Figure 1: Mary in 1951

Atomic Spice

Mary Flowers

Editorial note: These memoirs were originally written by Gran/Ma/Mary on some obscure word-processing system during the 1980s. In the absence of any usable electronic copy, we scanned a surviving printed version and did our best – with a lot of help from Mary – to correct and re-format the result. Mary added the postscript in May 2009.

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Prologue

The train from Paddington to Didcot was slow and dirty. Every minute that passed was taking me another mile further from London, which was the only place I cared for, given that I had to live in England again. My mood was as black as the grime on the windows and a good deal less justified. I didn't even want to absorb the fact that the English countryside was at its greenest and sunniest, for the lush grass and moist new leaves seemed to have taken up the message that this was the first peace-time spring for six long years. The war had ended eight months previously. It was April 1946.

I was on my way to what was to be my home, on and off, for quite a long time, and the scene of countless exciting events in both my own life and of those around me. Some were happy and many thrilling; others sad, difficult, and even shattering; but all were in some way related to the dawn of a new era, the nuclear age.

Harwell was the site of the newly set up Atomic Energy Research Establishment, still a project under the Ministry of Supply. It was for this that my first husband, Oscar Buneman, had been made responsible for assembling a group of scientists who were to form the Theoretical Physics Division. The man who was to lead it had already been chosen. He was Dr Klaus Fuchs, and he turned out to be the most dangerous spy this country has ever known. The second head of that Division was Brian Flowers who, by that time, was my second husband. How he was to turn out I shall tell later.

As for me, I was in one hell of a sulk. Why had we returned to England when we could be living in the United States? Patriotism? Nostalgia? Even though I had been married for four years and had two attractive and intelligent little sons, I was taking my time over the process of growing

up. Compared with the horrors suffered by so many, the war had treated me kindly, and most of the last two years had been spent in California. I had escaped from the dull, grey suburb of Manchester where I had spent most of my life. The industrial north-west became murkier as the bombs fell, food shortages worsened and small comforts harder to come by. I had also disentangled myself, or so I fondly imagined, from the tentacles of my father's and mother's influence, which, despite having a family of my own, were still wound tightly around me.

Shortly after our marriage, Oscar had joined "Tube Alloys" – the code name given to the British team working on the atomic bomb project – and we were despatched to the United States at very short notice in the conditions of secrecy and subterfuge required during hostilities. The Nazis were poised for attack just the other side of the Channel; Russia and the United States had joined Britain in the fight against Germany and Italy, who between them had just conquered all of Europe. On the other side of the world Japan was devouring her neighbours. Every Atlantic crossing that was undertaken was either a large military operation or a part of one. Our recent return journey had been quite different.

"This train is bugging me," I thought to myself in an American accent, carefully preserved because I thought it was smart and sophisticated. The noise of the steam-engine and the filth of the dingy moquette seats disgusted me. After all, I had travelled on the Southern Pacific Railroad. I had also boarded the "Lark", that streamlined dart that thrust its way along the Pacific coast together with the "Zephyr", its companion in luxury travel, both marvels of the New World. It wasn't so much the condition of post-war Britain. Progress had had to be sacrificed in favour of the burning necessity of winning the war.

It was the backwardness of British transport compared to American TRANSPORTATION, that had always existed and which, to my haughty frame of mind, was so exasperating. To cheer myself up I started humming the popular number of the times, "On the Acheson, Topeka and the Santa Fe", afterwards immortalized by Judy Garland in "The Harvey Girls". I had lived two blocks from this railroad's hacienda-style "depot" in Berkeley, California where the red and yellow engine pulled shiny carriages to a halt at regular intervals during the day and night, accompanied by the siren's haunting wail. It was a source of excitement and delight to my toddler son, Peter. How we had loved waiting for its arrival on that sunlit track!

I certainly didn't love the Great Western Railway – as it was then – and its smelly, out-dated locomotives, any more than I enjoyed travelling on it.

Although I sat there glowering, I felt that my appearance was the height of elegance and chic. Being tired of the grey flannel suits and Burberry raincoats, which my mother had always considered classy and ladylike, I had taken advantage of my sojourns in various North American cities to break out and acquire a wardrobe that was anything but. On this occasion I was sporting an emerald-green suit with the padded shoulders favoured by Barbara Stanwyck and other movie stars of the time. I was struggling to walk in red alligator shoes with heels that made up in height what they lacked in comfort, and wore the most ridiculous hat I have ever had on my head before or since. I had bought it on Forty-Second Street, where in those far-off days there were all sorts of little shops where prices could truly be described as "dirt cheap". (The discount radio stores and massage parlours were yet to come). This extraordinary confection had been part of my equipment for going to Manhattan night-clubs and bars, but most particularly for the Easter Parade on Fifth Avenue. We were there for the first peace-time occasion of its kind since the Japanese had attacked Pearl Harbour in 1941.

I started humming again. This time it was Irving Berlin's classic. My much-prized "Easter Bonnet" was made of shiny black straw, covered barely half my head and sported a rather tattered and squashed, but certainly full-blown rose that smelt of glue. I trailed a little opossum jacket, not because I might need it to keep warm but because Rita Hayworth had wiped the boards with a chinchilla wrap in "Gilda". I had always loved movies, but now I was "hooked" on glamour.

However much I felt threatened by life in the wilds of Berkshire, I resolved to preserve a style that my new surroundings were obviously not going to provide. By this I didn't just mean tarting about like a cheap imitation of the Ziegfeld Follies, but in the way I would run my house. I had a pressure-cooker, an electric mixer and several gadgets unheard of over here, and I had made arrangements for parcels of commodities like cake-mix, canned goods and tissues, unobtainable in Britain, to be despatched by friends at regular intervals. I had had my appetite for innovation and convenience thoroughly whetted, and nothing was going to force me to regress to the dismally outmoded methods of housekeeping I had known before experiencing my taste of America.

I had left the little boys happily ensconced with their delighted grandparents in Manchester, a place I had dreaded returning to. Having these convenient baby-sitters I had lost no time in going up to London, "whooping it up" with friends, and spending more money than I should in restaurants, theatres and shops in order to take away the acrid taste of the drab provincial city. I wondered ruefully whether this back-water on the Downs, which had been chosen as the site for developing peace-time atomic energy experiments, was going to be any better. We had the firm promise of a house, which was something in those days, but whether it was going to be anything I would consider fit to live in was another matter.

I was obliged to acquire those ration-books again. Two years before I had gleefully bestowed the remaining coupons from my old ones on my friends and relatives before setting off for the land of plenty. Food rationing was, if anything, worse since my return to Britain. American rationing was an affluent joke by comparison and had ended when the war did. I still have an American cookbook published in 1942 with an appendix entitled "Wartime Recipes" which seemed just as funny in those days of scarcity as that often sarcastically quoted command of Mrs Beeton's to "take two dozen fresh eggs"! If I remember accurately, the only serious restriction on the other side of the Atlantic was a daily choice between beef and butter. Veal, chicken and a wide variety of fish were available in vast quantities without surrendering any of the little perforated tickets. All types of sugar – Britain only had the grey sort – and a few varieties of canned goods were limited to approximately the amount two able-bodied people could carry for a few blocks when gasoline was in short supply. "I've left my ration book at home", was a commonly heard taunt, "bet you twenty dollars you're going to insist upon it."

I could never understand who could possibly want all that food. Despite my conversion to "the good life", it seemed much more than adequate. I had caused quite a disturbance at the meat counter of my local supermarket for pointing out to a petulant old lady that the steak she was complaining about would have had to last a family of four for a week "where I come from". But back here not only was the provender sparse and dull, but clothes, furniture, domestic fuel – and that meant coal products, petrol and even commodities like upholstery material and sheets, were rationed. I had stocked up in America on cheap brightly-coloured linen and curtains as well as clothes for myself and my family. Alas, they were not to last long. My enthusiasm for novelty and brilliance had exceeded discretion and I

had been more carried away by the plethora of pretty detail and trimming available than impressed by good quality during my last shopping spree in New York.

The worst thing of all was my new driving licence. I had foolishly allowed to lapse the provisional one I had held since the outbreak of war. Although I had held Californian and Quebecois permits to drive, I was tersely informed that as I could not produce the British document I should have to take the test. I was furious. Having driven hundreds of miles through deserts and snow-covered highways I should surely be in a position to teach the bossy, insistent little man in the post office a thing or two! I presented myself for the test with nonchalance and long-suffering boredom, only to have it made quite clear to me that I was going to fail before I even completed the required circuit! When the examiner pointed out: "you nearly reversed into one of those expensive cars parked alongside the curb", I lied that I was waiting for my Buick to be shipped over from New York as I really couldn't drive anything else, and left in high dudgeon.

In short, I was thoroughly sorry we had decided to return to Britain. Oscar had received an offer from the University of California to return to Berkeley. We had spent the last six months in Montreal, which had been neither easy nor amusing, but when the final terms from the Civil Service Commissioners recruiting for Britain were laid before him, a wave of homesickness overcame us, together with a loyalty that he, as a German refugee from Nazi oppression, felt to the country that had sheltered and educated him. So here I was, on my way to meet him on the station platform, the hub of what the rural Berkshire people called "a festering sore on the face of the Downs", the railway town of Didcot. Little did they foresee the eruption of the complex of Harwell buildings which, despite its eventual prestige, would resemble a suppurating carbuncle by comparison.

It was all dreary beyond belief, and one of those occasions when I felt that my life was over: all twenty-four years of it!

Chapter 1

Aliens and Atoms

At school my text-book on physics said quite firmly that the atom was the smallest particle in existence and could not be split. Our science teacher said she was pretty certain that some scientists were working on it, but when I asked her for more details she was vague about where and by whom the experiments were being done. This was in 1937! I found her answer to my other questions so unsatisfactory that I wasted a considerable amount of time trying to construct a triangle so that the angles did not add up to one hundred and eighty degrees. I never tried doing it on the surface of a sphere where, I am now reliably informed, it might work. So much for the expensive academy for young ladies where I was expected to get myself educated.

It is extraordinary that no-one ever told me that it was in Manchester that Rutherford had discovered the atomic nucleus, for it was there that I was eventually to hear about the Atom Bomb project in hushed tones of deathly secrecy. Oscar told me about it in late 1943, when we had been married for just over a year and our son, Peter, was a few months old. I wasn't clear about the details, but I knew it meant that Oscar might have to be taken away from Professor Douglas Hartree's radar research team in Manchester, where he had been working since the summer of 1941. Later I found out that some of the calculations essential to the development of the bomb were actually being carried out by a few members of that group.

The main thing about "atoms" at the time was that they were part of the Allied war effort, and as such were never in any circumstances to be talked

about. The same rules had applied to radar. The word "magnetron" – that essential part of the radiolocation system – was not to be breathed except in the laboratory and even then behind closed doors. In fact I almost froze with horror when a young physicist from the Telecommunications Research Establishment in Malvern visited us and was excitedly telling a story to a group of people in our little flat. It concerned two aircraft that had crashed, killing the pilots and destroying every vital piece of equipment EXCEPT the magnetrons. The raconteur was none other than the late distinguished Sir Hermann Bondi, Master of Churchill College, Cambridge, who spent much of his life advising the British Government on sophisticated methods of defence. He loved telling stories and was not only one of the most warm-hearted, even-tempered people in the scientific community, but obviously amongst the most trustworthy.

I had grown up in Manchester, married young and was a mother before I knew what was happening to me. The question WHY one does these things will surely remain as long as the institution of marriage does. Nowadays we question the need for it and some oppose it on principle, but in those far-off days the nuptial declaration played a far more integral part in the structure of society than it does today. Without it a woman had few rights and lacked the vital cachet of status, and that mattered. A spinster was frequently an object of pity. There were those who managed to live independent and productive lives without husbands, but they were the minority. If they dared to live openly with a man, or bear a child while single, they risked not only ostracisation, but a long series of obstacles standing in the way of everything they wanted to achieve.

Looking back, I suppose it was inevitable that I would step out of line and make a rather unusual marriage. Being an attractive youngster, boiling over with energy and consumed by a passion for the theatrical, I was bound to have an odd assortment of boyfriends from even odder walks of life seeking my attentions. This was considered morally dangerous by my over-cautious parents who dangled all manner of "suitable" young men before me in those early days of the war. They were usually the clean-limbed scions of well-established business or professional families with impeccable pedigrees, mostly keen young volunteers, often spotty, and invariably wearing the uniform of the King's Commission. Although they took me out, sent me flowers and tempered their sexual urges with good manners, they bored me to tears. I rebelled in every way. The company I kept, the political stance I adopted, even my attitude to the war raging around us, were

all anathema to my long-suffering elders. With hindsight, it is clear that by their insistence on propriety they could not have set about turning a potential rebel into a "tearaway" more effectively if they had made a conscious effort.

Two of my father's friends who occupied chairs in Manchester University influenced me greatly. One was Patrick Blackett. Although this handsome, thoughtful-looking man had been trained as a Naval Officer and had never taken a degree, he was an academic of the highest distinction. He was also staunchly left-wing. After the war, like so many, he became disillusioned with his early Marxist convictions and joined the Labour Party. Subsequently he won a Nobel Prize, and late in life became President of the Royal Society and an adviser to Government, was awarded the Order of Merit and a peerage. Another was the Hungarian immigrant, Michael Polanyi, a physical chemist turned political philosopher, and a great seeker after truth. His early training had been in medicine and his attitudes were so right-wing by comparison with Patrick's that their wives used to contrive to make sure that when they travelled to meetings in London it was not on the same train. I was often welcomed in the Polanyi household as a child. They had a son of about my age and we played tennis together. Although I visited the Blackett's house far less frequently I decided that Patrick's approach to politics was the one for me. Michael was always known as "Mishi". After the fall of France in 1940, being mean as only youngsters can be, my friends and I dubbed him "Vichy" after the seat of the puppet government of Maréchal Petain. Despite their ideological differences, both Patrick and Mishi detested what was going on in Germany and gave freely of their hospitality to refugee students. Oscar was among those they were concerned for.

In spite of his admiration for these men of learning, my father was a strange mixture. The youngest son of a prosperous Manchester merchant, and the grandson of a German Jewish immigrant, he was enthusiastic about international affairs, the League of Nations, civil liberties and the Liberal Party. He gave much more of his time and energy to these activities than to the family cotton business which provided his income. He spoke several languages, loved music, and had a wide circle of friends and kinsmen all over Europe. Yet he observed a code of morals that would have done credit to a bible-bashing Baptist. Although he followed no religious creed he lived life by the rules. Things were either "done" or "not done", and he tended to be strict on such issues as parental control and the obedience of his

children. He disapproved of most non-intellectual forms of entertainment; jazz, fashion and make-up he condemned as ugly and frivolous. He had a vast store of strange prejudices, such as men in suede shoes; women wearing perfume he put beyond the pale. Sin for him was a real issue, but there was also an element of innocence. When I was much older he once told me that never during his school-days at Rugby had he the slightest idea that homosexuality existed. Even normal sex had to be rigorously kept in its "right" place. Before marriage it was obviously out of the question, and so was anything that might lead to it, such as visiting boy-friends in their rooms or being escorted by any man he had not vetted and approved. I became skilled in the art of subterfuge.

My mother was an affectionate and demonstrative woman. She and my father were unusually devoted to each other and seldom disagreed. In fact my mother was indulged and spoilt by him almost as much as we were admonished and controlled. To be nicely treated was equated in the minds of his daughters with having husbands, and we placed marriage high on our list of priorities.

I have one sister almost three years my junior. She was a more amenable child than I and reacted to my unruliness by yearning for parental approval. Her bid for independence was to join the Women's Royal Naval Service, a move that was considered both patriotic and suitable. She served in Scotland, India and Ceylon, and at the age of twenty fell in love with a handsome naval lieutenant and married him in Bombay when the war was nearing its end. She had to obtain parental approval in writing as she was then still a minor. It was sent reluctantly, and would not have been sent at all but for the urgency of war and all its implications. Even from a distance my parents observed all her movements, and they were constantly checking up from friends, acquaintances and contacts whether her husband, her work and recreations were considered to be satisfactory and respectable.

I refused to join the forces. My leftist tendencies led me to declare on more than one occasion that "I wasn't interested in Imperialist squabbles". When the Soviet Union joined the Allies in 1941, predictably I changed my tune. It is probably fortuitous that my youth inhibited and prevented me from becoming more embroiled with extremist activities, but I remained greatly influenced by socialist principles.

My circle of friends included Communists, who exhorted me to save my energy for fighting the Fascism that was "right under your noses, the British

Government". There were Jews who taught me about the need for a homeland and introduced me to the concept of Zionism. There were also Anarchists, who didn't teach me anything very much except that the world I had grown up in was based on a false set of values and that I should discard it. No wonder I never did very well at my studies! That I was friendly with several refugees from Germany and Austria was not surprising. My beloved grandmother – my father's mother – had instilled in me a love of all things German. Poetry, songs and mottoes were fed to me with my first taste of liver-sausage. I longed to visit "Das Vaterland", but Hitler came to power just when I reached the age considered ripe for "travels abroad". The growth of Nazism affected me deeply. The plight of our German relatives was acute. Some escaped, some perished. In that stricken country one Jewish grandparent was enough to place a person in jeopardy. I became obsessed by the emotional burden of "there but for the grace of God go I".

It was in the days of bombing raids and blackouts in 1942 that I married and consolidated my sympathy for the unenviable position of German refugees. The worst thing about my marriage from my parents' point of view was that, after having played the field with many boys so "unsuitable" that they would not have them in the house, I settled for one who was not only without money, except for his meagre salary, but about whose background they had only the sketchiest picture. Moreover, Oscar was a POLITICAL fugitive and did not carry the dignity of racial persecution. This meant that they suspected him of being a Communist, or even (despite all the close investigation) an enemy spy, which was infinitely worse. Marrying a German when we were at war with his country was typical of the intractable young woman I had become. My preference for foreigners, leftists and "unfitting companions" had defeated the hoped-for friendships with people of their choice that my poor father and mother had so ardently desired.

Oscar Bünemann (the umlaut and final "n" were shed later) was one of those refugees who had not quite completed his five years' required residence in Britain by the outbreak of war and was therefore not eligible for naturalization. He was a stocky, Nordic type with white-blond hair and a good command of English, a competent violinist and steeped in socialist ideology. He was also an exceptionally gifted mathematician whom both Douglas Hartree, Manchester's distinguished professor of mathematics, and Patrick Blackett thought promising. I suppose that had circumstances been different Oscar might have been considered as one of the more acceptable suitors. His family, like mine, was in business. They were Hanseatic en-

trepreneurs and lived in Hamburg, the town where my grandmother had spent a large part of her youth studying the piano with Ludwig Deppe (and just occasionally with his young friend Johannes Brahms). My father's best childhood friend had been a young "Voluntär" learning about the textile trade with the firm of Schütte-Bünemann in Bremen. Had it not been for the pestilence of Nazism we might conceivably have met in Germany. My father, however, did not regard these meagre details as adequate credentials for a future son-in-law, particularly when there was no chance of meeting his family and discussing a "settlement".

Oscar's parents, unlike some of their clan, held beliefs that were aimed at reforming society. Unrelenting pacifists, socialists, vegetarians, esperantists and admirers of George Bernard Shaw, they too had international connections. They were bitterly opposed to Hitler and everything he and his Partei represented, and made a brave stand against him. They sent their son out of Germany after he had served a term of imprisonment for left-wing activities in 1933 and 1934, and it was arranged that he should continue his studies in Manchester.

In 1940, shortly after completing his PhD thesis on aerodynamics, Oscar was interned for some months. When the German invasion of England seemed imminent, the British Government in panic rounded up most of the refugees. It was said to be partly for their own protection, but the measure was obviously taken to make sure that amongst their number there were no Nazis in disguise able to help the enemy. Oscar was sent to a camp on the Isle of Man and subsequently to one in Canada. Some of these hastily formed, and ill-equipped places of isolation – and they were even set up in Australia – became, in spite of revolting conditions, excellent breeding grounds for budding scientists, and there were many distinguished academics who owed their initial inspiration to the tuition and discussion arranged to break the tedium and hardship of their enforced detention. Hermann Bondi was one. For Oscar this period was particularly difficult. There were so few non-Jewish refugees that there was a strong probability that the authorities would not understand his position and would treat him as a Nazi sympathiser, and as such a prisoner of war. (A few such people, unable to get home at the beginning of the war, had already been interned.) He applied successfully to be admitted to an enclosure reserved for orthodox Jews, and the fact that he obviously wasn't a member of that fraternity escaped the notice of the camp officers. The official bungling has since been excused by a story that the papers explaining the nature of the

shiploads of human cargo (and some actually did travel in the hold), were lost when a ship called the Andorra Star was torpedoed together with some of the unfortunate individuals concerned.

Oscar was one of a small number of refugees from Germany to pay two visits to North America during the war, once as His Majesty's detainee, and shortly afterwards as a member of a very special government assignment.

Naturally, my parents thought that Oscar's internment was the answer to their prayers. I would forget all about him and maybe settle for one of the nice British boys who took me out. But I renewed the relationship after government policy was revised and he was released. As I was approaching my twenty-first birthday and would then go my own way, there was nothing much they could do. They did not consider Oscar's salary adequate, but at least did not have to subsidize us completely after our marriage. Douglas Hartree was glad to be able to offer one of his most promising students a job. It was not highly paid, but we were able to rent a modest flat, and live within the princely salary of £400 a year. Money for inessentials was frequently forthcoming from my father. I had a job with the Ministry of Information and could contribute to our joint expenses, but I soon had to give it up when I became pregnant.

The issue that really seemed ridiculous was that for a time I lost my British nationality and became German too. This meant that I was classified as a potential "enemy alien". For those such as Oscar who had been scrutinized by tribunals after the outbreak of war and during internment, this designation was changed to that of "friendly alien". By joining their ranks without benefit of having been given such clearance, I was technically forbidden to keep my camera, ride my bicycle, or make any journey beyond five miles from my home until release from suspicion had been obtained. Thanks to my father's acquaintance with the Chief Constable of Manchester, these restrictions were lifted almost as soon as they were imposed, but I was still obliged to carry an identity card proclaiming my citizenship of the Third Reich. Later, to my everlasting regret, I was not allowed to keep this evidence of bureaucratic ineptitude.

The Home Office at that time had no mechanism with which to enable women who had British citizenship at birth to keep it after marrying boys who didn't have it. Most European countries then expected a woman to take her husband's nationality. Many soldiers from countries that had been

over-run by the Germans – French, Belgian, Polish, Czech and others – were serving their countries over here. Hundreds of them married British girls who accepted their flags with alacrity. These optimistic young men hoped to take their wives back to their homes as soon as their lands were liberated. But a German refugee who had suffered at the hands of the Nazis, and had indicated his intention of making a new life in Britain, felt differently. The situation was paradoxical. For example, a friend of mine had married a Jewish dentist from Berlin a year before the war started. Her husband had felt that, in view of the atrocities committed by his fellow-countrymen, he could not with honour expect any girl to marry one of their number. He had therefore gone to enormous trouble to renounce his nationality at the nearest consulate, only to have it re-imposed on him by the Home Office immediately after all German representation in Britain was withdrawn.

The reasoning behind this question of nominal allegiance arose from an ancient statute in German law which stated categorically that women marrying the sons of the Vaterland should become its daughters-in-law as well. It had been overlooked that, had my marriage taken place in Germany, it would have been automatically void because of my Jewish ancestry. My friend's husband had been deprived of the nationality of his birth under the Nuremberg laws which decreed Jews to be disqualified from German citizenship. Yet it was this very non-citizenship he had asked the consulate to rescind. It is hard to believe that it was ideological punctiliousness that made the British Government fail to enforce the Nazi law. Couldn't they see that anyone "racially tainted" as I was would be forbidden to mingle her blood with that of the Herrenvolk, and was therefore ineligible for German citizenship? They didn't realize that they were trying to have it both ways. Despite my birth, Britain was forcing me to take the citizenship of a country that wouldn't have had me at any price. How much simpler it would have been had they interpreted current law rather than referring back to that of the Weimar Republic, or even of the Kaiser.

Eventually someone in Whitehall fought his way through the tangle of red tape and produced a form for the likes of me – and there weren't many of us – to fill up and swear to in the presence of a magistrate. It cost me half-a-crown in the currency of the time. To the best of my belief my case helped to establish a much-needed precedent.

While all this wrangling was going on Oscar and I made our home in a small flat within a mile of my parents' house. This was a minute step indeed in

my endeavour to disengage myself from the family influences. Even when, less than ten months later, I gave birth to Peter – "just decent", as my mother and her friends said – I was still a daughter first, a wife and mother second. It was not until shortly before Peter's first birthday that the real break came.

Professor (later Sir Marcus) Oliphant was recruiting scientists with Oscar's qualification and expertise to join the highly secret work of developing the atomic bomb to which I have already referred. This was when I was let into the secret that Britain and the United States were working together on a hideously powerful weapon which, when put to use, would finish off the war speedily. When and where, no-one knew.

At first it was thought that we might have to move to Birmingham where Oliphant had his Chair. This prospect I viewed with modified rapture, but when it became more and more obvious that our destination was to be the United States I was dizzy with excitement. It was certainly unusual for persons engaged in wartime activities to be allowed to take their wives and families overseas with them. There was no such concession for men in the Services. Moreover, Oscar was to be accorded British nationality instantly. As Margaret Gowing wrote in the first volume of *Britain and Atomic Energy*: "The refugee scientist had to be naturalized and then exempted from military service; they had never before seen so many administrative hurdles surmounted so quickly." How richly rewarded I was for being headstrong, foolish and unconventional, and what righteous indignation I aroused among many of my friends. Those who had husbands in the armed forces had to stay at home coping with wartime conditions, loneliness and the anxiety that their men might never return. Those in the refugee community were struggling with the dreary jobs they had managed to find, or were in the Pioneer Corps, the only part of the Services that would recruit them at the time.

There was one couple we knew who had married at about the same time and were disapproving. He was an overt Communist who had been brutally tortured by the Nazis and narrowly escaped with his life. His wife was Jewish, possessed of nothing but the clothes she had run away in. They were not even going to think of applying for British citizenship. Together they decided that when the war came to an end they would return home to build up the Socialist Germany of their dreams. Later they were among the elite of East Berlin. After paying them a visit some thirty years later we said

good-bye at Check-Point Charlie. Crossing that aggressively barricaded street put much more distance between us than if one of us had embarked on a plane for Australia. But that is a leap ahead in time, and Europe was a different place at the beginning of 1944.

Under the Official Secrets Act we were not at liberty to disclose the reason for the sudden appearance of a stiff, white document that declared Oscar to be indubitably British, and only our very close circle knew just how imminent was our departure. Patrick Blackett wrote from London: "I have spoken to Oliphant and know something of the set-up." Most others were left to guess, but the prevailing discipline of war taught us all not to ask unnecessary questions. "Careless talk costs lives" was the slogan placarded on every hoarding.

We were to cross the Atlantic by sea, as was normal for those allowed to travel at that time. (Only very senior civilian personnel ever went by air.) When it turned out that we were to embark at Greenock it was obvious that it would be on either the newly-launched liner, the Queen Elizabeth, which started her career as a troopship, or the older sister-ship, the Queen Mary, which had been conveying passengers in varying degrees of luxury for some years. My sister happened to be stationed in Scotland before being drafted overseas, and she was able to convey on the telephone a garbled tale about "two ladies, an old one and a young one", and intimated to my father that we were to meet the former. The whereabouts of any large transport was never openly discussed.

This was the beginning of one of the many adventures of my life. With my husband, ten-month-old Peter, and a mountain of luggage that was considered a *sine qua non* for long-distance travel in those days, we set off for America in circumstances so strange as to seem well nigh impossible.

Chapter 2

The Land of Milk and Honey

All my life I have been addicted to travel. The process of GOING is sometimes just as exciting as arriving, in a new and unexplored country. These days the journeys one undertakes are, alas, frequently marred by long waits at airports, bad weather and strikes. Everyone does it, and sometimes it can be excruciatingly boring. But, forty years ago a long trip was something enjoyed by the privileged few, and the hazards involved were of a different nature. The world was a big place, and despite the lack of radio, modern medicine, the probability of shipwrecks and other disasters, those who encircled it were intrepid and romantic people. Although nothing this side of senility will ever stop me "travelling hopefully", I had experienced precious little in the way of it before the war made this great expedition necessary.

As children, we usually went to stay with a widowed aunt in Ireland during the summer. Apart from that, one holiday on the Lake of Annecy, another in Switzerland, and three months spent studying French in Paris were the extent of my wanderings. My father's concern for economy and my mother's health prevented us from venturing farther afield. It was rather disappointing particularly since, as a child, my bosom friend had a father who was enormously rich. They lived in the Canary Islands, had a home in Jamaica, and when they came to London always booked a suite in the Dorchester Hotel. Sometimes they invited me for tea there. My friend's beautiful mother was American, drank cocktails and wore furs right up to her chin. She had a face like hand-painted porcelain, and smelt delicious.

I loved the aura of luxury which surrounded them. They spent nearly all the school holidays making journeys in big ships, and I used to persuade my friend to tell me stories about them by the hour, often inviting her, I suspect, to exaggerate wildly. I greatly envied her playing quoits and swimming in turquoise pools on deck, surrounded by tropical seas and putting into ports of unimaginable beauty. Her frequent visits to the legendary New York sounded fabulous. When she travelled in the newly launched Cunarder, the Queen Mary, I almost went mad with jealousy.

It was quite remarkable that in the space of a few years I found myself in this noble ship with that famous city as my destination. We were boarded from a launch, and as the vast hull towering above us emerged from the early-morning mist I could just make out the name of this *grande dame* of the ocean spelt out, none too clearly, on her war-time dress of sober grey paint. True, the floating city was fitted out for troop-carrying, but the first class decks on which we were accommodated were still recognizable from the pictures in the glossy brochure my childhood friend had given me. The walnut veneer on the handsome companionways had kept its sheen, making me think of whipped cream floating on coffee. The arcade of fashionable shops was still there too, but the luxurious wares they used to have on offer had been replaced by desks, typewriters and busy G.I's. Although our state-room had been stripped of beds and equipped with steel-framed berths, the spacious wardrobes in which Noel Coward could have hung his silk dressing gowns, and the art-deco mirrors conjuring up images of wealthy, famous ladies making up and spraying themselves with "Chanel", had me spell-bound. The impressive array of taps in the bathroom, offering a selection of fresh and salt water at varying temperatures, were all there to be admired even if they didn't work the way they used to. As for the meals, served in the broad acres of the dining saloon and prepared from American supplies – they were unlike any I had ever eaten.

In spite of zig-zagging across the Atlantic to escape the possible presence of German U-boats, and the frequent necessity of boat-drill in case we should be torpedoed, it was still a luxury cruise for me. My socialist convictions were clearly not going to survive the temptations that capitalism was about to corrupt me with.

Nearly everyone on board was either travelling on some essential mission or belonged to a family of those who were. There were a number of GI brides: women married to American servicemen who had already returned home.

There were journalists, special envoys and officers of the allied forces. The lower decks were crammed with brawny young men serving with the Royal Air Force. Although passengers such as ourselves were not allowed to go that far down, I could see them leaning on the rails eating their meals, far less exciting than ours, from battered mess-tins.

Peter, who by this time was an alert and appealing child, made us many friends for the voyage. It is always amazing what good public relationship material a happy, smiling baby can be. I remember in particular a tall, dignified Chinese doctor who had escaped from the hands of the Japanese disguised as a coolie. He willingly and kindly advised me on a minor childish tummy upset. Peter also endeared himself to a British brigadier from the War Office by making a grab for his red tabs. This high-ranking gentleman had special dispensation from the Captain to smoke in his cabin, otherwise strictly forbidden. He also offered me a drink from a bottle of Scotch, carefully hidden in the bathroom because any ship carrying American forces was absolutely "dry", with nothing alcoholic allowed. There was a sad-looking girl from Czechoslovakia going to work for her embassy in Washington. She had lost her little boy from tetanus poisoning while making her escape to England. I also chanced to meet a haughty delegation from the Manchester Cotton Board who seemed too important to bother with a young woman and her child, but who deigned to have coffee with me when I mentioned my father's name.

Most impressive of all as a travelling companion was Professor Oliphant. This large, rosy-faced Australian had a halo of grey, wiry hair, and his spectacle frames looked as if they had been made of the same material. He was a key figure in the vital progress of the work leading to the development of the Atomic Bomb, but he was modest, genial and approachable. He loved children and their antics, and told me amusing tales about his own when they were that age. Peter he always referred to as "the best behaved baby on board". We put our clocks back an hour or so every night, and it was amazing how some of the small passengers took longer to adjust to this than today's youngsters take to cope with jet-lag.

We saw nothing from the deck but sea and horizon for five days, which was a novelty for someone who had seldom been beyond sight of land for more than a few hours. I was never bored for a second. Although still early March, it became suddenly sunny and warm one day, which indicated that we were not far from the Azores. I could barely sleep at night, such

was my excitement at the prospect of seeing New York. I felt badly let down as we neared land and the weather turned dark and rainy. This was shattering and I almost wept. I had never envisaged anything but a cluster of brilliant white skyscrapers against an ultramarine sky as depicted in the Cunard posters. The Statue of Liberty and the tall Wall Street buildings were shrouded in drizzle. As we steamed up the Hudson River to dock at Pier Ninety, Manhattan didn't look so very different from Manchester. Later in the day I telephoned a friend of my mother who lived on Riverside Drive: "You certainly brought your weather with you", was her welcoming exclamation. That was adding the unfairest insult to the bitterest injury!

New York was hardly what I had expected. Having had my imagination fired by movies, I expected EVERYONE to look slick, smart and ready to break into a song and dance act. There was nothing great and white about Broadway. It was a dingy, wet thoroughfare with its traffic brought to a standstill by the St Patrick's Day Parade. I must admit that the yellow Desoto cab into which we were bundled looked a good deal more modern than a London taxi, but it let out several loud bangs and promptly broke down. As Oscar had gone ahead with Professor Oliphant and some of the luggage, I found myself on the sidewalk somewhere on Thirty-Seventh street. Those fantastic skyscrapers I had been dreaming about didn't look so good from where I stood, holding my hefty child with two even heftier suitcases at my feet. Was this really: "New York, New York, a wonderful town"? If so, "My hopes were high, but now they were down!"

What was worse, I had not one cent of American money in my purse. Eventually, after some explaining, another cab was stopped and we arrived, dispirited and disillusioned, at our hotel. The elevator which shot us up to the eighteenth floor was a bit more like what I had been led to expect, but the hotel had gone crazy. It was over-crowded and over-booked. St Patrick's Day had gone to the heads of the Irish maids, and our room was a shambles of discarded towels, drinking glasses and over-flowing ashtrays. That evening, after Peter had been fed and had settled down to sleep, Oscar and I went down to the "first floor" (I had to learn not to call it the "ground floor") in search of some dinner. The restaurant was full, and we were told to wait – unless, of course, we'd care to take a table in the night-club. Now, this might have been quite a way to celebrate our arrival in New York, but – much as I loved Old Ireland – I couldn't enjoy my arsenic-coloured "Shamrock Chicken" under a pea-green spotlight with the strains of "Danny Boy" deafening me from an electric organ. I was ill at

ease, and had to keep leaving the table to ride up and down that elevator like a yo-yo to see whether my child was all right.

The next day the sun shone and my spirits rose. After making a few telephone calls to people I knew, and having one or two of them visit me, there seemed some hope of finding a few friends in what was beginning to feel like a strange, foreign city. I bought an elemental push-chair for Peter, but there is a limit to what can be done while coping with a heavy little boy who hadn't quite found his feet. I remained glued to the window trying to drink in the atmosphere outside. I could hear the ships' sirens blaring *basso profundo* from the river, but I was impatient to hear the other sounds, and – need I say? – to see the sights.

In the meantime I had to learn a new vocabulary. In those days American was a far cry from the language I was used to speaking. There were so many different customs and habits to be grappled with too. The first bit of trouble I ran into was getting Peter fed. In England, "tea" was a meal, the last in the day for small children. The grown-ups had dinner after the children had been put to bed. I had a few cans of baby-food and some rusks, but when I called room-service and asked for some milk I was told that the restaurant was closed for another hour. "But I don't want a meal", I protested, "just a little milk for my baby's tea". I was dumbfounded when, in answer to this pathetic plea, a large black porter presented himself at the door with a jug of hot water, a small bag of what looked like dust on the end of a string, and a tiny thimbleful of milk. My nice plump baby couldn't survive on that! Even at home the green rationbook for children under five had enabled me to get a pint most days. I thrust Peter at the poor man, and, begging him to mind the baby for just five minutes, threw on my coat, shot down in the elevator and out into the street. "Excuse me," I stuttered to a bewildered passer-by, "Can you tell me where I can buy a bottle of milk?" "A BOTTLE OF MILK?" he repeated incredulously, scratching his chin, "I guess they handle milk in there". He pointed to a grocery store. I was used to a milkman delivering bottles to my door, or to buying them at dairy shops. I approached the counter and timidly enquired whether milk was available. "Why yes, honey," beamed the grocer as he plonked a large cardboard box in front of me: "Fifteen cents". By this time I almost expected that peculiar container to explode with a bang, but it contained liquid right enough. What was more, when I got back to the hotel and opened it with shaking fingers over the bath tub, I realized that it really tasted just like milk.

That was my first lesson in American shopping. Later I was to revel in a variety of canned and packaged goods such as I had not feasted my eyes on for a long time, if ever: the butter, eight ounces at a time, dozens of eggs in boxes, ice-cream, Hershey's chocolate bars and, above all, oranges and lemons the like of which had disappeared from British markets some years before. Most unbelievable of all were the mountains of freshly whipped cream squirted out of dispensers all over pies and cakes in coffee shops and patisseries. Some time afterward, out West, I did experience a little difficulty in getting WHIPPING cream, but there was plenty in the bulbous tops of the bottles that the Golden State Company was still old-fashioned enough to deliver in electric trucks every second day. Of course, I had to be careful to avoid something called "homogenized". Occasionally the milkman informed me almost tearfully that there were only one dozen eggs for each customer that day. In England, even the unappetising powdered egg was rationed: we were lucky if we saw a whole egg in two weeks, and when we did it was seldom fresh.

Berkeley, California, was to be our eventual destination, but we were told that we could not expect to get a train reservation for our trip to the West Coast for at least two weeks. Transcontinental journeys were allotted on a system of priorities, and Oscar was still in a fairly junior position. That meant that we had to wait. I didn't mind in the least.

Within a few days our friends had helped me organise my life. My father's friend, Sir Norman Angel, had a secretary who offered accommodation in her apartment and could baby-sit some evenings, which made the problems of caring for Peter much easier. An old friend of my mother lectured me on American politics and institutions. A girl I had known before the war offered all sorts of advice on shopping, and helped me wield the push-chair. Although my funds were sparse we went to Stern's and Bloomingdale's. In Macy's on 34th Street I acquired a seersucker blouse, some disposable diapers and a folding baby-buggy. How much bigger everything seemed! A child's "crib" (another entry for my Anglo-American dictionary!) was far roomier than the cot Peter had slept in at home. Although I had never owned a refrigerator I had been envious of friends who possessed them. They now seemed microscopic in comparison with the gleaming white wardrobes Americans used. As for the cars straining to leave the traffic lights, they seemed like monsters ready to flatten you if you delayed an instant. We walked up and down Fifth Avenue and looked at Saks, Tiffany's and Lord and Taylor. My eyes came out of my head like organ

stops.

The greatest welcome I had was from a lovely, honey-blond girl called Inga Grossmann. She was the fiancée of a friend in Manchester who had been best man at our wedding. Because of racial persecution they had both escaped from Berlin in the mid-thirties, but were separated when he got permission to study in England. She had later moved to New York with her family. They had planned to marry in October 1939, but the events of the previous month had put a stop to that. Their story seemed like a piece of romantic fiction, true though it was. A few months after the war ended, he contrived to arrange a business trip to New York with temporary papers – his naturalization not having come through – and married her four days after landing. It was more than six years since they had last seen each other, and they lived happily ever afterwards.

Meanwhile, Inga and her family gave me the best possible introduction anyone could have to the Big Apple. They were happy and courageous people. Having once enjoyed a prosperous and comfortable life in Germany, where the old man was a front-ranking surgeon, they had been forced to leave most of their money and goods behind. Nevertheless, they had settled down contentedly in what was then known as "Das Vierte Reich" (The Fourth Reich). Washington Heights on the northern tip of Manhattan Island was then occupied almost exclusively by German and Austrian professionals – "gifts from Hitler" – who were already serving and enriching their new country. Dr Grossmann had to take his medical examinations again in what was for him a foreign language, no easy feat for an elderly man. His wife just kept smiling and rejoicing in the fact that the family were safe and together. Her memory has always served as a shining example of how to behave when times are difficult. I wish I could always have followed it.

Mrs Grossmann's speciality was helping others to enjoy and benefit from New York, and we were no exception. She scooped up Peter and didn't mind how long she cared for him. She was determined that we were to make the most of our visit to the place that had become home to her. I was taken up the Empire State and RCA Buildings to see the dizzy panorama stretching out all around, and the tiny toy cars immediately beneath us. I was told I had to visit the Metropolitan and Modern Art Museums, the Frick Collection, and the Cloisters in Fort Trion Park, not far from their apartment. We went to the theatre to see Gershwin's "Porgy and Bess" which made me cry. We ate in interesting restaurants and together with

other members of that enterprising family and their friends we went dancing in night clubs. We even heard the fat and famous Sophie Tucker, smothered in orchids and fox furs, at the "Copacabana". I was surprised that the "last of the red hot mommas" didn't sing. She let her accompanist play a phrase of the well-known melody, and then would rapidly recite the words as he embarked on the next. This technique, I was to learn subsequently, is often used by entertainers whose voices are no longer what they once were. The atmosphere was intoxicating. There was none of my father's puritanism in the entertainment arranged by Mrs Grossmann.

The city seemed to glow. I can't forget stepping out on to the sidewalk after a show and being invited for a drink by our friends. "Isn't it a little late?", I asked, having been nurtured in the land of licensing hours. Their laughter as they took me through the revolving doors of a brightly lit bar was so loud that the man in smart livery, who was busy rattling a silver cocktail-shaker high above his head, nearly dropped it. Memories of "closing-time", and of watery war-time beer, were soon drowned in "Manhattans", "Sidecars", "Gimlets", and an interesting whisky apparently called "Ber-bon". Only when I saw the bottle did I realize that it was named after French royalty.

Those first few weeks were not all culture and fun. There was a side to them that appalled me. I saw the incredible poverty of the Lower East Side, the dirt and squalor of Harlem, and the pathetic degradation of the drunks and "Bowery Bums". There were people sleeping on what warmth a subway grating could provide, and ragged children playing on empty parking lots. I caught a few glimpses of what life for an under-privileged immigrant could be like in their squalid rooms, with kitchen and washing facilities as sordid as anything in the Manchester slums. It was pathetic the way that newly washed clothes, hung out on lines operated by pulleys, were covered with soot before having a chance to dry. For those who had so recently escaped persecution the price of freedom was often high.

There was one advantage to life in that city, so sadly lacking there today, and that was safety. The subway train was neither comfortable nor quiet, but one could ride almost anywhere and at any time without fear. No-one had even thought of daubing the cars with bizarre graffiti. Central Park offered no hazards if one wanted to go for an extended walk, and it was possible for two young ladies to go to a movie and take a stroll in Times Square afterwards simply to look at the multi-coloured, fast-changing illuminations. The whirling advertisements, and the news headlines flashed

high up on well-lit buildings, were a feast for the eyes after the English blackout, where not even the smallest chink of light was allowed to escape a building after dark for fear of the bombers overhead. No matter what pollution and the crime-rate have done to it since, I shall always see most of New York City through the rose-coloured spectacles of youth. Thanks to the generosity of the Grossmanns and their enthusiasm, the disappointments of my arrival were completely erased.

While inhaling a new atmosphere and drinking in the experience, there were formalities and plenty of documents to be attended to. I had to keep reminding myself that this was not merely a joy-ride. One day we had to make a trip to the Wall Street district. It was somewhere in one of those streets that look like crevasses between the cliffs of the skyscrapers either side that the British Supply Mission had its offices. There Oscar had to enrol for service with the Manhattan District which was the code-name on that side of the Atlantic for the organizations dealing with work on the Atomic Bomb. We also had to complete our immigration and residence applications.

