4 p.m. six months hence on the first Saturday in June 1945—June 2nd.

Looking back now Fuchs's friends can remember that he returned from Boston at the end of February after ten days' absence looking harassed and depressed. He offered no explanation, beyond saying that he was worried about his sister.

The June meeting took place precisely as it was arranged. Gold came down from New York by train. Wary as ever, he bought a map of Santa Fé so that he would find his way to the Castillo Bridge without inquiring of anyone in the town, and a few minutes after four Fuchs appeared in his Buick. They were barely half an hour together. Fuchs handed over another batch of papers. He said that there had been tremendous progress, and that the first atomic explosion would now definitely take place in the Alamogordo desert during the following month. They fixed the next meeting at 6 p.m. on September 19th, near a church on a road leading out of Santa Fé, and Fuchs drove off to Los Alamos. Gold then took a bus to Albuquerque, sixty miles away, and there had an interview with his other contact at Los Alamos, David Greenglass. It was then that Greenglass gave him the drawings of the implosion lens. It must have been one of the most profitable journeys Gold or any other Russian agent ever made.

When President Truman met Stalin at Potsdam the following month and told him that the American and British scientists had developed a new kind of bomb which was far more destructive than anything known before, and that it would be dropped on Japan unless she surrendered, Stalin manifested nothing more than polite interest and said that he hoped the bomb would be used. He made no attempt to inquire further or follow up the conversation in any way. Yet his Director of Intelligence in Moscow had by then a full account of the making of the bomb, based upon the information of Fuchs, Greenglass, Nunn May, and others. There are grounds for believing that, at the time, the Russians made no use of this

painfully gathered information. They had eminent scientists in Russia, but they, like many scientists in Europe, may not have believed the project to be possible; nor had they yet made use of the Nazi scientists who had been captured on the fall of Germany in May. It seems hard to believe that Stalin's nonchalance was due to either indifference or incredulity. With the prospect of a third world war before them—the series of 'frightful clashes' which Lenin had predicted—it also is very difficult to believe that Russian intelligence could have failed to have passed on their information to the Politburo and emphasized its importance there. Yet such things can happen. At all events, no more was said at Potsdam at the time, and Gouzenko's defection from the Soviet Embassy at Ottawa, which eventually brought the whole matter into the open, did not happen until a fortnight afterwards.

Meanwhile the first atomic bomb was exploded in the Alamogordo desert, on 16 July 1945. So much has been written of the explosion that here we need only follow the adventures of Fuchs on that momentous day. For him and for so many others at Los Alamos who had worked upon this single project for so many years and with so little hope in the beginning, there was an excitement and a tension that was almost past bearing.

On the previous day Professor Peierls, Fuchs, and others were assigned to one of the military buses and they drove off to the scene. Being theorists who were not concerned with the actual work of exploding the bomb, the party was directed to a position on rising ground some twenty miles away from the tower on which the bomb was erected. They were on the spot before midnight, and the bomb was timed to go off in the early hours of the morning, so that there would be the advantage of taking night photographs and of observing the explosive light against the background of the darkness. Each man was equipped with dark glasses and was under instructions to lie down when he saw the flash. It was necessary that

there should be no rain and that the wind should be blowing from the right quarter so that the radio-active dust should be carried into the empty desert.

It seemed that these conditions had been fulfilled when, shortly before zero hour, word came through on the field telephones that a technical hitch had occurred and there would be a delay. There was nothing that Fuchs or the other theoretical physicists could do about this: they had made their calculations and checked them many times over. They had proved on paper that if the bomb were constructed and detonated in a certain way then it must explode. The making of the bomb and the actual experiment with all the possibility of mechanical error were beyond their province.

It was on the point of getting light, and they were about to accept a postponement until the following night, when an enormous flash filled the sky. It was far brighter than anything they had imagined. Its form and colouring they had anticipated—the white column rising to an orange ball and the purple shade created by the ozone up above: but all this was monstrously and unexpectedly bright. Some flung themselves on the ground. Fuchs and others remained standing. This was the end of their years of work.

There was no wind and no sound and this absence of sound seemed unnatural and frightening. They remained fixed in their positions until at last there was a little crack, rather like a distant rifle shot. It was so mild a thing compared to the awesome and expanding light that one of the party who was not a scientist asked incredulously, 'What was that?' as though, after this long interval of silence it was remarkable that the explosion should make any sound at all.

The party got back into the bus and drove towards Albuquerque, two hours away. They were exhausted, and in their natural reaction to the past excitement their one thought was breakfast. At Albuquerque, however, they were told that orders had been issued that they were not to stop lest the townspeople should see the elation in their faces. Glumly the party continued for another three hours to Los Alamos, where their families appeared to be fully informed about what had happened in the night. One scientist who was ill declared he saw the flash from his bed in the camp hospital. Alamogordo was 150 miles away.

The Alamogordo explosion was the beginning of the ending of Anglo-American association over the atomic bomb. It was dropped by the American Air Forces on Hiroshima on 6 August 1945 and on Nagasaki on August 9th, and six days later the war against Japan was over. The British scientists began winding up their affairs in the United States, and in September a farewell party of more than normal scope was arranged. No liquor was sold in the Los Alamos camp, nor indeed was any supposed to be brought in; but it was not a rule that was enforced too rigorously, especially now that the war was over. Fuchs went down to Santa Fé to buy the whisky. He was hours late in returning—so late that his friends thought that he had had an accident or that the liquor had been discovered in the car and he had been stopped by the guard. When finally he arrived he was somewhat taciturn and merely said, without explanation, that he had been delayed. He had indeed been delayed, for this was September 19th and in addition to buying the whisky he had been talking to Harry Gold.

They met, as they had arranged, by the church on the road leading out of Santa Fé, and this, their last, was a long meeting. Fuchs had written down all he knew. He gave the size of the bomb—a vital point—what it contained, how it was constructed, and how it was detonated. He gave his own calculations of the actual dimensions of the parts. And he handed all this over in a package to Gold. He also talked. He spoke with awe of the explosion and the excitement it had caused. Its flash had been visible two hundred miles away, and now that the secret of the Los Alamos camp was out the local townspeople regarded the scientists as heroes. But there was no

longer, he said, the same free and easy co-operation between the Americans and the British. Now security regulations had come into force and a number of the departments were now closed to him. He had been told that he would soon have to return to the United Kingdom.

He said he was troubled about his return. There was a possibility that his father, Dr. Fuchs, who had survived the war in Germany, might visit him in England and there was a danger that the old man might talk about his son's connexions with the Communist Party in Germany in his student days. Furthermore it was very worrying that it was the British and not the Russians who had captured Kiel. There was a Gestapo dossier on him at Kiel and it would be awkward if it fell into the hands of British Intelligence, for that dossier would reveal that he had been a leader of the Communist student group and had fought the Nazi storm troopers in the streets of Kiel.

But he was prepared, nevertheless, to continue his espionage for Russia. These were the arrangements he agreed upon with Gold for making contact again on his return to England:

Beginning on the first Saturday of every month after his return, Fuchs was to be at the street entrance of the Paddington Crescent[1] underground station in London at 8 p.m. He was to be carrying five books, bound with string and supported by two fingers of one hand; in the other hand he was to be holding two more books. His contact, whoever it might be, was to be carrying a book by Bennett Gerf, *Stop Me if You Have Heard This*.

Fuchs was one of the last of the British scientists to leave Los Alamos. Long after Professor Peierls had gone he continued as chief of the dwindling British team to write his reports on the work of the previous two years in America. Before this he had already been offered the post of head of the Theoretical Physics division at the new British atomic energy centre at Harwell in Berkshire. The salary was £1,200 a year, rising to £1,800. He was commended everywhere for his work in the United States, and security in particular were full of praise for his caution. He had arrived now at the front rank.

[1]There is no Paddington Crescent Station. Possibly Mornington Crescent was meant.

In the eight months that elapsed between his last meeting with Harry Gold in Santa Fé and his departure from Los Alamos in June 1946, Fuchs made no attempt to get into touch with the Russians or they with him. Gouzenko's defection in Ottawa occurred on 5 September 1945, and there seems to have followed a long quietus in the activities of the Russian Intelligence Service all over the world. It seems likely that the Director in Moscow called a halt, or at any rate a slowing down, until it was known just how far the Canadian inquiry was going to go. Then, too, traitors as well as everybody else suffered from the general feeling of inertia that succeeded the war; there was no longer the same urgency. Nor were there so many secrets.

Towards the end of November 1945, Fuchs made a brief visit to Montreal and Chicago on official business—it was on this trip that he was interviewed for his Harwell appointment. In the following month he drove with the Peierls on a motoring holiday to Mexico. He was unimpressed, as ever, by the tourist sights, but the Peierls noticed that there was something else which was strange in his manner. He was more abstracted than usual. It seems possible that in Mexico, one of the regular staging-posts for Communist agents, he may have contemplated continuing on to Russia. However he came back to the United States with the Peierls and then, on June 16th in the following year, he left Los Alamos for the last time. He travelled first to Washington and then continued north for a final visit to his sister at Cambridge on June 21st. On June 28th he flew from Montreal to England.

NINE

A recent guide book published in England[1] contains the following note on Harwell:

> Post-war Berkshire's crowning state monument is Harwell Atomic Research Establishment. It was built on the downs by order of the Ministry of Supply which overrode other ministries' and local objections. It drains labour from the nearby agricultural villages; its imported workers swell the old towns of Wantage and Abingdon to impracticable size. Its prefabs and factories spread monthly farther over the downs and higher into the skyline. Its service to Berkshire is that the scientists in it are engaged in splitting the material of which the world and its inhabitants are made.

In the original village of Harwell itself, the centre of a cherry-growing district, there is a fourteenth-century church in which comic figures in stone can be observed being bitten by dragons. The Research Establishment, the guide book goes on, 'is fortunately out of sight of this attractive village and much nearer Chilton, about two miles away to the south-west'.

'We were given Harwell on a windy day of February 1946 on a flying visit from Canada', writes Sir John Cockcroft, the first scientist in charge. 'There was much transatlantic cabling on where we should establish housing sites. A start had to be made quickly and the only solution was to provide prefabs and to erect them on our own site where services and sewers were available and where the minimum of consents had to be obtained.

'The result is a sudden muddle, worse than the Slough Trading Estate, and enclosed in a high wire fence, with a huge brick chimney, box-like factories and spreading prefabs and hundreds of buses waiting on acres of windy asphalt. It dominates the downs (and these were originally scheduled against building) for miles.' Sir John Cockcroft admits that 'something might have been better done had we more time for thought and less separation of space in the planning stage'.

'On a moonlight night the thatch and tile, stone and brick, elms and barns and farms of Old Harwell village compared with the blue electric glare and bright sinister workshops of the Atomic Research Establishment form an instructive contrast between the past and present.'

Not far off is the famous White Horse of Uffington, an outline drawing which was cut out of the green turf in the Iron Age, about 100 B.C. The horse is associated with magical pagan rites of the Druids, and St. George is supposed to have killed the dragon there.

The guide book description of Harwell is a little unfair, since it was written at a time when the station was still under construction. Since then a great deal has been done by the planting of lawns and gardens to bring the place more into harmony with the landscape, and the modern red brickwork is slowly weathering into the native colours of Berkshire.

Yet there is something a little menacing and forbidding in the air. You come up to Harwell on an ordinary 'A' class country road from Oxford, and the first thing you notice is a wire fence with warning signs hanging on it. There is a copy of the Official Secrets Act on the front gate and close by is the police guard. There are many police at Harwell.

It is built on the site of a war-time airfield from which airborne forces took off in gliders on D-day in 1944 for the invasion of Normandy. There are no surrounding houses; the

[1] Murray's *Berkshire Architectural Guide*, edited by John Betjeman and John Piper.

buildings stand in isolation on a large flat plateau and beyond them there is nothing much to be seen but the green, empty slopes of the downs. The residential quarters are composed partly of R.A.F. houses, put up in the war (Sir John Cockcroft lives in the rectangular three-storey brick house which was once occupied by the R.A.F. Station Commandant), staff hostels, and two recently constructed villages of standard aluminium prefabricated houses which look like enlarged rabbit hutches. These villages are placed on either side of the airfield. The main site, the actual laboratories and office blocks, stands between them, enclosed by the security fence. Recently the gardeners of the Ministry of Works have planted diligently, and in the late summer it is a pleasant thing on coming through the front gate (your pass gripped in your hand) to see the English lawns, the beds of zinnias, dahlias, roses, and chrysanthemums.

As far as possible the old R.A.F. hangars have been employed, the war-time camouflage still fading on their walls. A new use has been found for the R.A.F. water-tower, more and more buildings are going up, and the whole place looks not unlike a Californian movie studio, but very neat and new and tidy. From inside one peers through the wire fence at the deserted asphalt runways which are now gradually breaking up with tufts of grass starting through them, and beyond that are the cows grazing in the open countryside.

The older village of prefab houses is set in a shallow horseshoe on the side of a green slope, with lawns in front of all the houses. Each flat-topped greyish-white hut has some attempt at a little garden, a few vegetables, a clothes-line at the back, and here and there a baby's pram on the front porch. These houses are identical—a living-room, two bedrooms, a kitchen, a bathroom—and are so small that if the W.C. is used the whole house is aware of it. Fuchs lived at No. 17 at the end of one row.

The administrative block is the first building inside the enclosure, a low two-storey structure, and there Fuchs latterly had his office close to Sir John Cockcroft and the security officers. It is a light and airy place, lit by glass domes in the roof, and in working hours it is no different from any other English office. Secretaries and young men pass by along the corridors bearing cups of tea and files of papers. On the notice boards nothing more unusual appears than advertisements about national savings schemes, perhaps a newspaper cutting of a cartoonist's joke about the atomic bomb ('Up Boys and Atom') or even possibly an announcement that the Metallurgical Ball will be held at the Village Hall on Saturday night, tickets 7s. 6d. obtainable from any member of the Metallurgical staff.

These things, however, are in very great contrast to the atomic pile itself, and that to a layman is as strange as any dragon or any magical rite practised by the Druids in the Iron Age on White Horse Hill. It is a massive thing in shape somewhat resembling the reconstructions of the Mausoleum of Halicarnassus, and it is tended by men in white overalls. There is no dust, no noise, no hurrying, and no disorder. A clinical calm covers all, and on a first visit it is difficult to avoid feeling unnaturally alert and wary as though one were entering some unexplored cavern from which wild beasts might suddenly pounce out. One half-expects the whole thing to blow up.

Across the wide clean concrete floor of the building men go by like sailors on the deck of a ship. There are many notices saying 'Danger' and 'Radio-active Waste', and the words 'Neutron Ray Trap' are painted on the side of a concrete cube which is intended to block some vent which reaches, like a dragon's throat, into the centre of the pile. In one quarter men are packing and dispatching containers of isotopes which are used in hospitals. Others are manning compressed-air pumps which drive the rods of uranium into the pile. Stacks of graphite lie about looking like loaves of black bread. Large cranes reach

downward from above and in the control room there is a wide arc of lighted dials which reminds one of the cockpit of an aeroplane, immensely magnified, or possibly the bridge of a ship. Most remarkable of all, there is a notice with red lettering strung high above your head and this reads, 'No Smoking on Top of the Pile', as though one might say, 'No Lighting of Matches in the Crater of the Volcano'.

After a little one overcomes one's fear, and an engineer will explain all the many safeguards against explosion—making his points on a transparent model of the pile—and you believe him. You can advance, if you wish, to the pile itself and touch it. You can pick up a rod of uranium in your hand. The notice about smoking is explained. It has no importance any more; it was simply put there to prevent workmen from dropping their cigarette butts into the graphite while the pile was being built, since it is essential for the graphite to be as pure as possible. In other words, it is not smoke but dirt which is the impediment and no normal earthly heat could affect this experiment one way or another.

The 'hot' laboratory is more strange than the pile itself, for here men work like divers in rubber boots and gloves, and on emerging from their work to the uncontaminated air, they step into transparent cubicles not unlike a telephone booth, to be sprayed with citric acid. They cannot touch objects inside the laboratory; as they advance upon a door they cut a photo-electric ray and the door opens mechanically before them. This building is constructed upon the same principles (though not perhaps with the same grace) as the Doge's Palace in Venice, with all the mass of masonry upon the top and the windows below. The whole of the second storey is filled with brightly coloured machinery for plucking out the radio-active air from the laboratories below. This air is roasted and purified before it is emitted harmlessly through a tall chimney into the Berkshire sky. Outside, there are radio-active water tanks where the water, too, is purified before it is returned to the

River Thames and the sea. The waste from the experiments is collected in movable concrete buckets which eventually are dumped into the ocean.

The people at Harwell have long since accepted with equanimity this contamination they create, and the latent danger, just as one presumably can grow accustomed to heights or the diseases that are gathered in a hospital. Every member of the staff is regularly given an X-ray test and a medical examination to gauge his reaction to the radio-active atmosphere; and the safeguards are such that no one has been affected yet. But the visitor will find out how thin is his own façade of assurance if, as he is standing by the pile, there is some sudden noise—someone drops a girder or there is a blast from the compressed-air pump. Then he will jump. Then his imagination will remind him that the end result of this work could be the annihilation of the world. And he is not reassured when he is told that the atomic bomb is only a small part of the study of nuclear fission, that already the hospitals are being greatly helped and that the wasted heat generated in the pile is being put to practical use in warming the Harwell laboratories in the winter.

Outside their work the staff at Harwell have as much opportunity to live a normal life as the members of any other engineering community in Berkshire. They pass freely in and out of the security fence; many of them in fact live in Abingdon and other towns some miles away. They have their tennis courts, their schools, their holidays, and their Metallurgical Ball. They are not divided from the rest of society except only in this—having signed the Official Secrets Act it is up to them to be wary in their conversation. And this does create a strain, for in a natural state most men do not enjoy keeping secrets any more than they prefer to keep money unused in the bank. They prefer to spend.

Their conditions of domestic living are unexciting and unexceptional. They have their canteen at Harwell and they

emerge there each day—rather pale and thinnish young men with a student seriousness—to eat a meal of soup, meat, and vegetables and perhaps a slice of sponge cake with a little coloured jelly on top which is the normal thing in British canteens, unappetizing to a foreign eye but not injurious. Their conversation is a garrison conversation, and not markedly different from the usual run of such conversations in canteens all over England: the weather, football, the news, holidays, and —when alone—their work. In short, they are remarkable only for their ability as scientists, engineers, and chemists, for their integrity and for their interest in their work: Quite aside from the moral issues, it would not be possible for them to become traitors, for that would destroy the life by which they live, their work and everything they ever believed in. Harwell has become a tradition for the scientists now. It has a routine, solid buildings, and a local loyalty, and it is as firmly established as any institution is ever likely to be in twentieth-century Europe.

But when Fuchs arrived in July 1946, fresh from his success in America, all this was just beginning. Work had been started on the new buildings barely six months before, and Harwell was still an airfield on a windy hilltop. Fuchs was brought in to help on the original planning and he had all the mixed joys of starting something from the beginning. He staffed his own division of theoretical physics, he gave the orders for their work, and to some extent he fixed the programme. In the end a part of Harwell was his own creation.

He lived at first in the bachelors' quarters of the staff club, which was inexpensive. When he heard that there was a feeling in Harwell that the staff club should be reserved for junior and lower-salaried members of the staff he moved to a boarding house at Abingdon, five or six miles away, and remained there for two and a half years. Prefabricated houses in the encampment were set aside for married couples. However, as the head of a division, Fuchs was eventually given one of

three, and in 1948 he moved from Abingdon into No. 17. Soon he got rid of his dilapidated 8 h.p. Morris and bought from a colleague a grey saloon MG car: on his salary of about £1,500 he could live more expansively than he had before. He began to make friends, mostly among senior members of the staff, notably Professor and Mrs. W. H. B. Skinner, and the Senior Security Officer, Wing Commander Henry Arnold and his wife.

Once or twice he went abroad. He took one holiday with Professor and Mrs. Peierls in Switzerland and another in the south of France and along the Mediterranean with Professor and Mrs. Skinner. On the Swiss holiday he went to Saas-Fe near Zermatt where the Peierls had taken an apartment; and it was here that he met Gerhardt, his elder brother, who came over from Davos for a couple of days. They had not met since before the war. Gerhardt was totally unlike Klaus—he had grown very fat, he was very feeble, and life was already ebbing away from him. The two brothers spent a long time talking together alone.

In November 1947, when he had been at Harwell nearly eighteen months, he flew to Washington for a declassification conference. This was attended by representatives of the United States, Canada, and Britain, and the object of the meeting was to examine the atomic knowledge shared by the three countries in the war and to decide upon what should or should not be published. No knowledge which the three countries had acquired independently since the war was discussed. This conference took place in Washington from November 14th to 16th, on Friday, Saturday, and Sunday. Fuchs was a member of a sub-committee which specifically considered the Los Alamos period, and he is remembered as being generally conservative on the release of information.[1]

[1] Later, however, he worked out an elaborate scheme of declassification, possibly with the idea of establishing that the information he had given the Russians was no longer secret.

While in America on this trip he paid a short visit to the Argonne Laboratory in Chicago to discuss neutron spectroscopy but, on the instructions of United States security, he saw nothing which was secret. The visit lasted only an hour and forty minutes.

In England Fuchs often went up to London for conferences at the Ministry of Supply. It was sometimes the practice of the Harwell scientists who attended these meetings to stay on in London for a few hours to do their shopping or go to the theatre or a cinema. Fuchs never accompanied them. On the other hand he did not take an early train back to Harwell. He arrived alone to catch the late train back from Paddington, often bringing with him some small present for the wives of his friends at Harwell. His consideration for his friends at this time, his many kindnesses, did not seem to them then to be anything else than the expression of a genuine affection. Nor have they altered their opinion since. During these years of his middle thirties Fuchs was not perhaps a companionable man, but he developed a warmth and an ease of manner that was something new. He did not entertain very much; after his arrest his charwoman remarked that he ate his meals at the staff club and the prefab was nothing much more than a bachelor's bungalow. But she found him a pleasant man.

He still showed no signs whatever of getting married, but he had friends among the scientists' wives and he discussed with them eagerly the prospect of his nephew coming to live with him. In 1947 he gave Mrs. Peierls a blank cheque so that she could buy clothes for his father on his first visit to England. Then again in 1949 he helped Dr. Fuchs over his expenses on a visit to the United States and he entertained him at Abingdon on his return. His Quaker friends remember meeting Klaus about this time—the summer of 1949—and asking him if he still held to his left-wing views. He replied that he had given them up entirely. The Russians were intractable.

The only hope now was to form a close alliance of the Western democracies.

Among the scientists at Harwell he never talked politics. They knew him simply as a man with an obsession for his work. In committee meetings he sat silently through most of the discussions and when he was asked for his opinion he gave it precisely and clearly in the manner of someone who had already delved deep into the matter and has firmly made up his mind. He had his occasional fits of illness, his drinking, his incessant smoking of cigarettes, but all the rest was work. He presided like a housemaster over the Harwell welfare committee, and he had a housemaster's convinced pride in the affairs of the whole establishment. Had there been Harwell colours and a school tie Fuchs would have worn them.

That was his outward life. During these three years—from 1946 to 1949—his secret life was performing new and unpredictable evolutions of its own. He did not keep the rendezvous so carefully made for him at Mornington Crescent Underground station, nor any of the alternative appointments. On their side the Russians made no attempt to approach him or renew the contact in any way. The obvious, though not perhaps the complete explanation, is that Gouzenko had defected in September 1945, and the Russian Intelligence Service was lying low until they saw what came out of it. Fuchs, like Nunn May, may have considered washing his hands of the whole business on his return from the United States. Certainly the risks were much greater now that Nunn May had been discovered; and in any event at Harwell Fuchs had much less to tell the Russians than he had at Los Alamos.

So he continued for a year in England without making a move. Early in 1947,[1] like a drug addict who has mastered his mania for a time and then suddenly succumbs again, Fuchs went in search of the Communist who had originally put him

[1] This was just after he had met his Communist brother Gerhardt in Switzerland.

in touch with Simon Kremer six years earlier. He failed to find him, but in the course of his inquiries he found a woman party member who was willing to help.

There is a kind of pattern among the Soviet agents—these obscure, determined figures who served their faith in Communism by passing on the traitors to the right people in the Russian Intelligence Service at the right time. It is remarkable that so many of them were born in the years just before the First World War, from 1909 to 1911, in Germany, and then when Hitler came to power in 1933 escaped either to France and England or to Czechoslovakia. The Munich Treaty of 1938 and Hitler's subsequent march on Prague put the Czechoslovakian group to flight a second time; and then they linked up again with the other refugees in London, Paris, and in some cases in the United States. With their families scattered or dead and their physical possessions gone, they came west with no other baggage than their Communist faith, and that seems to have been the one enduring thing in their lives where everything else had failed. The majority of the refugees put down roots eventually in the democracies that protected them. The others, the rootless ones like Fuchs, continued in their private rage against the Nazis, and Communism seemed to them the obvious weapon with which to beat their persecutors.

There were other personal reasons for their behaviour—especially in the case of Fuchs—but any study of the traitors must take into account the peculiar importance of the break-up of the Weimar Republic in 1933, when democracy was extinguished in Central Europe except for an outpost here and there. And again and again in the case-histories of the traitors, who are now mostly in their early forties, you come up against those three overmastering influences: the First World War in their childhood: and in their youth the arrival of Hitler in 1933, and the collapse of Czechoslovakia after the Munich Treaty. The Spanish civil war in 1936 was an additional stimu-

lus that carried them firmly from their German Communism into the Russian camp.

Fuchs's new Communist contact introduced him to the Russians in London, and the drug began to work again. Soon he received instructions to go to a public house in north London. He was to go into the saloon bar carrying a copy of the weekly paper *Tribune*, and take a seat on a certain bench. His contact would carry a red book.

Fuchs went and found his man. The meeting opened unfavourably; Fuchs was berated for re-establishing contact through a known member of the Communist Party. Henceforth he was to steer entirely clear of all Communists. This scolding may have added to his feeling of guilt at having deserted the Russians for so long, and may go some way towards explaining what he did next. He accepted a gift of one hundred pounds in bank notes. Up to this time he had rejected any payment except small sums (mainly from Harry Gold in the United States) to cover his expenses in getting to and from his places of rendezvous. But this £100 was quite different—far too much for his expenses on an occasional trip from Harwell to London, and not nearly enough to compensate for the value of his treason or to make espionage a really profitable undertaking. Fuchs himself says that he took the money as a symbol, as a formal act to bind himself to the cause. After this there could be no going back: he had taken money and he was committed for ever. That is his explanation, and since he is the only witness of his own thoughts it must be noted, if not accepted. He took no more money from the Russians after this.

There began now in 1947 a new series of eight meetings over the next two years, usually at intervals of two or three months and always with the same man. The meetings were in London and in either one of two public houses—the Sported Horse in High Street, Putney, or the Nag's Head at Wood Green. If for some reason one of the two conspirators failed

to appear, then it was understood they should meet precisely a week later at the same place. Should the rendezvous fail a second time then they would meet at the alternative public house a month later. If once again this failed, they would come back again to this second public house the following week.

In 1948 they made a further arrangement in case all these appointments should go wrong: Fuchs would go to a private house in Richmond which was pointed out to him on one of his London trips and there throw a periodical over the fence. He was to write a message on the tenth page. They had one more arrangement to be used if either of them wished to indicate in advance that he could not keep an appointment: they would chalk a cross at an agreed spot near the Kew Gardens railway station.

However, in the event, the meetings seem to have succeeded admirably. Fuchs came up from Harwell (possibly on those same days when he had official committees to attend at the Ministry of Supply in Shell-Mex House in the Strand) and slipped off to his appointment in the early evening. He and his contact never made a signal of recognition when they met in the saloon bar. Instead they would walk out into the street independently and then stroll along together while Fuchs handed over his information. Sometimes the contact would leave Fuchs standing in the street for ten minutes or so and then come back and resume his questioning; clearly, another man who kept out of Fuchs's sight was being consulted.

There cannot have been a great deal which Fuchs gave the Russians during this period. He was cut off from nearly all the secret American research which had been continued after the war, and Harwell was still in its early stages. However, he gave them various details of the British plutonium piles at Windscale, in Cumberland, and he gave figures of American production up to the time he left Los Alamos. It was at this period that the Russians pressed him for information about the hydrogen bomb, but Fuchs could have given them little more

than the principles which had been discussed at Los Alamos.

Now that they were making their own bombs the Russians were avid for anything they could get; once they even urged Fuchs to go to Paris and make contact there at a certain address with other agents who had a technical knowledge of his work. But this he refused to do. It was by now late in 1948, and his erratic conscience was about to take one more Olympian decision on behalf of mankind. He was beginning to have doubts about the Russians. Worse still, he began to detect a new weakness in himself, an attachment to Harwell, an unwillingness to go on cheating his friends there indefinitely. In this twilight stage when for once his conscience did not point the right way ahead with a clear burning light, he found himself drifting into a compromise—a thing which he would never have done in the bright certain days of Los Alamos, when the double life was so easy to live, and everything was either black or white. He decided not to break with the Russians altogether, but gradually to give them less and less while his conscience wrestled with this problem, until it gave him a new lead one way or the other.

