

SEP 5 1951

F.V.P.

65-58805-1511

CHANGED TO

65-57449-798X

3/20/87 3042 *Just Dyc*

(Handwritten flourish)

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
FROM : SAC, BALTIMORE

DATE: 7/16/51

SUBJECT: FOCCASE
ESPIONAGE-R
(Bufile 65-58805)

MR. LEON MEDFORD, time-keeper for the American Stores Company, Hurlock, Maryland, has advised an Agent of this office that GEORGE AYERS COVENTRY, another employee of the American Stores Company, is related to EMIL KLAUS FUCHS.

MR. MEDFORD stated that it is his understanding, from information received from COVENTRY'S father, C. ARRAS COVENTRY, that GEORGE COVENTRY is a nephew of FUCHS. Concerning GEORGE A. COVENTRY, MR. MEDFORD advised that he originally lived at Philadelphia, Pennsylvania, and that he came to Hurlock, Maryland approximately 6 years ago to accept employment as Production Manager of the American Stores Company at Hurlock, Maryland. MEDFORD stated that during World War II COVENTRY made a trip to the southwestern part of the United States on a shell hunting trip for the Philadelphia Academy of Natural Sciences.

MR. MEDFORD further advised that during the time he has known GEORGE COVENTRY the latter had made no statements which would cause him to suspect COVENTRY of being un-American, and that in fact, COVENTRY in his conversation appeared to be extremely loyal to the United States. He furnished the following description of COVENTRY:

Name	GEORGE ARRAS COVENTRY
Race	White
Age	Approximately 48
Height	5'7"
Weight	175 pounds
Eyes	Unobserved
Hair	Sandy
Address	Palmers Corner near Hurlock, Dorchester County, Maryland
Former Address	Philadelphia, Pennsylvania
Marital Status	Married to the former EVELYN HARPER, Hurlock, Maryland.

RJF/JE
65-1708
cc: New York Office

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/19/87 BY 2042/...

RECORDED - 51

INDEXED - 51

EX-88

65-58805-1512

COPIES DESTROYED
R 572 NOV 26 1963

cc: NY
EX-118-3-51

WJF

802 V...

L/DIRECTOR, FBI
65-1708

MR. MEDFORD stated that COVENTRY'S employment record is not maintained at Hurlock, Maryland, but could be located at the Personnel Office of the American Stores Company, 424 North 195th Street, Philadelphia, Pennsylvania.

The indices of the Baltimore Office contained no references pertaining to GEORGE AYERS COVENTRY, and the above is being furnished for the information of the Bureau and the New York Office.

SERVICE UNIT
SEARCH SLIP

4-22a

Supervisor Vandrom Room 1738

Subj: George Arras County

Exact Spelling
 All References
 Subversive Ref.
 Main File

Searchers
Initial L.P.
Date 7-30

Restricted to Locality of _____

FILE NUMBER

SERIALS

I 65-58805-15/2 Instant
Geo A mail

I 65-58805-15/2
George

NI 65-15603-9 ^{N.J 5/11}
SOURCE

NSP/00-148415-9,12,16,

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

DATE 3/5/87 BY 3042 put-me

Initialed

hr

SAC, Baltimore

August 3, 1951

Director, FBI

FOOCASE
ESPIONAGE - R

Re Baltimore letter dated July 16, 1951, reporting that Mr. Leon Medford, time-keeper for the American Stores Company, Hurlock, Maryland, believed that another employee of the American Stores Company, George Ayers Coventry, was related to Klaus Fuchs, possibly a nephew of Fuchs.

Bufiles fail to reflect any information identifiable with Coventry.

Baltimore is requested to interview Coventry to determine whether he is related to or knows Klaus Fuchs. In the event he has any information concerning Fuchs' activities or background, all details should be obtained.

RECORDED - 83 65-58805 - 1512-11

cc: New York

EX-45

EJVL:mpm *[signature]*

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/86 BY 3042 pmt-DTC

RECEIVED
FBI
U.S. DEPT. OF JUSTICE
AUG 4 11 53 AM '51

[Handwritten initials]
[Handwritten initials]

62 AUG 11 1951

MAILED 15
AUG 7 1951
COMM - FBI

AUG 15 02 04 PM '51

XXXXXX
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FEDERAL BUREAU OF INVESTIGATION
FOIPA DELETED PAGE INFORMATION SHEET

_____ Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- Deleted under exemption(s) _____ with no segregable material available for release to you.
- Information pertained only to a third party with no reference to you or the subject of your request.
- Information pertained only to a third party. Your name is listed in the title only.
- Documents originated with another Government agency(ies). These documents were referred to that agency(ies) for review and direct response to you.

_____ Pages contain information furnished by another Government agency(ies). You will be advised by the FBI as to the releasability of this information following our consultation with the other agency(ies).

1 Page(s) withheld for the following reason(s):
Disposition of document in Gold
65-57449-803

For your information: _____

The following number is to be used for reference regarding these pages:
65-57449-NR dated 8/8/51

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XXXXXX

XXXXXXXXXXXXXXXXXXXXX
X DELETED PAGE(S) X
X NO DUPLICATION FEE X
X FOR THIS PAGE X
XXXXXXXXXXXXXXXXXXXXX

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: August 21, 1951

72 FROM : SAC, BALTIMORE

SUBJECT: FOOCASE
ESPIONAGE - R
(Bufile 65-58805)

714

Rebulet August 3, 1951.

GEORGE AYRES COVENTRY was interviewed at Hurlock, Maryland, on August 20, 1951, at which time he advised that to his knowledge he is no relation to EMIL KLAUS FUCHS. His only knowledge of FUCHS has come to him through recent articles appearing in newspapers.

Mr. COVENTRY advised he was born on August 2, 1905, at Philadelphia, Pennsylvania. He attended elementary and high schools in and near Philadelphia and also attended the University of Illinois. His mother's maiden name was HATTIE HUSTER, who was born in the United States, but whose parents emigrated from Frederickshoff, Germany.

Mr. COVENTRY stated he was formerly associated with the Academy of Natural Sciences in Philadelphia and had engaged in expeditions during 1941 and 1942 to the Yadkin River Valley in North Carolina, as well as others in Georgia and Tennessee, to collect various species of fish and crustacean life.

The following is a description of Mr. COVENTRY as obtained through observation and interview:

Name	GEORGE AYRES COVENTRY
Race	White
Age	46, born 8/2/05, Phila., Pa.
Height	5'8"
Weight	190 lbs.
Build	Heavy
Complexion	Ruddy, freckled
Eyes	Brown, horn rimmed glasses

JMM:RAR

65-1708

CC: NYC (65-15136)

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/87 BY 3042 put DTC

RECORDED - 121

INDEXED - 121

65-58805-1513
AUG 29 1951
19
JONE
Van Horn

56 AUG 28 1951

COPIES DESTROYED
R 872 NOV 10 1960

Re: FOOCASE
ESPIONAGE - R
(Bufile 65-58805)

Hair
Teeth
Education
Occupation
Residence
Marital Status

Sandy and sparse
Stained, appear bad
University of Illinois,
Masters Degree - Chemistry
Chemist - American Stores Co.,
Hurlock, Md.
P. O. Box 246, Ennals Wharf,
Dorchester Co., Md.
Married, ~~EVELYN HARPER~~ COVENTRY

-REFER UPON COMPLETION TO
THE OFFICE OF ORIGIN-

Handwritten notes at top left, possibly "mail" or "file".

FROM

DO-7

OFFICE OF DIRECTOR, FEDERAL BUREAU OF INVESTIGATION

TO
OFFICIAL INDICATED BELOW BY CHECK MARK

- Mr. Tolson
- Mr. Clegg
- Mr. Glavin
- Mr. Ladd
- Mr. Nichols
- Mr. Rosen
- Mr. Tracy
- Mr. Harbo
- Mr. Alden
- Mr. Belmont
- Mr. Laughlin
- Mr. Mohr
- Mr. Nease
- Miss Gandy

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/82 BY 3042 put BK

Handwritten "site" note.

Handwritten "95" note.

- See Me
- Note and Return
- For Your Recommendation
- What are the facts
- Remarks: _____

ENCLOSURE ATTACHED
Handwritten "Newspaper" note.

RECORDED - 73
INDEXED - 73

165-58805-1515
SEP 15 1961

EX-15
EX-15

Handwritten signatures and initials.

9700 Case

76 SEP 25 1961

7204

HOW THE RUSSIANS GOT WORLD'S BIGGEST SECRET

Atomic Spy Ring in U. S., Canada and Britain Operated From the Start

The spy ring that ended here last week disclosed the dramatic story of how Soviet spies stole the secret of the atom bomb in little more than two years. The whole story has not yet been revealed by the F. B. I., which is on the trail of still more members of the ring. But enough has come out to show for the first time the technique of one of the most successful operations in cloak-and-dagger history.

By IRA HENRY FREEMAN

The principal atom spies exposed so far are these:

Klaus Fuchs, British citizen, 41 years old, thin, mellow, bespectacled, German-born physicist and refugee from Hitler in England.

Harry Gold, American citizen, 33, a Philadelphia biochemist born in England.

Julius Rosenberg, American citizen, 32, slight, unassuming-looking New York electrical engineer.

David Greenglass, American citizen, 29, beefy, young, machinist son of immigrants on New York's lower east side.

Anatoli A. Yakovlev, Russian citizen, Soviet Vice Consul in New York from 1941 to 1946, a shadowy figure wanted by Federal authorities, now believed to be in the Soviet Union.

Fuchs Arrives

The story really begins when Fuchs came to the United States in June, 1944 as one of the British atomic scientists to assist in the search for an atom bomb. He had detailed instructions on how to contact the spy ring in America. One evening on a drab street in Woodside, Queens, he met Gold and they identified each other by innocent-sounding sentences that served as "recognition signals." Neither man knew the other by sight or name. Fuchs promised to give Gold information about the "application of nuclear fission to the production of a military weapon."

This weapon, of course, was the atomic bomb, production of which was started early in 1943 by the United States with the cooperation of Britain and Canada. The Soviet Union, the other major ally in the war against Hitler, was excluded from the secret, but determined to share it.

A week later, Gold met Yakovlev, whom he knew only as "John," on a Manhattan street and exchanged newspapers with him. Fuchs inside the newspaper the "Soviet agent and weapon" written report of Gold's conversation with Fuchs. Still the Kremlin probably had already scented the atom bomb project. Fuchs, for one, a Communist since adolescence, had been tipping the Russians ever since he began doing atomic research at Birmingham University in 1942.

Central Park Rendezvous

Again at twilight in mid-July, 1944, Fuchs met Gold on Central Park West at Ninety-sixth Street, to tell him he was working in a laboratory on Church Street on a "joint British-American project aimed at producing an atom bomb." And again, Gold gave Yakovlev a written report by means of the old newspaper switch. Thus the Russians learned of the Manhattan Project, our

him, a faith that they were serving a higher loyalty than patriotism. At this time, Gold was the chief courier, carrying stolen data from scientists inside the atom plants to Yakovlev, who sent it on to Moscow. Gold, who had been spying for the Russians for ten years, had recently succeeded to the "route" dropped by Elizabeth Bentley, who later was to denounce Alger Hiss, William Remington, and many others as part of her "apparatus."

Gold took over a "number" of Bentley's thirty "contacts." He often had to travel to other cities to pick up data from his "contacts" and give them, give instructions from Yakovlev. Sometimes he handed the spear a few hundred dollars of a cash gift from Yakovlev, a "thank you" for his close contact to the plot but not enough to be the major consideration.

News of a "Loss"

In January, 1945, Gold met Fuchs on a street in Cambridge, Mass. Fuchs said he was now working at a large experimental station "called Los Alamos, N. M." and mentioned a "ign" that was a vital part of the atom bomb. When Gold repeated this to Yakovlev one night early in February at Ninth Avenue and Twenty-third Street, the Russian became very agitated and pressed Gold to "scour his memory clean for any scrap about this ign."

Unknown to Gold, what was exciting the chief was that he had just received from another member of the ring sketches of these lenses, which were high explosives to focus detonation waves and cause an "implosion" of the atom bomb.

That other source was Rosenberg, a kind of major dome for Yakovlev in charge of another circle of scientific spies since 1944. Rosenberg was married to David Greenglass's older sister, Ethel, and all were party comrades for years. Now David was an Army technical sergeant assigned as a machinist to the major atom bomb plant at Los Alamos.

Dinner With the Rosenbergs

One night in November, 1944, Greenglass's wife, Ruth, was invited to dinner at the Rosenbergs' apartment in Knickerbocker Village. Ethel Rosenberg told her "Julius has finally gotten to a point where he is doing what he wanted to do—give information to the Soviet Union." Then Julius calmly told Ruth that her husband was working on an atom bomb and that they wanted him to "give that information to the Russians."

Ruth repeated this plea when she visited David a little later at Los Alamos. The sergeant was amazed at the news. At first, he was "frightened and worried" and refused to spy. But later that night, he "thought about it and the following morning" told his wife "he would give the information." The young couple assumed then the risk of death for treason.

David kept his word on a furlough in New York in January, 1945. Rosenberg called upon Greenglass at his apartment for "anything of value on the atomic bomb." As a



CHIEF AGENT: Anatoli Yakovlev, a Russian citizen, supervised operations and sent the data to Moscow.