It was here that I first met Professor (later Sir Rudolf) Peierls. He, too, was from Berlin, but had been living in Britain long enough for his naturalization to have arrived shortly after the beginning of the war. Little was I to know at the time what a tremendous influence he and his wife were to be in my life. They remained amongst my closest friends and mentors for the rest of their lives. How this was to come about will appear later, but at the time I was impressed by a man of outstanding gentleness, humour and integrity. In fact, it was Peierls, together with his colleague Otto Frisch, who before the war had shown it theoretically possible to construct an atomic bomb. Already, therefore, a distinguished theoretical physicist, he was shortly to move to Los Alamos where he made further contributions to weapon development. That work was eventually to lead to the devastation of Hiroshima and Nagasaki, but it was typical of him that he devoted a large part of his remaining life and energy to the Pugwash movement, in which scientists from many countries sought, and are continuing to seek, international agreement on nuclear disarmament.

Sharing the office with Rudi Peierls was Dr Klaus Fuchs, a pale, slender, pleasant-looking young man with round spectacles and a tidy dark suit. He had full, sensitive lips and, although still in his early thirties, his high forehead was just starting the transformation into a receding hairline. All

I then knew about him was that he was yet another refugee from Germany who, like Oscar, but several months previously, had been granted British nationality speedily as a special case. My first impression of him was of failure to make contact. Everything I said, every attempted conversational opening, was greeted with benign silence. He didn't seem to find it necessary to make any reciprocal comment. It was like talking to a faintly smiling mask. Later I was to think of this as a challenge, but for the time being it struck me that he was abnormally shy. A flustered young woman trying to fill up forms sensibly, even though she has to abandon her efforts every two minutes to prevent her infant crawling into everything and creating havoc, normally evokes some sort of remark. Not from Fuchs: just a nod, a smile – and silence.

Eventually our reservations for the westward journey arrived. Troop movements all over the country meant that priority of accommodation on trains was reserved for senior military officers. The best we could expect was a "section" – an upper and lower berth discreetly curtained-off at night and converted into two seats during the day, one of many in a coach on a Southern Pacific train. We changed stations in Chicago, where one of my erstwhile employers met us. This was no miracle because he had been posted there by the British Ministry of Information, for which I had worked as his secretary. This was the scene of my first real quarrel in America. I inadvertently undertipped a porter, and the giant of an ebony-coloured "Redcap' roared at me with a torrent of abuse, of which only the general trend was even vaguely comprehensible.

The rest of the train-ride was an education. I learnt that snow and heat mirages can be experienced during the same journey, that an inland lake can be so large that it has a horizon just as the sea has, and that the windows could not be opened because of something called air-conditioning. Some of our travelling companions were happy to answer all sorts of queries about the various States on our route. Others asked the most extraordinary questions. Notable amongst them was: "Is England a democracy? – well, like on account of you have a king?" Another: "Can you speak all the European languages?" Passing through various towns and States made me realize just what an effect the railroad had had on popular music. I was humming all the time, from "I've got a girl in Kalamazoo", to "California, here I come".

It was mostly prairie country until we crossed the Rocky Mountains, and sadly that happened at night. I remember clearly a long stop at Cheyenne,

Wyoming, where the air tingled the nostrils and a totem pole stood out against a clear blue sky. We travelled through the almost never-ending chalky Great Salt Flats, near Salt Lake City in Utah, where Sir Malcolm Campbell had broken the land speed record. At Reno, Nevada, we could look at streets full of night-clubs with neon lights as bright and garish as anything in New York. (This city was the precursor of Las Vegas in gambling, quick divorce, vice and general wickedness.) Once, we only just got back to the train in time to prevent the sleeping Peter from continuing the journey alone. Sometimes, with hindsight, I am quite ashamed of my irresponsibility as a parent. Despite this carelessness, my children have been reasonably easy to bring up and have turned into very successful adults.

Later I was to cross the USA by road twice, and many, many times by air; but for someone who had never been further than a small corner of Europe, the experience was as large as the prairies and deserts we travelled through.

Our arrival at Berkeley, one morning before it was light, was auspicious. The air was warm, and I could smell the eucalyptus trees that I was to get to know so well. Best of all, the kindly Professor Oliphant, his wiry fuzz all ruffled, had risen in the middle of the night in order to come to the "depot" to meet us with a car. He informed us that he had a house for us, and dropped us there for a good rest before turning up later to show us something of the area in which we were to live. When he returned, he was accompanied by a spare, sharp-featured man with rumpled, greying hair. Herbert Skinner was to become another very close friend, one who until his untimely death always showed me great kindness. We drove round Berkeley and got our first glimpse of the University of California. There was quite a lot of space between its buildings then. I had never heard the word "campus" before, but I knew I was going to love the green grass, the flowers and trees surrounding the tall white campanile from which real tunes were played on an amplified glockenspiel every hour.

We crossed over Bay Bridge to San Francisco. I could not imagine how a bridge could be so long. It was pointed out to me that half of it was "suspension" and half "girder". I could see that it was really two bridges, with the small Goat Island, or Yerba Buena, separating them. Beside it was the artificial "Treasure Island" recently constructed on immense supports sunk into the ocean bed. It had been built for a great exhibition, but was now a busy naval base. In the middle of the Bay I was shown Alcatraz Island – "The Rock" – that grim penitentiary for the most desperate and

violent of criminals, so heavily guarded by lookout posts and deep water that only one man had ever managed to escape. It was in full use then; now it is no more than a gruesome museum.

Finally, we drove into San Francisco, another city I was to learn to love. But for the moment I was mesmerized by the inclines of the streets, so steep that the front door of one house would be level with the upstairs window of its neighbour, and by the clanging cable-cars that seemed to defy the laws of gravity as they clung to those dizzy slopes; and, in the distance, by the graceful red lines of the Golden Gate Bridge which guarded the Bay from the immense Pacific Ocean.

When we returned to the house I made a cup of tea. There was a whistling kettle, and the gas stove didn't need a match to light it. I opened the heavy door of the enormous refrigerator, which had a handle like a giant lever, and got out the milk so thoughtfully provided, along with a stack of other supplies. I noticed the electric mixer and the fully automatic washing machine, and wondered what it would feel like to use them. Everything was so fresh and shiny, and in mint condition. The frilly, muslin curtains on the window beside the sink were crisp and spotless. "Tomorrow", I said, "is Peter's birthday. I shall make a cake." "Are you going to be ONE?" Professor Oliphant picked him up and threw him in the air in a way that produced a torrent of delighted chuckles. Then his face turned solemn as he spoke to Oscar: "I have a pretty stiff programme for you, Buneman. This is just a little sugar before the castor oil."

Chapter 3

The Birth and the Bomb

It was not only at Berkeley that work on the atom bomb was going ahead. There were other sites in the United States all of them referred to by code letters. There were "X", "Y" and "Zee", and their locations were never to be mentioned. I had overheard hints and indirect remarks, but Oscar was always careful not to tell me anything I didn't need to know.

I was aware that there was one such establishment at Oakridge in the South. It was known as the "dog-patch" by those whose misfortune it was to work in that unattractive place; but so scared was I lest I should inadvertently let slip some indiscreet remark that it was many years before I dared even mention the State of Tennessee by name. There was also that main stage on whose boards the well-chronicled dramas were to be acted out, the core and birthplace of this weapon of destruction. It was somewhere in New Mexico and I had a hunch that it was the place called "Y". It was from there that fragments of startling news about developments occasionally filtered through to us. I didn't hear the real name of Los Alamos until much later. In the meantime a group of European scientists, who had gathered in the Canadian city of Montreal, were reaching a decision to build a nuclear reactor in the virgin forests of Northern Ontario, near to a village called Chalk River. It was there that they were going to use that rare and expensive substance known as "heavy water". Those two notable professors, Kowarski and von Halban, whom I was to get to know later on, had helped themselves to a bottleful – the entire European supply! – and had escaped from the Nazis, saving their precious booty as well as their own skins.

This and other startling revelations were shrouded in the close covers of security as far as people like myself were concerned. All I knew was that Professor E O Lawrence had invented and built the cyclotron, the first one ever. From a window of the house, I could see the round white building that contained it, standing on its own, high in the hills above Berkeley. The cyclotron had recently been converted in such a way as to extract from natural uranium metal the substance known as "235", which was to be used in the manufacture of a bomb. Today, there are so many buildings on that hill that it looks like a rock covered with barnacles.

It seemed strange that anything so mortally dangerous could be going on in this peaceful university town. Right from the beginning I knew that I was going to enjoy living there. It was clean and fresh, and the air smelled summery. I was to find that the difference between the seasons was not great: extremes of heat and cold were almost unknown. The sun shone frequently, and when it rained there was a brief but hearty downpour that left the earth moist, sweet and rich. The local people jokingly referred to the wet season as the time for "liquid sunshine", and they warned me about the famous San Francisco FOG. ("Smog" had not yet been invented.) I would have called it mist, or, at worst, low-lying cloud. It was gentle and clean like the wispiest cotton wool, and seemed to bring the ocean inland to wash the buildings and cool the streets. Compared with the industrial "peasoupers" I had grown up with, where you couldn't see your outstretched hand, and got covered with sticky black filth, this was nothing to get excited about. Fog indeed!

The houses in our immediate vicinity were mostly of clapboard, painted white and surrounded by well kept gardens. When I wrote to my parents telling them that I was living in a wooden house, I received back an anxious letter instructing me to make sure that I was adequately protected against fire. There were very few fences or hedges marking the borders between properties as there would have been in England. In the hilly parts of Berkeley east of the campus, the roads curled round the houses, which were dotted about on green lawns like Mah Jong pieces on a bridge table. I could walk to my neighbours without circumnavigating an enclosure, opening a gate or even stepping out onto the street. It seemed as if house-owners knew how far their land extended and didn't see any reason to fence themselves in. How refreshing it seemed after all the petty squabbles about overhanging branches and falling leaves that kept raging across garden walls in suburban England! Here there was usually nothing

between your lawn and the sidewalk, which could be separated from the street by another strip of grass. It seemed that Californians were not really concerned with their privacy. I felt quite disdainful when I thought of the almost paranoid way the British were obsessed with it. An Englishman's home is his castle! The iron gates, brick walls, and dense privet hedges that dwarfed me as a child, had meant that one didn't speak to the neighbours unless introduced to them by something other than mere proximity. Here the atmosphere seemed friendly and relaxed. Passers-by said "Hello" or "Hi", and expected you to respond.

The focal point of Berkeley was, of course, the picturesque Campus, spread like a green carpet at the foot of the hills. It was a joy to push the buggy on the quiet roads, stop and sit on the springy grass under tall trees I couldn't yet identify, and admire the flower beds and the exquisitely trimmed shrubs. They reminded me of the pictures on an oriental screen we had at home. This was hardly surprising as all the good gardeners in that part of the world were of Japanese origin. For the time being they had been rounded up and re-domiciled further inland. For their own protection? Another type of internment? But horticulture flourished nonetheless, and I was to learn a lot, particularly about the vegetation I extracted from Peter's clenched fists when I interrupted his play by picking him up off the ground. There were lawns made of dichondra, a clover-like plant that held the moisture and didn't need much cutting; and there was Korean grass, so fine that it resembled green spun sugar.

How entrancingly pretty it all seemed, and it made me FEEL pretty too: as if I wanted to dress to fit in with my environment. I happily wore a flower in my hair as was the fashion of the day. I wonder, was this prophetic? More than twenty years later "flower-power" was the philosophy that swept over that part of the world, together with marijuana, "love-ins" and "gay liberation". At this time, no matter what the state of the world and the atomic experiments taking place so close-by, the Campus seemed quiet, serene and uncomplicated. Girl students, with shiny clean hair, wore pastel-coloured sweaters and "bobby-sox". They met their "dates" over ice-cream sodas in nearby drug-stores. Young men in T-shirts and jeans hurried through their studies while waiting for the Draft Board to send them off to fight.

All around the campus were tree-lined avenues, dappled by the sun shining through leaves and branches. These were roads of handsome Victorian

houses, some built of rich brown cedar shingles. They were graced with elegant porches where one could spend a pleasant summer evening sitting on gently swinging hammock-seats and, in the way I have just described, being relaxed about greeting anyone who happened to walk past. Some of the houses were divided into apartments, some were occupied by older members of the University, and some were fraternity or sorority houses. Unlike our home in the hills, they were very near the main streets where the big stores and offices were to be found, the car-parks and the buses.

The centre of the town had a horizontal look to it. Unlike the pillars that shot up into the sky on the other side of the Bay, Berkeley had but one tall building then, and that was a mere six floors high. It protruded, in contrast to the surrounding buildings, and seemed out of place. Even the department stores seldom consisted of more than two stories, and the sky-line was not yet scribbled over by television antennae. A long road called University Avenue, stretching from the Campus in a straight line right down to the smelly factories on the Eastern Bay Shore, bisected the town. As you walked along it, you could observe the downward slope of the SOCIAL gradient. The streets set at right angles were all straight, and the houses became smaller and closer together. Even so, they were mostly neatly kept and their windows clean and curtained. Families would put a star in the window for every son serving in the war; if a star were gold it meant he would never come back.

I was to be sadly disappointed when I set out to find the beach. I never imagined for one moment that a town situated on the edge of such a big bay could be without one. In San Francisco there was a wide stretch of golden sand with the usual amusement arcades doing their best to ruin the Pacific coastline. Otherwise, it was necessary to go a little further afield, or eastward into the hills behind our house, where in the woody Tilden Park there was a lake called Anza, ideal for swimming and family outings. I started enjoying fantasies of Red Indians among the trees, waiting to descend upon the Paleface, and scalp him as he enjoyed washing in the cool water. Some unkind philistine felt obliged to tell me that it was an artificial lake, specially constructed to enhance the picnic area. I was overcome by San Francisco. That fantastic city, so rich in variety and dramatic history, so beautifully situated on the southern promontory of the Golden Gate, was so near at hand. I think that those of us who were posted to Berkeley were the most fortunate among the exodus of British scientists to the United States because of the proximity of San Francisco. Apart from its glorious

position it had so much to offer in the way of concerts, theatres and galleries, not to mention a wide choice of shops. There was mouth-watering food such as succulent shellfish at Fisherman's Wharf, and delicacies from the Pacific Islands and beyond. There was the thrill of riding on cable cars. I still recall the sensation of stepping out on to the street and feeling the vibration of their mechanism under my feet. Many are the cars that have honked at me in later years as I tried to recapture something of that tingling in my toes.

The extensive and varied Golden Gate Park was, and still is, one of the finest in America. There was the Fleishacker Zoo, and a swimming pool a quarter of a mile long, where even on the most crowded public holiday it was possible to dive and plunge without colliding with another body. Now, sadly, that pool no longer exists; but the delicately pruned, miniature trees, the manicured lawns and curious bridges of the Japanese Garden are still there, and happily it has resumed its name. In those days of strife it had been referred to merely as the "Oriental Garden". Just occasionally, in the hills overlooking the ocean, there were small groups of quaint, old-fashioned houses, garnished with carved fretwork: survivors of the dreadful earthquake and fire that had devastated parts of the city in 1906.

I had my very first whiff of the Far East in Chinatown. There were new impressions on every inch of those steep and busy streets. The red and gold architectural decoration, the dragons and pagodas, and the appetising spicy smells drifting out from the thousands of little restaurants, are now commonplace all over the world, varying only in their degree of authenticity and sophistication. But apart from Hong Kong it was then the largest Chinese settlement outside mainland China. The musty little shops were crammed with delicate examples of arts and crafts, and I still have a few small treasures dating from pre-revolutionary days. We often went there to eat, but once I was taken to a mysterious basement. This, it was explained to me, was not for tourists and visitors. It was where the local population gathered for special occasions, to celebrate at round tables in partitioned booths; the waiters hardly spoke English. The food was so delicately flavoured and subtle that I can almost taste it now. But when, a few weeks later, I tried to rediscover the place it seemed to have vanished. I often wondered whether it was forced to close its doors; or did its patrons, despite the Chinese talent for making a profit, want to preserve it for themselves, uninvaded by hungry pink-faced westerners? Since that time I have eaten all manner of Chinese dinners from Peking to Putney, but not one of them has ever quite reproduced the ecstasy of that early gastronomic

initiation.

San Francisco as it was then is as fresh in my memory as my first visit to New York. I have been there a few times since, but however far I travel there is still magic in those images of bygone days too numerous to describe: the view from Knob Hill, the yachts by Marine Parade, the cool, fungus-scented shade of Muir Woods, Seal Rock near the beach, with its slippery inhabitants, and the little row of brightly-lit bars and nightclubs romantically called "The Barbary Coast" – all that remained of that infamous haunt of pirates and seafaring desperadoes.

Even the journey from Berkeley and back was exciting, far more so then than it is now with the Bay Area Rapid Transport train moving silently UNDER the water. If you couldn't drive there you could take a ride on the "Key System", an electric train that rattled over the lower level of the Bay Bridge. (Cars took the highway on the upper level.) The view of the islands around the Bay was beautiful. So, often, as I travelled across it, gazing out over the water and the horizon of the Pacific Ocean, it struck me that the Golden Gate deserved its name. The setting sun suffused both land and water in the sort of light you don't expect this side of the Celestial City. I thanked the gods who brought me there for not leaving me in England to sit in an air-raid shelter and grope my way around the blackout.

We were further blessed with lush, fertile countryside all around us, even if on the way there we had to travel past the soulless, new concrete blocks, built for housing dockworkers in the busy Kaiser Shipyards. Should we feel the need for a drier climate, it was only a matter of a few miles to the east, behind the hills, in the San Joachim Valley, where the so-called "fog" never penetrated. The choice of beaches, parks and picnic spots was infinite. The work may have been hard at the "Radiation Labs", as the Berkeley laboratories were called, but recreation was as varied as it was abundant.

At the start, my problems were mainly those of isolation, and – despite the friendly greetings – a little loneliness. I had one kind neighbour, but she had grown-up children and spent her days working at an office she called "the outfit". (More vocabulary to learn: I thought it meant something you wore!) The comfortable house put at our disposal was up a very steep hill, and having got Peter and the buggy down into town it was no mean effort, young and healthy though I was, to push it back. There was no such thing as a local store in this superior residential neighbourhood, and

we had no car. One day I tried to reach a supermarket via an elegant road called Marin Avenue. It had a gradient of one in five, and I had a spine-chilling scare when the buggy wrested itself from my grasp and, but for a misalignment of its wheels, would have hurtled Peter to a disastrous fate. He still obstinately refused to walk. He sat placidly on his bottom, or crawled when he wanted to grab something not within his reach. The tram-car stop was only ten minutes walk from the house, but it was something of an ordeal to lift a weighty child, fold the buggy and clamber aboard, while the driver muttered impatiently under his breath.

Occasionally, the wives of senior members of the British team sought me out, and there was occasionally a welcome offer of a bit of baby-minding; but much as I hated being tied I didn't like to impose on people who, as often as not, lived some distance away. Our undoubted doyenne was Mrs Massey. Her husband had enjoyed a prominent teaching post for several years, and was later to become Sir Harrie and Quain professor of Physics at University College London. She lived in an important-looking house nearby and made a few suggestions. However, she couldn't drive, didn't care for Berkeley, and was frequently in poor health. Even so, she was greatly concerned about the younger wives, and particularly about me, for I was the only one at the time to have such a small child. Professor Oliphant's wife had not joined him in Berkeley.

It was not merely the need to gather provender for my household that worried me; I had an unquenchable thirst for sight-seeing that was going to suffer if I didn't find a solution pretty quickly. There is an Irish proverb which says: "Providence looks after fools." It certainly took good care of me the day I answered an advertisement in the Berkeley Gazette. "Children minded in your home," I read, "50 cents an hour plus car-fare," followed by a telephone number. I rang up and immediately engaged the advertiser to care for Peter two afternoons a week without as much as asking for a reference, let alone ascertaining that she was not a child molester or a homicidal maniac. She turned out to be a lovely, white-haired lady in her mid-sixties, who had been forced reluctantly to give up her job at the nearby Shipyards for health reasons. As she was loath to be too dependent upon the daughter and son-in-law with whom she lived, she applied herself to odd jobs such as baby-sitting to earn what she called her "pin money". Thanks to that rash telephone call I not only had the freedom to go out on my own but had the horizons of my knowledge broadened to a remarkable degree.

Edith and her family turned out to be the kindest friends imaginable. Apart from the invaluable baby-sitting, they also adopted me and taught me a great deal. I had never seen my mother cook a meal because, like so many middle-class British families, we employed a maid to take care of our kitchen. Youngsters invading it and messing up the stove were not appreciated! Since having my own home I had enjoyed making gastronomic experiments, but naturally I had been endlessly frustrated by the limitations imposed by our grubby, dog-eared ration-books. Four ounces of margarine and sugar, plus one of butter each week for every person, was hardly conducive to the creation of gourmet dishes and I could not claim to be an experienced cook. Once in the house of these warm-hearted people I learnt to prepare fried chicken, cole slaw, lemon meringue pie and many other tasty dishes that were new to me. The culinary chasm between Britain and America was wide in those days, and for the first time I was shown how to combine all manner of flavours: pineapple with ham, maple syrup with waffles and bacon, and a delightful, snowy-white substance called "cottage cheese", served in a salad with fat juicy peaches. They introduced me to avocado pears, sweet potatoes, corn cobs, and an endless selection of Californian produce. They told me how Luther Burbank had, in this area, developed the nectarine by crossing a peach with a plum. Whenever possible they took me with them to see something of interest, and not only the obvious and the well-known.

When Edith and her family first invited us for dinner at their house, they unwittingly gave me an astounding lesson in American social studies and class structure. Edith's son-in-law was a quiet, well-dressed man of German origin. He had a fine collection of Mozart recordings, of which he played one or two while we were drinking coffee in their tastefully furnished living-room. He was obviously knowledgeable about the great orchestras of the world, and we enjoyed discussing music during that first evening of our acquaintance. The next time we met he was returning from his work at the Shipyards where, in my innocence, I imagined him holding an administrative position. I hope my astonishment didn't show on my face when I beheld his dirty overalls and heavy boots. In fact, he was a riveter. In all my life I had never before come across a WORKMAN who enjoyed music other than popular songs and hymns.

By now I was really able to make the most of living in this warm and pleasant land. I knew Peter to be safe with Edith. He had by this time decided to take a few steps, but the absence of a garden fence presented

a new problem, that of straying into the street. He had to be watched every minute, but she had patience and she loved him. Moreover, she often arrived with some little gift in her bag: a jar of pickled peaches or home-baked cookies, and twice she made delightful little suits for my fast-growing son out of material her daughter had left over. It struck me as dreadful that I should be put in a position where I had to PAY someone such as the mother-figure she had become. We arrived at a happy solution. Silver dollars were still in circulation then, and she told me many stories about their history and design. As a young girl she had been employed "teaching school", as she put it, and was clever at making such things seem interesting. Thereafter I always contrived to have her money ready in this currency, so that she could examine the date and tell me even more about this facet of America's story.

Gradually the British team was enlarged by more scientists being recruited and despatched to Berkeley. Most of them brought their families. Dr Edward Alibone, an engineer from Metropolitan Vickers near Manchester, turned up with his wife, Dorrie, and two young daughters. Glad as I was to be away from that part of the world, it was quite a comfortable feeling to talk to people from so near home. They also were adventurous, intrepid sight-seers, and delighted to find themselves transported to California. Two women travelled in a fairly advanced state of pregnancy. One, now Lady Curran, was wife of the late Sir Samuel, later Principal of Strathclyde University. I'm not sure whether the authorities knew or not, but it was a courageous journey to make, particularly when one didn't know for certain where or when it was going to end.

Many of us would meet for Sunday lunch at a small restaurant near the Campus called the Black Sheep. It was not spectacular, even when compared with other university commissaries, and it was "dry" because U.S. law insisted that no liquor could be sold within a mile's radius of any university. As in so many places of its kind high chairs were supplied for infants, and Peter was soon enjoying it too. He had a plump face which the sun had tanned to the colour of a ripe apricot, brilliant blue eyes and an outgoing disposition. He was soon to become something of a "side-show" at these gatherings. We thought the food excellent and very unusual, particularly as everything was served at once on platters with several sub-divisions. Greatly to their own amusement, the Alibone children once assumed that the small serving of jam was INTENDED to be eaten with the fish, as the bread-roll had been forgotten. With true pioneering spirit – for this was

the land of the unexpected and the unusual – they spread it on the surface of their fried sole and ate it with relish.

It was at the Black Sheep that I was to meet a few of the better- known figures in the "atomic business". There was Frank Oppenheimer (brother of Robert), Bernard Peters and David Bohm, all of whom were later to come under suspicion of being involved with communism or "un-American" activities under the needlessly cruel witch-hunt instigated by Senator Joe McCarthy during the 1950's. They were also, incidentally, all Jewish.

Outstanding among this restaurant's patrons was Herbert Skinner, who had helped Professor Oliphant show us around that first day, and who was later to play a big part in starting up the British Atomic Energy project in England. He was often there with his family. His wife, Erna, a plump, dark-eyed raconteuse on the brink of middle-age, would regale us with her hilarious tales of everyday incidents, which she could turn into pantomimes with her descriptive powers and her unrivalled talent for self-mockery. How could I know how many experiences we were later to share? I was beside her when she died, suddenly and dramatically, from a heart-attack in my London house about thirty years later. It is easy to imagine the detail with which, had she been able, she would have described and embellished that event. Shakespeare might well have written for her the words: "Nothing in this life became (her) like the leaving of it".

Professor Massey urged caution in making friends with local people because of the difficulty in explaining our presence in such numbers. I fear I couldn't obey his instructions implicitly. Keeping secrets was one thing – I could do that – but asking me not to make friends was like asking me not to breathe, particularly when the owners of our hill-top house wanted it back and we went to live in a much more sociable neighbourhood.

After a short search we found a small bungalow, a third of a "triplex" of three houses with adjoining walls. About a mile from the Campus, and two blocks from University Avenue, it was in a part of town that was considered to be "just the right side of the tracks". That meant the cheapest part west of the centre of town, where white people with regular employment could live respectably. In this case, the "tracks" were none other than those of the Santa Fe Railroad, beyond which lay the ghetto home of Mexicans, blacks and "poor whites'. The Chinese kept to their own areas, and didn't care for that part of town where Berkeley became noisy and dusty and showed the scruffy, scarred side of its otherwise attractive face.

Nevertheless our new neighbours were well away from it. Most of them were making good money; their houses, though small, lacked nothing, and their cars were luxurious. They were, for want of a better word, "working class". Here we had no problem explaining our reason for being in California. The local people would swallow any sort of "cock and bull" story about exchange university appointments. It would never occur to most of them that during a war that sort of thing would be out of the question. Few of them had received any sort of higher education.

The house was a match-box consisting of two rooms plus kitchen and bathroom. It stood on a corner, and the wooden walls were painted pale pink. There was some creeper growing round the front door and a minute strip of grass separated it from the sidewalk and another from the street. The low windows of the other outside wall, at a right-angle, looked straight out on to the side road and afforded a first-rate view of the contents of people's shopping bags. The remaining walls were paper-thin partitions. Here we had few of the luxuries provided in our previous abode, but there were a number of integral features that I have spent a lot of energy trying to get copied in my subsequent homes. A hinged ironing-board that lets down from a wall cupboard is something few seem to think of even today, and curved linoleum where the bathroom and kitchen walls meet the floor saves a lot of effort when chasing dust. We bought a load of furniture from a junk shop. Instead of a gleaming refrigerator we had a zinc-lined cupboard called an "ice-box". There was a top compartment that could accommodate a one hundred pound block of ice, delivered twice a week by the driver of a well-insulated truck. It kept the food reasonably cool, but there was always the hazard that the trough underneath, into which the melted ice dripped, would overflow if not emptied daily. Many a lapse of memory necessitated a long mopping-up operation.

What I really revelled in was that this dolls-house was on the level with a supermarket at the end of the road; now there were no more steep slopes to be manoeuvred. There was an unlimited supply of friendly neighbours, with small children who didn't just say "hi" but invited you to "come right in and visit". Public transport was practically on the doorstep, and on the days when Edith came I could see friends, shop, or even get to San Francisco and back if I didn't delay. There were movies and lunch counters, and even "take-away" Chinese food was available within "spitting distance".

I became addicted to listening to "soap-operas" on the radio while doing the housework, and was intrigued by the "commercials" for products and local

services. One day I heard a studio photographer offering a free sitting for a child whose parent could identify a tune he was about to play on a record. As soon as it was recognized the listeners were to dial a certain number and the first one to guess correctly would win. I recognized "Daddy" at the first note, but the great problem was that my phone was yet to be installed. I shot into a neighbour's house and breathlessly asked to borrow hers. Naturally, I wasn't in time to win the free sitting, but I became firm friends with the couple and their son.

Fred and Winnie had a used car business, and we were soon the proud possessors of a 1936 Plymouth at a bargain price. It was a great hearse of a vehicle, flanked with running boards and space inside for two chairs and a table, assuming you had a mind to take them around with you. Wonder of wonders, there was a radio on the dashboard. Although gasoline was rationed we never really went short. You got a basic "A" card for a modicum of running around, a "B" card if you lived more than two miles from work, and a "C" if you had to travel ten or more miles for essential reasons each day. Fred had a "D" card, which virtually meant unlimited gas as he was in the motor trade. With their help and guidance we explored all the lovely places around us. We went up and down the coast from the Napa Valley, where the now famous vineyards were just beginning to establish themselves, down to the Monterey Peninsula where we sat on the silvery sand one day in November after celebrating Thanksgiving with a turkey dinner cooked by Fred's mother. We scaled Big Sur when the Pacific Ocean was not living up to its name and great waves were breaking over the rocks. In San Jose we tasted the natural spring waters, salty and sulphurous, from fountains in the park. In these and other places, such as Santa Cruz, Los Gatos and Palo Alto we enjoyed the bright sunshine and the shade that was provided by redwood trees and those sweet-smelling eucalyptuses. I though California was the loveliest place I had ever seen.

In spite of the joy of my surroundings, I ran into my first piece of marital trouble. Oscar had a fondness for a way of life that I found difficult to share. He was an enthusiastic "naturist", or nudist. He had told me of this, but of course in the prevailing conditions at home there had never been an occasion for me to try it out. I thought it funny and laughed, hardly taking it seriously. Once in California, he lost no time in finding a club and centre for this cult. Often at weekends we would set out for a fruit ranch in Sonoma County, north of San Francisco, where there were sports facilities and simple accommodation. Everyone was expected to go

about naked at all times, even at meals. I loved the ranch but found I didn't care for the people. They all seemed weird and cranky, and I found their bodies distasteful. In this lovely climate, however, it didn't seem to me as ridiculous as it was to become afterwards in the cold, damp weather of England.

Viewed in the light of to-day's topless beaches and bars it all appears rather ordinary, but standards were different in those days, and America adopted a more prudish attitude than did Europe. For example, Oscar took a photograph of me holding Peter, both of us clad in nothing but our evenly tanned skins. When he sent it to be developed and printed, the processors wrote requesting permission to destroy the negative as it was against State law to put obscene matter in the post. Even naked children in full view of the public were considered indecent. Once Peter shed his small swimming trunks while playing in the garden, and I did nothing about it. A neighbour crossed the road and drew my attention to this irregularity.

After a few months the prudishness of land-owners north of the Golden Gate won, and the Sonoma club was closed. Some irate neighbouring farmers contrived to have nudism banned from the county. I was quite relieved. I couldn't overcome MY prudishness, and although I hope I was not as obstructive as those I have just mentioned I found it difficult to shake off my squeamishness and adapt to my husband's persuasion.

However, life at my little home improved daily. Peter was not only walking but tearing around like a tornado. He had plenty of friends, and soon I was playing quite a part in the friendly community of that little street. I spent much of my time on the grass outside, getting to know the neighbours and keeping my eye on Peter who was becoming increasingly interested in scrutinizing passing cars from close quarters. We erected a small enclosure to prevent him straying too far afield, but I soon took it down because he was always welcome in Winnie's back-yard which was less exposed to danger. There was no loneliness now. On the contrary, there was more baby-sitting on a reciprocal basis than even I, with my passion for going out, could cope with. The neighbours were generous and jolly people. They taught me to play poker and pontoon. They enjoyed their Bourbon and their beer. They liked to drink it straight from the bottle when concentrating on a game, and only got out their glasses for special occasions or for "putting on the dog" as Winnie called it.

If I give the impression that my new companions were "slobs", such as

those depicted in a scene from "A Streetcar named Desire", I must correct it. I have seldom seen such carefully kept houses and gardens as those next door to me or across the street. Washing machines never ceased to run, everything was polished including the refrigerators, and sprinklers were built into the miniature lawns to keep them green. On the whole, I got along very well with my new friends, even though, unlike Edith's son-in-law, they didn't care about Mozart. They would rather go to bars and night-clubs than come with us to concerts or the theatre. To repay some of their kindness, we once took them to a show at San Francisco's Opera house. The sight of their strained, immobile faces taught us not to repeat the experiment. But then we were from ENGLAND, and as most of them had never met people from so far away before we were finally accepted despite our weird tastes and preferences. We were soon forgiven.

Although enjoying our easy-going comradeship, I have to confess that secretly I found certain things about my neighbours strange to say the least. They were most conservative in their eating habits. A steak was a *sine qua non* of a really good meal, and canned vegetables were preferred to the freely available fresh variety. Also, it seemed odd that they considered it undignified to mend or repair a garment. If something tore or split it was promptly thrown out and replaced. Patched jeans were considered a disgrace and only seen on the other side of the "tracks". Being reasonably competent with my needle I made a few surreptitious forays into their garbage containers when they were out, concealing the washed and restored spoils of these raids at the bottom of my closet to be used later on. Most peculiar of all, they hated crossing the Bay Bridge, and five minutes spent in the city were five minutes too long.

We went out with them at night; we played juke-boxes, we danced, we flirted: and sometimes our behaviour at local parties became more than simply "wild". I suffered my first serious hangover. I don't expect we would have remained quite such close friends had not circumstances thrown us together. We came from different worlds, but I was to gain greatly from the warmth and generosity with which I was welcomed into theirs.

During this time the pages of history were not merely being turned, but flicked over as rapidly as an animator's cartoon. I experienced my first American election, and was horrified by the blatantly partisan attitude of the newspapers, particularly that of the Hearst press. As foreigners in a sensitive situation we were most strongly advised to take no part, nor even

to express our views. This was frustrating to someone who had spent most of her short life making the maximum use of every available political forum. I had to make do with a large picture of Franklin D. Roosevelt stuck inside the door of a closet. Peter was beginning to talk both sense and nonsense. One day the staunchly Republican Edith heard him chanting "Doo-ee, Doo-ee" while jumping up and down on his mattress. It sounded suspiciously as if he were campaigning for the opposing contender for the White House, Senator Thomas Dewey, Governor of New York. "Keep right on saying it, Son," Peter was advised by the delighted lady.

Happily, F.D.R. was returned to power for his historic Fourth Term in November 1944, and the Yalta meeting between the three leaders of the Allied world was able to take place with this great man representing the United States in discussions with Churchill and Stalin. If one looks at the photographs taken at the time it is obvious that Roosevelt was getting frail. The following spring we were stunned and immensely sad when we heard of his sudden death. Normal radio programmes were suspended that day and the late president's favourite tune, "Give me a home where the buffalo roam," was played almost non-stop. I can never hear that song without remembering America subdued and in mourning. The Vice-president, Harry S. Truman, was sworn in. He appeared at first to be a man of small stature, but turned out to be far more effective than anyone had expected. What fun it was much later on, in 1948, to see the press photograph of this game little man from Independence, Missouri, holding up some over-optimistic, pre-printed banner headlines proclaiming Dewey the winner of the election in which he had had just been vanquished!

The war in Europe was gradually coming to an end, and as the Allies liberated town after town the full extent of the atrocities perpetrated by the Nazis became known. I was pregnant again, and the gruesome films of the concentration camps threw me into a black depression for quite a while. This was aggravated by the death of a child, the two-year-old niece of a neighbour. Jessica Mitford has since exposed the crude commercialism of the "American Way of Death", but the money the parents felt obliged to spend on the crib, the clothes and even a doll, for that small wax-like corpse, must surely have exceeded what they spent on their daughter during her brief life. They were not wealthy people. We were cheered up by the Labour landslide of the British elections held shortly after Germany capitulated. My Republican neighbours were shocked when I offered a tray of drinks on the lawn outside my house to celebrate. "Churchill was your

great war-leader," they declared in disapproving tones, quite overlooking the efforts they had made a few months previously to unseat their own.

There was still a little time left before I was due to deliver, and we continued to make as many trips as time, work and gas restrictions allowed. Yosemite National Park provided a fantastic week's holiday, with its incredible waterfalls, lakes and mountains. Waking each morning in a log cabin in the shade of giant sequoia trees one wondered if a dull day had dawned, but an upward glance was always rewarded by the sight of a cloudless blue sky, a hot sun and the fresh smell of clear mountain air.

Subsequently we travelled to Los Angeles where the erstwhile agent for my grandfather's textile firm, now in business on his own, put us up in his flat in Beverley Hills and showed us some of the glitter and glamour for which the town and its surrounding suburbs are famous. He and his wife spared no effort. They took us to the Hollywood Bowl, the Farmers' Market, Grumman's Chinese Theatre, and the world-famous Sunset Strip. At the Mocambo night-club we saw Errol Flynn and Tallulah Bankhead in the flesh. He was large, long-haired and, strangely enough, sober. She had a lively, mobile face that bore, despite its gaiety, signs of suffering. We were lucky enough to see a tremendously funny and skilful show at Earl Carrol's famous Variety Theatre, where comedienne Martha Raye had us hysterical with her antics, and two agile fiddlers danced while bowing each others' instruments. We drove past several luxurious homes, owned by movie stars, and shopped on Wilshire Boulevard where the stores were then still separated by open spaces and small parks.

We even had a tour of the Metro-Goldwyn-Mayer movie studios, and were received in an oak-panelled office by the matriarchal secretary to Louis B. Mayer, a father of the industry. Mrs Ida Koverman, although seated behind a hectare of walnut desk, looked like an Edwardian hostess. She had much experience of dealing with the big and the powerful as she had previously run J. Edgar Hoover's secretariat. She told us many scandalous tales concerning the misdemeanours of the famous, peppering her sentences with the slang considered "racy" by her generation. I was particularly pleased with her jokes about that massive figure in the musical world, and master of repartee, Sir Thomas Beecham, from whose sarcastic tongue I had once suffered as a child in Manchester. While we were there, Judy Garland's mother rang up. The call was about some escapade of that tempestuous young star who was just about my own age. I felt very much involved in the world of films by being at the very centre of it for a day!

The tremendous "sound-stages", so large that they could contain streets, ships, castles and elegant drawing-rooms, were baffling. They looked convincing enough until the rough wooden backs of the scenery and their crude supports caught one's attention. I tried opening a door in a fine baroque palace. Although it was of gilded marquetry, I nearly fell backwards. It was light as a feather.

My pregnancy was becoming hugely obvious despite my efforts with dramatic hats and flowing garments, but such were the acrobatics of my unborn child that I couldn't help fearing that they would be picked up on the sound-track of the movie we watched in the process of "shooting". It was not a major film but I should have been embarrassed should Ava Gardner and Frances Gifford have been forced to "re-take" because of some inexplicable thumps. I was allowed to step inside the first dressing-room that Clark Gable ever used on the M G M lot. It was not much smaller than our house. This was indeed a heady sojourn in that El Dorado of dreams, ambitions and make-believe.

One Sunday afternoon, at 4.37 p.m. Pacific time, I gave birth to Peter's younger brother, Michael. I was loath to spend a moment longer in the delivery room than necessary, and I had put off going to the hospital until my contractions were fast and frequent. No sooner was I admitted than the baby was there, yelling lustily.

I noticed the clock above my head as the doctor tied the umbilical cord and pronounced the child perfect. Nothing, at that moment, was further from my thoughts than the time and the date in Japan. It was early morning on the 6th August, 1945. In Hiroshima the "mushroom cloud" filled the sky as the first Atomic Bomb was dropped. Twenty thousand lay dead, and countless more suffered unspeakable injuries.

Next day, flowers, gifts and cards were strewn on my bed among the grim headlines in the newspapers. Nagasaki was to suffer a similar fate a few days later. A Venezuelan girl called Mercedes, married to a sailor, shared my room. Her daughter, Maria Teresa, was born a few hours after Michael. Ours was one of the few rooms with the radio on, and doctors and nurses, their masks hanging from their faces, crowded the doorway. Mercedes cried. "Why did they have to go and drop another?" she protested through her sobs. "The first one would have finished the war off. I want my husband home from the Pacific real soon, but it's wicked to kill all those innocent people."

Those were the days when one lay in bed for several days after childbirth. No climbing off the delivery table then. In the Berkeley General Hospital a five-day stay was all that could be offered as the shipyards had swollen the local population. I was given a special concession – one week – because I had no female relative within reach.

A few days after I brought the baby home I was taking an afternoon nap. Dorrie Alibone had taken Peter to her house to give me the necessary peace and quiet to get the breast-feeding established. As usual I had the radio on but had dozed off. I awoke to hear the commentator's voice, strident and rapid. The factory sirens of the Bay Area shrieked and wailed while the local residents started honking the horns of their cars. "What's going on?" I asked out of the window. "It's all over. They surrendered", Winnie told me.

I jumped off the bed, threw on my cotton house-coat, and joined the small group of women and children gathered on the front lawn for a celebration. Everyone brought something, a bottle of beer, a few dough-nuts or some special tid-bit from their kitchen. I opened a cherished bottle of California Riesling that had been waiting in the ice-box for the ceremony known as "wetting the baby's head".

We laughed and chattered with delight and excitement. Some of the neighbouring children had strewn the sidewalk with toys, and a white-faced lady kicked them viciously as she passed. "What the hell?" I started accusingly. "Take it easy," said another neighbour quietly, putting her hand on my shoulder, "both her sons got killed."

Chapter 4

Travels and Tribulations

So there it was. The cat was out of the bag, and we expatriates could at last admit to the reason for our mysterious presence. To what peaceful uses this newly found source of energy could be put were speculated upon by anyone with an ounce of brain, and it was clear that a whole new field of widely ranging research was going to be opened up. The problems of the nuclear arms race were evident to the great and the good. Einstein begged all prominent men of science to convince their governments that collective security, or internationalization of the arms potential, was essential. The speculation concerning this fundamental change in our thinking, whether in the context of war or of peace, was just beginning.

For the time being – and a brief time it was – the Allies had supremacy. Despite Mr Molotov's jaundiced, yet belligerent thundering – "We too shall have atomic energy" – the fact remained that the USSR didn't have it yet. But it was clear from his tone of voice that they were going to get it by fair means or foul, and by all accounts had been trying for some time.

What of the Germans? Had they not endeavoured to make an atomic bomb for themselves? I was told, many years afterwards, that some reports of experiments leading in that direction were captured as the Allies fought their way through to victory. When relayed to scientists working in the United States they were greeted with hilarious derision. Apparently, they were ridiculously elementary. Hitler, in his quest for racial purity in all walks of life, had inadvertently contributed to his enemy's victory in this

respect. Such a large number of the "brains behind the bomb" were his erstwhile compatriots.

All the leading scientists in the field were questioned concerning their attitudes, and politicians all over the globe expressed their views. A few months later, back in Britain, Professor Oliphant was interviewed by the contemporary illustrated journal "Picture Post". The question of our momentary supremacy in the atomic scene was raised. He dismissed as "unthinkable" the idea that we should use this advantage to quell the Russians, and went on with characteristic optimism to speculate on the peaceful uses of the recently discovered force. He was photographed beaming endearingly and fuzzy as ever, discussing the possibility of an "atomobile".

Meanwhile, everyone from the policy-makers to the man or woman in the street was forced to take stock of the situation. The war had at last been decisively won, and by killing thousands of Japanese civilians we had prevented continued slaughter (of civilians as well as troops) on a much larger scale.