Fuchs has explained the process himself:

'In the course of this work I began naturally to form bonds of personal friendship and I had to conceal them from my inner thoughts. I used my Marxist philosophy to establish in my mind two separate compartments: one compartment in which I allowed myself to make friendships, to have personal relations, to help people and to be in all personal ways the kind of man I wanted to be, and the kind of man which, in a personal way, I had been before with my friends in or near the Communist Party. I could be free and easy and happy with other people without fear of disclosing myself because I knew that the other compartment would step in if I approached the danger point. I could forget the other compartment and still rely upon it. It appeared to me at the time that I had become a "free man" because I had succeeded in the other department

in establishing myself completely independent of the surrounding forces of society. Looking back on it now the best way of expressing it seems to be to call it a controlled schizophrenia.

'In the post-war period I began again to have my doubts about the Russian policy. It is impossible to give definite incidents because now the control mechanism acted against me also, in keeping away from me facts which I could not look in the face; but they did penetrate and eventually I came to the point where I knew I disapproved of many actions of the Russian Government and of the Communist Party, but I still believed that they would build a new world and that one day I would take part in it, and that on that day I would also have to stand up and say to them that there are things which they are doing wrongly. During this time I was not sure that I could give all the information that I had. However it became more and more evident that the time when Russia would expand her influence over Europe was far away and that therefore I had to decide for myself whether I could go on for many years to continue handing over information without being sure in my own mind whether I was doing right. I decided that I could not do so. I did not go to one rendezvous because I was ill at the time. I decided not to go to the following one.'

There have been evidences of insanity in all the members of Fuchs's family except his father and mother. This passage quoted from his confession is not insanity but there is a megalomania in it: 'I had to decide for myself . . . I decided . . . . I decided.' He is not only deciding for himself but for society as well; he is the judge, the prosecution, the witness, and the executioner all rolled into one. And then there is the glory of being the 'free man'—the superman who is above the normal rules of the community, who has perfectly pigeonholed his emotions and his duties. He keeps, as it were, a watchdog in the private background of his life, and this dog is entirely reliable and trustworthy, the devoted guardian, until

one day it inexplicably turns round and begins to bite him.

It is a strange mixture: but it is not unknown in insane asylums. In some ways, however, the asylum case is simpler than Klaus Fuchs's. The poor frustrated creature who thinks he is Napoleon or who defiantly heaves a brick through a window in order to show that he has the power to do such a thing is an uncontrolled schizophrenic. Quite simply he cannot help doing what he does and when his fit has passed and he again submits himself to the warder and the rules of society, he cannot understand the reason for his moment of grandeur and frenzy, and he is ashamed.

But even in his calmer moments Fuchs is not ashamed—or at any rate he was not in 1948. He did not acknowledge the existence of a warder or of any controlling force outside himself. Everything came from within himself, Klaus Fuchs. He decided. Not even Marx and the Russians were infallible or competent to control him, for now he says he will have to stand up to the Russians and tell them they were wrong.

His father, Dr. Emil Fuchs, also had the courage to stand up and tell people where they were wrong. But Dr. Fuchs acknowledged a power that was greater than himself, his God, and he was obedient to God and the Christian principles which were not of his own making. Klaus Fuchs never had that faith outside himself; he was never obedient to Karl Marx or anybody.

There may be features of this mentality which are common to most men at some time in their lives; that desire for rightness, the adolescent dream of a world that is perfectly pure and good, and oneself a shining hero in it. Equally, in moments of frustration or bravado (which is frustration in action) few men have not felt the craving to heave a brick through a window just to establish that they are not midgets in the world, not people to be lightly neglected, not cowards anyway. It is the peculiarity of Fuchs that he carried these adolescent emotions on into adult life and by the accident of his splendid

mathematical mind there was put into his hand an enormous brick with the possibility of heaving it through an enormous window. His knowledge of the atomic bomb made him a king for a moment with the fate of mankind in his hand. And all the conspiratorial business of tennis balls and chalk crosses and meetings in pubs must have given the drama a certain schoolboy relish.

But now, in 1948, some ten years too late, the thing that Fuchs had not bargained for begins to happen. He begins to feel the stirrings of attachment to the ordinary fallible human beings around him—the things that have come his way through the pure accident of time and politics and geography. There are his friends at Harwell, the Skinners, the Arnolds, his friends Professor Peierls and his wife. He begins to think that he might owe them a duty too, even though that duty may conflict with his larger design of creating a perfect world. There is his department at Harwell, all the work that has yet to be done. Perhaps there might be claims upon him there too. Perhaps the immediate world around him might have some call upon his loyalty and some return ought to be made for the ordinary simple affection of the people who have known and trusted him these last few years. He begins to feel that he needs that affection. And finally it is even possible that something is due to England itself since he has accepted its hospitality for so long, and has indeed grown to depend upon it.

The business of growing up when one is an adult already is never easy, and for Fuchs it was a torment. An incident occurred just about this time—August 1948—when Fuchs was tapering off the information he was giving to the Russians, and it reveals something of the strain in which he lived. Nothing was thought of this incident at the time, but it was remembered later with interest. A Mr. S. M. Duke of Harwell had been attending a meeting at the General Electric Company at Wembley, outside London, with Fuchs and one or two other colleagues. When the meeting was over Duke asked if anyone

would like a lift back to Harwell in his car. Fuchs accepted and sat next to Duke on the front seat. They began the journey in daylight, around five o'clock in the afternoon, and had reached a spot on the Oxford road between Gerrards Cross and Beaconsfield when some object suddenly struck the windscreen with a sharp report. The glass cracked into tiny pieces and became opaque. The car was then travelling about forty miles an hour, and Duke, unable to see where he was going, knocked out the windscreen with his hand while he braked as hard as he could. Fuchs slid off the seat on to the floor under the dashboard, and there was a look of extreme fear in his face as though he had been seized by a heart attack.

When the car came to a standstill Fuchs remained where he was. Duke got out of the car and began picking out the remaining bits of broken glass, remarking that a stone must have flown up from the roadway. Fuchs would not accept this explanation at all. He pointed out that the road surface was clean, smooth tarmac, and no other car could have thrown up a stone since there was no other traffic on the road. He spoke excitedly and it was plain that he was badly shaken. He would not get out of the car until an A.A. man and others arrived.

It was then discovered that some of the pieces of broken glass showed traces of lead streaks which could have come from an uncoated bullet fired from a .22 rifle or revolver. Since he had heard no bang Duke was inclined to think that it was a bullet fired from some distance off—possibly a ricochet from the rifle of somebody who was out after rabbits. Equally it might have been a piece of lead projected from a boy's catapult. Fuchs was not reassured and they completed the journey home in great discomfort while the rain poured in upon them.

It seems inconceivable that anyone tried to murder Fuchs that day, for he was not travelling in his own car; he had accepted the lift with Duke quite by chance, and this was not the only route between Wembley and Harwell.

But clearly, for a moment, he thought he was being shot at and the self-control upon which he had prided himself for so long deserted him.

Then his illness intervened. He went down to the Mediterranean on holiday with the Skinners in the spring of 1949, and he was not very well on the journey. When he got back it developed that he had a spot on his lung, and that, as he says, made him miss one of his London appointments. Mrs. Skinner nursed him in her own house at Harwell. This was one of the times when he lay staring at the wall without eating or speaking, when he persisted in remaining in bed after his illness had gone and it was no longer necessary for him to stay indoors. These unrecorded hours when he struggled with his perplexed loyalties, when he hunted and hunted through his mind for some clear answer, were probably the crisis of Fuchs's existence, the death throes, as it were, of his private life. When he got up at last he had resolved to break with the Russians. He would not confess; that opened up possibilities that were too frightful. But from now on he would live one life instead of two; he would give his allegiance to Harwell, his work, and his friends, and Russia would have to shift the best she could for herself. He could not repent; he had done all he had done with a clear moral conscience. But in the future he would live the easier life, where what he said and did openly were at one with his thoughts.

There are circumstances in which, just possibly, Fuchs might have been saved by that decision. Conceivably he might have accomplished a genuine conversion and have died eventually without anyone ever being the wiser about his treason. But it so happened that it was too late. In the summer of 1949 an investigation had already begun. And on September 1st President Truman made an announcement in Washington which meant that neither traitors nor anyone else were going to sleep quite securely in their beds for some time to come, if ever at all. Russia had exploded her first atomic bomb.

TEN

THE security system in England has been an empirical growth; it has developed piecemeal over the centuries as the need for it arose, and there has never been a moment when by one sweeping administrative act some central body like the F.B.I. in the United States has been established. Instead there is a network of security agencies.

In England there is no great reverence for security officials or much belief in the efficacy of 'loyalty' tests. On the other hand there is no great record of treason either. Something like three hundred years have passed since the last civil war, and successive governments since then have proceeded in the belief that loyalty is based, not upon police restrictions, but upon traditions. No doubt the security problem was made somewhat easier by the fact that Britain is an island with a largely homogenous population, and, as with most islanders, the people's loyalty became entrenched through isolation.

But the years between the last two world wars brought something new into the scene. There was a shrinkage of the 'island' quality of the country through better communications from abroad. There was the influx of refugees who were driven to England by the Fascist dictatorships in Europe—probably the biggest single influx of foreigners since the last invasion in 1066. And there was the spread of the international movement of Communism. Karl Marx, like Fuchs, was a German refugee in England.

These things required a new approach. But so long as the

refugees and the English Communists and fellow-travellers were not actively subversive—and the majority were not—security did not move against them in the nineteen-thirties and the early 'forties. Security then was much more concerned with watching enemy agents, the Nazis and the Fascists. The bulk of security's energies were absorbed in this from Munich onwards: and, in fact, no enemy agent in England of any consequence escaped during the six years of war. None operated successfully for long: they were all caught.

Then, after the war, security had to perform a *volte face*. Counter-espionage agents who had been working upon Japan, Italy, and Germany were now asked to concentrate upon Soviet Russia and its principal instrument, the Communist Party. There had always been surveillance of the Communists in England, of course, but it was not until 1946, or even later, that security was able to turn its full attention upon them.

This was one reason why not only Fuchs but so many other Communist traitors in other countries slipped through the security net during the war. There were other specific reasons in each case, but this was the fundamental one. It is from 1946 onwards, when the traitors had already done their worst, that the reckoning begins.

When the Harwell Atomic Energy Establishment was set up in that same year, it was decided that in addition to its police a special security officer should also be appointed. The officer, Wing Commander Henry Arnold, arrived at Harwell a few weeks after Fuchs had come from America. In one of his earliest reports to M.I.5 Arnold drew attention to the presence of Fuchs on the staff, and to the fact that he was a German who had become naturalized in the war.

A check was begun at once. It continued without Fuchs's knowledge for five months. There was nothing to go on beyond the report of the German Consul in Bristol—now twelve years old—which said that this distinguished and respected scientist had once been a Communist in his youth.

The investigation was made simply as a precautionary measure and it turned up nothing at all. No meeting he had, no word he uttered, and no journey he took revealed the slightest grounds for suspicion. Ironically, of course, the investigation happened to coincide with just that period, on his return from the United States, when Fuchs was dormant. It was not until just after the investigation had finished that he took up his contacts with the Russians again. This was pure bad luck, for had the inquiry started a month or two later there was every possibility that he would have been caught nearly three years earlier.

Then, in the summer of 1949, just prior to the explosion of the first Russian bomb, it developed from some chance evidence in the United States that quite apart from Nunn May the Russians had been getting information about the atomic bomb. The evidence in itself was not very precise, and it did not go very far: but the indications were that it was not an American but a British scientist. This information was passed on to London by the F.B.I. Now Fuchs was not the only British scientist who had been in the United States by any means, but he did in some ways fit the case. His investigation was taken up once again.

This needed cautious handling. The information was far too slender to enable security to proceed to an arrest; the actual identity of the man himself was in doubt. There was no question of confronting Fuchs with a charge directly; if he denied it, as most certainly he would, then he would have been alerted and security would be no forwarder. There was also the possibility that he might warn his contacts and leave the country, and there was no means of preventing him under the English law, since there was no exact evidence against him. Every precaution had to be taken to avoid arousing his suspicions while he was under observation. At the same time it was necessary to question him; and this was made possible by an act of Fuchs himself.

During October he came to Wing Commander Arnold and said that he wanted some advice on a personal matter that was worrying him: he had received word from Germany that his father, who was then living at Frankfurt-am-Main, in the American zone, had accepted an appointment as professor of theology at the University of Leipzig, in the Russian zone. A question of security was involved. He was concerned, Fuchs said, about his own position as a senior scientist at Harwell if his father should ever get into difficulties with the Russians. Ought he to resign from Harwell? Arnold replied that he was not competent to advise Fuchs on whether or not he should resign—that was something for the administrative authorities. However, the question was this: what *would* Fuchs do if the Russians were to put pressure on him through his father? Fuchs answered that he did not know; he might do different things in different circumstances. The two men met again a few days later, on October 20th, and Fuchs repeated that he was in some doubt as to what he would do if the Russians were to arrest his father.

There were several curious aspects about this business. Dr. Fuchs had been visiting his son in England very recently. He was remembered as a lively septuagenarian, a short and active old gentleman with a ruddy face and white hair; and there had been no talk then of his going into the Russian zone. His Christian faith and his charity appeared to be remarkable. (Though some people thought him a garrulous old man and had doubts about his sincerity.) However it was a fact that he had himself brought up his dead daughter's child—this was the boy whom Fuchs was to educate in England—and he had just returned from a long stay in the United States where he had spoken widely among the Quakers. It also became known soon after this that his second son, Gerhardt, who was two years older than Klaus, was still in Switzerland where he had had treatment at Davos for tuberculosis. Gerhardt was still a Communist.

Was it possible that the Russians had deliberately lured the old man into their zone in order to put pressure on the son? Was this blackmail to force Klaus to give information? Or was this some device of Klaus's own?

Even later on, when most of the truth came out, these points were never entirely cleared up. If the Russians did intend to blackmail Fuchs through his father they never took occasion to do so. From the time Fuchs broke contact with them early in 1949 to the moment of his arrest he was never again approached by any agent. On the other hand it seems possible that Fuchs may have been deliberately trying to manœuvre himself into a position where he could confess by drawing the attention of security to himself. Equally he might have made up his mind at this time to get out of Harwell before he was discovered, and an obvious way of doing this was to oblige the authorities to declare him a bad security risk. Both these alternatives might sound over-subtle, but they were not perhaps too subtle for the complicated state of mind in which Fuchs then found himself.

These are his own words on the matter when he confessed later:

'Shortly afterwards [after his last contact with the Russians] my father told me that he might be going into the Eastern zone of Germany. At that time my own mind was closer to his than it had ever been before, because he also believed that they are at least trying to build a new world. He disapproved of many things and he had always done so; but he knew that when he went there he would say so and he thought that in doing so he might help to make them realize that you cannot build a new world if you destroy some fundamental decencies in personal behaviour.

'I could not bring myself to stop my father from going there. However, it made me face at least some of the facts about myself. I felt that my father's going to the Eastern zone, that his letters, would touch me somewhere and that I was

not sure whether I would not go back [presumably to Germany]. I suppose I did not have the courage to fight it out for myself and therefore I invoked an outside influence by informing security that my father was going to the Eastern zone. A few months passed and I became more and more convinced that I had to leave Harwell.'

This is the language of Othello, a man who has loved his conscience, not wisely, but too well, and now he is perplexed in the extreme. The crime of treason has been committed but to no good purpose; in fact it need never have been committed at all. And now which way to turn? Perhaps if he threw out a hint to his friend Henry Arnold, the security officer, the authorities would act and matters would be taken out of his own hands.

Yet he still clings to some vestige of logic in this mess. Sixteen years before, as a youth of twenty-one, Fuchs left Germany with the avowed object of getting himself educated abroad so that he could return once Hitler had been destroyed and help to rebuild a Communist Fatherland. Hitler has now been destroyed and he begins to wonder whether he should not take up that old loyalty again. Should he not go back to Germany? If his father writes to him, giving glowing accounts of affairs in the Soviet zone, will he not be tempted? And how can he stay at Harwell in those circumstances?

Up to this point Fuchs has never had any qualms about betraying Harwell, but now he begins to develop a conscience about it. Somehow this duality has now become intolerable, and he must get rid of either Jekyll or Hyde for he can no longer endure to live with both of them.

To Arnold and his principals, who had very little to go on, one thing at least was clear: Fuchs would have to be removed from Harwell in some plausible manner while the investigation was going on. He could not be left with access to secret work so long as he was under suspicion. Already a difficulty had come up. As soon as the news of the first Russian bomb

was announced it was naturally presumed at Harwell that Fuchs would be consulted about it. He was an obvious man to be asked about the size and nature of the Russian bomb. He was invited to attend one or two preliminary meetings on the matter but it was clear that from now on he could not be told vital secrets and that the sooner he left Harwell the better.

No one envisaged that this was going to be particularly easy, since by now Fuchs regarded himself as the hub of Harwell; but various proposals were considered for finding him a university post. While this matter was going forward further information arrived from the United States making it much more likely that Fuchs was the man they were after.

Various slight clues were beginning to appear. Some time previously, for example, when Dr. Emil Fuchs was visiting his son at Harwell, both father and son had been invited to dinner by a colleague. Arnold had been one of the party. The dinner had passed off without incident, but now, months later, it came to Arnold's knowledge that Fuchs had been furious that Arnold had been invited. Evidently Fuchs feared that his father would blurt out something about his Communist days at Kiel University—the same fear which he had expressed so long ago to Harry Gold at Santa Fé.

In the second half of December it was decided that Fuchs should be questioned outright, using as a pretext for the interrogation the fact that Fuchs himself had sought advice about his father's appointment to Leipzig. The man chosen to carry out the investigation was William James Skardon. Skardon was not a scientist, but he was one of the most able and experienced investigators in England. Since the war he had handled the case of William Joyce and other traitors. He was a man with a quiet and self-effacing manner. It would not be difficult to imagine him as a character in one of H. G. Wells's urban novels, perhaps Mr. Kipps. He had patience and tact and considerable tenacity; and it was apparent that

all these qualities were going to be needed in the handling of Klaus Fuchs before the truth came out.

On December 21st Skardon went down to Harwell, and by appointment met Fuchs in Henry Arnold's office. Outwardly the atmosphere was cordial and unexceptional—it was simply a routine meeting on a security problem between a senior Harwell executive and a security officer. After making the introduction Arnold withdrew. Skardon opened by referring to the information which Fuchs had given about his father. Was there something more that Fuchs could tell them?

For the next hour and a quarter Fuchs discussed his family background with great frankness. He confirmed that he had a sister living at 94 Lakeview Avenue, Cambridge, Massachusetts, and a brother at Davos in Switzerland. He revealed that in Kiel in 1932 at the Social Democrat Party election for a vice-president he had supported the Communist candidate in the absence of a Socialist. For that, Fuchs said, he was expelled from the party and he drifted into the Communist camp. He remembered the name and address of the Quaker family who had befriended him when he first came to England in 1933; they were introduced to him through the fiancée of a cousin and he had stayed with them at different addresses until 1937 in southern England. He remembered too that at Bristol he had joined a committee for the defence of the Spanish democracy at the time of the civil war.

Then there were his years with Professor Born in Edinburgh, his six months as an internee at Camp 'L' and at Sherbrooke, Quebec, where he had met Hans Kahle—he had only seen Kahle once after that, at a Free German Youth organization in London. He spoke of his work for Tube Alloys in Birmingham, of his trip to the United States in 1943, and of how he had visited his sister in Massachusetts that Christmas and again the following spring.

All this was given by Fuchs quite calmly and readily. And then Skardon said to him: 'Were you not in touch with a

Soviet official or a Soviet representative while you were in New York? And did you not pass on information to that person about your work?'

Fuchs opened his mouth in surprise and then smiled slightly. 'I don't think so,' he said.

Skardon went on: 'I am in possession of precise information which shows that you have been guilty of espionage on behalf of the Soviet Union; for example, during the time when you were in New York you passed to them information concerning your work.'

When Fuchs again shook his head saying that he did not think so, Skardon suggested that, in view of the seriousness of the matter, this was rather an ambiguous reply.

Fuchs answered: 'I don't understand: perhaps you will tell me what the evidence is. I have not done any such thing.' He continued then to deny any knowledge of the matter, and added that in his opinion it had been wise to exclude Soviet Russia from information about the atomic bomb. Skardon then went on to other questions. Had Fuchs ever heard of Professor Halperin? Yes. Halperin used to send him periodicals while he was interned in Canada but he had never met him. Fuchs remembered however that he (Fuchs) had made one visit to Montreal during the period when he was in New York.

At 1.30 p.m. there was a break in the interview. Fuchs went off and lunched alone. When they resumed a little after 2 p.m. Skardon again confronted Fuchs with the charge of espionage and Fuchs again denied it, saying there was no evidence. However, in view of the suspicions about him, he said, he felt he ought to resign from Harwell. The meeting ended with another discussion about his father's movements in Germany. The two men had been together for four hours in all, and Fuchs had shown no signs of breaking. Skardon went back to London.

Something had been gained, but not much. There had been

an admission of Fuchs's activities in his youth, and there had been that inadequate phrase, 'I don't think so'. He had given a few details of his movements and his acquaintances. But that was all; and it was not enough. Upon this evidence he could not be arrested. There was always the possibility of a mistaken identity.

Meanwhile, now that Fuchs had been alerted there was the question of what next to do. If he was guilty it was quite possible that he would try to escape out of England. It was even conceivable that he would commit suicide. There were those who favoured the idea of getting him into custody on one pretext or another at once, before it was too late. But Skardon was for waiting and taking a chance. He was not yet persuaded that Fuchs was in fact the guilty man. On the other hand he had come away from Harwell convinced that Fuchs was wrestling with a moral problem of his own. If he were given time, if he were handled carefully, there were very good hopes that he would break down of his own free will in the end. In any event they were dependent upon getting his confession: without it they could not proceed against him. Nothing, in Skardon's opinion, should be done to antagonize Fuchs. He should be given a little more time over the Christmas holidays to think things over. Skardon did not believe that Fuchs would make any desperate move. This was not much more than a hunch—a feeling that he had established a kind of understanding with Fuchs—but in the end he had his way.

It was not until December 30th, on the day after Fuchs's thirty-eighth birthday, that Skardon went down to Harwell again. He found Fuchs calm and unhurried. He again denied the charges and said that he could not help. There was a detailed discussion of his movements in the United States in 1944 but this led to nothing new. At the end of the interview Skardon did notice that Fuchs's lips were parched, but presumably that might have happened whether Fuchs were guilty or not.

On 10 January 1950 Sir John Cockcroft sent for Fuchs and told him that in view of his father's departure for Leipzig it would be best for all concerned if Fuchs resigned from Harwell and went to some university post instead.

On January 13th Skardon came down to Harwell for a third meeting in Arnold's office. They were again left alone. Did Fuchs remember the exact address of his apartment in New York in 1944? Nearly six years had gone by and he was not quite certain of it. However, with the aid of a map he identified the place as West 77th Street, near Central Park in the middle of a block between Columbus Avenue and Amsterdam Avenue. When Skardon told him that security was pressing inquiries about this apartment and other matters in New York, Fuchs appeared unconcerned. He still denied all the charges. However, he said he knew now that he would have to leave Harwell. It should not be difficult, he said, for him to find a university post. But first he would take a holiday.

This then was the impasse reached after three long meetings. All along Skardon had urged upon Fuchs that security was not merely bent upon ruining him. If some slip had been made in New York during the war then it was much better to have the thing out in the open. Fuchs was a valuable man at Harwell. It was always possible that once this business was thrashed out some arrangement could be made to enable him to continue with his work. But the present strain was intolerable for everybody.

Fuchs himself was very well aware that as yet security had no inkling of the real extent of his treason nor of its long duration. Through this fortnight in January, then, he was asking himself: 'Shall I admit the lesser crime if they will let me stay on at Harwell? But then, even if I remain at Harwell, can I trust myself not to turn traitor again?'

He revealed all this in his confession when he said: 'I was then confronted with the fact that there was evidence that I had given away information in New York. I was given the

chance of admitting it and staying at Harwell or clearing out. I was not sure enough of myself to stay at Harwell and therefore I denied the allegation and decided that I would have to leave Harwell.

'However, it became clear to me that in leaving Harwell in these circumstances I would do two things. I would deal a grave blow to Harwell, to all the work which I have loved; and furthermore that I would leave suspicions against people whom I had loved, who were my friends, and who believed that I was their friend.

'I had to face the fact that it had been possible for me in one half of my mind to be friends with people, to be close friends, and at the same time to deceive them and to endanger them. I had to realize that the control mechanism had warned me of danger to myself, but that it had also prevented me from realizing what I was doing to people close to me.

'I then realized that the combination of the three ideas which had made me what I was, was wrong: in fact every single one of them was wrong: that there are certain standards of moral behaviour which are in you and that you cannot disregard. That in your actions you *must* be clear in your own mind whether they are right or wrong. That you must be able, before accepting somebody else's authority, to state your doubts and try and resolve them. And I found that at least I myself was made by circumstances.'

This is very complicated. But several clear things come out of it. He is not quite humble yet; he regards himself as quite essential to Harwell and by leaving he perceived he will deal it a grave blow. But not at last he is aware of the feelings of his friends. They will be hurt. Suspicion might fall upon them. He had never thought of this before because the 'control mechanism' had prevented him from taking account of anything so minor as the human beings around him whom he had betrayed. They were the casual victims of his grand design for the perfection of the world. But now he realizes he has no

right to hurt them. This is a considerable advance. But Fuchs is still a long way off from realizing the real enormity of what he had done—he still could not see that what mattered was not his friends' feelings but the fact that they and everybody else on this earth might be blown to smithereens as a consequence of his treason. This point never seems to have crossed his mind, then or since. He was obsessed throughout by his own personal moral position.

After the January 13th meeting, Skardon was on slightly firmer ground. Nothing definite had happened but an atmosphere of confidence had been created, and he felt sure that Fuchs would make no move without consulting him. The two men, the hunter and the quarry were, entering now into that strange, intensely intimate world of criminal investigation where personal animosities cease to count any more, and where each man trusts the other, even though they know that before the end one of them has got to be destroyed.

There is an insect quality about this business, the slow inevitable waiting of the spider for the fly. The fly has to be caught and the spider has to pounce, and there is nothing either of them can do about it.

Fuchs was not quite ready yet. Outwardly he remained perfectly calm. He went about his work in the normal way, and he confided in nobody. His friends at Harwell knew nothing of what was going on and they noticed nothing peculiar about him. There was just one incident.

A scandal broke out among the members of Fuchs's own staff. It was nothing more than an untidy love affair gone wrong, an incident of the kind that happens in every garrison, but which at the time seems outrageous because of the special intimacy of garrison life. This matter affected Fuchs to some extent—he made a point of visiting the distracted woman in hospital—and it might have been that he felt that this was one more sign that the life at Harwell he knew and liked so well was breaking up around him. At all events the incident seems

to have brought him to a decision at last. On Sunday, January 22nd, Fuchs phoned Arnold and said he wanted a private talk. They arranged to lunch at the old Railway House Hotel at Steventon on the following day. At that luncheon there was some discussion of politics—Fuchs said he was opposed to Communism as practised in Russia now—and he also said he would like to see Skardon again. He had something more to tell him. It was agreed that the meeting should take place at Fuchs's prefab at 11 a.m. next day, Tuesday, January 24th.

Arnold met Skardon at Didcot railway station and drove him to Harwell. Skardon walked down to prefab No. 17 alone. It was ten days or more since the two men had met, and the change in Fuchs was remarkable. He looked unusually pale and he seemed to Skardon to be in a state of some agitation. When Skardon said: 'You asked to see me and here I am,' Fuchs answered at once: 'Yes. It's rather up to me now.'

But having made that half-admission he stopped, as though overtaken by some sudden misgiving about what he had to say. While Skardon waited he went wandering off into a long dissertation about his life, going over and over again the details they had discussed so much before—his underground days in Berlin, his father (who by now had left for Leipzig), his friends at Harwell, the importance of his work at Harwell, the need for him at Harwell. He told the story of his career again, giving nothing new, but talking with his head in his hands and his face was haggard.

After two hours of this Skardon said: 'You have told me a long story providing the motives for actions but nothing about the actions themselves.'

Why couldn't Klaus break down? Why not confess and have done with it? He was only torturing himself. If only he would give way then Skardon might be able to help him.

Fuchs paused and then answered steadily: 'I will never be persuaded by you to talk.'

'All right,' Skardon said, 'let's have some lunch.'

There is a luncheon van that goes round the Harwell compound selling fish and chips and other snacks. Skardon indicated this van which was passing the house just then and said, 'Will we have some fish and chips?'

Fuchs answered, 'No. Let's go into Abingdon.'

They got into Fuchs's grey saloon car with Fuchs at the wheel and on the five-mile run into Abingdon he drove with a reckless, breakneck speed that was bordering on insanity. He cut corners on the wrong side of the road, he passed all other traffic with inches to spare, and they raced at last through the streets of Abingdon up to the door of the principal hotel.

An English pub on a wet winter's afternoon is not a place that lends itself easily to high drama. There were other guests in the dining-room. Skardon and Fuchs ate their way through a prosaic meal, talking about the gossip of Harwell, about the different personalities there, about anything but treason. It was a strained and desultory conversation.

Then they went into the lounge for coffee. Skardon spoke of Professor Skinner's departure from Harwell and asked who was going to take his place. Fuchs said he did not know.

'You are number three, aren't you?' Skardon said. 'Might you not have got the job?'

'Possibly,' Fuchs said, and Skardon slightly shook his head. There was no likelihood of that now, not at any rate until Fuchs had confessed. Suddenly Fuchs jumped up and said, 'Let's go back.'