COORDINATOR: Julius Rosenberg recruited spies and advised the spy information was supplied

hideaway on Long Island. Then, six months before the first atom bomb was dropped in a test at Alamogordo in the New Mexican desert, the Russians knew how it worked.

Although Greenglass was only a sergeant and a machinist, he was in a good spot to pick up information on the bomb. He was free to wander "all over the tech area." He worked "directly on apparatus that went into the bomb." When "white badge," or top scientists, whose very names were never mentioned, "talked about their activities," Greenglass would "listen very avidly," often questioning them "without their knowing it." He and Fuchs knew nothing of each other, although they were both spying for the Soviet at Los Alamos at the same time.

In May, 1945, Gold sat huddled with Yakovlev at a table in a cafe at Forty-second Street and Third Avenue. Yakovlev ordered him to New Mexico by a "devious route" to pick up packets of atomic data from Fuchs in Santa Fe and from Greenglass in Albuquerque. Since Gold had never met Greenglass, he was to identify himself by a piece of a cardboard box-top cut in an odd shape. Rosenberg had already given Ruth Greenglass the matching piece to carry to her husband.

Gold followed orders. The papers from Fuchs he put into an envelope marked "Doctor." After matching box-tops with Greenglass and giving him \$500 from Yakovlev, Gold

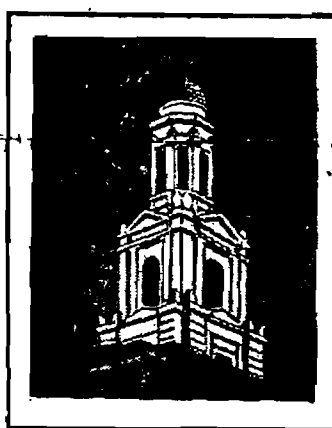
placed the sergeant's data in envelopes marked "Other." The envelopes he handed to Yakovlev on Metropolitan Avenue, Brooklyn, when he returned to New York. Yakovlev immediately "checked" the information and "very satisfied."

While on a later furlough in New York in September, 1944, only a month after Nagasaki, Greenglass gave Rosenberg a detailed, accurate description and diagrams that improved bomb. Rosenberg cried, "Oh this is very good!" and set his wife to type it all out on a bridge table in their living room. Julius incidentally mentioned he had swiped the proximity fuze while he was doing military work at Emerson Radio Company. He just stuck it in his briefcase with his lunch and walked out. Then he gave it to the Russians.

Spying Continued

The F. B. I. has rung down security curtain on most of the atom spies' activity after that. It kept to say that they went spying. And the F. B. I., South Yard in England, and the Canadian authorities went on counter-spying.

The first break for the detective came in Ottawa, and that was expected. On Sept. 5, 1945, an obscure code clerk named Gouzenko fled the Soviet Embassy there and sought sanctuary with the Canadian Government. He thoughtfully brought with him a host's arsenal of assorted papers, hastily matched from the files



AFF

Hartford, Conn.

FINANCIAL CONDITIO

PRINCIPALS IN THE RUSSIAN ATOMIC SPY RING



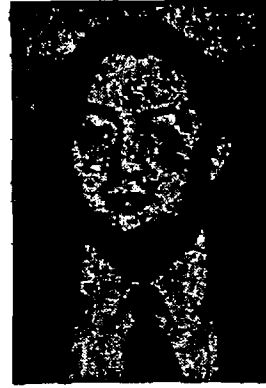
ACCOMPLICE: Mrs. Ethel Rosenberg aided her husband in recruiting and typing up the data collected.



SOURCE: Klaus Fuchs turned over material on basic atomic research and on the bomb's design.



SOURCE: David Greenglass contributed information on the intricate techniques of A-bomb manufacture.



COURIER: Morton Sobell collected data from the spy ring's various sources and submitted it to Yakovlev.

These contained more than one lead to a ring of atomic spies in Canada.

A few months later, the authorities seized five Canadian Communists, including Fred Rose, M. P. Government Agent, members of the Communist Party who were recently recruited in Russia.

Communist's purloined papers also implicated Dr. Alan Nunn May, prominent British atom specialist. He was convicted in England of sending the Canadian spies samples of uranium and was sent to prison for ten years. In a notebook among the papers the name "Fuchs" was scribbled, but that clue did not bear fruit for four years.

Again the counter-spying is valued for years. Then, without warning, Dr. Fuchs was seized in February, 1950, at Harwell, England, where he had been chief of the theoretical division of the Atomic Energy Project since 1946. He resisted interrogation for a month, then signed a confession, which has not yet been entirely disclosed, that sent him to prison for fourteen years.

The F. B. I. questioned him as to his courier in America. Fuchs had no name or address, of course; he could only describe a short, stocky man, about 40, a biological chemist, apparently of Russian extraction. In this country, the Federal Bureau patiently investigated 1,200 men who answered the description, allowing for errors by Fuchs. Gold, already under suspicion as a Communist since 1947, fitted best.

Fuchs identified his photograph in London.

Meanwhile, the spy ring here understood the purport of Fuchs' arrest. Rosenberg warned the Greenglasses that Gold would be sent to the Soviet Union; he would cover for them the while that Greenglass, now Rosenberg's partner in a machine-shop, would be apprehended, between June 13 and 14. Rosenberg related to his hand the Russians' plans for evacuating them all by means of forged passports along a "underground railway" to Mexico, Sweden, Switzerland, and finally Czechoslovakia.

Gold was seized at home in May. His family and neighbors were amazed that the quiet, obscure, hospital chemist should be such a dangerous character. Giving \$5,000 to Greenglass for expenses, Rosenberg pressed him to flee at once with Ruth and their two small children. Gold confessed after eight days grilling. Greenglass also gave up and confessed.

From these two state's wit-

nesses, the F. B. I. got a line on the Rosenbergs, Morton Sobell, an electronics engineer who was a former member of the ring, and others whose identities have not been divulged.

The Rosenbergs, Fred and Ethel, were grabbed among their suitcases at home in June, 1950. Sobell, with his family, did reach Mexico, but was deported back into Federal hands in Texas. He and the Rosenbergs were convicted last week and face a possible death sentence.

The F. B. I. has hinted that more atom spies will be arrested. So far, twelve Americans have been arrested, three of them convicted; two more have pleaded

guilty; two others have been convicted of conspiring to tell false stories about espionage activities to grand juries. Six Canadians, and the two British spies are in jail. Yakovlev, also indicted here, had the foresight to go home on short notice when he was taken. His place is not known.

Anyway, broken or not, the Soviet spy ring has already done its work. From Fuchs it learned all the theory of the atomic project, from Greenglass (and others) the mechanical knowledge to apply the knowledge. In some scientific circles there is speculation that Russia—on the basis of what her spies had learned—should have been able to make a bomb considerably before September, 1949.

ADVERTISEMENT
UNITARIANISM

A series of four weekly lectures on Unitarianism, its principles, history and future will begin on Monday, April 2, 8:30 P. M., in Fellowship Hall, 50th Street and Lexington Ave., New York, and continue on April 9, 16 and 22. Mr. Lawrence S. Meacham, Minister of the Unitarian Church of All Souls, New York, will speak. All are invited. Admission free.

51-51-50885-59
2025 12/5/51
GILBERT WILSON ST. MITHGH
GSHVLAHOD HOLLVROGEMI TIV

Condensed Statements

ÆTNA LIFE

RELATED COMPANIES

FILED WITH THE STATE OF NEW YORK

President Morgan B. Brainard, President

AS OF DECEMBER 31, 1950

ÆTNA LIFE INSURANCE COMPANY

Why Industries Should Come To Oklahoma ... NOW!

Johnston Murray

GOVERNOR OF OKLAHOMA

"In recent years the state of Oklahoma has shown a remarkable industrial growth. This has been due to three things: first, recognition by manufacturers that our state has a type of labor unusually efficient in factory work; second, the favorable 'climate' provided industry by state and local governments; and

atomic scientists to assist in the search for an atom bomb. He had detailed instructions on how to contact the spy ring in America. One evening on a drab street in Woodside, Queens, he met Gold and they identified each other by innocuous-sounding sentences that served as "recognition signals." Neither man knew the other by sight or name. Fuchs promised to give Gold information about the "application of nuclear fission to the production of a military weapon."

This weapon, of course, was the atomic bomb, production of which was started early in 1943 by the United States with the cooperation of Britain and Canada. The Soviet Union, the other major ally in the war against Hitler, was excluded from the secret, but determined to share it.

A week later, Gold met Yakovlev, whom he knew only as "John," in a Manhattan street and exchanged newspapers with him. Fuchs told the spy ring that he had already started the atom bomb project. Fuchs, for one, a Communist since 1930, had been tipping the Russians ever since he began doing atomic research at Birmingham University in 1942.

Central Park Headquarters

Again at twilight in mid-July, 1944, Fuchs met Gold on Central Park West at Ninety-sixth Street, to tell him he was working in a laboratory on Church Street on a "joint British-American project aimed at producing an atom bomb." And again, Gold gave Yakovlev a written report by means of the old newspaper switch. Thus the Russians learned of the Manhattan Project, our code name for the overall work on the atom bomb.

The Soviet spy ring intensified efforts to crack the most closely guarded secret of World War II. Yakovlev was in charge of the work. Not all the actual spies were not Russians, but American citizens, communists, committing espionage out of a kind of "ideal-

ism about this lens." Unknown to Gold, what was exciting the chief was that he had just received from another member of the ring sketches of these lenses, which were high explosives to focus detonation waves and cause an "implosion" of the atom bomb.

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Ruth repeated this plan when she visited David a little later at Los Alamos. The sergeant was seated at the table. At first, he was "frightened and worried" and refused to spy. But later that night, he "thought about it and the following morning" told his wife "he would give the information." The young couple assumed then the risk of death for treason.

David kept his word on a flight in New York in January, 1945. Rosenberg called upon Greenglass at his apartment for "anything of value on the atom bomb." As a machinist, Greenglass was making molds for the detonation lenses, which he sketched for Rosenberg in words and diagrams.

In an appointed spot in an alcove of a movie theatre, Rosenberg left a coded request for a meeting with his Russian friends. He delivered the goods to them at a

meeting with Yakovlev at a table in a cafe at Forty-second Street and Third Avenue. Yakovlev ordered him to New Mexico by a "devious route" to pick up packets of atomic data from Fuchs in Santa Fe and from Greenglass in Albuquerque. Since Gold had never met Greenglass, he was to identify himself by a piece of a cardboard box-top cut in an odd shape. Rosenberg had already given Ruth Greenglass the matching piece to carry to her husband.

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Why Industry Should Come To Oklahoma NOW

Johnston Murray

GOVERNOR OF OKLAHOMA

"In recent years the state of Oklahoma has shown a remarkable industrial growth. This has been due to three things: first, by manufacturers that our labor unusually efficient; second, the favorable climate of the industry by state and local government; third, our advantageous central location. I feel the needs of the nation. I feel the needs of production and defense projects to emphasize these factors favorable for plant location."

FACTUAL EVIDENCE

Increase in Manufacturing Payrolls - Oklahoma 34%
National Average 20%
Per Capita Income 1940-49
Oklahoma 200% Increase

51-51-99885-59
HERBERT H. MURRAY
CHIEF OF BUREAU OF FINANCE
GENERAL INVESTMENT ADVISOR

Condensed Statements

ÆTNA LIFE

AFFILIATED COMPANIES

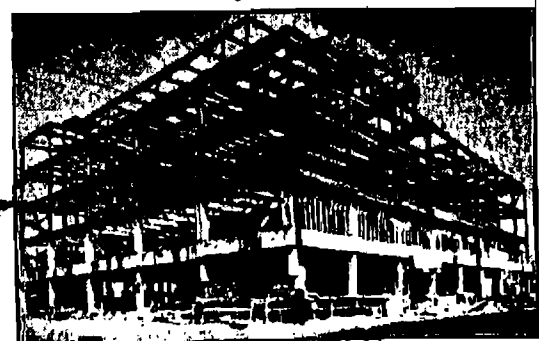
AFFILED WITH THE STATE OF NEW YORK

Hartford, Connecticut Morgan B. Brainard, President

FINANCIAL CONDITION AS OF DECEMBER 31, 1950

<p style="text-align: center;">ÆTNA LIFE INSURANCE COMPANY</p> <p>The premium income was \$316,948,847, an increase for the year of \$49,935,780.</p> <p>Total insurance in force at the end of the year was \$9,374,382,303, an increase of \$1,187,529,505.</p> <p>Assets were \$1,812,314,530, an increase for the year of \$169,539,975.</p>	<p style="text-align: center;">ÆTNA LIFE INSURANCE COMPANY</p> <p>Assets \$1,812,314,530.02</p> <p>Liabilities 1,665,299,924.50</p> <p>Contingency reserve \$58,600,384.91</p> <p>Capital 20,000,000.00</p> <p>Surplus 68,414,221.01</p> <p style="text-align: right;">\$ 147,014,605.92</p>
<p style="text-align: center;">THE ÆTNA CASUALTY AND SURETY COMPANY</p> <p>The premium income was \$90,526,044, an increase of \$3,807,012.</p> <p>Assets were \$176,817,670, an increase of \$12,480,174.</p>	<p style="text-align: center;">THE ÆTNA CASUALTY AND SURETY COMPANY</p> <p>Assets \$ 176,817,670.01</p> <p>Liabilities 123,917,832.86</p> <p>Contingency reserve \$11,462,362.60</p> <p>Capital 6,000,000.00</p> <p>Surplus 35,437,474.55</p> <p style="text-align: right;">\$ 52,899,837.15</p>
<p style="text-align: center;">THE AUTOMOBILE INSURANCE COMPANY</p> <p>The premium income was \$44,540,179, an increase of \$2,211,150.</p> <p>Assets increased \$11,576,242 to</p>	<p style="text-align: center;">THE AUTOMOBILE INSURANCE COMPANY</p> <p>Assets \$ 80,842,464.13</p> <p>Liabilities 54,216,430.31</p> <p>Contingency reserve \$ 3,527,966.27</p> <p>Capital 5,000,000.00</p>

Planning to BUILD?