We were told that Tokyo was plastered with posters urging its citizens to prepare for a "hundred years' war". The extreme measure of the "kamikaze", or suicide pilots, who crashed to eternity with their aircraft laden with explosives, was a sign of their desperation and their determination. The seductive voice of the Japanese radio's chief propagandist, a lady nicknamed "Tokyo Rose", confirmed her country's doggedness. I heard her several times. She was far more persuasive and convincing than Germany's famous broadcaster to Britain, William Joyce, or "Lord Haw-haw" as he was usually called. He became a figure of fun, and his oily-sounding voice announcing "Germany calling, Germany calling" was awaited by listeners to the BBC with just as much alacrity as were Tommy Handley and other morale-boosting comics of the time. He broadcast regularly during the dark days of the war in Europe and was destined, when the Allies brought the war criminals to justice, to die a traitor's death at the end of the hangman's rope. Nowhere can I find out what fate befell his beguiling Japanese counterpart.

Here in Berkeley there was a lot of emotional reaction to the *fait accompli*. Many of the more sensitive members of our group confessed to feeling like murderers. Others reasoned that war involves killing and at least we had killed effectively. Even for the rationalists the euphoria of victory was to

be short-lived. As I looked at my two little sons, one playing happily with his toys, and the other sleeping peacefully in my arms, I couldn't help wondering just how long they would be allowed to live in a world free from hostility between nations. Would they become involved in subsequent conflicts, and if so how? The question of whether it is right to give birth to children on a planet whose inhabitants were continually slaughtering each other was one I instantly suppressed.

During my childhood, I had heard World War I described as "the War to end all wars". Hundreds of my parents' friends and relations, including my mother's first husband, had been killed in that four-year period of strife, yet a mere twenty-one years later it had started all over again. When I thought of the death, destruction and devastation, I could not help but feel cynical. The War was over; but when and where was it going to start again?

Peace brought all kinds of new considerations into our personal lives. We, as a family, were now able to communicate freely with Oscar's parents for the first time. Since 1939, only a tenuous contact for those separated by war was maintained by the Red Cross: fifteen words per message, usually taking several months to arrive if at all. They knew of our marriage and Peter's birth, but, apart from those bare facts, nothing. Now we could actually correspond, tell them where we were, how we lived and describe their new grandson. From all reports we gathered that life for German civilians was a struggle for survival. Oscar wrote a letter "to whom it may concern," making it clear that he was not seeking any special privileges for his family, merely the respect that a British official would normally show to the parents of a colleague. This letter was instrumental in helping them to keep their telephone from being requisitioned. To his father he wrote: "...and for God's sake don't expect the average member of the occupying forces to know anything about Bernard Shaw, except that he introduced the word 'bloody' to the respectable British stage."

I had imagined that the rigidly pacifist Oscar Bünemann Senior, would have been horrified at the thought of his son taking any part in the development of this horrible instrument of annihilation. It was his proud boast, when conscripted in the First World War, that he had never fired his rifle at anything other than the sky. In spite of this he had been awarded an Iron Cross. Now he seemed far more upset by the simultaneous confession that we were neither vegetarians nor teetotallers, and that we even smoked

cigarettes. I still can't imagine why we had to tell him just at this point. I suppose it was a youthful urge to put our cards on the table before he found out, as he eventually would have done, perhaps from others. Of the work accomplished he wrote: "In my opinion, the invention of the atomic bomb is a tremendous advance. Just as the discovery of gunpowder put an end to highway robbery, so this new deterrent may end international warfare."

Reflecting on this statement today, one can't help but comment, "But look what it started!" He must have meant what he wrote figuratively, for the bandits of old used muskets and pistols, which were far more lethal than the sling or crossbow. In any case, the occasional hold-up of a stage-coach or covered wagon was small beer indeed when viewed in comparison with the increasing slaughter and destruction since the Middle Ages, culminating in the carnage of two major world conflicts. I suppose he was formulating what came to be known as the deterrent theory: that if a sufficiently deadly implement exists, no power possessing it would dare to put it to use against another such power, for there could clearly be no victor and no vanquished. He may have had in mind the vast stocks of sophisticated poison gas held in reserve by both sides during the war that had just finished, yet never used despite all the precautions taken against it. It was interesting and a little surprising to read this sentence written by a citizen of a twice-defeated Germany, and one who was so bitterly opposed to his government and its policies, and to any sort of belligerence no matter where it occurred.

When I stop to think about the present-day version of the highwayman and the pirate, the bag-snatcher and the mugger, and consider how petty violence has increased, somewhat in proportion to larger attacks and counter-attacks, I can't help but think of the irrelevance of the comparison. No nuclear arsenal, wherever it is be to be found, will do anything to combat the sawn-off shotgun or even the jack-knife. The ultimate contemporary horror would be a nuclear device in the hands of a terrorist, but that is another question which has been investigated by many knowledgeable minds and is not part of my story.

My father could now resume the political work he loved; he had recently been defeated in the British elections when he stood as Liberal candidate for the constituency in which he lived. He wrote to us about his various public activities, and about his involvement in setting up the United Nations Association at home. I had wondered vaguely whether he might

attend the San Francisco conference held earlier in the year, but I was to be disappointed. His comments on the bomb were predictable: it should come under UN control immediately. He added a remark made by a friend of his, a successful Manchester banker, who vowed that he would rather see his young son grow up to be a public lavatory attendant than train as a scientist.

There seemed to be no doubt that Oscar was to continue working in the field of nuclear research. He had received an offer from Peierls and Oliphant to work with their team in Birmingham, but it was hardly appealing and the salary offered was a mere £500 per annum as compared to the £1,200, tax-free, we had enjoyed during our posting to Berkeley. Had I known then what I know now about academic careers, I would have urged him to consider this seriously. An opportunity to work in what was soon to become the finest department of Mathematical Physics in Europe was not to be discarded thoughtlessly, even if it were necessary to live on the breadline. Despite the RESPECT for learning with which I had been brought up, I had been perpetually led to believe that the prime reason for working at one's job was to earn as much money as possible, particularly when there was a family to support. The idea that I too might earn a wage when I had two children to care for never for one instant occurred to me.

The next move was to be to Montreal. Professor John Cockcroft (as he then was) and his team were already making plans for Britain's peace-time nuclear projects, and there appeared to be a role for Oscar to play. We planned to spend our annual leave on a leisurely journey by car across the States, stopping at various places of interest en route. There should be no problem. We were told that "motel" accommodation and "diners" were to be found in abundance on every highway in the vicinity of the smallest town, and the capacious car would hold us and our immediate effects while the larger items of luggage could be sent ahead by railroad.

I made intricate plans and studied Rand McNally route maps for hours. Despite an incipient breast abscess I was well able to feed the baby. This practice was definitely out of fashion in California at the time. Most mothers were given drugs to stop the flow of milk, and an infant would be given a "formula" prescribed by the paediatrician and fed a concoction of powdered milk enriched with vitamins and suchlike. I had to fight tooth and nail to be allowed to do as I pleased. Peter had flourished on my resources and there was no reason why Michael shouldn't do the same. The journey

would have been well-nigh impossible with the glass feeding-bottles and clumsy sterilizers of those days. Yet in hospital the staff hadn't WANTED to understand. Once I had been given a "drying-up" pill by mistake. I threw it across the room. On another occasion I noticed on the chart, that Michael had been prescribed "house formula", I raged with all the force of my post-natal depression and aggression. Those in authority remained unmoved. Nursing mothers frequently needed help and that meant more work. Besides, it was considered slightly indecent. Of all the women in the maternity unit who had just delivered, only two of us had been supplying our children's needs entirely: myself and a black lady. Now that I was safely out of the clutches of the nurses, I never mentioned the painful swelling and carried on despite a fever. Had I reported it to the doctor I felt sure that I should be treated as insane and would have my plentiful milk supply forcibly cut off. How times have changed! Today's young mother in America frequently suckles her baby when and where she likes and for as long as possible.

When planning the logistics of the long journey before us I reckoned that, if one small bag was reserved for sterile pads and lotions and kept within easy reach, I could transfer myself to the back seat of the car when Michael needed a feed. Peter, the baby-basket containing Michael, and a hold-all were to occupy it at other times. It was quick and simple to change places with the hold-all at feeding-time, and it left plenty of space for everything else we needed on the journey. In the event I was to become proficient in the art of nursing the baby while the car was travelling at speed. It didn't do my figure much good, but Michael never objected except when a bump over cattle-grids temporarily wrenched the nipple from his mouth. Then he would protest at the top of his voice. I kept a gallon flagon of water at my feet to prevent the risk of dehydration when passing through the desert, and disposable diapers were stashed away in odd corners of the vehicle, to be replenished as need arose. "Anything is possible if you set your mind to it," I told myself optimistically. Nothing short of a mastectomy was going to come between us and the great new adventure.

We waited in vain for news of when Oscar should report for duty in Montreal, and told the authorities how we proposed to get there. Repeated requests for instructions brought no response, which everyone agreed was typical of our administration in Canada. So, while freeing myself, as luck would have it, of what might have been a nasty situation, we continued to celebrate the victory with parties, weekend excursions and a whole day in

San Francisco during which we registered Michael's birth with the British Consul-General. He now had dual nationality; little did we know that eighteen years later this supposed advantage was to land him in considerable trouble with the U.S. Draft Board during the war in Vietmam. We continued to picnic, swim and explore all the lovely places we were soon to say "good-bye" to.

Life with the new baby seemed like a piece of cake compared with all that Peter's arrived had involved. The equipment available made the whole process of handling an infant pleasant and easy. I had a wonderful folding bath with pockets for soap and powder, a rail for hanging diapers and towels on, and a sliding canvas top on which to change and dress the lively little boy who seemed averse to keeping still. It even had a strap to fasten him down if I was called to the telephone, or when I had to foil Peter's attempts to do something naughty. What a change from the battered, second-hand, *papier-mâché* tub I had used back in England! There was also the service of the "Billion Bubble Baby Laundry": a brightly painted van would call three times a week, collect the soiled diapers and deliver a fresh clean supply. I often wondered what the tough, broad-shouldered driver of this fantastic vehicle thought of his curious cargo. I relaxed in the sun drinking quantities of fresh orange juice, while admiring my children and making optimistic plans for the future. The world's immense problems I tried to push to the back of my mind. It was a time for rejoicing. The few restrictions imposed by rationing were lifted, and everyone happily tore up their gasoline coupons.

One day, out of the blue, a severe blow fell. Oscar telephoned from work to say that a message had finally come from Montreal. He was needed there to start work in two weeks' time. We were to proceed by train and our car was to be sold. The exciting project of driving across the continent was to be scrapped. I could not believe my ears. Seldom have I thrown a tantrum of such magnitude. After all those complicated plans, enduring all that pain, and our perpetual enquiries, I was furious. Had they told us sooner we could have been on our way by then. "Resign your job at once!" I yelled, "Where's the sense in working for an organization that treats its personnel like that?" The question of job security was not an issue to my way of thinking. After having been among the "hand-picked", surely Oscar was in a position to state some of his own terms? I even went so far as to assert that if I and the children were to leave the little house in any vehicle other than our own car we would have to be removed by force.

Mercifully for all concerned, a compromise was reached. We would be allowed three weeks' grace. This meant redrawing the line so carefully sketched across the map, and cutting out the part of the Deep South we had hoped to explore.

We packed up, and through a neighbour found a new tenant who not only wanted to rent our match-box, but would buy the old furniture and junk we didn't want to take with us, all for a magnificent one hundred dollars. Within a few days the car was loaded, our trunks despatched by railroad, and fond "good-byes" were said, accompanied by the ever-ready bottle of Bourbon. If I felt a pang at leaving the place that had become home to me and my enlarged family, it was quickly suppressed by the excitement of the adventures that were to come.

The wonders of the Western Desert sped past us in a kaleidoscope of colour and form. The Mojave Desert seemed like a dry ocean-bed with sharp blue hills rising suddenly in the distance. There were curiously shaped cactuses growing along the highway. The prickly pear, the Yucca and the Joshua Tree that flourished in the burning dry heat looked just like the murals in a Mexican diner, except that no matter how hard I looked I couldn't see that ubiquitous gaucho in his poncho, asleep under his sombrero.

Glamorous Las Vegas, where movie-stars in long shiny cars came to divorce, marry and amuse themselves, seemed like some fantastic dream. Every hotel we wandered into was distinctively decorated, had an ornate swimming-pool and a crowded casino. We watched tense, fidgety gamblers, their eyes riveted to the huge spinning discs on which their fortunes were staked. "No minors at the wheel," barked a croupier who saw us approaching with a toddler and a babe-in-arms. Even the supermarkets were equipped with one-armed bandits waiting to gobble up your loose change and, if you were lucky, provide a small bonus to spend on more provender. It was a small hick-town in those days, but there were enough places of entertainment to give an indication of what was to come. To-day it spreads its brightly lit tentacles well into the desert, and even as you fly over it the Captain of your aircraft will draw your attention to this extraordinary town and as often as not unable to resist the crack will say: "There's that place they call 'Lost Wages'".

The journey, although severely curtailed, was an experience I felt quite justified in making such a scene about. Nobody can fail to be impressed

by the placid blue water of Lake Mead and the massive Hoover Dam (then still called "Boulder Dam"), a curved monolith with its terrifyingly steep wall, stark white beside the red earth as we passed into Arizona. The hills and valleys appeared to belong to prehistoric earth. Had we been forced to brake because a dinosaur wanted to cross the road I should not have batted an eyelid.

The Grand Canyon mesmerized me as did the Navajo country and its indigenous inhabitants. Never before had I feasted my eyes on so much natural colour, nor had I experienced such seemingly extra-terrestrial rock formations. At night I would go to sleep dreaming in orange and purple and wake up to another palette of brilliant hues.

On one occasion we passed a small Indian pueblo where the men and women had their long jet-black hair tied with hanks of hemp, and children were running around nearly naked. They looked at us with hostile suspicion as we got out of the car to watch them roasting huge carcases on open fires and boiling water in old tin cans. When we produced a camera we found ourselves surrounded. There was to be no returning to the sanctuary of our parked vehicle without payment. More and more money was extracted before they would break ranks and let us escape. Their piercing black eyes and their naturally fierce profiles had me frightened for a moment. Much to my relief, my own papoose, asleep in his basket on the back seat had not been kidnapped. Were these primitive Navajos really the parents of today's sophisticated craftsmen who sell the entrancing turquoise jewellery, and the colourful hand-woven blankets, becoming increasingly prosperous as more tourists visit them?

We turned north into Utah where the soil was not merely red but the richest vermillion, in sharp contrast to the deep viridian green of the conifer trees. I could not believe that man had had no hand in the shaping of Bryce Canyon. The "Silent City" with stalagmites the size of sky-scrapers, and the aeons needed for erosion to produce their weird towering shapes, frightened me. It was like thinking of the Universe with no beginning and no end. Contemplating the time-scale involved still gives me a peculiar sensation in the pit of my stomach.

The nomadic life with no house to worry about and a new supply of impressions each day was exhilarating for a while. These were the days before towns were invariably by-passed by freeways, expressways, thru-ways and

turnpikes. The old U.S. Highways actually took you through them, down "Main Street" and out the other side. There were few traffic jams, and accommodation was always easy to find on the roadside. Even though it was so brilliantly spectacular, the Wild West struck me as being a friendly and accommodating place. We often drove for as much as eighty miles before breakfast, secure in the knowledge that bacon and eggs, pancakes, fruit and hot strong coffee would be readily available whenever we were ready for it.

One episode marred the first stage of the journey. My greatly-prized folding baby-bath refused to stay on the roof-rack of the car and Oscar thought it wise to abandon it. I wept. It represented all that was progressive and practical in the American method of baby-care, symbolic of my new-found way of life. I hope some deserving person picked it up before it was destroyed by predators. That night I bathed Michael in a hand-basin. I might just as well have sluiced him with my tears, but I was to learn a lesson. Disappointments such as that should never be allowed to interfere with the experience of a lifetime. It could have been much worse, and the thing to concentrate on was the tremendous opportunity of seeing such a large slice of this wide and varied continent.

After the majestic scenery of Colorado, which reminded me vividly of my glimpse of Switzerland, we crossed the Rocky Mountains. The col was called Idaho Springs, and from desert heat we climbed up to a snow-storm. How daft can one be? Although well prepared for heat we never gave a thought to the possibility of extreme cold. We had no chains, no heater and none of the necessary equipment should we happen to get stuck in a snowdrift. A large Buick just in front of us was in serious trouble, but once again Providence looked after fools and the ancient Plymouth took the mountains in its wheel-base if not in its stride.

I had a sense of foreboding as we descended into Denver, a pricking in my thumbs if you like. In leaving behind that idyllic western country we were leaving a lot else besides. It was Fall in the city, real autumnal weather that we hadn't seen since we left England. A chilly wind had driven people into woolly caps and thick outer garments, which we hadn't had to think about for a long time. Added to this there was no prospect of finding a pleasant motel bathed in warm setting sun. Instead, after many telephone calls we were obliged to settle for a mausoleum of a hotel that looked as if it had been built the year after Christopher Columbus discovered America and never cleaned since.

Thereafter the prairies were dull, and the sameness of the flat stretches of land, with nothing to look at but telegraph poles and the occasional farm, became boring and oppressive. When taking my turn at the wheel I would get cramp in my leg through keeping my foot at the same level on the accelerator for mile after monotonous mile. We stopped briefly in Kansas City. Both Oscar and Peter needed haircuts. The bottles ranged along the shelves of the barber's shop had familiar designs but were distinctly labelled "Hair Tonic", "Cologne" and "Bay Rum". Some other sort of rum more like. Afterwards it was pointed out to me that although the city straddles Kansas and Missouri, the part that lies in the former was "dry" in accordance with State law at the time. The good barber was clearly the local bootlegger and no doubt his hair-cutting was merely a small side-line, but good cover for his chief business.

We crossed the Missouri and the Mississippi and had a brief look at St Louis. Never having seen anything wider than the Thames and the Seine, I marvelled at the immense width of these rivers. The noise of wheels rumbling over their bridges seemed as if it would never end. The scenery improved once we were across them. However, once again there was country to be admired and wondered at. The States of Indiana, Kentucky, West Virginia and Virginia itself rolled past us, becoming lovelier and lovelier, particularly the immense green garden of the Shenandoah Valley with its velvet-smooth pastures, and its neat, white colonial homesteads. But now it became clear that we had used up much of the time I had screamed and yelled for, and our holiday would soon be at an end.

Oscar had a firm appointment in Washington, D. C., with the great Sir James Chadwick. He was an enormously revered figure in the scientific world, having discovered the neutron in Cambridge back in 1932 for which he became a Nobel Laureate. However, he had acquired a reputation for vagueness, preoccupation with his ailments and insensitivity in his relations with junior staff. In the course of the interview the question of Oscar's salary came up. The great man said that he considered it "quite enough" without asking about the size of our family or other commitments. I was not to get to know him personally until well after his retirement. This was one of the episodes that brought us back to the world in which we had to live, and not the unreal realm of the travelling explorer.

During our wanderings we had chatted to innumerable people as well as having gazed open-mouthed at the scenery. Apart from our avaricious Indian

friends there were other minorities: blacks in Kentucky, still sadly being obliged to enter public buildings by separate entrances from the whites, country folk, townspeople and an extraordinary young lad who served us in a diner. Ascertaining that we were not from the locality, he asked Oscar what sort of work he did and, on being told, promptly rushed for his autograph book. Someone who had actually helped to invent "that bomb" must indeed be famous.

Washington was an architectural and historical feast. While Oscar was being interviewed by Chadwick, I was shown round by a friend from home. She had also married during the war, but her first child, a son, was about the same age as Michael. We fed our children together and talked at length. Her husband had been an officer with the Polish forces in Britain. She was one of those who had cheerfully taken her husband's nationality and busied herself learning his language. When he was posted to his country's Embassy in America she had been allowed to join him. Alas, he had been ousted from his post as the Communists took control, and there he was with a wife and child, reduced to selling magazine covers for doctors' waiting-rooms on a commission basis to make a meagre living. My friend was never to use either her Polish or her new nationality, for her marriage broke up long before the days when crossing the Iron Curtain even for a short visit became possible.

The next stop was New York, and what a joy it was to be there again. Dear Mrs Grossmann cared for Michael while Peter was taken to Coney Island, on the subway and up the Empire State Building. Once again we went out on the town knowing that the children were in safe and capable hands. My love affair with the city was to last. For the first time since the start of the journey I had access to weighing scales. Michael had gained on average nine ounces a week, which was considered by those who knew about that sort of thing, more than adequate.

He was a lively baby, strong and wiry with a large appetite and powerful lungs. He had a long, serious face and was quite unlike his older brother. I frequently wondered about his future state of mind. Would the knowledge that he was exactly the same age as nuclear warfare, the twin of Hiroshima, have an effect on him in later life? What would the "generation gap" present for him and his contemporaries in forming THEIR attitude to war? I was to realize later on that his attitude was to be very similar to our own. Apart from a brief flirtation with the CND, about which I did not complain, my

only criticism was that he and his friends once staged a "sit in" on a muddy street, in their clean trousers.

Our time was running out and the journey nearly over. Travelling north towards the Canadian border brought us a fine glimpse of the Fall colours in upstate New York and a short stop in Albany, the State Capital. Our route cut through the Adirondacks and the shimmering reflections of those brilliant trees in Lake Champlain was unforgettable and vivid. It was getting colder and as we approached Montreal I once again had that feeling that the sunshine was being left behind. Life was going to take a turn for the worse. Our trusty car broke down for the first time and we had to be towed for several miles. We had it repaired but my heart sank as we crossed into Canada.

There was no kind, smiling professor to welcome us when we found our way to the University of Montreal: just a curt note warning us that accommodation would be very hard to find and informing us that a room had been booked for us at the Queen's Hotel.

It was a grim and dreary hostelry right beside the railway station. A sulphurous odour hung over everything and the skies were grey with smoke and cloud. I tried taking the children out, piled into the buggy, but the cold, wet city streets were unappealing. It was as dismal as Manchester. I caught, 'flu, and while feeling sicker than I had in years, had to resort to tying a label on to Peter with our room number written on it and turning him loose in the corridor to play. A hotel room, a very small baby-brother and a feverish mother is no situation for a little boy of just over two-and-a-half. He was fascinated with the old-fashioned elevator and I just had to pray that there would be no accident and that the management would not take a poor view of the rubber ball, the picture books and building bricks that were scattered over their dusty carpets.

Two tweedy English ladies, wives of members of the Montreal research group, called on me and told me how expensive and difficult life would be. Both were childless, and whereas they sympathized with my indisposition, they offered neither advice nor practical help. They had paid their statutory call on the newcomer; I was to see nothing of them again for a very long time.

To find somewhere to live, cooped up with a young family and suffering from head-ache and back-ache in such impersonal surroundings was just the

start of a miserable winter. Moreover there was no pay-cheque waiting at the office, nor were we to see one for a few months. It afterwards transpired that the keeper of the coffers had embezzled the funds and we were forced to live on loans, to run up bills and beg for overdrafts. The doldrums claimed me for more weeks than I care to remember.

Chapter 5

A Winter of Discontent

Eventually Oscar managed to find a dwelling of sorts. He was told at the office that he had been very lucky. Such was the housing situation in Montreal that there might have been no alternative other than to send me and the children home. The authorities seemed determined to be pessimistic. It has ever since astonished me that having been brought OUT to the New World, we were not going to get much help in staying there now that the wartime difficulties were eased and a passage back to England was feasible. In Berkeley there had been a special housing officer, while in Los Alamos and Chalk River special accommodation had been built. Yet with the resources of a big city and a large University the attitude here was doggedly negative. Surely they knew that staff with discontented and divided families are not going to produce good brain-work. What sort of luck was this?

Had it been spring-time our new home could have been the most tremendous success, but as the cold weather set in it turned out to be a disaster. The accommodation was designed for a purpose almost diametrically opposite to that of our requirements.

The one-time Minister for Lands and Forests in the Province of Quebec had built a fine summer villa for himself and his large family some time in the early part of the century. Situated on the edge of Lake St Louis, it was about twenty-five miles out of Montreal between the small villages of Chateaugai and Beauharnois, half-way to the border with the United

States. This is not a serious distance compared with that which faces the average commuter these days. But in the autumn of 1945 there was no fast highway and public transport was negligible. The cheerless journey took an enormous slice out of each day on a road that passed through many small towns, the Indian reserve of Caughnawagha and the railway crossing at Laprairie, which was frequently closed to allow the trains to pass. The trees were shedding their leaves in the biting wind. The dark clouds bulged with snow. When they finally burst and everything turned white, the main roads were swept daily; but the long driveway up to the proud, gabled residence of M Honoré Mercier was now left to the erratic attentions of the concierge, Edmond, the family's last loyal though simple-minded retainer.

The house was a real beauty and one that a prosperous French Canadian citizen could be justly proud of. The view of the lake was splendid and the gardens, sloping down to the water's edge, were extensive and grand. Alas, the redoubtable M Mercier had died a short while previously and his elderly widow was left with something of a post-war white elephant on her hands which she could neither staff nor afford to run. Loath to part with it, she decided to divide it into furnished flats, relieve herself of the servant problem, and make a welcome addition to her reduced income.

When I think of the problems that nowadays face someone contemplating such a project, I can't refrain from laughter. The permission from those responsible for the neighbourhood to make such a change, the restrictions one has to grapple with, and the long wait for approval of each tiny alteration, did not exist in the Quebecois countryside. This was Madame Mercier's house and she would do exactly as she pleased. She was decidedly a patrician and used to getting her own way. Small, dark-haired and tubby, she would waddle around her property, her beady, black eyes missing nothing. She liked to make sure that her tenants were behaving in a manner she considered fitting for guests in her house. Despite the rent she demanded, she managed to convey the impression of a gracious hostess, kind-hearted but firm, and she did not like her rules broken. She spoke the French of a refined Parisian woman, unlike the patois of the local people that I found so difficult to follow. Together with the family of one of her sons, she had moved into the adjoining servants' cottage and settled down to a life of diminished luxury. She still took a long vacation in Florida every winter, and it was with impatience that we awaited her departure. Another son and his bride occupied the ground floor, the attic was already spoken for, and all that remained were some apartments on the main bedroom floor.

These were contrived by dividing the six large rooms, all equipped with ample wash-basins, into two separate three-roomed apartments. Each boasted a bathroom that would have found favour in ancient Rome. In the rooms she designated as kitchens, Madame Mercier installed large refrigerators. For cooking she provided each of the flats with two minute electric rings, and box ovens that didn't fit on top of them properly. Baking or roasting was going to be a dangerous feat of pyrotechnics. To complete what she fondly imagined was necessary equipment for a self-contained unit, she had added the luxury of a large enamel bowl to supplement basins that were hardly the right shape for washing up. Clearly the dear lady had had little or no contact with life "below stairs". In the rooms overlooking the lake that she deemed suitable as sitting-rooms, she had delicately screened off the ablution area with some rather forbidding, but no doubt valuable folding silk screens in sombre colours; and the bedrooms – one for each apartment – resembled those one expects to find in a five-star hotel, with elegant twin-beds from her own ample stock of furniture. Ours had blue satin counterpanes. Alas, I hadn't the wit to remove them before one received a large smudge from Peter's chocolate biscuit. Mme Mercier clearly didn't approve of make-shift sleeping arrangements, screens being re-arranged to form a children's bedroom, nor the buggy being dragged upstairs, and so, out of the kindness of her heart, produced some white, wrought iron cribs, the epitome of Victorian nursery elegance. Edmond, the concierge, must have had his mind on other things when assembling them, for after a couple of days I heard a resounding crash and had to rescue a screaming Michael from a pile of bars, bolts and ornate scroll-work.

We were among the first of her tenants, and it was left to us to discover that she had failed to realize that her electric circuit and heating plant were unable to stand the strain of multiple winter occupancy. At meal-times a fuse would blow, and when the temperature dropped the boiler gave up the ghost. There was endless trouble with the septic tank too.

To begin with, before I realized that we should be shivering in our overcoats half the time, I desperately wanted to rent the larger of these two flats, as the sitting-room – once the master bedroom – was large and boasted a beautiful bow window. The bathroom could easily have slept two in the area that separated the bath from the delicately concealed porcelain "throne", still leaving room for washing diapers, clothes and ourselves. But the rent was rather high, and with little money and less idea of what our day-to-day expenses would involve, I chose the smaller.

The ground outside was soon deep in snow. I dressed Peter in a hooded, wool and leather suit and sent him to play in the garden with some of the Mercier grand-children. Michael I covered with innumerable blankets in the buggy, and put him out to get his fresh air on the large verandah surrounding the house. The trouble was that I was out of ear-shot and had to depend on Peter, by throwing him snacks out of the window to attract his attention, before shouting: "Is Michael crying?" I feel sure that this habit was not approved of by our landlady, but to keep children indoors during any weather that wasn't actually producing a rain or snow-storm was unhealthy according to my book. When I saw the worthy Edmond sealing up our windows with putty for the winter, allowing us a three-inch slit in the woodwork for our ventilation, I nearly fainted. This well-meant British stoicism was fine, but clearly I did not know what sort of Canadian winter lay ahead.

It turned out to be more than ghastly. Sometimes it took all our combined energies to clear the driveway. Oscar needed the car to go to work, so there was no question of my getting away except at week-ends, and for shopping we were dependent upon M Dupont, who came twice a week with his truckload of canned food, wilted vegetables and indifferent variety of factory-produced cakes, scouring powder and toilet paper. Edmond fetched milk when he remembered. Occasionally, while feeling imprisoned and cut-off, I would set off with the children and trudge to Beaharnois. It was not a rewarding expedition and the goods on sale were uninspiring. A trip to Montreal was an expedition of transglobal dimensions, and none of the other occupants of the Villa Mercier seemed enthusiastic about the arrangement for reciprocal baby-sitting that I proposed. The last straw came when I went to fetch Michael one day. He was starting to sniffle a bit, and whereas the cold air would kill the bacteria, or so I thought, maybe half an hour of it would be enough. Some uncontrollable children who had rented the lodge at the end of the drive were tired of building a snowman; instead they had heaped snow into the buggy. Michael was chilled to the bone and exhausted with the screaming I had failed to hear.

All this inconvenience, and a sick baby, made me think that our rent was a little high. I called in the appropriate inspectors, adding that I did not want to complain about Mme Mercier who had been quite pleasant to us. "At the rent she's charging you she'd need to be pleasant," answered the man, concerned. Things worked in a mysterious way in Quebec in those times. The Merciers were a respected and well-established family. Within

a couple of weeks our rent had been increased.

After a bleak Christmas another flat was found and we moved into Montreal, falling out of the frying pan into a perilous fire. It is seldom that I have met a person quite as unprepossessing and unpleasant in manner as a certain Mr Robinson. Everything about him was swollen, from his belly to his lashless eyelids. He was florid, and one instinctively had the feeling that he would smell nasty if he came too close. He owned an oil-burner factory in Westmount, a pleasant part of Montreal not far from the city centre. Over the factory there had been a ballroom which he had had converted into a dingy, dirty cavern that he called a flat. The rent must have been assessed according to the size of the accommodation; both were enormous. Once again I appealed to the tribunal, and the rent was almost halved. Mr Robinson was furious. He would walk through our front door, frequently and uninvited, to complain about our tenancy. If he found the door locked he would send registered letters by the postman, who banged relentlessly. The walls and furniture were coated with a film of accumulated dirt, the floors were no better and all the cutlery and crockery had been stolen from Schraaft's, Child's and other well-known commissariats in New York at that time. There was a grand piano in the living-room but it was clearIy there for effect. Having prised the lid open I discovered over half the keys were missing. Further investigation revealed an absence of hammers and strings. The smell of fumes rising from the ground floor was unbearable, and the only place for Peter to play was in an adjacent parking lot. The double windows, which could not be opened, were practically opaque because the space between the panes had never been cleaned. If I had had the nerve to make a request that anything be done the miserable old man would stop by on his way home on Friday evening and switch off our heating, leaving us to shiver until the following Monday.

Once a large mirror, insecurely fastened to the wall, fell off with a resounding crash, narrowly missing Peter. The neighbours employed a black cleaning-lady who had a few hours to spare each week and agreed to come and help me. Her name was Eulene; she was six-foot tall and had a wonderful sense of humour. The rich contralto of her laughter helped to make life bearable. She and I picked up the shattered fragments and put them out of harm's way in a small, spooky attic which was reached by a short flight of stairs leading up from the living-room. A few days later Robinson called on one of his tours of inspection and decided to clamber up them, wheezing from the effort, to take a look around. There was a crash as he

ran into the offending article. Purple in the face he stormed down and poured forth a stream of accusations and abuse. Eulene and I lied in unison: "But Mr Robinson, you broke it yourself, we just heard you. We put it up there because it was coming off the wall and wasn't safe." We felt totally justified.

Acquiring Eulene on a twice-weekly basis made it possible for me to go shopping on my own. Occasionally she would return in the evening to allow us to go to a concert, a restaurant or accept one of the very few invitations we received. I did my best to entertain people to dinner so as to make a few friends, but even this was an up-hill job. Few of the wives of senior staff sought out the new arrivals. We had to take the initiative ourselves. Gradually I started to get to know people and formed friendships, some of which were to last.

Outings were bright spots. There was one party at which we met our future chief, John Cockcroft. He was undoubtedly a great leader, but withdrawn and difficult to talk to. He habitually removed the spectacles from his strained-looking eyes and polished them, as if to focus better on something just beyond the horizon. I was aware that it was an effort for him to make small-talk, but he made it politely, punctuating his sentences with the silences of a man who never speaks without thinking first.

I got on famously with Professor Lew Kowarski of the "heavy water drama". His sense of humour and of the ridiculous put me at ease immediately. Some say he looked like a Russian bear, but I thought of him as a simian giant. I think he did too, for he used to love recalling an occasion when he was stopped and asked the way to the Monkey House in Regent's Park Zoo. He swore that he had replied, "I'm sorry, but I'm a stranger here myself." He adored good food, had a razor-sharp wit and an irrepressible capacity for coming out with tri-lingual puns. We established a rapport which was to emerge instantly every time we met in the years to come.

Although I never got to know him well, I was impressed by the quiet and studious Professor Guéron, the Frenchman famous for his research in chemistry. One of his claims to fame was that he absent-mindedly removed a radium source from the tongs with which he was carrying it, and put it in his trouser pocket where it remained until he undressed much later that night. The fact that he sired a normal child later on was proof that he had survived what could otherwise have been described as a "do-it-yourself sterilization".

Among those who returned our hospitality was Henry Seligman who subsequently distinguished himself in Harwell's Isotope Division before joining the International Atomic Energy Agency in Vienna. He was blessed with private means as his family were international bankers. He was another naturalized German, but being forced to uproot himself from his home did not mean hardship, and he could hardly be classed as a "refugee". There were branches of the Seligman Bank all over the place, so he had an abundant supply of dollars to supplement his salary, and life treated him well. His wife was a lively blond actress who always looked as if she had stepped straight off the pages of "Vogue". As yet they were childless and able to make a colourful contribution to the otherwise sluggish social scene. They had a smart apartment on Cote des Neiges, one of Montreal's more fashionable neighbourhoods. When applying for it, Lesley Seligman who epitomized all that was Anglo-Saxon in her appearance in contrast to the blatantly Semitic features of her husband, was told, "Of course, this is an exclusive block. Our tenants all have excellent references and we don't take any Jews." "That's excellent," replied Lesley, "my husband will be so relieved."

I also became friends with a kind lady who offered to take Michael so that we could have a long week-end away. Peter was old enough to come with us. I could not help but parody the words of the Bard: "Now is the winter of our discontent made glorious summer by a visit to New York." It was fun. Our friend from Manchester had married his fiancée, Inga, after all those years of patience. They met us and we celebrated in nightclubs, in theatres and by gossiping late into the night and talking of the future.

But all good things have to end and it was no joy to return to that mausoleum of a flat. I contracted 'flu followed by a severe kidney infection. This in turn gave way to a depression. I fought it like a tiger in the most foolish ways imaginable, such as eating a large lobster dinner while suffering from a high fever. (It says much for my constitution that I kept every scrap of it down). I also decided to have a complete beauty treatment. When the hairdresser suggested a "permanent" I suddenly realized that my thick, curly hair had become straight and sparse. A lump of misery rolled round my brain like a snowball, getting larger and larger until I could think of nothing else. The strength had been drained from my sinews and I wept for hours as I watched my children playing on a filthy carpet which I was too weak to scrub. Worst of all, Michael didn't seem to thrive. I took him to two paediatricians who couldn't find anything much the matter with

him. Then one day he started vomiting and crying incessantly. We had no telephone, and at one point he looked so frail that I hurled Peter at an astonished neighbour with whom I had a nodding acquaintance and ran dramatically, as fast as I could through the snow to the nearest hospital, with what I was convinced was a moribund infant in my arms. After a long wait I was informed that it was gastroenteritis, given a prescription and sent home. I was brusquely informed that if there was no improvement I could bring him back in a week.

There was frustration everywhere I turned. I tried to fight the blues with activity, but was exhausted after every attempt. I became over-anxious about my baby, obsessed that the hospital doctor had overlooked something serious. The temperature outside fell to thirty-five degrees Fahrenheit below zero. I would stagger to the shops when Eulene was around, but was usually on the bed, crying, when Oscar returned from work.

At this time I confess that I was so preoccupied that I failed to take in the significance of all that was going on in the National Research Council which ran the Canadian atomic project.

We had just finished and won a war with a well-defined and identifiable enemy. Now a new potential adversary was emerging. Our former "gallant ally", the USSR, badly needed information and know-how in order to win the much coveted prize of a nuclear research programme. There had been trouble enough among the western policy-makers of the time, deciding just what concessions they were going to make in sharing their secret information with each other, let alone passing over anything to a country whose antipathy to her erstwhile comrades-in-arms was beginning to show through the veneer of friendliness. The Americans were clearly in a commanding position, but opinions varied enormously as to what would endanger their country's security. It was reckoned that several years would elapse before the Russians could catch up with them to any significant extent. All those whose idealist sympathies lay with Communism – and there were many who were yet to be disillusioned – felt that all information should be shared. It was, with the benefit of hindsight, not surprising that a few of these people should accept recruitment to the extensive network of Soviet espionage. After all, if Communism were to prove the only solution to the vast problems that confronted the world, it followed that those who had shared with the Russians the victory over Fascism should share their expertise as well.

I have since heard a story about a Russian officer who happened to un-

derstand physics and who had a good working knowledge of the English language. He had managed to get hold of several issues of the Physical Review, the journal of the American Physical Society in which most English-speaking physicists published the results of their research. He noticed a sudden cessation of papers, which had hitherto been freely published, concerning experiments on fission, and deduced, not surprisingly, that they had been withdrawn because of their military significance. He reported his convictions to his superiors and his statement went straight up the hierarchy and landed on Stalin's desk. It was, so I was told, at this point that the USSR decided to step up all efforts to recruit anyone in the West who was likely to be able to assist them with details of the work being carried out in conditions of such secrecy in North America. I don't know whether I have the details of this curious tale quite right, for it was told to me at a dinner party. Nonetheless, it came from the mouth of a highly distinguished and senior American scientist.

It was not until later that it was known just how much was being leaked from Los Alamos, but at this time a member of the Soviet Embassy staff in Ottawa asked far political asylum in Canada and revealed that a spy-ring had been set up in Montreal. Several arrests were made, and even those who were not members of it, but were known for their overt Communist sympathies, were tactfully relieved of their duties.

The news broke one day in February 1946. While driving through the streets of Montreal I happened to get stuck behind a police wagon outside the city's jail. There had, by all appearances, been a raid on Montreal's flourishing red-light district. The doors of the van opened and out poured the prostitutes: fat tarts, thin tarts, old tarts, young tarts, some pretty, others hideous. A curious vision of a procession of earnest, "donnish" scientists being similarly treated and herded, complete with their briefcases and their classified documents, entered my mind and I have never been able to dissociate the two images.

It was all very worrying for Oscar. This was the start of a "witch-hunt" policy that was to last many years, and was obviously going to affect anyone who had had leanings to the left, even if their loyalty to the West was such that the mere idea of subversive activity was abhorrent. He voiced his fears casually at a neighbour's party where none of the other guests, to the best of our knowledge, had anything whatsoever to do with the "nuclear business". It is an interesting example of the fears prevalent at the time

that this remark was taken sufficiently seriously to be reported to "the authorities" and repeated back to him four years later during a much more serious security crisis.

The following month Dr Alan Nunn May, who had returned to London, was arrested on a charge of passing secret information to a Soviet agent. He had felt so strongly about the need for cooperation with the USSR that he had taken unilateral action and given them some of the material to which he personally had access. He was tried and sentenced to eight years' imprisonment. There were many who felt the sentence rather harsh, and many distinguished academics signed a petition urging a review of his case. John Cockcroft was one of the signatories, which he afterwards regretted, and I was told that the document disappeared into his pocket, never to be seen again.

Our next removal became imminent in March. So much seemed to have happened in such a short time. After some dickering by the recruitment board for the newly-formed Scientific Civil Service in England, Oscar accepted a reasonable offer as a Senior Scientific Officer at Harwell. The board were hard bargainers. They knew that their offers would be more lucrative than those of the academic world. The salary and benefits added up to about £1,000 per annum, which was an improvement over what could be expected from a British university at his level. But this offer was in its turn much better than the first one they made. In the meantime an offer from the University of California in Berkeley had been received. Although not an outstandingly handsome one, at least it put him in a better position to settle the terms of his British employment.

It was with mixed feelings that I packed up to return to England. The brightest prospect in the immediate future was that we were to return on the Queen Mary and that would involve another few days in my beloved New York. Michael and I had recovered from our ailments with the onset of warmer weather, and although we were both still rather thin, his appetite and my spirits were greatly revived.

Old Man Robinson was on the warpath. After our rent was formally reduced we withheld payment until we broke even, and then settled. He maintained that we owed him for the rent HE had demanded, on the grounds that he was going to get the decision reversed. He demanded enormous compensation for the broken mirror and a number of other imaginary "damages". When he saw our luggage being removed prior to our own departure,

he delivered himself of another of his foul-mouthed diatribes and told us we were not to dare to depart without meeting his demands. We protested that we were merely having some of our effects sent home, and that our departure was set for a later date. He was not satisfied and sat outside in his large, pale blue Chevrolet until well after night-fall, convinced that he was about to be cheated. Finally, at about eleven o'clock that night, fatigue ended his vigil and he left. At 4 a.m., after making sure that he was not parked around the corner, we set off. About fifteen miles south of the city, we were horrified to see a Chevrolet of the same shade as Robinson's parked in a lay-by. Mercifully it did not give chase, and we were soon safely over the border with the United States, where we had been led to believe the dreadful fellow had for many years been *persona non grata*.

Back in New York, and enfolded in the loving arms of the Grossman family, we set about selling the car. We got a good price, and I flitted happily from store to store spending the proceeds on all manner of household appliances, clothes, shoes and children's necessities in short supply at home. I bought presents such as make-up, nylon stockings and gadgets for all my friends and relations. I also ordered boxes of food stuffs for Oscar's parents who were by this time very near to starvation. Their strict vegetarian convictions prevented them from consuming about half the food available to them, and their health was suffering considerably.

During the last day we spent in New York I had my first and only encounter with American detectives. We were getting some lunch in the coffee shop adjoining the hotel, and Oscar, having papers to read, agreed to take the children back to the room for their afternoon nap and stay there while I went to cope speedily with the few remaining items on my shopping list. When I returned I found that his briefcase had been stolen. He rushed off to the police, but Mrs Grossman's son responded to my frantic telephone call with the advice to get in touch with the FBI. They were not really interested in our passports, travel documents or sterling cash which was then useless in USA, but when they heard that mathematical formulae of a secret nature were involved they pricked up their ears. In view of recent events this was taken very seriously, and in no time at all they had swung into action. While Oscar was out, arranging for temporary papers to allow us to board the ship due to sail that night, I played a part in what seemed to be a real-life movie. Sergeants Murphy and O'Mara called on me in the hotel and quizzed me repeatedly, but kindly, about our movements, and the appearance and contents of the missing case. Peter trapped his fingers

in the sliding door of the elevator, and Michael yelled for his next meal. Thus, with howling children providing the background music, I played my role and stood up to the cross-questioning as calmly as I knew how.