They returned to Harwell with excruciating slowness. For a great part of the way they drove behind a lorry travelling at barely ten miles an hour, and Fuchs dared not pass it. They got out in silence at the prefab and as soon as they were inside Fuchs made his announcement. He had decided to confess, he said. His conscience was clear, but he was worried about his friends in Harwell and what they might think.

'When did it start?' Skardon asked.

'About the middle of 1942,' Fuchs answered, and it had continued until about a year ago.

That was seven years. That covered the whole period of the bomb, its conception, its construction, and its explosion. It covered the years in England as well as those in New York and Los Alamos. This was the first shock Skardon had that afternoon. It was the first intimation that he or anybody else had had that they were dealing here, not with the leakage of a few facts and figures, but treason on an immense scale and for a very long time.

And now that he had started, now that he was beginning to feel the relief of confession, Fuchs ran on quickly, recounting unbelievable facts. There had been frequent, but irregular meetings, he said. He had made the first initiative. He had spoken to an intermediary who had arranged the first interview and after that, through all these seven years, each meeting had been arranged in advance with an alternative.

At first Fuchs had told the Russians merely the products of his own brain, but as time went on this developed into something more until he gave *them* everything he knew. His contacts were sometimes Russians, sometimes people of other nationalities. He realized that he was carrying his life in his hands but he had learned to do that in his underground days in Germany. He went on to speak of his meetings in New York, at Los Alamos, and more recently in London until he failed to go to his February rendezvous in 1949, and the Russians had not approached him since. All the meetings were of short duration: he handed over documents, fixed the next rendezvous, and then departed. Sometimes his contact asked him questions, but these questions were not the questions of the contact but of someone else with technical knowledge.

All this came out in a rapid voice and it was no moment for Skardon to take notes or to interrupt. As soon as he could he asked: What had Fuchs actually given the Russians?—and he received then his second shock that afternoon.

He supposed, Fuchs said, that the worst thing he had done was to tell the Russians the method of making *the atomic* bomb.

Now finally the truth was out; and it could not have been worse. Any possibility of Fuchs remaining at Harwell or anywhere else except inside a prison was obviously out of the question. All that could be done now was to extract from him every last damning fact, and so manage him that he would continue to talk until he had *nothing* left to say. Now that the break had come and he was sure that Fuchs was pinned at last, Skardon was only anxious to end the interview as soon as possible so that he could take advice and get the full confession down in writing.

But Fuchs wanted to go on. He explained carefully that it was impossible for him, of course, to do more than tell the Russians *the principle* upon which the bomb was made. It was up to the Russians to produce their own industrial equipment and he had been astonished when they had succeeded in making and detonating a bomb so rapidly as the previous August. He knew, Fuchs said, that scientifically they were sufficiently advanced, but he could not have believed that commercially and industrially they had developed so quickly.

As for his own *information*, he had been gradually diminishing it over the past two years. That was because he began to have doubts about what he was doing. He still believed in *Communism*, he said, but not as practised by Russia now—that sort of Communism was something to fight against. He had decided that the only place for *him* to live was in England and he returned again to the subject of his friends. What were they going to think about his behaviour—especially Henry Arnold, whom he had deceived most of all?

He insisted that his sister Kristel in the United States knew nothing of his contact with the Russians—if she had noticed anything suspicious she would have thought it was part of

his underground activities on behalf of the German Communist Party.

He added just one or two more scraps of information before Skardon brought the interview to an end. A typical place of rendezvous in London was Mornington Crescent. He was never given an alias by the Russians—they knew him simply as Fuchs—and he could not remember what all the various signals of recognition were. Just once he had taken a gift of £100 as a symbol of his subservience to the cause.

Fuchs was now much calmer and more self-possessed. He agreed that, since they were both tired, it would be best to break off and meet another time. The afternoon meeting had lasted just an hour. When should they meet again, Skardon asked. Fuchs recalled that he had a committee meeting on the following day, so that would not be a suitable time. However, on the day after that, January 26th, he was free.

Upon this Skardon left Fuchs at his doorway and drove back to London with possibly the most sinister report any man has ever had to deliver. What gave the affair a special sense of unreality was that Fuchs, having unburdened himself, still believed that all would be well—they would still continue to employ him at Harwell. Indeed, in the course of the interview he had made it clear that this was the reason why he had invited Skardon to Harwell and had confessed. He had been a Russian agent. That was a mistake and now he had admitted it. He had ceased to be a Russian agent. Now it was up to Skardon to explain all this to the authorities and wind up any tiresome official formalities as quickly as possible so that Fuchs could get on with his work. He had resolved not to take a university post outside Harwell. It was no longer necessary. He had confessed and that was that. It was all over and done with. And the price Skardon had to pay for the confession was that he had to ensure that Fuchs remained on at Harwell. In point of fact, as Fuchs later affirmed, he made his confession of his own free will.

Fuchs, in other words, was still a thousand miles away from any understanding of the real issues that were at stake. Yet there were certain advantages for security in his absurd illusions. So long as he was thinking along these lines it was not likely that he would bolt nor would he commit suicide. Moreover, he would help in every way he could. More than ever now it was necessary not to alarm him, not to surround him with police, not to drag him down from the dream world in which he was still living.

The next meeting on January 26th again took place at Harwell. Fuchs seemed to have maintained his composure during the intervening two days and he was ready with a mass of details about his meetings with his contacts in London, Boston, New York, and Santa Fé. He had been to see Arnold in the interval, and at that painful meeting it was one more unreality to be added to all the rest that Fuchs should have said that he was a little worried that Skardon had not appreciated the significance and importance of the whole affair. In particular he was concerned about the forthcoming declassification meeting with the Americans at which Fuchs was to be one of the British representatives. Did Skardon appreciate that it was absolutely essential for Fuchs to be there? If he were not people would notice his absence. Suspicions would be aroused. This would be a very bad thing for Harwell. Did Skardon understand that? Arnold had reassured Fuchs and suggested he might raise the matter at his next meeting with Skardon.

And now, on January 26th, Fuchs urged Skardon to move in the matter as quickly as possible, as he was anxious to have his position clarified.

Skardon put three alternatives forward: either Fuchs could write out a confession himself, he could dictate it to a secretary, or he could dictate it to Skardon himself. Fuchs at once chose the last course, and it was arranged that they should meet in a room at the War Office in London on the following day. The understanding between the two men was now com-

plete. The fly was in the web but he was held there by nothing visible. They were on a Christian-name basis, they had a certain respect for one another, and to Fuchs at least it seemed that they were acting out their parts merely as instruments of some sort of inevitable fate that was larger than themselves. After the drama was over they could go away and take up their normal lives again.

Certainly after nearly eight years of silence, of living the double life and never confiding in anybody, it must have been an immense relief for Fuchs to telescope those two lives into one at last and for the first time to tell the story—the whole story—to someone who would sympathize and understand. That was the important thing—to be understood. To make oneself perfectly and precisely clear. As soon as Skardon had left Fuchs had a talk with Arnold and very readily answered questions on what kind of information he had passed on to the Russians.

Then, on the following day, January 27th, still in this mood of confession, Fuchs came up to London without police supervision of any kind. Skardon met him at Paddington Station and drove him to the War Office in Whitehall. They sat down, and when Skardon gave him the usual official caution and asked him if he was ready to make a statement, Fuchs answered: 'Yes, I quite understand. I would like you to carry on.'

Skardon took the confession down by hand. 'I am deputy Chief Scientific Officer (acting rank) at Atomic Energy Research Establishment, Harwell', it began. 'I was born in Russelsheim on 29 December 1911. My father was a parson and I had a very happy childhood. I think that the one thing that stands out is that my father always did what he believed to be the right thing to do and he always told us that we had to go our own way even if he disagreed. He himself had many fights because he did what his conscience decreed even if this meant that he was at variance with accepted conventions. For

example, he was the first parson to join the Social Democratic Party.'

So it went on through the whole involved story. It was when they were drawing to the end of it that Fuchs for the first time had something to say of his contrition. 'I know', he said, 'that I cannot go back on that [on what had happened] and I know that all I can do now is to try and repair the damage I have done. The first thing is to make sure that Harwell will suffer as little as possible and that I have to save for my friends as much as possible of that part that was good in my relations with them. This thought is at present uppermost in my mind, and I find it difficult to concentrate on any other points.

'However, I realize that I will have to state the extent of the information I have given and that I shall have to help as far as my conscience allows me in stopping other people who are still doing what I have done. There is nobody I know by name who is concerned with collecting information for the Russian authorities. There are people whom I know by sight whom I trusted with my life and who trusted me with theirs, and I do not know that I shall be able to do anything that might in the end give them away. They are not inside the project, but they are intermediaries between myself and the Russian Government.

'At first I thought that all I would do would be to inform the Russian authorities that work on the atomic bomb was going on. I concentrated at first mainly on the product of my own work, but in particular at Los Alamos I did what I consider to be the worst I have done, namely to give information about the principle of the design of the plutonium bomb.

'Later on at Harwell I began to be concerned about the information I was giving, and I began to sift it, but it is difficult to say exactly when and how I did it because it was a process which went up and down with my inner struggles. The last

time when I handed over information was in February or March 1949.

'Before I joined the project most of the English people with whom I made personal contacts were left wing, and affected in some degree or other by the same kind of philosophy. Since coming to Harwell I have met English people of all kinds, and I have come to see in many of them a deep-rooted firmness which enables them to lead a decent way of life. I do not know where this springs from and I don't think they do, but it is there.

'I have read this statement and to the best of my knowledge it is true.'

He signed then 'Klaus Fuchs', and Skardon made a note at the bottom that Fuchs had read the statement through, made such alterations as he wished, and had initialled each and every page.

Fuchs had one more reservation, however, and that in itself was part of the moral wonderland in which he was still firmly drifting: he would not tell Skardon the technical details of the construction of the atomic bomb which he had passed on to the Russians because Skardon had not been cleared for access to such information. He agreed to confide in a qualified person, Mr. Michael Perrin, whom he had known since 1942 as the assistant to Sir Wallace Akers at Tube Alloys, and who had stayed on with the Atomic Energy Division in the Ministry of Supply. An appointment was fixed for January 30th in London—Fuchs said he would like a rest over the week-end to gather his thoughts. He again repeated that he was anxious about his future and did not want to waste time in getting it settled. He then returned alone to Harwell by train. Then, that same night, a strange thing happened. Arnold got word that there was a light burning in Fuchs's office. He went at once to the administrative block and quietly let himself in. A light was indeed burning in Fuchs's room and there were sounds that indicated that there was someone inside.

Arnold used his pass key to get into a room which was directly opposite across a corridor. The partitions between these offices in the administrative block have glass panes let into them about eight feet from the floor, close to the ceiling. By getting up on a cupboard Arnold found he could look across the corridor into Fuchs's room. Fuchs was sitting there at his desk, going through his papers. His cabinet was open and as he read he smoked. The rest of the building was in darkness and silence.

For a long time Arnold watched him. At that moment many things were still possible. It could still have been that Fuchs was intending to commit suicide after all. He might also have been planning to escape from England in the night, taking his papers with him. Again he might merely have come here to destroy those papers.

Arnold watched and waited. But Fuchs continued quietly reading, pausing occasionally to take other documents from the cabinet and sort them out in piles on the desk. Then towards eleven o'clock he got up, left his papers on the desk and the light burning, locked the door behind him, and went out. Arnold calculated that Fuchs was bound to come back, if only to put out the light, and he remained standing on the cupboard in the darkness.

It was an hour, however, and close on midnight before Fuchs returned. Then he sat down and began reading again as he had before. This continued for another half-hour or more while still Arnold watched and waited. Then at last, about 12.30 a.m., Fuchs got up, locked his office door, put out the light, got into his car, and drove home. Arnold then entered the room and found that the papers which Fuchs had been reading dealt only with routine matters and were not important. The room, with the papers still spread out on the desk, remained untouched until it was officially searched after Fuchs's arrest.

Fuchs took a morning train up to London on Monday,

January 30th. He arrived at Paddington at 10.45 a.m., and Skardon brought him to the War Office where Perrin was waiting. As they went into the meeting Fuchs said he had remembered one or two other facts about his contacts that might be useful. He said he was certain that there were other scientists besides himself who had been working for the Russians. Also he recalled now the place of the last rendezvous which he had failed to attend. It was the Spotted Dog at Putney, or alternatively another pub near Wood Green Underground station.

Skardon opened the proceedings with Perrin by saying that Fuchs had decided to reveal everything. Perrin replied that he had plenty of notepaper and they set to work. They went through the seven years of meetings chronologically, noting just what Fuchs had given to the Russians at each time and place: at first his monthly reports when he was working with Tube Alloys in Birmingham in 1942, then in New York the details of the gaseous diffusion process, then at Santa Fé the principles of the plutonium bomb, and finally at Harwell thei nformarion about the progress of the post-war British project.

It was a long process, and after an hour or two the three men broke off for lunch. They went to a hotel behind the War Office in Whitehall, close to Scotland Yard, and finding all the tables occupied, perched themselves at the snack bar, as strange a luncheon party as any in London that day. Then they went back to work again.

Fuchs repeated to Perrin that he was convinced that other scientists were at work for the Russians and had been all along. As an example he described how, very early in his espionage, while he was still in England, they had asked him for details of the electro-magnetic isotope separation process in Berkeley, California, and that was a matter upon which no British scientist had any knowledge at the time.

It was 4 p.m. before the statement was finished. Fuchs then

went off alone to Harwell while Perrin got his notes typed; it was a long document of many pages. Now at last the authorities had enough. There were still a number of details to be got from Fuchs but now they knew the worst. It was time to make the arrest.

There was an election going on in England at the time—the election that brought Labour back with a small majority in 1950—and the legal formalities were complicated. First the Prime Minister, Mr. Attlee, had to be acquainted with the confession. Then the Attorney-General, Sir Hartley Shawcross, had to be found—he was actually somewhere in the north of England. Shawcross returned to London, reading through the case in the train, and in London the Special Branch at Scotland Yard and others worked upon the precise wording of the charge. These matters occupied the whole of January 31st and February 1st. By February 2nd they were ready to move.

Security preferred not to make the arrest inside Harwell, where still nothing was known of the investigation. Instead they decided to get Fuchs quietly to London, and the best way of doing this was for Perrin to telephone Fuchs and ask him to come up for a further interview. The arrest would take place at Perrin's office at Shell-Mex House. Perrin agreed to do this, though as a layman he lacked some of security's enthusiasm for the idea. His only stipulation was that if Fuchs was going to be arrested in his office he, Perrin, should not be present. He got through to Fuchs by phone on the morning of February 2nd and said: 'Can you come up again this afternoon?' Fuchs agreed, and suggested a train from Didcot which would get into Paddington around 2.30 p.m.; it was a journey of little more than an hour.

It was arranged then that Commander Leonard Burt of Scotland Yard should be present in Perrin's room at 2.30 p.m. with the charge and a warrant for Fuchs's arrest. Perrin, somewhat restlessly, took up position in his office at 2.30, and then for half an hour nothing whatever happened. Perrin phoned

security and was assured that Burt was on his way. At three o'clock Perrin's secretary phoned through to say that Fuchs had arrived. Perrin gave instructions that Fuchs should be kept in his outer office until Burt appeared and in some agitation he telephoned security once again.

Finally at 3.20 p.m. Burt arrived with a police inspector and they were shown at once into Perrin's room—the delay had been caused by last-minute arrangements over the wording of the charge. They then sent for Fuchs who had been waiting all this time in the adjoining room. Perrin introduced him quickly to Burt and then slipped away into another room. Burt read out the charge at once, and told Fuchs he was under arrest. Fuchs made no comment. He sat down in Perrin's chair and then asked if he could see Perrin himself.

Burt agreed and brought Perrin back into the room again. Fuchs's face had suddenly gone grey. Now at last the whole elaborate dream-edifice had collapsed, and looking directly at Perrin he made his final absurd and touching *cri de cœur*: 'You realize what this will mean at Harwell?'

The officers noted that down and took him away to Bow Street Police Station.

ELEVEN

Fuchs's three appearances in court are remarkable for their brevity, for what was not said or given in evidence, and for the dispatch with which they were managed. He was never allowed bail and within a month of his arrest he had been arraigned, tried, and sentenced. He himself spoke only once or twice and very briefly; and he uttered nothing in his own defence. His first appearance was before the Chief Magistrate, Sir Laurence Dunne, at Bow Street on February 3rd, the day following his arrest, and this was a purely formal proceeding. Commander Burt was the only witness and he related the circumstances in which the arrest had been made. Fuchs said he had no questions to ask of Burt, and the magistrate said to him: 'Is there anything you want me to do for you in the way of legal representation?' Fuchs answered: 'I don't know of anybody.' The magistrate asked if he were a man of means and the prosecutor, Mr. Christmas Humphreys, replied: 'Yes; there is no reason to think he cannot afford to pay for legal representation. He has a substantial salary.' The magistrate ordered that the prisoner's spectacles and other articles which were taken from him at the time of his arrest should be returned to him, and the case was then remanded for a week while Fuchs obtained lawyers and the prosecution prepared their brief. Fuchs remained at Brixton prison.

At the second hearing at Bow Street on February 10th, Wing Commander Arnold Shardon, and Perrin all gave evi-

dence, but the confession was not given in court. The prosecutor, Mr. Humphreys, said this:

'The mind of Fuchs may possibly be unique and create a new precedent in the world of psychology. It is clear from his statement that we have half of his mind beyond the reach of reason and the impact of facts. The other half lived in a world of normal relationships and friendship with his colleagues and human loyalty. This dual personality has been consciously and deliberately produced. He broke his mind in two, describing it as controlled schizophrenia. He has produced in himself a classic example of the immortal duality in English literature, Jekyll and Hyde.'

Fuchs again had nothing to say and he was committed for trial at the Old Bailey.

Three weeks then went by while Fuchs was held at Brixton prison, and then on March 1st he appeared before the Lord Chief Justice, Lord Goddard, in the same court in which Allan Nunn May had been tried and sentenced four years before. The case had now attracted very wide attention in the newspapers. They recorded the appearance of the Lord Chief Justice, with his scarlet and ermine, coming into court behind the sword-bearer and the mace-bearer in their medieval costumes, and the hush in the crowded court as he settled into his chair under the sword of Justice. They recorded the presence of the Duchess of Kent and a number of other notable people in court; and that a Miss Giesler Wagner, a cousin of the prisoner and his only relative in England, was there too. They noted that Fuchs was attended by a doctor, that he looked pale, that throughout the hearing his eyes remained fixed on the bench and that he made no sign of any kind.

But there was no great drama in court that day, nothing so sensational as the extraordinary nature of the problem itself. The case was over in an hour and a half and Skardon was the only witness. Yet those ninety minutes must have been for Fuchs one of the strangest anticlimaxes any man has ever

experienced, for he had just heard, as he came into the court, that he was not going to die. His senior counsel, Mr. Derek Curtis-Bennett, had seen him in the cells immediately before the hearing began and had told him that there was not much hope. Counsel would do their best but there was no chance of an acquittal and he had to expect the maximum penalty. Fuchs had answered, 'Yes. I understand'.

'You know what the maximum penalty is?' Curtis-Bennett asked, and Fuchs replied, 'Yes, I know. It's death.' He had apparently believed all this time that he had been in prison that he was about to die.

'No,' said Curtis-Bennett. 'No. It is fourteen years.'

Upon this Fuchs made no sign of relief or surprise; he went on calmly into court, followed the proceedings closely and spoke up clearly and firmly at the end.

He was charged with having communicated to unknown persons information which might be useful to an enemy on four separate occasions: in Birmingham in 1943; in New York between December 1943 and August 1944; in Boston in February 1945, and in Berkshire, England, in 1947. Fuchs pleaded guilty to all four counts.

The Attorney-General, Sir Hartley Shawcross, opened for the Crown. 'The prisoner,' he said, 'is a Communist, and this is at once the explanation and indeed the tragedy of this case. Quite apart from the great harm the prisoner has done the country that he adopted and which adopted him, it is a tragedy that one of such high intellectual attainments as the prisoner possesses should have allowed his mental processes to have become so warped by his devotion to Communism that, as he himself expresses it, he became a kind of controlled schizophrenic, the dominant half of his mind leading him to do things which the other part of his mind recognised quite clearly were wrong. Indeed, my Lord, his statement (and so far as we have been able to check it, we believe his statement to be true), is a very object lesson in the meaning of Communism,

and before I say a word as to the facts, perhaps I might be permitted to add this, because it has an immediate bearing on the case:

'In this country the number of Communists is fortunately very few, and it may be that a great number of those people who support the Communist movement believe, as the prisoner at one time apparently believed, misguidedly if sincerely, that that movement is seeking to build a new world. What they don't realize is that it is to be a world dominated by a single Power and that the supporters of the Communist Party, the true adherents of Communism, indoctrinated with the Communist belief, must become traitors to their own country to the interests—or what they are told to be the interests—of the international Communist movement.

'My Lord, it was because of these facts that this brilliant scientist as he is, now undoubtedly disillusioned and ashamed, came to place his country and himself in this terrible position.'

Sir Hartley then gave an account of Fuchs's career, quoting largely from the confession. He made the point that the confession was not obtained by any sinister pressure, nor after any 'long period of secret incarceration *incommunicado*'. Skardon supported this in the witness box and added that since his arrest Fuchs had done all he could to help the authorities.

Curtis-Bennett at the outset based his case upon the intense political pressure which had been put upon Fuchs in his youth in Germany. He said:

'Then the struggle burst into flames in February 1933, when somebody set the Reichstag on fire which was the next-door house of the President of the Reichstag. There was a smash throughout Germany against the Communists. This scientist, this scholarly man, read that news in the newspaper on the train the morning after it happened. He went underground, scarcely saving his own life, and came to this country in 1933 for the purpose of conducting his scientific studies in order to fit himself out to be a scientist to help in the rebuilding of a

Communist Germany; [illegible] but to study physics. [illegible] A theoretical physicist, he was educated [illegible] Leipzig University, Bristol University and Edinburgh University. He pursued his peaceful studies and had got [illegible] he may have been a candidate for a Nobel Prize [illegible] membership of the Royal Society rather than for [illegible] in England,' said Mr. Curtis-Bennett, 'that he [illegible] to be anything but a Communist [illegible]'

Lord Goddard: 'I don't know what [illegible] that was known to the authorities [illegible]'

Mr. Curtis-Bennett: 'I don't know, but he [illegible] of that fact.'

Lord Goddard: 'I don't suppose the [illegible] a Communist when interviewed or when [illegible] as when he went to the [illegible]'

Curtis-Bennett: 'It was wrong, my lord, [illegible] correct me. It was on his records in the Home [illegible] Office that he was a member of the German Communist Party, in the time before Hitler [illegible]'

Sir Hartley Shawcross: 'It was noticed when he was examined by the Enemy Aliens Tribunal at the beginning of the war that he was a refugee from Nazi persecution because in Germany he had been a Communist. All the investigations at that time and since have not shown that he had any connection whatever with British members of the Communist Party.'

All he wished to say, Curtis-Bennett added, was this: 'Anybody who has read anything of Marxist theory must know that any man who is a Communist, whether in Germany or Timbuctoo, will react in exactly the same way when he comes into possession of information. He will almost unconsciously, unhappily, put his allegiance to the Communist ideology first. . . . He had a sort of view in his mind about the information he would or would not give, and in Count One, [illegible]

Lord Goddard: 'I have read this statement with very great care more than once. I cannot understand this metaphysical philosophy or whatever you like to call it. I am not concerned with it. I am concerned that this man gave away secrets of vital importance to this country. He stands before me as a sane man and not relying on the disease of schizophrenia or anything else.'

Curtis-Bennett: 'If your Lordship does not think that the state of mind a man acts under is relative to sentence——'

Lord Goddard: 'A man in that state of mind is one of the most dangerous that this country could have within its shores.'

Mr. Curtis-Bennett: 'I have to endeavour to put before your Lordship this man as he is, knowing that your Lordship is not going to visit him savagely, but justly, both in the interests of the State and the interests of this man, and I can only try to explain what your Lordship has said you fail to understand. Though I fail in the end, I can do no more, but do it I must. There was acting in his mind a sieve whereby, with regard to the first count, he would only tell things he found out himself. He is a scientist, a pencil-and-paper man, and it is good to hear the Attorney say that it is not in his power to make an atom bomb and hand it over to the Russians —to give away a mighty secret of that sort. In 1943 he gave information about what he himself knew out of his own head. I am not going to confuse this case with long medical terms. He is not mad. He is sane. But he is a human being and that is what I am trying to explain.'

Curtis-Bennett explained how the sieve of Fuchs's mind got wider until he gave the Russians all he knew, and then finally on his return to England the sieve closed up. He first gave the information because Russia was an ally and after the war it was only logical for him to continue to do so.

'A scientist,' Curtis-Bennett continued, 'is in this position —he is taught, or teaches himself, or learns, that A plus B

equals C. If he is told tomorrow that it is A minus B that equals C he does not believe it. But your sensible citizen or politician, moving in the affairs of the world, told that, would agree with both. He has to. But the change of political alignments is not the business of scientists, for scientists are not always politically wise. Their minds move along straight lines without the flexibility that some others have.'

Finally, Curtis-Bennett said, Fuchs had recanted. 'There you have this man being logical, in my submission, having decided to tell everything, tells everything, makes it about as bad for himself as he can, and provides the whole of the case against him in this court. There is not one piece of evidence produced in the case which is not the result of the written and oral statements he made to Mr. Skardon in December and January of this year.'

No further evidence was produced. Lord Goddard told Fuchs he was convicted and asked him if he had anything to say. Fuchs then gave the only public statement he has made since his arrest. He said:

'My Lord, I have committed certain crimes for which I am charged and I expect sentence. I have also committed some other crimes which are not crimes in the eyes of the law—crimes against my friends—and when I asked my counsel to put certain facts before you I did not do it because I wanted to lighten my sentence. I did it in order to atone for those other crimes.

'I have had a fair trial and I wish to thank you and my counsel and my solicitors. I also wish to thank the Governor and his staff of Brixton prison for the considerate treatment they have given me.'

This was Lord Goddard's summing-up:

'In 1933, fleeing from political persecution in Germany, you took advantage of the right of asylum, or the privilege of asylum, which has always been the boast of this country to people persecuted in their own country for their political

opinions. You betrayed the hospitality and protection given to you by the grossest treachery.

'In 1942, in return for your offer to put at the service of this country the great gifts Providence has bestowed upon you in scientific matters, you were granted British nationality. From that moment, regardless of your oath, you started to betray secrets of vital importance for the purpose of furthering a political creed held in abhorrence by the vast majority in this country, your object being to strengthen that creed which was then known to be inimical to all freedom-loving countries.

'There are four matters which seem to me to be the gravest aspects of your crime. In the first, by your conduct you have imperilled the right of asylum which this country has hitherto extended. Dare we now give shelter to political refugees who may be followers of this pernicious creed and disguise themselves and then treacherously bite the hand that feeds them?

'Secondly, you have betrayed not only the projects and inventions of your own brain for which this country was paying you and enabling you to live in comfort in return for your promises of secrecy. You have also betrayed the secrets of other workers in this field of science, not only in this country, but in the United States, and thereby you might have caused the gravest suspicion to fall on those you falsely treated as friends and who were misled into trusting you.

'Thirdly, you might have imperilled the good relations between this country and the great American republic with which His Majesty is aligned.

'And fourthly, you have done irreparable and incalculable harm both to this land and to the United States, and you did it, as your statement shows, merely for the purpose of furthering your political creed, for I am willing to assume you have not done it for gain.

'Your statement which has been read shows to me the depth of self-deception into which people like yourself can fall. Your crime to me is only thinly differentiated from high treason. In

this country we observe rigidly the rule of law, and as technically it is not high treason, so you are not tried for that offence.[1]

'I have now to assess the penalty which it is right I should impose. It is not so much for punishment that I impose it, for punishment can mean nothing to a man of your mentality.

'My duty is to safeguard this country, and how can I be sure that a man, whose mentality is shown in that statement you have made, may not, at any other minute, allow some curious working of your mind to lead you further to betray secrets of the greatest possible value and importance to this land?

'The maximum sentence which Parliament has ordained for this crime is fourteen years' imprisonment, and that is the sentence I pass upon you.'

Without any further word or any visible display of emotion Fuchs left the dock.

This time no one came forward to protest against the sentence as they had done in the case of Allan Nunn May. Instead there was a very sober feeling that something had happened here which was beyond the power of any court to punish or correct. It was not just a question of the prisoner Fuchs, or the intriguing duality of the Communist mind. The whole question of British security was involved. How far had security slipped? How many other Fuchses were running around in the British and American laboratories? How was it possible that a traitor could walk through all the security barriers in England and America and for years, without anyone being the wiser?

Several events followed rapidly. On 3 March 1950 the Prime Minister, Mr. Attlee, saw Sir Percy Sillitoe, the head of M.I.5, in Downing Street, and the documents in the case

[1] In England the charge of high treason, for which the penalty is death, can only be made against a traitor who assists an enemy. Fuchs gave information only to an ally.

were sent to Mr. Truman and the F.B.I. in the United States. Mr. Truman had already announced in February that the United States would press on with the manufacture of the hydrogen bomb. But this was to be purely an American effort: the exchange of atomic weapons information with Britain had already ceased since the war.

On March 6th Mr. Attlee made a statement on Fuchs to the House of Commons. This we can more conveniently deal with later.