George and Utility Building for P. Salsbery & Sons, Newark, N. J.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. J. E. Hoover, Director
F.B.I. - Translation Section
FROM : Mr. S. A. Andretta - Administrative Assistant Attorney General
Correspondence Section
SUBJECT: *Klaus Fuchs*

DATE: September 27, 1951

Mr. Tolson	
Mr. Ladd	
Mr. Clegg	
Mr. Glavin	
Mr. Nichols	
Mr. Rosen	
Mr. Tracy	
Mr. Egan	
Mr. Alden	
Mr. Belmont	
Mr. Laughlin	
Mr. Harbo	
Tele. Room	
Mr. Nease	
Miss Gandy	

A translation of the attached letter of September 15, 1951, from

Paul Michaloki
48 Park Avenue
St. Gillis
Brussels, Belgium

See outgoing letter of 10/19/51

will be greatly appreciated. RECORDED - 71

65-58805-1516

SEP 28 1951

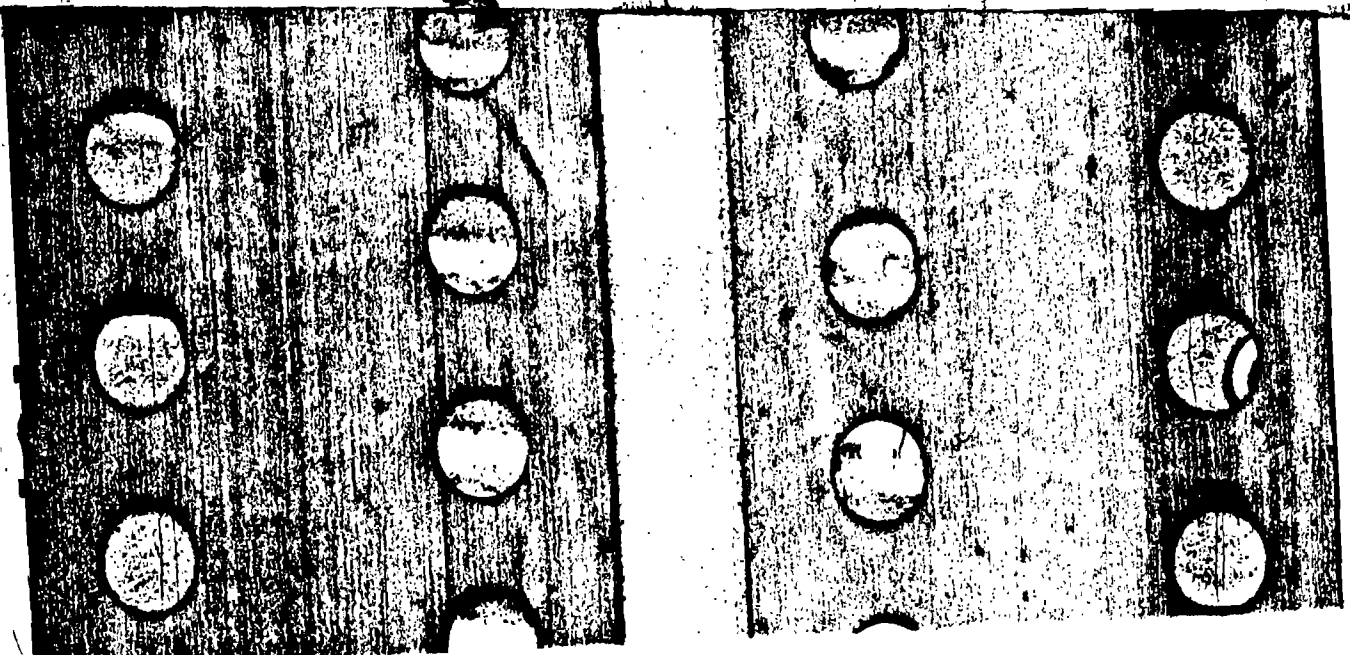
EX-68

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/20/87 BY 3042
per release

*Aut-Edt-15
DRC: 78*

5-997

EX-68
RECORDS PROCESSING
SEP 28 1951



RECORDED
INDEXED

65-58805-1516

Mr. S. A. Andretta - Administrative Assistant
Attorney General (Correspondence Section - Room 6112)
Director, FBI

October 4, 1951

PAUL MICHALSKI
18 PARK AVENUE
St. GILLIS
BRUSSELS, BELGIUM

(see MICHALSKI)

Attached is the translation which you requested by
letter dated September 27, 1951.

The foreign language material is being returned
herewith.

DFC:JE
T-11657

ENCL

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/87 BY 3042 put/ks

OCT 2 11 38 AM '51

RECEIVED
FBI
U.S. DEPT. OF JUSTICE
OCT 3 4 16 PM '51

- Tolson
- Ladd
- Nichols
- Belmont
- Clegg
- Glavin
- Harbo
- Rosen
- Tracy
- Egan
- Gurnea
- Hendon
- Pennington
- Quinn
- Nease
- Gandy

OCT 2 1 52 PM '51

DEPT. OF JUSTICE

NOV 29 1951

COMM - FBI
OCT 5 - 1951
MAILED 19

DEPT. OF JUSTICE
FBI
RECEIVED-MAIL ROOM

OCT 2 2 35 PM '51

TRANSLATED FROM FRENCH

65-58805-1516

EX-68

RECORDED - 71
Additive to the trial of
DOCTOR KLAUS FUCHS
Ref. N.

September 15, 1951

(this part in English):

"Master, the request rooms hereto-be
the Court of Justice
Justice Palace
Washington
New York
U.S.A."

Honorable Sir:

I, the undersigned, take up and petition, exercising
right of syllogism, in behalf of DOCTOR FUCHS of the Faculty of
Atomic Sciences, already sentenced by the Supreme Court of Appeals
to 14 years solitary confinement at hard labor.

Taking cognizance, as matter of fact, of his arraignment
before his Judges, called on to defend the Atomic Energy, Cosm-hydro,
Citro, Cycle secret — in making appeal not in any way connected with
its degrees of integration, fabrication, premises rightly reserved
for (secret) terms, which in the beginning, his knowledge of the
structure and defense of it prejudices his judges and gives right
to sentence.

During his dangerous ordeal, debarred through "possi-
bility or impossibility" enclosure irrespective (of) his will to
be able to reply to Jurisprudences (inextenso) by publicly citing
his self-satisfaction regarding splitting the atom.

The present (undersigned) party being dazed, and acting
in order to appeal and with liberation as objective, offers to you
homage by virtue of, and rightly being Master, and (also) his
distant coordination and his highest regards.

(signed) PAUL MICHOLSKI (or MICHOLSKI)
48 Avenue du Parc
St Gilles, Brussels (Belgium)

(Sent by Registered Mail, postmarked at Brussels, 9/15/51; envelope)
(addressed to "Master of the Request Room, Court of Justice, Palace")
(of Justice Washington - New York U.S.A.)

Translator's note: This disjointed letter may have been translated
into French from another language.

Translated by:
Lores F. Crawford
10/3/51

ENCLOSURE

65-58805-1516

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/82 BY 2012 JAT/DAK

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Tolson _____
 Ladd _____
 Clegg _____
 Glavin _____
 Nichols _____
 Rosen _____
 Tracy _____
 Harbo _____
 Belmont _____
 Mohr _____
 Tele. Room _____
 Nease _____
 Gandy _____

4-1

LONDON--A BRITISH LEGAL COMMITTEE MET TODAY TO CONSIDER DEPRIVING KLAUS FUCHS, CONVICTED SOVIET ATOMIC SPY, OF HIS NATURALIZED BRITISH CITIZENSHIP.

INFORMATION ON THE CASE WAS PROVIDED BY ATTORNEY GENERAL SIR HARTLEY SHAWCROSS. THE COMMITTEE WILL MAKE ITS RECOMMENDATIONS TO HOME SECRETARY JAMES CHUTER EDE.

FUCHS, A GERMAN NATIVE ONCE EMPLOYED AT THE HARWELL ATOMIC LABORATORY WAS SENTENCED TO 14 YEARS IMPRISONMENT IN MARCH FOR PASSING ATOMIC SECRETS TO RUSSIA.

12/20--JL146P

165-58805-a
 NOT RECORDED
 17 AUG 11 1951

ALL INFORMATION CONTAINED
 HEREIN IS UNCLASSIFIED
 DATE *3/5/87* BY *3042 put-DSC*

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file 5
502

R
 AUG 14 1951

WASHINGTON CITY NEWS SERVICE
 DATE:

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~~SECRET~~

American Embassy
2 Avenue Gabriel
Paris 8, France

SECRET - AIR COURIER

Date: November 8, 1951
To: Director, FBI
From: Legal Attache, Paris (65-85 - 94-1)
Subject: ROSE KAPFEL CASE;
RICHARD SORRE CASE;
ROBERT GORDON SWITZ CASE;
Encl FUCHS CASE;
CORBY CASE;
ESPIONAGE - R

7-4-1

Reference Paris letter dated October 12, 1951, entitled [REDACTED]

[REDACTED] S (b)(1)

[REDACTED] S (b)(1)

As was indicated in reference letter this [REDACTED]

[REDACTED] S (b)(1)

[REDACTED] S (b)(1)

[REDACTED] S

Classified by 3042 *wt-dlc*
Declassify on: OADR
3/11/87

[REDACTED] S (b)(1)

Classified by 2355 *wt-dlc*
Exempt from GDS, Category 2, 3
Date of Declassification Indefinite

ROU:AM

65-58805-1

NOT RECORDED
136 NOV 15 1951

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_____ Page(s) withheld for the following reason(s):

For your information: _____

The following number is to be used for reference regarding these pages:

65-58805 NR 11/8/51

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~~SECRET~~

Director, FBI

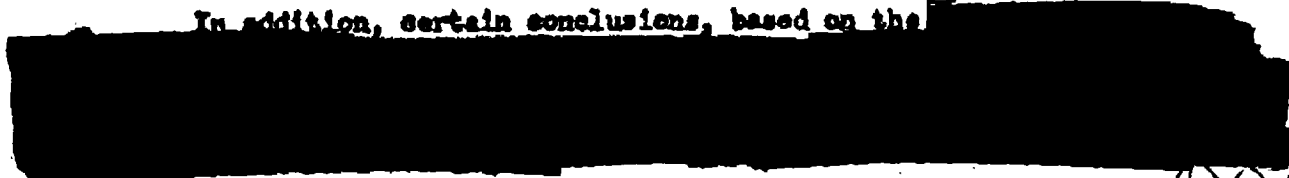
RE: ROSE KAPALLE; RICHARD BORKE; ROBERT GORDON SWITZ; FUCHS; COBBY CASES
ESPIONAGE - R



S

(b)(1)

In addition, certain conclusions, based on the



(b)(1) S



S
(b)(1)

- 8 -
~~SECRET~~

~~SECRET~~

Director, FBI

RE: ROSE KAPALLE; RICHARD SORELL; ROBERT GORDON SWITZ; FUCHS; COREY CASES
ESPIONAGE - R

[REDACTED] S

What might be of even greater significance to the Bureau is the fact that throughout the [REDACTED] (b)(1)

[REDACTED] S (b)(1)

[REDACTED] S (b)(1)

It is requested, therefore, that [REDACTED]

[REDACTED] S (b)(1)

Enclosures (8)

~~SECRET~~

cc - Mr. Ladd
Mr. Belmont
Mr. Van Loon

SECRET

91
G.I.R.-T

December 18, 1951

[Redacted]

(b)(1)

KLAUS FUCHS

The fourth of the series of articles in the Washington Times Herald newspaper concerning the theft of atomic secrets by the Soviets and written by Bob Considine of the International News Service, appeared on December 12, 1951. It made mention that subsequent to Fuchs' return to England in 1942 from an internment camp in Canada, Joseph Goebbels reportedly furnished British security via Switzerland with a dossier on Fuchs' Communist activities in Germany but that this information was ignored as an effort to separate the Allies.

We would appreciate having your comments in this regard.

cc - Legal Attache
London, England *9/12/19/51/52* **SECRET AIR COURIER**

cc - Foreign Service Desk

Classified by *3042 fut-102*
Declassify on: OADR
3/5/87

EJVL:dh *[Signature]*

- Tolson
- Ladd
- Nichols
- Belmont
- Clegg
- Glavin
- Harbo
- Rosen
- Tracy
- Mohr
- Tele. Rm.
- Nease
- Gandy

Classified by *2555 WAB/DVA*
Exempt from GDS, Category *2, 3*
Date of Declassification Indefinite
70-15-75

MAILED FROM DIVISION FIVE

DEC 18 1951
RECORDED - 24

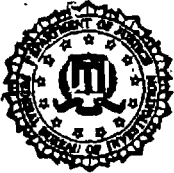
65-58805-157

EX-25

DEC 20 1951

63 JAN 14 1952

SECRET



UNITED STATES DEPARTMENT OF JUSTICE

FEDERAL BUREAU OF INVESTIGATION

Liaison Office, Ottawa, Canada

January 22, 1952

In Reply, Please Refer to
File No.