When we were two days out to sea, a cable arrived saying that the briefcase had been found and was being forwarded to London in the diplomatic pouch. Apparently the thief, being neither British and in need of pound notes, a curious mathematician nor a Soviet agent, had found his haul worse than useless, and abandoned it. How fortunate for us that he didn't hurl it in the Hudson.

In later years when Michael was sitting an English exam, one of the subjects for his essay was: "A Day in my Life, by a Briefcase." He got the most excellent marks for being imaginative and very well informed.

Chapter 6

Friends and Fences

In the years before the war Harwell was a minute village about three miles to the south-west of the railway town of Didcot. There was nothing particularly special about it: just a pleasant, part-Norman church, a few shops interspersed with thatched, half-timbered houses, and the usual disproportionate number of pubs.

It had a fine reputation for its cherry orchards which produced the juiciest morellos I have tasted anywhere. Green, rural and typically English, it was the sort of place where time stood still and life was ruled by the seasons. The birds sang loudly in springtime, and later on the smell of wood-smoke hung in the air until the frost arrived. Anyone whose family had not lived there for at least two generations was regarded as an intruder and to be treated with the gravest suspicion. No wonder the villagers were grieved to find their name linked evermore with the Atomic Energy Research Establishment (AERE).

During the 1930s a number of Royal Air Force stations had been built up and down the country, all on the same rather functional and uninspired architectural pattern. One of these was to be found nearby on the road which links Oxford and Newbury. It provided a certain amount of employment for those in and around Didcot, who were not actively engaged in agriculture or the Great Western Railway. The local people called it "that camp" in the same tone of voice that they would use to refer to a public lavatory; an eyesore that they could do nothing about. When it was chosen as the

site for Britain's post-war atomic energy research the whole area was to undergo a fundamental change, and for most people the name of Harwell was never again to be associated with its delicious fruit. Why AERE. bears its name has always remained a mystery to me. It is in fact a little nearer to the village of Chilton, where the Rutherford Appleton Laboratory now stands. It is even closer to Rowstock, then a microscopic cluster of houses around the local police station at a perilous cross-road half a mile to the north, but now engulfed in a large arterial intersection. "Harwell" it is, nevertheless.

The "camp" consisted of four enormous aircraft-hangars that were considered suitable for the first of the planned experimental reactors, and a group of convenient administrative buildings whose red brick was just beginning to shed some of the blotchy green, brown and grey camouflage paint necessary for protecting them from day-light enemy air attack. There were two runways, laughably short by to-day's standards, but nonetheless making an unsightly gash in the rolling Downs of what was then the Royal County of Berkshire.

This gentle, hilly countryside has a wealth of history. The Roman Ridgeway is within a few minutes walk, and the pre-Saxon Icknield Way bisects the area. From the main gate those curious twin mounds known as the Wittenham Clumps stood out on the skyline, not yet dwarfed by the Didcot power station of recent times. Mercifully, the extended complex of the present-day experimental establishment of the Atomic Energy Authority is hidden in a hollow, and as you approach it from the south it remains invisible, apart from the tops of a couple of tall chimneys, until you are within less than three miles of it.

This is King Alfred's country. The first English monarch fought many of his battles against the Danes in the neighbourhood of his birthplace, Wantage, which is only a few miles to the west. There are dense woods, and villages of character and beauty, such as the Hendreds. The Vale of the White Horse, so-called because of the immense pre-historic carving in the chalky surface of a hillside, is not far away, and in a nearby hamlet the great king's "blowing stone" still stands. It is an extraordinary rock with so many holes that he was able to use it as a primitive trumpet for summoning his troops. Tourists try, with varying degrees of success, to reproduce the sound. We were surrounded by some of the loveliest parts of the Thames Valley against which this sprawl of twentieth century brick and concrete almost jarred the senses, so sharp was the contrast.

The housing that had been provided for the Air Force personnel was going to be anything but adequate for the thousands about to be recruited. Originally there were some "married quarters", as they were called. A short, winding road of solid, well-planned houses of varying sizes for officers, according to rank, was cut off and screened by a hedge of beech trees – a horticultural "green baize door" – from those, far less attractive, that had been designed for staff who were lower down the social scale: the non-commissioned officers and aircraftsmen. There was also an Officer's Mess, which had been renamed "Staff Club A" – and a vast barracks of a Sergeants' Mess that was to be known as "Staff Club B". Within a year or two their names had been changed again. To be less institutional, they were called "Ridgeway House" and "Icknield House", respectively. These were to provide hostel accommodation for single members of staff, and rooms for various social activities.

As a temporary measure, the runways and the hillocks flanking them had been fringed with rows of prefabricated houses produced by the Bristol Aircraft Company. These gave it the general appearance of a penal colony. The life expectancy of these tiny tin boxes was said to be ten years. For nearly forty years they were still standing and lived in, but engulfed in foliage. The saplings planted in those early days have become tall trees, and the gardens that so many early inhabitants struggled to dig out of that tough, lumpy soil look as if they had always been there, and are what is usually described by estate agents as "mature". Those who were not there at the time would be hard pressed to visualise the bleak, muddy desolation of the scene in the spring of 1946.

On the day of my arrival, I was taken to see the man in charge of administering the site, and arranging the tenancy of the houses, a serious long-faced gentleman called "Mr A.B. Jones" (I never heard his first name used). He was the epitome of a correct British Civil Servant. Impeccable in his well-pressed clothes, his Brylcreamed hair looked as if he had used a ruler to ensure that the parting was straight, and his manner was dry and forthright. His wife showed me round the comfortable house in which she seemed to be contentedly settled. It was in "South Drive", the officers' road, and separated, as they all were, from its neighbours by a respectably fenced garden as befits the household of a privileged family. Her kindness was somewhat wasted. The CO's house was obviously set aside for the Cockcrofts. All the other houses standing on the "commissioned" side of the beech-tree hedge were earmarked by this time, except for the top half

of the spacious mansion that I think had previously been the home of the second in command. It was in the process of being divided into two flats. I looked at the shambles and shuddered. Never since the air-raids had I beheld such a mess of torn floor-boards and fallen plaster. Who knew when it would be ready for occupation? Mr A B Jones didn't. In the meantime I told him that it was "just inhumane" to expect a family to move into it. He stared at me in bewilderment. This sort of accusation was not what he was accustomed to.

It seemed that fate had decreed that I was never to have a reasonable place to live in. Although a "prefab" would offer more square feet than the little house in Berkeley, the idea of living in one with a family did not appeal to me. Loftily I declared that we weren't pygmies. Finally I settled for an unlovely, semi-detached house behind the great "social divide". It had been built with a small degree of seniority in mind, but definitely not for the gentry. One of four, designed for senior non-commissioned officers, it stood slightly aloof, just across the road from, but with its back to, a U-shaped row of terraced houses, each identical to the next, where the humble aircraftsmen had lived. They had now been succeeded by the posse of security policemen required to guard the establishment, and their families. The chief police officer, bluff and kindly Inspector Jennings, was already installed with his wife and son, as befitted his station, in one of the four NCO's quarters, next door but one to us. Beyond our yards, coal-bunkers and washing-lines lay a communal grass play-area which was enclosed by this depressingly ugly rectangle of brick, small windows, unembellished doors, and dark passages leading through to tiny gardens at the rear. Children screamed, dogs barked and footballs were kicked violently. It took me only a few days to regret my decision to live here. Class distinction was still rife, and the travelling salesmen, on whom we were dependent through lack of transport and petrol, always saved their best goods, not to mention their manners, for the "superior" side of the frontier.

The house itself could have been adequate but its facilities were not. There were three rooms downstairs: a living-room, a kitchen and a scullery. I have chosen to describe them like this deliberately, for the stove, a rusty, coal-fired monster with one hot-plate and a water-heater, glared at me defiantly from its recess in the kitchen. The sink and larder were in the chilly scullery with an uninviting tiled floor that was hard and damp beneath my feet. I was forced to the conclusion that we were expected to cook and eat in one room, but wash the pots and pans, and keep our stores, in another. Getting

Figure 6.1: Mary and Oscar, Summer 1947

Figure 6.2: The Harwell prefab in 1947

Figure 6.3: Harwell from the prefab in 1947

Figure 6.4: Mary with Oscar's relatives in Hamburg, May 1947

even the simplest of meals was going to involve a considerable amount of unnecessary movement and mess. Never before had I felt so humiliated nor so homesick for the wonderful, convenient United States.

Now, with my spirits sinking, I felt I understood the full meaning of "working-class wife". Upstairs the three bedrooms had low ceilings, but there was a bathroom with a small utilitarian tub and, what was obviously considered the height of refinement, a separate toilet. Cynically I told myself to be thankful that it wasn't in the back yard. The only sources of heat were open grates – and the monster. I went weak at the knees. Despite the offer of a well-meaning Ministry of Works employee, whose job it was to look after housing, to show me how to light the beastly thing, and a promise that he could get it red-hot in twenty minutes, I refused point blank. In no circumstances was I even going to attempt it. I added imperiously that this was the twentieth century, that shovelling coal was not my line and that until a workable gas or electric cooker was installed I proposed to take my family to eat all their meals in Ridgeway House. I carried out my threat, and within a surprisingly few days a gas stove of sorts appeared in the scullery so that it could be used as a kitchen.

Ignoring the monster caused all sorts of mishaps, particularly when trying to heat the water with the two electric cylinders I had with some difficulty managed to acquire. One at a time was all the inadequate circuit could cope with, and I was continually blowing a fuse by plugging in an electric kettle or using one of my American gadgets and expecting hot water simultaneously. The gentleman from the Ministry of Works was impatient with me for perpetrating these mishaps. He had better uses for his time than taking my fuse-box apart. Why couldn't I behave like a reasonable housewife and use the facilities provided, he wanted to know? But I continued to be unreasonable and inept. Lighting a fire in one of the upstairs grates resulted in the children's clothes, which I had hoped to dry in front of it, being put to the torch. Our loo refused to flush, and when we had the first real rainstorm I had to erect an umbrella in the living-room to protect the leather-work on my writing desk from a leak in the window frame. To add insult to injury, I found that the small corner cupboards in the bedrooms stopped short about three feet from the ceiling. Clearly, not even a Flight Sergeant's wife was expected to hang up any long evening dresses.

Gradually we got organized. Peter was enrolled in Harwell's little dame-school, and I engaged the adenoidal teen-age daughter of one of the Staff

Club cleaning-ladies as a "mother's help". Her name was "Nadella" which I was told was the Russian diminutive for "nadia" which means "hope". "Little Hope" seemed apt! That the children remained safe and healthy despite her erratic ministrations was fortunate. She was abysmally stupid and, with hindsight, mentally subnormal. However, she did come daily, which meant that I could occasionally risk leaving her in charge, go up to London or avail myself of the twice-weekly bus that was provided to take us on uninspiring shopping-trips to Didcot. We acquired a small and ancient car, which, together with the meagre ration of petrol of that time, made the occasional trip to Oxford or Newbury possible. Later, when the ration was increased, we were able to travel by road to Manchester to see my parents. It was a disastrous vehicle, continually breaking down, but it did go on all four wheels most of the time – once one fell off just outside Banbury – and even conveyed us, by some extraordinary miracle, as far as Switzerland on our first post-war trip to Europe the following year.

Just as in Montreal, life back in Britain took a bit of getting used to, but during those early months of my first sojourn at Harwell, and within the walls of that inelegant "semi", I was destined to meet some of the people with whom I have had the most important relationships of my life. At the time, though, I had not the slightest idea how some of these friendships would develop.

The community at AERE was, in the main, a young one. Most of the people of my own age were as yet unmarried, and the rooms in Ridgeway House were full of youthful scientists bursting with excitement and hope for the future of the new venture. They poured in from the Chalk River establishment in Canada in droves. There were Australians and New Zealanders getting the necessary experience before returning to set up projects in their own countries. Among these was an inordinately lovable and funny little man with a face like a prize-fighter and a healthy appetite for beer called Charles Watson-Munro. He subsequently became the first leader of the Australian atomic energy research team. Already occupying a prefab was his friend, an intrepid, pint-sized, yet handsome young physicist who witnessed many of the tests in the South Pacific, Ernest Titterton, who was to become Professor of Nuclear Physics at the Australian National University in Canberra where he was knighted. Then, too, there were numerous new recruits who had not been employed abroad. They came from other establishments in England or straight from University. The motley assortment of accommodation on offer was rapidly filling up with talented people, many

of whom were to distinguish themselves both in nuclear experiments and in leadership. Nevertheless, whether resident or not, everyone in the scientific community tended to converge on and meet informally in Ridgeway House, the only place in our community for social gatherings of any but the smallest kind.

This double-winged, two-story building had a triple-arched portico in front, large, reverberating public rooms, and two long wings of bed-sitting-rooms. There seemed to be miles of highly polished brown linoleum corridor simply inviting one to see how far it was possible to slide. The furniture was angular, institutional and uninviting. Outside, the creeper that had survived attack by the camouflage paint was flourishing, and a wide, stately drive separated the imposing entrance from a well-tended sports-field suitable for gentlemanly games of cricket and the occasional village fair.

The undisputed monarch in charge of arrangements in this building, the allocation of rooms and the provision of amenities, was a portly lady with a plummy accent and ill-fitting false teeth. We called her "Battleaxe". She gave instantaneous priority to the senior personnel in her domain, often to the detriment of the junior staff. She let it be known that she had graduated in mathematics from Girton, which she seemed to think gave her special authority to pontificate about what constituted a suitable request. It was rumoured that when a newly arrived young engineer complained that he could not read by the light from his bed-side lamp, she did not take him seriously. "I don't know what you're making such a fuss about. All my Principal Scientific Officers seem perfectly satisfied", she said dismissively. On another occasion, she refused a room to a girl from a provincial university because she had reserved it for one "with a first from Cambridge". She was a snob of the first order, endowed with all the instincts of a boarding-house landlady.

This attitude tended to fuel an obsession with rank that seemed to have been inherited with the bricks and mortar. There were men from the Ministry of Works – builders, surveyors and artisans in duffle-coats, seconded to Harwell from the shop-floor – who were charged with the logistics of installing the endless supply of items of equipment needed, from steel-girders to nuts and bolts. They thronged the bar at Icknield House, formerly the sergeant's mess, played snooker and shot rabbits on the Downs to supplement their meat ration. They kept their distance from the scientific staff, sometimes treating them, and more particularly their wives, with amused contempt.

There were those, already housed and settled into their jobs, who could rightly be described as "characters". There was a bearded, erudite gentleman living in No. 1 South Drive, who was so obsessed with making things that he kept a lathe in his drawing-room. He thought nothing of lashing together a refrigerator when it was impossible to buy one.

The newly-appointed librarian was a jolly and boisterous middle-aged spinster who happened to live in a nearby village. After parking her vintage car, she would gallop through the mud wearing an enormous pair of sea-boots, booming in an authoritarian baritone at anyone she wanted to have a few minutes discussion with. A graduate of Imperial College, femininity was not her most outstanding characteristic, and she addressed her colleagues by surname alone. She referred to herself simply as "Gosset". It would have been rather absurd to use her first name. Without foresight, she had been christened "Kitty".

There was another lady with a commanding presence, also grey- haired, called Katherine Williams. She had a soft, precise way of speaking and had just taken up the position of Principal Medical Officer. "I'm not a real doctor", she would point out with the modesty born of confidence. "Most of my colleagues are; they have PhD's". Her house was the only "prefab" to stand on its own, as if to emphasize that despite its tenant's self-effacing manner her position was unique and unassailable.

Although the countryside in which we found ourselves was green, and our supply of clean, fresh air infinite, the atmosphere within the confines of AERE was rather similar to what one reads about Hill Stations in the days of the Indian Army, suffocating and foetid. We were isolated and thrown together. An odd assortment of people in a remote place, somewhat cut off from contact with neighbouring villages and towns because of immediate post-war shortages of fuel and vehicles. When, in early 1948 the petrol ration was temporarily and briefly suspended, some of those who did not already own bicycles acquired them and started to wobble precariously about the site. If we were not to die of boredom, we had to get to know each other and pool our talents for entertainment. At the very beginning, Battleaxe graciously arranged the occasional "beer night" in Ridgeway House and a little later a bar was opened. A few amateur jazz musicians enabled us to hold dances there. Some of us looked forward to these rather pathetic social events as if they were gala evenings; such was the distance between us and a normal social life.

We organized an orchestra, a choir and a dramatic society. Two people who gave an enthusiastic lead to these ventures were Henry and Eva Arnold. Henry, a dapper and handsome retired Wing Commander, had been appointed Security Officer. He had behind him an outstandingly interesting life, packed with adventure, which ranged from being shot down while serving with the Royal Flying Corps in the First World War, to working for military intelligence in the second. He once had to disarm a Czech spy. It was his duty to be on friendly terms with everyone, and he did it with panache. He enjoyed a drink, could tell a hilarious anecdote and was a superb mimic. Although I sometimes thought him a bit naive, this may well have been part of the act. For example, despite his talents as an amateur actor, as a 'cellist, and with a sketch book, he appeared not to have the very slightest comprehension of any language except English. He was a generation older than most of us, but his extra years manifested themselves only in a way that was pleasing and helpful to the young. If advice were given it was kindly and gently wrapped up, but usually he behaved like a convivial equal. His manner was out-going and easy. No-one could ever have disliked him. He and I remained on friendly terms until his death in his ninetieth year. Eva was plump, jolly and practical. She had a knack of opening her china-blue eyes particularly wide in feigned surprise whenever any insensitive blunderer made a statement concerning the confidential areas of Henry's job. I am reasonably sure that she knew a great deal about it and was her husband's confidante in such matters, but cleverly she made sure that no-one knew for certain.

There was an air of forced gaiety prevalent at this time. I can describe it only as an epidemic of post-war hysteria. Although compared with many, the period of hostilities had not involved me in much danger or tragedy, I was one of those young women whose wild oats had been sown too sparsely due to the limitations of war, parental control and an early marriage. Now we were making up for it. If we could lay our hands on alcohol we tended to drink it with undue haste and relish; sexual adventures were common, and scandal was our daily diet. When we had petrol those of us with cars had to be careful, and not only when driving them. They were instantly recognizable, and everyone could see whose was parked outside which house and for how long. In such a small, closely-packed community, was it surprising that we almost knew what was in our neighbours' dustbins? I do not mean to imply that everyone was indulging in an on-going orgy. Many lived sober and responsible lives, but there were some of us who were indulging in an extension of what to-day would be regarded merely as normal youthful ex-

uberance. When some young Australians succeeded in removing the roof of a "prefab" at a party, they were accorded the sort of accolade that is usually reserved for those winning a marathon rather than opprobrium. There were many such escapades. There were romances, engagements and estrangements. Some were to endure, some to end. As in other aspects of our lives, there were to be many successes and more than a few failures.

A large hole was dug in the foundations of one of the hangars in preparation for the construction of the Graphite Low Energy Experimental Pile, or GLEEP, as we came to know the first nuclear reactor to be constructed outside North America. The great and the wise came from all over the world to look at it and to watch as the construction work started. Kowarski and Halban came, Max Born from Edinburgh, Francois Perrin from France. Anyone would have thought that they were gazing at some newly uncovered Roman mosaic. It looked excessively dull to me.

Much of the work on the site came into the "classified" or secret category. For this it was necessary for Henry Arnold to organize the erection of that type of high fence which consisted of concrete uprights, bent over at the top and connected with barbed wire that one sees so frequently at government establishments nowadays. It looked forbidding, and served to emphasize the feeling that our environment was abnormal. Once in place, nobody could get into the working area except through one of the police-controlled gates, where a little cardboard pass, bearing a photograph of its holder, had to be shown. Young Peter, at four, distinguished himself by slipping through one of these entry points on his tricycle under cover of a large lorry whose driver was being questioned by the constable on duty. He was busily pedalling round the administrative block for some time before being spotted. He also rode it into Ridgeway House and down the labyrinthine corridors. Poor Battleaxe was not amused.

Among those to arrive before us were the Skinners, last seen in Berkeley. Herbert, as head of the General Physics Division and Deputy Director, was in charge of research until the arrival of John Cockcroft. He and Erna were warm-hearted, hospitable and tolerant. In their house, which was one of the larger of the officers' quarters, I was to meet many interesting, famous and sometimes infamous people. I not only witnessed, but took part in dramas which have since assumed historical significance.

I became devoted to the Skinners. Erna I found particularly fascinating. Then in her early forties, she had spent much of her life in inter-war Berlin.

Although Jewish, she had come to this country, not as a refugee, but as a student in the very early thirties. She could rightly be described as a "Bohemian", and typical of the pre-Nazi intelligentsia of Central Europe. She had a large, cosmopolitan circle of friends: actors, writers and artists. Although rapidly putting on weight, she was an exciting and good-looking woman. She craved the attention of men and usually got it. She was amusing and easily amused. It is hardly surprising that she disliked her new surroundings, but unfortunately she suffered from a phobic neurosis which caused her to panic severely when left alone. However, Herbert's private income from the family shoe firm of Lily and Skinner made it easy for them to employ a succession of maids and companions as well as running two cars. When there was no-one in the house with Erna I was frequently called upon. I never minded. It was fun to be part of her coterie, who had such disdain for the conventional. Herbert, though basically an establishment figure, regarded them all with a smiling detachment. Erna frequently drank copiously, and sometimes I felt delectably naughty when I joined her. Years later, after her death, her daughter, who grew up to be an abstemious and responsible career woman as well as a dedicated wife and mother, presented me with half a case of whisky from her mother's flat. I have often thought of how amused Erna would have been at this fitting memorial.

Through the Skinners we were to get to know the Peierls family. Rudi I had met briefly in New York. He was quiet and unassuming, but invariably ready to make a joke or laugh at one. He would come from Birmingham where he was Professor of Mathematical Physics, to stay with them, bringing his Russian-born wife, Genia, a resourceful, larger-than-life woman, whose friendship I was to value immensely in years to come. She was, and remained, one of the most resourceful people I have ever met. She was good at giving advice and finding solutions to problems great and small. In spite of this, she had never been able to eradicate from her piercing voice the obvious evidence of her mother-tongue. When the Skinners' roasting pan proved too small for a Christmas turkey, she produced one of those large tins designed to hold seven pounds of biscuits, and ordered "Rudi, create roaster", and Rudi, armed with tin-opener, produced one that was adequate. The bird with its trimmings and gravy, were safely contained in the ingenious makeshift.

They had two children of thirteen and eleven, and Genia at thirty-nine was pregnant with the first of her two post-war daughters, "my second generation," as she described them. The Peierls were a complementary influence

during their visits to the Skinner household. Rudi's gentle competence, and Genia's inspirational ideas for entertaining, brought much pleasure and merriment to all who came into contact with them.

The largest house, standing not far from the Skinners, was eventually occupied by the Cockcroft family. The contrast between the two households was comic to the onlooker. Under Elizabeth Cockcroft's prudent, north country management, economy was the watch-word and temperance the creed. Her family of five children and their nanny all knew what was expected of them. From where I lived I could see the lights being carefully switched off when a room was vacated in their home, whereas a carefree blaze from every window lit up the house nearby. At Skinner parties, a varied supply of drink, acquired through influential contacts in London, flowed freely and abundantly. The Cockcrofts were practically tee-totallers, but served a little sherry or wine as a compromise at theirs. The two families maintained a truce-like, diplomatic friendship.

There is no doubt that John Cockcroft was a man of immense stature and the highest moral standards, but he and his wife never sat in judgement over any of us. To the best of my knowledge no-one ever got admonished for wild behaviour unless it affected their work. He was interested solely in getting the best out of his mostly young research team. Much later, I was told on excellent authority that it was his policy to back to the hilt those he considered to be winners. The "also-rans" were left to reach their ceiling and remain on his staff in positions commensurate with their limitations or, if they sought employment elsewhere, no effort was made to retain them. Whether or not he was always correct in his judgement I cannot say, but I know of several instances where people were puzzled and hurt by his failure to communicate with them more frankly.

One of the first to call on me while I was unpacking my china and glass and arranging it in the inadequate cupboards was Klaus Fuchs. As a bachelor, he had taken a room in Ridgeway House and for a while remained Battleaxe's most senior resident. He arrived shortly after we did, and was to be Oscar's immediate superior as Head of the Theoretical Physics Division. His personality seemed to have developed since our first brief meeting in New York, and he had acquired something of an aura of authority. The sun of New Mexico, which he had recently left, had burnished his pallid complexion, and he was wearing rather more stylish, lighter-coloured clothes, and they suited him. Apart from these obvious, visible differences, he was

as strange, enigmatic and withdrawn as before. Whatever was thought about him later on, I found him overwhelmingly charming and gentle at the time, betraying nothing of the opinionated conceit that his colleagues noticed. Immaculate and gaunt, there was something uncannily remote about him. Later on I was to see a lot of him, and we formed a close friendship, but I seldom knew him to relax completely. Although a deft and competent dancer, he never let himself go at any of our high-spirited parties, remaining always the smiling onlooker. He kept up with the rest of us, drink by drink, and smoking countless cigarettes, but I never saw him lose an ounce of his formidable self-control. In the years during which I knew him, I could never describe his manners as being anything other than perfect.

I gradually formed the opinion that the suffering his family had endured during Hitler's reign of terror may have been but a part of his story, and that some other great sorrow must have left him scarred to the limit of his endurance. In spite of his immensely detached personality, he smiled at me in the way that men do when attracted by a young woman, and I in turn was fascinated by him. His very aloofness represented something of a challenge. I was determined to get to know him better and to try to crack the veneer he presented to the world.

Another young man who was eventually to become a devoted friend was a promising young experimentalist, just one year older than I, called Hans Kronberger. He was to become famous for his work on isotope separation, one of the processes that lie at the heart of atomic energy. Ultimately he was appointed Member for Reactors of the Atomic Energy Authority. He was another fugitive, a refugee from Austria where he had lost his mother and sister in the Nazi holocaust. His father had survived the notorious Theresienstadt concentration camp, thanks to having had an unusually robust constitution and indomitable courage. While these dreadful tragedies had been taking place, Hans had suffered the additional indignity of internment in Australia. I had no idea that the Sophoclean tragedy in his personal life was just beginning, and to what an extent I was later to be involved in it. At the time we met, he was like a playful puppy, bravely putting the misfortunes of the immediate past behind him. He had just taken receipt of a vast consignment of valuable family furniture that had been shipped from Linz: antique baroque escritoires, chiffoniers, tables and an immense clock with a long broad case. The last needed much doing to it, and he removed the weights, the cords and the mechanism. He called

me into his room in Ridgeway House to look at it one day. Typically, with his usual sense of the ridiculous, he had put a pile of books inside the cabinet, climbed in, closed the door, and substituted his own face for the ornate, gilded dial. Over this, and many other pranks, we dissolved into uncontrollable laughter. He was irrepressible and juvenile, and we enjoyed the same type of joke. We would shriek with giggles over something quite idiotic, frequently a mistranslation of a German sentence, and hardly ever remotely funny to anyone but ourselves. After the first heady impact, when we annoyed Battleaxe by sliding down the linoleum corridors of Ridgeway House, and racing each other across the Downs, we calmed down and maintained a sort of companionship that was to prove closer than any outside our immediate families.

Otto Robert Frisch, famous for having demonstrated the process of fission in collaboration with his celebrated aunt, Professor Lise Meitner, arrived to lead the Nuclear Physics Division. Newly returned from Los Alamos too, he was anxious to play chamber music. An excellent pianist, and a mediocre violinist, he liked everyone to do things his way. No doubt, this was because he grew up an only child, surrounded by doting women. Lise Meitner was but one of his numerous female relatives. Genia Peierls was heard to remark in her characteristically "basic" English: "Anywhere you put pin on map, there Frisch has aunt." He was a bachelor, already well past forty, but destined to marry some years later. Although predictably cosseted in Ridgeway House, he would frequently take refuge in the home of Egon Bretscher, who had worked with him in Los Alamos. This tall and mournful-looking Swiss was to take charge of the Chemistry Division. He seemed to be dogged by difficulties, and something was always going wrong in his ménage. On arrival at Harwell, the Bretscher family consisted of two parents and three children. They demanded two prefabs, but as they produced two more children in quick succession, and carried a certain seniority, they were allocated an officer's house as soon as one became available. When that proved too small, they were given priority to occupy the next of the largest ones as soon as it had been vacated. Egon too was a competent pianist, but he seldom took part in the joint musical efforts. He was an incorrigible hypochondriac, and his frequent migraines, if not unwillingness to "mix", prevented his participation. His children, to whom he was almost abnormally devoted, were friends with mine, and occasionally he would call at our house. He did have a sense of humour, but it was always tinged with sarcasm and "Schadenfreude", that untranslatable German word for glee over the disasters afflicting others.

I always loved to entertain, and one evening it was arranged that a string trio would play to a group of friends in my house. This would consist of Oscar, Otto Robert Frisch and a physicist in his twenties who was reputed to be a competent 'cellist. Brian Flowers was tall, dark and shy, but his playing was outstanding. He was one of the young crowd who had until recently been working at Chalk River. My only previous contact with him had been in an argument concerning the rights and wrongs of families from the surrounding houses eating their meals in Ridgeway House. As Chairman of the Residents' Committee he had objected on the grounds that it was "home" for the single staff, and should not be invaded by those who could well cook for themselves. Although I laughed at him and called him "childish", pointing out that we had paid for our food, I realized that the stubborn set of his chin, and the tight-lipped severity, belied an immense sense of humour, and that in spite of his iron determination to prove his point and win the argument, he was laughing with me. Klaus Fuchs opposed his opinions, and used his position in the establishment to give all the residents what Erna Skinner described as an "evangelistic sermon" on democratic principles. Despite this, and the predictable backing of Battleaxe for the more senior resident, Flowers made his point. Clearly, he was a man with a built-in gift of authority.

However, on the evening in question I hardly noticed him. My attention was elsewhere as I listened to the music, and my mind was fixed on the plight of another. What I shall never forget was that during the course of one of the pieces, what it was I cannot remember, Klaus had turned deathly white. Sweat was trickling down his face, and I feared that he was going to faint. It is not easy to cross a small room crowded with people and instruments to offer help, and I watched helplessly, scared that he would topple to the ground, land on the players or impale himself on a music-stand. As soon as the performers finished I opened the door. He made a polite and unhurried departure, thanking me for my hospitality. It was the first instance of many I was to witness of his incredible will-power.

With the onset of our first winter in Harwell we realized that our house was in a poor state of repair. An alternative would soon be available on the attractive and skilfully arranged estate that was being planned for scientific staff in the nearby market town of Abingdon. We, with two children, could qualify to rent one of the four-bedroomed houses that were being built on what had once been the large garden surrounding the recently demolished Fitzharries House, an imposing mansion that had outlived its usefulness.

There were big trees, a pond and plenty of grass. It looked inviting, and I should have been more than happy to stake our claim, but Oscar was not keen on moving there. Although I yearned for an adequate and permanent home, he preferred to maintain a minimal dwelling base and to spend as much time as possible in nomadic style, travelling in the country and visiting the various naturist centres.

I continued to attempt to keep the house we were living in warm and dry despite what seemed like insuperable obstacles, but finally, when our living-room was flooded in early 1947, Oscar applied for a prefab. I didn't like the idea of another move to what could at best be an extremely short-term solution to the problem of finding somewhere to live; besides, this sort of thing was becoming monotonous. I felt sure that it would not be good for the children. Had I known how many more times I should have to uproot my family, settle the boys in a new environment, and how little damage it did them, I need not have bothered. The future was to bring me worries of far greater magnitude.

Chapter 7

Harwell and Hamburg

Living in a house that resembles a small aluminium tool-box in a row of identical containers is a curious experience. When the row runs along a ridge curved like the top of an amphitheatre, overlooking scores more of these self-same shacks, it is rather like finding yourself right at the back of "the gods". You are exposed to scrutiny, while having an excellent, opportunity to observe every detail of the other occupants' lives. You might as well carry a price-tag too, for the quality of your furnishings, your clothes, your children's toys, even the car (if you own one) standing at the bottom of your short concrete path, are an indication of what you are worth. I suppose this is true of high density estates anywhere, but in this sloping spread of Harwell "prefabs" the closeness of the serried ranks made it all the more noticeable. Although ours was situated among those most exposed to the elements, it was also in one of the more enviable positions. Behind us was a large corn-field, so our backs were not wholly available for inspection except by those who went hiking along the little track behind our wire fence.

For a short time, life in a prefab could have been amusing, but I would recommend it only to childless midgets who also happen to be hard of hearing. Even the most resilient nervous system goes into spasm every time a metal cupboard is closed, and a clash of cymbals reverberates through the confined space. I couldn't complain about the internal design, which was surprisingly well thought-out and even imaginative. Manufactured in three parts, with all the plumbing and heating incorporated into the

central section, these dwarf-like dwellings could be bolted together, set on concrete foundations and erected in a matter of a few hours. The kitchen and bathroom were adequate, and a plethora of drawers and cupboards completed the percussion band. But it was as cramped as a ship's cabin. I am always reminded of the prefabs when the better parts of South African native townships are shown on television. The sameness was frightening. I once walked into my neighbour's kitchen, but only when I started to peel the potatoes did I realize that I was not using MY sink nor were they MY spuds.

These houses were a common sight in post-war Britain, where air-raids had laid to waste so much urban space, and countless families needed a roof over their heads. Nowadays, you can see small sections of the sort of home so many were grateful for at the time, preserved for posterity in museums.

I tried to arrange the space at my disposal in the most economical way I knew. We were warm and dry if we took the trouble to stoke the little anthracite stove in the living-room. Unlike the monster I had scorned in the house we had just left, it was manageable and we were not expected to cook on it. There was no shortage of electric outlets, and the water could be kept constantly hot. The kitchen was just large enough for four slender people to eat their meals in. Using every scrap of ingenuity I possessed, I even found it possible to arrange buffet suppers. As soon as we were settled, I threw a few small parties for children and for grown-ups. Genia Peierls recalls the day she was invited to one that I gave for about twenty people, at which, in order to maximize every square inch, I had put the boys to bed in the car outside. They were within ear-shot, and they loved it.

Before many months had passed, my father's business had picked up from the war-time limitations, and he made a small capital transfer to each of his daughters. I was anxious to use my share as part of the purchase price of a small cottage in one of the pretty nearby villages, but Oscar was no more enthusiastic about that than he was about the prospect of living in Abingdon. I indulged in all manner of day-dreams about a rural life in thatched, rose-covered cosiness with a country garden. Alas, they had to remain flowery fantasies.

Although I shut my eyes to all the symptoms, I was becoming aware that my marriage was crumbling. Gradually, as with the walls of an unsound

building, cracks were beginning to appear. Foolishly, I did little to investigate or remedy the situation. I felt that if I ignored the signs of impending disaster they would go away. The fabric of companionship was giving way under the pressure of diametrically opposed attitudes and aspirations. In spite of my yearning for a permanent base, a place where I could really put down some roots, I was restless and wild. Maybe it was because I lacked the security of a real home, but more likely it was due to sheer immaturity, that I became over-adventurous, forever flitting from one project to another, seeking the sort of experience that my life could not provide. Henry Arnold shook his head in amusement that was tinged with anxiety: "You are an intractable young lady," he observed, "and I wish you would look where you're going on that bicycle." The way he said the last word implied that it wasn't just the speed at which I rode on two wheels that was becoming too fast for safety.

Added to all this, the naturist way of life was becoming more and more central to Oscar's existence, and he spent long hours working in the nude under his ultra-violet lamp. Every evening he would persuade me to join him, but this type of sunbathing never suited me. My skin was sensitive, and my eyes were irritated, even through goggles, by the harsh heliotrope light. An acrid smell emanated from the reflector, which I grumbled about continuously as it filled our small living-room. Although I have always believed passionately in the freedom of the individual to choose the lifestyle most suited to his needs, this particular one held no appeal for me whatsoever. I found the nudist clubs in England uninspiring, their rules annoying. No alcohol was allowed, and no-one was expected to divulge their surname. Unlike California, it was usually too cold for comfort. I remained, despite my disregard for the commonly accepted standards of behaviour prevalent at the time, inhibited about shedding my clothes among people I didn't know. In no circumstances was I going to be converted. But here I shall stop. Matrimonial strife is an ugly subject, and dirty linen washed in public extremely boring as well as distasteful. The muddy water of mine has since flowed under innumerable bridges and has almost been lost in the ocean of experience.

To make the best of life I started to throw myself into the spare-time activities that I had helped to organize. Although my slow-witted nursemaid's mother removed her from my employment, after I had criticized her for serving the children cold Heinz beans straight from the can, and helping herself to my precious face-cream, it was no serious blow. The neighbour-

hood, teeming as it was with young couples and small children, made it easy for us to take turns in caring for each other's, and the houses were far too small to necessitate, or even accommodate, more than one person doing the cleaning.

There was more music, and plays were rehearsed and performed. Brian Flowers was getting a small orchestra and choir together under his baton. He frequently came round to my prefab with his girl-friend to discuss the possibility of performing a certain choral work or an idea for a play. Apart from being another 'cellist, June was pretty and adaptable on the stage. I thought them an ideally suited couple, and when they announced their engagement I was one of the first to run over to Ridgeway House to congratulate them. I felt quite sad when, after some disagreements, they called it off.

Apart from the Arnolds, there were several amongst our number who had a little professional, or at least skilled, amateur experience of the theatre, and they helped to inspire and encourage us. There was a large corrugated zinc gymnasium not far away, which had been part of our legacy from the RAF. It had a stage of sorts and seated about two hundred. It was dingy and cold, but was just what we needed, and soon a lot of us were hard at work building scenery, making costumes and rigging up lighting. It was the most enormous fun except when the weather was bad and the noise of rain beating down on the roof drowned all other sounds. Audiences had their patience stretched to the utmost as intervals were prolonged in the hope that it would "blow over". Although I had no notion how to set about it, I helped to produce J.B. Priestley's "Dangerous Corner". That the production came off was due more to good luck and the enthusiasm of the players than to my directorship.

As the atomic research gathered momentum, and another reactor, BEPO – British Experimental Pile, O for euphony – was planned, more staff were recruited, and we found ourselves with a number of interesting new neighbours. Every day brought fresh developments whether at work or at play, and gradually facilities around us improved. A nursery school opened five minutes walk from our front door, and Michael liked it enormously. It was well subsidized, and we paid twelve and a half pence in to-day's currency for the snacks and milk provided. If I forgot to send the necessary sum at the beginning of the week, I would receive an order from my small son: "Teacher wants a half-a-crown". "Teacher" had all her charges well organized.

There was a barber's shop, a ladies' hairdresser, a small grocery and a first-aid station. Although Katherine Williams, whose isolated prefab was below ours at the foot of the hill, was not registered as a family practitioner, she soon organized her small sick-bay in such a way as to provide a first-aid station. This was invaluable, as most of the children played among builders' rubble and regularly fell off their bicycles.

Henry and Eva Arnold lived next-door but two, and that, because of the minute distance between our houses, was very near. In no time at all they produced a harvest of strawberries from their garden which Eva would gather while Henry looked down at Katherine's garden making bawdy remarks about the knickers hanging on her washing-line. "Passion-killers", he would chuckle, as he dug his spade into the chalky earth.

We also became friendly with Heinz London, who had done so much significant work in low temperature physics. He and his young wife, Lucie, were just embarking on what was to be a large family. She and I did some mutual baby-sitting and a great deal of girlish giggling. Heinz would have us near to hysterics with his "English" swearing. Such phrases as "blutige Hölle" (bloody hell), which is meaningless in German, would be heard when he was frustrated. He had embarked on fatherhood rather late in life and was about forty when the first of their four children was born. Sometimes, when interference from small hands impeded his work on the typewriter, he would move himself, the machine, the table it stood on and his chair, into the play-pen, leaving the children to their own devices outside its protective bars. Lucie had learnt much about sewing, pressing and finishing garments from her mother who was a skilled dressmaker in their native Vienna. When Christian Dior revolutionized fashion by bringing out his "New Look", she gave me invaluable advice as I squatted on the floor endeavouring to cut out a long, flowing skirt that was essential if one were to follow the latest style. Material was expensive, and it was quite difficult to get the pieces of the pattern to fit into the old bedspread I was trying to convert.

Another young scientist, who had worked on radar but later became involved in the study of cosmic rays before turning to defence research, B.T. (Terry) Price, later Director of the British Uranium Institute, brought his musical and acting skill, as well as that of his fiancée, into our midst. He was one of the many unmarried youngsters, contemporary with me, who dropped into my house and were glad to be offered a meal rather more

flavoursome than those produced in Ridgeway House. He was pleased to avail himself of my ancient upright piano that took up almost one wall of the small living-room.

Despite the slightly increased distance, we kept in touch with our friends from the larger houses. The Skinners called frequently, often bringing their "paying guest", John Dunworth, the rotund and cheerful physicist in charge of BEPO, who preferred lodging with them on this basis than submitting to life under the Battleaxe administration. He was greatly in demand by those of us recruiting instrumentalists for Brian Flowers's orchestra, as he was the only viola player we could lay our hands on.

One of my most frequent visitors was Klaus Fuchs. He would drop in frequently, grinding up the hill in his ancient, square-backed little Morris. (Since those days the media have paid him so much attention that his registration number, TV 9555, might be thought to have borne a prophetic message.) His calls were casual, but he would often join us for a meal. It is quite extraordinary in the light of what was to happen later how many subjects we discussed: politics, philosophy, psychology and the arts, usually finding ourselves in agreement. He could not master English pronunciation adequately, and his guttural, German accent never left him. His kindly appreciation of home-cooking and a warm fire to sit by, his gentlemanly ways and his generosity, particularly to children, endeared him to many of us. However, I could not understand why this quiet, soft-spoken and seemingly timid man was so reluctant to talk to Oscar alone, except over matters concerning the running of their Division. They had, on the surface, so much in common. Their back-grounds were tremendously similar. Both were non-Jewish refugees from Germany, and both came from austere, deep-thinking families of intense moral convictions. Klaus's father was a committed Christian, Oscar's a dedicated socialist and reformer. Oscar had served his term of imprisonment under the Nazis; Klaus told us that he had escaped arrest by twenty-four hours. Yet they seemed poles apart, and I gradually came to the conclusion that the reserve was not on Oscar's side. It was almost as if there was some intangible barrier which prevented a closer rapport between these two colleagues, a little mistrust perhaps.

In spite of this, he and I formed quite a close friendship. But there would come a point when, if anything hinted, however indirectly, at too close an emotional involvement, he would withdraw like a snail into its shell and batten down the hatches of his soul. He was not going to let slip any

word or facial expression that might betray his innermost feelings. I clearly remember him looking tired and spent in a way that does not result solely from a hard day's work. Instead of going back to Ridgeway House for an early night, he would stifle his yawns and stay on, as if reluctant to have to spend any more time in his own company than was absolutely necessary. Then, ruefully, he would look at his watch (a surprisingly expensive-looking one, worn on his right wrist because of his left-handedness) and say the same unwilling words: "I had better be getting along."

The following spring, I felt it was time I made an effort to see Oscar's parents. I had been their daughter-in-law for nearly five years, and it occurred to me in an odd, nebulous way, that if I were to get to know them it might help strengthen my marriage. At the time it was impossible to get permission for them to come on a visit to England, so I resolved to get to Hamburg by some means or other. Characteristically, my craving for fresh adventure drove me to find a way to obtain an entry visa for that particular zone of the defeated, but as yet formally undivided, Germany, the part that had been occupied by the British forces. I hit upon the idea of asking a friend of my father, who edited a small provincial newspaper, if he would be kind enough to supply me with a reporter's credentials on the understanding that I would promise to pay all my own expenses and write him a couple of articles about conditions in and around Hamburg. He agreed, and very soon I was an my way from Northolt in a cramped DC3, the work-horse of immediate post-war air transport, an unpressurized twin-engined rattletrap that sloped steeply upwards when on the ground because its tail rested on the tarmac.

I was armed with a press card, a suitcase full of canned food, tea, coffee and clothing, plus one thousand cigarettes. The last were extremely important as they had become a currency in Germany with which one could purchase almost anything, from a Leica camera to a lump of margarine. Even Klaus admitted sending cigarettes to his father in rolled-up periodicals. The Mark had little value and barter was freely resorted to. Quite simply, there were no consumer goods in that country that were not in desperately short supply.

All my friends were helpful and co-operative over the venture. Eva Arnold and other neighbours offered to accommodate the children between school and Oscar's return from work, the Skinners heaped useful things into my suitcase, and Professor Oliphant agreed to my taking a warm over-coat which he had left behind in their house.