On March 7th the Tass Agency published a statement that the Soviet Government had no knowledge of Fuchs and that no agent of their had been in contact with him—a claim that was so blatantly and childishly false that one wonders why they ever bothered to make it. On March 10th the Joint Congressional Atomic Energy Committee met in Washington, and it had before it the two vital documents—the first confession to Skardon and the second, technical confession to Perrin. The committee was, in the words of its chairman, Senator MacMahon, 'shocked'. A hunt to track down Fuchs's contacts was begun on both sides of the Atlantic.

Fuchs in prison was repeatedly questioned and shown hundreds of photographs. He knew none of his contacts by their real names, and in the intervening years he had forgotten very largely what they looked like. He acutally passed over a photograph of Harry Gold, saying he had never seen him before. The F.B.I. concentrated upon Gold. They sent two men, Hugh Clegg and Robert Lamphere, to question Fuchs in England, they made minute inquiries of hundreds of possible suspects in the United States, they questioned Fuchs's sister Kristel, and finally, on May 22nd, when they were convinced that Gold must be their man, they got him to confess. It was the map of Santa Fé which Gold had bought so that he could find his way to his rendezvous with Fuchs in 1945, that was his undoing. When the F.B.I. searched his apartment and discovered this map, Gold was so utterly taken aback that he

broke down. It so happened that within an hour of his arrest, word came from England that Fuchs had identified Gold at last from some motion pictures of him which had been taken recently.

From Gold the trail then led on to David Greenglass, to the Rosenbergs, and others in the American spy ring. In England, where a similar hunt was in progress, it was found that most of Fuchs's contacts had already decamped to Soviet Germany. About this time also, Fuchs's elder brother, Gerhardt, was expelled from Switzerland. He went to the Soviet zone and died there.

Fuchs himself, meanwhile, had been removed from Brixton to Wormwood Scrubs. His special privileges as a prisoner waiting trial were stopped, and he was put into prison uniform. Three months later, on June 27th, he was sent to Stafford Gaol in Staffordshire, and there he has remained ever since. He has never exercised his right of appeal and he has made no effort to have his case reviewed. After this brief passage through the courts—and as a compact and rapid process of law the case was something of a model of its kind—he vanished almost before the public was aware of him, though he left behind an enormous field of misgiving and speculation.

Probably not even Fuchs himself could describe the processes of his mind on his arrest, when some at any rate of his illusions were broken at last. Those who saw him in prison immediately afterwards were struck by the improvement in his appearance. He passed the month between his first appearance at Bow Street and his sentence at the Old Bailey in that state of detachment which usually overtakes a man who realizes that life as he used to know it has gone for good, and that presently he may be about to die. In an English gaol there was never the remotest possibility of him having to face a lynching party or the real fury of the community. But he was aware of it.

When Skardon saw him after the Bow Street hearing he had

to recommend at his arrest, and, in fact, more than once in the ensuing few weeks while he was awaiting trial he sent for Skardon to give him further information. He was still not quite sure that he could give away his contacts in the Russian Intelligence Service, and he was not particularly good at remembering faces and dates and places; still, within these limits he was ready to help as much as he could. This was part of the atonement for 'those other crimes'. It is doubtful if Fuchs has ever admitted to himself the full extent of the harm he has done society, any more than the Germans could be got to admit their guilt in the last war. But of 'those other crimes', of his private treason, his betrayal of his immediate friends, he was acutely conscious at this time. He wrote to them at length. Prisoners in British gaols are not allowed fountain pens, but he did the best he could with a scratchy prison nib and the unglazed prison notepaper that blotted badly at times. He wrote in a small neat hand, and the grammar and phrasing were precise. No one need doubt the sincerity of these letters, and they did reveal here and there that he was going through a moment of truth. He said he had begun at last—too late—to understand affection. As a boy in Germany he had always joined himself to other students because their political beliefs were the same as his own—not because he liked them or admired them for their own sakes. Friends, then, were always a means to an end; now he was beginning to see that was false and inhuman and it was not easy for him in his thirties to learn what most others knew when they were sixteen. He said he realized that his friends would never want to hear from him again.

His friends, however, did not desert him. Their first reaction on the news of his arrest was utter stupefaction. Those whom he had particularly harmed were people like Professor Peierls, who were themselves originally refugees from Nazi Germany, and who, after a long struggle over many years, had established themselves in England and were known as men of

great integrity and intelligence. Scientists of the distinction of Professor Peierls were unlikely to be much affected, but it was impossible to avoid feeling that Fuchs had cast suspicion upon them all. As Lord Goddard had suggested, who in England would trust aliens after this? All scientists were hit, and the refugees most of all.

Peierls, however, went to Fuchs in prison directly he heard the news to see how he could help to straighten out the mess for Harwell, for the scientists, for the British, for Fuchs and everybody else. There were other visitors too, all of whom had been undermined in some way by this treachery; and perhaps these painful meetings were the most salutory things that could have happened to Fuchs, for they must have revealed to him that there are people in the world who are always moved by distress, and who still regard friendship as a tie even when it has been rejected and betrayed. They found him humble and ready to be reviled. He was not demoralized but he had no defences left. He expected only punishment. He had no complaints about what was being done to him. One of his woman friends saw him in Brixton before the trial. He still, at that stage, was entitled to wear his own clothes and he could buy cigarettes and receive gifts, but she was appalled that he should be in prison at all. She asked him: 'Where are you sleeping, what are you getting to eat, what is it like?' He answered: 'It's not bad. Old [he named an acquaintance who had luxurious tastes] would have died a thousand deaths. But it's not bad.'

After the trial he continued to write to his friends when he saw that they had not deserted him. He said he felt that Lord Goddard had told him what he was bound to hear, and that Curtis-Bennett and others had spoken to him a great deal about arrogance. But was there anything but arrogance, absurdity and arrogance? Was there no sort of self-respect that he could hope for now, after what had happened? Any schoolboy might have told Klaus Fuchs a great deal about self-respect and arro-

gance, but this was not a subject which is easy to learn, as Fuchs himself saw, at the age of thirty-eight. It is even impossible to learn if one remains fixed in the belief that the individual will is a law to itself, and that one's conscience must be one's guide no matter what harm one does to anybody else. In Fuchs's book there was no allowance for the fact that one's conscience may be shining bright but one's ignorance of what is right and wrong may be appalling. He succeeded in utterly confounding Polonius' philosophy that if you are true to yourself then it must follow as the night the day you cannot then be false to any man. Fuchs, according to his lights, had been true to himself and he had ended up in a welter of falsehood. He deliberately created a double life for himself, the two parts of which were entirely different and contradictory. It was impossible to be true to himself because he had two selves, each warring against the other. Truth fell down a deep well between these two selves, and it is still to be wondered whether or not Fuchs has yet succeeded in dredging it up again. The more one contemplates his mind the more it fades into a limbo of frightful indecision where the free will becomes chained and determinism becomes free.

With Fuchs in mind it is interesting to read, if only as a literary curiosity, the confession of Dr. Henry Jekyll in Robert Louis Stevenson's *Dr. Jekyll and Mr. Hyde*, for it bears some remarkable resemblances to Fuchs's own confession. 'Hence it came about', Dr. Jekyll says, 'that I concealed my pleasures; and that when I reached years of reflection, and began to look around me, and take stock of my progress and position in the world, I stood already committed to a profound duplicity of life. Many a man would have blazoned such irregularities as I was guilty of; but from the high views I set before me, I regarded and hid them with an almost morbid sense of shame. It was thus rather the exacting nature of my aspirations, than any particular degradation in my faults, that made me what I was, and, with even a deeper trench than in the majority of

men, severed in me those provinces of good and ill which divide and compound man's dual nature. . . . Though so profound a double-dealer, I was in no sense a hypocrite; both sides of me were in dead earnest; I was no more myself when I laid aside restraint and plunged in shame, than when I laboured in the eye of day, at the furtherance of knowledge or the relief of sorrow and suffering.'

These and other passages might almost have been put in as evidence by the defence at Fuchs's trial, to establish the fact that there is a duality in all men, and that the real nature of Fuchs's crime was that he encouraged his duality to the point of treason, and ended in a state of complete confusion. It was no wonder then that after his trial, as the weeks in prison went by, he began to search for some way out of the maze by studying philosophy.

He approached philosophy at a hard gallop, as a boy will plunge into *Robinson Crusoe* or a blue-stocking thirsts after Kafka. First he began to wonder whether his confession had really accomplished anything at all beyond helping M.I.5. It had destroyed himself and his relationship with his friends; and nothing seemed to have taken its place. He sent for, and was allowed to have, Kant's philosophy and many books of other philosophers, Greek, German, French, and English. These he absorbed with religious attention and in great quantities; his first real secretion of philosophy since his student reading of Karl Marx. It produced strange but not unexpected results. He attempted to relate philosophy, especially Kant, to quantum physics.

He read Dickens and said in a letter to a friend that he was quite bowled over by the opening sentence of *A Tale of Two Cities*. That sentence, an apostrophe upon the violent opposites of life in 1775, must indeed have a strong appeal to the schizophrenic mind. It reads: 'It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it

was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way—in short, the period was so far like the present period that some of its authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.' A world, in fact, where everything was either black or white and nothing lay in between; and there was no finality anywhere. The world of 1950.

Then presently, in the gloom of prison, he began to compose poetry, in English and with a Tennysonian flavour. He wrote much and posted the results off to his friends. Of his own case he wrote less and less. What else was there to say?

To Henry Arnold, the security officer at Harwell, his attitude was: Don't blame yourself that I deceived you. Blame Stalin, Lenin, Marx, and all the other Communists. I was learning affection at Harwell. I was already changing. I was beginning to see the deep-rooted firmness of the English and their decent way of life. I would have come to you in the end whatever happened and I would have told you what I had done.

There is probably some truth in this, for Fuchs had a deep regard for Arnold. The relationship between the two men is, indeed, an interesting study in the field of counter-espionage. Arnold from the first had had a general reservation in his mind about Fuchs. It hardly amounted to a suspicion; he simply felt that if anyone at Harwell was betraying secrets then it was more likely to be Fuchs than anybody else. So from 1946 onwards he deliberately cultivated Fuchs's friendship. At first Fuchs did not respond very eagerly, and it was Arnold who had to make all the approaches. Then, little by little, Fuchs began to come round, and by 1949 a genuine intimacy had grown up between them. It was the kind of intimacy—perhaps trust is the better word—that exists between opponents

who see that they are implacably committed to a duel against each other. Such relationships can be more lucid and enduring than those based upon emotional liking; and the familiar enemy becomes at last more trustworthy than the temperamental friend.

By 1949 Fuchs found himself in a hopeless position, for by then he wanted to give up the struggle; he wanted to accept Arnold's friendship *in toto* and come over to Arnold's side. But he could not bring himself to make an open avowal to his friend of the appalling things he had done. This was the point where Arnold, having to some extent prepared Fuchs for his conversion and confession, handed him over to Skardon; and Fuchs, no doubt, found it a good deal easier to confess to a stranger whom he had not personally betrayed over a long period of time.

And now that it was all over, now the poison had gathered and burst, Fuchs began to discover that Arnold had no personal bitterness against him. It was Arnold who wound up Fuchs's estate at Harwell. He sold the grey saloon MG car (which Fuchs had bought from Professor Skinner). He disposed of the furniture, the clothes, and the books in prefab 17; he settled Fuchs's debts and deposited for him the three or four hundred pounds which were left. One thing, however, Arnold could not bring himself to sell or keep, and that was a prisoner's uniform with a *patch on* the back which Fuchs had worn as an internee in Canada. He had kept it all these years in a trunk under his bed. Arnold wrote to Fuchs in prison and told him he proposed to burn it. Fuchs indifferently agreed and that was one more bit of the past that was gone for good.

The Fuchs case was considered just once again at a public hearing in December 1950, when the Deprivation of Citizenship Committee debated upon whether or not Fuchs should be deprived of his British citizenship. Fuchs did not exercise his right to appear before the committee nor was he represented. However, he presented a letter in which he argued that there

could be little doubt as to where his loyalties now lay. If his citizenship was to be taken away from him as a punishment, then he had nothing to say, even though he was already serving the maximum sentence. But he did not think the matter would be regarded as a punishment. He could not ask the Secretary of State to accept an assurance of loyalty from himself, but he suggested the opinion of M.I.5 and the Director of Public Prosecutions should be obtained. He had made his confession, he said, of his own free will after Sir John Cockcroft had asked him to resign from Harwell but had offered to retain him as a consultant. He had co-operated loyally with M.I.5 and the F.B.I. since his arrest, and he had done this without any threat or promise having been made to him.

Fuchs very much wanted to retain his citizenship. It was clear that he felt that here in England his loyalties had become fixed at last. To distrust him now was to go against the facts. However, when he heard that the authorities were bound by the law and that they were determined upon taking his nationality away, he did not press the matter. But he was much distressed. The Order went through and was published in the *London Gazette* in February 1951.

These were among the last contacts Fuchs has had from prison with the outside world. From time to time there have been reports that he was being re-employed on atomic energy research but this is not so. He remains at Stafford Gaol, something of a celebrity among the other prisoners but in no substantial way differing from them as far as his privileges and treatment go. He is sewing canvas mailbags. He corresponds less and less with his friends as he sinks back into a world where there is no free will and where the conscience is supplanted by steel bars. He is liked among the other prisoners. Those who have emerged from gaol speak of his quietness and of his generosity in sharing his cigarettes. If he earns the maximum remission of sentence for good conduct—and it seems likely that he will—his release will take place about 1960.

It is a remarkable thing that nearly all the people who came into contact with Fuchs for the first time during the period of his arrest and his trial were immensely impressed by him. They did not regard him as a political imbecile, nor as a charlatan, nor as a criminal anarchist, although he might truthfully have been called by all those names. They thought him very reasonable. Those who knew nothing of his work as a physicist still respected him for his serious intelligence in other matters, and some of them grew to like him very much. It is perhaps all too easy to find virtues in a broken man for no one need be jealous of him any longer. Napoleon on Elba is a much more sympathetic figure than Napoleon at Austerlitz. Fuchs was not a bore, nor a boaster nor a coward. It required a certain type of courage to take up his Russian contacts again in England after Nunn May had been caught and he contemplated suicide very fully at the time of his investigation. But there are circumstances when it is more difficult to reject suicide than to succumb to it—and this may have been such a case. Fuchs was always governed by his brain, not by his emotions, and there seems to be no reason to doubt him when he says that he realized that suicide would have offered no solution at all, either for himself or the people at Harwell or anybody else, though just possibly it might have been politically convenient.

However, at the time of the trial and for long afterwards, few people were concerned over the personal problems of Fuchs's life, or what he was going to do with it now that he had been caught. He had raised much bigger issues. It seemed to many that treason had come much closer to the ordinary lives of ordinary people than it had ever done before. In the phrase of Rebecca West, 'a vast gap had been knocked in the hedge', and which of us was going to be able to trust anyone else, entirely, ever again? In other words, Fuchs had committed the crime which society is least able to forgive: he had made society distrust itself. And for that he was hated.

TWELVE

THE Fuchs case set up a stir in the universities and laboratories everywhere in Britain, for many scientists had known the prisoner, many were of foreign birth and had left-wing views at one time or another. Among those at Harwell who came to see the security officer, Henry Arnold, was Dr. Bruno Pontecorvo. This was in February 1950, while the Fuchs trial was pending.

As part of the ordinary security routine at Harwell Pontecorvo had been sent a questionnaire which contained queries about his family—their names, nationalities, and so on. Pontecorvo told Arnold that he would like to have a private talk about the questionnaire and in the course of that talk he volunteered the information that he had a younger brother named Gilberto who was a Communist. This Gilberto had no connexion whatever with Harwell or science—he was an Italian citizen living in Italy—still, Pontecorvo said, he felt security ought to know about him.

Pontecorvo was something of a figure at Harwell. He had arrived there less than eighteen months before to take up a post as a senior principal scientific officer, but in that time he had established himself as one of the most buoyant and likeable people on the station. Atomic scientists are not exceptionally light-hearted men as a rule, and perhaps Pontecorvo was the more conspicuous because of that. He was always gay. In the words of some of his older colleagues he was the 'Ramon Navarro type', a dark man of medium height, very good-

looking, and with charming, lively manners. He was the extrovert who made friends easily, he flirted mildly at the cocktail parties, and he talked adroitly and well. The Pontecorvos were constantly hard up and that was because he was entirely generous and careless with his money—he said once that he never counted the notes in his wallet so that he should not worry if he lost it. He was known to everyone at Harwell as 'Ponte' or Bruno.

It is a notable thing that when Nunn May and Fuchs were arrested and their friends had got over their first astonishment they looked back and remembered many little things, many oddities in the characters of the two men; and in the end they agreed, yes, they could have been traitors, they could have done it. But in the case of Pontecorvo they are utterly baffled. There seems to have been such an artlessness and frankness about him, his comings and goings were so well known over so many years, that his friends still cannot bring themselves to accept any really sinister reason for his disappearance. They agree that if a spy must choose a disguise then this sort of carefree manner would be an excellent one; but they found Pontecorvo's performance too flawless to have been anything but genuine. For them the picture of Pontecorvo as a traitor simply does not fit the facts; it would be just as rational to believe that Einstein was a secret baby-killer or that Stalin was, in reality, a fox-hunting gentleman from the shires.

There were his laziness, his enthusiasms, his occasional irresponsibilities, and above all his tennis. He was a fervent tennis-player, much given to dashing up to the net. It was generally understood that he had once won the singles championship of Italy and before the war he and one of his brothers had played with King Gustav of Sweden on the Riviera. There was too his passion for motoring. Soon after his arrival at Harwell he bought himself a new Standard Vanguard and in this he frisked about the Berkshire downs and he was welcome wherever he went.

[illegible] about Pontecorvo's abilities but this happy mother. He was known and respected as a very able scientist indeed, perhaps even the superior of Fuchs in some directions. Fuchs's brain was a machine: a precision instrument that could go on making accurate calculations indefinitely, but it was never thought that he would create some new discovery in physics. With Pontecorvo, however, there was always the feeling that he would turn up with an original piece of work one day—something entirely new and imaginative. The Russians have a way of saying that such and such a man would never invent a monkey. The difference between Fuchs would never be a monkey-inventor, while Pontecorvo just conceivably might be one day. Indeed, so far back as 1935, when Pontecorvo was only twenty-two, he signed his name with five other Italian scientists to a paper which appeared in the Proceedings of the Royal Society of London. This was entitled 'Artificial Radio-activity Produced by Neutron Bombardment', and it is upon the strength of this paper and the processes it disclosed that the six authors are now claiming ten million dollars damages in the United States for the use of their discoveries during and after the war. A United States patent was awarded them in 1940 and if the present litigation is successful Pontecorvo will be legally entitled to his share of the ten million dollars.

Physical scientists tend to reach their full powers in their late thirties (after which many of them fade away) and in January 1949 when he first arrived at Harwell Pontecorvo had just turned thirty-six and he already had a considerable record behind him.

There was just one peculiarity in the background of this brilliant and likeable man and that was his wife Marianne. She seldom, if ever, attended the cocktail parties and the tennis. She stayed at home with the three children, Gil, Tico, and Antonio. She did all the cooking, shopping, and housekeeping for the family. No servant, not even a baby-sitter, was ever

employed, though on Pontecorvo's salary, which was around £1,500 a year, they might certainly have got some help from time to time. Except in the case of relatives who came to stay with them, they hardly ever entertained; there were just two small parties during the whole of their stay at Harwell and the guests then were astonished to see how bare and cheerless the house was. The floors for the most part were bare. A camp bed, a rocking-horse, and a Dutch chair stood in the living-room. Just one bedroom was furnished in reasonable comfort, and in the kitchen there was a modern washing machine which was a strange extravagance in that Spartan house.

Marianne Pontecorvo had very few friends and when she happened to meet other families at Harwell she was often very shy to the point of apparent rudeness. Yet she was a pretty girl. She had gleaming blonde hair, a round Scandinavian face with wide-set eyes, a firm mouth, and the figure of a boy. In appearance she was the accepted idea of a Nordic open-air girl and one would have thought that she might have enjoyed the cocktails and the tennis.

It was perhaps nothing remarkable that Marianne should have been so painfully shy, and clearly she loved her husband and preferred to be with him and the children rather than anyone else. But there were people at Harwell who had known the Pontecorvos in Canada during the war and as soon as the family arrived in England in 1949 they were struck by the change that had come over them. Pontecorvo seemed to have aged somewhat and very quickly. Marianne's shyness had developed into something a good deal more; it was almost as though she were frightened.

However, these things caused no great comment at Harwell; the family was simply accepted as another odd piece in that complicated jigsaw and a place found for it in the pattern. It was known that Marianne was Swedish, that Pontecorvo was Italian, and that somewhere in the background there was a numerous flock of brothers and sisters in the Pontecorvo family.

Upon the subject of politics Pontecorvo was a hopeless talker, for he had nothing to say. Like Fuchs, whom he knew slightly but seldom talked to (the Fuchs group, one suspects, was a little too highbrow and too serious for Pontecorvo), he was transfixed by his work. The only other point about him that his colleagues particularly noticed was that he was a mighty job-hunter. He had barely arrived at Harwell before he began angling for university chairs in Italy, America, and elsewhere. In the spring of 1950 when he came to see Arnold with his information about his Communist brother, he was inclining towards a job at Liverpool University where Professor Skinner was now established.

The fact that Fuchs was originally German did not immediately mean that every foreign-born scientist at Harwell came under suspicion. The duty of Arnold and the security officers was to take each case separately on its merits; and with Pontecorvo there was certainly no cause for immediate alarm. He had not been engaged upon secret work for some time nor had he access to the vital experiments at Harwell, though he did see some of the secret papers. The fact that Pontecorvo had a Communist brother was important but it proved nothing. Not having possession of a private army of investigators, British security was in no position to send men running all over Europe to check up on the family histories of every scientist employed by the Government. However, they could and did go through Pontecorvo's record again, new sources of information opened up, and in the end they were left with a story which was one more object lesson in the fact that the evil of Hitler and Mussolini still lives on and flourishes in the nineteen-fifties.

Bruno Pontecorvo was born in Pisa on 22 August 1913. Like Fuchs he grew up in the midst of war and uncertainty, in a provincial town where his family were among the more intellectual people in the community, and like Fuchs he saw that family become ostracized and disintegrate under the impact of Fascism. The pattern is familiar. But, as one would half-expect, things happened more gently under the Italian sun than in Germany, and the story of the Pontecorvos is less drastic, more blessed with compromise and human understanding than the tragedy of the Fuchses.

The father was Massimo Pontecorvo, born in the 'seventies of last century; the mother was Maria and they were both Jews. Massimo had an interest in several businesses connected with the textile trade and his affairs flourished for a time. At all events he was able to bring up and educate a family of true Italian dimensions. There were eight children and Bruno was the third or fourth child. It is necessary to present all these brothers and sisters like the cast of a play for they each have some bearing on Bruno's story. They continued in that crowded household in Pisa (it was a two-storey building behind a high garden wall close to the Leaning Tower), following upon one another to school and university, until 1938. Then, with the war impending and his alliance to Hitler being fixed, Mussolini's hand came down on the Jews; Massimo's business began to fail, and the family broke up. This is the point when we can best identify the children by dividing them into two groups —those who came north to England and those who scattered elsewhere through the world.

Guido, the eldest boy, led the expedition to England. He was then aged thirty-two and he had an excellent record as a biologist and a specialist in genetics. He settled in Scotland, eventually, became a naturalized British subject shortly after the war, and is now a distinguished member of the Glasgow University staff. In 1939, when things became still more difficult for the family in Pisa, Guido's youngest brother and two of his sisters followed him to Britain. The brother was Giovanni David and he was only thirteen when he arrived. He finished his schooling in Worcester, specialized in agriculture, married an English girl, and became naturalized in 1948. He follows his profession as an agricultural expert in England now.

The two sisters were Anna and Laura. Anna was barely fifteen when her arrival was noted by the immigration officers and she has lived in England ever since; but she remains an Italian citizen. She was educated at Tunbridge Wells and elsewhere in southern England until soon after the outbreak of war, when she went to Glasgow and there obtained her Master of Arts degree with second-class honours. With a wide knowledge of European languages Anna Pontecorvo has concentrated upon teaching and she holds a teaching post in England now.

Laura Pontecorvo, who is older than Anna, became a naturalized British subject. She, too, studied in Britain, at first in Birmingham, and then at Edinburgh, where she stayed with Guido for a time. Early in the war she became a probationer nurse at London Hospital and she continued at various hospitals there until she qualified as a sister. In February 1950 she joined the staff of the New End Hospital at Hampstead. Seven months later and about a month after Bruno vanished, she too left England and she has not returned. It was her intention on leaving to take up a post in Italy with a society dealing with the care and welfare of children. She went first to Rome to the house of another sister and there, so far as is known, she remains.

These four then were the British contingent: Guido, the biologist; Giovanni David, the agriculturist; Anna, the teacher; and Laura, the nurse. They are all people of exceptional talent and though they met Bruno while he was in England, and there were strong ties of affection in this, as in every Italian family, no word written here is intended to question their loyalty in any way. None of them has any explanation whatever of Bruno's disappearance.

There remain the other four children who did not seek refuge in England. These were Bruno (whom we shall come to in a moment), Paul (who went to the United States, is now an American citizen employed upon radar research work, and

who is least concerned with this story), and finally Gilberto, aged thirty-two, and Giuliana who is slightly older than Bruno. Gilberto and Giuliana occupy a central position in these events.

Gilberto Pontecorvo has lived a full life in not very easy circumstances, for he was only twenty when war broke out and there has been a certain gusto and determination in his activities ever since. He got into France in November 1939, having studied science at Pisa, and he plunged at once into war-time journalism of extreme leftist hue. He seems to have been undeterred by the arrival of the Nazis in Paris, for he continued working underground for several illegal and anti-Nazi organizations. No doubt he was able to move about the more freely as he was an Italian citizen and therefore presumed to be an ally of the Germans. In 1941 he was a member of a clandestine organization known as the Centre d'Action Contre le Facisme and his particular job was to act as a liaison between France and Italy. By the end of 1943 he was in charge of the clandestine press of the Front de la Jeunesse Italienne. During the German occupation of France he made frequent trips into Italy and he used as his headquarters an apartment at St. Tropez in the south of France. When the liberation came he returned to Italy and emerged into the open. He became the general secretary of the Jeunesse Italienne and founded in Milan a paper called *The Better Life*. In 1946 he was back in Paris as a representative of a young Communist organization and corresponding with such Italian papers as *Omnibus* and *Milano Sera*. Latterly he has been in Italy, still travelling widely with his French wife, and concerning himself with an Italian film company. Gilberto's Communist sympathies have been well known and openly expressed among a limited circle for some years past. In pointing this out to Henry Arnold, Bruno Pontecorvo was hardly giving away a secret. But it should be noted that until the Fuchs trial he did not think it worth while raising the matter with security.

Giuliana, the eldest daughter, lives in Rome and is married to Duccio Tabet, a professed Communist. They have three children. Tabet is a scientist on the agricultural staff of the Italian Communist Party while Giuliana is an associate of the left-wing politician Nenni, whom she represents on the committee of the Partisans of Rome.

This, then, is the second group—Paul, the scientist in the United States; Gilberto, the underground worker in France; Guiliana, the wife of the Communist Tabet in Rome; and Bruno. The parents Massimo and Maria remained in Italy after the break-up of the family home at Pisa and are living now in Milan.

There is just one other character who must be added before the cast is complete and that is Emilio Sereni, first cousin of the children. He is a prominent member of the Italian Communist Party. At the end of the war he worked at the Ministry of Interior and in 1946 he became Minister of Post-war Assistance. The following year he became Minister of Public Works. In the Italian Chamber of Deputies he represents one of the Naples constituencies and he is a member of the central committee of the Italian Communist Party. Sereni came to England in 1940 as one of the delegates to the Sheffield Peace Conference.

In an exceptionally able family Bruno Pontecorvo was the ablest of all. He passed from his elementary school in Pisa to the Ginnasio and the Classical Liceo, taking all his examinations with ease, and at the age of sixteen he arrived at the Pisa University. There he took his "Two Years" certificate in physics and mathematics, and he went on to the University of Rome. He took his Doctorate in Physics with honours in 1934 and continued at Rome University as a research worker and a teacher. His master there was Professor Enrico Fermi, one of the authors of the famous paper on neutron bombardment, and now one of the élite among atomic scientists in the United States. Professor Fermi remembers Pontecorvo as a very like-

able student of great promise. Very probably Professor Fermi and other scientists in that brilliant group in Rome had a hand in getting Pontecorvo a national fellowship in 1936. With this Pontecorvo went to Paris in February 1936 and he enrolled himself as a student at the Collège de France.

He took rooms at 17 Place du Pantheon and there he met Marianne. Under her maiden name of Helene Marianne Nordblom she also had come to Paris to study. She was four years younger than Pontecorvo. They lived together, and on 30 July 1938 their first son, Gil, was born.

By this time Pontecorvo was working under Professor Frederic Joliot-Curie at the Institute of Radium in Paris, and when the war broke out he was a research associate at the Laboratory of Nuclear Chemistry at the Collège de France. There was a vigorous left-wing movement among students in Paris then, but so far as is known Pontecorvo took no very active part in it. He said that he had come to study in France because it was difficult for a scientist to progress under Mussolini and it seems likely that he was much more anti-Fascist than pro-Communist.