RS

Director, FBI

Re: EMIL JULIUS KLAUS FUCHS, was.
ESPIONAGE - R

Dear Sir:

Forwarded herewith is a hand-written letter dated January 13, 1952, signed "Mrs. B. Cove Fuchs, 6751 Ingram St. Forest Hills, L.I." This letter was directed to the Canadian Navy, and also forwarded herewith is the envelope in which it was received and which was postmarked 4:30 P.M. January 14, 1952, New York, New York. The envelope was addressed to the Navy Intelligence Department, Ottawa, Canada.

The RCMP forwarded the enclosures without comment except to state that the letter would appear to constitute the ramblings of some person with a very imaginative or sub-normal mind who alleges to be the wife of "Dr. Klaus Emeel Fuchs."

This material is forwarded for record purposes and any action considered necessary.

Very truly yours,

Glenn H. Bethel
Glenn H. Bethel

ENCLOSURE ATTACHED
1 ENCL 13

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/82 BY 3042 Jut/DK

per release
RECORDED - 13
INDEXED - 1

65-58805-1519
JAN 28 1952

51 FEB 4 1952
1373

Mr. M.

NEW YORK, N.Y.
JAN 14 1917



Navy Intelligence Department
Ottawa
Canada

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For your information: _____

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Disposition of document Gold
65-57449-812

For your information: _____

The following number is to be used for reference regarding these pages:
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Office Memorandum • UNITED STATES GOVERNMENT

[Handwritten initials]
TO : Director, FBI (65-58805)
FROM : SAC, New York (65-15138)
SUBJECT: EMIL JULIUS KLAUS FUCHS
 ESPIONAGE - R

DATE: 4/15/52

BC

BERTHA RIBAKOVE, was:
 Ribakove Fuchs, Cove Fuchs,
 B. Cove, Bertha Cove
 INFORMATION CONCERNING

ALL INFORMATION CONTAINED
 HEREIN IS UNCLASSIFIED
 DATE 3/5/87 BY 3042 jmt-DK

EE-1

The following information is being furnished for the information of the Bureau.

On 4/10/52 Miss RUTH THOMPSON, Embassy Tours, 147 West 42nd Street, New York City, advised that RIBAKOVE FUCHS had booked a tour for travel through England, Holland, Belgium, Switzerland, Italy and France, commencing 6/25/52. Miss THOMPSON stated that RIBAKOVE FUCHS would leave on the "Queen Mary" on this date and return on 8/26/52. According to Miss THOMPSON, RIBAKOVE FUCHS stated she was born in Russia and married to one "FUCHS", the atom spy. She stated that she corresponds with FUCHS and is going to Europe to help him escape. She further stated she wanted to get into Russia and said she had the necessary connections. She presented U. S. Passport #427856 and paid \$100 by a Manufacturers Trust Co. check signed B. COVE. During her conversation with Miss THOMPSON she at one time or another used all the aforementioned names.

see attached

A review of the files of the New York Office reflected that on 6/28/51 Mr. ALBERT DAVIS, Davis Optical Company, 71 West 23rd Street, New York City, advised that he had been making eyeglasses for one Mrs. RIBAKOVE since 1936. On 6/27/51 she was in his office and in a discussion of the international situation mentioned that Dr. FUCHS, the atomic spy, was either her husband or a friend. As a result of this information, Mrs. BERTHA RIBAKOVE, 6751 Ingram Street, Forest Hills, New York, was contacted at her home by agents of the New York Office on 10/29/51. When advised that the inquiry was concerning Dr. KLAUS FUCHS, she stated that she could not talk to the agents inasmuch as Dr. FUCHS lived next door. She insisted that this Dr. FUCHS was the same British scientist who was convicted of espionage in Great Britain. It was the agents' opinion at that time that she was mentally unstable. It was also noted that the occupants of the house next door were Mr. and Mrs. PHILIP ROMANEK.

UNRECORDED COPY FILED IN 62-92146

On 4/16/51, Mr. A. L. SIMMONS, of Simmons Tours, 1350 Broadway, New York City, advised that one Miss BERTHA COVE, 6751 Ingram Street, Forest Hills, New York, had spoken to him concerning a European tour and during this conversation had advised him she wanted to meet EMIL FUCHS on her tour.

It was the opinion of Miss RUTH THOMPSON and Mr. A. L. SIMMONS that Mrs. BERTHA RIBAKOVE was a psychopath.

RAM:HC

Handwritten notes:
 Put check on
 at V. Simon
 5/2/52

SE-39
 RECORDED EX-164

165-58805-1521

APR 17 1952
 20

Handwritten initials:
 VAE
 JWC

Letter to Director
NY 65-15136

In view of the above information, the Bureau might consider advising CIA and/or the State Department in order to prevent any unnecessary investigation in the event that BERTHA RIBAKOVE discusses her alleged relationship with Dr. FUCHS while traveling abroad.

RECORDED - 75-58805 - 1521

305

Date: May 2, 1952

To: Mr. Donald L. Nicholson
 Chief, Division of Security
 Office of Security and Consular Affairs
 Department of State
 Washington 25, D. C.

From: John Edgar Hoover, Director
 Federal Bureau of Investigation

Subject: BERTHA RIBAKOVE, aka
 Ribakove Fuchs, Cove Fuchs,
 B. Cove, Bertha Cove
 MISCELLANEOUS INFORMATION CONCERNING

ALL INFORMATION CONTAINED
 HEREIN IS UNCLASSIFIED
 DATE 3/5/87 BY 3042 put AC

9812
 2186
 62
 UNITED STATES COPY FILED IN

This Bureau has received information to the effect that captioned individual, who holds United States passport #427856, has arranged to travel through England, Holland, Belgium, Switzerland, Italy, and France, sailing aboard the Queen Mary on June 25, 1952, and returning to the United States on August 26, 1952.

It has further been reported that this individual, who claims to have been born in Russia and also claims to be married to "Fuchs," the atom spy, has stated that she corresponds with Fuchs and is going to Europe to help him escape. Allegedly, she further stated that she wanted to get into Russia and that she had the necessary connections.

Information from another source has also been received to the effect that in discussing the above-mentioned tour of Europe, this individual stated that she wanted to meet Fuchs on her tour.

Both of the sources of the above information have expressed the opinion that this person is a psychopath.

Our files reflect that on October 29, 1951, Mrs. Bertha Ribakove, 6751 Ingram Street, Forest Hills, New York, was interviewed by Agents of this Bureau in view of information received to the effect that she had stated that Dr. Fuchs, the atom spy, was either her husband or a friend. At the time of this inquiry, Mrs. Ribakove advised the Agents that she could not talk to them inasmuch as Dr. Fuchs lived next door. She insisted that this Dr. Fuchs was the same British scientist who was convicted of espionage in Great Britain. It was

- Tolson _____
- Ladd _____
- Clegg _____
- Glavin _____
- Nichols _____
- Belmont _____
- Mohr _____
- Tele. Room _____
- Nease _____
- Gandy _____

EJV:GAS:EMR

BY SPL. MESS

87 MAY - 5

64 MAY 22 1952

SECURITY INFORMATION

WAB/DVN
10-15-75

SECURITY INFORMATION - CONFIDENTIAL

noted that the occupants of the house next door were not named Fuchs.

The foregoing information is being made available to you with the thought that it may prevent unnecessary investigation in the event that Mrs. Ribakova discusses her alleged relationship with Fuchs while traveling abroad.

cc - Director
Central Intelligence Agency
2430 E Street, Northwest
Washington, D. C.

BY SPECIAL MESSENGER

Attention: Mr. Lyman B. Kirkpatrick
Assistant Director for Special Operations

SECURITY INFORMATION - CONFIDENTIAL

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had reportedly come to Santa Fe, New Mexico, in an attempt to improve her hearing. She was described by informants as somewhat unstable and very undeveloped emotionally for her age. She was also said to express openly pro-Russian and Communist views and to subscribe to and read Communist literature.

It was reported that Rotblat and Grant had become acquainted while students at the University of Liverpool. While at Site Y, Rotblat's wife was still in Poland, and he is said to have told Elisabeth Grant that he intended to return to Poland at the earliest possible moment; that he disliked Site Y and had requested a transfer to California which was refused because he knew too much about the project; and that he intended in the near future to ask for his release so that he could return to Poland. In the meantime, it was stated, Rotblat visited Grant every Sunday for several months discussing Communism and exchanging Communist literature with her, thus causing her to become more enthusiastic about Communism.

Information was obtained by MED from a confidential informant to the effect that on December 3, 1944, Grant had spent the entire day with Rotblat during which time both had drunk intoxicants with the result that Grant became intoxicated. In this condition, according to the informant, Grant expressed love for Rotblat and was anxious as to what she would do in the event she had a child by him. On this occasion Grant told the following story of Rotblat's plans:

He intended to leave Los Alamos either on December 7 or 8, 1944, for Washington, D.C., and New York. He requested Grant to prepare a list of all people she knew in Liverpool and London and he specifically asked for a letter of introduction to one of her friends, Laurence Milligan, who was Secretary to the British Minister of Labor, Bevan. Rotblat's avowed plan was to sail from New York City December 15, 1944, to return to England where he intended to subsequently join the RAF and watch for an opportunity to go on a mission over either Poland or Russia. Once over either of these countries he intended to parachute out of the plane. He claimed that in either of these countries he could at once contact persons who could introduce him to people interested in the Communist cause. He said his purpose was to go to the Russians and tell him all he knew about the formula and work at Los Alamos, and he boasted that while the heads of the project did not think he knew as much as he did he had obtained a great deal of knowledge of the work both at Los Alamos and other places in the United States. Rotblat stated that he would save the world from another war by giving Russia all possible aid in mastering the desired weapon as he believed that if the United States mastered the problem first it would become superior to Russia in strength and probably go to war with Russia. Grant also said that the source of Rotblat's unhappiness at Los Alamos was his constant awareness that "they" did not trust Russia and were plotting against Russia. She also said that Rotblat claimed

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to have a brother in the Russian Army.

In connection with the above information it was pointed out that at the time Grant was intoxicated and was also probably emotionally distraught by the fact that her lover, by whom she evidently had reason to suspect that she might have an illegitimate child, was shortly to leave her. It was also pointed out that, by Grant's story, Rotblat had also been drinking heavily while he revealed his "plans" to her. Army

Investigation also developed that on or about December, 1944, Grant received a letter from Rotblat advising that he was leaving Santa Fe permanently on that date and instructing her to burn the letter and any other correspondence or books she had received from him. He said he was in serious trouble and feared that she would be involved if she did not follow his instructions carefully. The letter is further said to have warned Grant not to admit that she had known Rotblat, to deny knowledge of the existence of the project and to refrain from further correspondence with him.

Our files have again been reviewed concerning Rotblat and there appears to be no additional derogatory information available subsequent to our memorandum of March 12, 1951.

- 3 -
~~SECRET~~

Office Memorandum • UNITED STATES GOVERNMENT

TO : L. B. NICHOLS

DATE: 4-28-52

FROM : R. T. HARBO *RTH*

SUBJECT: FOOCASE
ESPIONAGE - R
65-58805

Tolson	_____
Ladd	_____
Clegg	_____
Glavin	_____
Nichols	_____
Rosen	_____
Tracy	_____
Harbo	_____
Belmont	_____
Mohr	_____
Tele. Room	_____
Nease	_____
Gandy	_____

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/82 BY 3042 *fw/ste*

Top SECRET MATERIAL ATTACHED

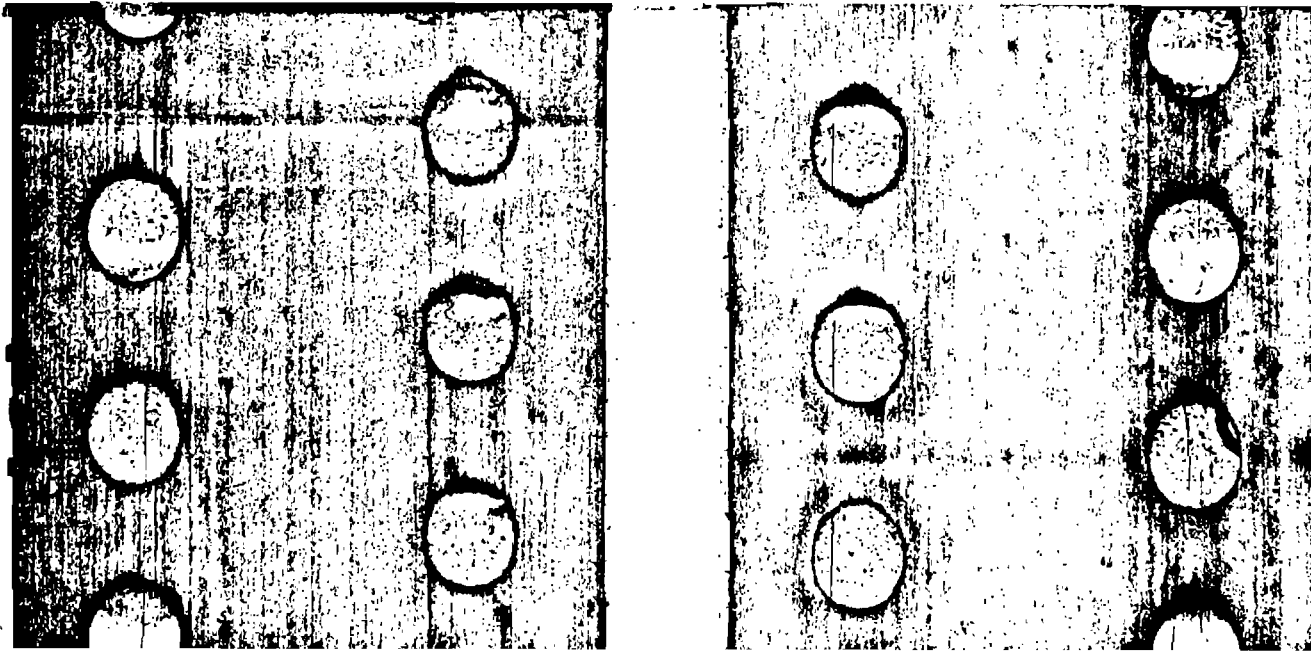
There is attached the file which has been maintained in the Laboratory in connection with the above captioned matter. It is desired that this file be maintained as an enclosure behind the main file in the Records Section.