My arrival in Hamburg was startling in many ways. I had never set foot on German soil before, and although I had seen and heard much about it, I was in for a shock. The first thing I saw when the aircraft made a bumpy landing on the temporary metal mesh that substituted for a runway, was the swept-up top of a German official's flat cap. Although stripped of its swastika, I associated that shape solely with the Nazis. When I passed through customs I was asked how many cigarettes I had. Fearing that I had overdone my consignment I said I didn't know. I added that as I was a heavy smoker I had quite a lot. "You are allowed three hundred," I was told peremptorily. Then my suitcase was opened and two hundred were sternly confiscated. I thanked providence that I had acted on a hunch – one could hardly call it foresight as I knew nothing of the restrictions – and crammed the remaining five hundred into my overnight bag and my various pockets including those of Oliphant's coat. I offered as a diversion the four or five "Players" in my small silver case, with an apology for not having looked up the regulations, and was graciously allowed to keep them. Never has a customs shed seemed so long nor my clothes so heavy. I felt as if I were carrying gold bullion, and in many ways I was, because the old Bünemanns were able to exchange those eight-hundred cigarettes for all manner of food and useful articles that would otherwise have been unobtainable.

It is hard to imagine the desert of brick and rubble to which the fine old city of Hamburg had been reduced. Twisted girders protruded from fallen concrete walls, and crushed vehicles lay torn where the blast of bombs had hurled them. I saw a metal swastika that once had graced a proud building lying tortured on the ground in a heap of dust, symbolic of the crushing defeat of Nazism. People who had lived there all their lives wandered around, dazed and bewildered, still not quite sure exactly which street they were in or whether their street even existed any more. The main roads had been cleared to allow traffic to pass, and such trams as were running, more often than not, were crammed to capacity. Men and women were thin and dispirited. Children sifted rubbish tips in the quest for something to eat or a cigarette butt. Long queues formed, and waited with resignation for every necessity of life.

I had booked accommodation in the War Correspondents' Mess, which was in an ostentatious, white wedding-cake of a house overlooking the Alster. Once the opulent and ornate property of a prominent Nazi, it had been requisitioned by the British occupying forces along with its furniture, and staffed with servants. The rules governing fraternization with the local

people by the armed forces, the Control Commission and other officials, had but recently been relaxed. As I was technically a journalist with the nominal rank of lieutenant-colonel, I didn't want to cause disapproval and get myself dismissed from my temporary post by going straight to the Bünemanns' flat. I need not have worried. The press-agents and writers I found myself among cared little for the regulations. So long as you could get away with something, you went right ahead and did it. When I enquired whether I could exchange my "Baafs", as the occupying forces' currency was called, for their equivalent in marks, I was laughed at. "You must be out of your mind," said a man from Reuters. "Give Fritz behind the bar a couple of cigarettes and you'll have all the marks you want." "But what about paying on the trams and trains?" I enquired naively. "You don't PAY. Show your press-card or your passport, or just tell them you're British." This was not the only thing that I found reprehensible about the behaviour of most of the people in the mess. Some were inexcusably rude to the German staff, others encouraged and joined in the singing of the most hated Nazi songs, such as the "Horstwessel Lied" and "Wir marchieren gegen England".

I did manage to get myself a small measure of revenge against the man from Reuters, though. On the second evening of my stay he was very drunk, swaying on his feet, and clutching alternately at the bar and a brassy young woman he referred to as "Annelise, my fiancée". He poked his finger in my direction and asked me what sort of assignment I had, or whether I was engaged in some lucrative racket such as smuggling. When I told him that I had made up my mind to prepare an article on the plight of the orphans of concentration-camp victims, he let fall a small gem of information about a new reception centre that had just been opened, and described, despite the state he was in, some of the work that had been started to care for these children and help trace their relatives. Realizing his gaffe, he kept trying to extract a promise from me that I wouldn't cable my paper. I told him I wouldn't cable, and I didn't cable, but I sent a letter with the first person I met who was about to fly home. I have never in my life experienced anything so near to professional success as when this news reached a little-known periodical before being released by one of the largest press agencies in the world. Unhappily my one and only copy of the short article was mislaid, and all enquiries concerning it have revealed nothing.

However nasty the journalists may have been, I experienced nothing but courtesy from the local people, particularly when I made the effort to speak

German. I was helped and escorted on my way, and even given a long lesson on correct Hamburg pronunciation, although I have to admit that I frequently heard them being rude and curt to each other, and no wonder. Had I been as hungry and hopeless as they were, I should have been equally ill-mannered.

The Bünemann parents were prematurely aged, constantly depressed and undernourished. He was white-haired and stoop-shouldered, and had lost so much weight that his neck emerged from its loose collar like that of a tortoise. She was minute and fragile. Her skin looked like rumpled paper, and her eyes were perpetually full of tears. Both of them were obviously overjoyed that I had made the effort to come to see them, but I doubt whether they approved of me. I feel sure that they would have preferred a more serious-minded and studious daughter-in-law who shared their convictions and interests, to a frolicsome young extravert in makeup and high heels. They made a courageous attempt at trying to like me. After all, there was nothing much they could do. I was their son's wife and the mother of their only grandchildren. Their flat in the solid, middle-class district of Klosterstern was spacious, and could have been elegant but for their disregard for material comfort which, coupled with the difficulties of the times, gave it a dark, uncared-for appearance. They showed me what was left of their city, and as they described to me how everything looked in the good old days, I found it doubly distressing. There were quite a number of my own compatriots who would have said: "Serve the blighters right. That's what you get for starting a war". But I was now seeing Germany through the eyes of that sizeable, silent section of the population who had never supported Hitler, nor indeed any war-monger.

There was not only the destruction that is part and parcel of war, but also that which is necessitated by its aftermath. The mature chestnut trees that had once lined the streets had been chopped down to provide fuel, and there were no materials for any but the most essential repairs to the ancient buildings of which Hamburgers are so justly proud. But I was heartened, having seen so many pictures of it, to find that the sky-line round the river Alster, with its fine green steeples, had been but minimally damaged. The bombs dropped in that area had been mainly incendiary, not high explosive. Further away, however, the destruction had been horrific. The docks were no longer recognisable, and the residential areas surrounding them were reduced to the same giant, mounds of uninhabited ruins that had shocked me when I first arrived. One day, with the aid of an old map belonging

to the Bünemanns, I found what was left of the Ritterstrasse where my grandmother's cousins had lived. I had no need to enquire how they had fared under the bombardments, for they were deported in 1941 and had died in the gas chambers of the notorious concentration camp at Majdenek in Poland.

I visited many of the famous buildings that remained in the Hanseatic trading district, such as the Chile and Balenhaus, where forlorn office workers in worn-out clothes were trying to salvage what remained of their business transactions. I walked along the famous Jungfernstieg and saw the pathetic selection of goods on sale in the shops. I saw the University, and the Johanneum where Oscar had received his education, and was invited to the Helene Langeschule where my sister-in-law, Gertrud, was the music teacher. Although she had a class of half-starved and listless pupils, I was riveted by the enthusiasm she awakened in their pallid faces, and by the volume she extracted from the voices in her choir.

I was also taken to Bergedorf, a suburb where many of Oscar's relatives lived. A family gathering at the home of the oldest uncle had been arranged so that they could all meet me. They were welcoming and kindly, but struck me as old-fashioned in their bearing: more like my grandparents' generation than that of MY parents. Their clothes were sombre and their manners formal. The old uncle believed whole-heartedly in male supremacy. The fashion for feminism hadn't started, but I found myself becoming furious with him a few weeks later when he wrote to my father that he had found me congenial and pleasant, "but I do not know how she dares to offer painted lips to her husband's kiss".

They had saved much out of their meagre store of provisions to produce a festive meal. It was difficult to accept their food when I had access to so much, yet it was impossible to refuse their generosity. Afterwards, in the face of all the privation around me, I found it almost painful to eat the plentiful meals put before me in the Mess. I started applying Robin Hood's tactics. I scooped up everything I could lay my hands on, from mashed potatoes to toilet paper, and took it all round to the Bünemanns' flat concealed in my over-night bag. I borrowed a press car, which was meant to be used solely for conveying senior personnel about their business, and took my parents-in-law for their first drive into the country for a long, long time. All caution was thrown to the winds. It must have been the prevailing atmosphere. With the countless shortages of everyday essentials, stealing

was a commonplace, if not an accepted activity. When the electric-light bulb in the stair-well of the block of flats was removed – an almost weekly occurrence – I managed to find a replacement. I have often wondered who got the blame for the one that was missing on the landing outside my room in the Mess.

On subsequent visits to Hamburg I have been amazed at the speed and efficiency with which the population restored the appearance and dignity of their city, but it was a sobering and saddening experience to pay a visit there in 1947. I don't know whether my articles were of much use to the newspaper I represented, but I felt something had been achieved, if only by increasing my understanding of people and their reactions to cold houses and empty bellies. I learned, too, of the psychological differences between those who had won and those who had lost. Britain had entered the war with a sense of purpose. Apart from those who, like the Bünemanns, had never been misled by the boasts and promises of the Nazis, most of the Germans I met in the course of my fact-finding ventures seemed bewildered and cheated. Everyone I spoke to protested their innocence of membership of the party that had brought about the defeat of their country. Whether they were being truthful or not, they all felt demoralized and degraded.

I ran into more trouble when leaving from the airport. Oscar's mother had given me a small diamond ring and his father a sample of merchandise for a potential customer. I had also managed to retrieve some of a friend's family jewellery by making contact with her erstwhile maid, a wizened little creature wrapped in shawls, who told me how she had hidden them in the false bottom of an ash-bucket. All these little treasures, strictly speaking, were contraband. The rings were too large to stay on my fingers, and I should have been quite unable to convince anyone that they were my own property. I also had a bulky gold watch and chain entrusted to me. As I had never been blessed with an ample bosom I stuffed them into my bra, but when passing through immigration was startled to see a notice which read: "All passengers on this flight are liable to search". I held my breath. Happily I was not stripped, and my bra remained undisturbed until I reached home.

Back in the prefab I found everyone fascinated by my adventure. All my friends came to call. The weather was warm that Whitsun, and we sat in the garden while I recounted my experiences. So many of our friends had originated from, or had lived in, Germany, but Klaus was the only one who

had been back. A few weeks before my trip he had used his official position to obtain permission to make a journey, the real purpose of which was to visit his father. I also remember meeting Otto Robert Frisch when I was returning from the local shop. That day it happened to be pouring with rain, but nothing deterred him from peppering me with questions. After a bit, when I pointed out that we were both getting soaked to the skin, he said reluctantly: "OK, I'll have to squeeze you some other time".

During the summer we drove across France to Switzerland. The roads south of Boulogne were still full of pot-holes and lined with endless cases of ammunition – shells that no-one had found time to move. At the charming, if battered, Hôtel de France at Montreuil-sur-Mer, there were still German notices scribbled on the wall, evidence that it had been the local army headquarters. Life wasn't easy in post-war France either. Their rations were not enough to keep body and soul together, and the black market flourished. Nevertheless, such is the admirable sense of priority shown by the French that we had tasty meals contrived from whatever was available, be it a dish of lentils spiced with garlic or a creamy turnip soup. It taught me a lot about culinary improvisation. The opulence of Switzerland was almost an obscenity by comparison. In Zurich and Lucerne we were able to do a modest amount of shopping. It was the first time since leaving America that we were able to buy clothes without producing a ration book, and the children acquired delightful embroidered velvet trousers of the sort still sold in tourist shops to-day.

Early in 1948 our prefab received some German visitors. First, Klaus brought his father to see us. Emil Fuchs was small, rotund and bald. The white wisps of hair which fringed his shiny scalp matched his long white moustache perfectly. He not only seemed kind, but a saintly look shone from his tired old eyes. Nonetheless, anyone with an ounce of intuition could see that he had endured immense suffering. He had witnessed the suicide of one of his daughters when she leapt from his side during a train journey, just one of many who died indirectly as a result of Nazi brutality. All his other children had been forced to emigrate. One of his sons, Gerhard, who was in frail health, lived in Switzerland, his other daughter in the United States. His unquestionable Christian faith, although not shared by his son, had undoubtedly sustained him. Although he had started his theological career as a Lutheran pastor, in more recent years he had became a Quaker and had written many articles and professions of faith. He was as out-going and communicative as Klaus was reserved and withdrawn, an

example of courage and dedication.

In April 1948, after several postponements and disappointments, Oscar's parents finally got the necessary permission to come to visit us. We arranged and bought their tickets as they were unable to obtain foreign currency or to travel to Britain without our backing. They were obliged to be totally dependent on us. It was just before Peter's fifth birthday when they finally arrived at our prefab. A family of four, plus two elderly people in poor health and broken spirits, in so small a space more than taxed my capabilities. It was not made any easier by the fact that they still clung to their dietary scruples. Moreover, they didn't like to be in a room where meat or fish was being served. So much tolerance was required on both sides that I think we were all worn out with the effort. Our attitudes to life were drastically different, and I feel sure I could have been more tactful had I had some prior experience. They had little patience with my flippancy, my interest in pretty clothes and the latest fashions. I remember a beautiful French copy of *Vogue*, which my mother had sent me, nearly causing Oscar's father to have an apoplectic seizure. "This is not beauty," he snorted. "These are nothing but females." The only way I could soothe him was by pointing out that fashion was a valuable export upon which much depended. If I found the month-long situation difficult, they must have found me quite intolerably superficial.

Once again I was indebted to my friends. Erna had a friend who farmed, and she scrounged two dozen eggs to help me supplement the vegetarian meals I had to provide. Although the old Bünemanns spoke fluent English, they enjoyed meeting those of our neighbours with whom they could converse in their own language. We went up to visit my parents, and I think they enjoyed getting to know people who had also spent their lives involved with international trade. My father greeted them with the story of the old spinster who looked under her bed every night, to see whether or not there was a man hiding there. One day there was. "*Na ja*," she exclaimed, "*da sind Sie endlich*". (There you are at last.)

We toured the country as much as our petrol ration allowed, and they were pleased to renew friendships made in England long before the war. They were both taken ill during their visit, and I called our doctor. I remember him prescribing halibut-liver oil to provide the vitamins necessary for their recovery. These they refused to take. I nearly lost my patience. Were they determined to go on suffering from malnutrition through an obstinate refusal to bend their self-imposed rules to this small extent?

After their departure I collapsed with exhaustion. Depression engulfed me and I suffered severe loss of weight. At one point the doctor found it necessary to put me under sedation for forty- eight hours. The prefab was becoming more and more restrictive, particularly as I could see no way in which I could live somewhere with more space for the children. All our neighbours were gradually moving to Abingdon or buying houses in nearby villages. In spite of all I had to do, I became paralysed with dejection and frustration.

Finally, I took the children on a prolonged visit to my parents' home in Manchester. They were always delighted to see us all, and because they knew what a struggle the recent weeks had been, they didn't question me too closely about the possibility of emotional or marital difficulties. I had obviously been ill, and my mother was only too happy to help me regain my strength.

I joined Oscar in Birmingham for the first peacetime international conference on nuclear physics, but such was my turbulent state that I took in little of what was going on, except for the vitality and enthusiasm emanating from a group of young physicists who were obviously deriving great inspiration and motivation from Brian Flowers. He seemed to stand out among the younger delegates. Wherever he happened to be there was always a lively discussion and a lot of laughter. Before long I was to find his enthusiasm and sense of humour irresistible.

Oscar and the children and I were to have taken a holiday in Denmark that summer, but our funds were not sufficient. I dreaded returning to the prefab. Half my furniture was stored in an unheated garage behind the staff club, and I wondered how long it would be before I could use it again, and what state it would be in. The thought of another winter in the bleak wilderness appalled me, and I kept postponing my return from Manchester on the flimsiest of excuses. While in my parents' home, it was easier to escape from the real problem confronting me, of which all the other difficulties were symptomatic.

That autumn Oscar must have realized that my dislike of the prefab was no transitory mood, for he gave in and asked for a house on the new estate in Abingdon. Whatever else was going to happen I was thrilled at the thought of having a home at last.

Although it would not have the countrified charm of the cottage of my dreams, at least I could regard it as permanent; something that I could

equip, decorate and enjoy. The children could have a large room in which to play, and perhaps I could turn over a new leaf and settle down to the serious task of being a wife and mother.

Chapter 8

Domesticity, Doubts and Defectors

The joy of finding myself in a proper home at long last was such a relief that for a while I couldn't quite believe it. Although to many the house in Abingdon might have appeared to be a characterless suburban "semi", or just one small part of a stark, modern development, I could not have been more delighted had it been designed specially for me by Frank Lloyd Wright. To have a living-room AND a dining-room, four bedrooms, bathroom and kitchen, as well as comforts such as a downstairs cloakroom, a garden, garage and outbuildings, seemed to me the height of luxury. I had not had so much space since those first delirious days in Berkeley. Naturally one could not expect central heating in England at that time, but the house was solidly built, and suitably equipped.

I planned a green colour-scheme for the ground floor, and bought some upholstered furniture to match a carpet I had had since childhood. There were still a number of shortages of household commodities in Britain; there was quite a lot of rationing and we didn't have much money to spend. However, I managed to buy a washing-machine, a clumsy contraption that couldn't switch itself off. It was one of the first of its kind to come off the production-line after the war, and with various modifications it served me well for nearly twenty years. I also bought a minute refrigerator the size of a grocery box that stood on the wooden work-surface of my new kitchen. From the Army Surplus Stores I acquired several cotton blankets, which I

dyed the colour of jade and made into substantial, floor-length curtains. To match these, I contrived a long cushion for the low, wide front window-sill in the living-room to turn it into a seat from which I could watch the world go by. I loved looking at the row of magnificently tall conifers protecting the front road of the estate from the main thoroughfare. They swayed lyrically when the wind blew and made me feel that I was deep in the countryside. Egon Bretscher teased me, and called me an "exhibitionist" for doing my sewing exposed to public gaze, but I feel sure he didn't realize what a delight it was to have something pleasant to look at for a change.

The children, reunited with their friends from the prefabs, had what remained of the Fitzharries House garden to play in. There were a number of grassy open spaces, piles of stones to climb and a stream full of tadpoles. Friends came to visit us; I had a spare-room for overnight guests for which my mother supplied a few extra pieces of furniture. It was so satisfying to be able to take some sort of pride in my house, not to mention being able to move about without bumping into things and falling over the children. I suspect that I probably spent far too much time concentrating on my new surroundings and not enough on other, more fundamental considerations.

Unfortunately, the school situation wasn't so good. Michael resisted the local kindergarten with a ferocity that did credit to a three-year-old. I admit to having had a slight aversion to the horse-faced female who ran it, but her establishment had a good reputation for keeping the under-fives occupied, and there was no alternative other than letting my small son run wild at home, so kindergarten it was. Peter had to attend the Abingdon State Primary, which he found large and impersonal after the little private school in Harwell village. He tended to retire into a world of his own, and there were complaints that he didn't pay attention in class. I felt that these were temporary situations which would soon sort themselves out when the children became used to their new environment. It was wonderful to be near to the shops, a short bus ride from Oxford, and not to feel isolated and underprivileged any more. After a few months we even managed to have a telephone installed; and although we were obliged to share the line with a neighbour, and switch it from one subscriber to another by a knob on a cumbersome wooden box on the wall, it was comforting to know that we wouldn't have to turn out on a rainy night to use the call-box on the street corner, or the one in Icknield House, as we had been forced to do while living in the prefab.

Oscar soon received a promotion, which meant a little more money and sev-

eral privileges. The whole community still seemed unable to shake off the obsession with rank. Upward progression from "Scientific Officer" through "Senior Scientific Officer" to "Principal Scientific Officer", was almost guaranteed unless one was negligent or criminal. Above that, it was experience and merit that counted. Now that he was established as a SENIOR PRINCIPAL Scientific Officer, Oscar was proved to have been considered worthy of special consideration, and was in a position where advancement to one of the key jobs was not beyond the bounds of possibility. A lot of bitterness and hard feeling ensued from these promotions, which was not made easier by workmates being neighbours as well. People might just as well have had their grade posted on their front door along with the street number. It was impossible to keep one's place in the hierarchy secret. This was true not only among the academically qualified staff who were regarded as the elite; there were "Experimental Officers" and professional engineering categories as well, and even more hard-feeling was generated in those quarters than in ours. Academic achievement and class distinction were easily confused.

There hardly seemed to be a single family living on the Fitzharries Estate who could rise above this preoccupation, but one or two succeeded. For example, there were the prosperous, cosmopolitan Seligmans, who persuaded the authorities to allocate to them a house that was in by far the most pleasant position of all. It was at the very end of one of the shortest roads on the Fitzharries Estate, and it backed on to a meadow. They relieved the brickwork with carved window-boxes ordered from Switzerland, and created an atmosphere, not only of comfort and good-living, but of luxury too. We were, alas, too late to secure such a good position. Our house was right in the middle of the longest road, and our garden backed on to other houses. Still, it was a great improvement to our life-style.

There was another estate that had just been built. This one was just outside Wantage, west of Harwell. The houses there were primarily intended for the families of Ministry of Works staff, and although the site was in an attractive, wooded valley, some of them were of a rather inferior quality and did not have garages. This was strange, for many of their occupants were more affluent than their scientific counterparts. As with the Abingdon accommodation, houses were allocated on the basis of "x" for length of service, "y" for seniority, plus "z-squared" for the size of family. This democratic system of priority ensured that the lowly who were encumbered with large families got enough space. Later these rules went by the board, and even childless couples succeeding in laying claim to the larger houses.

The rents were nominal, subsidized and certainly nowhere near economic.

We had a number of amusing and friendly people living nearby. There was some lovely countryside, and the short distances from Harwell could be covered quickly by car or the frequent bus service. Life could have been one long contentment but for a growing awareness that I was not making a success of certain areas of my personal life. I feel sure that this was the reason for becoming increasingly involved in the relationships I formed with my neighbours. I have often reflected since on the immense value of a wide circle of sympathetic friends, but at that time I was very largely dependent on them.

A remarkable family came from Canada and were allotted a house not far from ours. They were Bruno and Marianne Pontecorvo, who had but recently left Chalk River. Bruno had already achieved something of a reputation, having been a pupil of the Italian Nobel Laureate, Enrico Fermi, studying the products of neutron-induced fission – work which later proved to have a direct bearing on the production of plutonium. He was lively, sociable and devastatingly handsome. Like so many of his colleagues, he too was of Jewish origin, yet so typically Italian in appearance and gesture that I would not have been surprised to learn that he had come straight from Hollywood. He was also blessed with an absurd sense of humour. After Mussolini came to power in his native country, Pontecorvo worked in Paris for a while with the French physicist Joliot-Curie, son-in-law of the discoverer of radium, Marie Curie. It was there that he met his Swedish wife. Marianne seemed to have been designed to afford a complete contrast to her husband. She was small and looked frail, with translucent skin and hair the colour of a day-old chicken's feathers. She was as hesitant and shy as Bruno was assertive in word and gesture.

There were three Pontecorvo children. Gil, a fast-growing ten-year-old who had adopted the speech and appearance of a typical Canadian school-boy, and two much younger sons of four and three called Tito and Antonio. As they were spoken to, sometimes yelled at, in Italian by their father, remonstrated and soothed in Swedish by their mother, and taught in English at school, it was not surprising that the two little ones kept their own counsel. They were typical examples of the old Yorkshire motto: "Hear all, say nowt". Marianne was an unusual person. She complained about their house in a voice that was barely audible. Apart from one or two pleasant pieces of modern furniture, and a collection of interesting books, their

home always put me in mind of a luxury camp-site. There was something "temporary" about it. Bruno habitually worked in the kitchen as it was one of the warmer rooms, and the refrigerator was kept in the hall. Little attention seemed to have been given to arrangements or decor. It was inhabited rather than lived-in.

I frequently found Marianne on my doorstep. She was always making vague enquiries as to whether she could get this or that commodity. Never having lived in England before, she found it very different from Canada, and even stranger than France or Sweden. She was constantly sighing, and wondering if there were not a smaller house for them. She was one of the few who didn't seem to care about her husband's seniority. It would never have occurred to her that, as her husband was appointed at Senior Principal level, plus the fact that they had three children, it would be considered unthinkable that the Housing Officer would offer them anything but the best available. Although she called on me so often, I found it difficult to persuade her to come in. Even on the coldest days she would stand just outside, and I had almost to drag her over the threshold before she would join me for a cup of coffee and ask me her questions in comfort.

My spare-time activity continued much as before, except that I now had a long bus journey or a drive to get to rehearsals for plays and concerts at Harwell. I kept open house for all my friends from Ridgeway House, and frequently we would practise some of our music in my living-room. I had adequate space for my piano and a string ensemble if necessary. A number of concerts and plays were put on up at AERE. Two or three performances of Shaw's "Misalliance" were staged in the tin gymnasium; we sang Dvorak's D-Minor Mass in Harwell Parish Church, and at Christmas entertained the staff with a selection of unusual carols. But by far the biggest tour-de-force was "Toad of Toad Hall", which was produced by the wife of a staff member who had previously worked professionally in the theatre, while the scenery was beautifully designed by another wife, a girl who had trained in stage design at an art school before her marriage. There was always a round of applause when the curtain rose on her trees and river banks. The actors and orchestra were made up of an all-star cast of scientists and their families. I sang a solo, and even Peter at the age of five had a speaking role as the baby rabbit. The piano part was exuberantly executed by Hans Kronberger, while Henry Arnold, willing and co-operative as ever, distinguished himself as the back of the horse. The gymnasium was sold out each night of the performance and we were

all left with an enormous sense of achievement and warmth when it was over. It was even reported in an Oxford newspaper, but not surprisingly it omitted to mention those responsible for the music.

The conductor at all these events was, of course, Brian Flowers. He continued to provide the main inspiration in the musical life of the establishment. A frequent caller at my house, he introduced me to the works of English composers such as Benjamin Britten, Moeran and Michael Tippet. He wrote songs himself in the English style, settings of poems by John Donne, James Joyce and Robert Herrick, that I tried to sing. Although taking some time to recover from the broken engagement, he seemed to find consolation in music just as I did, trying as I was to escape from the sense of failure and frustration.

That we became friends was inevitable; that the friendship was to ripen into love we couldn't foresee. We had a complementary effect on each other. This first manifested itself in music too. Brian could read anything at sight; even a full orchestral score on the piano desk seemed to make sense. I am, on the other hand, being what is now known as slightly dyslexic, could play only by ear or from memory. Then, as in the future, we managed to make a lot of weird and wonderful noises together. He had a very calming effect on me, helped me to concentrate upon the matter in hand, and put the brakes on the frenetic way in which I lived my life. I realized bit by bit that this was no ordinary affair, no ship that would pass in the night, no temporary folly; but I persisted in my self-imposed blindness to these problems. To-morrow would take care of itself, and for the moment there was a happiness and contentment that I hadn't experienced in years. For his part, Oscar tried to accept the situation as insignificant, in the way that so many husbands have done since time immemorial, and will continue to do as long as the system of monogamy prevails in our society and there are partners who are prepared to forgive lapses in fidelity.

Obviously I would have to come down to earth with a thud before long. By the following summer the depression that I hoped I had left behind in the prefab returned to plague me. Only when I was with Brian did the dark cloud lift.

In the autumn of 1949, conferences were planned in Basle and Como. The second of these major international meetings of nuclear scientists was to coincide with the centenary of Volta's discovery of the battery. The Italians call it "pila", which caused some considerable confusion among the

interpreters when delegates were discussing the atomic "pile", as a nuclear reactor was called in those days. Both Oscar and Brian were to participate, the latter in a rather junior capacity, but the prospect pleased him immensely.

I had not intended to attend these great gatherings. The school term had started in earnest for Peter, who was by this time six years old and should have been taking his lessons seriously. Regretfully, I stayed behind when both men set off with Bruno in his car. However, once left alone, I grew restless, and the conflict within me was causing an unbearable turbulence of spirit. Such was my state of mind that I acted on impulse and asked a cooperative neighbour whether she would be good enough to take Peter into her home *en pension* were I to go away for two to three weeks. I promised to pay her well and send in my charlady to clean her house instead of mine. She agreed with alacrity, particularly as her son was destined to remain an only child and needed company. Michael, I took to my aunt in Dorset, who, having no grandchildren of her own, was always delighted to care for him. Having made these arrangements, I hurried up to London and bought myself a single, cross-channel passage via Newhaven and Dieppe, which was the cheapest available, and a third-class train fare to Como.

Oscar met the train in Bruno's car, which he had borrowed for an hour, and drove me up the steep, hair-pin bends that led to the small village of San Maurizio high above the Lake, where we had rooms in a simple pension. It offered a superb view of the shining water far below us, the islands and surrounding hills. There was a small garden in front of the modest hostelry where the grass and flowers were shaded from the brilliant sun by tall pine trees. Judged by any standards it was a romantic spot. For me at that moment, it was unbearable. Brian was waiting in the garden. I realized that I was being silly, but I didn't care.

This was a time of great progress in the world of nuclear physics, and most of the leading scholars were gathered in hotels around the picturesque town and lake. Professors Fermi, Siegbahn, Alfven, Powell and Pauli were just among the many who had restarted their normal academic activities when the war finished, and were now leading research teams in what it was hoped would lead to the peaceful uses of the great new discoveries. It was a very special occasion, and one at which there was an air of celebration and of hope. I remember one grand ceremony in the town-hall of the historic town of Pavia, situated nearby. There, elaborately uniformed officials of the town

made a formal procession before embarking on a series of theatrical orations such as the Italians love to deliver. In the middle of the proceedings the great Fermi was spotted, sitting in a modest seat, dressed overall in nothing more spectacular than his raincoat. With the sort of flourish usually seen only in a Verdi opera, the worthy burghers doffed their richly embroidered vestments. Almost on the verge of tears they welcomed their famous, if inconspicuous former fellow-countryman, and escorted him with embarrassing reverence to a seat of honour.

Apart from Fermi, who had been living in the United States ever since Fascism had made life difficult for him, and had there led the construction of the first ever atomic pile, under the football stadium in Chicago, there were a number of other Italians of repute among the delegates: Bernadini, Occhialini and one who was returning to his native country after a long absence, Giulio Racah. Giulio had been passed over for a Chair at the University of Florence when Mussolini, in compliance with Hitler's anti-Semitic policies, had prevented the appointment of Jews to university posts. Instead, he had accepted a professorship at the Hebrew University in Palestine. After taking part in its fight for independence, he was now playing a leading role in the academic life of a country that was by this time one year old – Israel. Later, he and his family were to become my great friends, and from them I learned much about their country, the formation of which had been near to my heart since I was a teenager. There were banquets, boat trips on the Lake and excursions up the mountains, with no expense spared to commemorate and rejoice in the coming together of all these great figures. Everyone with something to contribute was roped in. The directors of the Olivetti typewriter company received us at their impressive factory at Ivrea, winding up the tour of their assembly lines by giving us a gastronomic lunch in a gargantuan assembly hall. In order to emphasize the European atmosphere of the occasion, the menu was written entirely in Latin. A smart and elegant Italian noblewoman who owned a superb villa high up on Monte Rosa gave a lavish cocktail party, causing those of us unused to drinking at an altitude of 12,000 feet to fall about in the snow while trying to walk back to the cable-cars. The Casino at St Vincente offered a splendid dinner. Waiters processed with elaborately garnished silver dishes of lobsters and tournedos held high on their shoulders. After this epicurean orgy it was hard to stay awake during the flowery, theatrical speeches which seemed as if they would continue all night.

There were informal gatherings in hotels, restaurants and little street cafés

as well. At one of these I nearly made a severe *faux pas*. A solitary gentleman sitting at a nearby table looked suspiciously as if he were either going insane or about to have a seizure. He was shaking his round head, and the protruding eyes in his flushed face opened and closed rapidly as he swayed backwards and forwards muttering to himself incomprehensibly. Not wanting to become involved in an incident, I asked my companions whether we could move to another table. I was speedily taken outside where Brian informed me that our "disturbed" neighbour was none other than the greatly respected and renowned Professor Pauli behaving in the way he usually did when working out problems in his head.

After this momentous conference was over, Bruno Pontecorvo, who had been an active participant, suggested a trip to Rome. It had been talked about before, but plans were vague. By now he had received a message from Marianne saying that she would join him as soon as her sister arrived in Abingdon from Stockholm to care for their children. This was an opportunity too good to miss. I realized full well what a foolish venture it was since the "eternal triangle" was becoming entrenched. Foolish or not, I still was in no mood for caution, and we gladly accepted the offer. By so doing we were to experience a unique piece of history observed by none but ourselves.

We drove down the Mediterranean coast via Pisa, Bruno's birthplace, the Bay of La Spezia, Viareggio, Livorno and Civitavecchia. It was a typical warm, balmy Italian autumn, and the grapes were ripening in profusion in the vineyards, and over our heads from pergolas, as we sat having a meal or drinking a glass of wine. The golden scenery was at its most radiant, and all the wonderful churches and basilicas were not as yet infested with hoards of tourists from all over the globe. We were able to admire so many of these fine buildings in cool privacy and silence, an experience it was to prove difficult to repeat in future years.

While we were passing through Livorno, the pound sterling was devalued for the first time and no bank would cash our traveller's cheques. Bruno had a few dollars, but these didn't last long, and anyway he seemed loath to part with them, even temporarily. Soon we were beginning to worry about how we were going to pay for our food and shelter. We were all getting tired, hungry and short-tempered. Eventually I saw an elderly and important-looking gentleman emerging from one of the banks that had just closed its doors to us. His minions ushered him out, making obeisance and addressing

him as "Signore Direttore". This was all I needed. In spite of protests from the others I waved my cheque book in supplication and whined: "No é possibile mangiare" (it is not possible to eat), like some indigenous beggar woman. It produced the desired effect, and he got the message instantly. We were promptly escorted to a "cambio" at the waterfront where, as if obeying a command from on high, the cashier sprang to attention and gave us a surprisingly good rate. I don't to this day know who the venerable personage was – he could have been a cabinet minister for all I knew – but thanks to his intervention we were at least able to afford a plate of pasta and modest overnight accommodation.

In Rome we parted from the Pontecorvos who had relations to see and old contacts to re-establish, and the three of us explored the Eternal City with energy and enthusiasm. None of us had been there before, and we were so absorbed by all its architectural splendour and treasures that our minds were temporarily released from the emotional situation that we were trying to avoid sorting out. We took in as many of the sights and sounds as possible. At night we were too exhausted to do anything but take the weight off our aching feet, and sleep.

When we met Bruno at the appointed time he seemed astonishingly reluctant to return home as agreed. Oscar, Brian and I hardly had the money for train tickets as this was the time of tight restrictions on the purchase of foreign currency. We were at his mercy, and if he didn't drive us back we should have had to throw ourselves on the mercy of the British Consul. He talked endlessly about the stupidity of going back to England when we could be heading south to some pleasant spot on the coast. We argued noisily and at length. Each time we made our protests he would simply ignore them and say: "Listen, I have a better plan. We go to Positano." It made us feel anxious, as if we were being detained against our will, or were about to be abducted. We knew he was the sort of person who always liked to do things on the spur of the moment, but this sort of spontaneity was getting beyond even one of Bruno's jokes.

After the Pontecorvos had shocked the whole of the western world by defecting to the USSR the following year, a journalist called Alan Moorhead wrote in his book "The Traitors" that we had overstayed our leave. I don't know what Bruno's situation was in this respect, but I am fairly certain that even if we had arrived back in Abingdon a few days later than planned, neither Oscar nor Brian took any more time off than that allowed them, and

resented the allegation that they had behaved irresponsibly. Apart from the question of money, getting back to work had been one of the reasons for exerting such pressure to be allowed to set off for home.

Once Bruno had grudgingly given in and turned his car in a northerly direction, his mood changed dramatically. I think it would be fair to say that the couple who had taken us to Rome were quite different characters from those with whom we were making the return journey. The atmosphere in the car was now thick with tension. Bruno, who had been his usual carefree and hilarious self on the journey out, was cross, nervous and irritable. Marianne seemed to be near to breaking point. She frequently wandered off, or shut herself in the car and burst into tears. Her small face looked pinched, and her eyes were nearly always red and swollen. It was obvious that something had affected them both profoundly. Excuses such as, "Marianne doesn't feel good", were unconvincing. Only once did she brighten up, and that was in Genoa where we happened to meet some Swedish sailors in a trattoria and she could speak her native language. Otherwise, they were an unhappy and pre-occupied couple.

It is my own guess that during their stay in Rome they were heavily pressurized, if not actually blackmailed, into transferring their loyalties to the Soviet Union. Bruno's sister, Giulia, was married to an associate of the Italian Communist leader, Togliatti, and he may well have turned the thumbscrews. As far as was known, Bruno had had no recent access to information that might have been of value to a "potential enemy". His own work at Harwell was related more to basic physics and to cosmic rays than to the development of atomic energy. But there was no doubt that he had once been a Communist; and it is possible that during his time in Canada, or earlier in France, he had jeopardized a secure future in Britain, particularly if Soviet agents had later decided to "shop" him. The fate of Alan Nunn May was only too fresh in our memories. But even if Soviet atomic scientists were going to gain no military advantage by recruiting his services, he certainly had experience and expertise that would be of value to them. Besides, getting hold of one of the more distinguished members of Harwell's staff could cause considerable worry, if not panic, among British security officials and scientists, and great embarrassment to the Government, not least in its relations with the United States.

That, of course, is with the benefit of hindsight. The following year, Bruno once again drove to Italy, this time accompanied not only by Marianne, but

also by the children. It was months before we were to know that he had actually crossed the Iron Curtain, and there were many who worried about what had happened to the family. I still have a copy of a letter from Bruno's old father, written to Terry Price. They had met in Chamonix when both Terry and Bruno were working at the cosmic ray research centre there. Written in French, it expresses his sorrow and anxiety about his son. It is obvious that his parents in Italy were as ignorant as anyone else of the plans to defect, even if, as I suspect, another member of the Pontecorvo family had helped to engineer it.

It now seems likely that all the delaying tactics, when we were with them in Rome, could well have been a bid for time in which to get the children brought over from England; for Bruno and Marianne loved them dearly, and would never have left them behind had they decided to make their escape then and there.

When we successfully reached home in complete ignorance of what was going to happen, Brian showed me a piece of music he had composed and jotted down during the trip. It had more than a hint of the sort of melodic phrase frequently favoured by Sibelius. Was this prophetic? It was from Finland that the Pontecorvo family had vanished, flying via Stockholm where they made no contact with Marianne's family, *en route* for their new life in Soviet Russia which began in the autumn of 1950.

Eventually, Bruno became a high-ranking Soviet scientist – an Academician – and so greatly trusted by the Russian government that he was even allowed to visit his native Italy. On two occasions since the defection, Brian met him at conferences in Moscow. He seemed embarrassed, but glad to renew an old friendship. As is usual on these occasions, he was never far from a Russian "colleague". Late in 1969 Brian showed him his recently altered passport. Bruno seemed quite overcome and kept repeating "SIR Brian, SIR Brian", and went on to remind him how he had once been his pupil. He seemed hardly to know whether to laugh or cry. In the course of conversation he asked, "Are you married?" "I married Mary," Brian told him. This piece of news was greeted with even more pleasure. In a moment when they seemed to be unobserved, Brian asked him if he was really happy. Bruno said that he was, except for the burden of Marianne's illness. She had been diagnosed as severely schizophrenic and was committed to an institution.

But turning back to that fateful autumn, it no longer surprises me that

Marianne was not just the victim of circumstances. She had always been abnormally moody, and now there was something desperate about her state of mind. Bruno made frequent and brave attempts at behaving as if nothing had happened. He would force himself to make jokes, and was constantly trying to find something to cheer his wife. It was a sunny, clear day when we put the car on the ferry at Dieppe, and the crossing was calm. But Marianne remained immersed in black depression and would neither smile nor speak. When we disembarked at Newhaven and drove along the coast road, Bruno nudged her kindly to draw her attention to the beauty of the white cliffs and the channel. "*Guarde il mare*" (look at the sea), he said to her, as if pleading for some sort of response. In answer she merely tilted her head back on the seat and put her silk scarf over her face, as if to cut herself off from the world completely.

All five of us were returning home with problems to face. But those affecting Oscar, Brian and me turned out to be rather insignificant when compared with the onerous decisions the Pontecorvos were going to have to make.

I was glad to be with the children again. It was reported to me that Peter had missed me greatly. "That child pined for you," said the charlady. Was I transmitting some of my own emotional unrest to this sensitive little boy?

Returning to a proper house instead of a makeshift was a pleasure I had never known before, but something inside me started to spell out an uneasy sense of impending trouble. It was Oscar's employment and position that had been responsible for my pleasant home, and I should have been indebted to him for providing it instead of letting my emotions lead my affection elsewhere.

Chapter 9

Introspection and Apprehension

I don't think I have ever had such a tussle with myself as the one I had to face the following autumn. Brian had become interested in the theoretical aspects of atomic research, and he embarked upon what was eventually to be a significant and comprehensive contribution to the study of nuclear structure. He discussed this at length with Oscar, and arrangements were made for him to join the Theoretical Physics Division. This brought us into closer contact than ever. Another concert was planned.

It was to consist of madrigals, starting with Monteverdi and other early Italian works, continuing with those of the well-loved Elizabethan period and finishing up with one or two contemporary part-songs. My common sense told me to stay away from Harwell as much as possible, and more particularly from the choir, but with a lack of self-control that seemed to grow worse day by day, I took part in rehearsals.

The weather was wonderful that October. The colour of the falling leaves and the russet glow of the sun hanging low and large over the downs, were beautiful beyond belief. I can never see autumn shades and hear those madrigals without thinking of that bitter-sweet period. They will always remind me of the joy, and also the desperation, I felt about the decision looming in front of me. It had to be made, and although it involved others I knew no-one was going to make it for me.

Oscar was not going to kick me out of the matrimonial home, nor was Brian's conscience going to allow him to persuade me to leave my husband. I felt I couldn't go on drifting in this sea of uncertainty. Vainly I hoped for some event, some change in my fortunes, a bolt from the blue perhaps, which could help resolve the problem of what I dearly wanted to do, and what my conscience told me I ought to do; but nothing transpired to alter the immediate circumstances. The children were picking up a lot of my nervous tension, and this only served to intensify my feeling of guilt.

I am frequently amused by how insignificant the relationship between Brian and me would seem in to-day's society. It was beyond doubt that we wanted to spend the rest of our lives together; but in those far-off days there were legal and social problems in Britain which, for people such as myself, could appear insuperable. If a divorce were applied for, one partner had to sue the other for adultery, cruelty or desertion. There had to be an "innocent" and a "guilty" party, and the latter had at least to APPEAR to resist. Collusion, or agreement between the parties that the marriage had broken down, was a bar to obtaining a decree. I was perfectly prepared for Oscar to divorce me, and Brian was not averse to playing the role of that character so popular with writers of farce, "the co-respondent". None of this presented too much of a problem except for the question of Peter and Michael. It frequently happened that a woman who was the "guilty" party in such proceedings was deemed to be unfit to care for her children. Mine were, and remained until they reached maturity, my first priority. Surely, a silly and feckless mother is better than no mother at all? I could have gone away, taking them with me and disturbing their schooling again, or I could have tried to buy a cottage. Such was the prevailing climate of opinion that I stood small chance of getting a mortgage on my own, and certainly the Harwell authorities would not consider allocating me another house in which to "live in sin". Few people under the age of forty today can understand just how heavy was the pressure both from society and the law. Promising careers had been ruined by divorces, and well-deserved honours withheld. History of the time has illustrated this in the sad story of Princess Margaret's life, when she was discouraged, almost to the point of being forbidden, to marry the man of her choice, even though he was the "innocent" party in a divorce.