He had travelled in Europe fairly widely. There was a week's holiday in England in 1935 and in the summer of 1939 he made a tour of the physical laboratories in Scandinavia, the Low Countries, and Switzerland. On the outbreak of war Pontecorvo made no attempt to return to Italy. He continued to work in Paris through the cold-war period and on 9 January 1940 he and Marianne were married. They were overtaken finally by the German break-through in the following summer. An Italian can hardly have been popular in France at that moment even under the protection of the incoming Nazi troops, and the Pontecorvos joined in the general flight to the south from Paris. On June 29th, when Petain had already sought for the terms of an armistice, Pontecorvo applied for an exit permit to enable him to go to the United States and then the family set out—Marianne and the baby by train and Pontecorvo

on a bicycle—for Toulouse. Here they joined Duccio and Giuliana Tabet, who had come up from Italy, and the whole party continued southwards into Spain. On July 24th, coming from Madrid, they crossed from Spain into Portugal and on August 9th they boarded the S.S. *Ormuz* bound for the United States. For some curious reason whilst they were in Portugal, the Tabets declared to the authorities that they were medical doctors and later that they were engaged in commerce.

The Ormuz, a neutral ship, took eleven days on the crossing and on August 20th, two days before Pontecorvo's twenty-seventh birthday, the party disembarked at New York. Pontecorvo's first concern was to find a job. Through his university connexions he obtained an introduction to the Wells Survey Inc. of Tulsa, Oklahoma, and they employed him as a consultant on radiographic oil-well logging. It was while Pontecorvo was working in Oklahoma that he developed improvements to the system of oil logging and he filed an application for a patent on his invention. Meanwhile the atomic energy project was getting under way in the United States and Canada, and Professor Fermi and others who knew of Pontecorvo's abilities were already in the United States. Presently Pontecorvo's name was put forward to the British authorities and early in 1943—at the same time as Nunn May crossed the Atlantic from England—Pontecorvo was invited to join the Anglo-Canadian Research team at Montreal, in Canada. At this time he still held an Italian passport but he had filed first papers for United States naturalization in 1941. From this time forward until he vanished Pontecorvo lived in a whirl of indecision about what nationality he should finally settle upon. Throughout he seems to have been greatly influenced by the various jobs that were offered to him, and at any moment he was quite ready to change his nationality if the job required it.

On their way north the family stayed briefly in New York and Montreal and then, when work on the Chalk River heavy-

water pile began, they moved out to the near-by settlement of Deep River. There they remained for the next six years. Pontecorvo's official record during these six years is quite direct and simple. He was well liked by the other scientists, he worked extremely hard at the heavy-water pile, and when the war was over he was asked to stay on as a member of the British Ministry of Supply and help in further experimentation in Canada. Before he came to Canada and again on this occasion he was examined by security officials and they found nothing against him. He was examined a third time early in 1948 when he applied for and was granted British nationality. During this period he made a number of visits to the United States, usually in connexion with his work, and once he made a private trip to Italy calling at England on the way. By now his reputation was so firmly established that he was offered a senior position at Harwell. He accepted and crossed from Canada to England early in 1949. At no point had security any complaint about him. He was known as a man who never talked politics, not even atomic politics, and his associations were all with men of established loyalty in scientific work in North America.

That was the official record. The private and domestic life of the Pontecorvos was much more complicated. A second son was born in Canada on 20 March 1944 and given the curious name of Tito Nils. The third son, Antonio, was born in July the following year. On Pontecorvo's pay and allowances the family was able to live not expensively, but adequately, at Deep River. They had their house, Pontecorvo was a member of a car club, and he drove off each day to his work at the laboratories at Chalk River. In his spare time he played tennis and won the local singles championship. Marianne was regarded as rather a difficult woman to get on with in the settlement but she was not unhappy. Just once there was a domestic crisis which nearly broke up the marriage and revealed by how much Marianne was in love.

This was in June 1947 when Pontecorvo set off with a colleague on one of his official visits to Montreal. They offered a ride in the car to two attractive girls and when their work at Montreal was over they continued on over the border to Boston. The girls went with them. Marianne was deeply affronted when she heard of this. She went to her bank and withdrew $1,800 which was probably the entire credit balance. She then got on the 4 a.m. transcontinental train to Banff in the Rockies, taking the children with her. When Pontecorvo got back from Boston he found the house empty and Marianne had left no address. It was then Pontecorvo's turn to feel desperate and he became increasingly so as the days went on with no word from his family. At length friends phoned to Marianne at Banff and persuaded her to come back.

Then there was Pontecorvo's unofficial correspondence with various universities in America and abroad. It would be tedious to follow all the many negotiations he entered into immediately after the war when he was trying to make up his mind whether or not to become British and continue as a civil servant. A simple list of the jobs he was offered indicates how much he was in demand. In 1945 he was offered an associate professorship at a radiation laboratory in Massachusetts at $6,000 a year, both the General Electric Company at Schenectady and the radiation laboratory at Berkeley, California, invited him to make a visit with a view to taking up appointments, and the University of Michigan at Ann Arbor offered him a full professorship at $5,000 a year.

In 1947 there were two more offers—one, a chair of experimental physics at the Hebrew University, Jerusalem, and the other an associate professorship at Cornell University at $7,000 a year. All through this period Pontecorvo kept making trips across the border to the United States at six-monthly intervals so that he could establish his residence there in case he eventually decided to become an American citizen.

However, in December 1947 he made a trip to Europe and

this appears to have decided him at last. In all their years in North America both Pontecorvo and Marianne had had a nostalgia for Europe, especially for Paris, and no doubt this journey revived that feeling even though it involved them in considerable financial loss in turning down the American offers.

Pontecorvo came alone to England on 8 December 1947 and he stayed at Abingdon, near Harwell, with some old friends from his war-time days at Chalk River, Dr. and Mrs. Henry Seligman. At Harwell he was told that a post would be made available for him and he renewed his contract with the British Ministry of Supply. He flew on then, to Milan, to see his parents, intending to return to England and embark on the *Aquitania* for New York on 4 January 1948. However, he came back from Italy by train, paused in Paris to meet some of his friends on New Year's Eve and missed the boat. He then flew to America on January 6th. On his return to Canada he was reminded that mid-April was the last opportunity for filing his second papers for United States naturalization. But by now his mind was fully made up: he wanted to get back to Europe and he wanted to continue in government research work. In February 1948, while still in Canada, he became a British subject, and in January the following year the whole family set off for Harwell.

They stayed at first with the Seligmans until a home was found for them close by in Lecombe Avenue on the Fitzharry Estate in Abingdon. They were now surrounded by Pontecorvo's brothers and sisters in England, Marianne was able to visit her parents in Sweden, a school was found for the children, and it seemed to their friends that they were beginning to settle down. But it was not the end of Pontecorvo's restlessness. In May 1949 he lectured in Paris at the invitation of Joliot-Curie, he visited Brussels, he negotiated for some additional work with the Anglo-Iranian Oil Company, and in September he went off with several other Harwell scientists to a

nuclear physics conference at Lake Como in Italy (they overstayed their leave in that happy place). And he continued doggedly with his job-hunting. There were two vacant chairs of experimental physics in Italy—one in Rome and the other in Pisa—and he seriously intended to enter for them. He acquired a medical certificate of sound health from Milan, a penal certificate from Pisa stating that no convictions were recorded against him, and a copy of his birth certificate—all these papers were required by candidates for the two chairs. He discussed these matters with Arnold at the time, saying that, if successful, he would have to revert to Italian nationality. Arnold reminded him that he had only just become a British citizen and that perhaps it was a little wearing for a man to be constantly shifting about from one nationality to another. In the end Pontecorvo took neither job—his Pisa application arrived too late and he abandoned his application to Rome when Professor Skinner came forward with the proposal from Liverpool.

And now it was the early spring of 1950, the Fuchs trial was disturbing scientists everywhere, and Pontecorvo came to Arnold with his admission that his brother Gilberto was a Communist. The two men met again a few days later and Arnold then asked him if it were a fact that, during his recent trip to Lake Como, he had met this brother, Gilberto. Pontecorvo seemed rather taken aback at this but he admitted it readily and he went on to say that there were other members of his family who were Communists, or at any rate sympathetic to Communism. There began from that moment a different relationship between Pontecorvo and Wing Commander Arnold at Harwell. Without there being any obvious signs he clearly regarded himself as being under suspicion and often his manner was not so light-hearted as it used to be. Indeed Pontecorvo was not *persona grata* any longer, for early in March a report upon him had arrived from Sweden and this report made it clear that not only Pontecorvo but Marianne

as well was a Communist. There was nothing to support this in England or in Canada but it was evident that from now on he would have to be closely watched. It was about this time that Pontecorvo seriously began to consider joining Skinner at Liverpool. He made a trip there with his wife and the children, they were shown a university apartment which would be made available for them, correspondence with the authorities was begun—but still Pontecorvo hesitated. Marianne was worried about the cold in the north. Pontecorvo was deeply impressed with the Liverpool laboratories and the new cyclotron for atomic research—a strange scientific temple which is rising on consecrated ground intended for a Roman Catholic cathedral not half a mile away from the Anglican cathedral, a great blown iceberg on the other side of the hill. But he was not certain that he really wanted to work at Liverpool. At length Skinner wrote to him and said that there came a time when all considerations had been considered and there was nothing to consider any longer, except yes or no. Upon this Pontecorvo accepted and it was arranged that he should take up the appointment in January 1951.

In June there was a brief trip to Cornwall which the Pontecorvos made with Guido Pontecorvo and his wife and another friend. Then the family set about planning their summer holiday in Italy. They were to go by car starting on 25 July 1950, and Anna, the sister who was a teacher, was to go with them. They were to cross the Channel by car ferry and then drive south in easy stages to northern Italy where there would be a reunion with their parents, Mariano and Maria. With three children and three adults there was not much room for luggage in the Standard Vanguard, and it was agreed that each should take the barest essentials. They intended to camp out and Pontecorvo had bought a quantity of expensive camping equipment. His friends were a little puzzled at this because they offered to loan Pontecorvo all the canvas beds and tents he needed: but he insisted on having his own. There was just a

one other incident: a friend of the Pontecorvos had some francs in France and it was arranged that Pontecorvo should pick these up on his way through. It was only a small sum and the friend did not know the precise amount so he suggested that the matter should be settled between them on Pontecorvo's return. Pontecorvo, however, insisted on giving a blank cheque in advance.

Security were well aware of Pontecorvo's departure but they had not sufficient reason and no legal power to prevent him going. A naturalized British subject enjoys all the privileges of a natural-born Briton and one of the most definite of those privileges is that he may move about in peace-time wherever he pleases.

Nothing of any consequence happened through the rest of June and July. It was accepted that Pontecorvo should be back in England for a conference in early September and that thereafter he would move on to Liverpool. Just before the family set off Mrs. Seligman had a final game of tennis with Pontecorvo. As they came off the court he made a solemn and unexpected remark: 'We'll play again some day.'

There was also a small farewell party at the Seligmans' house which was only a few doors away from the Pontecorvos'. During the party Marianne went off into a corner by herself. She picked up a copy of the magazine *Vogue* and seemed to be reading it. After a time Mrs. Seligman went over to Marianne and found that, in fact, she was not reading. She had buried her face in the magazine; and she was in tears. Pontecorvo professed to be annoyed at this but the incident passed off and he took his wife home.

The following day the family set off for the Continent, leaving all their heavy clothes and almost everything else they possessed locked up in their house at Abingdon.

THIRTEEN

Most British motorists who make for the Mediterranean in the summer follow a route which has been established for many years and their movements are almost as regular as the migratory birds. Once they land in France they head directly south, towards the sun, usually on Route Nationale No. 6 which takes them through the vineyards of Burgundy and then down to the Rhône Valley to the Côte d'Azur. It is a two- or three-day drive as a rule and most people plan the journey and book their accommodation long in advance.

The progress of the Pontecorvo family across Europe in this summer of 1950 did not conform to any of these rules; indeed it can only be described as haphazard. Pontecorvo was not the man to book hotels or anything else in advance. He loathed writing letters and making precise arrangements—he preferred to turn up at a place in his own good time and trust to luck. He was hungry for the sun and beyond making a few vague appointments to see his friends and his family in Italy he was prepared to go where the roads and the weather took him.

He succeeded in getting the Standard aboard a car ferry on the Channel on the afternoon of July 25th and they landed at Dunkirk. They then proceeded through Arras and Dijon in France and crossed into Switzerland at Neuchatel after a slow journey of three days. They took three more days to traverse Switzerland and arrived at Menaggio on Lake Como on July 31st. Here they camped until August 4th when Anna Ponte-

corno left them, taking the boat down the lake on her way to see her parents in Milan. At Menaggio the Pontecorvos fell in with Professor Caldirola, a scientist of Padua University, and his wife. A friendship started quickly and Pontecorvo invited Professor Caldirola to come to the unclassified conference in England on September 7th. The Professor agreed. Then, on August 6th, Bruno and Marianne decided to visit the Dolomites and they crossed into Austria for two days. The holiday was going well. Marianne sent off a postcard from Landeck, Vorarlberg, to a friend in Canada saying that they were having a wonderful time and that they would be away another two or three weeks before returning – presumably meaning to England.

Next the family drove south. They called on Bruno's parents in Milan on August 12th, and still at a leisurely pace they reached Ladispoli, a seaside hamlet on the Tyrrenian Sea near Rome, on August 17th. Here they had a rendezvous with Giuliana Tabet and her family of small children. The Tabets had returned from the United States some time previously and Giuliana had taken a house at Ladispoli for the summer. In this house the two families remained together for a few days until Bruno and Marianne decided to drive south again in search of a coast where he could engage in underwater fishing with a helmet and a spring-gun – a sport for which he had developed a passion during the previous summer. They left the youngest child, Antonio, with Giuliana Tabet at Ladispoli and with the other two children continued in the car another sixty or seventy miles down the coast until they reached Circeo, and here they set up camp. Circeo is a lovely place on a headland just south of Anzio, where the Allies landed for their final attack on Rome during the war. The legendary Circe is supposed to have lived on Mount Circeo and beneath the sea and below the mountain there are Roman ruins and a temple to the sun, an ideal seascape for submarine fishing.

Apart from their camping kit they had [illegible] at this stage two small waterproof army satchels, a floppy zip-fastener bag, which contained their clothes, and a small zip-fastener brief-case which Bruno always kept close to him. Usually it was placed in the side pocket of the car while they were driving in order to stop the children playing with it. It contained towels, shaving soap, and Bruno's razor.

Before he left England Bruno had planned to stop for a few days at Chamonix on his return journey since his parents were intending to spend their holidays there. He confirmed this arrangement with his parents when he was in Milan and now, while he and Marianne were still at Circeo, a new proposal came up which made the plan still more feasible. There is an international scientific laboratory at Chamonix with which Harwell is connected, and which deals with cosmic rays. Knowing that Bruno intended to go to Chamonix in any case, Doctor Bretscher, who was Bruno's chief at Harwell, now sent him a wire suggesting he should call in on the laboratory. This wire was sent to two topics – one care of Bruno's parents in Milan and the other care of Professor Arnaldi in Rome – on August 20th, but Bruno received it at Circeo a few days later.

On August 22nd, Bruno's thirty-seventh birthday, Gilberto Pontecorvo and his French wife, Henriette, arrived from Rome at Circeo and they had with them Anna Pontecorvo, who had now come south from Milan. All three spent the night at Circeo and returned to Rome on the following day, leaving Bruno, Marianne, and the two children still camping.

This seems to have been the beginning of the crisis in Bruno's affairs. Up to this point there is a certain happy-go-lucky holiday atmosphere in the account of the family's comings and goings. They behaved as tens of thousands of other holiday-makers do in Italy in the month of August, living idly by the warm sea, and if there was any strain or apprehension or fear in their minds then there is no evidence

of it from Bruno's correspondence or from anyone who met them at that time. But after this visit of Gilberto on August and everything changes. The holiday begins to go wrong and Bruno's movements become erratic. It was on the following day that he had an accident in his car. It was nothing serious – he collided with a cyclist. Collisions with cyclists in Italy, especially in midsummer when they appear on the roads in millions, is almost a routine matter. No one seems to have been hurt but Bruno decided to drive the car up to Rome to get repaired; it was only a journey of an hour or two. He left the car in Rome and returned to Cloppo to find that the children had developed measles – hardly a surprising thing after their years in the fairgrounds of Canada and England. Bruno sent off a telegram to his parents in Milan saying he was sorry, but owing to the accident to his car and the illness of the children he would not now be able to join them in France. No sooner had he sent this telegram than he got a postcard from his parents saying that they had already left for Chamonix. Bruno then wrote a letter to follow his telegram. 'As soon as the children are well enough', he wrote, 'we shall return to England. It is not possible to come to Chamonix as we shall have no time and it would tire the children.' This letter was posted from Rome on August 25th for by now they had abandoned their camping holiday. The children were all gathered together again at Ladispoli and on August 27th Bruno took them up to Rome.

A formidable household of guests now gathered at Giuliana's small house at via Gabi, 40, near St. John Lateran, in Rome. There were, in addition to Giuliana's own family, the five Pontecorvos, Gilberto and his wife, and Anna. Since there was no bed for him in the house Bruno slept in the back seat of the Standard which had now been repaired. He woke in the mornings feeling cramped and out of spirits: indeed, none of them can have been very comfortable, for the temperature of Rome can be unbearable at the end of August, especially in a

[illegible] office of the [illegible] and [illegible] about the fare and the times of departure for a flight to Stockholm. He then bought two tickets – one in the name of Pontecorvo for the other four for Marianne and the three children by the name of [illegible]. He was in the midst of these arrangements when Marianne, who was visibly agitated and miserable, pulled him away from the desk out of earshot of the booking clerk. They had a sharp conversation and then Bruno returned to the desk and asked that his own ticket should be made out in a minute. The other tickets were to remain open and Marianne and the children were to travel on Marianne's Swedish papers. Bruno was told that it was customary for reservations to be confirmed and paid for on the same day, but he asked for a delay until the following day – August 30th. Throughout the conversation Bruno appeared to be quite unconcerned.

He returned to the booking office next day to confirm and pay, bringing with him the required amount in Italian lire. He was then told that foreigners with less than six months' residence in Italy were obliged to pay in American dollars. At this Bruno expressed surprise and annoyance. However, he went off and came back two or three hours later bringing with him a quantity of American dollars. The fares amounted to $602 and he paid in $100 notes, which are something of a rarity in Rome except among the wealthier American tourists. On this second visit to the booking office he was alone.

The following day, August 31st, he wrote a postcard to Harwell and it was received there on September 4th. It read: 'Had a lot of fun with submarine fishing but I had plenty of car trouble. I will have to postpone my arrival until first day

of conference [September 7th]. Can you tell E. Rentschler? Hope everybody has prepared his talk and done good work. As Chamonix, I am sorry I have missed Chamonix, but I could not make it. Good-bye everybody. Bruno. It is confirmed that this postcard, which was, of course, written when he had no intention of returning, was in his own handwriting.

In the early hours of the following morning, the family boarded the S.A.S. plane and flew to Munich in the American zone of Germany. There they remained in the plane until it took off again for Denmark. From Copenhagen they flew on to Stockholm, arriving at ten minutes to nine at night on the same day. At the airport Bruno made inquiries about accommodation for the night but the family failed to turn up at either of the two hotels where rooms had been promised. Marianne made no attempt to get in touch with her parents, who lived only a short distance from the airfield, and it is not known where the family spent the night.

It has been reported but not confirmed—and here we are beginning to move into an area where we pass from proved facts to reports and finally into mystery—that the Pontecorvos spent the night at a house belonging to the Soviet Embassy at Stockholm.

The next day, September 2nd, they reappeared at the airfield and took the plane to Helsinki in Finland. At the Helsinki airfield Bruno filled up a form in which he stated that the reason for his visit was 'tourism', that the length of stay would be about one week, and he gave his place of residence as 'Hotel'. A Customs official at the Helsinki airfield has said that just before the Pontecorvos arrived a man and woman came to the airfield and said they were waiting for the family. They asked that the Pontecorvos' luggage should be placed not in the airway's coach, but in their car. On their arrival the Pontecorvos got into the car and that is the last that has been heard of them this side of the Iron Curtain.

There have been many clues to the family's movements thereafter, impossible to confirm or deny. According to one of these the Soviet ship *Belostov*, which was due to sail from Helsinki at 10 a.m. on September 2nd, delayed its departure until 9 p.m. when the Pontecorvos came on board. The ship was due to reach Leningrad on September 5th. Certainly the Finnish authorities have no record of the Pontecorvos having left Finland—and a record would exist unless they were travelling with diplomatic passports. It should, perhaps be noted that though the entire resident staff of the Pontecorvos' Russian embassy would have been free to drive directly from the airfield across the border in a Russian diplomatic car they could have crossed into Russia unobserved.

At Harwell there was no great concern when Pontecorvo failed to turn up on September 7th, the opening day of the conference. It was remembered that he was notoriously a man who avoided fuss, especially when he had been on holiday. There had been the time when he failed to catch the Montreal train he was returning to Canada in the previous summer at the end of the Harwell conference it was Pontecorvo who forced the pace of the Harwell party to overstay their leave. They had only a week's official leave after the conference but Pontecorvo (who was driving his own car) had urged the party further and further south until they had reached Rome, and even when he had tried to get them to go on to Naples it was remembered, too, that he had had car trouble.

Professor Caldirola arrived for the conference, looked in vain for Pontecorvo, left a note for him, and departed. The postman kept dropping letters into the house at Lecombe Avenue, but it remained locked and deserted. On September 21st the inquiries began.

In Rome Giuliana Taber said that as far as she could remember the Pontecorvos had stayed with her until September 6th, when they had left very early in the morning, saying that they intended to return to England by easy stages. However, in mid-September she had had a letter from Bruno which gave

her the impression that he was still in Rome. This letter asked her to pay the garage expenses on the car and to send it back to England. The car, in fact, was found by the police at the Ruo Garage in the Piazza Verde in Rome. Its licence and other papers were missing.

Neither Giuliana nor anyone else had any explanation for the family's disappearance. Bruno had appeared to them to be perfectly normal and he had never mentioned to anybody that he had any plans other than those of returning to England.

Anna Pontecorvo was no more help. She said that she had last seen the family at her sister's house in Rome on August 28th, and everything seemed normal with them then. She herself had left Rome for England on the 5.30 a.m. train on August 30th.

At Stockholm Marianne's parents were astonished to hear that the family had passed through Sweden without getting in touch with them. They had been writing to England, sending greetings for Gil's birthday, and had been mystified at getting no answer. Bruno's parents, Massimo and Maria Pontecorvo, had been writing to England too, saying they were worried at the lack of news and begging for a reply.

When the house at Abingdon was opened and searched still nothing of value came to light. It remained precisely as the Pontecorvos had left it except for the dust and the unopened letters which had arrived after their departure. These letters were nothing more than some bills, the birthday greetings for Gil, an insurance policy, and other routine correspondence. There was, however, a letter dated September 11th from Laura Pontecorvo in Rome saying that she was negotiating for a post in Italy, and to this Giuliana had attached a postscript in which she asked what should she do with the property the Pontecorvos left behind: send it back to England? Or keep it until they returned to Italy another time? All the heavy clothing and one or two valuable personal things which one would have supposed would have been useful in Russia were

still in the cupboards of the house. No one at the villa had any news or any explanation.

When the story reached the Press on 20 October 1951 and reporters in Italy, America, England, Sweden and Finland set themselves up on the trail there was still nothing new to be learned. One man said he was a passenger on the Pontecorvos' plane to Helsinki and little Antonio, the youngest boy, had announced during the flight that they were going to Russia. The boy kept looking out of the window and asking, 'Is that Russia?' Someone also reported a conversation Bruno had had in Montreal in the course of which he said he dared not go back to England. In the House of Commons Mr Strauss, the Minister of Supply, was pressed for details. What had the inquiries begun? Why was it not known all along that Bruno was a Communist? What had been done to prevent him leaving the country? What documents had he taken with that significant briefcase? But the Ministry was not even able to say definitely that the Pontecorvos were in Russia. Moscow has anyway not been able to produce positive evidence of their presence.

There have been many reports about the family's whereabouts purporting to come from Russia, but they die away into conjecture and the shadows of unconfirmed information when they are examined. At various times Pontecorvo has been reported as working on the Russian atomic project in the Urals, in Sinkiang, in Moscow. Once he was said variously touring the satellite countries in search of scientific help and late in 1951 he was reported to have been arrested by the Russians as a British spy. Officially the Soviet Government has said nothing whatever.

Emilio Sereni, the cousin, Togliatti, the leader of the Italian Communist Party, and Professor Joliot-Curie as well as others who know the Pontecorvo family have been to Moscow since Pontecorvo's disappearance, but they offer no news. Both Massimo and Maria visited England in 1951 hoping that some-

one might be able to give them a drink of information—just enough for them to know that their son was alive. They themselves had nothing new to suggest. The house at Abingdon has been rented to other scientists now, the Pontecorvos' furniture has been dispersed among other members of the family, and life at Harwell has closed over the gap left by the Pontecorvos as though they never existed. But the gap is there nonetheless, an unpleasant-sounding hollow in the minds of everyone who knew and liked Bruno so well.

Some of the more obvious theories can be dismissed quickly. It seems wholly unlikely that the Pontecorvos suddenly decided, while in Rome to visit Marianne's parents in Stockholm, that they were then kidnapped. It is almost impossible to believe that they have not gone to Russia and are in hiding somewhere in western Europe. Despite Marianne's tears on her departure from Abingdon, despite her depression, it equally seems hard to think that they left England intending never to return. Too much was left behind not only in the house—Pontecorvo left £165 in his English bank account, Marianne had £52 in an Post Office savings book, and at the Bank of Montreal in Deep River, Ontario, Pontecorvo had a credit balance of $1,714. The beginning of their holiday was so casual—so much like a holiday. Moreover Bruno can hardly have been so heartless as to arrange a meeting with his mother and father at Chamonix which he did not intend to go there. He only decided not to go to Chamonix after he had seen Gilberto on August 22nd, after his car accident and after the children became ill.

It seems much more likely that something happened to Pontecorvo in Italy between August 22nd and his disappearance ten days later; something that made him suddenly change his mind and go to Helsinki. And there were people in Rome who knew more about it than they have yet revealed, for Pontecorvo was able at a moment's notice to produce a fairly large sum of American dollars.

If that point is accepted then two theories present themselves.

stolen. First, he was a spy of long standing. He may have passed information when the war was on, when Russia was our ally and many people regarded Russia in a very different light from the one they have now. Perhaps he had signed a receipt for a small sum of money. Then, on arriving at Harwell, he observed that he was under suspicion even though he was not engaged upon secret work. He grew afraid. Marianne broke down at the farewell party. When they reach Rome he meets agents of the Russian Intelligence through Communist members of his family and he is invited to go to Russia. It is pointed out to him that he is no longer much use as an agent in England since he has accepted a post on non-secret work at Liverpool. He is warned that if he refuses to go he will be exposed to the British. So he collects the dollars from the Russians, boards the plane for the north, and disappears.

In support of this theory we have reason to believe that someone, in addition to Fuchs and the other spies who have been arrested, was giving atomic information to the Russians. It could have been Pontecorvo, even though he was never detected and to this day no evidence against him has been uncovered. His name was never mentioned in the Canadian spy case and Gouzenko knows nothing of him. On the other hand, we know that he was not agitated when he booked his ticket. Marianne was disturbed, but then she had been in a disturbed state of mind for a long time; and the explanation of that may be that Pontecorvo was not a very easy husband. There were quarrels from time to time.

The second theory is that Pontecorvo was not a spy at all. He may have been concerned that suspicion was falling on him at Harwell because of his Communist family background, but in fact his own conscience was clear. However, he arrives at Rome and the Communists begin to talk to him. They point out that far greater opportunities exist for him in Russia, more money, more scope, more authority; and Russia has

need of him. Pontecorvo (largely, perhaps, because of his wife) has been none too keen on the Liverpool job, he has always been ready to go anywhere and take any nationality in order to get ahead. This seems a wonderful opportunity. He is naive and gullible. He accepts.

As a corollary to this second theory it is also suggested that the Communists in Rome did no more than urge him that he should have a meeting with Russian scientists at Helsinki or in Russia to discuss perhaps some outstanding discovery in the field of cosmic rays—and that once in Russia he was kidnapped. But this seems unlikely.

There is no clear explanation of why Pontecorvo should have booked a return ticket for himself to Rome. He was due to return, not to Italy, but to Harwell. It is just possible, of course, that he really did intend to do no more than have a brief meeting with the Russians in the north and then return to Rome to pick up the car and drive it back to England. Marianne and the children could have stayed with her parents in Stockholm or returned direct to England by air. But why then did Marianne not get in touch with her parents? Why did she deliberately avoid them and fly on to Helsinki? Alternatively it is possible that the return ticket was nothing more than a red herring meant to confuse the airline company should any inquiries be made about him.

One can go on indefinitely putting forward new possibilities and alternatives but the last two theories which both presuppose that Pontecorvo was coerced or induced in Rome seem to come nearest to fitting the facts. In the end one is forced to leave the mystery unsolved and concentrate on the other major aspect of the case. How much use could Pontecorvo be to the Russians? In the way of immediate information there was not much that he could have passed on. He knew about the Canadian heavy-water pile at Chalk River. He knew something of the nuclear problems connected with plutonium piles in the United States. But all his knowledge

on these matters was years old and there is every reason to believe that the Russians were already in possession of it. All Pontecorvo's recent researches had little to do with the atomic bomb and he could not have done much more than confirm what the Russians already knew of the work at Harwell.