ENCLOSURE BEHIND FILE
ENCL

7136
50 MAY 8 1952

65-58805-1523
NOT RECORDED
31 APR 30 1952 *RTH*

Attachment



Lab File
9-1
65-58805

REPORT
of the

~~SECRET~~



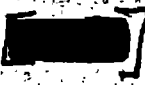
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON D. C.

May 26, 1950

To: SAC, Philadelphia

There follows the report of the FBI Laboratory on the examination of evidence received from your office with two separate letters on May 23, 1950, and evidence submitted by the New York office with a letter dated May 10, 1950.

Re: ABRAHAM BROTHMAN
ESPIONAGE - R



S (b)(1)

J. Edgar Hoover
John Edgar Hoover, Director

YOUR FILE NO. 65-5718
FBI FILE NO. 100-355940
LAB. NO. D-116939 NE
D-116940 NE

Examination requested by: Philadelphia and New York

Reference: Letters dated May 20, 1950, and May 10, 1950, respectively.

Examination requested: Document

Classified by 3042 Jut-DTC
Declassify on: OADR
3/5/87

Specimens:

D-116939 NE

Submitted by Philadelphia with letter dated May 20, 1950:

K1 Five-page typewritten document, together with a cover sheet, entitled "THERMAL DIFFUSION - A PROSPECTUS."

D-116940 NE

Submitted by Philadelphia with letter dated May 20, 1950:

K2 Eight sheets of paper, bearing known handwriting and handprinting of HARRY GOLD.

Submitted by New York with letter dated May 10, 1950:

Q1 Photographic copy of a nine-page typewritten article on THERMAL DIFFUSION containing a sketch and some handprinting on page 5.

Enclosure - Registered Special Delivery

2- New York - Enclosure - Special Delivery
1- Washington Field
1- Albuquerque - Air Mail

Page one

Continued on next page

HLD:AB

~~SECRET~~

RESULTS OF EXAMINATION:

It has been concluded that the handprinting appearing on page 5 of Q31 was prepared by HARRY GOLD, K2.

It was also concluded that the typewriting on the original document represented by Q31 was prepared on the same typewriter as that used to prepare the typewriting on specimen K1. The original document represented by Q31 is not a carbon copy, however, of K1.

Due to the lack of sufficient sharpness of detail in Q31, it is not believed that satisfactory enlargements can be made of this specimen for presentation in court testimony. If court testimony is contemplated in this case, it is suggested that the original negatives from which Q31 was made be submitted to the Laboratory. The original specimen should, of course, be submitted if it becomes available.

As soon as the Hilton Hotel registration card is received it will be compared with the handwriting of HARRY GOLD.

The original evidence, K1, is returned herewith to your office. Photographic copies of this specimen are attached for your office and also for the New York office. Specimens Q31 and K2 are retained in the Bureau's file.

3-3-50
31

FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE

Laboratory Work Sheet

Re: FOOCASE
ESPIONAGE - R

File # 65-58805
Lab. # D-112995 22

LAB. FILE OPENED

Examination requested by: Bureau

Date of reference communication: Memo dated 2-27-50 Date Received: 2-28-50

Examination requested: Document

Result of Examination:

Examination by: Bahlgren

Returned to Boston 3/7/50

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/2/87 BY 3042 Jut/STC

Specimens submitted for examination

- K1 Letter to Kristel Heinenman, handprinted in ink, from KONSTANTIN LAPAZANOS, reverse side bearing reply handprinted in pencil, dated January, 1950; also an envelope addressed to Mr. KONSTANTIN LAPAZANOS, from Mrs. K. FUCHS HEINEMAN.
- K5 White envelope and accompanying letter, dated January, 1950, bearing handprinting in pencil, envelope addressed to Prof. Dr. Emil Fuchs, from KRISTEL HEINEMAN.
- K6 Typewritten letter dated January 20, 1950, to Mrs. KRISTEL FUCHS-HEINEMAN, from EMIL FUCHS.
- K7 Typewritten letter dated January 18, 1950, to Mrs. KRISTEL FUCHS-HEINEMAN, from EMIL FUCHS.
- K8 Envelope and accompanying two-page typewritten letter dated August 15, 1941, to Mrs. K. HEINEMAN, from KLAUS FUCHS.
- K9 Handwritten letter dated December 15, 1941, to Mrs. KRISTEL HEINEMAN, from KLAUS FUCHS.

CC- New York
Boston

3.7-50

cc mail 15

REPORT
of the



FEDERAL BUREAU OF INVESTIGATION
WASHINGTON D. C.

March 7, 1950

Jab

To: SAC, Boston

~~SECRET~~

There follows the report of the FBI Laboratory on the examination of evidence submitted to the Bureau as enclosures with the report of Special Agent Brenton S. Gordon, dated February 9, 1950, under the caption, "ELMA ANNA DOROTHEIDA CHRISTEL HEINEMAN, wa.; ROBERT BLOCH HEINEMAN, wa.; ESPIONAGE (R) [redacted] S (b)(1)

Re: FOOCASE
ESPIONAGE - R

Classified by *3042 fut Adg*
Declassify on OADR
3/5/87

John Edgar Hoover
John Edgar Hoover, Director

YOUR FILE NO. *65-18203*
FBI FILE NO. *D-112993 ME*
LAB. NO.

Examination requested by: *Boston*

Reference: Memorandum dated February 27, 1950

Examination requested: Document

Specimens:

- K4 Letter to Kristel Heineman, handprinted in ink, from KONSTANTIN LAFAZANOS, reverse side bearing reply handprinted in pencil, dated January, 1950; also an envelope addressed to Mr. KONSTANTIN LAFAZANOS, from Mrs. E. FUCHS HEINEMAN.
- K5 White envelope and accompanying letter, dated January, 1950, bearing handprinting in pencil, envelope addressed to Prof. Dr. Emil Fuchs, from KRISTEL HEINEMAN.
- K6 Typewritten letter dated January 10, 1950, to Mrs. KRISTEL FUCHS-HEINEMAN, from EMIL FUCHS.
- K7 Typewritten letter dated January 18, 1950, to Mrs. KRISTEL FUCHS-HEINEMAN, from EMIL FUCHS.
- K8 Envelope and accompanying two-page typewritten letter dated August 18, 1941, to Mrs. E. HEINEMAN, from KLAUS FUCHS.
- K9 Handwritten letter dated December 25, 1944, to Mrs. KRISTEL HEINEMAN, from KLAUS FUCHS.

Results of Examination:

The handprinting on K4 and K5, the typewriting on K6 through K8, and the handwriting on K9 were compared with the appropriate sections of the National Security File without effecting an identification. Appropriate photographic copies of this material will be added to this file for future reference and comparison.

Enclosure - REGISTERED MAIL
HBS/GE New York - Enclosure

~~SECRET~~

314-5

SECRET

Two sets of photographs of each of the specimens listed above as K1 through K9 are attached for the attention of the New York and Boston Offices.

The original evidence, K1 through K9, is returned herewith to the Boston Office. Photographic copies are retained for the completion of the Bureau's files.

D-112995 M

Page Two

SECRET

RECORDED
3-2-50
jl

FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE

Laboratory Work Sheet

N
3/6

Re: FOOCASE
ESPIONAGE - R

File # 65-58805
Lab. # D-112995 RE

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/87 BY 3042 fwt-P/10

LAB. FILE OPENED

Examination requested by: Bureau

Date of reference communication: Memo dated 2-27-50 Date Received: 2-28-50

Examination requested: Document

Result of Examination:

Examination by: Dahlgren
3/3/50

*Tw. K6 + K7 most like Royal elite # 417 - but could be
L.C. Smith # 996 which has same style type formation. Searched
in both sections NSF - no ident. Tw. K8 is ident
with Imperial Pica (British make) - no ident. in NSF.
K4 + K5 searched in NSF. LCHG - no ident.*

K9 (For. C) no ident Specimens submitted for examination
NSF.

- K4 Letter to Kristel Heineman, handprinted in ink, from KONSTANTIN LAFAZANOS, reverse side bearing reply handprinted in pencil, dated January, 1950; also an envelope addressed to Mr. KONSTANTIN LAFAZANOS, from Mrs. K. FUCHS HEINEMAN.
- K5 White envelope and accompanying letter, dated January, 1950, bearing handprinting in pencil, envelope addressed to Prof. Dr. Emil Fuchs, from KRISTEL HEINEMAN.
- K6 Typewritten letter dated January 10, 1950, to Mrs. KRISTEL FUCHS-HEINEMAN, from EMIL FUCHS.
- K7 Typewritten letter dated January 18, 1950, to Mrs. KRISTEL FUCHS-HEINEMAN, from EMIL FUCHS.
- KE Envelope and accompanying two-page typewritten letter dated August 18, 1941, to Mrs. K. HEINEMAN, from KLAUS FUCHS.
- K9 Handwritten letter dated December 15, 1944, to Mrs. KRISTEL HEINEMAN, from KLAUS FUCHS.

CC- New York
Boston

*Report
3-7-50
HLD:gl*

Mr. FLETCHER

February 27, 1950

Mr. Whitson

FOOCASE
ESPIONAGE - RALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/87 BY 3042 *put-DAC*PURPOSE

To have specimens of handwriting of individuals involved in this case searched through the National Security File of the Bureau.

DETAILS

The Boston Office, by report of Special Agent Brenton S. Gordon, dated February 9, 1950, has furnished to the Bureau letters written by various individuals involved in this investigation. These letters are as follows:

1. Letter from Konstantin Lafazanov to Kristel Heineman, with her reply on the reverse side, dated January 19, 1950.
2. Letter from Kristel Heineman to her father, Emil Fuchs, dated January, 1950, in Germany.
3. Two letters from Emil Fuchs to his daughter, Kristel Heineman, dated January 10, 1950, and January 18, 1950. These are written from the Soviet Zone of Germany.
4. Two letters contained in one envelope from Klaus Fuchs to Kristel Heineman. The first, dated August 18, 1941, is typewritten and has been censored. The second is handwritten and is dated December 15, 1944.

The foregoing letters are examples of the handwriting, handprinting, and typewriting specimens of the persons named. The first three items named above were obtained through Dr. Rollins K. Hadley, Westboro State Hospital, Westboro, Massachusetts. They are to be returned to Boston when they have served their purpose in order that they may be in turn furnished to Dr. Hadley for his files. The fourth item above was obtained from Robert Heineman, the subject's brother-in-law, and should also be returned to Boston for the completion of his files. The results of the examination should be furnished to New York and Boston.

LABORATORY FILE COPY

65-58805
D-112995 R4-7
3/2/50 jk*Report*
3-2-50
HLD:st

RAC:hc

65-58805

It is also requested in view of the fact that these original letters are being returned to the Boston Office that six photographs be made of the letters and their envelopes; two photographs should be furnished to the Boston Office and two to New York with the results of the Laboratory examination; two photographs should be furnished to the Espionage Section for the completion of this file.

ACTION

It is recommended that approval for this examination be granted, and that it be completed as soon as possible.

Director, FBI

2-9-60

SAC, Boston

~~TOP SECRET~~

ELSA ANNA KOROTNE IDA CHRISTINE WEINBERG, was
ROBERT BLOCH WEINBERG
ESPIONAGE (C) [redacted]

S (b)(1)

Classified by 3042 *ant-DTC*
Declassify on OADR
3/5/87

Reference is made to the enclosed report of Special Agent Brenton S. Gordon at Boston in the instant case dated February 9, 1960.

The Bureau's attention is directed to the fact that this report has not been prepared for dissemination. Offices receiving copies are requested not to disseminate information contained herein without prior approval of the Bureau.

The Bureau is further advised that leads have been sent out by air mail letter to New York, Newark and Albany to ascertain the identity of telephone subscribers known to have been the recipients of long distance calls from the Weinberg residence in the past six months. Information as received from these divisions will be incorporated in the next report emanating from Boston.