I could have taken refuge in my parents' home, where I knew we were always welcome, but they would have demanded a reason for an indefinite stay. Their unrelenting, puritanical attitude would have made living with them

quite impossible had I told them the truth. The way in which they reacted to matrimonial irregularities had been illustrated with clarity during the abdication of King Edward VIII thirteen years previously. As my father later remarked: "A king is never FORCED to see anyone." If he felt he were falling in love with Mrs Simpson he should have arranged not to receive her". During the famous abdication speech via the BBC in November 1936, when "His Royal Highness, Prince Edward" (not yet created Duke of Windsor), who had relinquished the throne a couple of hours earlier, referred to "the woman I love", my grandmother rose from her chair and switched off the radio. For anyone of breeding, particularly royalty, to refer to their feelings in such a public manner, was considered undignified. According to their code, a marriage was a commitment for life, adultery was breaking the seventh commandment, and if it could not actually be avoided, was something to be swept hastily under the nearest carpet. In those days her family never received separated couples in their home, nor any whose reputation had been tarnished with sexual scandal.

How much easier it was for the very rich. They had houses where there were all sorts of excuses for couples to live separately. There were nannies and boarding schools to preserve continuity in the lives of children. It was in the middle and lower middle classes that a tidy, well regulated life was all important. Brian and I parted frequently, vowing to be strong-minded. I would return to my house and my children, he to his work. After the madrigal concert I resigned from the choir, and kept away from Harwell as much as I could. It was all rather pointless when the chances of running into each other on buses, in shops, or even when walking on the Downs, was extremely high.

Hans Kronberger was the greatest comfort during these periods of virtuous behaviour. I had to console him too, as he had just finished a short and unsatisfactory affair with a much older woman, which had left him depressed. I remember him saying, "At least you and Brian can look back on something satisfactory with contentment. All I have is disappointment and a feeling of failure". This was the first time he showed how intensely he resented failure in any undertaking, be it in his work or his private life. He made it clear that he was devoted to me, and rather sorry that I had not been the one with whom he could share a future. He always said, "If you weren't married I would marry you". To this I joked, "Aren't you taking rather a lot for granted?" But we both knew that caution had to be our watchword. There was enough emotional turbulence in the atmosphere as

it was without indulging in a relationship on the rebound. We remained the closest of friends for the remainder of his life. He needed all the support I could give him during the next two decades, but it was not to be enough. Tragically, at the age of fifty, he killed himself. He had already had much tragedy in his life, escaping from the Nazis who had killed his mother and sister in Austria, and it was to continue. His wife died of brain cancer after a period of unbearable strain on them both, and yet we must be thankful they neither of them knew of the death of their younger daughter in a 'plane crash in India. We helped care for the older girl, who is now a grandmother. I often wish he could have lived to see his great-grandson.

It was mostly to the avuncular Henry Arnold that I turned for solace. He pointed out with characteristic common sense that my situation was certainly not unique, and he never tried to give me any advice. He would treat me to excellent lunches, listening attentively to my recital of woes and fears. Instead of showing impatience with my inability to resolve the dilemma, he would encourage me to talk it out, exhorting me, as he put it, to "spit it all out in Uncle's hand". He also remarked that I had lost weight and didn't look well, which was obviously true. Occasionally he would mention the pressure of work, and hint that he was involved in a "rather big job". I knew better than to ask any questions of the Security Officer, but it was clear that some sort of a crisis was imminent.

Everyone at AERE was aware that there had recently been a leak of secret information from Harwell to the USSR. It was widely mentioned in the press, and the journalist Chapman Pincher was speculating about it freely in his articles about Harwell, which he had made his particular speciality. Although engrossed in my own problems, I was fairly certain that my telephone was being tapped. We had a manual exchange, and there was from time to time an "open", or echoic sound, followed by a soft, click, temporarily interrupting conversations.

Christmas was approaching, and we were all giving the parties that were expected of us. It was at one of these revelries in the Skinner's house that I inadvertently asked a direct, indiscreet and alarmingly pertinent question.

Klaus Fuchs had by this time formed a close relationship with Erna Skinner. He had become what the Berliners used to call a "Hausfreund", a man who would wait upon the lady of the house, be accepted in the family circle and act as an auxiliary to the husband. Just as the old-fashioned "nanny"

would offer care for the children in a manner that the mother could not fulfil, so the house-friend would make up for any short-fall on the part of the master of the domain. Some would simply call such a person a lover, but that is an over-simplification. One man had never been enough for Erna, and she was frequently involved with a supplementary companion. Obviously, she had no intention of leaving Herbert, and he for his part was philosophical about it. His devotion to her was such that if a situation kept her happy he accepted it, and their marriage had already survived a few such adventures.

At the party I have just mentioned, Klaus was, as usual, among the assembled company, playing the part of deputy host, pouring drinks, yet keeping himself in the background where he was obviously most comfortable. I was on this occasion a little the worse for alcohol, but not so far gone that I cannot remember exactly what I said or did.

I thought it might be rather fun to tease Klaus, so I sidled up to him and asked in a voice which I did nothing to subdue: "Why do you give all those secrets to the Russians?" He never as much as batted an eyelid. "Why should I?" was his reply; but what a cacophonous chord I must have struck. Already up to his neck in espionage, he might well have supposed that I was planted there purposely by the Security Services, but that the drink had loosened my tongue and impaired my caution. The fact that Henry Arnold was so often present when he visited my prefab during the year could only have served to make this idea all the more plausible.

If this seems an improbable story, I can only swear to its veracity and point out that there are those who witnessed the incident. Not many years ago, Terry Price and I were reminiscing about the old days in Harwell. He reminded me, "I was there when you told Klaus Fuchs he was a spy".

It is not the only time that without intending to I have jumped to a conclusion that has turned out to be an accurate one. I claim neither credit nor any special gift. My Irish mother liked to boast that she had "the sight", and could foretell the future because she was the "seventh child of a seventh child". She had the sort of intuition that often replaces reasoning in someone intelligent but ill-informed. She was frequently accurate in her predictions, and they once led her to win a considerable sum on the football pools. Maybe I have inherited some of this inexplicable facility, although gambling has never brought me much success. For those who are interested

in the occult, my birth date, 21-7-21, might make an interesting mathematical formula upon which to base numerical superstitions; but this is not the place to start dabbling in theories concerning extra-sensory perception. I accept as a fact that I too am a fairly intuitive person, and frequently deduce things I would far rather remain unaware of.

During the few days before we departed for Manchester to spend Christmas with my parents, I noticed that Klaus showed a certain coolness in my presence that I had never sensed before. I was not sufficiently astute to link it to my gaffe at the Skinners' party, and assumed that Erna had called him to heel. Naively, I supposed that because of my uninhibited behaviour she wanted to make sure that there was no poaching on what was now her own preserve, from me or any other flirtatious younger woman to whom she extended her abundant hospitality.

During the holiday I did my utmost to hide my state of unrest from my mother. She was convinced that I was ill, and knew that I was keeping a secret. Just how much more her sixth sense revealed I never discovered. It had occurred to me to stay a little longer in Manchester to give myself one last chance to keep my distance from Brian, but instead I banked upon determination to do this for me, and returned to Abingdon with Oscar and the children. I told Henry Arnold of my decision to keep to my resolution. He kissed me sympathetically, and wondered whether I could do it. As fate would have it, 1950 was barely a few days old when Brian and I ran headlong into each other in Oxford.

We had lunch together. This time I fell apart. The situation was becoming unendurable, and the agony had gone on too long. Brian looked pallid and tired. Oscar, not surprisingly, was fed up with the whole business. That evening I got a meal for the children, put them to bed, and read them a story. Then I downed several stiff whiskies and fell into a stupor. This pattern continued for a few days, until one morning I arrived on the Skinners' doorstep. I can't remember how I got there, but I was shaking from head to foot and for the last forty-eight hours hadn't been able to keep any food down. Erna sized up the situation in a second. "Triangular relations never work, my dear," she sighed sympathetically. I asked her how, in that case, did she succeed in sustaining one? "That, is very different", she replied distantly, "and we are older". I have often wondered what she was trying to say. After about an hour, Herbert came over from his office, and talked soothingly to me before going off to call their doctor. He arrived

very quickly, and gave me a massive dose of phenobarbitone. I fell on to Erna's bed and reality did not seem to exist any mare.

They decided that I had to be admitted to some sort of hospital for a few days. I could hear the doctor's voice, penetrating the mists of oblivion from outside the room, saying that he wouldn't like to be responsible for letting me go home, even to collect a toothbrush, and some mumbled words such as "collapse" and "exhaustion". Some time afterwards he and Herbert came back to where I was lying, roused me and said that they had telephoned several nursing homes, but that they were all full. Finally the doctor asked gently: "Would you mind going into the Warnford, voluntarily, just for a few days?" I hadn't the slightest idea what he meant and was too dopey to ask for an explanation.

Henry Arnold drove me to the Warnford Mental Hospital just outside Oxford that very afternoon. He seemed reluctant to leave me. Even in my drugged stupor I was aware that he was distressingly pre-occupied. The room in which we were received was comfortable enough, with a log fire and chintz-covered chairs, but surely the Skinners' well-meaning doctor can't have had any idea of the conditions that existed behind the welcoming facade of that otherwise wretched place. I am told that, nowadays it is reorganized, pleasantly refurbished, and specialises in the treatment of university students suffering from stress.

So often, since that time, I have had occasion to visit friends in psychiatric hospitals, and have found them to be friendly and calming places. Colourful curtains border the windows, and sympathetic staff wearing their own attractive clothes and abundant expressions of kindness fill the wards. Inevitably, there is an atmosphere overflowing with warmth, light and encouragement. This is a far cry from what I experienced within the grim, grey walls of the Warnford. Although surrounded by the camouflage of a large garden and park, it was overcrowded and understaffed. The nurses, dressed in long, starched clothes, which fitted their stiff demeanour, had bunches of keys hanging from the armour-plating of their belts. Doors were perpetually being unlocked and locked again, and there was no privacy. Even the doors of the toilets had large spy-holes rudely cut into them. All taps and metal fittings were boxed in as if to remind you that you might possibly become violent at a moment's notice. It was more like a high security prison than a hospital.

The ten beds in my ward were hard and high, their covers drab, while

underfoot cold, cracked linoleum chilled the feet of anyone who didn't have their slippers within reach. The only heat came from an open fireplace with a portcullis bolted to it. The chimney smoked all the time, as if to accentuate the indignity of our plight. Those of us suffering from anxiety, exhaustion and depression were freely mixed up with the chronically insane. The sight of those unfortunate and bedraggled creatures was appalling. They sat in their chairs like lifeless beings, some in tortured positions, others staring out with unseeing eyes. Those who could move without help scratched their faces and hands or fidgeted compulsively. If anyone caused trouble with the nurses they were threatened with being sent to "F 5". This, so I was informed, was the ward where patients were put under "restraint", a polite word for the straight-jacket or the padded cell.

If I hadn't felt suicidal before, I certainly did now. Everything with which I could conceivably do myself a mischief was taken away: the belt from my dressing-gown, my lipstick and my nail-file. For some extraordinary reason, even my packet of Tampax was confiscated, and cruelly withheld when I needed it. It is hard to hold one's head up with dignity in such circumstances. I made no attempt to conceal my distaste and contempt. It is not to be wondered at that I earned for myself the label "uncooperative". We were kept only just warm enough, and fed soggy, unappetising food, but then so are the prisoners in Holloway. Could it be worse?

For the first few days I was kept under heavy sedation. Massive doses of paraldehyde were administered every night, and the smell of it remained in my nostrils at daybreak; but sleep was difficult because of the noisome fireplace and the chattering nurses. The doctors obviously regarded me as a foolish girl who had kicked over the traces, but maybe they should be excused for that. None of them was particularly sympathetic or sensitive. After a cursory and somewhat rough physical examination, and an interview, obviously contrived to reveal whether I was in touch with reality or not, one of them actually laughed at me derisively.

Although the care of mentally disturbed patients, of all categories, has seen many changes for the better since those bad old days, this gruesome experience has left me with a deep concern for those who suffer psychiatric ailments. I have frequently helped with the various mental health movements that exist in this country, not only to raise much-needed money, but to explain to those who have never suffered it just what such an illness means.

Brian came frequently. He persuaded me to rest if possible, to regain my strength; and then, if I wished to, we could go away and make a new life together. Then my father turned up. I had begged Henry to speak to him first, and prepare him for what he would find a most unpalatable situation; but as events turned out the endless details of the job he was immersed in prevented Henry from making the much-needed intervention in time. My poor parent was speechless with shock that his daughter could be involved in anything so devoid of respectability and moral rectitude. Adultery! He just could not take it in for several minutes; and when he did, he left speedily without even enquiring about my health, denouncing Brian as a "cad" and Harwell as a breeding-ground for immorality. He afterwards described it as the greatest shock of his life.

After that visit Brian came again, bringing with him an unexpected visitor, Klaus Fuchs. This time Klaus was kind, and even tender. He advised me to make up my mind and stand by my convictions. He told me that he had been brought up to believe that if one was sure beyond any doubt that a certain course of action was right, it should be followed, and the opinion of those opposed to it disregarded. He stressed that everyone has their own conscience to live with and must obey its commands. Later, the pathos of his words affected me greatly. Here was this man, born in Eisenach, as were J.S. Bach and Martin Luther, and like them raised to respect the highest Christian ideals, giving me kindly advice, knowing that the net of criminal suspicion was tightening around him for treacherous acts he had committed in the name of his own beliefs.

For some reason or other the doctors decided that I was to have no more visitors, and Brian was forbidden to come to the hospital for some days. After about a week, when the initial effect of the more powerful drugs had worn off and I was fully aware of my ghastly surroundings, Oscar arrived. I was ushered into the chintzy room again, where he was waiting. He said that if I wanted a divorce he would proceed to sue me, but he added that in no way could I expect to keep the children. He would have total jurisdiction and control over them. During our conversation I came to realize that my incarceration in an institution for the insane would probably prejudice my chances were I to challenge this in court. I thought of the two little boys, at present with my parents in Manchester, trusting me and waiting for me to return, and burst out hysterically that I would have to get out of this place and see them again. How could I consider it right that they should grow up knowing that I had abandoned them?

Thus it was, with Klaus's words ringing in my ears, that I sadly told Brian, when eventually he obtained permission to visit me, that come what may I had to go to my children, no matter what the consequences. I could not possibly square with my conscience turning my back on my responsibilities as a mother. We would have to say good-bye for a long time, if not for ever. Brian was as miserable as I, but he showed great understanding and true affection as he took his leave of me.

Two nights afterwards the hospital radio was switched on as usual for the nine o'clock news. I felt as if I had been punched in the stomach as I heard that Klaus Emil Julius Fuchs had been arrested in London, and remanded in custody on a charge of spying and passing secret information to Soviet Russia. So it was TRUE.

When charged he was reported to have remarked: "You realize the effect that this will have on Harwell?" It was as if he considered his removal from AERE would be more damaging than his treachery had been. He was taken to Brixton Prison. I thought sadly of this fastidious man in surroundings that must have been even more gruelling than my own.

To be detained against your will and denied freedom is a searing experience. Klaus was detained by law, and in a minor sense so was I. Although I had entered the hospital as what was then euphemistically called "a voluntary patient", seventy-two hours notice in writing was required before leaving it. This regulation was enforced to give a medical committee time to review the case in question. If a patient were found to be insane, he could then be detained against his will. I don't think my sanity was in question, but I had a suspicion that my family and the hospital authorities intended to keep me there until I had come to my senses. Only when I had said "good-bye" to Brian, and had made the decision to return to my husband and children, were all my possessions returned to me. Had I walked out earlier I should, almost certainly, have found myself with nothing but what I stood up in, and probably not even the price of a bus ticket. Being allowed to use a telephone was out of the question. Some time later I told Henry what the "loony-bin" was like. He was aghast, but it seemed that such was his concern for my health that he felt that the added strain of all that had transpired might have been too much for me were I not in some sort of custodial care.

Two days later Oscar drove me to Manchester. I was in disgrace. My parents took over the reins of my life, and I was too exhausted and drugged

to protest. As far as they were concerned the whole disgusting episode was to be wiped out and forgotten as soon as possible. "A page of a book that has been turned without being properly read", was the way they described it. They put it about that I had suffered a nervous breakdown, and sent me to an expensive nursing home in Wales to recover. They were both considerably annoyed that Sir John Cockcroft took no steps whatsoever to have Brian banished to Canada or Australia, and my mother implied, in the course of one of her kindly meant lectures, that if I had to stray from the straight and narrow I could at least try to do it with someone of consequence. Brian was merely a Senior Scientific Officer with nothing but his salary.

The boys were sent to school in Manchester, and a temporary nanny was engaged to care for them while I recuperated in luxury. The nursing-home, once patronized by my mother after a bout of arthritis, was a converted castle. It was comfortable and conducive to rest and relaxation. All its patients were cocooned in thick carpets and down covers. If a bell were pressed to summon a nurse, there was no noise, merely a light outside the door and an instantaneous response. Outside my window was a glorious view of the green hills around Wrexham, where I was encouraged to go for walks when I was strong enough. Every attention was given to my physical needs and requirements. The food was exquisitely prepared. My father paid the bill and it was a big one. Although relieved, I felt bleak and hollow. Nothing had much meaning for me except my boys, and I longed for them. They were occasionally brought to see me in a car, and after a couple of hours taken away again. I was not deemed fit to care for them yet. Sometimes I think that my behaviour in this tabernacle of taste and solicitude was more irrational than before; more consistent with my previous place of detention. My reactions to everything were violent. When amused I would shriek with laughter; when sad there would be uncontrollable tears.

There was plenty of time to reflect upon the affairs of the world. Clement Attlee's Labour Party had won the General Election by the narrowest margin ever. The press was full of Ingrid Bergman, who had left her Swedish husband in Hollywood and become pregnant by the movie director Roberto Rosselini while on location in Italy. She was barred from seeing her daughter for years, and denounced by the self-righteous United States journals as "shameless" and a bad example to American womanhood. I felt for her and admired her courage, and yet I wondered why the world had to be so

hard on her, and on me too.

While I was in this state of inactivity, Klaus was brought to trial and the newspapers had a field day. I followed the proceedings thoroughly, but with sadness. Espionage is a distasteful occupation, and the Communism we saw later is many times removed from that of our visions in the thirties. Every time I visited an East European country I could almost feel the oppressive atmosphere of a community turned in upon itself. Even in the newly welcoming China, which presents a different face of that particular political creed, the lack of personal freedom was apparent. Every day we hear of crimes against humanity in these so-called "egalitarian" and "democratic" states.

Although I have no intention of defending Klaus or excusing his actions, the gutter press more than earned its name at the time. Inspector Leonard Burt of the Intelligence Corps, who had been around during the time leading up to the arrest, sold an article which I felt unbecoming to an officer and a gentleman. He depicted Klaus as dirty and sly in manner. Even the adjective "unshaven" was thrown in for good measure, without pausing to think of a reason. Klaus had in fact undergone some painful dental treatment shortly before his arrest. A good policeman would have known that. Even that well-known journalist, Rebecca West, wrote a spiteful and sarcastic article in the Evening Standard under the title: "The Brilliant Imbecile". I felt that she had missed the point entirely, and I found it difficult to believe that she ever even met him. The respectable national dailies made much of the words of the Lord Chief Justice, Lord Goddard, when he said during his summing-up: "Dare we now give shelter to political refugees who may be followers of this pernicious creed, who well may disguise themselves and bite the hand that feeds them?" Obviously, it was sheer treachery to betray the country that had provided him with a home and citizenship.

What everyone lost sight of, however, was that Klaus was dedicated to his ideals as a communist, and that for him all other considerations were secondary to his chief goal; they were means to an end. Megalomaniac and fanatic he may have been, but he was true to his own sincere convictions nonetheless. He probably saw himself as a contemporary version of one of the reformist Christian martyrs he would have heard so much about from his father, ready to face the rack or the stake for what he believed in. To me, the most tragic thing about his whole career was that by the time of

his arrest his beliefs had evaporated, and were no longer able to sustain him at his trial. A saint goes to his end supported by an unquestionable faith. Klaus went to jail without any help or commendation from those who had so recently used his loyalty to place him in danger. It was to his credit that some time earlier, when disillusionment had set in, he stopped passing information to Soviet agents. This is probably the reason why they ignored him. Many an author writing about him has quoted his sentence concerning the values of the British way of life and the good that derives from it. "I don't know where it comes from," he is reputed to have said, "but it is there". His father, who had by this time settled in Leipzig, made a statement to the British and American press. "My son is no Judas," said old Herr Fuchs, "but a true international communist".

I hope for his sake that Klaus could accept the regime of East Germany where he lived for the rest of his life after his release from prison. His father died at the age of ninety-seven, and he himself died in his seventies. We hear that he enjoyed a prominent position in the Atomic Energy programme of that country. We were told that he was disappointed that none of his English friends had kept in touch with him, except for Henry Arnold. But Henry will have had his reasons. Who could tell whether there would be any prospect of Klaus turning into what is now called a "super-grass"? Many years later, when Brian was Langworthy Professor of Physics in Manchester, he received a letter from Klaus inviting him to attend a conference in East Berlin. It started: "Lieber Herr Kollege Flowers" (dear Colleague Flowers). Brian could not accept, but sent in his stead a member of his research team who was on his way home to Poland. His reply began, "Dear Klaus". Had Klaus chosen to forget how close our friendship had been, or was he merely scared to use a more familiar form of address? Despite feeling himself abandoned by his erstwhile friends, could it be that he knew that he had let us down in a way that was unforgivable?

Now that the time limit on classified information has passed, I can reveal how we heard, many years later, just how much Klaus helped the USSR with their work on the hydrogen bomb. At an international conference, during a party where drink somewhat reduced the discretion of a distinguished Soviet academician, it was admitted that his revelations had saved them two years' work.

At the time of the trial one assumes that the extent of the damage had not been fully evaluated. After Lord Goddard had passed the maximum

sentence of fourteen years, Klaus thanked him for his fair trial, the police and the officers at Brixton prison for their considerate treatment, and left the dock with a dignity that was typical of him. He was to serve nine years only, earning the maximum remission of sentence. We were told that he was a model prisoner.

The mind boggles at the thought of a scientist spending years working with the Russians – assuming that they were ahead of the West in nuclear research – and passing vital information to us and the USA. He would have been hailed over here as a hero, or at least as a very brave man.

At the time of the trial, the Peierls and the Skinners were shattered. Genia exchanged tearful and emotional letters with the convict who was once on Rudi's staff and one of her protégés. Klaus wrote of learning to love again, and to weep. She and Rudi were granted permission to visit the prison, and when asked why he hadn't denounced Soviet policies when he lost faith in them, Klaus replied that he was going to wait until the power of the Soviet Union had achieved world supremacy, and then point out their errors to those in authority. He had been reported widely as having said that he thought that Russia was going to build a new world, and that he would play a leading part in it. From this and other sayings of his that were quoted at the time, one gathers that there was a psyche of overwhelming self-importance concealed under that cloak of self-effacing modesty.

Alan Moorhead attempted a character assessment in his book *The Traitors*, serialized by the Sunday Times the following year. While trying to show something of the human side of Klaus's nature, his visit to me in hospital was cited as an example of the kindliness he was capable of. Although my name was never mentioned, Moorhead wrote of "an untidy love affair that had gone wrong," and "a distracted woman in hospital". Why he chose that instance to write about when there were so many others he could have used, one can only guess. Erna wrote to me that Herbert had taken this author to lunch in order to persuade him to omit any unnecessary scandal, but about me she said, "Moorhead, munching away at Herbert's expense, said he got the story from the horse's mouth and refused to part with a word of it". What a lot of articulate horses there were around then! I believe one of the cleaning-ladies was offered "£50 for a photograph, and the sky's the limit for a good story". Good money indeed, when one bears in mind that Klaus's salary was in the region of £2,000 per annum. Brian and I have often laughed over the description of the start of our long and happy companionship that neither of us has ever had cause to regret.

Shortly before his death, Henry Arnold, still active and astute in his eighties, told me he was going to see the Skinners' daughter Elaine, who was involved in politics and happily married with two intelligent children, in order to assure her that in no way was her mother privy to any of Klaus's activities or beliefs. Genia had summed up the sad situation by saying, "If you MUST spy, you simply DON'T have friends".

When I was eventually released from the nursing home in better physical shape, my father decided to pay for me to take the boys on a visit of several months to see my sister, who had by then settled in South Africa. I had to be kept away from Harwell at all costs. Obviously, he regarded the avoidance of any recurrence of the scandal as something worth investing in. It was to be a new experience, and I have always loved planning a journey, but even at this prospect my excitement was less than usual.

We set out by ship on the Union Castle Line. The long sea journey in a freshly-painted ship, with plenty of space on deck and social activity in the saloons, was therapeutic. It took two weeks to get to Capetown in those days, and flights were only just starting to be commonplace. There was plenty to distract me on board. I tipped a stewardess well to keep an eye on my children during the evenings, and indicated that if she fulfilled my request properly there would be more for her when we docked. She guarded our cabin like a tiger. By now I was convinced that Brian would be flirting me out of his system, so I flirted myself, danced and took part in those games one can play on board ship, knowing that those you play them with will probably never cross your path again.

There was a great deal of excitement in Harwell during my absence. Much of it reached me in long, excited letters from my friends. It seemed that the gossips of Harwell didn't have to rely only upon the trial of Klaus Fuchs for their daily bread. There was my sudden departure as well. Many busy-bodies had their say, some even declared that I had gone to Johannesburg because I was pregnant and didn't know who was responsible. In a community that was still rather inbred in its attitudes this was inevitable.

Brian wrote that he had done some work in nuclear physics that had gained him a considerable reputation in a relatively short time. He had also conducted a performance of Fauré's Requiem. When he urged the choir to sing up, particularly the sopranos, and told them, "Do your best, as you will have to manage without Mary", he got a sympathetic murmur.

Later, I heard that Cockcroft had decided that it was about time Brian had the chance to expand his academic potential, and arranged for him to join Rudi Peierls's Department of Mathematical Physics in Birmingham on loan for a year, which would give him the chance to write up his work for a PhD thesis. As it turned out he stayed there for two years, and his research eventually earned him a DSc and, a few years afterwards, the much-coveted Fellowship of the Royal Society.

The Skinners moved to Liverpool where Herbert was offered a chair, and became Head of the Department of Physics. I think he was relieved to get away from the scene of so many upheavals and settle down in a university once more. Erna was reputed to be miserable there, and even more dependent on alcohol as an escape.

Much later, during a visit to them, I was helping in the kitchen. A great friend of theirs told me of an expensive electric mixer that had been Klaus's last Christmas present to them. It lay, untouched and unused, in its box where it was to remain for some twenty years.

After the Fuchs affair there followed a series of "purges" in Harwell. Security was tightened to an extent that nearly amounted to panic. Anyone with the smallest suspicion of Communist activities in their past lives was under scrutiny, and all those vulnerable to blackmail, or with a secret to hide, came into the category classed as "unreliable". If one had ever been seen reading a copy of the "Daily Worker" (as the "Morning Star" was then called), it seemed one was to be marked for life. Now the Morning Star appears daily in the House of Lords.

A university appointment – another chair at Liverpool University – was found and offered to Bruno Pontecorvo. He accepted it because he had no alternative. Harwell could no longer contain someone with his background. However, he decided to leave under protest, denouncing the witch-hunt as "childish". When the new academic year started he had already fled the country. Oscar wrote despondently that Henry Arnold found it necessary to tell him that his position in Harwell also could no longer be guaranteed. If he could find alternative employment he would be wise to accept it. This brought the unfairness of the times home to me, and I felt sorry for him. Eventually he applied for, and obtained, a lectureship at the University of Cambridge. I was to stay in South Africa until the removal was complete. The idea did not appeal to me, but he had let most of the

rooms in my house, and my furniture and possessions would be transferred to a temporary University flat before my return. This was also the wish of my parents, and as my father had financed my trip and many other things besides, I felt it would be churlish not to comply with it.

At one time there was talk of Oscar going to Australia for a spell, and as the war in Korea was making travel in the Far East rather complicated, he suggested that the children and I should stay in South Africa until he could arrange for us to meet him there. I hated the idea, and was relieved when the Cambridge post came his way. Although I had made my decision for the time being, the thought of having half the world between us made it seem even less likely that Brian and I would ever find each other again.

Chapter 10

Racialism and Resolution

There would be little point in trying to write a detailed description of what I found South Africa like in 1950. There are innumerable books on the tragic internal situation of that country, both as it was then and is now. To learn about sharp contrasts in the stunning landscape, the lush, colourful trees and flowers, the fascinating variety of wild life, the forests, hills and valleys which form such a sharp contrast to the enormous stretches of flat, dry bushland, it would be better to read the literature provided by the South African Travel Agency than any words of mine. The beauty is well illustrated, but any suggestion that it was the setting for so much human ugliness was obviously hard to conceal.

Before I set out, I read Alan Paton's *Cry the Beloved Country*, which gave me a small foretaste of what I was in for when trying to get to know something about the African people; but nothing ever prepares one to comprehend to the full a system so devoid of human justice. It was tragic that this lovely land of sunshine, scenic marvels and rich natural resources was one where the suppression of free speech, imprisonment without trial and judicial killing presented such a hideous face. It struck me then, when I was there, and it struck me later when I revisited it, that it truly was a land where blood and tears as well as milk and honey flowed in abundant parallel streams. The apologists used to tell us that things were improving. Those who made it their business to find out the truth said that the changes in the law were "cosmetic". It was a prosperous country for white people, and the living was easy for those who conformed and didn't look

too far beyond the pretty flowering bushes and clumps of elephant grass that decorated their own well-kept boundaries. Since the eruption of violence in the native townships and beyond, everyone, whether involved or not, had been forced to take stock of the situation, and no one, however blind to the facts, could claim it to have been a pleasant place to live in. Some blamed too lenient a stance towards the blacks on the part of the government, or the infiltration of communism. Some will accept that the system of apartheid had not worked, and admitted that it should have been dismantled. I remain convinced that any form of racial discrimination, no matter where it occurs, will always undermine peace and stability.

Shortly before I arrived, the Nationalists came to power and the doctrine of Apartheid was being legally enforced. It was nothing new; Jan Smuts had not been exactly a racial egalitarian. The Malan administration that took over from the United Party merely carried the racist policies further. During my five month stay, many retrograde steps were taken against civil rights and liberties for the enormous majority of the South African people, whatever their origin. Happily, things now have improved.

My sister Ruth lived about half way between Johannesburg and Pretoria. In those days her area was a long way from urban civilization and the short eighteen mile drive through gently undulating hills seemed immense. There was plenty of farmland in the district, and the fields of brilliant, emerald-coloured Lucerne afforded a sharp contrast with the dusty red soil and the parched grass of territory still in the process of development. The only people to be seen walking along the roads, and the tracks leading off them, were blacks. The women held themselves erect, carrying their burdens on their heads and their babies on their backs. Occasionally, we would pass a small, native village or kraal consisting of a huddled group of round, thatched huts, housing those that had not been lured into town by more varied work and better money. The road also took us past one of the borders of Alexandra, a sprawling mass of shacks and shanties where the native people still live in conditions of squalor compared with their relatively close neighbours in the affluent suburbs.

The homes that had been built for white people, most of them modern and functional, were widely spaced; and all of them were equipped with several small outbuildings for housing their black servants. They were the sort of dwellings one expects to see in a warm country: white walls, archways, wrought iron gates and a profusion of bright bougainvillia, hibiscus and

poinsettia. It all appeared to be friendly enough, yet I was told that it was unsafe to walk even a mile along the sunny path separating the house in which I was living from the estate where some of Ruth's friends always welcomed us. I found it hard to believe that it was necessary to get into a car to avoid possible rape and murder along that harmless stretch of gravel and long, warm grass. Although studying this sad situation helped me, in some measure, to see the cause of my own depression in perspective, there were other times when my chief enemy, isolation, hung over me like a suffocating blanket.

I can't have been an easy guest in the household despite all my efforts to help with the day-to-day tasks involved in the running of a home. There were already two servants, and I didn't have enough to occupy me. The boys, particularly Peter, seemed to sense the vacuum in my life, and clung to me as children do when feeling insecure. I seemed powerless to cast Brian out of my mind. Once again, I felt emotionally helpless. No man had ever had so profound an effect upon me. I desperately needed to meet people and get involved with them. I was almost as cut off as I had been in the wilds of Canada. I could not afford a car, and there were no buses; not for whites, that is. Eric, my long-suffering brother-in-law, rose early and worked hard all day; funds were scanty, and their younger child barely six months old. Late in the afternoon darkness would fall suddenly and early without the prelude of dusk. At night, after dinner, when the houseboy had removed the dishes, cleared the kitchen and retired to the servant's quarters for the night, Eric and my sister would fall asleep in their chairs, exhausted with the effort of having three extra in their small house. With my children asleep too, I felt desperate with loneliness. I tried everything in my power to find some respite in reading or sewing, but there was no mains electricity, and the paraffin lamps did not provide enough light for the drawn threadwork that might otherwise have calmed my restlessness. Sometimes I would wander into the kitchen and look out on to the back yard. There, in the cheerful blaze of a fire upon which their evening meal was cooking, the servants and their friends were sitting in a ring chatting and laughing, or singing in their spontaneous harmony. The jollity of their burnished, ebony faces in the firelight made me envious even of their pitiable lot. As they swayed rhythmically to their own music I wished with all my heart that I could have stepped outside and joined them, learned their songs, partaken of their corn porridge and shared their jokes. But such a step was not only impossible in those days, because the differences in language and culture would have shocked and embarrassed

them; it was socially quite unthinkable, and Ruth would have had some serious problems as a result.

Eventually a stroke of good fortune came my way. Usually we called on friends and neighbours to play tennis in the afternoons, while the children would amuse themselves on well-tended lawns under the watchful eye of a nanny. But one day my sister informed me, "We are going to drive over to an old Dutch farm and visit Dr te Water. She is related to some people I met in Pretoria and you are NOT to get the giggles. She wears the most peculiar hat." Funny hats, since our childhood, have been a disproportionate source of hilarity to us; but when I beheld the incredible doctor, I had the greatest difficulty in obeying my sister's injunction.

It wasn't just the hat I found astonishing. Here was a transvestite lesbian, so typical of her kind as to be almost a caricature. Her khaki trousers, and her socks and shoes, were clearly purchased from a good gentleman's outfitters; and her check shirt, worn hanging over her belt, concealed, as if to draw attention to the incongruity of her sartorial preferences, the massive shelf of her bosom. But there was no mistaking the warmth of the welcome in her booming baritone, nor in the way she removed her hat and nodded her head in friendliness so that her cropped grey hair bounced like a shaken mop.

Up till that moment I had always considered lesbians as people to be escaped from at the earliest possible opportunity, particularly if they had a penchant for me. This time I was to welcome my admirer (for such she obviously was) for the fresh interest and new experiences she brought into my life.

The day after our very first meeting she drove up to my sister's house and strode into the living room. "How long are you going to be here? What have you seen? What have you done?", she demanded without waiting for an answer. Then, as soon as we were alone together, "You're not happy, are you?" She invited me to stay at the ancient, sprawling farm where she had been living since her retirement from a successful career as a pioneer psychiatrist. I don't think this pleased Miss Malherbe, her lady companion of many years' standing, but she endured it with dignity and, as mistress of the doctor's household, made arrangements for the warmest hospitality. The children and I were provided with a suite of shabby but clean and comfortable rooms in the rambling old house, and a specially chosen member of

the bevy of black servants was detailed to care for the boys so that I should be free to go on excursions and meet people. The only price extracted from me was that I confide all my troubles to "Doctor", as she was universally called. It wasn't until after her death that I first heard her Christian name. I think it was Cynthia.

Looking back, I imagine she got some vicarious pleasure in the misfortunes of a young heterosexual in spite of making a determined stand for the right to her own lifestyle. She loved her farm, her animals and her home-produced fruit. She and Miss Malherbe were a hospitable couple, and they opened the rickety doors of their countless verandas and spacious, musty living rooms to many – occasionally even to black people, albeit reluctantly. They were both ardent Nationalists, and we differed on the subject of human rights. It was their conviction that the native people were of an inferior race, "hewers of wood and drawers of water." They were to be treated like children, or rather backward adolescents, and I had many lessons to learn. To let a male servant see me in my all-enveloping night attire, or even to catch sight of an unmade bed, was unwise. Miss Malherbe explained that they could never be expected to learn self-control. "They are not like American negroes who have been through the refining process of slavery," she added. That is why she had chosen a particular girl as nanny for the children. She was of the Griqua tribe, which meant that, "she has white blood." This made a difference?! Their attitude shocked me, but it was a very usual one for Afrikaaners of that generation. They asserted repeatedly that I couldn't be expected to understand the nature of their country. It seemed curious therefore, that when I expressed a wish to learn about the native people, their customs, their culture and above all, their music, my kind host decided I was to be indulged (though why I wasn't interested in their Dutch folk dancing they couldn't for the life of them understand). We would discuss all these problems and many others in the evening, over an excellent meal which "Doctor" relished, her napkin held in place over her bosom by two bulldog clips attached to a cord round her neck. "I'm a farmer," she asserted, as if to answer the look of amused incredulity on my face, which I was not polite enough to hide.

My sister's friends, who had heard of the set-up, warned me amid much sniggering to be sure to lock my door at night, but if anyone thinks I am about to confess to a homosexual love affair they will be disappointed. The elderly "master" of the household never as much as attempted to lay a finger on me. She treated me as a benevolent uncle would concern himself

with a favourite niece.

In spite of her eccentricities, "Doctor" was a person of substance and influence. Apart from her farm she was a keen speculator and the first woman to get herself accepted on the Johannesburg Stock Exchange. She picked up her telephone and barked commands down it. As a result I had some thrilling experiences.

When she realized that it was useless to try to talk me out of my interest in the African people and their conditions, she didn't just condemn me for being a "Kaffir Boetie" (nigger-lover), because she knew that, although I had an enquiring mind, I was a completely ignorant foreigner. She arranged several visits to townships, to gold mine compounds, and to concerts where I could see the tribal dancing and hear the singing. I was even taken down to a depth of seven thousand feet to be taught something of the methods used to extract the gold ore from the rock face. Fortunately I do not suffer from claustrophobia. We were six in the small cage taking us down, but its usual complement, when carrying black workers, was said to be about eighteen.

I loved the tribal dances. One group after another would enter the arena and beat the earth with strong bare feet as they went through their various tribal ceremonies. Sometimes they wore their distinctive costumes: bright strings of beads, leopard-skin loin cloths, bracelets and anklets made of white tufted goat's hair. The music was intoxicating, and left me almost unable to sit still, such was the stirring rhythm from the primitive xylophones. I noticed with amusement that when a really low resonance was needed, and the hollow section of a wooden bough under the slat that made the note was not large enough, a petrol drum was substituted.

Although the attitude of those who showed us round the compounds where the natives lived and were encouraged to practise their indigenous tribal crafts was patronizing, it was a joy to see these handsome and gifted people enjoying some aspects of their own identity instead of being forced to play the role of cringing servants with low pay and little freedom.

I was able to visit a school for native children, and as we mounted the stairs towards a class-room, the sounds of four-part singing seemed sophisticated, although it had lost nothing of its ethnic character. Even more surprising was to come across a group of boys and girls singing in harmony, without a note of music in their hands. "How do they remember their parts so well?",

I enquired of the music master. He smiled. "We harmonize naturally. Once my boys' voices break, they no longer sing in unison. It is difficult for them."

Through a kind introduction provided by "Doctor", I had the good fortune to meet Percival Kirby, that great student of musical theory and of human nature, who was at the time professor of music at Witwatersrand University. We found ourselves instantaneously *en rapport*. He gave me an exciting illustrated talk about the way that musical instruments were fashioned and developed by some of the most primitive people on earth, such as the Hottentot and the Bushman. These people are almost extinct. Some were hunted, like animals, by the early Boer settlers. But we saw them preserved in waxworks at the Capetown museum. They are strange, ochre-skinned people. Their women have the most enormous hind-quarters, as if designed to carry innumerable babies.

I became fascinated at the way the basic African musical syntax had been exported to America along with the slaves, and had eventually developed into jazz, only to be re-imported, re-simplified and re-played. If it hadn't been for the fact that I recognized some well-known melodies, I should never have believed they had been through such a complicated set of journeys.

Apart from music, I was to learn much about the structure of all sections of society, of their attitudes and their prejudices. Sometimes I was cheered by the courage I witnessed, sometimes appalled by the lack of foresight. Of the protagonists of Apartheid I heard it said by their opponents, "It is not so much their integrity that's in question, it's their intelligence".

On the last day of my stay on the farm, an acquaintance of "Doctor's", a lady who was to become a prominent member of the Black Sash movement, offered to drive me to Sophiatown. On this occasion "Doctor" donned a white alpaca dust coat and accompanied us there. It was a sprawling township for native people, where rows of utilitarian, brick bungalows stood beside groups of shanties that should have been declared unfit for human habitation. Most of the roads were of earth and gravel and there weren't many cars about. There were a few shack-like shops selling untempting goods, and everywhere groups of children squatted and stared. We had an invitation from a couple called Xuma. He had qualified as a doctor in Minnesota and during one of his subsequent visits to the United States had married a black American. She had returned with him, and was immersed in improving the lot of the women and children who were now her

neighbours. Mrs Xuma's bungalow was cool and tastefully furnished. Her graciousness almost made me feel that we had driven up through a long garden instead of being parked just outside in a squalid street. She provided an elegantly served tea and told us about her work. Her husband was active in politics and had just finished his term of office as the fifth President of the later to be banned African National Congress, as well as meeting the demands of his busy general practice. I was told that he was already earning disapproval in his party for being too moderate. Indeed, he seemed timid and kept his distance. In the presence of another doctor with whom he might have had much in common had she not been white, the prevailing social customs prevented him from sitting down in his own living room.

I hadn't expected "Doctor" to be as surprised as she was. Later that evening she kept talking about the civilized way we had been treated by this smartly dressed black lady who was so dedicated to the service of others. Even though she had lived in the United States herself, she had obviously never been received in that type of home before. Not many years later, Sophiatown was partly razed to the hard red ground, its inhabitants rehoused. It now forms a small part of Soweto that has been so constantly in the news. Whatever indignities were meted out to her, I feel sure that Mrs Xuma kept a straight back and a courageous smile.

I returned to my sister's house feeling much more cheerful. My stay in South Africa had been enriched by these experiences, and a few weeks later there were more excitements to come.

My brother-in-law took us to the Kruger Game Reserve, and the children and I enjoyed seeing all the wild animals. The creatures seemed so full of spirited energy, and looked sleek and glossy compared with their relations in captivity. We watched lion pursuing prey, giraffe stooping to drink, springbok making unbelievably high leaps into the air, zebra and bush pig scampering their swift and frightened getaway at the slightest sound. We even saw baboons fighting, and still dormant crocodiles concealing their ferocity by the water's edge. We went right up to the banks of the Limpopo river near to the border of what was then Southern Rhodesia, where elephant roam and nibble the leaves of the gum trees. They can also pull them out of the ground as swiftly as a gardener removes offending weeds, a display of that devastating strength for which they are considered the most dangerous of all the animals. The lion will eat you only if you leave your

car or disobey the rules, but these mountainous grey beasts are vegetarians. They can nevertheless stampede and crush. We were told of a professional photographer who inadvertently drove past a cow elephant, separating her from her baby who was following her. Indignantly she sat herself down on the bonnet of his car, forcing the engine into the ground and trapping its hapless driver until he was rescued with the aid of an oxyacetylene burner several hours later.

Dawn and sunset were the best times to go on excursions. Driving during the hours of darkness was strictly forbidden and heavily penalized. When night fell we would check into one of the several camp sites and settle in a couple of small rondaavels, or thatched huts, where we would make our own meals and relax in an atmosphere that seemed to be that of a different planet compared to the world of scientific progress and its dramas that I had so recently left.

Unfortunately, Ruth was unable to come on this trip as she had caught glandular fever, to which I had fallen victim shortly after my return from my sojourn with "Doctor". In those days the only treatment available was sulphur drugs, and these have depressing side effects. So, although sad at the prospect of a long separation, I think we were both a little relieved when the time approached for me and the boys to leave for England.

We travelled home by way of Durban where we spent a few days. There, and at East London and Port Elizabeth, we were met, entertained and shown round by kind friends and acquaintances. It was a leisurely voyage to the Cape, and quite often South Africans would choose this way of travel rather than taking a train or one of the still infrequent 'planes. On board we were in South African waters, however. I was reminded of this in a way I shall never forget, when I dived into the swimming pool on deck. The only other person in the water at the time was a black youth. Almost immediately, two young white men put down their books, leaped out of their deck chairs and dived in beside me. They swam around aimlessly until I clambered out. A tight-lipped lady stood waiting for me. She told me she was sure that I didn't realize what I had done, but never must I do it again. It was quite improper for a white woman to go swimming alone with a native, and I ought to thank those two courteous young men who had protected me. This was beyond endurance. I stamped a wet foot on the deck and shouted, "Bollox!" before calling my children and stalking away to our cabin.