It seems much more likely that his chief value to the Russians lies in his skill. Professor Fermi commented after his disappearance: 'My impression is that if he went to Russia he may not be able to contribute to their work by the things that he has learned during his connexion with the Canadian and the English projects but rather through his general scientific competence.' His knowledge of the use of radio-active methods in prospecting for uranium and oil might be very valuable to the Russians.

Pontecorvo was an experimental physicist—a much larger group than the theoretical physicists. Among experimental physicists he is rated among the first flight; Russia is known to have many such men already, but with Pontecorvo there was always the feeling that there were great possibilities ahead of him.

Nearly two years have now elapsed since his disappearance. It is incredible that, in all that time, he has never found a way of communicating with his parents, for Pontecorvo was devoted to them. One can only conclude that he is under a very close guard and that by now those high spirits and that gaiety have come under a harsh discipline. Possibly he is dead. It is this silence that his friends find so inexplicable. They could have accepted silence in the cases of Nunn May or Fuchs, but not with Pontecorvo.

There is indeed a human quality about his story so far as we know it—an absence of fanaticism and moral gloom—that sets it apart from the records of the general run of the traitors. Somehow one feels deeply for Marianne on that long flight to the north with her three small children. How tired and

cross they must have been when they got to Stockholm only to fly on again the following day. How pathetic the stranding of the parents at Chamonix, the abandoned car in the Piazza Verde, the submarine fishing at Circeo, the birthday greetings that Gil never received, Antonio's heat stroke in the via Gabi in Rome, and the tennis rackets and the washing machine in the deserted house at Abingdon.

These things have no place in the cold world of nuclear physics. But they are the measure of what a man is willing to give up when he has a fixed idea in his mind.

FOURTEEN

Those, then, are the case-histories of the three young scientists who have done such incalculable harm to Britain and perhaps all other countries this side of the Iron Curtain: Allan Nunn May, the Englishman, who has never publicly recanted and who says he acted as he did for the safety of mankind; Klaus Fuchs, the German, who thought at one time the Russians were building a new world in which he wanted to play a part, and who now says he was wrong; and Bruno Pontecorvo, the Italian, who simply vanished without a word. It remains now to try and estimate just what damage they actually did, to understand their motives in doing it, and to see what measures can be taken to prevent such traitors from getting hold of our secrets ever again.

In the spring of 1951 the United States Joint Congressional Committee on Atomic Energy published a pamphlet on the atomic spies,[1] and it has this to say about the nature of the information these men gave to the Russians.

> Whereas the war-time atomic partners, America, Britain, and Canada, overcame immense obstacles to construct reactors and to produce precious fissionable materials, a major share of their experience—thanks to the spies—was at hand for Russia to exploit without the independent exertion on her part otherwise necessary. Our own country, striking into the unknown, felt

[1] *Soviet Atomic Espionage* (U.S. Government Printing Office, Washington, 1951).

compelled to build three separate plants for U235 production, each based upon a different process.

One of these, a gaseous diffusion method, proved to be far superior and since the war has been used almost exclusively. It is the same method to which Klaus Fuchs had access during the war-time research and development phase. Here again the Soviets, from an early point in their effort, could avoid making many of the mistakes and following many of the costly false leads that inevitably attended the pioneering days of the American programme.

The same point can be made as regards the heavy-water reactor at Chalk River, Canada. This is all apart from Fuchs's knowledge of American plans for post-war development both as to atomic weapons and as to the hydrogen bomb.

Thus the conclusion seems reasonable that the combined activities of Fuchs, Pontecorvo, Greenglass, and May have advanced the Soviet atomic energy programme by 18 months as a minimum. In other words, if war should come Russia's ability to mount an atomic offensive against the West will be greatly increased by reason of these four men. It is hardly an exaggeration to say that Fuchs alone has influenced the safety of more people and accomplished greater damage than any other spy not only in the history of the United States but in the history of nations. This is not to imply that Russia could never have broken the American atomic monopoly through her own unaided labours. But if, for example, the United States had known early in World War II what Russia learned by the end of 1945 through espionage, it appears likely that our own project would today be at least 18 months ahead of its actual level of development.

The validity of this statement depends, of course, on whether or not we have another war in which atomic bombs are used, and upon the timing of that war. Clearly if the war were to be delayed another ten or twenty years the initial start given to the Russians becomes of increasingly less importance. Clearly, too, there is a possibility that atomic bombs might not be used in a third world war, just as poison gas was not used in the Second World War; though this is not a possi-

bility that can be counted on. And in any event it probably depends upon our having a stockpile of more and better bombs than the Russians.

The technical nature of the atomic bomb is beyond the scope of this book, but there are certain general observations which ought to be made, for there has been great misconception about the atomic spies and the nature of the information they gave away.

In the first place, it was never within the power of Fuchs or anybody else to give the Russians the atomic bomb; and so the importance of Fuchs may be exaggerated in the American statement; the manufacture of the bomb depends entirely upon the existence of great industrial and technical resources, and of a body of trained scientists and technicians. These the Russians possessed, and without doubt, as the statement suggests, they would have produced atomic bombs without any outside assistance. The most valuable single piece of knowledge they obtained from America was that the bomb could be made and exploded and that knowledge they got without the help of traitors.

None of this in the least excuses Fuchs or the other traitors —if they contributed any additional help at all to the Russian effort they were criminals—but it is useful to get this point into perspective if we are going to estimate the damage that has been done.

The next point that has to be faced is that there is a strong possibility that there are other traitors, just as important as Fuchs, who may still be at large. The Canadian spy network was only uncovered by the accident of Gouzenko's defection. Fuchs himself was suspected only through evidence which was picked up by chance in the United States. Pontecorvo has vanished but nothing has been proved against him. Moreover we know that the Russians put certain queries to Fuchs—notably about the work in Berkeley, California, and about the hydrogen bomb—and those queries were based upon

knowledge which could not have come to them from any of the known traitors. It is therefore only reasonable to presume that Fuchs and company were only part of the network; and how great a part of it nobody outside the Kremlin can tell.

The next point—and this is the vital one—concerns the security services. Could Fuchs and the other traitors have been kept out of atomic projects? Could they have been detected long before they actually were? Five days after the Fuchs trial Mr. Attlee, then Prime Minister, made a statement to the House of Commons, and since it is practically the only official statement on this subject that has been made in Britain it is worth examining in some detail. He said:

> I would like to say a word about a matter which has caused a good deal of writing in the Press—the Fuchs case. It is a most deplorable and unfortunate incident. Here you have a refugee from Nazi tyranny hospitably entertained who was secretly working against the safety of this country. I say secretly because there is a great deal of loose talk in the Press suggesting inefficiency on the part of the security service. I entirely deny that.
>
> Not long after this man came into this country—that was in 1933—it was stated that he was a Communist. The source of that information was the Gestapo. At that time the Gestapo accused everybody of being Communists. When it was looked into there was no support for it whatever. And from that time onwards there was no support. A proper watch was kept at intervals. He is a brilliant scientist. He was taken on in 1941 for special work by the Ministry of Aircraft Production, and was transferred to the Department for Scientific Research. He went to America. He came back to Harwell. On all those occasions the proper inquiries were made, and there was nothing to be brought against him. His intimate friends never had any suspicion. The universities for which he worked had the highest opinion of his work and of his character.
>
> In the autumn of last year information came from the United States suggesting there had been some leakage while the British Mission, of which Fuchs was a member, was in the United

> States. This information did not point to any individual. The security service got to work with great energy and were, as the House knows, successful.
>
> I take full responsibility for the efficiency of the security services and I am satisfied that unless we had had the kind of secret police they have in totalitarian countries, and employed their methods, which are reprobated, rightly, by everyone in this country, there were no means by which we could have found out about this man. I do not think there is anything that can cast the slightest slur on the security service; indeed, I think they acted promptly and effectively as soon as there was any line they could follow up. I would say that because it is very easy when a thing like this occurs it may appear a startling thing to have happened. I do not think that any blame attaches either to this government of the right honourable gentleman opposite [Mr. Churchill, who was Prime Minister when Fuchs was first employed in atomic research], or to this government, or to any of the officials, for what occurred. I think we had here quite an extraordinary and exceptional case. I mention that because of the attacks which have been made.

It was a pity that no other facts about the Fuchs case were given at the time, for Mr. Attlee's statement did not allay the uneasy feeling that the security services had been badly caught out, and that measures has, if anything, increased since then. In North America it has been quite different. The public there has been very fully informed; indeed 90 per cent of the information about the atomic bomb as well as about the atomic spies now available to the public has been released in the United States and Canada either in the form of Government pamphlets or Press conferences or in transcripts from Congressional hearings and the long and revealing trials of the American traitors. The American public has had every opportunity of learning about the activities of the F.B.I. and the problems of security. In Britain, meanwhile, there have been the two short trials of Nunn May and Fuchs, the single statement of Mr. Attlee quoted above, and the rest is silence. It is hardly

surprising, then, that the case for British security has gone by default, and in the absence of any defence it has naturally been presumed that British security has been guilty of great inefficiency. As late as the summer of 1951 it was still under fire. Miss Rebecca West was moved to comment very trenchantly upon Mr. Attlee's statement in an article in the *Evening Standard* on June 4th.

'Now it is never wise,' she wrote, 'for politicians to accuse journalists of loose talk. Which of these classes has done most of that will never be settled till the Day of Judgment and no prudent person would bet more than half a crown on the result. But Mr. Attlee's talk was on that occasion superlatively loose, loose as Godiva's hair, loose as the folds of a hippopotamus's hide.'

Miss West's main point is that the authorities must have known all along that Fuchs was a Communist, and if they did not know it then they should have done so and in either case they failed to take the proper steps to keep Fuchs out of the atomic energy project. She suggests that Fuchs himself revealed that he was a Communist when he appeared before the Aliens Tribunal in Edinburgh in 1939.

Now in point of fact, as we have shown, Fuchs never made any such declaration to that tribunal; he never revealed to any official in Britain or America that he was a Communist until Skardon saw him at Harwell on 21 December 1949. In fact, throughout the whole of those ten years he made it his business to keep the matter a secret, and ten years is a long time in a man's life.

All the authorities had before them was that one report from the German Consul in Bristol, dated 1934. Now it is perfectly true that had security between this date and the outbreak of war in 1939 cared to check with the Gestapo and ferret about among Fuchs's boyhood friends they would have discovered that he was once a Communist in Germany. But during this period there was no question of Fuchs doing any

secret work, and security could not have taken this action until he was invited to join Tube Alloys in 1941. Then he could only have been confronted with the information from the Bristol Consul. What then? He answers you by taking an oath of allegiance to the British Crown. He signs a paper saying he will never divulge secrets to an unauthorized person. And in all his known actions, in everything he is observed to say and do, he is meticulously loyal and security-minded, even pedantically so.

What should you do in the face of this? Refuse to employ Fuchs even though your need for him may be urgent, as it undoubtedly was urgent from 1941 onwards when he first joined Tube Alloys? Already then he had had nearly eight years' residence in England with not one jot of evidence against him in that time. It may be true that, after he arrived in England, Fuchs continued to hold Communist views and to associate privately with refugees and left-wing groups—but so did many other scientists in the United States as well as Britain, and a number of them were employed on atomic energy projects. However one approaches the problem one always comes back to the point that during the war our policy towards Communists was much more lenient than it is now; and it had every reason to be. After the war when Russia's antagonism was apparent and our policy was changed, many of the Communists changed their views too. It was Britain's bad luck that she happened to sponsor men like Fuchs who remained implacable.

There are people who argue that a man who is once a Communist is always a Communist, but if that fallacious doctrine were acted upon then quite a number of high officials on both sides of the Atlantic would be promptly obliged to resign. The years bring changes in men's politics, and there was every evidence before the authorities that Fuchs, like so many others, had changed from a German refugee to a loyal British subject. The authorities would have had no right what-

ever to refuse Fuchs employment in 1941 on the grounds that he had been a Communist eight years before, even if they had known this. And in the absence of any further evidence against him they had every right to clear him to the Americans in 1943 and to admit him to Harwell in 1946.

However, he was not accepted on trust at any stage of his progress. There was a police investigation into his record when he was first employed on atomic energy work in Birmingham in 1941 and another investigation when he was naturalized the following year. He was investigated a third time before he was sent to the United States in 1943 when he passed out of the surveillance of British security for three years, at any rate as far as his physical movements were concerned. Then immediately he returns to England in 1946 and enters Harwell there is a fourth investigation and this goes on for months. None of these inquiries reveal anything and security in America has nothing to say about him either.

In the light of these facts Mr. Attlee's talk seems a good deal less loose than Godiva's hair, less loose even than the folds of a hippopotamus's hide. It was as tight as Drake's drum, as precise as the quills on a porcupine's back.

However, there still remains the question of security's watch upon Fuchs's actual movements. We know now that all through this time Fuchs was in fact seeing Russian agents. Why did security fail to observe him?

Now Fuchs himself has had a word to say on this point. He said that as far as he can remember he never made a mistake: He took the most elaborate precautions to make all his absences seem casual and natural. He never talked politics, he never slipped in any word he uttered among his friends. He had no wife and he had no confidant whatever.

If we add them up we find he had perhaps a dozen meetings in England before he went to America, four or five with Harry Gold in New York, one meeting in Boston, two at Santa Fé, and then another eight on his return to England in

1946; at the outside some thirty meetings in all. Surely someone ought to have caught him at just one of these meetings.

There are several answers to this. Those thirty meetings were spread over seven years—an average of a little more than four meetings a year—and nearly all of them were in different places. Furthermore, except in one or two cases each meeting was of short duration—perhaps a quarter of an hour or less. It seems a little much to expect of security that they should have been on guard for four odd quarters of an hour in a man's comings and goings over twelve months. Unless they had reason to suspect a man such surveillance of the atomic scientists is manifestly absurd—it would require a vast army. Few people have any conception of just what is involved in the simple act of shadowing a man, even after he is suspected. If he is travelling by car along a country road he very soon becomes aware that a car is following him and he will not go to his rendezvous that day. If it is in the city—and most of these meetings were in the city—he sets out, let us say, from Paddington for the Mornington Crescent station by underground. He will not go direct to Mornington Crescent, but instead to Piccadilly Circus. Then if you are successful in following him through the crowds there you will find that he takes another train, again the wrong direction. He will travel through three or four stations and then at the last moment when the train doors are closing he will slip out. He will repeat this manœuvre several times and if one man only is following him he will soon become aware of it. So not one, but perhaps ten or twenty men and women follow him, hoping to confuse him by their numbers, and they will drop off one by one as the hunt goes on; but even then it is nearly impossible to keep out of sight of an experienced agent—and Fuchs was not only experienced but meticulous about these matters.

There were tens of thousands of men employed on the atomic bomb project in the United States during the war,

and hundreds of them know jus as much as Fuchs. American security did attach guards to the most senior people in the project (not to watch them so much as to protect them), and nobody blames American security for not including Fuchs in their list; he was not senior enough for that.

Mr. Gordon Dean, who was chairman of the United States Atomic Energy Commission at the time of the Fuchs case, gave a public interview in the form of questions and answers, and this interview throws a very revealing light indeed upon Anglo-American security. It is worth quoting at some length:

Q. How long does it take to clear an individual?

A. The average today is fifty-three days.

Q. And also the money that it costs to do the clearing?

A. The cost is between $100 and $200 per person, and if you clear thousands of people for projects, that's a lot of money—and time.

Q. What percentage of people you examine fail to get clearance?

A. Very small. My guess is that it is less than half of one per cent.

Q. Would you say that the arrangement or set-up you have with other governments for obtaining information from us is now satisfactory?

A. Do you mean, can we trust the certifications of other governments?

Q. Well, that is another way of putting it. The Fuchs case arose out of the fact that we didn't have it. Is the present arrangement satisfactory?

A. I think the present arrangement is generally satisfactory. We did have conferences, you know, with the British and the Canadian security officers immediately after this thing. They came over here and we had a three-day session, largely to determine the comparability of our security standards, and I think it is reasonably safe.

Q. You don't feel so apprehensive of losing out in that direction?

A. No, although in the most perfect system there may be someone who will slip through.

Q. We now clear foreigners, don't we? We didn't clear Fuchs ourselves—we depend upon the British?

A. You still can't have the F.B.I. running investigations through all foreign countries, making their own investigations. What we have to do is to delegate it to a competent security group, comparable to our own, to make sure that the investigations cover the same type of points we make here in the States. Of course, the F.B.I., in turn, does the same thing for other governments. When someone is over here that the foreign government wants to check on, the F.B.I. will make the check for them.

Q. Can you evaluate the damage that was done to our country by Fuchs and his associates in terms of the Russian progress?

A. It is hard to do but I don't think you would be taking too extreme a position if you said he had advanced them between a year and two years.

Q. To what extent did the British have access to our atomic information? I believe we were supposed to be partners with them in the original development of atomic energy?

A. During the war it was a complete partnership. The British decided to give up trying on the gas-diffusion work and they came over to this country and we had a complete partnership. As a matter of fact there were about thirty, I believe, in the military mission from Britain who went to Los Alamos. They knew everything. They helped us very much in the development of the weapon. Since the war we have operated under an understanding with the British and the Canadians in several areas which are not weapon areas. We have exchanged some visits within those areas, but that is the extent of it.

Q. In weapons there is now no real exchange?

A. No.

Q. Has the Fuchs episode had any effect on those scientists who were inclined for a long time to pooh-pooh the need for security—American scientists who were a little bit annoyed and irritated by our desire to have security because they thought it was inconceivable that Russia could do what she has done?

A. I wouldn't limit it to scientists. I would say that the Fuchs

episode has had a sobering effect upon everybody connected with the programme.

Q. In that way it was a blessing in disguise?

A. I think so. Some good *came of* it. It certainly doesn't equal the bad but some good did come of it.

Q. Have you any idea what is wrong with human beings or with our system in these democracies of ours that these people will do the things that Fuchs did? Does the scientist have less regard for loyalty to his country than other people? *Is* he a world citizen who wants to give everything away? What is the reason that Fuchs got into this thing?

A. I don't think you can say that scientists are an entirely different breed in that respect. In Fuchs' defence, let me say we have had some of them who were not scientists. Fuchs is the type of man who, while he might have been caught had there been a real security check on him, might never be caught by any kind of investigation, because apparently he owes his allegiance to nothing that ordinary humans owe theirs to. He is going to make his own decisions regardless of any rules he purports to operate under. What do you do with a man like that? Usually he is a very intelligent man. He is an independent man. He is an idealist of some kind. He might be a Communist idealist, but he is a man of ideals of some kind. *You don't usually spot this type in a check.*[1]

Although it is not quite clear what Mr. Dean means by 'a real security check' in his last answer it would be hard to find a fairer general statement of the case than this. Had this interview been given wider publicity it would have done much to restore Anglo-American relations which were befouled by Fuchs and Nunn May; and it would have gone some way towards rebutting the suggestion, which is still everywhere prevalent, that Fuchs would have been caught if only American security had not accepted the British clearance but applied their own particular methods to him. American security

[1] Reprinted from *Soviet Atomic Espionage*, issued by the United States Government Printing Office, Washington, 1951.

methods have failed just as the British have. There were other secret Communists besides Fuchs inside Los Alamos and they were American citizens who passed American clearance tests. These kind of traitors, as Mr. Dean says, are a special group of high intelligence, and no loyalty test is going to trip them up and no security system will infallibly detect the man who secretly changes his mind after he has already been investigated.

Now it is an entirely profitless business to go matching American Greenglasses and Golds against British Nunn Mays and Fuchses, or to try and compute which country has fathered the most traitors. As Miss West might say, this is an issue that will never be settled till the Day of Judgment and no prudent person would bet more than fifty cents on the result. The important thing is to realize that geographical boundaries and birth-places have got very little to do with the matter; this is an international problem that concerns us all and we have got to decide *just how security* can be best operated in the United States, in Britain, and every other country in the West. Clearly the matter goes far beyond barbed wire, loyalty tests, steel safes, and special passes. It goes straight to the point which Mr. Alan Barth in a recent book, *The Loyalty of Free Men*, makes very well when he says: 'Security is never absolute. . . . The Government of a free people must take certain chances for the sake of maintaining freedom which the Government of a police State avoids because it holds freedom to be of no value.' *If the Fuchses are the price we have to pay for freedom* it might be argued that it would be much better not to be free. Let us, like Russia, immure ourselves and our secrets behind an iron curtain, let us set a police watch on the scientists, tap their telephone wires, and forbid their travel abroad. This might be an admirable method of security, except that it will not work; the Russians have had their traitors too, despite all the policing of their daily lives. Worse still, as the Nazis discovered to their own undoing, the very imposition of such police restrictions drives good brains out of the country. To

a great extent the atomic bomb was built by refugees who escaped from such oppression to England and America.

It would be absurd to suggest that Fuchs could never have been caught much earlier than he was. Clearly if security had been a little more diligent, if they had more men and money at their disposition, if they had been attended with a little more luck and had the politics of the world been different they *could* have got him. But one wonders what sort of a sentence he would have received if he had been found out at the time when the Russians were fighting the battle of Stalingrad. Certainly the public rage against him would have been far less. He might then have been regarded as no worse than a scientist who, in 1952, passes atomic secrets between the United States and Britain. But there is not much point in pursuing that line of thought, and it cannot be seriously advanced in defence of the security system. In the end perhaps the case for security lies simply in this: Klaus Fuchs and the other traitors are something new in the world. They might have happened to any country. And until there is some synthesis between Communism and democracy they might easily happen again.

Something, of course, may have been gained by the frightful wastage of these men's brains now they are in prison: the undetected traitors have been warned. The silence of Pontecorvo must have given them an indication that, whatever else may happen to a scientist who crosses to Russia, he is hardly a free man there any longer.[1]

Mr. Dean makes another useful point when he refuses to accept the idea that scientists as a class tend to be more disloyal than other people. The argument runs thus: scientists work by exact laws in their laboratories, and having little knowledge of the outside world they think that politics should be conducted upon exact laws as well. So Marx has a peculiar appeal for them. Furthermore they are, by the very nature of their work, dependent upon free inquiry and are therefore internationalists.

[1] It should perhaps be noted here that Pontecorvo's disappearance had no connexion in any way with the disappearance in 1951 of the two members of the British Foreign Office, Burgess and Maclean, of whom still nothing definite is known. The case of Burgess and Maclean is quite apart from that of the atomic traitors except in so far as they too played their part—a drastic part—in undermining public confidence in the loyalty of officials.

There may be something in this. Yet there is no evidence that the scientists have produced more traitors than the other educated groups in the community. There have been diplomat-traitors, soldier-traitors, politician-traitors unending, and none of them had much to do with science. The scientist-traitor has only become so well known in the last decade because he has had such sensational information to impart. Moreover, some confusion has existed in the reputation of the scientists. To be an internationalist is not *ipso facto* to be a traitor. Being the first to comprehend the destructive power they were creating, the atomic scientists very naturally were among the first to come forward and warn the world. They urged an international control and a sharing of information as the only feasible means of avoiding the possibility of an atomic war and unimaginable disasters for mankind. They have still to be proved wrong in this argument and in any event the fact that they put the argument forward does not turn them into traitors.

Sincerity is a marvellous disguise. It protected Fuchs. He took risks which no professional spy would have dreamed of taking. He was an internationalist in action—at any rate as far as Soviet Russia was concerned—and, wrapped up in that stupendous egotism, he walked through barbed wire like H. G. Wells's Invisible Man. In the end he was undone not by security (for that tip from the F.B.I. in America in itself would never have caught him) but by something quite different: an attachment to the ordinary simple values of life when he finally settled down at Harwell. It would be naive to

press this point too far and worse than naïve to suggest that he might not, under changed circumstances, have gone back to his treason. Yet one searches fruitlessly for any other explanation of his actions in 1949. He breaks contact with the Russians. He goes to the security officer and says, 'I am a security risk, my father has gone over to the Russians'; which was as good as saying, 'Come and get me; I have something to confess. I want above all else to stay on here at Harwell but I can't do it until this thing is purged.'

He reiterates again and again through his investigation his fear that his friends will never be got to understand—he has damaged them too much. He repeats the same thought in his confession to Skardon and he ends up with, 'Since coming to Harwell I have met English people of all kinds, and I have come to see in many of them a deep-rooted firmness which enables them to lead a decent way of life. I do not know where this springs from and I don't think they do, but it is there.' And finally on his arrest he has just one thing to say: 'You realize what this will mean to Harwell.'

It all reads like some crude and too easy moral tale in an improving book for children; the wolf draws in his fangs and repents at last because somebody has been kind to him. Yet it is not unknown, in moments of crisis and confession, for the truth to be discovered in obvious and simple places. Through the most impressionable part of his life Fuchs had no social background to act as a compensation for his private dreams of power and glory. He was conscious, like so many other men of talent, of his own abilities, but he had to take a back seat as a refugee student in England. Treason was a wonderful way of demonstrating his powers and there was no family and no close circle of friends to bring him back to his senses by the mere fact of their being there, and having affection for him. But at Harwell he is an established man, the head of a department. His powers are recognized. He is comfortable and respected. There is no longer any need for

the secret compensation of his treason. So he lies in bed agonizing over the problem of how to kill his past and make his home here, safe and secure, among his friends. He wants to attach himself to a tradition at last, to achieve that feeling of security that comes only by living with a community which has been settled for a long time in one place.

It may be that one approach to the whole complicated problem of loyalty lies here: it can only be guaranteed by tradition, by fixed habits, by a long period of freedom from fear, and by affection. And all this must be backed by a philosophy or a religion or at any rate some kind of faith which is rather stronger than the democracies have yet been able to engender. A fear of Russia in itself hardly amounts to a faith. There has to be something on the positive side, an ideal of some kind. The crime of the Fuchses and the Nunn Mays was that they concentrated upon what they believed to be an ideal and lost their affection for the ordinary fallible human beings around them. They lost their humility and when that was gone they lost their judgment too. They imagined they could do without the affection of their friends. Perhaps in the end, in their own way, they all came to see they were wrong in this. Perhaps Marianne Pontecorvo saw it when she broke down and cried on leaving England. Perhaps Fuchs saw it at last when he said, 'You realize what this will mean at Harwell'.

This book has no practical ready-made solution of the security problem to offer. Perhaps something more might be done, in future, to check the family backgrounds of the men employed on atomic projects. In Britain loyalty tests are not liked, partly because it is believed that they discover nothing and partly because it is felt that they destroy something of the tradition of freedom upon which loyalty itself is based. However, there are other American methods—notably the 'compartmentalization' of scientists so that any one man knows only a part of the pattern—which might be more fully explored. (But this method achieved no success in the U.S.A. in the

case of Fuchs.) Certainly in Britain a much franker and fuller public discussion of the traitors and the whole problem of security would be a healthy thing. But none of these points provide a complete answer. The complete answer does not exist. The eternal equation continues: the greater the prosperity of a democracy the smaller the revolutionary Communist Party; the greater the absence of fear the fewer the traitors.

In the ideal State, which is perfectly prosperous and secure, the only threat that can come is from the anarchist, the man who glories in chaos and change for its own sake; and it has yet to be proved that any of the atomic traitors are anarchists. Nor is their treason to be confused with the legend of Faust or with Robert Louis Stevenson's Dr. Jekyll, for Faust and Jekyll thirsted purely after knowledge and power. They so believed in the right and in the necessity of man to obtain knowledge that they were quite prepared to break all bonds of loyalty and destroy society in the process. So they were anarchists of a sort. Every sane nuclear physicist of the twentieth century (and this includes the traitors) has urged that provided we can get all nations to agree, we should seal up our knowledge of atomic weapons forthwith, that we should make no further inquiries in that direction but devote ourselves entirely to the exploration of useful and harmless atomic energy.

Whatever his turgid loyalties may have been, Fuchs was a responsible man, he did nothing lightly. He projected, perhaps more than anybody else, one of the major problems of the mid-twentieth century, and one of its worst agonies—the problem of the scientist who goes on and on into the physical world, making one discovery after another until at length he becomes a creator and a destroyer in his own right; and somewhere in this journey he loses his faith. He looks back over his shoulder, as it were, searching for some ethic, some system of law and order, upon which to base his discoveries; and he finds nothing solid. Here is the atomic power

with infinite capabilities for good or evil; but where are the morals to govern it? Somehow a system of government has got to be found and quickly, while there *is* still time.

A preoccupation with this problem is not peculiar to Fuchs. Most serious atomic scientists, as we have said, have been acutely concerned with it. While only a few of them selected Marxist ethics as the right basis for atomic power, and still fewer turned themselves into men of action in the Marxist faith, nearly all of them, at some time, have believed that the only hope for the world was for all men to share this secret, and having shared it, to shun it like the plague.

The real charge against Fuchs is that of impudence. He rushed in and took the whole problem on his own shoulders. He knew less than most men about human nature, he had never been to Russia, he had no experience of diplomacy or political administration, he was an atheist, but he still judged himself competent to put the world to rights. Mr. Alan Barth makes a point about the Fuchses of this world. Describing another traitor, an American, in his book, he says he had "a kind of idealism, however mistaken and misplaced. The sense that because "something drastic had to be done" he, personally, had to do it, is a sense out of which saints as well as sinners, great patriots as well as base traitors, are made."