The Bureau is further advised that the enclosed report has been prepared as a severable report; i.e., sections indicated on the Table of Contents page can be removed from the report without necessarily effecting its continuity, or rendering a reading of a particular section unintelligible.

For the convenience of the Bureau and offices receiving copies of this report, there are set forth below the titles, Bureau file numbers and Boston file numbers together with at least one other reference of the persons mentioned in the report known to have been associated with ROBERT WEINBERG and, therefore, possibly in association with ELSA ANNA KOROTNE and CHRISTINE WEINBERG.

MARTIN DEUTSCH

Bufile 118-8033

Bosfile 118-743

Report of SA J. W. Neels, Boston, 8/22/57

MICHAEL BALABAN
alias "Eason"

Report of SA John B. Davidson, Boston, 10/11/48

Bufile 100-18063

Bufile

Also case "Torky" 85-8"

THEODORE ROBERT VALENTI, Jr.
Security Matter (C)

Bufile 100-72323

Bosfile 100-3426

Report James A. Brennan, New Haven,
10/14/45

~~TOP SECRET~~

WENDALL HEYER FREY

Profile 100-102079
Bufile 100-10000
Report of SA B. A. Gordon, 11/2/48

MURDER LEVINSKY

Profile 100-547948
Bufile 100-16310
Report of SA F. M. Connors, 10/20/48

ISAAC ABRAHAM

Profile 100-344788
Bufile 100-17042

HENRY J. CAPREY
Security Matter X

Report of SA James F. Mahan
at Boston, 11/30/48

RICHARD LION REBELL

Report of SA B. L. Gordon, Boston
6/14/49
Bufile 100-33819
Bufile 100-12948

MARSHALL WATNEY

Profile 100-345482
Bufile 100-17708
Report of SA F. M. Connors,
Boston, 12/9/48

Since the enclosed report represents investigation in the FUCIE case, the
REUBEN case and the [redacted] case, all three files are being posted ~~MAILED~~
at Boston.

TS
(b)(1)

RC:md
65-3304

cc: 65-3319
65-3320

cc New York
Washington
San Francisco

10

Office Memorandum • UNITED STATES GOVERNMENT

TO : D. M. LADD

DATE: June 2, 1952

FROM : A. H. BELMONT

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

Tolson	_____
Ladd	_____
Clegg	_____
Glavin	_____
Nichols	_____
Tracy	_____
Harbo	_____
Belmont	_____
Mohr	_____
Tele. room	_____
Holloman	_____
Gandy	_____

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/82 BY 3042 jmt-DTC

FOCUS

PURPOSE:

To inform that an advanced copy of captioned book, confidentially furnished by the Legal Attache, London, has been reviewed and found to contain no critical statements about the FBI.

DETAILS:

Attached letter dated April 28, 1952, from the Legal Attache, London, enclosed undeveloped negatives of an advanced copy of captioned book, which had been reviewed by the Legal Attache and described generally as an attempt to whitewash the previous Labor Government and the British Security Services in connection with their investigation of the cases involving Klaus Fuchs, Allan Nunn May and Bruno Pontecorvo.

The Legal Attache requested that the possession of this advanced copy by the Bureau, received by him from Rebecca West, English authoress, be kept strictly confidential.

Attached also is the "Saturday Evening Post" for May 24, 1952, which features an article entitled, "Traitor Klaus Fuchs: He Gave Stalin The A-Bomb," by Alan Moorehead. This is stated to be the first of a series of four articles to appear in the "Saturday Evening Post." A review of this article reflects that it is based on captioned book.

Prints of the negatives submitted, which are attached, reflect this book of 222 pages (pages 36 and 37 missing) is divided into 14 chapters as follows:

COPIES DESTROYED
R 872 NOV 16 1968

64 JUN 17 1952

Chapters 1-3 (Pages 5-47) concern May
Chapters 4-11 (Pages 48-169) concern Fuchs
Chapters 12-13 (Pages 170-200) concern Pontecorvo
Chapter 14 (Pages 201-222) contains the author's conclusions.

RECORDED: 49
INDEXED: 49

65-58805-1524

EJVL:mem
65-58805
Attachments

Attached &
sent to Belmont

EX-25

FARE

672

The chapters concerning May were reviewed by SA J. E. Wallace, and the chapters concerning Pontecorvo were reviewed by SA K. W. Dissly. The balance of the book was reviewed by SA E. J. Van Loon. No criticism of the FBI was noted.

Briefly, the book takes up each of the three above-mentioned cases in a well-written and interesting manner. A rather detailed characterization and background sketch of each subject is included along with considerable theorizing as to what factors might have led to or might explain the actions of these men. Insofar as the facts of the cases are concerned, the book was found to maintain a very high degree of accuracy.

The major portion of the book concerns Klaus Fuchs. As mention is made of various abilities and traits of Fuchs in a favorable tone, the book may be said, broadly speaking, to treat Fuchs in a somewhat sympathetic vein; however, there is no question that the author does not condone the actions of Fuchs. At the end of the book he states Fuchs was basically a man who would always refer to his own conscience first and society afterwards, that there is no place for such men in an ordered community, and that they belong where Fuchs now is, in Stafford Gaol.

On several occasions throughout, reference is made to the fact that in 1934 the German Consul in Bristol, England, had advised the Chief Constable of the city that Fuchs was a Communist in Kiel, Germany. Briefly, this is disposed of on the grounds that it was not illegal in England to be a Communist, that the source was considered a tainted one, that in 1941, when Fuchs was considered for work on atomic research, this source was no longer available for re-checking and that in the interim, while Fuchs held left-wing views among his friends, he never joined the British Communist Party or committed an act which indicated his allegiance to Communism.

A statement is made that after Fuchs arrived in the United States, having been cleared by the British, there was no further investigation into Fuchs' credentials and in the ensuing two and one-half years, no other check was made upon him. On this point, the author argues in the last chapter, which is devoted to support of the British security practices, that the doctrine that a man who is once a Communist is

always a Communist is fallacious, that a man's politics change through the years and that there was every evidence before the authorities that Fuchs had changed from a German refugee to a loyal British subject. It is stated that therefore the authorities had no right to refuse Fuchs employment in 1941 on the grounds that he had been a Communist eight years before, "even if they had known this." It is further stated that in the absence of any further evidence against him the authorities had every right to clear him to the Americans in 1943, and to admit him to Harwell in 1946.

It is pointed out in this connection that Fuchs was never accepted on trust at any stage of his progress. It is said that he was the subject of a police investigation into his record when he was first employed on atomic research in 1941; that there was a second investigation a year later when he was naturalized; that he was investigated a third time when he was sent to the United States in 1943, and a fourth time when he returned to England in 1946 to enter Harwell. Elsewhere, it is pointed out that this latter investigation, which lasted five months, unfortunately coincided with a period during which Fuchs was inactive in Soviet espionage.

The fact that Fuchs was seeing Russian agents during all of this time is noted and the question of why British Security failed to observe Fuchs in these meetings is raised. It is answered by adding up Fuchs' meetings with Soviet agents to a total of some thirty in number and showing that over the seven year period they averaged approximately 4 meetings per year, and were nearly all at different places and of short duration, perhaps 15 minutes or less. It is then stated "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 goings and comings 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."

Regarding the suggestion, said to be prevalent everywhere that Fuchs would have been caught if only American Security had not accepted the British clearance but applied their own particular methods to him, it is stated that American Security methods have failed as the British have. It is said there were other secret Communists besides Fuchs inside Los Alamos and they were

American citizens who passed American clearance tests, and that no loyalty test is going to trip up that kind of traitor. In the next paragraph it is pointed out that it is an entirely profitless business to go matching American Greenglasses and Golds against British Nunn Mays and Fuchses. It will be noted with respect to this that it was the Manhattan Engineer District that was the American Security Agency which accepted the British clearance of Fuchs. In addition to Greenglass, the author possibly has in mind the publicity occurring from time to time concerning other individuals engaged in atomic research such as Martin David Kamen, Frank Oppenheimer, and Joseph Woodrow Weinberg, though Oppenheimer is the only one of these three who was at Los Alamos. The activities of these individuals relate to the period of the MED's responsibility.

The high degree of factual accuracy and the defense of British Security would seem to suggest an influence of MI-5 in the preparation of this book.

RECOMMENDATION:

None. This is for your information.

A handwritten signature, possibly 'J.G.', written in dark ink.



United States Department of Justice
Federal Bureau of Investigation

American Embassy
1, Grosvenor Square,
London, W. 1

de
Author of The Traitors, Cecil
COMMUNICATIONS INDUSTRY
Moorehead EMPLOYED BY
(EMPL. CARD)

Date: April 28, 1952
To: Director, FBI
From: Legal Attache, London - (65-721)
Subject: ^①FOOCASE

SECRET - AIR COURIER

3042 *put KAC*

3/5/87

Handwritten signature

There are attached ten film packs containing undeveloped negatives of an advance copy of the book entitled "THE TRAITORS", by Alan Moorehead, which was confidentially made available to writer by Rebecca West, the English authoress.

In making this advance copy available to writer, Miss West commented that the book, according to her sources, is a personal attack against her as a result of several articles she wrote regarding the FOOCASE in which she criticised the British Government and the Security Services. She also complained that Moorehead had access to confidential documents in connection with the Alan Mun May Case, the Focase and the Pontecorvo Case, to the exclusion of other British newspapermen and writers. According to her source, Moorehead was commissioned to write this book by Clement Attlee, former Prime Minister, and officials of the Ministry of Supply with the understanding that he attack Miss West.

This book has been reviewed by writer and it appears that the attack on Miss West is of a very mild nature. Generally, it can be described as an attempt to white-wash the previous Labour Government and also the British Security Services in connection with their investigation of these cases.

It is requested that the possession of this advance copy by the Bureau be kept strictly confidential.

10
3/5/87
Handwritten notes and stamps

EXPEDITE PROCESSING
MAY 3 1952
Handwritten initials

JAC:AB
Encs. 10

RECORDED - 25

65-58805-1525

INDEXED - 25

MAY 3 1952

EX-100

Handwritten signature
EUGENE

Handwritten signature
BRADIGAN

Handwritten initials
EWE

37
JUN 17 1952

Unclassified

The Trustees

by

Alan W. Anderson

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 3/5/81 BY SP4 JPL/BJL

William Anderson
July

By the same Author

AFRICAN TRILOGY

comprising

MEDITERRANEAN FRONT

A YEAR OF BATTLE

THE END IN AFRICA

MONTGOMERY (A Biography)

ECLIPSE

THE VILLA DIANA

THE RAGE OF THE VULTURE (A Novel)

THE TRAITORS

*The Double Life of
Fuchs, Pontecorvo, and Nunn May*

BY

ALAN MOOREHEAD



HAMISH HAMILTON
LONDON

77
20 Great South Street, London E.C. 4

TRAITORS

BY JIM MOOREHEAD



PRINTED IN GREAT BRITAIN
BY WENTHAM PRINTING SERVICES LTD., BARNET

It was a dark, rainy night in London, and the streets were empty. A lone figure was seen walking through the rain, his head bowed. He was a man of middle age, with a serious expression on his face. He was carrying a briefcase under his arm. As he walked, he looked back over his shoulder, as if he was being followed. The rain was falling hard, and the streets were reflecting the lights from the buildings. The man's footsteps were muffled by the wet pavement. He was walking towards a large, imposing building that he knew well. The building was dark, and the windows were black. The man's heart was pounding in his chest. He was nervous, and he was afraid. He was a traitor, and he was about to be caught.

The happened on a rainy night in London on the evening of September 23rd in 1941. On that evening a young cipher clerk in the Russian Embassy named Igor Gouzenko went to the steel safe in his office and took out a number of official documents. His job was to encipher and decipher these documents for Colonel Zabolov, the Military Attaché, as they passed between the Embassy and Moscow, and for some time past he had been turning down the corners of those which seemed to be of special interest.

Gouzenko, then aged twenty-six, was of the generation which has been born and brought up in Soviet Russia, and he had been just two years in Canada. But in those two years he had marvelled at the goods that were sold in the shops, at the freedom and friendliness with which the Canadians went about their daily lives, and he had grown to detest the way in which these people were being cheated and spied on, when their only desire had been to help Russia in the winning of the war. And now that his term abroad was over and he was due to return to Russia he had decided to put

all his past life behind him and cross over to the Canadian side.

The story of Gouzenko's defection is well known through the published report of the Canadian Royal Commission which inquired into the matter in the following year; but it is worth repeating here because of the peculiar atmosphere it evokes and because it reveals by how much the democracies were caught unaware.

It was eight o'clock when he left the Embassy in Charlotte Street carrying the documents in his brief pocket, and he went in haste to the offices of the *Ottawa Journal* in the city. He had the naive but understandable idea that if he could get his documents published there and then he would have warned the democracies and his purpose would have been accomplished. It was not, however, as they looked. Newspapers have settled practices of their own; crimes, politics, and baseball results come in each day on an established rhythm and there is normally no place in this routine for an earnest foreigner who arrives, with an announcement, his pocket stuffed with Russian telegrams, to make a point-blank exposure of the Soviet Union. Gouzenko argued for an hour but could get no one to take him seriously. He then returned to his home at 111 Somerset Street, where he was living in an apartment with his wife, Svetlana, Bocharov, and their child, Andrei, who had been born since their arrival in Canada.