Finally, we had about a week docked at Capetown before sailing for home. It was an experience filled with sunlight, spring flowers, beautiful beaches and the grand monolith of Table Mountain, whose flat top we reached by cable car.

I shall always remember the sense of relief with which I left South Africa. In spite of the company of my sister and the interesting holiday I had enjoyed in the land that was fast disappearing over the horizon, it was impossible while living there to escape for more than a few minutes from the sad political and social scene. Whatever one thought about or tried to concentrate on, there was always something, however trivial, to bring it back into focus. One felt frustrated and powerless. There was less than nothing a private individual and a visitor to the country could do to help the huge native majority. Despite many invitations to return, and tempting offers of hospitality, I resisted them until after the release of Nelson Mandela.

Shortly after our departure, the Cape Coloureds (those of mixed race, descendants of the Bushmen and their conquerors) were deprived of their right to vote. There had been a lot of talk on the subject, but it was a long time before it was given back to them. As for the blacks, they had never had any real representation of their own. About half way through the voyage from Capetown to Southampton a message was received on the ship's radio that Jan Smuts had died. He was a wily politician but he was an ardent patriot. One wonders how he would have reacted to the fate of his beloved homeland had he lived another thirty years.

In all, the return journey took about a month, and was even more of a whirl of high living than the outward voyage had been. The parties, the dancing, the flirtations and the gaiety were a temporary escape from what had been and that which was to come.

Oscar met the boat and drove us to Cambridge where I was expected to make my next home. He had rented some temporary university accommodation: an oversized flat on the ground floor of a grandiose, red-brick mansion. Standing in acres of private ground, with a small gate-keeper's lodge nestling among the prolific rhododendron bushes, it had in bygone times boasted a private chapel and had housed young members of the royal family during their brief periods of study at the University. Now, as in our short spell in the wilds of Canada, we were to experience life in a small part of a stately home. It was quite an easy place to settle into, and although

the furnishings were hardly pleasing aesthetically, it could have been much worse. What worried and saddened me was that Oscar, acting in what he thought to be our best interests, by keeping me away from Abingdon, had caused all my belongings to be taken out of the house there. The removal men had dumped everything from the largest piece of furniture to the smallest teaspoon wherever they had thought fit. I wept at the sight. There had been tenants in my Abingdon house whose ideas of cleanliness didn't match up to my own; and although I am sure Oscar was not to blame, some of my cherished pieces of silver were missing. The green curtains of which I was so proud had been left behind. I could not imagine where to begin to make sense of the bewildering chaos. I don't know how I did it, but within forty eight hours I had stashed everything away and found places for the boys in a nearby primary school. If the proverb, "needs must when the devil drives" has any truth in it, there must have been a powerful demon wielding the whip during those two days. I was in good health after the long sea journey, and here at last were problems that could be solved.

I was delighted to find that some old friends were in my new neighbourhood. Professor and Mrs Hartree were across the street, and welcomed us warmly. Hermann Bondi, newly married with a small daughter and a wife who was just finishing her PhD, was near at hand. I was also to meet the well-known nuclear physicist Denys Wilkinson, who became Sir Denys and Vice Chancellor of the University of Sussex. He was to be among the kindest and closest friends in my future life.

Cambridge had just become a city and the new status became it. Unlike Oxford, the Colleges seemed, for some strange reason, more isolated and grouped separately from the rest of the town. I soon became a frequent visitor to the historic cloisters, chapels and courts, and found the prospect of settling down in the quiet and absorbing atmosphere not unappealing. If only I had been able to do it with the partner of my choice! I tried to find a house to buy, as we were told that one year was the maximum stay allowed in the flat. There was an acute shortage of the sort of place we could afford, and I knew little about Building Societies and tax relief. With more energy than enthusiasm I set out on my quest. I found a charming bungalow with plenty of spacious rooms and a well stocked orchard, but the surveyor's report was atrocious. Then, as before, the houses I liked found no favour with Oscar, and vice versa.

Once Brian was safely out of the way in Birmingham, no one tried to discourage me from revisiting Harwell and my old friends. It was shortly

after returning from a visit there that I stepped into the Cambridge flat to hear the telephone ringing furiously. It was a mutual friend telling me excitedly of the Pontecorvos' final disappearance.

Oscar had spent the summer of my absence on the Île de Levant, a naturist reserve off Hyères on the Côte d'Azure. There he had met a young woman who was a children's nurse at a large hospital in Birmingham. She was about twenty-one, with the clean, rosy appearance of a bouncy schoolgirl and a mass of blonde curly hair. She came on frequent visits to Cambridge, and it appeared that she had formed a close friendship with Oscar. They had many interests in common and enjoyed long bicycle rides together. It didn't take me long to realize that she had also become his mistress.

After some soul-searching I consulted a solicitor. He was a comfortable man and gave the impression of having brought up several wayward daughters. I put the cards of my last troubled year on the table, and told this sympathetic lawyer how much I had wanted a divorce but couldn't risk being forced to relinquish my children. His replies were encouraging. Now that I could assume the role of the innocent party, I could easily apply to have my marriage dissolved, and there should be no problem about the boys. "But, but ...", I stammered, and recounted a few of the incidents in my own irregular behaviour. He explained that the law had been amended, and that all I had to do was to provide the material for a discretionary statement in which I was to list my peccadilloes. This would be handed to the judge in a sealed envelope, which he would open after hearing my case. It all seemed like jiggery pokery to me, but it was the law, and we have frequently heard the law described as "an ass". I don't suppose that my statement caused His Honour's eyes to pop out any more than they did when dealing with most cases in which his discretion was sought.

Oscar and I separated, and I stayed in the flat only for the time needed to bring my case to court and obtain the decree *nisi*, meaning "unless", which is short for, "unless anything can be found to nullify the action during the following six weeks", after which it would be made absolute. This was the shortest waiting period on record before the law was reformed. Earlier it had been six months; and a few years later a three month interval was required. It seems that I obtained my divorce at the most convenient time under the old regime.

Now my parents resignedly gave me their support. I was bringing the action, and therefore, on paper at any rate, I was guiltless. Matrimonial

fracture was as distasteful as ever, but at least the situation had become respectable in their eyes. My father told me not to worry about money; he would help with my legal costs. Subsequently, whenever I referred to the fact that I was divorced, he would correct me, "No, my dear, you have divorced your husband." Although appalled by the lack of justice in the system, I was thankful for their sake that no word of scandal ever reached the Manchester newspapers.

Now I had to think how best to support myself and the boys while waiting for my case to be heard. It was not easy. In a place like Cambridge my meagre qualifications as a secretary were fairly useless; besides, I had to find work that I could fit in with school hours so that the children would not run the risk of being left alone in that huge house. Eventually I found a job as an assistant cook in a canteen above a large grocery. The kitchen was archaic, the pots and pans heavy, and the food we produced unpalatable; but some of my workmates were friendly, and at least I had a little money in my pocket to buy the essentials of life. I could not square it with my conscience to take a penny from Oscar (apart from the rent of the flat which he had already paid), nor was I going cap in hand to my father. Such was my sense of pride that I paid the lawyers out of my own savings, and the money my father gave me for that purpose was invested in the children's names.

One stipulation made by Oscar was that the children should be sent to boarding school. I didn't like the idea at all and neither did they, but as my movements in the immediate future were very uncertain I agreed to it as a compromise. If my plans worked out the way I hoped there would be more removals, and a bit of stability was called for. The search for a school to which I could entrust my children and visit them frequently was long and heart-breaking. Eventually I found a small place on the south coast with a kind, jolly headmaster, a wife who was a State Registered Nurse, and a dear old mother who played the organ with more fervour than accuracy in the local church. The buildings were not imposing, but the staff were obviously well chosen and the atmosphere was a happy one. Fortunately for us all Oscar liked it too.

With the benefit of hindsight I realize that I might have been escaping from an unsatisfactory marriage only to face an empty future. Suppose that Brian, eligible and gifted as he was, were having his attentions gradually drawn elsewhere. I had to prove to myself that I could sustain life as a

single parent. Fortunately it was all worthwhile. He was working away at his research in Birmingham, had not become attached to another woman and was still waiting and hoping. Under the prevailing system of the times, the law demanded that the so-called innocent party in a divorce should lead a celibate existence: it had to appear that the adultery was all on one side. There was a character known as the King's Proctor, whose duty it was to spy on the plaintiff. He could have the proceedings declared null and void if he caught him or her *in flagrante*. Who this mysterious creature was, and what benefit or enjoyment he derived from his missions, I have never found out.

Brian and I, by then considerably happier, had a series of adventures that would have made marvellous material for a French farce. Even before Oscar and I were technically separated, an understanding friend gave me an excellent alibi. Brian and I had a very special weekend in Cornwall – one we shall never forget – staying at places where no one could conceivably recognize us. Every morning I telephoned my friend for reassurance that our whereabouts had not been questioned. We felt light-hearted and carefree. Another time, while the divorce was still pending and Oscar was away, Brian turned up outside my kitchen window late one night, having left his car a cautious half mile away. Because small children cannot be asked to keep secrets I had to keep him under lock and key in one of the rooms until they were safely on their way to school next morning.

Now that the solution was in sight, I felt serene and contented as never before. The boys seemed more settled too. In July my case came to court, and the first step in the dissolution of the marriage went through. There was only one slight snag. Oscar requested that custody of the children be postponed and discussed later, by our representatives in chambers, instead of being dealt with on the spot. I was advised to concur. Meanwhile I was to have care and control over them.

The boys and I spent the summer with my parents, and subsequently with Brian's in South Wales where the children enjoyed all the seaside resorts around Swansea. I made a particular friend of Brian's father. Although we disagreed fundamentally about religion, this scholarly and knowledgeable parson never let it come between us. Agreeing to differ, we had many lively and interesting discussions. Not once did he let me think, as well he might have done, that I was not the most suitable bride for a son of the manse. The children adored him.

It was while we were there that my divorce was made absolute and final. Brian and I could at last associate freely and without subterfuge. After settling the boys in their new school and seeing to yet another removal of furniture and effects, we married quietly in Birmingham Registry Office. We regarded the ceremony in October 1951 as singularly irrelevant, but we invited our respective parents to witness the event.

Brian found an amusing flat with the most enormous living room imaginable. In it we could work, put up friends, give the boys a vast play area and throw parties. The rent was rather more than we could afford but taking it was well worth the risk. The first thing we did in it was to celebrate our marriage by inviting our friends for a modest reception. Both sets of parents were there and several colleagues. It was particularly gratifying that a sizeable contingent of friends from Harwell drove up, despite the autumnal fog, to be with us. Among them were Hans Kronberger and his new wife Joan. With characteristic frankness they let on that she was in the very early stages of pregnancy.

Brian was immersed in his research on the "shell model" of the atomic nucleus, and we had little time or money to spare; but we did manage to have a honeymoon – one week in a simple hotel in Paris. We flew from Birmingham immediately after the wedding. It was Brian's first flight, and the day that Churchill's Conservative party was returned to power. During that short respite we enjoyed many things that were to become central to our life together. We tasted meals at the little restaurants in the area of La Fourche, where in those days you could eat and drink extremely well for a pittance. It was the first time either of us had relished the joys of Moules Marinieres, Soupe de Poisson, various salads redolent with garlic and olive oil, not to mention such novelties as Cervelle au Beurre Noir, Tête de Veau Ravigote, Civet de Lièvre and Biftek au Poivre. To this day we are both enthusiastic about the pleasures of the table, and those early gastronomic treats still remain among our favourite dishes. We often remember with amusement how great used to be the difference between French food and what we had been used to.

One day we got caught in the rain while walking in the Parc Monceau. We took shelter quite by accident in the Russian Cathedral in the Rue Darue. Its mysterious interior resembled a cruciform Aladdin's cave, rich with gilded ornaments and icons. We were held spellbound by the sonorous liturgy sung by a small group of choristers, mostly loyal old servants of the

Czar. Although the elderly singers are long since dead, the Cathedral Alexandre Nevsky still provides one of the finest free concerts in Paris. Many are the wet Sunday mornings we have spent there since.

There was also all the architecture to be admired at leisure, the galleries, the shops, the bouquinists. It was a short holiday, but a happy and fulfilling one.

We settled contentedly in Birmingham. Brian was engrossed in his work and I had to find a way to augment our income. I took in dress-making and stitched away at unattractive bridesmaids' dresses, evening gowns, blouses and skirts for all the customers that came my way. When the boys came home to us for their holidays – of which part were always spent with Oscar and the comely young girl he had since married – we were able to buy them extra luxuries they would otherwise have had to forgo. We could keep a car on the road and had a summer holiday camping in Cornwall.

When I wasn't sewing I typed furiously. Brian's work was being published as fast as he could write it. Our typewriter was a museum piece and had no mathematical symbols, but I muddled through. Once, to my everlasting shame, I had to telephone the department to ask whether a word on the manuscript should be "photon" or "proton" in a given context. I don't think I would make that mistake today. We had an enormous programme of work to complete each day. It was during one of my sewing sessions, when rushing to meet the deadline for a big wedding, that the radio programme was interrupted with the doom-laden announcement, "This is London." King George VI had died peacefully in his sleep, and the second Elizabethan reign had begun.

By far the most rewarding aspect of this brief sojourn in Birmingham was our proximity to the Peierls household. Rudi ran a productive and happy department, while Genia provided a home that complemented it perfectly. She entertained frequently and enthusiastically in the mansion they occupied. What she lacked in funds she more than made up for in ingenuity. I often helped her prepare the food for the enormous parties she gave. Sometimes they would be for visiting academics from overseas, occasionally for a wedding. She never let any member of Rudi's department get married without a celebration if they had no family available to provide it. What I feel most indebted to her for, though, was her tuition in the art of being the wife of an active scientist. From her I learnt how to recognize the signs

of creativity and how to cope when the all-absorbing force of a new idea takes over from other, more mundane considerations. She prophesied that Brian would be a significant figure in the scientific community, and under her tutelage I was able to learn how to help him with his achievements.

There was another conference that autumn, this time in Amsterdam. We travelled there by car via the Vosges, the Black Forest and the Rhine. Foreign currency was still tight even if we had we been able to produce the sterling to buy it with, but we managed. Every night we had a choice; it was either a comfortable room or a good meal. Frequently the meal won and we spent the nights in a varied assortment of attics.

The conference was exciting because we met many of those who had contributed so prominently to the proceedings at Como two years previously. I was astonished to find how many people had read Brian's recent work, and how widely it was discussed. Although I knew so little about his research, it was obvious that there was an air of great excitement as the mysteries of the atomic nucleus were gradually unravelled. We made a number of new friends and at long last I was able to talk at length with members of the Israeli delegation. Giulio and Zmira Racah, and Ygal and Hannah Talmi were among those who explained the problems confronting their young country, the up-dating of their ancient language and all the plans they were making to build universities and research centres.

We loved the journey to Amsterdam, the beautiful city laced with canals. It was the first of many trips we were to make over the years in the course both of Brian's international work and pure pleasure.

It was a happy year, but all too soon Brian's time at Birmingham was up and he had to return to Harwell. Although he was still a humble Senior Scientific Officer, we were offered a house on a new estate in Abingdon. This one had just been built and was a little to the north of the Fitzharries houses, lying beside the main road to Oxford, adjacent to a cornfield. I was quite amazed to find myself in a house that was almost identical to the one I had had to leave little more than eighteen months previously. This time it was to be home for an unprecedented six years.

Chapter 11

Fame and Notoriety

It is amazing how selective memory is. One could assume that, having been through so much torment and conflict before the backdrop of the old familiar scene, we might never want to set eyes on it again. But the recollection of the recent past seemed rather like freshly rinsed fruit in a colander. The waters of trouble seep away, leaving only the solidity of happiness and peace. Harwell, our surroundings and our friends represented the reality of the present, and the nightmare faded as if it had never been.

We were delighted to find ourselves at home in Abingdon with a house and that hallmark of respectability, so essential at the time, our marriage certificate.

The logistics of this removal were the easiest imaginable. Apart from one or two minor differences from the house on the Fitzharries Estate, I knew the dimensions of all the rooms in our new home by heart. We were installed in record time. One of my uncles, a bachelor approaching old age, had given me the magnificent sum of five hundred pounds. We are always astonished when we remember how far we made it stretch. Both of us loved travelling and adventure, but we also wanted to put down roots and create an attractive and harmonious refuge for ourselves and the boys.

We visited auction rooms, junk shops and sales. We collected a few pieces of antique furniture, some carpets and one or two pictures. We have them now. This time I made my curtains from sapphire-coloured velvet which I lined and interlined. They were to last me more than twenty years. Bit by

bit we installed a system for listening to music. This was the time when long-playing records were just beginning to appear, and we started to form a collection. An enterprising junior member of Harwell's staff had carefully "lifted" five or six exceedingly powerful bomber radios from a nearby air-base where they had lain abandoned since the end of the war, waiting to be broken up; the retail traders would never have tolerated the re-sale of such high quality receivers. Brian was on friendly terms with the thief and thus the proud possessor of one of the haul. We made a polished wooden baffle for the speaker, which brought us what was then the "Third Programme" as accurately as anything could before the days of stereo.

Right from the start Brian insisted that the boys should have a room each in which to pursue their individual hobbies and maintain a degree of privacy. We equipped them as "bed-sitters" where what went on was, within reasonable limits, entirely their own business. Brian, or "Bean" as they called him (and have done ever since), was and is the most devoted and concerned step-father they could have wished for.

Although compared with some of the houses we have since been fortunate enough to occupy, this was truly modest and quite devoid of character. It presented a soulless red brick face to the road and the field opposite, while the view from the back was of a patch of waterlogged wilderness. This was separated from a similar piece of dereliction, and another box-like "semi" by a flimsy wire fence. It was a challenge to as much inventiveness and imagination as we were capable of. We copied the Seligmans who were still living in their house on the Fitzharries Estate, a luxury cottage in comparison with its neighbours. Soon we too had our windows garnished with boxes of geraniums. We planted creepers to cover the brick, and honeysuckle to climb round the lurid yellow front door which the rules of the estate prevented us from painting another colour. As we got on rather well with the couple who lived directly behind us, we made a pair of steps over which we could scale the wire fence, as cutting it or inserting a gate would also have been against the regulations.

Brian has always had a flair for gardening and soon we had a lawn flanked by a multi-coloured herbaceous border, a patch of herbs by the kitchen door and, at the bottom of it all, up against the offending wire, a small vegetable patch designed so that our friends could help themselves to our lettuce when it was over-plentiful, in exchange for a marrow or two which we, in our turn, would purloin.

Few English gardeners had heard of mangetout peas, red lettuce and calibrese at that time, but we saw an advertisement by a lady called Kathleen Hunter who supplied seeds for these and other unusual plants from her nurseries in Cornwall. I often think of the worthy Kathleen and how much juicier her aubergines seemed compared with any I can buy to-day. I knew nothing of the laws concerning taking plants from the roadside in those days and once, when returning from a visit to the boys at school, I loaded the back of the car with bright yellow primroses. They all came up white the following year. This was divine Retribution, I suppose.

Our hearts were warmed by the welcome we received from our friends and all Brian's colleagues on the Harwell site. Everyone from Sir John and Lady Cockcroft to my erstwhile cleaning-lady seemed overjoyed to see us back. The Cockcrofts lost no time in sending us a particularly warm invitation. This rather surprised me as they were respectability personified. He ran a tight ship and we had caused something of a social commotion on the lower decks. The scandal might have earned us their disapproval. They seemed nonetheless totally oblivious to anything other than the fact that Brian was a bright young member of staff, and as a couple they were happy to have us return to the fold. The redoubtable, enormous Mrs Dimond who "did" for me on a once-weekly basis in the previous house, confronted me one day while I was shopping in Woolworths. Overflowing with good will and surplus flesh, she informed me, "I'm not working these days, but I heard you were back and I'll come to you again. I haven't made any alteration in what I charge." She never waited to find out whether I could afford her services.

The Arnolds had moved to a picturesque Georgian house out in Marcham where they were able to indulge their passion for country life, and even kept a few pigs. Their landlady was an eccentric and ancient widow who was such a rabid teetotaller, and so inquisitive, that whenever we were invited in for a drink, someone had to keep a careful watch by the long windows while Henry extracted the bottles from the case of a grandfather clock.

The Skinners and the Peierls's were first among the many visitors who came to stay in the small room that, equipped with divans, did double duty as a guest-room and a study for Brian. Over the next few years, as in years to come, we were surrounded by what I always consider to be the greatest assets life has to offer, one's friends.

Denys Wilkinson was one of several university people who were appointed

as consultants to Harwell. He became a frequent guest. Not only did he and Brian have a lot to discuss about their work but we also shared the same sense of humour, which at times took a bizarre turn. I remember one evening the three of us spent several hours trying to perfect the technique of holding large brandy balons on to our faces by suction. It was no mean feat, but every time one of us succeeded it was necessary to attract the attention of the others. This we could only do by making a noise, which in turn let some air escape so that the glass fell off. Once the pair of them were so engrossed in their discussion that it was some time before they realized that they had each helped themselves to, and were apparently enjoying, sherry and soda. There was always a laugh when Denys came, and we looked forward to his visits then as he did for years. Nowadays he is accompanied by his second wife, Helen, of whom we have become extremely fond. In order to be able to marry they had had divorce problems of a similar nature to ours, but rather more complicated as they had spanned two continents and occurred at a later stage in life. I like to think that they were grateful for the friendship of another couple who knew something of what they were suffering. We still joke and fool about despite our increasing years. Once Helen wrote to me, "It was nice to see your funny faces again and talk all sorts of rubbish."

Hans and Joan Kronberger would burst in exuberantly whenever work brought Hans to Harwell. The nice thing about Joan was that she was Hans's equal when it came to physical energy and enterprise. We were to share many a crazy venture with them too. We also were to share much of the sorrow that was to be their lot. Joan had a daughter in 1952. They called her Zoë and she resembled Hans; he was immensely proud of her. Unfortunately, Joan was taken ill almost immediately after the birth, with blinding headaches and hallucinations. Their doctor in Cheshire at first diagnosed "post-natal hysteria", but Hans was far from satisfied. He took her to Manchester to be looked at by the world-famous neurosurgeon, Sir Geoffrey Jefferson. Her symptoms turned out to be the first signs of a malignant brain tumour. She endured several operations over the years and much drug therapy. They both faced it with courage and even with humour, making jokes about any event that showed a remotely funny side. Such was Joan's optimism that in 1955, against medical advice and Hans's better judgement, she had another child, a second daughter called Sarah. When she told me frankly that she was planning another pregnancy I remonstrated gently and said, "Do you really think it wise? You have Zoe and Paul." (Paul was her son from her first marriage to a young doctor

called Neil Hanson, son of the professor of metallurgy in Birmingham University. Neil had been killed tragically in a climbing accident). "They will soon both be at school and I shall get bored," said Joan in a matter of fact tone of voice. Sarah was born in what was to turn out to be Joan's last long remission. She lived another six years, gradually deteriorating and continually being taken to hospital. She spent the last two years of her life in what is euphemistically called a "recovery hospital". Now she and Hans are both long since dead, and Sarah was killed in an air crash at the age of twenty-four. It would have taken a latter-day Sophocles to chronicle the drama of that ill-fated family. They were marvellous friends.

We made new friends too. There was Alec Merrison, shortly to become Director of the Daresbury High Energy Laboratory. After the death of his first wife, he became Vice-Chancellor of Bristol University and acquired a new wife very shortly after taking up this position. They married in his University's Wills Hall Chapel, quietly, during the long vacation. Few people knew of the impending wedding, and only a handful of close friends and relatives were present. Brian was Best Man. Alec and Maureen had two children in quick succession not many years before he became a grandfather by one of the sons of his first marriage. He was duly knighted and held all manner of distinguished jobs at home and abroad before his untimely death from a brain tumour.

One of the most important couples who had just come to Harwell at the time were Alan and Jean Cottrell. Alan was a metallurgist of repute and of immense value to the establishment. Already a Fellow of the Royal Society at an early age, his reputation had been made by his work on the strength of metals. With them we shared a secret vice. Although we loved all manner of music we were also addicted to jazz, particularly to Rock'n'Roll which had just made its slightly disreputable debut, occasionally getting youngsters so over-enthusiastic that acts of thoughtless vandalism were committed during "pop" concerts. Unlike the willful destruction that goes on at football matches to-day, this outbreak was short-lived and the songs of Tommy Steel, Bill Haley and Elvis Presley became acceptable to most. I shall never forget Alan, looking very serious as he pulled papers concerning a meeting in London out of his briefcase. Concealed among the wads of dreary-looking documents was a sensational new record with a shiny and lurid design on the sleeve. It was called *Rock around the Clock*. Sir Alan Cottrell has since been a Cambridge professor, Chief Scientific Advisor to the Ministry of Defence and to the Government. He was also Master of

Jesus College Cambridge and charged with the higher education of Prince Edward.

But what of our friends, and there are many, who never achieved fame? We have a great many, and public recognition never seems to make much difference either to them or to us.

Surrounded once more by so many good friends, old and new, I began to feel as if I had never been away. The interval between the two "acts" of the drama of our life in Harwell seemed a curiously short interlude.

Naturally, there were a few malicious tongues that could not resist having a wag. To some we represented the decline of morals and the toleration of wrong-doing. "I'll give THAT marriage six months," one otherwise distinguished gentleman was heard to declare. An earnest young engineer with whom we were but casually acquainted gave Brian a watery welcome, but cut me dead; another informed the community in general that if we dared to show our shameless faces on the site again he would resign. Eventually he did, but we were told by those in authority not to let it worry us, for it was no great loss. Other than that I can think of no unpleasant comment, made either to our faces or reported as having been uttered behind our backs. We were inundated with invitations and we received many wedding or house-warming presents.

We were now not so far from the boys' school and could collect them at week-ends. They were delighted to see all their friends and their old haunts again, and were tremendously excited when, in 1953, we spent what was left of my uncle's handsome present on a television set. What spurred us on was the impending coronation, which we didn't want to miss, nor the conquest of Everest that accompanied it. We watched the preparations avidly, but when it came to the coronation itself a houseful of friends watched without us. My parents had obtained seats for all of us overlooking the route of the procession, and we saw a little bit of the real thing. The radiance of the young Queen on her journey back to the Palace in spite of torrents of rain was something no-one who witnessed it could ever forget. It seems strange today, when even families on supplementary benefit enjoy what the TV channels have to offer, that in those days a relatively small proportion of the population had this advantage.

One aspect of life at Harwell that altered radically for us was the amateur dramatic and concert scene. The community was becoming large and

diffuse. The old gymnasium was pulled down, and a new auditorium of brick and concrete, known as Cockcroft Hall, was eventually erected just outside the security fence for performances of a much higher calibre. This building, typical of the post-war era, afforded quite a marked contrast with those that surrounded it, but it blended in and improved the appearance of the centre of the site. Its function was really two-fold. Because of its position on the edge of the security area, it could be used for establishment business of a classified nature, or it could be thrown open to a wider audience for lectures and colloquia that scientists from Oxford and elsewhere regularly attended, or sometimes it could be opened to the public for entertainment of a general nature. It helped to make Harwell seem less remote and shrouded in secrecy.

Petrol was no longer rationed, so we were released from our dependence on do-it-yourself activities. There were concerts in Oxford, and the Playhouse and the New Theatre provided as much entertainment as we could absorb. Quite apart from that, Brian was too deeply involved in creative work to leave much time for such extra-curricular activity. Our evenings took on a pleasing pattern. After dinner he would normally work at his desk until about nine-thirty, after which, usually in the company of friends and neighbours, we would round off the day by having a drink in one of the charming old pubs that this part of the country is famous for.

If I am giving the impression that our life was entirely easy, let me correct it. We were still rather short of money. I accepted that the boys' boarding school fees should be born by Oscar, but nothing else. We did not want them to feel that there was any competition between him and us where provision for their necessities and entertainment was concerned. But still, children grow, need new clothes, books, materials for their hobbies and many other things besides. I started to think seriously about brushing up my secretarial skills with a view to getting a part-time job, either at Harwell or locally. Meanwhile I became familiar with the auctions rooms of Oxford and the local second-hand shops, and learnt how to be an adept bargain-hunter. Every garment within the scope of my sewing machine and my capabilities was made at home. I seemed busier than ever.

AERE had undergone many changes, and even in the relatively short time I had been away, had grown and developed. New divisions had been formed, such as Health Physics under Greg Marley, Isotopes under Henry Seligman, and Reactor Physics under John Dunworth, to mention but a few. Otto

Robert Frisch had left for a chair in Cambridge, and his place as head of the Nuclear Physics Division was taken by Egon Bretscher. In turn, Egon was replaced as head of Chemistry by Robert Spence, who subsequently joined the new University of Kent at Canterbury as vice chancellor. Hans Kronberger had gone to Capenhurst in Cheshire, where there was a new establishment for separating uranium isotopes.

The senior staff consisted of Sir John Cockcroft as Director, assisted by the Secretary of the Establishment. There were in all fifteen divisions, but only fourteen Division Heads. No-one had been found to run the Theoretical Physics Division since the arrest of Klaus Fuchs. It had been taken care of on a part-time basis by Rudi Peierls, and subsequently by Professor Maurice Pryce from the Clarendon Laboratory in Oxford. In spite of their great competence, this was hardly a satisfactory way to look after a vital part of the whole research programme. Neither was willing to take it on full-time. It was a difficult post to fill. It obviously needed someone academically qualified, able to administrate, organize and co-ordinate the work. But in view of what had happened, the new leader would have to be someone of unimpeachable political reliability and free from the slightest suggestion of any loyalty which could turn out to take priority over that which he owed to the country. It was also obvious that he should be British by birth. Although reasonably well-paid, and involving responsibility as well as prestige, it was not a job that would appeal to many of those deemed to be suitable. To expect an academic of distinction to give up his university post in order to take over this challenge would be asking rather a lot. For some of them it had not been long since they had turned their backs on war-time secrecy, and they were not ready to return to restricted work so soon.

It was thus that one of the biggest surprises of our lives occurred in December 1952, when we had been in our new home for about three months. It was a cold evening, and I was sitting by the dining-room fire trying to work out how much we could spend on Christmas presents for the family. The financial position, despite all our efforts, was far from satisfactory. I had been slogging away at my shorthand and typing speeds with the aid of the radio and the battered typewriter, but a job that would allow me time off to be with the children when they came home seemed difficult to find. I enquired about typing manuscripts at home, but that would mean investing in a new machine. If people pay good money for such a service they expect all the characters to show up, preferably in proper alignment.

I decided it would be better to return to dress-making.

Brian came home early that night. There was a delighted look on his face, but one tempered by amazement, and incredulity. He told me that Maurice Pryce had taken him aside and told him in the strictest confidence that Cockcroft had made a decision concerning the Theoretical Physics Division. Brian was to be offered the Headship. His salary would be almost doubled; he would have a seat on the Steering Committee and a voice in the running of the entire establishment. Just for the immediate future he would have to be content with the rank of Senior Principal Scientific Officer, rather than Deputy Chief Scientific Officer which was the rank Klaus had held at the time of his arrest. Moreover, for the time being, the appointment would be that of "Acting" Division Head. Even so it was a double promotion. All things considered this seemed eminently reasonable. Cockcroft, after consultation with his senior staff, had taken a gamble, acted on a hunch, or at least taken an unprecedented step. Brian was just twenty-eight years old.

Once the announcement of Brian's appointment was made, the press went mad. "Scientist of 28 is given Fuchs's A-job," was the banner headline on the front of one daily tabloid. "Pastor's son gets Fuchs's job," appeared over a large photograph in a more restrained paper that clearly wanted to emphasize the reliability implicit in Brian's background. (Had they forgotten that Klaus's father was also a pastor?) The Times, Telegraph and the Manchester Guardian gave the news considerable coverage. Even the New York Times featured it at the top of its column, "Notes on Science". So sensitive was the appointment that it had to be made clear to the public that Churchill himself had intervened, and that Brian's credentials had been checked for months. There were pictures of Brian playing the piano, Brian tinkering with his car, Brian looking solemn, Brian grinning like a Cheshire cat. I have an album full of cuttings. "It is not my fame," Brian said sadly, "but my predecessor's notoriety".

It seemed that every hack reporter in the country wanted an interview. Our telephone had yet to be installed, but the front door bell rang constantly. Eventually we decided to leave our house for the night and give them the slip. We made our escape after dark by crawling down the garden path, hiding behind the compost heap, and scaling the ladder over the wire fence that separated us from the friends whose ground backed on to ours. These neighbours played the game of subterfuge with enthusiasm and laughter. No

sooner had they let us in through their back door than our pursuers started banging at their front entrance. While Brian and I were giggling almost uncontrollably in a broom cupboard we heard our staunch companions denying any knowledge of our whereabouts. I felt for those poor gentlemen of the press. Obviously their editors were not going to let them go home far a good night's rest until they came up with a sensational story, so they parked their cars, preparing far an all-night vigil. For several days subsequently we were not to be left in peace. One can always refuse to open the door, but how much noise and harassment is it possible to cope with? What a mercy that TV cameras and cassette recorders had yet to become such essential tools of the media.

It was Henry Arnold who hit on a partial solution. "Tell them you are under instructions not to answer questions, and send them to me," he told us. I confess that after having been disturbed for the umpteenth time one evening, I directed one poor chap with his pad and pencil poised for what he hoped would be a fat scoop, to the Arnold's house in Marcham by just about the most circuitous route I could think of. I expect his paper could stand the cost of the extra petrol involved.

In Harwell there were mixed reactions. One or two found it hard to conceal their pique at having been passed over for this plum of a job and having an erstwhile junior promoted over their heads, but the majority gave Brian every possible promise of support and encouragement. His feet were now firmly on the ladder of what was to turn out to be an interesting and successful career, and our life was to be broadened in all manner of respects. There would be invitations to attend more conferences, to give lectures, to participate in policy decisions. There was to be a lot of travel to interesting places and introductions to the great and the good in many lands. Above all, there was the opportunity to acquire leadership skills at an early age, and to participate in an enterprise of national importance. His debt to Harwell and to those who set him on his unexpected path he has always felt he can never repay, and a portrait of Sir John Cockcroft adorns his study wall to this day.

That I was part of it was my enormous good fortune. Once again in the course of ten years, I had stepped out of line and defied the conventions of the time; yet instead of being relegated to a life of drab obscurity, which was obviously what my adversaries hoped for, I appeared to have won a prize of great value. In this context I was to learn an immensely sobering

THE DAILY MIRROR, DECEMBER 13, 1952

The man who gets Fuchs's job plays the piano in the Residents Club Harwell

Brian gets Fuchs's job—at 28

THE clergyman's son playing the piano is to take over the post at the Harwell (Berks) atom station formerly held by Dr. Klaus Fuchs, the atom spy now serving a fourteen-year gaol sentence, the Supply Ministry announced yesterday.

He is Mr. Brian Flowers, 28, a mathematician, born in Blackburn, Lancs.

Now a member of the Theoretical Physics Division at Harwell, he moves up on New Year's Day from his £950-a-year job to the post of acting head of the division.

After a trial period, he is likely to be appointed head at £2,000 a year, writes Ronald Bedford.

Mr. Flowers, who worked on two projects for the Canadian Atomic Energy Board before going to Harwell in 1946, is married, has two sons.

Figure 11.1: A press cutting from 1952

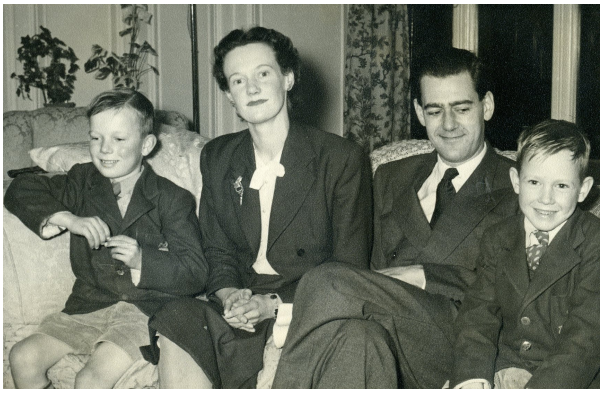

Figure 11.2: Peter, Mary, Michael and Brian in 1952

Figure 11.3: Mary and Brian in 1953

lesson. The few people who had sat in judgement upon us, and condemned us publicly for the way we ran our private lives, were among the first to alter their attitudes. Quite suddenly they hailed us with feigned respect and insincere affection. It is in times of success and happiness, as well as in times of sorrow and difficulty, that one learns to distinguish between fair and foul weather friends. I am glad to place on record that there were not many of the latter.

When the excitement died down, Brian had to face this challenging job in earnest. That it would be a difficult assignment he never doubted, but there were aspects of the work that took us both by surprise. One of these was the level of security involved. We both had to undergo a process known as "positive vetting", required of all senior staff; for there was work going on in the division that otherwise he could not be allowed to hear about. This meant that for a time every facet of our lives, whether connected with our work, our bank balances, our personalities, our families, or even our friends, came under the most detailed scrutiny. Henry brought a benign man from Special Branch to see me. Characteristically he tried to reassure me that I was not about to receive a "third degree" type barrage of questions. "Look, my dear," he said, as he stepped into the house and hung up his coat, "I have a colleague in the car. Could he come in? He is an awfully nice chap." Someone was once heard to joke that were Henry visiting someone in the condemned cell he would describe the public executioner in the same glowing terms. I did not find the process painful. To tell the truth it rather amused me; but I was quite staggered at the questions the "awfully nice chap" asked me. What relevance they could have had to Brian's dependability to safeguard classified information I could not imagine. To some the whole process is regarded as an indignity, but I never thought of it as such. I made a full confession of my youthful flirtations with leftist politics, and stated, I hope without arrogance, that my old friends were my old friends whether they had carried Communist Party cards or not. Nothing I said seemed to be news to Henry and his colleague. They had obviously done their homework on me. I had been weighed in the balance, and not found wanting.

It still puzzles me slightly when I think how easily and readily I was accepted as trustworthy.

One of the things that had aroused Henry's suspicions before they became centred on Klaus as the traitor in the camp, was that he, as the Head of

the Theoretical Physics Division, was always so compliant with directives from the Security Office. Clever academics are not usually so cooperative! When some piece of paper with petty-fogging instructions about the care of certain files and door-keys, or the need to keep briefcases within sight, arrived on the desks of senior members of staff, they were often greeted with derision. The tone of such over-meticulous do's and don'ts was regarded by the majority of the scientists as condescending and unnecessary, and the place for these memoranda was obviously the waste-paper basket. Not with Klaus. He would solemnly cause all his staff to be made fully aware of every word they contained. He earned a reputation as the most security-conscious person at Harwell. Discreet at all times, he would never reveal one jot or tittle of anything remotely confidential; unless, of course, he had the ear of a Soviet Agent.

Now that Brian had moved into Klaus's office, he had also inherited his safe. Speculation as to the contents of this potential mine of revealing information was unendurably exciting. But no-one knew the combination, Klaus's secretary had long since gone to other employment, and even had she been traced it might have been tactless to put such a direct question to her. She had been greatly upset by what had happened, and had left Harwell entirely of her own volition. It was also deemed inadvisable to call Stafford Prison, where Klaus was by now detained, to enlist his help. There was only one other solution. A cracksman was called in.

One loves to imagine this individual as a big-time criminal with a record of robberies on the grand scale, having served his sentence and decided that he could make a decent living by going straight. We shall never know about that; but we do know that he arrived carrying a stethoscope and a four pound hammer, demanding to be left alone in the room to perform his task in silence. "Not on your life," was Henry's reply, sitting himself down to watch, and instructing his deputy to do likewise. The exercise turned out to be fascinating. With a security officer on each side of him, the expert fiddled with the knob, listening far more intently than a doctor does to a wheezing chest. From time to time he would pick up the hammer and hit the safe with all his force. This continued for about half an hour. Finally, after a prolonged struggle, the tumblers fell and the door opened. "That is simply not good enough," was Henry's conclusion, and a new, infinitely more powerful strong-box was ordered to replace it. But before the cracksman left, he was asked what the hammer had been for. "Oh, that's just to relieve my tension," he replied.

The contents of Klaus's coffer turned out to be the most pathetic anti-climax; nothing but a few inconsequential notes.

Chapter 12

Stability and Security

From the time when we got to know each other in 1947 until early 1953, Brian's life and mine had consisted of a series of extraordinary events. Some were due to circumstances beyond our control; others were of our own creation. If, as I have suggested, our life at Harwell resembled two acts in a drama, then both acts must have been divided into several short scenes, each a play in itself, requiring scene-shifting, changes of costume and the introduction of new characters in rapid succession. Now, although we derived enormous stimulation and interest from the events at work and the company of colleagues, both old and new, we were in for a period of calm. It was as if the tempo of *allegro molto agitato* gradually gave way to *andante cantabile*. If we were to draw a chart of the next few years it would show a steady upward curve interrupted by events of small emotional magnitude compared to the violent swings from the sharp peaks to the deep troughs of the immediate past.

Atomic energy was becoming a vital part of the world's progress, and in Britain there were more establishments being set up to take care of aspects other than basic research. Apart from Harwell and Capenhurst, which I have already mentioned, there was the engineering site at Risley, from which Sir Christopher Hinton and his team designed the plutonium production facility at Windscale, and later the world's first nuclear power stations at nearby Calder Hall, and later at Chapel Cross in Scotland. There was the establishment at Winfrith Heath, where a prototype heavy water reactor was built, and where later, when it became a matter of public concern, much

work was to be done on the safety of nuclear reactor designs. There was the Dounreay site in Caithness, where there were built two of the world's first fast reactors, so-called second generation nuclear power stations in embryo. And in south Berkshire, and inevitably rather separated from the rest of us, there was Aldermaston, the controversial Atomic Weapons Research Establishment, where our nuclear weapons were designed and built. They were exciting days, and every month there was proposed some new variant of the reactor types already being worked upon. Few were in the end to see the light of day, but one had a feeling of immensely vital and inventive activity, the essential worth and promise of which was never questioned.

Brian's position was confirmed within a very short time of his provisional appointment, and he was granted the rank and the salary consistent with it.

Urged on by Lord Cherwell, the Prime Minister's advisor on scientific matters, atomic energy was taken out of the Civil Service so that relations with industry could be easier and personal rewards not so constrained. In 1954 the Atomic Energy Authority was set up under the Chairmanship of Sir Edwin (later Lord) Plowden. Their headquarters were to be located in Charles II Street, off Piccadilly, in the heart of London, where they are still to be found today. Sir John Cockcroft, who by this time had been granted many well deserved honours for the part he had played, including the much coveted Order of Merit, became the Member for Research. Although he continued to live at and work from Harwell, a Deputy Director was appointed who afterwards took over the running of the Establishment. Basil Shonland was chosen for the job. He was a solid, white-haired South African whose profile looked as if it had been hewn from the rock of his native land. He was known for his work on lightning and thunderstorms, had been Field Marshal Montgomery's advisor, and was an avowed opponent of the apartheid policies of his country's government. He had a firm hand, a humorous touch and lost little time in asserting himself.

Harwell had grown under Cockcroft's inspiration, with very little control on numbers or budgets. It was far larger than even Cockcroft himself had ever imagined it would become. The whole structure of Harwell changed from being a unique and independent institution to part of a much larger organization, one which was to assume significant importance on the national scene, and within which the activities of Harwell for the first time had to be seen to be justified in terms of the whole. With the benefit of

hindsight, it was an inevitable transition from the enjoyable anarchy of the earlier years, but it seemed to many at the time that Shonland's appointment was a disaster. Where Cockcroft had shown an immediate interest in any new idea, however trivial, Shonland's immediate reaction was to ask how much it would cost to implement. In fact, Shonland made an excellent Deputy Director, adept at clearing up the difficulties created by a Director who had little interest in, or sympathy for, administrative detail. When he succeeded to the title of Director, however, and the inspiration of Cockcroft was no longer to be so directly felt, the effect on morale was immediate and for the worse.

