by the Headmaster, B.L. Worsnop.

I continued to earn money mostly from repairing from radios and TV but also from design and construction. I was very proud to be named as Technical Manager on the letter heading of Bramley Radio Stores. What a nerve! It was only a small radio shop, close to Latimer Road Station.

At this time I also got some experience of production engineering after a soldier, still in uniform, asked my help with radios he intended producing after he had been demobbed. His name was Jack Dickman and the Company he established was Fidelity Radio. As I understood it, he had got a design for the radio circuit from the Applications Department of a thermionic valve company and had worked with a plastics company to produce an interesting design for the case. The case was made of a sheet plastic like Formica, cut, bent and glued to form a strong housing for the electronics. The plastic sheets were produced in a variety of attractive colours so the case could be likewise.



Jack Dickman set up his Company in a back street near Latimer Road Station and started producing the radios. He was having trouble lining up the intermediate frequency amplifiers of the superhet circuit. I worked out a routine for the assembly workers to follow and all was well.

By May 1947 I was thinking about what kind of career I should go for and thought I would take advantage of a Careers Advisory Service offered by The Institute of Industrial Psychology. The report by Janet Clyde, Vocational Adviser on the tests and interview covered much ground. Among the points made were:-

You have to an outstanding degree the ability to judge space relationships. Your weakest result, one decidedly below the average, was in the memory for designs test, and the lack of draughtsmanship and ability to carry in the mind and reproduce geometric figures.

The width and diversity of your interests suggest that you are likely to be happiest in work with a fair amount of variety in the problems it presents to you.

To précis another point:-

There is less scope in the application of physics to medicine as it would involve dealing with people all the time - although you are interested in them and are a naturally sociable person, you are, I think too highly strung and insecure within yourself for such work to be ideal.

I think this was true at the time but for a variety of reasons, in addition to the lessening and greater predictability of asthma attacks, the people aspect of my make-up changed.

One comment I found particularly interesting was not noted in the Report; right at the end, as Janet Clyde collected up a brief essay she had asked me to write, she said "You have a way with words".

In mid 1947 I sat the University of London Internal BSc Special Physics exam and this time I passed 3rd Class (there were only 3 straight Classes - no 2.1 & 2.2s).

My mother & father were present at the Degree Award Ceremony at the Royal Albert Hall. I recall that the Countess of Athlone was the person sitting in the centre of the stage conferring the awards, presumably standing in for her husband, the Chancellor of the University of London. At first the Countess bowed towards each recipient but after a while the acknowledgement became a vigorous nod and by the time I passed before her there was a barely discernable movement of her head. I have been to the Royal Albert Hall on numerous occasions for concerts and other events but this is the only time I have been on its stage!

With the award of the degree I joined the IEE as a Graduate Member and after a spell continuing as a self-employed electronic engineer started applying for jobs. My first application was to a Charity but I didn't get the job. I think it was my second application which was successful - on 21st November 1947 I got a post in British Oxygen Company's R&D Department at Morden at a salary of £435 p.a.

Harold Beck
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