The next day, September 12th, he tried again. He set out with his family and his wife carried the documents, a disordered bundle of pink, blue, and white slips of paper, in her handbag. He returned first to the *Ottawa Journal*, and when they advised him to go to the police he visited various Government offices in the city with no better result. Mr. Mackenzie King, the Prime Minister, did indeed hear of this odd visit just as he was about to go into an opening session of the Canadian Parliament. But it is not the Prime Minister's business to receive junior clerks from foreign embassies, and a junior

clerk would make a fairly insignificant addition to the intelligence and he advised his wife to go back to the Russian Embassy; if the incident was what they had come for. The family then returned to their home in the city and the documents were not published.

The next day Gouzenko had a very nervous day. He was sitting at his desk when he heard a knock. He opened the door and saw two men standing on the opposite side of the street watching his apartment, which was No. 110, Somerset Street. He called to his wife and she heard someone call his name; she recognized the voice of Colonel Gabonin, a friend of Gouzenko's, who had been in the Embassy. Gouzenko and his wife remained upstairs but the child was taken to the room, making it clear they wanted to hear the documents.

Gouzenko then went out to the balcony at the back of his apartment and called to his neighbors in No. 110, a Canadian Air Force sergeant and his wife. He asked if these two would take care of the child that night in case anything should happen to himself and his wife. The Canadian took him indoors and Gouzenko then explained that he believed that he was in danger, that the Russians might try to kill him and his wife during the night.

This was the first information Gouzenko was able to convey to the outside world of the real difference between the society he was about to leave and the one he was about to enter. In the intervening years since then, we have grown used to the idea that the citizens of a police State can be killed wherever they may be in the open streets of any city, and in the most peaceful surroundings. But in 1945 it was not clear. To most people, it was inconceivable that Russia had already turned against her allies—the war had ended only a few weeks before—and Gouzenko's story must have sounded very strangely to the police Canadian sergeant and his wife.

However, it was agreed that the child should be left with them in No. 110 for the rest of the night. But at the Canadian

was helping Gouzenko out by the back way on to the balcony, they saw a man walking along a line at the rear of the building. Gouzenko was now thoroughly alerted and he asked if the whole family could take refuge with the Canadian. At this point the woman who lived in apartment No. 6 appeared, and since she was alone offered to put up the Gouzenkos, while the Air Force sergeant went off for the police on his bicycle.

While the Gouzenkos were moving into their new quarters, Wahh and McCulloch, arrived in a power car. They heard the story and agreed to keep watch on the building through the night; the bathroom lights in No. 6 were to be kept on and in the event of an emergency it was to be turned out. Nothing happened for the next three or four hours. Then, shortly before midnight, four Russians arrived and began knocking on the door of Gouzenko's apartment, No. 4. The Air Force sergeant in No. 3, thinking it was the police, opened his door and when the four men asked if he knew where Gouzenko was, he said he did not know. Despite this the men kept knocking on Gouzenko's door for a time. Then at last they went away and the Air Force sergeant returned to his apartment. The four men, however, did not leave the building. They returned quietly, knocked again on No. 4, and then broke open the door and went inside.

Meanwhile Wahh and McCulloch in the street outside had got their signal. They came into the apartment and found that it was being ransacked. One man, Vitali Pavlov, a second secretary and consul of the Russian Embassy and the head of the Russian Secret Service in Canada, was going through a clothes cupboard. Another man, wearing uniform, Lieutenant Colonel Rogov, an assistant to Zabotin, was searching another cupboard in a room near the broken front door. The other two men were Lieutenant Angelov, also on Zabotin's staff, and Alexandre Farafontov, a cipher clerk from the Embassy.

All these events are soberly recorded in the report of the

Canadian Royal Commission, and the following account of what then occurred is taken from the report of the sergeant who

Wahh asked what the men were doing there. Pavlov, who was practically all the talking, said they were Russians and they were looking for papers which belonged to the Russian Embassy. That the owner of the apartment had left some and would be returned and they had his permission to go into the apartment and get what they wanted. Wahh insisted that it was necessary if they had permission that they had broken the lock to get in, and he picked up from the floor the key of the lock and said: 'The door was locked as if it has been done with a key. You must have made a list of questions to get in and taken the marks on the door and asked me to give them to you, your friend.' Constable McCulloch stated that Pavlov said they had lost the key but there was something in there they had to get. Pavlov then said the papers were Russian property and they could do as they liked. Rogov said the constables had insulted them and Pavlov ordered them out, but the policemen refused to go until their inspector arrived.

In other words they were in Canada, not in a police State where official violence is accepted and unquestioned. Zabotin and his staff had blundered dreadfully on two counts. They had failed first to do something which was also going to harm the governments of all democracies as a consequence of this night, and this was to guarantee the loyalty of one of their employees, to see what was happening inside his mind and make provision for it. They had blundered on the second count in marching so bald-headedly upon their victims, in being so contemptuous of the vigilance of a democratic society that they took no real precautions to headwind the police. Gouzenko was simply one of their own, a delinquent, and they had come to claim him. No doubt there had been conversation about Gouzenko inside the Russian Embassy that day, and their need to catch him was urgent; but now with every move their position became worse.

It was useless for them to protest, as they did to the Canadian Department of External Affairs a day or two later, that Gouzenko had decamped with Embassy money, that the constables had been rude and that Gouzenko should be arrested as a criminal and handed back to them. The cat was out of the bag and no one there that night could see where this incident would end.

The inspector arrived. The Russians were allowed to depart. Gouzenko, his wife, and child spent the rest of the night in No. 6 under the care of the police. Early in the morning the Russians made one more attempt to enter apartment No. 6. The caller crept into the building but soon went away again. In the morning, September 7th, Gouzenko was taken with his documents to the offices of the Royal Canadian Mounted Police. And now that he had established his good faith by an unpremeditated *coup de théâtre*, society was ready to listen to him and take him and his family into protective custody.

But even the following year, in 1946, when the Royal Commission had published its findings and revealed how implacable was the Russian opposition to the West, and how deep and far its spy networks could go, it is doubtful if many people realized the full implications of what was happening. Such names as Alger Hiss were still unknown, and it had not yet become clear that we were entering into a new age of somersaulting ethics, where black could be made into white, where a man could consistently say one thing and mean another, and where all the old-fashioned maxims could be made to mean nothing at all.

The Canadian spying scandal, by all spy rings go and (as it has developed from later evidence) it had been hastily put together, it only touched the fringe of a much larger international organization. But its discovery did mark a remarkable chain of events, because for the first time it brought out into the open the frightening relationship between the spy rings

and the bow-physics, between the traitor and the atomic bomb. From now on, like the explosive force of the bomb itself, the power of the traitor was enormously magnified, magnified to Russian proportions beyond any *glorification* which Hitler might have dreamed of in his bunker in Berlin. The traitors themselves did not see it in that way. They did not believe themselves to be unshackled. Many of them acted upon what they believed to be the most honorable of motives. But that was the way of it nevertheless they gained their science with their politics and the result was something which the physicists might call a critical mass, an appalling thing, highly explosive.

But in 1945 when the war was just over and we were still sheltering our ears a long way to go before any great public attention was paid to these things. An innocent number of them had just to be mentioned in their daily mouths. September 1945, when Gouzenko walked out of the Russian Embassy in Ottawa, Dr. Klaus Fuchs, some thousands of miles away to the north, dropped from Los Alamos to Santa Fé and handed over to a Russian agent the details of the actual bomb itself. Four more years were to pass before he was discovered. In that same September a promising young Indian scientist named Dr. Bruno Pontecorvo was working at the very centre of British atomic research at Chalk River in Canada, and five years were to go by almost to the very day, before he and his family vanished without a trace from the Western world as Helsinki in Finland. There was a third man, Dr. Allan Nunn May, who on this same night of September 7th had just come back from a visit to Chalk River to his home in Montreal. He was packing up for his return to England the following week. Neither he nor either of the others knew anything about Gouzenko's escape. They had never even heard of him. Mr. Gouzenko's evidence and the investigations which followed it were going to affect their lives more than they could have dreamed of. And from

these men the trail was going to lead on to the Americans, Harry Gold, David Greenglass, Julius and Ethel Rosenberg, and many others.

Allan Nunn May stood in the most immediate danger. His name under the code word 'Alek' was actually mentioned in the correspondence Gouzenko brought out of the Russian Embassy. Dr. May crossed the Atlantic still unaware of the fate that was hanging over him and he settled down with every outward appearance of a placid academic existence as a lecturer in physics at King's College, London. It was there in the following March that a detective-inspector from Scotland Yard met Dr. May as he was coming from one of his lectures and told him he was under arrest.

In some ways Nunn May's case is a prototype for all the rest. He was not only the first of the major atomic spies to be discovered; he also revealed the pattern by which nearly all the others can be recognized. He revealed, in fact, that we were dealing with an entirely new sort of traitor; a man who gave away secrets not for money or for power or through fear or hatred or the perverse attraction of the act of spying, or even habitually because he believed in a political faith. He betrayed because he found himself in possession of information of the utmost value and with an Olympian confidence decided that he should pass it on for the good of mankind. He did this although of his own free will he had taken an oath that he would never do it. This was something new in the world, a thousand miles away from the conceptions of deserting-do-confidential-agents-and-glaciating female spies; and from Judas no Shakerstone's saga there was no real precedent to explain it. Beyond this—the moral centers in their treason which is always somewhere, present in a more or less degree—it would be foolish to lay down rules about the atomic spies. They all led a double life, but there is nothing particularly new in that except that they carried it so far and so successfully. For the rest the three men being discussed in this book—Nunn May,

Fuchs, and Pontecorvo, differed extremely in their habits, their backgrounds, and their private domestic lives.

Nationality has nothing much to do with the matter. Nunn May was born in England, Fuchs in Germany, and Pontecorvo in Italy. The actual dates of their births may, however, be important, for they were all born a year or two of one another at the end of the first decade of this century and did their spying in their early thirties; and so they came under the influence of the same succession of political events at a special and chaotic moment of European history.

On the other hand, a study of races and religions does not get you very far in making rules about traitors, for Pontecorvo was a Jew while the other two came from Christian families, and none of them were very religious men. There is nothing perverse in their private lives; they were neither drunkards, drug-takers, nor pederasts, nor were they mad. Nunn May and Fuchs happen to be bachelors and are of a retiring disposition, while Pontecorvo was married with three children and by nature an extrovert. It is true they were all unusually gifted and highly educated men—perhaps too highly in the one direction of physics, for there is not much evidence that they took any lively interest in the humanities. They had no time.

Even in the best of circumstances they would probably never have become friends and in fact, though they met for short periods in different places, they barely knew one another. Almost certainly none of them knew that the others were working for the Russians until the arrests were made. Fuchs indeed discussed the May case among his friends—just as later Pontecorvo discussed Fuchs—with an air of genuine surprise. (Though admittedly this too may have been false.)

In following the careers of the three men it is always necessary to keep the contemporary political events in mind, for there is no real understanding of their treason to be had in any other way. It is futile to look back at them over the gulf of the last world war, and the politics of the nineteen-fifties can

be extremely misleading about the past. One has to approach them subjectively. Their first memories, as small children, were of war. They were at school in the twenties when Europe was painfully trying to recover its equilibrium—the days of inflation, of collapsing governments, of new politics arising out of famine and inequality.

It is true that by the time they entered their universities there was some stability in the world again, but the economic depression paralysed the scene almost at once; and it is hardly surprising that these three young men, whose lives are almost synchronous with the rise of Marxist Socialism, should have begun to look towards the Soviet Republic as the one, which held hope in an impossible world.

Then, about the time they were taking their degrees and moving on to post-graduate research (Nunn: May, at Cambridge; Fuchs at Kiel, and Pontecorvo at Rome) the Reichstag in Berlin was burned down, the Nazis began their extermination of the Jews and the Communists, and from that moment (the spring of 1933) events in Europe were precisely calculated to entrench the impressionable left-wing student in the belief that his cause was the true, in fact the only, one. Within six years there followed Mussolini's attack on Abyssinia, the Japanese aggression in China, the Spanish civil war, the Anschluss, Munich, the German seizure of Prague, and finally the onset of the war itself. Every new disaster seemed to demonstrate that Russia and the left wing had been right since the beginning; the Fascists had to be destroyed. And in fact left-wing foreign policy became the foreign policy of democratic governments everywhere. The left wing in other words was a popular and entirely legal movement, especially in the universities, and this, sometimes forgotten fact, has to be remembered in appreciating the three men we are considering here.

I offer this point not by way of apology for the treason (the term of thousands of other students were offered by the state

events and never caused to tread), but as the background of their conduct and part of the explanation of it. In writing down their case-histories in the following pages I have had one main object in view—to try and discover why they acted as they did. I have moved on the general presumption that they are not monsters or freaks who suffered from some disease or aberration in the brain, but rather that they are an extension of society itself and that they are, in some degree, symptomatic of the times in which we are living. Certainly they were all in a special position. Had they been zoologists the chances are that we would never have heard of them, for they would have had no great secrets to betray and the Russians would not have bothered with them. But they were physicians and they found themselves for a short time in possession of a great secret. They arrived at a point of power almost by accident. They had no training in the use of power. None of them struggled up to it by force of character or through political elections, or by virtue of an hereditary position. Power simply fell into their laps.