Possibly, as Mr. Barth suggests when he quotes the letters of the younger Pliny to the Emperor Trajan about A.D. 112, you have to go back to the early Christians to find any sort of parallel for the atomic traitors. Describing his method of dealing with the Christians, Pliny says:

> I asked them if they were Christians. If they admitted it, I asked them a second and again a third time, adding threats of death. If they still claimed to be Christians, I gave orders for their execution. . . . Soon in the usual way the investigation itself led to further accusations, covering several types of charge. An anonymous accusation appeared, containing many names. Some of those named denied that they were Christians or ever had

liers. As they joined with me in invocations to the gods and offered supplications with incense and wine to Your Majesty's ikon, which I had brought in with the divine images for this purpose, and finally cursed Christ, I thought they could be discharged, as it is said that genuine Christians cannot be forced into these acts. Others whose names were quoted by the informer said they were Christians but soon withdrew their plea; to be sure they had once been Christians but they had ceased, some three years before, some for a longer time and a few even for twenty-five years. All these worshipped your Majesty's ikon and the images of the gods; and cursed Christ.[1]

Trajan approved these practices but he warned Pliny that he should have nothing to do with anonymous accusations; they were thoroughly bad and out of keeping with the spirit of the age. This was a humane and statesmanlike approach but the end result of it was that the Roman gods vanished and the Christians survived and multiplied. Neither Trajan nor Pliny apparently was confronted with the kind of man who would curse Christ in public while he continued to worship him in private. It was left to the Communists to perfect that kind of double life. Nor had the Christians the secret of great physical power as the atomic traitors had. Still, the seat of treason in each case is the same—the inner conviction of the accused that what he is doing is right. The Christians were moved by their faith in God while Fuchs acted upon his megalomaniac confidence in his own brain, but both were so convinced of their rightness that they were prepared to destroy the State in order to have their way.

Perhaps Fuchs was telling the truth when he claimed after his arrest that his loyalties were now fixed in England, and his public cursing of Russian Marxism was sincere. But he was basically a man who would always refer to his own conscience first and society afterwards. There is no place for

[1] Quoted from *The Rise of Christianity*, by E. W. Barnes (Longmans, 1907).

such men in an ordered community. They belong where Fuchs now is, sewing mailbags, in Stafford Gaol.

But the problem they have propounded—what to do with atomic power before it destroys us all and how to guarantee the loyalties of men's minds in the use of that power—that still remains.

SOURCES

'The Report of the Royal Commission appointed by the Canadian Government in February 1936 to investigate the facts relating to and surrounding the communication, by public officials and other persons in positions of trust of secret and confidential information, to agents of a foreign power.'

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Hansard, 1946–51.

Verbatim reports of the trials of Allan Nunn May at the Old Bailey on 1 May 1946; and of Klaus Fuchs on 1 March 1950.

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (65-58805) DATE: 6-6-52

FROM : SAC, Cincinnati (65-1724)

SUBJECT: HARRY GOLD, was
ESPIONAGE-R

SA ROBERT G. JENSEN, Philadelphia Division, has advised that the Bureau has previously instructed that whenever signed statements are obtained from HARRY GOLD, in a case other than the above, that the Bureau should be furnished with a copy of same so that such copy may be filed in the Bureau case file on HARRY GOLD.

SA JENSEN and SA CARL A. BETSCH of the Cincinnati Division took a 32 page signed statement from GOLD at the USP, Lewisburg, Pa., on 5-15-52, in the case captioned "BENJAMIN SMILG, was, ESPIONAGE-R," Bureau file 116-163359, New York file 65-17342, Philadelphia file 65-4347. This statement related to the unrewarding contacts by GOLD with BENJAMIN SMILG at Dayton, Ohio, in the period from 1938 to 1941 for espionage information.

Enclosed herewith are two copies to the Bureau and one copy each to New York and Philadelphia, of the section of the report of SA CARL A. BETSCH, Cincinnati, dated 6-6-52, in the SMILG case, which sets out the signed statement of GOLD of 5-15-52, and gives other information pertinent to said statement. These copies should be filed by the Bureau, New York, and Philadelphia, as exhibits in the GOLD file.

The Bureau is advised that GOLD's mnemonic notes were of great assistance in conducting the above interview of GOLD, and it is suggested that Philadelphia retain all such notes, as prepared by GOLD, since they serve as a distinct aid in refreshing GOLD's recollection.

CAB:CMC
Encls (2) (RM)
cc: 1-New York (65-15342-Info)(Encl-1)(RM)
1-Philadelphia (65-4347-Info)(Encl-1)(RM)
1-Cincinnati file 65-1718

AIR MAIL, SPECIAL DELIVERY

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 3/5/87 BY 3042 /wt-DC

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CIN. 65-1724
CAB:CMC

ALL INFORMATION CONTAINED
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DATE 3/5/82 BY 3042 Pat Dde

I. SIGNED STATEMENT OF HARRY GOLD:

HARRY GOLD was interviewed by Special Agent ROBERT G. JENSEN, Philadelphia Field Division, and the writer, on May 13, 14, and 15, 1952, at the United States Penitentiary, Lewisburg, Pennsylvania, where he is now serving a thirty year sentence for Espionage, imposed on December 9, 1950, by the Honorable JAMES McGRANERY in the United States District Court, Philadelphia, Pennsylvania.

GOLD, who has an amazing faculty for detailed recollection and who could, on cross examination, give testimony of convincing nature regarding the positiveness of his recollections, furnished the following signed statement:

"May 15, 1952
Lewisburg, Pa.

"I, HARRY GOLD, do make the following voluntary statement to CARL A. BETSCH and ROBERT G. JENSEN. These men have identified themselves to me as Special Agents of the Federal Bureau of Investigation. I have been told and know that I am not required to give or make any statements. I also know that any statements I make may be used against me in a court of law. I have been told and know that I am entitled to benefit of counsel.

"These men have asked that this statement cover my present recollection of the matters set forth hereinafter. I have carefully reviewed these events in my mind, and can testify, if called upon to do so, as follows:

"Beginning in late 1935, I began to serve as an active Soviet espionage agent in that I took industrial information from my place of employment, the Pennsylvania Sugar Company, Philadelphia, Pa. and gave this information to my Soviet espionage superior. I continued in this task of transmitting information taken from my place of employment until the Spring of 1938.

"At this time I was being handled by my third Soviet superior, a man I knew as FRED. FRED was quite persistent in his attitudes towards me in that he continually pressed me for industrial

information. He also asked me to seek other types of employment, for I had delivered by this time most of the information of industrial value at my place of employment. I can also recall that he (FRED) asked me on many occasions to submit biographical sketches on people that I considered possible recruits for Soviet espionage. I know that I submitted to FRED some biographical sketches on non-existent people in order to alleviate the persistent hounding he was giving me.

"However, in or around April of 1938, I told FRED of my desire to go back to school to complete my education. FRED objected to this idea of mine stating something to the effect that my contacts with the industrial world would bebroken off.

"In a later meeting with FRED in late July or August of 1938, somewheres within a two week period around the LOU AMBERS-HENRY ARMSTRONG fight of that year, FRED told me he wanted me to go to college. I recall this meeting quite clearly. FRED called me by phone at my home in Philadelphia and asked me to come to New York City immediately. The night was a rainy one and rather miserable. FRED bawled me out for not producing contacts for him or additional information. After this bawling out, FRED told me that things would change for the better and he now wanted me to go to college.

"He told me 'there is a government official located in the midwest' from whom I was to get information. FRED said this particular setup required my attending the University of Cincinnati. He was very specific about my attending the University of Cincinnati. He told me that there would be plenty of funds available for my education.

"I would like to state that prior to FRED's change of attitude and wish to have me attend the University of Cincinnati, FRED wanted me to go to the Massachusetts Institute of Technology. This I declined to do for various reasons, principally, that I could not account to my family for the funds that would permit me to enroll at M.I.T.

"I was unable to enroll at the University of Cincinnati under the conditions I had hoped for. The University of Cincinnati would not give me credit for the courses I had taken in Evening

School at the Drexel Institute of Technology. I was also told that the credits I had earned at the University of Pennsylvania were not acceptable. I further did not want to take the six year cooperative course as offered to me by the University of Cincinnati.

"At the suggestion of a co-employee at the Pennsylvania Sugar Company, I did enroll at Xavier University in Cincinnati, Ohio in September, 1938. This co-employee had no knowledge of my espionage activity at that time nor did he have knowledge of my true purpose in wanting to go to school in Cincinnati.

"After my enrollment at Xavier University, there was a series of meetings with FRED. One of these meetings was held in New York City and another two meetings were held in Cincinnati. At none of these meetings was the purpose for which I moved to Cincinnati discussed. I believe FRED at one of these meetings told me to get established first and we would discuss the purpose of my going to Cincinnati later.

"On Thanksgiving day of 1938, I received a telephone call at my rooming house. This call was from FRED. He asked me to come downtown immediately. I explained to him I was not dressed and my rooming house was almost an hour's bus ride from downtown Cincinnati. I went downtown and met with FRED. He told me at this time I was now to follow out the purpose for which I had been placed in Cincinnati, Ohio. I was told to go to Dayton, Ohio, by FRED who said I was to resume contact which an Agent, STAN, had once had with BEN SMILG, an aeronautical engineer at Wright Field.'

"I suggested to FRED that I go to Dayton, Ohio, on the following Saturday. I did not so state, but I had planned to attend the Xavier-Toledo football game and to accept my landlady's invitation to Thanksgiving dinner that day.

"FRED said 'No, you have to go this afternoon, the man is waiting.' I walked with FRED to the Union Station at which place he gave me the address of BEN SMILG in Dayton, Ohio. I can not recall whether he gave me this address in writing or whether I wrote it down at his request. I no longer have the slip of paper upon which the address was written but I recall the address as 307 Oxford Street.

"FRED also gave me a letter and a white box containing a new leather wallet wrapped in tissue paper. He identified the letter as one from STAN which I should give to SMILG as a recognition signal. FRED said the wallet would serve as a gesture of friendship to SMILG.

"He put me on a train for Dayton, Ohio, that afternoon and I arrived there about one hour or so after leaving Cincinnati. I took a taxi to the SMILG residence on Oxford Street as this was the first time I had ever been there. This was about 4:30 or 5:00 PM.

"I knocked at the door of 307 Oxford Street and a man answered it. I said 'I've come to see Mr. BEN SMILG.' The man said 'I'm BEN SMILG.' I said 'Oh, fine,' and started to walk by SMILG, who was still partially blocking the doorway. I then said, ' I come from STAN' or 'I bring greetings from STAN.' SMILG then said 'Oh' or 'Oh yes' and invited me in.

"The door opened directly into the parlor where I gave SMILG the letter and the wallet and told him my name was HARRY GOLD. There was here present, SMILG's parents, an elderly couple who were friends of the SMILG family, and another family friend, a man who worked at Wright Field. DAVID SMILG, a younger brother of BEN, entered the parlor a short time later. BEN told his parents, 'This is HARRY GOLD, a friend of STAN's.'

"BEN's parents were pleased over the news of STAN and asked me how STAN was and what he was doing. I said that STAN was fine and turned the conversation to another subject. I did not know STAN and FRED had told me nothing about him.

"I had read the letter before I had given it to SMILG. It was a simple letter of introduction with the request that BEN do what he could for the bearer. The letter was signed merely 'STAN.'

"I also remember I was somewhat ashamed of the appearance of the white box which contained the wallet. I stopped in the men's washroom in the railroad station at Dayton and tried to clean it up a bit with an eraser. I also rearranged the tissue in which the wallet was wrapped. I noticed nothing else in the box or the wallet. T his I did before I went by taxi to the SMILG residence.

"The wallet was a long, narrow, wafer thin, fold over leather wallet. SMILG's father admired the wallet very much. I judged from his remarks that he had been in the leather goods business or had a professional knowledge of leather.

"I sat and waited for BEN SMILG to take me someplace as I had expected him to be awaiting my contact for espionage purposes. It was obvious that we could not talk in the parlor with the other people present. BEN made no move of any kind. I felt I had to say something so I said I lived in the East.

"The guests of the SMILG family left and a neighbor came in for a short time. I started talking about going back to Cincinnati that night and finally BEN's father suggested that BEN drive me to the bus station.

"BEN drove me alone to downtown Dayton and stopped at a park near the bus station. I here said to BEN 'now that we are here alone we can talk more freely.' BEN made no response. I said 'STAN said you and I would be good friends.' BEN mumbled something in reply. I gave him my Cincinnati address and the phone number of my landlady, Mrs. ALIS BROOKS. BEN held the paper with this information on it as though he did not want it. BEN said 'Are you working there.' I said, 'No, I am going to school. I will be there two years and will be available to you at all times.' BEN froze up completely and I got upset. I told SMILG I would get in touch with him again. SMILG made no reply and he seemed glad I was leaving. I left the car, walked to the bus station, and caught a bus for Cincinnati. In Cincinnati, I had a late supper about 9:30 P.M. at Shevlin's in Cincinnati.

"The following Sunday, I kept a prearranged meeting with FRED in Middletown, Ohio, at the railroad station. FRED and I walked around town in the vicinity of the railroad station. I had lunch with FRED in the same general area. In reply to FRED, I told him that I had been to see SMILG, but I didn't think we had the right man for I didn't think SMILG knew what I had come for. I told FRED I thought something was seriously wrong.

"FRED told me I was wrong and that SMILG was showing commendable caution. He said everything was fully arranged and I need merely to get into the good graces of SMILG and obtain his confidence. SMILG would then give me information as he had STAN.

"I said I was not going back to SMILG. FRED threatened me by saying he would send a letter exposing me to the 'good Fathers at Xavier University' if I did not comply with his instructions.

"I took the bus from Middletown, Ohio, and returned to Cincinnati.

"My next contact with SMILG was before the Christmas holiday of 1938 at SMILG's home in Dayton. I learned from BEN of his planned trip to Philadelphia, New York City and Boston. I told BEN I lived in Philadelphia and would be there myself over the holidays. I carefully printed out my home address and phone number in Philadelphia and gave it to SMILG. I asked him to be sure to look me up on his trip East. SMILG appeared more coridial to me and I felt FRED had been right after all. SMILG again drove me downtown to an area near the bus station.

"I met with FRED in New York City during the Christmas season of 1938. FRED told me it was likely that SMILG would now hand over information at our next meeting or at least prepare a set up for the transfer of information.

"In January of 1939, I made a telephone call to SMILG's home from a phone booth in Dayton, Ohio. I believe DAVID SMILG answered and after talking with someone in the background, told me that BEN would not return home until late that night.

"I went to Dayton a couple of days later and saw BEN in presence of his family at their home. I asked BEN why he hadnt gotten in touch with me while he was in Philadelphia. BEN said he had had an automobile accident while enroute near Lancaster, Pennsylvania. BEN said he had had a narrow escape with his life and his companion, a male, needed hospitalization from the accident. He showed me a picture of the damaged car and said he had not gone through Philadelphia because of the accident. I tried to wait the family out so I could talk to BEN alone. He gave me no opportunity for this and I left the house by myself. I told BEN I would get in touch with him again.

"I met with SMILG again in March of 1939. I arrived at the SMILG home unannounced about supper time. SMILG invited me to

attend a lecture somewhere in Dayton. The lecturer was LUDWIG LEWISOHN, who was speaking on Zionist problems. His lecture was impressed in my memory as LEWISOHN, in the course of his speech, made sharp and even insulting remarks relative to Christians. SMILG and I commented about such remarks in view of the large number of Christians in the audience. A friend of SMILG's, name not recalled, who was a ham radio operator, went with us to this lecture.

"After this lecture pledges were solicited for the Zionist movement. I signed a pledge for $5.00 giving my name and Cincinnati address. I gave this pledge to a plump Jewess who was a friend of BEN. I never received any bill and never paid the pledge.

"I met with FRED in April of 1939 near the Netherlands Plaza Hotel in Cincinnati, Ohio. I told FRED we should do something to get this thing with SMILG started. FRED suggested I talk to SMILG of the benefit to the Jews in aiding the Soviet Union.

"I met with SMILG again at his home in Dayton shortly after my meeting with FRED. I do not remember being specific with SMILG at this time. I do not think I brought up the points suggested by FRED when I talked with SMILG. I can recall only that nothing of value resulted from this contact.

"After examinations in June of 1939 I saw SMILG again at his home in Dayton. I propositioned SMILG in rather a weak fashion on this occasion. I also told BEN that the Soviet Union was a great bulwark in the fight against Fascism and needed help in this fight. SMILG evaded the subject I was trying to bring up.

"At one of my meetings with FRED right around this time, FRED said that I perhaps did not appear reliable to SMILG because of my youth and apparent immaturity. FRED told me again to establish a close personal relationship with SMILG and impress him with my mature viewpoints. I was told by FRED to enroll for summer school so that I could stay in the area and cultivate SMILG.

"I now remember I did not go home after summer school was finished in the first week of August 1939 because I hadn't seen SMILG yet. I went to Dayton, Ohio and on this meeting I gave SMILG a

second letter from STAN, which FRED had given to me. I believe the contents of this letter were to the effect that BEN should give to me the same type of information he gave to STAN in the past. FRED told me to get the letter back from SMILG. SMILG took the letter from me while we were in the house and walked upstairs.

"I heard the toilet run and BEN came back down. BEN said 'You don't know what you are getting into, be careful.' BEN was tense and agitated and I became frightened. I left alone without the letter. I felt I needed a few drinks which I had at a bar across the street from the Biltmore Hotel in Dayton. I felt too upset to go back to Cincinnati that night. I stayed overnight in Dayton in what I now recall was the Hotel Gibbons, returning to Cincinnati the following morning.

"I think I saw SMILG again in October and again in December of 1939. I can't recall what transpired. I remember I was ill at ease with BEN and had a natural reticence about seeing him in this period.

"I know I must have seen FRED again sometime during this period but can not recall when, where, in Cincinnati, or how many times.

"I next saw SMILG in January of 1940. I fix this date by remembering I boasted of the glorious Soviet Union. SMILG scoffed at this for the Red Army was then bogged down in the Finnish War. I did not proposition SMILG at this time.

"From January until March of 1940, I did not see FRED. In March I met with FRED and he told me to proposition SMILG very plainly at my next meeting. FRED told me to ask SMILG directly for information. FRED also told me to prepare a letter using the phrase that I was successful or unsuccessful in selling my car to indicate success or lack of it in dealing with SMILG. This letter I was to mail to an address in Brooklyn, New York.

"I met with SMILG at his home in March, 1940, at Dayton, shortly after my meeting with FRED in Cincinnati. I complied with the instructions given me by FRED and asked SMILG specifically for information. I believe I asked SMILG for any technical data

about production or performance of any aircraft engine as produced by the military. I also told him that the information did not have to be drawings or blueprints. SMILG said 'You don't know what you are fooling with, you better get out as soon as possible.' SMILG was agitated and somewhat tense at this meeting but did not agree to furnish me information.

"I left SMILG in Dayton (this was on a weekday and in the evening) and returned to Cincinnati. I composed the letter I had been asked to write, showing my lack of success with SMILG.

"In late April of 1940 I got a call long distance from FRED telling me to come to New York City. I was given details of how to meet my next Soviet espionage superior, JACK.

"I met this new Soviet espionage superior in the lobby of the Hotel New Yorker as instructed. This new contact asked about SMILG. I told him that SMILG had rejected me. JACK then said something to the effect that SMILG would come around and I should visit SMILG again. I stayed at the Hotel New Yorker that night and left for Cincinnati the following afternoon.

"I phoned SMILG at Dayton from Cincinnati as soon as my examinations in June of 1940 were over. He seemed more cordial than in the past. This surprised me and because of this I well remember the call.

"I went to Dayton right after this call to see SMILG. I met him at home and we took a walk together in his neighborhood. I told SMILG I was leaving Cincinnati to go back East to work. I told him I could set up a system whereby I could meet him anywhere he wanted. I used the towns of Cleveland and Indianapolis as examples. I said the transfer of information from him to me would only take a minute and that within a matter of a few minutes later someone else would pick up the information from me. I further told SMILG that if he preferred, I could have someone else contact him to get this information. I also made the proposition of payment of money to BEN as well as the possibility of sending his brother DAVE to Massachusetts Institute of Technology.

"SMILG told me I did not know the extent of military intelligence to counteract efforts to obtain information. SMILG said, 'For all you know, you may have been watched from the very beginning of the time you first came to my house.' I told him there was no indication of such.

"SMILG then told me he knew of a case where an engineer in his office was taken away by two intelligence officers and had never been seen again. I was told by SMILG I didn't realize what I was letting myself in for and that I had best get out of it. I told SMILG I was nearly 30 years old, that I had been out in industry, had met people, did understand what I was doing and thought it was a good thing.

"SMILG was outwardly upset, but solicitous in the nature and manner of his remarks to me.

"I returned that night to Cincinnati and left shortly thereafter for my home in Philadelphia, Pa.

"In July of 1940, I was taken over by a new Soviet espionage superior, named SAM. SMILG was mentioned casually by SAM in the summer of 1940. I was told to go to Cincinnati and renew acquaintances with SMILG. In October of 1940, I was supposed to go to meet with SMILG but actually I never went. I prepared a false report on this trip and gave it to SAM.

"Shortly before Christmas of 1940, or right after New Years day of 1941, I went to Cincinnati. I arrived there on a Saturday and on the following Sunday, I went to Dayton to see SMILG. I told SMILG of going to Wisconsin on business for my firm. I told him I was to see Doctors SNELL and STRONG at the University of Wisconsin on microbiological assays.

"I did not come right out with a propesition to SMILG but said something about STAN being anxious to see him and hoping to see him soon. I got no response from SMILG. I then told SMILG that STAN was most anxious that he furnish me information from Wright Field in accordance with the talks that SMILG and I had had in the Spring of 1940.

"SMILG told me I was totally mis-informed as to the relationship between STAN and himself.

"Prior to SMILG's telling me that I was mis-informed about his relationship with STAN, I also told SMILG that he had given information to STAN in the past. I told SMILG he was to give me information in accordance with the manner in which he had furnished information to STAN. I also asked SMILG if 'STAN hadn't given him money for this information. SMILG told me he had never given STAN any information and he had never received any money from STAN. SMILG said the relationship between he and STAN was that they had been friends at M I T and he had tutored STAN there.

"I left SMILG in Dayton with the statement that I would be back on business and would see him again. I returned to Cincinnati by bus and met with SAM near the Hotel Gibson on the north side of Fountain Square. During my meeting with SAM I gave him an account of what had transpired at my meeting with SMILG. I left SAM in Cincinnati and returned to Philadelphia by plane.

"A few days after my return to Philadelphia, I took a written report on my last contact with SMILG to SAM in New York City.

"I saw SAM in New York City a few days later as planned. At this time SAM said 'That "once and for all, we are going to pin SMILG down and make him come across with information. We are going to show him right to his face where he is lying."' SAM said this would be done by means of copies of actual reports that BEN had furnished plus receipts for money which BEN had taken.' SAM also said the originals were not presently in New York City but photo-copies were being made and had been sent for.

"SAM and I arranged to meet and did meet on a Saturday in early February, 1941, in New York City. SAM, at this meeting, gave me a brown envelope, which he said contained copies of several reports BEN had written, plus copies of several receipts for money.

"SAM told me I had to leave immediately for Cincinnati, Ohio, over my protestations that I had promised to be home that evening. SAM even took me into the lobby of the Hotel Edison and made reservations for a plane leaving that evening for Cincinnati on American Airlines.

"I took the plane alone, and arrived at Cincinnati, Ohio late that evening. I registered at the Hotel Gibson and before going to bed met by chance a classmate of mine at Xavier University, one DICK SCHMITT, in the lobby of the Hotel. We had several drinks in the hotel bar, and I told DICK I was on my way to Madison, Wisconsin on business for my firm.

"The following morning, I went by bus to Dayton, Ohio, and arrived at Dayton, Ohio, about 10:00 AM. I went immediately to SMILG's home on Oxford St. BEN was still upstairs when I came in and when he came down, I was offerred breakfast with BEN. BEN's mother cooked his breakfast, and I accepted a cup of coffee, and possibly a roll, while BEN ate his breakfast.

"BEN and I then went into the living room alone. His mother remained in the kitchen. His father had been there earlier and had left. I cannot _____ DAVID SMILG's whereabouts.

"I told SMILG he would recall our last conversation concerning the nature of the relationship between him and STAN, and to bear out what I had said that 'STAN wanted me to show you these,' I pulled the photo copies of the reports out of my inside coat pocket and showed them to BEN. I believe I purposely kept them in my hand, as SAM had instructed me to make sure BEN didn't destroy these papers.

"I then said, 'There are also these' and took the copies of the receipts from my inside coat pocket and showed them to BEN in the same manner.

"BEN barely glanced at the reports and drew a deep gasp at the sight of the receipts. His hand shook as he made a gesture as if to take the receipts and then withdrew his hand. He became obviously angry and in great agitation, burst out as follows.

'You don't know what you've done, you should never have done this.' 'Do you know what I ought to do, I ought to call military intelligence right away.' With this, SMILG made a gesture, as if to step over to the phone, which I think, but am not sure, was in the dining room on a low table.

"SMILG here said, 'In fact, I was going to do this the very first night you came around here, but I hesitated because you were Jewish and I was Jewish, and I thought it would cause an awful reflection on the Jewish people.'

"I said nothing, and SMILG somewhat regained his composure. He then said 'The receipts are for tutoring, and the reports are school work in aeronautical engineering in which I tutored STAN. They represent things which have been long established in the field and there is not the slightest thing secret about them.'

"I recall that the receipts were handwritten and of actual size in photo reproduction. They were about two inches by three inches. There were at least four such receipts, and were for months in the years 1933, 1934, and 1936, as nearly as I can remember.

"The text ran thus, on all the receipts:

'Received payment for November, 1933' (for example). All were signed at the bottom 'BEN'. All were handwritten, and were for a given month. The amounts were in the range of from $200.00 to $400.00, which so impressed me as being sizable amounts of money, that I now _____ a very clear recollection of same.

"The reports had been reduced in size in photo reproduction to where they would fit comfortably in a man's pocket. They were not all on the same kind of paper. There were three reports, as nearly as I can recall. Two of them were of about two pages each, and from a previous study of their context, it had been obvious that they had been taken from a report of much greater length.

"These two were typewritten, with a couple of handwritten corrections. The third was handwritten, and represented a complete report of about five or six pages.

"The text of two of them dealt with performance of aircraft. The third dealt with the elements of design of a special type wing, aimed at cutting down wind resistance. There was one graph and a number of small sketches showing stresses and strains, all hand drawn, and included in the special type wing report.

"Although I have never studied aeronautical engineering, I gained the impression from reviewing these reports in my hotel room at Cincinnati, Ohio, the night before that they related to military, rather than commercial aircraft. I have a very vague recollection that the third report, the only dated report, was dated around 1936 or 1937.

"The full report was not written in the accepted formalized fashion of engineering reports, but was so phrased to highlight the certain salient data, so that if it were read by a layman, its value would easily be recognized, and if it were read by a technical man, the important points would be brought into immediate and sharp focus.

"I recognized the style of this report as being very comparable to the style that I myself had employed in writing my own reports on the results of research and processes of the Pennsylvania Sugar Company, for the use of my Soviet superiors.

"SMILG was now more composed and I said 'I just wanted to show the material to you so that you could think it over. There is a big difference between what STAN said and what you told me.'

"SMILG replied that this was STAN's error and that I had been given bad information. I said that I would be on my way now, but would see him again. I went to shake hands with BEN, who looked stunned at this, and let me stand there holding his motionless hand.

"I went to downtown Dayton, Ohio, by bus and went to what I think was the Miami Hotel, where, in the men's washroom, I followed SAM's explicit instructions and destroyed the photo copies. This was done by using alcohol from a 4 oz. bottle, in my possession for this purpose, and dousing the material and lighting same with a match.

"I almost burned myself, so I finished the job by tearing the unburned remains into small bits and flushed them down the toilet. I had become alarmed at the volume of smoke from the burning. SAM had strongly cautioned me to be ready to destroy the material at a moment's notice at any time during my trip. SAM had insisted I have a bottle of inflammable solvent with me to be ready to carry out the immediate destruction of these papers.

"SAM had asked me in New York City the day before if I wanted 'two good boys' to go with me when I saw SMILG. I said I could handle SMILG by myself. SAM said I could either have these men right with me or in the immediate neighborhood. He accepted my decision that I didn't need these men with me.

"I had left SMILG's house about 10:45 AM and took the bus to Cincinnati, Ohio, and flew back to New York City on the first plane. I met SAM at the Child's Restaurant, near Grand Central Statim, about 11:00 PM that Sunday evening in early February, 1941.

"I told SAM what had happened, and he said 'good, let him rest with it for a little while.' SAM said that SMILG's explanation that the receipts were for money STAN had paid SMILG for tutoring was 'the biggest joke of all, STAN's that good a mathematician, he could have tutored SMILG.'

"STAN said 'We can show him plenty more reports where those came from, and believe me, they are not school work. He'll come across and how he'll come across; he's not going to get away that easy.'

"I met SAM again by prearrangement in March, 1941 on upper Broadway in New York City. We twisted and turned after meeting, met again briefly, twisted and turned again, and got together in a small, out of the way restaurant in the same general area. There SAM told me that things were 'very hot' and he wanted to know if I had noticed being watched at all. Then he said we would have to break off relationship for a while.

"In early July, 1941, after the attack on the Soviet Union, I again met SAM (as the result of a phone call) somewhere around Columbus Circle at New York City, and we talked about redoubling our efforts because of the attack on the Soviet Union by Germany. I asked SAM about SMILG. SAM said we would leave him alone for the time being, altho eventually we would get him to work with us. He said that a bad mistake had been made in handling SMILG, and that it was neither of our mistake, but was something that had occurred prior to our activities.

"I have never seen SMILG again, and his name was never brought up again by any of my associates in Soviet espionage.