Staff appointments and salaries came under review and Brian was given what was known as a "B post" with an increased salary. Two years later he was promoted to an "A post", equivalent to that of Chief Scientific Officer in the Civil Service.

In family matters, the time had come for us to think seriously about the boys' education. I wanted them to live with us and go to one of the excellent schools in our area. Having been to a boarding school myself, which I loathed, I was impatient to get them away from theirs. It was a pleasant place, but I felt it had served its purpose in filling the gap where there was no permanent base for them. I have always regarded life at home to be the natural environment for children of their age, and boarding schools, however excellent, second best. For only children, children with parents stationed abroad, or continually on the move, they are doubtless a good solution. When I cast my mind back to my own schooldays, I remember thinking during the time I was away: "I have a happy and comfortable home. Why on earth can't I live in it?" I had more than a hunch that Peter and Michael had similar feelings.

Peter did sufficiently well in what was known as the "eleven plus exam" – the test which determined a child's academic potential and decided whether he or she merited a grammar school education. He also passed the necessary entrance requirements for Magdalen College School in Oxford. There was in Abingdon, about half a mile down the road, an up-to-date state primary school where, because of its location between two of Harwell's housing estates, the pupils were drawn mostly from families with academic interests, thus creating a competitive atmosphere and increased probability of success in these exams. Michael could attend there for a year until he too could sit for them and hopefully join Peter in Oxford. I proposed to bring them both

home to live in the happy and stable atmosphere that Brian had helped me create. I felt it was also important that in view of past events they remain together. Their relationship as companions as well as brothers was essential to their emotional security.

They spent part of every school holiday with Oscar who had established himself, with his wife and a new son, in a flat in Cambridge. Another son was soon added to their family. Unfortunately, Oscar did not agree with my plans, and said he would prefer the boys to continue at a boarding school. These differences of opinion had to be resolved somehow. I did not want my children to be the subject of quarrels as to their future. Oscar had his reasons, which I'm sure were well-founded. I, on the other hand, remained convinced that they had had quite enough disturbance for the time being and deserved a bit of the continuity that normal home life could offer. I may have been wrong, but subsequent events would indicate that my actions were, at any rate, certainly not disastrous. An expert in child-care whom I had consulted advised me that the most important thing in a child's life at that stage of his development, particularly when the parents are living apart, is to know where his home is. It can never be in two places. He further stressed that, unless it is unsuitable because of some obvious lack of amenity, or personality defect in parent or partner, home should be where the mother is.

Rather reluctantly I had to apply to the Court for formal custody. I should far rather have kept as they were the relaxed, informal conditions governing the children's care, but there was another important consideration. This had some sad aspects; and I set it down here to illustrate how the conditions of national security in which we lived affected our private lives.

At that time, once a custody order was made, a child could not be taken out of the jurisdiction of the Court – and that meant out of the country – without special application for permission to do so. Henry Arnold had frequently persuaded me not to attempt to take the children with us on trips abroad. If I did, he pointed out, Oscar would want to have the same rights, and for a number of reasons he thought this inadvisable. He was very keen that the custody order be made without delay. Moreover, both Henry and my lawyers persuaded me to seek an opinion from an expert in German law.

Counsel's findings were revealing. Oscar, as a refugee from Nazi oppression, could regain his German nationality at the drop of a hat. But, believe it

or not, Peter – in the eyes of the Bonn government at any rate – was a German citizen, because his father, still waiting for his naturalization, was German at the time of his birth. Once again I found myself caught up in a web of nationality problems. Should Oscar want to return to Germany to live and work, and should he take the children with him, I would certainly be powerless to extradite Peter. I thought it very unlikely that Oscar would want to make such a move. I knew that his experiences in Germany had, not surprisingly, left him with bitter feelings about his country of origin. He owed much to Britain; it was his chosen home, and had provided the soil in which he had put down fresh roots.

There was another problem which seemed even more absurd and quite ludicrous. East Germany was building up a programme of nuclear research and would have been in a position to offer Oscar a commanding position there. I was quite shocked at the idea, and told Henry that I was convinced, beyond any shadow of doubt, that Oscar's loyalty to Britain and the western way of life would never allow him to defect. The whole question was not only hypothetical but totally preposterous. Even were the East Germans to tempt Oscar with the best facilities and conditions they had to offer, he would certainly resist it. Henry explained with patience that it was not the PROBABLE that concerned him but the POSSIBLE. He agreed with me that it was hardly likely that Oscar would do such a thing, but the fact remained that he COULD. Should he take the boys and keep them in Germany, particularly in the German Democratic Republic, my being denied access to my children would immediately represent a security risk. This was Henry's prime concern. It was considered that the emotional deprivation which I was bound to suffer as a result might render me unreliable and open to all manner of pressures, even blackmail. This, in turn, would jeopardize Brian's position and national security.

Even during the boys' visits to their father, when the old Bünemanns were in Cambridge too, Henry would get rather nervous lest their grandparents should attempt to take them back to Hamburg with them. Such was his anxiety that he once told me that he was having a watch kept at the appropriate ports.

The tragic aspect of this particular problem was that Oscar's parents were by this time becoming frail, and his mother was being treated for cancer. Visits to England were going to be increasingly difficult for them. It was therefore not surprising that Oscar expressed a desire to take the children to Hamburg before they embarked on any continental holiday with

us. However, the expert opinion we sought through our lawyers was quite clear. The view expressed was that in no circumstances should Peter and Michael be allowed to enter Germany without me. I felt sorry for the old people and had no desire to add to all their suffering, particularly as they had been separated from their only son for so many years. I immediately volunteered to take the boys to visit their grandparents, and said I would be responsible for all the expenses involved. I would seek the cooperation of Oscar's sister, whom I loved and trusted, to help me conduct the visit in the most diplomatic way possible. Alas, my offer was turned down. Oscar said that my appearance would cause his family distress. Whereas I could understand their dislike of me, I felt extremely sorry at this turn of events. Knowing now just what it means to have many miles between me and my grandchildren, I am surprised. I feel fairly certain that even were mine brought to visit me by a particularly hated *bête noir*, I should be so glad to see them that it would prove worthwhile to smother my feelings and welcome their escort, provided that they came to no physical or mental harm.

When the case was heard, I was granted full custody with, surprisingly, the right to take or send my children wheresoever I pleased; but Oscar was not granted these rights, and he never applied to the Court again. However, I always made sure that he had plenty of access to his sons, and their German grandparents saw the boys on their last visit to England. To the best of my knowledge the old people never saw their youngest grandchild – Oscar's second son by his new marriage – at all, but that, of course, had nothing to do with legal jurisdiction. Shortly afterwards, Oscar went to Stanford, California for a sabbatical year, and subsequently took his new family to live there permanently. Several years later, when the boys were old enough to make their own decisions, Michael wanted to visit his father in California, and we ran into another of our nationality problems. We had registered his birth with the British consulate in San Francisco, thereby making him a British subject. As his birthplace was in California, however, the Americans deemed him to be a US citizen. This became clear when we went to the US consulate in Manchester to apply for a visa, necessary in those days for holders of a British passport, of which he was one. The war in Vietnam was raging, and as an American citizen he would have been eligible for conscription! Heaven forbid that my son should be regarded as a coward. But he owed no allegiance to the country of his birth, which he had left when he was two months old. After having been assured by the US consul that he would not be drafted he was nevertheless sent his conscription papers

by the Draft Board. Fortunately, Oscar cooperated and we jointly fought the Board. In due course, our lawyers and Oscar's got his release, citing a protocol of the League of Nations intended to protect citizens of dual nationality from being recruited into the armed forces against their will in the country that was not their main home. It had been championed by the United States but never before used against them. Nowadays Michael's dual nationality is recognised by all and he proudly carries two passports.

At the time I was given custody, several years earlier, it was decided that my arrangements for the boys' schooling were to stand. Peter enrolled at Magdalen College School where he seemed happy enough and quite grown-up in his new, long trousers and the regulation black and scarlet blazer and cap. The grey stone buildings in which he worked were mostly quite old, and the great College, whose name they shared, exuded an atmosphere of scholarly and almost monastic antiquity. The school was situated in the shadow of that magnificent chapel from which some of the best choral music is to be heard. On fine days he could walk across the tranquil Christchurch Meadows on his way from the bus. Michael spent a year at the local primary school in Abingdon, where, being a great extrovert, he specialized in spotting railway engines and making friends. A typical boy of ten years old, he had to be dragged from the railway line in summer and the TV set in winter to complete his homework. He did well enough despite these distractions, and after passing his exams in 1956 joined his brother at school in Oxford.

Life for us may have been serene, but there was nothing in the least dull about it. Brian continued his work on the structure of atomic nuclei and on nuclear reactions, although increasingly tied up in the running of his Division. He was anxious to increase its intellectual breadth because of the wide variety of problems being thrown up by the research programme generally. It was in this connection that he recruited Mick Lomer, an erstwhile pupil of Sir Laurence Bragg, who was eventually to succeed Brian as head of the Division. Mick took charge of the theoretical studies of what happened to materials inside a nuclear reactor. Together they recruited a number of young staff for that purpose. One of them, whom Brian had taught during his stay in Birmingham, and who like him was therefore a student of Rudi Peierls, was the late Walter Marshall. Later Lord Marshall of Goring, he was to enjoy a spectacular career, and Brian, no slag himself, watched this former pupil with fascination as he rapidly rose to become first an expert on the magnetic properties of neutrons, then Head of the

Theoretical Physics Division, then Director of Harwell, then Chairman of the Atomic Energy Authority, and subsequently Chairman of the General Electricity Generating Board.

Another young colleague, who became a friend and who opened up a whole new perspective in our lives, was a young Russian who had been sent to work with Brian by the USSR Academy of Sciences. We called him Alik. For obvious reasons he could not be supervised at Harwell, so it was arranged that Brian would give him the necessary tuition at the Clarendon Laboratory in Oxford. By this time Brian had become a Master of Arts of that University and attached to Brasenose College in recognition of the growing relationship between Harwell and Oxford.

It was quite a historic day when Brian first brought Alik to our house. We knew virtually nothing about Soviet citizens. The only time Brian had observed any at close quarters was when Bulganin and Krushchev, who had jointly ascended to power after the downfall of Malenkov, paid a formal visit to Harwell in the company of the great Academician Kurchatov. They might nave been visitors from Mars to judge by all the excitement their visit caused. Most of us had to be content with a glimpse of them being driven away in a swift, black limousine from their Embassy. We had certainly never conversed with a Soviet Russian before. Alik was shy, youthful and blond. His clothes had an odd, rather old-fashioned cut of the sort I had noticed on refugees from central Europe before the war. He had never been away from his home until now, and his English was halting. We soon found out how sad and lonely he was. Having been sent to this country for a year, he was facing a separation from his young wife and their nine-month old daughter. We and our friends set about cheering him up. That first evening we were to have unexpected help in communicating with our visitor by a television programme. That brilliant comedian Victor Borge was due to appear at eight-thirty and I insisted we finish our dinner by that time. Brian and I argued. He said that we must put our guest first and our entertainment last. As it happened, we had finished our meal before the concert started, and as is so often the case, laughter broke down the barriers. Borge was at his funniest, playing the opening bars of Tschaikovsky's piano concerto with his bottom, falling off the piano stool, slamming the lid down to coincide with heavy moments from the percussion, and displaying all that expertise in musical slapstick for which he was so justly famous. Alik nearly choked with giggles and so did we. We had found a happy common denominator, and he became great

friends with us and the boys. We were able to introduce him to so many of the people we knew, and we all talked informally and frankly about the differences in our two cultures. Towards the end of his stay, Alik thanked us for taking care of him so well and told us how much he had enjoyed his tuition and getting to know us all. But he confessed to feeling more sympathetic to the Soviet way of life than when he first arrived in England. He felt we were obsessed with inessentials, and having noticed the disparity between rich and poor he said, "Really I find it unnecessary to have so many cars or washing machines to choose from." We saw him again once at a meeting in Moscow, and once in Canada where he greeted us warmly. After a few years our Christmas cards went unanswered and we lost touch.

This was the time that the USSR was showing a few chinks in the impenetrability of its iron curtain, and discussions between scientists from east and west were arranged. There was a tremendously thrilling conference on the Peaceful Uses of Atomic Energy ("Useful Pieces" it was inevitably called), where delegations from an enormous number of countries met in Geneva. Another was to take place in 1958. This was a period of rapprochement. Experts in all walks of life exchanged visits, and it was fascinating to be able to meet and talk with people from Eastern bloc countries in normal circumstances, and apparently unsupervised. Shortly afterwards, tourism began to open up. We were all disappointed when, in 1956, the suppression of the moderate Nagy regime was crushed in Hungary and Russian tanks rolled into Budapest. It was to be one of the many set-backs in the improvement in relations we had all hoped for since the death of Stalin.

We entertained many guests from overseas during these years, and enjoyed reciprocal invitations. Whenever there was a conference at Harwell we would endeavour to give some sort of party, and our house was usually teeming with guests from home and abroad. The boys benefited greatly from meeting people from widely differing backgrounds.

We invited the Racahs to stay with us after a conference in Birmingham, and we subsequently visited them on Giulio's spectacular vineyards in Italy, which he had reclaimed after the war. I had feared that this would be no holiday for Brian as the men were bound to be immersed in discussions concerning nuclear physics. As it happened they only discussed it for one day; the rest of the time was happily consumed by Brian receiving valuable tuition in viniculture as they walked up and down between rows of vines in the autumn sunlight.

We visited them in Israel too, in 1957, when the first nuclear physics conference was held in that country. This was among the most interesting of the many trips we made at that time. It had always been an ambition of mine to visit the Promised Land, and I was glad that our first experience there was at about the time of the country's ninth birthday. We travelled widely within the somewhat peculiar frontiers existing then, from what was the Lebanese border to the Negev, looking at newly-planted forests, towns in the process of being planned – a few short steps from the drawing board – and a variety of vegetation from banana plantations to rose gardens. "If we have water we can grow almost anything," we were told.

In the Judean Hills, as well as in the conference rooms at the new Hebrew University in Jerusalem, experiments were described and ideas exchanged. It was a poignant sadness that the original University which bore that name, built with such enthusiasm and hope on Mount Scopus in the 1930s, lay unused and uninhabited in the Eastern part of the city that was then in Jordanian hands. Giulio, among many of the professors who had held appointments there since before the formation of the state, was obliged to leave valuable books and papers there. It was also unbearably frustrating that the old city was barred to us on that first visit. The minute glimpses we were able to get from the top of the YMCA tower and the terrace of the King David Hotel only served to aggravate the feeling that our stay in that most notable of cities was incomplete. Technically it would have been possible to cross the border at the Mandelbaum Gate after waiting for the necessary visas and permits which had to be applied for months in advance, but we did not have the time. Brian needed to get back to his work and I had to meet the boys who had been staying with friends in France.

Those were the days when Israel was an enthusiastic and hopeful young democracy. Many of the European visionaries and founding fathers were still alive and active; we were introduced to David Ben Gurion, Golda Meir and Moshe Dayan. The belligerence and bitterness one observes among so many of the young there to-day, who have grown up in two generations of strife, had not yet set in. I have a clear memory of an enormous meeting of great minds in the Jewish homeland – and such an amazing preponderance of the great scientists of the time were Jews – of lively discussions, vigorous arguments and above all, laughter. I remember a tremendous argument concerning collective motion in the nuclear shell model between Brian and Aage Bohr, son of the famous Niels, who with his family became close friends. The whole assembly was riveted by the sparring match, even Pauli,

frequently sarcastic about the theories produced by the young, becoming as enthusiastic as a spectator at a ball-game. His oscillations became faster as he bellowed with laughter and referred to them as Scylla and Charybdis.

Brian was frequently invited to lecture in the United States and in many parts of Europe. In Scandinavia we consolidated our friendship with the Bohrs and made many new ones. We drove to Yugoslavia where Brian was to pay one of his visits to the Ruder Boscovic Institute at Zagreb. The country had not yet been charted by the Automobile Association and the maps were rudimentary, and we rarely managed to make ourselves understood except by mime. In contrast with the holidays offered by the glossy travel brochures of to-day, this was an adventure requiring every scrap of initiative we were capable of.

Although I accompanied Brian on his trips whenever possible, I sometimes had to stay behind because I could find no suitable arrangements for the boys. My parents were always glad to look after them, but Brian was extremely definite about school taking absolute priority and unscheduled days off were not allowed.

In early December of 1957 Brian was the first from Harwell to be invited to visit Moscow. I was sent a formal invitation too, but was unfortunately forced to decline and didn't go there until later. I had been pregnant but had lost the child very prematurely. Brian and I had delayed starting a family of our own until we felt that the one we already had was secure enough not to feel excluded by a newcomer in its midst. This was a disappointment, particularly as I never managed to replace this loss. An early admission to hospital was necessary which I could not postpone in order to go on a journey. It was a sad time but Brian's early venture into what was virtually the unknown territory of Russia helped to take our minds off the grief we shared.

Once again the security services had to have a good think and we gave Henry Arnold another of his headaches. Brian was naturally trusted to carry out his mission with all the diplomacy required in such circumstances; but there had been one or two occasions when visitors from the West had been reported inaccurately, and unfortunate words put into their mouths. Whether this had been deliberate on the part of the Russians or not it was decided that in view of Brian's somewhat special circumstances, no chances should be taken. He was to take his own "interpreter". This was quite a

reasonable step in the eyes of everyone, for it made sure that even if Brian's public utterances were misrepresented there would be a witness to set the record straight. The linguist chosen to accompany him was a young reader in Russian, later to become a professor, from Edinburgh University. His name was Dennis Ward, and he possessed an uncanny gift for languages. He had picked up Russian during military service in Berlin, when the city was under quadripartite control. He even distinguished himself by becoming interpreter to the Russian Commander-in-Chief. He was so successful at it that he not only spoke it with the fluency of a native but researched into its literature and history as well.

The manner of their arrival in Russia provided the material for many an after-dinner story. Planes were cancelled, flights delayed; there was an unexpected stop-over in Brno in Czechoslovakia, for which place they had no visas; and from which there appeared to be no connection for several days. There followed a seemingly endless wait until a message was flashed through giving instructions that Dr Flowers was to be brought to Moscow by the first available transport. The only aircraft on the tarmac able to make the journey was Krushchev's private 'plane. Zapotec, the President of Czechoslovakia, had just died and China's Chow En Lai had come to pay his respects via Moscow. He had been duly despatched in this air-borne Victorian drawing-room. Brian and Dennis told of an extraordinary flight, lolling on velvet sofas, smoking cigars and drinking vodka amid the plushest fittings, with no mention of safety regulations or fastening seat-bells.

Upon their arrival in Moscow, Dennis was regarded as Brian's bodyguard or commissar, which in a sense he was; and their hosts were somewhat taken aback when quite casually one day they went their separate ways by mutual agreement (such was their embarrassment), Dennis accepting an invitation to deliver a lecture on Old Slavonic Poetry at Moscow State University. Those who had been told off to watch him from their side had no idea that British policemen were so resourceful. They caused further confusion among the ranks of the interpreters by walking home unaccompanied, by way of a late night cafe, after a reception one evening at the British Embassy. Whether this consternation resulted from an affronted sense of Russian hospitality, or from fears that their guests had trodden an unapproved path, we shall never know. At all events, they were greatly surprised that Brian had turned down the offer of a diplomatic car in favour of a stroll.

In subsequent years we were both to have other experiences in Russia and

its satellite countries. Some were pleasant, others alarming. But they have demonstrated to us both that the theories of Marx and Engels may make inspiring reading to some, but when put into practice a great deal seems to go wrong and the outcome is very different from the Utopia of their imaginations.

The start of 1958 found us with a big decision waiting to be arrived at. Brian had made what was generally regarded as a success of his assignment at Harwell, not only in putting the Theoretical Physics Division back on its feet but in helping to formulate the future of the whole establishment. Should he continue at Harwell or expand his academic work a bit further?

The chair of theoretical physics fell vacant at Manchester University. Although Brian had previously refused one or two such offers, we eventually decided that he would accept this one when it was offered. Manchester was hardly the place I wanted to return to, but it was to prove worthwhile for me to put my feelings in the matter to the back of my mind. It was just the job Brian needed at the time, and moreover the High Master of Manchester Grammar School, Sir Eric James, who was to be one of the first life peers the following year, examined the boys' scholastic records and accepted them as having reached a suitably high standard for what at the time was considered the best school in the country.

It was with regret that we left Abingdon and our friends, but we kept in constant touch and made frequent visits. Brian was appointed as a consultant to Harwell which gave us good reason to make frequent trips to the place where such a happy and vital part of his career had been spent.

At about the same time, the Cottrells moved to Cambridge, where Alan was appointed professor of metallurgy; and Denys Wilkinson moved to Oxford to become professor of nuclear physics. We kept in touch with them all, and we were destined to see much of each other in the years to come.

The Theoretical Physics Division gave a tremendous farewell party which Mick Lomer organized with enthusiasm and humour. It was clear that he too had a natural flair for leadership, and the transfer of authority was going to be easy. We were presented with a fine set of silver dishes which were intended, so Mick said, as a gift to us both and a compliment to my cooking. Brian's colleagues collected souvenirs from his life: pictures, sheet music and even a shabby old fur hat left over from his days in Chalk River. These they arranged like an illustrated biography, interspersed with

the inevitable dash of foolishness, on the walls around the room. John Cockcroft, in a reminiscent mood, picking up the mangy head-gear and examining its sorry state of dilapidation, said, "I remember Brian in the days when this was quite new".

Thus the curtain fell on the final scene of that fantastic play – the first fifteen years of atomic energy – in which I had played an exceedingly trivial walk-on role, even though I made my exit with the juvenile lead. The involvement with secrets, spies and security tailed off, although we were always vulnerable. The old saying, "You can't ride a tiger and expect to dismount," is very telling. Wherever we go and whatever we do, we have been taught through the lessons we learnt so early in our lives, to be careful in our actions and our utterances. Not just in the interests of the safety of the realm, but in the confidentiality expected of those who hold positions of high responsibility.

Our friendship with Henry Arnold continued for the remainder of his long life. He retired at about the time that we left Harwell; but he too was kept on by the Authority as a consultant. We knew that if anything worried us concerning an involvement which came within his terms of reference, we could always talk to him as a friend. Once or twice we felt it necessary to get in touch with him.

There was one curious occasion a few years after we left Harwell. It occurred while we were at a conference in Dubrovnik. I made friends with a pleasant lady from East Germany. Her name was Barwich and her husband was in charge of the experimental nuclear reactor in that country and was also, incidentally, Klaus Fuchs's boss. They were not happy and told me in great secrecy of their hopes of settling in the West. Frau Barwich also told me that she needed some new boots, but found the type she wanted unobtainable in their part of Berlin. Would I get her some? Naturally I agreed, and she gave me twenty dollars which should have been adequate for the purchase. On the 'plane home I panicked. I had been party to a crime. She muttered something about the need to keep quiet about the money, but foolishly I didn't realize until later that for a citizen of the German Democratic Republic to be in possession of Western currency was a very serious offence.

I lost no time in telephoning Henry. He was reassuring, but cautioned me, "Send boots to anyone you like, but for God's sake don't take money."

There followed a lot of correspondence and even a telephone call about those boots. Each time I heard from Frau Barwich I reported it to him. Afterwards I realized that these attempts at keeping in touch were merely obscure cogs in the vast wheel that the couple were endeavouring to turn in order to bring about their eventual defection to West Germany. Happily they achieved their goal, and had a short but happy respite there before he died. She was able to write the last chapter of his autobiography in freedom. She no longer needed the boots I sent.

There were for some time scares and scandals. Secrets were leaked from one power to another, and convictions for spying were, alas, all too frequent. Sometimes these were clearly justified; but often they were questionable. Brian always supported the cause of any scientist incarcerated for crimes of which he was clearly innocent, and was instrumental in helping achieve the release of some notable Russian figures, while, at the same time, keeping in touch with Soviet scientists who were sympathetic and friendly but had chosen to stay in their mother country.

Until Brian's retirement we spent the time from those far-off days mostly in academic life. Brian held a number of interesting and significant posts and achieved a considerable measure of success and recognition of his efforts. It was my role to support and help him in any way I could, and for this I shall be as grateful in the future as I was then, after thirty-five eventful years.

Epilogue

The car in which we were being whisked away from Harwell, along the M4, to our quiet house in north London, was swift and comfortable. What a joy it was to be driven on official occasions! (Incidentally, I did pass that driving test eventually, and did not need to renew my licence before my seventieth birthday.) We would be home in little more than an hour and both of us looked forward to a peaceful week-end. During the week we lived in a large Georgian house in Bloomsbury five minutes walk from the Senate House. This graceful abode, with wrought iron balconies, overlooks a well-kept public garden. It was the official residence of the Vice-Chancellor of the University of London. Brian then held this interesting appointment, which marked the last chapter before retirement in a long and distinguished academic career.

Was it really thirty-nine years since we met? AERE had been celebrating the fortieth anniversary of its inception, when that desolate, isolated airfield was acquired as the site of those first peacetime nuclear experiments. When viewed beside the mass of heated controversy that later arose over questions of nuclear energy and its war potential, and with recurrent mishaps at the reprocessing plant at Sellafield (as nowadays Windscale is called – as if a change of name makes a hap'orth of difference), and with trouble of much greater import occurring at Chernobyl in the Ukraine, Harwell seemed, despite its growth during the those last two decades, a tranquil place. It was almost uncanny to reflect that it was once the core of what was to grow into a mammoth industry.

I could see the buildings, once so familiar, standing out in silhouette against the glow of the sodium lamps surrounding the area. The house I complained so bitterly about still stood. I was told it had been re-wired and the "heating provision" improved. The long windows of Ridgeway House almost

seemed to glint in recognition like the eyes of old acquaintances. It was said that carpet had replaced the linoleum we slid along so energetically in our youth. Cockcroft Hall, next door to it, seemed as old as the trees and just as well-rooted in the soil. Despite the lateness of the hour, a few lights were still burning in those prefabs which were visible from the main road. Soon, we were led to believe, they were to be dismantled. The austere and makeshift little shelters had outlasted their usefulness, and their days were numbered.

There was nothing austere about the reception that had just been held. A pleasant and spacious new building for social occasions had been erected at the south end of the security fence. It had thick carpets, lush potted plants and elegant furniture. The provender was tasty and of a sophisticated nature. But most of those enjoying the delectable canapés and champagne were too young to remember the days when we struggled through the mud, in our wellies or on our bikes, to attend some sketchy party in Ridgeway House, or rehearse a play or concert under the noisy tin roof of the gymnasium.

At one end of the large, impressive room was a collection of pictures, depicting Harwell's progress through the years. Most of our fellow guests would regard those old black and white photographs of intense looking scientists, with short hair-cuts and pullovers, as hilariously comic, as much a piece of history as that first exhibit – a fighter aircraft on one of the runways. But if I stood back and shut my ears to the babble of voices, and my eyes to the bright party clothes, I could make the pictures come back to life. The stocky Cockcroft, seated in the middle of his Steering Committee, would take off his glasses and polish them, as he always did when thinking through his answer to a tricky question. Herbert Skinner would run his fingers through his already tousled hair, Egon Bretscher would complain of a migraine, and did I hear Klaus Fuchs's laboured, imperfect "English"? Other voices came flooding through the hubbub. A gentle piece of mockery from Erna Skinner, a howl of laughter from Hans Kronberger. There were so many figures, mingling in the crowd, who now were merely ghosts. Were we ourselves thought of as having been shaken out of mothballs for the occasion? Brian hunched his shoulders and extended a shaky hand in imitation of senile palsy. I recounted and listened to stories about grandchildren, over the relative merits of dyes for concealing grey hair, with a lady who was a neighbour when we were both in our twenties.

The then Director, Dr Lewis Roberts, understood. He was in the Chemistry

Division in 1947, and later became its head. He could remember almost as much as we did of the days before we left the place, still fairly young people, in 1958.

Since then, life has held many surprises, most of them pleasant. The arm of co-incidence is longer than one imagines. For Brian, success came in a series of rapid promotions and appointments. Once installed in the University of Manchester, he was not to remain Professor of Theoretical Physics for long. The prestigious Langworthy Chair, previously occupied by my childhood idol, Patrick Blackett, and before him Sir Lawrence Bragg, needed a suitable incumbent. Earlier, Sir Arthur Schuster and the great Lord Rutherford had held it too, enriching the position with their work that was to alter the course of history. When it fell vacant it was offered to Brian, together with the headship of the department. Although conscious of the great honour, he was well aware of the responsibility of following such renowned predecessors.

In 1961, we celebrated the fiftieth anniversary of the discovery of the nuclear atom by Rutherford during his Manchester days, that mightily significant experiment of which my science teacher at school was so lamentably ignorant. Earlier that year Brian had been elected Fellow of the Royal Society at the age of thirty-six. This was a splendid encouragement in our efforts to organize a conference to mark the great jubilee. Most of Rutherford's early collaborators honoured us by attending. Niels Bohr and his dear wife, Margrethe, Sir James and Lady Chadwick, Sir Ernest and Lady Marsden from New Zealand. The Peierls's, as one would expect, were a tower of strength in helping us with all the preparations and arrangements, whether helping us receive our guests or rushing out to buy a bar of chocolate for the celebrated Professor Lise Meitner who had forgotten to have lunch, they were constantly on hand.

Manchester University agreed to mark the occasion by awarding some honorary doctorates. To our delight, Giulio Racah and Aage Bohr were among those who received them. The amount of effort needed to organise the meetings, lectures and the entertainment for all these illustrious men and women was immense. We had to make sure that the style of the proceedings should be consistent with the greatness of the founding father of nuclear physics. A few years later we were overwhelmed when Brian received from the Institute of Physics the medal which bears Rutherford's name.

My sons grew in stature and intellect during our stay in Manchester. Peter

won a major scholarship in mathematics to Brian's old Cambridge college, Gonville and Caius, while Michael developed a marked talent for modern languages. Both turned out to be musical and benefited from the proximity of the Hallé orchestra, for whose concerts my father would provide an inexhaustible supply of tickets.

Towards the middle of the 1960s, Brian was to reach another crossroad in his career. He had become increasingly involved with national committees which formulated science policy, and he felt it time to bring his active participation in research to a close, or rather to phase it out. He still had one research student in 1970. During a relaxed evening, while gazing into the fire, he said to me, after one of those long silences during which he habitually arrives at decisions, "I am no longer a composer. From now on I shall be a conductor." The statement was made and heard with mixed feelings.

In 1967 he was offered and accepted the Chairmanship of what was then the Science Research Council. The appointment was for five years and the University granted him leave of absence. In fact he remained at the SRC for six years and we never returned to Manchester. The Langworthy Chair remained vacant a long time.

Shortly before our departure for London a dream was realized. This was a time of expansion in the universities, and new ones were springing up like mushrooms all over the country. There were funds for new buildings and new labs at the older universities too. During the nine years Brian spent at Manchester University he was to see the famous Schuster Laboratory where all his predecessors had worked, taken from a grimy and inconvenient corner of what amounted to a Victorian monument, and together with the whole physics department re-housed in an elegantly constructed and practical new building which he had helped to design himself.

Bragg and Blackett came for the inauguration, and yet again many a great scientist travelled to Manchester, this time to gather in the domed, glass octagon with a fountain playing in the sunlight, to admire on the longest wall a gilded mosaic depicting the tracks of nuclear particles that had been discovered there.

Our first six years in London passed in a flash. Peter got a PhD at the University of Warwick and subsequently an excellent job in the Department of Artificial Intelligence at Edinburgh; Michael obtained a good degree in

German and Economics from the University of Keele, studying both there and in Hamburg. Alas, the old Bünemanns did not live long enough to enjoy his sojourn, but he brought great joy to the rest of that family, particularly to his beloved aunt, Gertrud. During this time both boys married. Michael had two children, a boy Marcus and a girl Naomi, but sadly was divorced in 1987. Peter and his wife remain happy to this day. We were able to help Michael with the care of his children during the upheaval in his life. They brought us great joy and still do. Michael has since happily remarried. Marcus, our grandson, has provided us with a great-granddaughter.

Another notable event occurred during this period in our lives. We had returned somewhat exhausted after driving from the channel coast. We had taken a spring holiday in Italy, and though fit and tanned by the Mediterranean sun, were tired out by the traffic coming up from Dover. As usual, there was an enormous pile of post waiting to be coped with on our return. Usually it consisted of a few personal letters, some bills, and an infuriating amount of advertising matter destined for the wastepaper basket. This time our thoughtful neighbour had placed on top of the stack of paper on the antique chest in our hall a rather distinguished-looking, large envelope bearing the words "Prime Minister's Office" and "Confidential". If our neighbour had guessed its contents, she never let on. Brian had been offered a knighthood. We were both rather shaken, but it was a wonderful recognition of his work, and even provided a lot of fun which we later shared with our friends.

Although I have mentioned our worldwide travels, there is one expedition which deserves a mention on its own. In 1973 Brian was invited to give the first of the annual public lectures intended to commemorate the Queen's earlier state visit to Berlin. Germany was still divided, but East Germany was not recognized by the British. However the city of Berlin was divided into two parts and we were to stay with the British Ambassador, Sir Nicholas Henderson, and his wife at the Residence in West Berlin (the British Embassy being in Bonn in those days). It was very exciting. The Military Governor, General The Earl Cathcart, gave a dinner party for us at which we met several local notables.

The interesting part of this story is that I had some old friends who lived in East Berlin. I had met them through Oscar. They had both come to England as refugees from Nazi Germany. He, Ernst, was a communist and she, Ursula, was Jewish. They had met and married in Manchester just

before my own first marriage. However, they were not going to apply for naturalization. Their avowed intention, after the war ended, was to return to their native land and help to build up the socialist Germany of their dreams. Therefore in 1945, with a small child, they returned to dreadful conditions in East Berlin. But we kept in touch, and from time to time they visited us over here. This shows just what trusted Party Members they were. Usually couples from the Eastern bloc or from behind the "Iron Curtain" were not allowed to travel together for fear of defection to the West; one had to remain behind as a hostage, so to speak. We kept in touch in spite of the fact that we did not share their political views. When I wrote to them saying that we were hoping to visit Berlin I got an enthusiastic welcome and an invitation to stay the night with them. We accepted and the Ambassador didn't seem to mind. Afterwards, however, we realized that it had caused some consternation.

Lord Cathcart, especially, thought us very foolish to take such a risk. Although we visited East Berlin during our stay to go to the theatre and other places of entertainment, it was always under diplomatic aegis, escorted in the Ambassador's car; but as this was to be a private visit we were to cross the frontier on our own. I believe that a discreet telephone call was made to the Chargé d'Affaires in the East, but we could not expect any help if we got into difficulties. So we set off in the Ambassador's car as far as Check-Point Charlie but were then left to our own devices. A small yellow Escort car appeared driven by a British representative from the other side who told us he was not allowed to drive us across the frontier but would wait for us until we were through the frontier. After some argument at the check-point concerning a large laminated chopping board I had brought as a present for Ursula as it had a medieval map of their beloved Lancashire on it (and maps were suspect!), we were eventually let through and found the yellow Escort waiting to drive us to our destination. Ernst and Ursula were more than kind and hospitable, and it didn't take us long to realize that they were very privileged people, he a professor at the Humboldt University while she occupied a key position in the East German tourist industry. They had a large flat with a cleaning lady, and we were given an excellent meal with good wine, luxuries which were not accorded to the rank and file of the population of "The German Democratic Republic". Some slight reserve in our hosts' conversation suggested to us, however, that we were perhaps being bugged discreetly. Brian tried to provoke them politically by saying that he disliked the Soviet system, but he was met only with benevolent silence.

The next day our friends took us on a sight-seeing tour of their part of Berlin. It consisted of all the sites favoured by their regime: the Soviet War Cemetery where we saw soldiers goose-stepping, the communist leader Thälemann's grave, and the memorial to the communist "heroes". It was extremely dull, colourless and drab. On subsequent visits to the city we were amazed at the fine architecture and places of historical interest they had left out. It was with relief that we took a taxi back to Check-point Charlie where, to our intense relief, the British Ambassador's car was waiting to take us back to the West. Everyone at the Residence was relieved to see us back and with the benefit of hindsight we realized that we had put them into a state of great agitation. Several people from the West had previously been arrested on trumped-up charges of spying, and Brian as a prominent functionary in the British hierarchy would have been a prime target. It was indeed a very foolish thing to do and we are sorry for the consternation we caused, but we are glad to have returned unscathed from this hazardous journey into what could well be regarded as a danger zone.

After the unification of the two Germanies, we met Ernst and Ursula again in what had earlier been West Berlin. We had a very congenial dinner together, and this time there was no trace of the reserve we thought we had detected before in our friends' conversation. Ernst merely said "We did not want to start a revolution. We just wanted to find an alternative to capitalism."

There was to be another move in 1973. From the modest house we had bought after leaving Manchester, for the period of supposed "leave of absence", we went to one of the most palatial and luxuriously appointed homes in London. To call it "a flat" would hardly be an appropriate designation for the two middle floors of a magnificent town house in South Kensington. Designed in the style of Queen Anne by the celebrated architect Norman Shaw, it had housed in succession prosperous cement merchants, the 6th Marquess of Anglesey, and the London College of Secretaries before being acquired for Imperial College of Science and Technology in l962. It was to provide faculty accommodation and an imposing Council Chamber on the ground floor, as well as a lodging upstairs for the "Rector", as the principal of this venerable institution is called. That was to be Brian's next job. The concrete jungle of laboratories, libraries, lecture theatres and administrative buildings forms a substantial campus amid the Edwardian elegance of this part of London and the gracious old house, set at right-angles to Queen's Gate, is at its westerly boundary. The heavy front door, with its

ornate, carved architrave, leads on to a spacious forecourt, where some of London's tallest plane trees grow.

With great joy, and as very new grandparents, we moved into the large, warm rooms whose walls were soon to echo with the sound of childrens' laughter as our family grew. We lived there for what we like to think of as "twelve golden years". It became a centre for family and friends. Because of the ease in parking cars outside and the number of rooms, we were able to entertain as never before. It was also easy for me to care for my parents during their declining years, and make a home for my mother after my father's death. She lived with us until she followed him at the age of ninety-three.

The work of Rector was tough, but Brian's other assignments were even more taxing. He became a part-time Member of the Atomic Energy Authority and kept in touch with many old colleagues. Life wasn't too easy when, as Chairman of the Royal Commission on Environmental Pollution, he had to oppose many of his former comrades regarding their stance on the processing of nuclear waste. There were other committees of enquiry too, and the horrid job of chairing one for the University of London to formulate suggestions for merging some of the London medical schools. This caused a furore in medical circles and beyond. For a while there were anonymous letters and threatening telephone calls.

He was involved in the newly formed European Community too. For six years he was the first President of the European Science Foundation, which had its headquarters in Strasbourg. This lovely old town in the heart of Alsace became our second city, and many were the visits we paid there to enjoy the architecture, the nearby Vosges mountains, the Black Forest, the fine wine and food. It was fortuitous too that during this period, Michael was posted to Frankfurt and we enjoyed many of these delights with him, his wife and their two young children, either from Strasbourg itself or from their home in Oberürsel, a short two-hour drive away from Strasbourg.

Many of the meetings of these various bodies took place at our home in Queen's Gate, because when the going was rough Brian found that the informal family atmosphere helped. The hard work and the endless decision-making took their toll, however. Normally healthy and active, Brian eventually suffered a coronary. This showed just how much of himself he had given, not only to Imperial College, but to education and science policy

at home and abroad. However, true to form, he set about the process of applying himself to a total recovery, which has been so complete that none of the three cardiologists who examined him could find any reason for his not continuing a full working life.

The relentless professional grind also brought its compensations and its gratifying moments. Another "confidential" letter from the Prime Minister informed us of a life peerage in December 1978. Brian was introduced the following year into the Upper House as Lord Flowers, of Queen's Gate in the City of Westminster, with every member of our family present, and our large house full of friends, celebrating until late into the evening of the very day when in England the Callaghan Labour Government fell and in America the Three Mile Island reactor suffered its fateful accident. We were both to be part of the scene when the Queen opened Parliament with the first woman to become Prime Minister of the United Kingdom standing behind the Bar of the House of Lords, beautifully attired in an apricot coloured summer outfit. It was a warm, cloudless day in May 1979, and we had lunch after the ceremony on the Terrace, wearing full evening dress. I still love nice clothes, and for the occasion made myself an appliquéd dress of blue and green, hand-blocked silk that I bought on a trip to Thailand. Brian sweltered in his baronial robes. The impressive gathering of peers and peeresses under the red and white striped awning overlooking the Thames was magnificent, but secretly, it put me in mind of a Gilbert and Sullivan opera, and the solemnity of the occasion was spiced with laughter.

Brian began his parliamentary career as an independent, on the Cross Benches. Despite Margaret Thatcher's friendliness and pleasing appearance, however, her government's social policies caused him such concern that two years later he became a founder member of Britain's new political party, the Social Democrats. He frequently spoke for them from the front bench, on education and science and the environment, and looked forward to the time when politics could occupy a greater part of his life. Indeed it did, but from the Cross Benches to which he returned with relief when the SDP collapsed.

There have been other honours too: medals, fellowships, and honorary doctorates by the sackful. Most of all I like the little red rosette which proclaims him an Officier de la Légion d'Honneur. It can sometimes speed up service in a restaurant or produce a much-needed parking space the other side of the channel. He was elected President of the Institute of Physics,

spending two years at the top of his profession, and still maintains his interest in modern developments in physics. He also served as Chairman of the Nuffield Foundation, which brought us into contact with many interesting people and institutions.

Time has passed so quickly that I sometimes forget that all this took place many years ago, and I am grateful for all the times I have spent with this kindly and learned man.

Postscript

This was all written twenty years ago before retiring to our house in North London. I never succeeded in finding a publisher, but the family persuaded me and Peter has promised to transfer it to a memory stick.

We are now well into our eighties, and apart from suffering a few health scares consistent with old age are enjoying the quiet companionship that comes with it. Yet life has been far from uneventful and we have travelled all over the globe since Brian retired in 1990. In 2001 we celebrated our golden wedding at a dinner with many friends and relatives. The Rector of Imperial College at that time, Sir Richard Sykes, lent us the reception rooms at 170 Queen's Gate for the occasion. A friend and prominent citizen of Thailand, a country we have visited several times when Brian served on the council of a new university there, had come and filled our house with orchids, and at the dinner another friend made a witty speech, and many were the tokens of gratitude and love from everyone there.

The honours continued to be conferred on Brian, including an honorary Fellowship of the Royal College of Physicians, thus absolving him from the disapproval that the various teaching hospitals had cast upon him, and another from the Institute of Physics.

In 1994 another surprise came our way. Brian was voted as the next Chancellor of the University of Manchester, and served the full seven year term. It was a great honour and a tremendous joy to serve in that way the University in which he had once been a professor. We saw much of Manchester in our frequent visits, finding it a much improved city, so different from that of my youth. We greatly enjoyed the hospitality of the Vice Chancellor and his wife with whom we habitually stayed overnight, and through whom we

were able to meet so many of our old friends and acquaintances. At a final ceremony before handing over the chancellorship to Anna Ford of TV fame, the biggest surprise of all took place: without Brian's prior knowledge I was awarded the degree of Doctor of Letters *honoris causa*, and Brian (who had already received two honorary doctorates from Manchester), conferred it with fondness before the farewell dinner. Most of the family were there to celebrate with us.

As for Peter and Michael: they are approaching retirement themselves, although their employers seem reluctant to let them go. Currently, Peter has a prestigious chair at the University of Edinburgh which he and his wife enjoy, together with their country cottage in the highlands. He has just been elected a Fellow of the Royal Society. Michael has a prominent position in the world of finance where his gift for languages is greatly appreciated and much used. He has settled down happily in Spain with his charming second wife. He is also a grandfather, because his son, Marcus, has produced a daughter, Sofia Rose, who is a healthy, happy child, and together with her half-brother Sam (from Alison's first marriage) has made us proud great-grandparents. Our granddaughter Naomi teaches English in Seville, Spain, and has a delightful Scottish boyfriend.

Brian and I still enjoy each others' company immensely and are grateful for it. It seems incredible that what was once described as "an untidy love affair", so many years ago, has grown into a comradeship that we both hope will last some time yet.