"I have previously seen and have identified a photo as the BEN SMILG I have spoken of hereinbefore.

"I have reviewed the foregoing statement, consisting of this and thirty other pages, and wish to make the following additions: on page 7, at the time of my first meeting with SMILG, the greeting that I was to use was a specifically worded one given me by FRED; it was intended so that SMILG would immediately recognize me as STAN's successor in Soviet espionage.

"Also on page 7 I made no request to SMILG that he return the introductory letter; I had received no instructions on this point from FRED.

"On page 15, when I talk of staying overnight at the Hotel Gibbons, at Dayton, Ohio, I further recall another thing that I associate with this event.

"The next morning I bought a current issue of 'Time' magazine in the bus station and read it while going back on the bus to Cincinnati that morning. In this magazine there was a review of a new book written by DOROTHY DIX. I particularly remember this because the reviewer used the phrase 'ashard-boiled as the madam of a sporting house' in discussing Miss DIX's advice to young girls.

"At this same visit, at SMILG's home I arrived about 6:30 P.M. I had to wait the better part of the evening before everyone cleared out and I could get down to business and show the letter from STAN to BEN, after showing him the letter, I left no more than fifteen minutes later. It was then almost midnight on a weekday evening.

"The information I have furnished in this statement is true and I am willing to testify to the same.

/s/HARRY GOLD
May 15, 1952

WITNESSED BY:
ROBERT G. JENSEN, Special Agent, FBI, Philadelphia, Pa. 5/15/52
CARL A. BETSCH, Special Agent, FBI, Cincinnati, Ohio, 5/15/52."

CIN. 65-1724
CAB:CMC

Attention is drawn to GOLD's account of his visit to SMILG in January, 1940, which date GOLD fixes by recalling that when GOLD boasted of the glorious Soviet Union, that SMILG scoffed at this, for the Red Army was then bogged down in the Finnish War.

GOLD's recollection of this historical fact was later checked by reference to "The World Almanac, 1941," page 55, under a chronology of World War II, from December 6, 1939 to December 1, 1940, which for January 9, 1940, stated in part, as follows:

"In Finland, the Russians (44th Division) retreated east of the Suomussalmi, after losses. Intense cold (-31 degrees) has stopped land attacks on all fronts."

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : D. M. LADD

DATE: June 11, 1952

FROM : A. H. BELMONT

SUBJECT: KLAUS FUCHS, was.
ESPIONAGE - R

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 3/5/87 BY 3042 /mt-DJC

PURPOSE:

To advise that a radio item on June 10, 1952, to the effect that Klaus Fuchs had access to classified scientific data in jail and had leaked it to his father in the Russian zone of Germany, was denied by British authorities according to a radio broadcast on June 11, 1952.

DETAILS:

It has been reported that on June 10, 1952, the radio carried a story to the effect that while in jail Fuchs had been working on or had access to confidential scientific data which he had leaked to his father who is a professor at the University of Leipzig in the Russian zone of Germany. As a result, it was stated, it had been necessary to transfer Fuchs to another place.

This morning, June 11, 1952, the radio carried a denial of the foregoing by the British authorities who asserted that while Fuchs had corresponded with his father he has never had access to any such data while in prison. It was stated that Fuchs is engaged in the handling of mail sacks.

This same allegation has been circulated before, almost since the inception of Fuchs' incarceration. On April 18, 1951, the attention of Mr. Jeff Patterson of MI-5 was called to a news despatch to the effect that Fuchs had worked in his prison cell to assist Britain in making a new type of atom bomb. Patterson denied that Fuchs had worked on any atomic energy matters since his incarceration, and stated that he was occupied sewing mail sacks by hand.

ACTION:

None. For information.

RECORDED - 105 65-58805-1527

JUN 20 1952

EJVL:mem

65-58805

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : MR. A. H. BELMONT

DATE: July 7, 1952

FROM : MR. W. A. BRANIGAN

SUBJECT: KLAUS FUCHS was.
ESPIONAGE - R
KLAUS E. FUCHS

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 3/5/87 BY 3042 /wtt/ttt per telecon

Mr. Geoffrey Patterson, the MI-5 representative, came in on 7/1/52, at which time he had a letter which had been sent to the British Ambassador, dated June 29, 1952, which is signed by Mrs. Klaus S. Fhuch B. Cove. In this letter, she claims to be the wife of Dr. Klaus Fuchs but misspells his name as above. She claims the American Government has confiscated her passport and that she could not make a trip to England to see her husband. She also claims to be a British subject by reason of her marriage to Fuchs. She also enclosed a letter to Dr. Fuchs in which she also stated that her passport had been confiscated and alleges that an injury to her spine was caused by J. Edgar Hoover's men seven years ago. She said she had written to Prime Minister Churchill and to Sir Arthur Shawcross but had not heard from them. Copies of these letters are being attached hereto.

It is to be noted that the writer of the above letters is Mrs. Bertha Ribacoff of 6751 Ingram, Forest Hills, New York, who was interviewed by our agents on October 29, 1951 on the basis of information we received wherein she had claimed that Dr. Fuchs was her husband. When contacted, she stated that she could not talk to the agents as Dr. Fuchs lived next door. She insisted that he was the same British scientist who was convicted of espionage in Great Britain. Persons contacted concerning her stated that she was a psychopath.

We advised the State Department on 5/2/52 that she held U. S. Passport 427856 and was to sail abroad on the Queen Mary on 6/25/52 and intended to return to the United States on 8/26/52. She had stated that she wanted to go to Russia and that she had the necessary connections.

Mr. Geoffrey Patterson was furnished the information we had available concerning her and the fact that various persons have indicated that she is psychopathic.

65 58805-1528

RECOMMENDATION: RECORDED - 75
INDEXED - 75 JUL 8 1952

There are attached hereto copies of the correspondence furnished to us by Mr. Patterson and in view of the fact that this woman is obviously a psychopath, no further action would appear to be necessary.

RJL:jl
65-58805

65 JUL 30 1952

Jun 30 PM
Phuck

My Dear ambassador

I am sure that by now you are well acquainted with the situation I finded myself in you know that I am the wife of Dr Claus E Fhuck and that the american government has confiscated my passport and that I had to cancel my trip to england to see my husband and in turn I have renounced my american citizenship and by the English laws of marriage and by the United States I fully became a British subject and so I hope at your hands to help me get out of this country so that I could take up residence with my husband Dr Claus E Fhuck

Please forward this letter for me to him and Please help me get out of here as possible no time will be to soon for me to get out of here

Sincerely yours
Mrs Claus E Fhuck B Cross

Program Forest Hills Ave

Fol B03 4930

June 29 1952

Dearest I trust that you are feeling well and that you
have developed a change of health as for as it can come
us or rather me I am sure that by now you have
received my letter and you are informed as to what
has befell home here in the U.S.A. you know
now that my passport has been confiscated
and that I was stopped from sailing to you
Please believe me that there is no blood
left in my heath they have drained it all
out right now all I do is cry myself to
sleep every night and on top of all that
my spine is reaching and I am in
terrible pain this happens only when I get
agitated as I am now the injury to my spine
was caused by Edgar Hoovers men 7 years ago
they made sure to do a good job on me then
so they gave me a fractured ankle and a fractured
vitebray and every now and then it agravates
and the pain is simply excruciating
so you can imagine how I feel
Darling if it wasent for the hope that
I will shortly get out of here and get to you
I would call it a day But I still have that
hope that England will give me a passport
and I will be able to come to you
I have written to Prime minister
Churchill and I have enclosed
a letter to you

to mrs Chaccias Sir arthur Chaccias
and to mrs Bernard crenchawin
manfreal so for I did not hear from
anyone of them including washington
British embassy I called mrs Zane at the
Consulate and was told that my husband
Dr Clause Funch would have to come
a passport or some papers to confirmed
my statement before I could leave mexico
this is the story Clause Dearest How long
will this yard I feell that I cant stay
where I am now besides it is unbearable that
so I must get out of the country I wants to
and take a boat some where in the
mauritius or tell the full where you will
send me the necessary papers so that I could
come to you Dearest I know that I deserve all
this I allmost believe that I was put on earth for
one purpes to suffer Dearest I need someone
in the USA where you can write to me
and I could get your mail through them
a few words from you would pass the Clauses
for me Dearest from you I want
with all my love for one who must stay healthy
Deserved Bertha I love you and I will be
kept and will bring it with
you wife until you
only forever yours
R Clause

RETURN ADDRESS

NEW YORK, N.Y. JUN 30 4-PM 1952

HIRE THE HA
ITS GOOD B

British Embassy
Washington D C

RETURN ADDRESS

~~Mrs Claus Fchuch B.Cove~~
~~6751 Fregany St~~
~~Forest Hills L.I. N.Y.~~

Dr Claus E Fchuch
England

CHANCERY REGISTRY
1 JUL 1952
BRITISH EMBASSY WASHINGTON

Fol B034930

AIRMAIL

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (65-58805) DATE: July 15, 1952

FROM : SAC, WFO (65-5395)

SUBJECT: HARRY GOLD
ESPIONAGE - R

Rebulet July 8, 1952, directed to New York titled, "UNSUB, was STEVE SWARTZ, HARRY GOLD, INFORMANT, ESPIONAGE - R," (New York file 65-15335), which on page two reflects that HARRY GOLD compiled a document under the title "The Circumstances Surrounding my Work as a Soviet Agent - a Report," which was furnished to the Bureau by New York letter dated May 10, 1951, in the GOLD case.

Washington Field Office files failed to reveal the receipt of a copy of GOLD'S document, and accordingly New York is requested to furnish this office with a copy of this document.

HWB:jc

2 - New York (65-15324) (RM)

RECORDED - 118 65-58805-1529 JUL 17 1952

UNITED STATES DEPARTMENT OF JUSTICE

FEDERAL BUREAU OF INVESTIGATION

In Reply, Please Refer to File No.

American Embassy
1, Grosvenor Square
London, W. 1

SECRET - AIR COURIER

Date: July 25, 1952

To: Director, FBI

From: Legal Attache
London, England

(65-721)

Subject: FOOCASE
ESPIONAGE - R

Remylet 4-28-52, transmitting ten film packs containing undeveloped negatives of an advance copy to the book "The Traitors" by ALAN MOOREHEAD.

For the information of the Bureau, there is attached a news item regarding MOOREHEAD which appeared in the Sunday Chronicle for July 20, 1952.

[redacted]

SECRET

Classified by 2355 WABTDVN
Exempt from GDS, Category 3
Date of Declassification Indefinite
~~10-15-75~~

(1 to Paris Legat 8-21-52 EFL)

(6)(1)

JAC:CFJ
Enclosure

RECORDED - 56
INDEXED - 56

165-58805-1530

AUG 7 1952

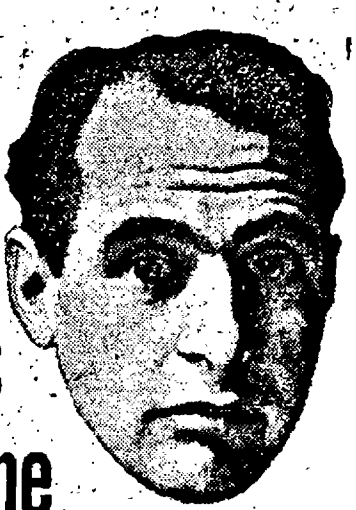
EX-120

SECRET

4 A

He made a habit of walking into wars, says JAMES DOW

Famous, but £3 11s. was year's income



Alan Moorehead

YOUNG Alan Moorehead, of Melbourne, was born with an itch under his heels. By the time he was 25 he had accumulated £500 as a reporter son of a newspaperman. Enough, he reckoned, to set him on his way to see all the wonders of the Old World.

He reached Europe just as Spain was smouldering into civil war, and since then the wonders, such as they have been in these last 16 years, have never ceased to keep him on the move.

Alan Moorehead, whose latest and fascinating book about the atom spies, "The Traitors," is out to-morrow, belongs naturally to the new breed of world-wide roving reporters who take Timbuctoo or Tasmania in their stride from one plane to the next.

There's always a way

"IF you want badly enough to see anything anywhere," Moorehead says, "you can always find a way there."

The young newspaperman in 1936 Melbourne felt that too much was happening too far over the horizon. He arrived in Spain almost non-stop via London, without a job or assignment, with a certain ruthless charm, and his £500 fast dwindling.

Turned out of Pamplona as a suspected spy, he had the break that always seems lucky except that it usually happens to the man who goes looking for it.

He reached Gibraltar as the pocket battleship Deutschsland, bombed by Spanish Republicans, limped into harbour deck-laden with Swastika-wrapped coffins.

SUNDAY CHRONICLE
LONDON, JULY 20, 1952

RE: FOOCASE

OFFICE OF THE LEGAL ATTACHE
AMERICAN EMBASSY
LONDON, ENGLAND

ENCLOSURE

65-58805-1580

The battles followed him

MOOREHEAD'S story got him a job. He graduated to foreign correspondent in Rome, but had to move again—to Cairo, fast, as war followed him there.

The raw but keen Australian settled into the fantastic scramble and confusion of the desert campaigns with a pioneer's relish. He was quickly recognised as one of the brilliant war correspondents of our time.

Out of the desert came his widely-read "African Trilogy" books and transatlantic fame.

In the post-war years Moorehead continued his roving and reporting. He took a year off to be public relations man at the Ministry of Defence, and then his restless curiosity was caught up with the Fuchs, Pontecorvo and other atom spy cases.

The big why? of this new-style of treason engrossed him for a year.

Out of that year has now come the story, currently appearing in the *Sunday Times*, which is so revealing an exposure of M.I.5 methods as well as of the men themselves that Mr. Churchill had to defend him in the House of Commons.

"How was Moorehead able to reveal such things?" M.P.s wanted to know.

The author, however, had had official sanction for his truth-seeking.

In Arabic

DESCRIBING full circle, Moorehead has now gone off again, at 42, a trim, slight figure, dark and jaunty, who has never lost his "outback" wonder and uninhibited interest in what he sees, to turn his bright blue eyes on to his own country.

Reportage books, with a particular topical value, don't, in any case, give an author an income for idleness.

Big success as "The Traitors" has already assured for itself, its earnings come largely in one year and suffer one year's heavy taxing. During the year it took to prepare and write, the Moorehead income was precisely £3 11s.

And, for all that journeying, he has still contrived to establish a fine home, wife and three children, at Regent's Park. The wives of these men, come to think of it, may be the ones to wonder at.

Mrs. Moorehead recently had to present her wedding certificate and her son's birth certificate at a food office. One was written in Italian and the other in Arabic—testimony to strange temporary homes in strange lands.

Mussolini stayed out of the war long enough for her to contact and marry her fiance in Rome in 1940.

It took all her persistence to arrange a subsequent wartime journey as a civilian to join him in Cairo, and then there was the time she hitch-hiked to New York only to find him with fresh orders to double back for the Tunisian landings.

Where next? Mrs. Moorehead looks wryly at the many-labelled suitcases and trunks. If you want badly enough to see anything anywhere, even a husband, you'll always find a way.

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : D. M. Ladd

~~SECRET~~

DATE: August 20, 1952

FROM : A. H. Belmont

SUBJECT: "THE TRAITORS"
BOOK BY ALAN MOOREHEAD,
BRITISH AUTHOR
ESPIONAGE - R
FOREIGN CASE

Classified by 3042 Dat-Dic
Declassify on: OADR
3/5/87

Classified By 2355 WAB/DVN
Exempt from GDS, Category 3
Date of Declassification Indefinite
10-15-75

PURPOSE:

[redacted]

~~SECRET~~ S (b)(1)

BACKGROUND:

You will recall that by memorandum from Mr. Belmont to Mr. Ladd dated 6-2-52, you were advised that an advanced copy of captioned book had been confidentially furnished by the Legal Attache, London, and had been reviewed at the Bureau and was found to contain no critical statements about the FBI.

[redacted]

~~SECRET~~ S (b)(1)

The Legal Attache enclosed a newspaper clipping from the Sunday Chronicle, London, 7-20-52, which contained a write-up concerning the background of Moorehead and announced that his new book "The Traitors" would be out the following day (7-21-52). The article was favorable concerning Moorehead and stated that "The Traitors" would be assured of big success.

RECOMMENDATION:

RECORDED-140 65-58805-1531
INDEXED-140
SEP 4 1952

None. The above is for your information.

6 SEP 12 1952

~~51 SEP 10 1952~~

EFL:rel

EX-25

~~SECRET~~

SEP 10

EC

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (65-58805)

SECRET

DATE: October 2, 1952

FROM : SAC, Boston (65-3319)

SUBJECT: FOOCASE
ESPIONAGE - R

Re letter of SA LISH WHITSON, dated 2/20/50

Referenced letter sets forth [redacted] as a matter of possible interest to the Bureau. (S) (b)(1)

The Boston Office is presently maintaining copies of the photostats described in the letter of SA WHITSON.

A review of this material which is presently maintained as a bulky exhibit in the Boston Office inthe FOOCASE file indicates that its retention by Boston serves no purpose. The Bureau is requested to advise Boston whether retention of this material as described in SA WHITSON's letter of 2/20/50 is desirable for reasons not presently known to the Boston Office.

RWD:MIW

Classified by 2355 WABDUN
Exempt from GDS, Category 2, 3
Date of Declassification Indefinite
~~10-15-72~~

COPIES DESTROYED
A 272 NOV 16 1953

65-58805-1532

RECORDED - 67

OCT 7 1952

EX-103

SECRET

SAC, Boston (65-3919) SECRET October 22, 1952

RECORDED-113

Director, FBI (65-58805)-1532

FOOCASE
ESPIONAGE EX-153

Reference is made to Boston letter dated October 8, 1952, inquiring whether there existed any reason why Boston should retain Photostats of various items obtained from the residence of Klaus Fuchs at Harwell, England, which were made available by letter dated February 20, 1950, from Special Agent Lish Whitson, in London, England.

All offices receiving copies of this letter were furnished copies of this material by Bureau letter dated March 30, 1950.

For your information, copies of this material are retained in the Bureau file on this case and it will not be necessary that the same material be retained in the field.

CC - 2 - New York (65-15136)
2 - Washington Field
2 - Philadelphia

EJVL:mcm

DECLASSIFIED BY 3042 Put-DJC
ON 3/5/87

Classified by 2355 WAB/DVN
Exempt from GDS, Category 2, 3
Date of Declassification Indefinite
(10-15-75)

RECEIVED FBI

COMM - FBI
OCT 23 1952
MAILED 28

F B I

74 OCT 28 1952

SECRET

SECRET

cc - Mr. Ladd
Mr. Belmont

[redacted] S (b)(1)

December 4, 1952

JOSEF ROTBLAT;
MRS. WILLIAM M. DOPST, nee
Elsbeth Grant

FOO CASE

Classified by 3042 Quit-DTC
Declassify on: OADR
3/11/87 9529

Reference is made to your [redacted] S (b)(1)

The information set forth in our memorandum 9140 dated April 22, 1952, was obtained from another governmental agency, as reflected therein. Accordingly, we neither have a copy of the letter in which you are interested nor are we able to assess the informant who made the information available in the first instance.

We have again reviewed our files concerning Rotblat and it appears that during an interview in another matter with Mr. James L. Tuck, "T" Division, Los Alamos Scientific Laboratory, he advised that during World War II he had been a member of the British Mission at Los Alamos and that he had known James Hughes and Josef Rotblat, who prior to coming to Los Alamos, [redacted] (b)(1) He said he had no reason to believe that Hughes was not loyal to the British Government. He stated that Rotblat was a Polish citizen but that he had never had any reason to believe that Rotblat was sympathetic toward Communism. He recalled that in about 1946 he had met Rotblat at a scientific meeting in London and at that time Rotblat advised he was thinking about going back to Poland. Tuck said that he commented that the Communists probably would give him a hard time to which Rotblat replied that "it couldn't be worse than here."

(105-16586-7)

We have no additional information of a derogatory nature concerning Rotblat.

cc - 2 - Legal Attache
London, England

cc - 1 - Foreign Service Desk

cc - 65-58805

Airtel 12-5-52

SECRET AIR COURIER

RECORDED - 70 65-58805-1533
INDEXED
109 DEC 12 1952

EJVL:amb

Classified by 2355 (DVA)
Exempt from GDS, Category 2, 3
Date of Declassification Indefinite
10-15-75

EX-108

SECRET

FREDERICK J. SCHLINK • • • R. D. 1, Washington, N. J.

November 20, 1952

Dear Mr. Hoover:

Your people are no doubt familiar with the three-part article which appeared in the Saturday Evening Post's issues of May 24, 31, and June 7, 1952, about the Fuchs case. In that story there appeared a number of references to a Professor Rudolf Peierls, of Birmingham University, who, it was explained, had befriended Fuchs - first writing Fuchs offering him work when "Peierls was working secretly on the atomic bomb, and he needed an assistant" - and even had Fuchs in his home for a time as a guest.

I think it might be worth your while to bring the attention of Scotland Yard's special branch which deals with atomic espionage, to the fact that Dr. Peierls, who is himself a German refugee, should be kept under close supervision - partly because of his close association with Fuchs, and second, because of Peierls' evident association with left-wingers in writing for publications called the Pelican Books, which in turn are published by Penguin Books.

One of these books, "Atomic Energy," which I have seen, is edited by J. L. Crammer and R. E. Peierls, C.B.E., F.R.S.; the editorial note is signed by J.L.C. and R.E.P.; "published in May 1950, and reprinted in December 1950, is a revised and expanded version of Science News 2 (February 1947)". Incidentally, these Pelican Books are sold at Communist book shops - and rightly so, for they are either written by left-wingers or play a left-wing line in the text. I do not believe that they ever select authors casually or without respect to their political orientation. Hans Bethe and Philip Morrison are among the authors in the book I refer to. Both of these men, now at Cornell, are noted for their left-wing tendencies and both were important in atomic energy development. Anyone who knows the leading fellow travelers in British science could tell at a glance from the list of authors how the Pelican and Penguin Books stack up in that respect. I myself know by name only a few of the British left scientific men.

I doubt if there's anything in the Peierls' articles themselves (2 articles in the book "Atomic Energy") which is open to specific objection. It's the company he keeps and the publication he writes for which would seem to be the more questionable. A refugee scientist, if he were a careful and responsible person, would tend perhaps more than a native Englishman to avoid the appearances of evil association.

I read the Peierls articles two or three years ago, but did not know until I saw his name in the Saturday Evening Post's series of articles that he had any relationship to Fuchs, or had any particularly high position in British atomic-energy research.

These books sell for a shilling or so, and I believe because of their interesting subject matter and their low price, they not only enjoy large sales (hundreds of thousands) in England and the colonies, but also in this country.

Very truly yours,

F. J. Schlink

Mr. J. Edgar Hoover, Director
Federal Bureau of Investigation
Department of Justice
Washington, D. C.

RECORDED - 32
165-58805-1538
NOV 24 1952
INDEXED - 32
24

SECRET

RECORDED - 32 65-58805-1534

INDEXED - 32

CONFIDENTIAL
AIR POUCH

Date: December 3, 1952

To: Legal Attache
London, England

From: John Edgar Hoover, Director
Federal Bureau of Investigation

Subject: RUDOLPH ERNST PEIERLS

Classified by 3042 Sub-DHC-1
Declassify on: OADR
3/11/87

E.I.R.A.

There are attached copies of a communication dated November 20, 1952, received at the Bureau from Frederick J. Schlink of Washington, New Jersey, the contents of which are self-explanatory.

An examination of Bureau files indicates that information developed during Foocase concerning captioned individual was made available [redacted] on various memoranda, copies of which were designated for you. These memoranda bear the caption appearing in this communication. According to the latest available information in Bureau files, [redacted] (100-344156) SECRET (b)(1)

Inasmuch as the contents of the attachment may be of further interest to the British authorities, it is requested a copy of the enclosure be made available to the appropriate British official.

SECRET

Enclosure

cc: Foreign Service Desk

WWK:jdt

Classified by 2355 ABIDW
Exempt from GDS, Category 2
Date of Declassification Indefinite
10-15-75

SECRET

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19 DEC 8

DEC 3 1952

December 3, 1952

SECRET

Mr. Frederick J. Schlink
Rural Delivery No. 1
Washington, New Jersey

FOOCASE

Dear Mr. Schlink:

Your letter dated November 20, 1952, has been received, and your courtesy in forwarding this information is indeed appreciated.

In the event you obtain additional data which you believe to be of interest to this Bureau, you may desire to communicate directly with the Special Agent in Charge of our Newark Office located at 1836 Raymond - Commerce Building, Newark 2, New Jersey.

Sincerely yours,

Classified by 3042 Asst-DIC CADR
Declassify on: 3/6/87

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 3/6-87 BY 3042 Asst-DIC

John Edgar Hoover
Director

2 - cc Newark (with copies of incoming)

No identifiable data in Bufiles re correspondent.

Professor Rudolph Ernst Peierls has not been the subject of investigation by the Bureau but information concerning him was obtained collaterally during the Foocase investigation. A copy of correspondent's communication is being made available

[redacted] (b)(1)

WWK:jdt

RECORDED 12 65-58805-7535
INDEXED - 2

COMM - FBI
DEC 4 - 1952
MAILED 31

DEC 30 1952
VAN ROONY
McMahon

RE: Richmond (65-1559) June 10, 1953

Director, FBI (65-43824)

CAPTURED GERMAN DOCUMENTS

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE DATE 2/6/87 BY 3042 Put-DJC Per Release

Re Richmond let 5-20-53, captioned "Espionage and Internal Security Investigations," a copy of which is attached for Washington Field.

It is believed the book referred to as "Personality File of Suspected Soviet Agents" is identical with a captured German document previously obtained by the Bureau. This document is believed to have been prepared by the Germans in 1941 and amounted to a Watch List or Arrest List for use during the advance of the German armies against Russia. It contains 200 pages listing the names of persons. Page 21, in addition to containing the names of other people, contains the following: "Clo. Fuchs, Klaus, student of philosophy, December 29, 1911, Russelsheim, Rhld. Hess, Gestapo Field Office, Kiel."

The table of contents of the document in possession of the Bureau is as follows:

"TABLE OF CONTENTS

Page

"Explanations.....5

"Index of Persons.....
(white paper)

Index of Subjects
(green paper)

1. Press Index (Pre).....213

The most important central organs in Soviet

The most important regional press organs

The most important peri[illegible]

2. Index of Universities (Uni).....223

3. Index of the most important Soviet Russian abbreviations (Abk).....229

"Index of Places.....
(pink paper)

- Washington Field (attachment)

65-58805 NOT RECORDED 89 JUL 23 1953

60 JUL 30 1953

ETT:amy

COMM-FBI 245

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MAILED 27

65-43824-841

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FOO CASE

As indicated in the table of contents, the Index of Persons begins on page seven. The first five names, together with identifying data, are set forth as follows:

"1. ABBATE, Roland (alias: Francois Rossi Roland Smith), August 15, 1905 Londres, Innkeeper, GPU-Agent, RSHA IVD3a.
"2. ABELE, Andrei (alias: James Joubert), 07, RSHA IVA1, see No. 45.
"3. ABELTINSCH, Jonis, Sept. 26, 1906 Frgil, RSHA IVE5, Gestapo Field Office Vienna.
"4. ABRAHAM, Arthur, M. D., Sept. 15, 1894 New York, RSHA IVA1.
"5. ABRAHAM, Eva, born Eichelbaum, June 13, 1906 Breslau, RSHA IVA1."

The Index of Persons ends on page #11. The last five names contained thereon are as follows:

"89. ZWIEFELHOFER, Karl, Nov. 8, 1913, Vienna, Lathe Operator's Helper, Moscow, RSHA IVA1. --see Nr. 90.

"90. ZWIEFELHOFER, Leopold, Nov. 8, 1913, Vienna, Lathe Operator's Helper, Moscow, RSHA IVA1. --see Nr. 89.

"91. ZWINGENBERGER, Elisabeth Johanna, Dec. 4, 1880, Oberfrohna, Housekeeper, Voronesch, RSHA IVA1.

"92. ZWINGMANN, Adalbert, Nov. 21, 1900, Prodecek, Blacksmith, RSHA IVA1.

"93. ZWIYONAYA, Johanne, nee Gerber, July 26, 1894, Stallupoenen, RSHA IVA1."

Bureau files contain no information which can be identified with the four names contained in the referenced letter and referred to as German agents.

Inasmuch as NYO has maintained liaison with the branch of the Army processing captured German documents and has processed these documents in the past, it is believed desirable for additional contacts with Mr. Richard Bauer be made by agents of the NYO and that additional information received by Bauer from the captured German documents be submitted to the NYO in the future rather than Richmond. This will reduce the possibility of documents or information being furnished the Bureau which has already been furnished to the Bureau in the past.

WFO is therefore instructed to assign an agent familiar with the processing of the captured German documents to contact Mr. Richard Sauer and compare the book "Personality File of Suspected Soviet Agents" with the data set forth above to determine if the book is identical with the document already in the possession of the Bureau. In addition, arrangements should be made with Mr. Sauer so that the names of any German agents who were operated in the U. S. or against the U. S. such as those referred to in the referenced letter which have not already been called to the attention of the Bureau are brought to the attention of the WFO. Any data of this type should, of course, be furnished to the Bureau as in the past.

It is also desired that WFO arrange to make periodic contacts with Mr. Sauer or other employees of the military branch processing captured German documents in order that any new material received will be called to the attention of the WFO and appropriately processed.

The results of your contacts with Sauer should be furnished to the Bureau in letter form captioned as above.