Ninety-nine per cent of us never have an opportunity of altering history, but these men had that opportunity. They were not professional spies. They were educated men who, like most of the rest of us, had formed ideas about the political problems of the world and (unlike the rest of us) were suddenly given an opportunity of taking direct action. Why these men in particular should have turned traitor when the vast majority of their colleagues did not—this surely is a question that has got to be answered if we are going to know the meaning of security ever again; for there will be others like them, subjected to the same temptations. Somehow we have got to discover where men's loyalties really lie and then test them in their loyalties, so that we shall know an enemy from a friend. We have also got to know whether the security services in Britain and North America blundered over these men, and whether some special protection against their kind can

...in the future, and there is an attempt to discuss these questions in the book. ... I have not tried to go into the fearfully complicated physics which were the material of these men's reason. On the technical side all we are concerned with here is the disposition of space which was set up for the construction of the atomic bomb, and that can be stated simply. ... By 1939 scientists all over the world were developing their inquiries into nuclear fission and exchanging information about it. Some of the most distinguished of these were German, and Halesi drove them out because they were Jews. They came to France, Britain, and the United States. As early as war broke out they began to consider the possibility of converting their discoveries into a new weapon. ... At Cambridge and elsewhere in England, a great deal of work on nuclear physics and related studies had already been done before the war by such men as Sir James Chadwick, Sir John Cockcroft, and other British scientists. They were joined in the 'thirties by Peierls, Simon, Born, and others who were forced out of Germany, and in the previous years England was far more ahead of the thinking and experiment in Germany or anywhere else. During the early part of the war, work on the atomic energy problem started on a small scale both in Britain and the United States, most of our nuclear physicists went to work on urgent war problems. ... In Hannover reached up in early 1940 about German work on atomic energy. The German scientists of von Ardenne's work who had remained in Germany were known to be at work, but there was little information of their program. So the making of the bomb was to some extent a race in which one never knew whether one was ahead of or behind one's opponent. ... As the Nazis moved westward across Europe the British team was strengthened by the arrival of other refugees, notably two French physicists, Halban and Kowarski, who escaped from France with 165 liters of heavy water which the French

Government had given them. ... The ... of their ... not at first drawing up the program and ... but they were free to develop their ideas on the atomic bomb. From 1940 onwards together with their British colleagues they began setting up the Churchill Government's greatly accelerated research program, even though it might not be regarded as optimistic, estimated as much as a By 1941 matters had reached a point where the independent research in the new ... needed to be organized under one general direction. In great secrecy the Government set up in London in October 1941 a unit, Sir Wallace Akroyd of Imperial Chemical Industries, and given the distinguished leading name of Tube Alloys. Contracts were let out to a number of leading industrial firms for the necessary equipment, special areas were made for research, and as the program and calculations came in a steady flow of information began to get between the laboratories. ... Then, towards the end of 1941 two American scientists, G. B. Pegram and H. C. Urey, came to England to exchange ideas, and from this time forward, with many political hitches and hesitations, the British and American efforts marched forward together. Since Britain was under fire and the United States offered such immense facilities, it was decided to transfer the bulk of the experimental work to North America; and it was during these comparatively early days of the project that Niemann, May and Fuchs were enlisted in England and Pontecorvo in Canada. ... In preparing this material I have relied very much upon the help given me by the Atomic Energy Division of the British Ministry of Supply, and by many of the scientists, officials, and others who know Niemann, May, Fuchs, and Pontecorvo at the various stages of their careers. This is in no way an official book—the original ideas of it, the pattern, and the opinions expressed are entirely my own. I have tried, however, to give

a somewhat fuller and perhaps a fairer picture than has hitherto been presented of the British activity in these cases: and I am indebted to the authorities for allowing officials to check my facts and, within the limits of official security, to help me where they could.

I have also availed myself of the Government documents published in Britain, the United States, and Canada in the last six years, of transcripts of the court cases, statements in the House of Commons and at Congressional hearings, and of a mass of informed but unofficial material which has appeared in print since these events came to light.

If I do not give the names here of the many people who have helped and encouraged me it is because there is still so much controversy over these matters, and I do not think they should be associated in any way with the opinions and conclusions in this book. They may agree with me and they may not. The least I can do is not to embarrass them. I can only hope that they know that I remember our meetings with gratitude and that they will accept my general thanks.

... the people who knew Allan Nunn May well have a difficulty in describing him precisely, though they make their meaning clear enough. To some he was a 'charming, shy little man with a dry sense of humour'. Others remember him as 'colourless', as 'rather a mousy little chap like a suburban bank clerk', as 'very quiet and retiring'. At the time of his arrest he wore glasses, he was going bald, and he affected a small dark, Hitlerite moustache. He lived alone very quietly, a senior reader in physics at King's College, London, on a salary of £800 a year. When his acquaintances search their memories they can find little else to say about him (where they will talk for hours about Fuchs and Pontecorvo). Upon one thing, however, they are all agreed—that there was nothing whatever remarkable about the appearance or the manners of Dr. Nunn May.

He was born on 2 May 1911 at King's Norton, near Birmingham in Worcestershire; one of a family of one girl and three boys. His father was a brass founder and moderately well to do. From the first Allan Nunn May was an exceptionally hard worker. At thirteen he was a Foundation Scholar at King Edward's School in Birmingham, and from there scholarships carried him on to Trinity Hall at Cambridge. His masters at Birmingham recall that he was a solitary boy but not gauche in any way, or narrow in his interests; in his written papers he had a very good literary style. It was felt that he might have been just as successful in the humanities as in physics.

Cambridge was brilliant in 1931 he had a First Class Mathematics Tripos and in 1932 he graduated as a Bachelor of Arts and obtained a First Class Natural Sciences Tripos. He stayed on at Cambridge after graduating, one of the most promising young men of his year, and in 1936 he got his Doctorate at Philosophy. That also was the year when in September he paid a visit to Leningrad.

Nunn May never made any secret of his left-wing sympathies. Few left-wing people did in England in the nineties-thirties. Those were the years when the undergraduates at Oxford passed a resolution that under no circumstances would they fight for King and Country.

At Cambridge, where Nunn May passed his most impressionable years, there was an even stronger movement towards the left, and it was nothing extraordinary that he should have been drawn into the anti-Fascist movement there. Many others were in it too—men like Donald Macken and Guy Burgess who vanished from the British Foreign Office in 1951 and who have never been heard of since. On logical and humanitarian grounds, if for nothing else, the left wing made an obvious appeal to British undergraduates in the thirties when the Russian experiment was still new; and it was bolstered by a sincere and adolescent indignation.

Marxism was a challenge; it required a faith so strong that you had to rise above the normal weaknesses of mankind and even deny your own family if need be. You were embarked, in fact, on nothing less than the reformation of the world.

The English universities never felt the full shock of the struggle that was going on between the left and the right on the Continent. There were no purges in England, no beatings up, no castor-oil treatment or internment camps. It was more of a philosophic than a political approach to Marxism. Yet a kind of vicarious heat was generated and the left-wing students soon found opportunities for direct action.

The Midlands of England, where Nunn May was born

and educated, were particularly hit by the economic depression at the end of the twenties. Shops by the hundreds of thousands had already been out of work for ten years, and now their plight became dreadful. It was an irremediable thing when one day four unemployed men pooled their last few shillings to hire an old car and drive it over the Sea Wall at Bristol in one final futile heroic attempt because life was not worth living any more. At Cambridge some of the students began to make night-marches with the tricolour. They welcomed the hunger-marchers on their way to London and fought in street battles on their behalf. When Sir Oswald Mosley's Blackshirt movement appeared—a pale reflection of the Nazi and Fascist Parties on the Continent—they went to his meetings with the deliberate object of making trouble. But it was the Spanish civil war that really aroused them. Boys of nineteen and twenty at Cambridge and the other universities abandoned their studies and went off to fight with the International Brigade in Spain. There were not many of them, but when they died or became wounded they were heroes in their day, the first martyrs in the new tradition of philosophical idealism which was to save the world from another war.

Allan Nunn May was not a man of action. He slipped through those events very quietly. He imbibed the philosophy but he did nothing drastic to implement it. He never distinguished himself at political meetings or in the street brawls, nor did he go to Spain. However, soon after his return from Russia in 1936 he became a member of the editorial board of the *Scientific Worker*, the official journal of the National Association of Scientific Workers; an organization that included many Communists; and from this platform and in other ways he continued his unobtrusive, persistent support of the left.

Then the war broke out, and the class struggle was swallowed up in the emergency. Most students and undergraduates

(including most of those who had voted for the Oxford resolution) forgot their politics and went off to fight. Nunn May was placed on a reserved list as a scientist. Shortly before the war he had left Cambridge and taken a teaching post at London University. His department was evacuated to Bristol and he lived at Long Ashton, just outside the town. He was recognized now, at the age of twenty-nine, as an exceptional man in his field of experimental physics, not one of the first flight, but certainly a man with a promising research career ahead of him, and he was befriended by such distinguished men as Professor C. F. Rowell, who later won the Nobel prize for his work in physics. Then, soon after the war began, he was moved back to London where he worked under Sir Charles Ellis.

Here he continued until the spring of 1942. Ellis found him a precise and imaginative worker, one of the ablest experimentalists in the physics laboratory. It was partly on Ellis's recommendation that in April 1942 Nunn May was invited to join the Tube Alloys project in the Cavendish Laboratory at Cambridge—that same laboratory where Nunn May had worked so well half a dozen years before. It was known that in the past Nunn May had been sympathetic to the left wing in his private conversations, but there was nothing unusual in this—so indeed were many other scientists who were now devoting all their energies to the winning of the war. A pro-Russia man was a sound anti-Hitler man. In June 1941 Russia had been invaded by Germany, and she was our strongest, almost our only, ally in the actual battlefield.

The extreme secrecy of the work at Cambridge was explained to Nunn May, and it was then that he signed the Official Secrets Act, which was the same thing as taking an oath that he would never divulge the nature or the details of his duties to an unauthorized person. For the next eight months he was at work in Cambridge and from all accounts he worked well.

There is no evidence that May was an active member of the Communist Party, or that during these eight months he was in contact with the Russian Intelligence Service. On his arrest in 1946 he refused to identify his contacts, and having made a short statement confirming the facts already known about his treason in Canada, he has refused any further information ever since. It well could be, however, that he did make some contact while he was at Cambridge, for Gouzenko's documents make it clear that the Director of Intelligence in Moscow knew all about him. It was the Director in Moscow who instructed Colonel Zabotin in Ottawa to get in touch with May, and the password was supplied by Moscow, it was 'Best regards from Mikel'. This makes it clear that May already knew that password and may have known it for a long time, even when he was still in England.

Outwardly, in 1942, he was immersed in his work and doing it so well that in January 1943 he was asked to go to Canada as a senior member of the British team working with the Canadians at Montreal. This organization was a joint Anglo-Canadian effort, for by now it was realized that with Britain under extreme pressure in the war a great deal of the experimental effort could be more profitably done on the other side of the Atlantic. In Montreal, too, the British could maintain a closer co-operation with the Americans, besides advancing their own heavy-water project in conditions of security and safety. Chalk River, an isolated spot in the open country to the west of Ottawa, was later chosen as the site for the larger heavy-water pile. For the next two and a half years, when the bomb was perfected and the war won, May moved regularly between Chalk River and Montreal and paid some visits to the Argonne Laboratory at Chicago.

He travelled to Canada in January 1943 on a banana boat with half a dozen colleagues and their wives. He was the only British-born scientist in the party and the senior member of it. Looking back now on that crossing, some of the members of

the party recall that May was neither very convivial nor noticeably detached. As usual he was simply quietly there in the background, volunteering nothing but willing to be drawn into any activity. One night they played the game of murders. It was a difficult matter for the player who had to find the murderer among the paraphernalia on the blacked-out decks. One of the wives remembers that when it came to her turn to be the detective she saw May standing there, mildly supercilious and apparently aloof from the game. She dismissed him from her mind and went off in search of the others. It was May who turned out to be the murderer.

In Canada he lived sometimes in staff messes, sometimes sharing an apartment, and sometimes alone. Towards the end he had an apartment at Swall Avenue in Montreal. He was the one whom the wives of the other scientists asked to dinner, not out of any special friendship, but because they thought he was so much alone and they were sorry for him. But life for Allan Nunn May blossomed out considerably in Canada. He had more money to spend. The drab blacked-out cities of England were now replaced by lighted streets and by the reassurance that comes from warmth, good food, and physical safety. Despite his reputation of being a lonely figure he did make attachments, and it is possible that he began to discover an affection and a confidence which had been lacking in his life before. In other words, the same stimuli in Canada which drew Gouzenko over to the side of the Western democracies were working in precisely the opposite way in the case of Nunn May. He has never revealed, as Fuchs has, the secret processes of his mind and the circumstances which led him to become a traitor. But he did have this comfortable and assured position through the last half of the war, and his friends believe that this had a bearing on his decision to pass information to the Russians. It was the gesture of a man who has got something to spare, of one who has to prove himself a hero in the midst of comfort.

Of Nunn May was an experimental physicist, and his work was concerned with the wider aspects of atomic research rather than with the bomb itself. Nevertheless, he knew about some of the steps that were leading up to the construction of the bomb; he knew about the graphite piles at Hanford and the production of plutonium; and he was fully conversant with all that was being done at Montreal and at the heavy-water pile at Chalk River. He made four separate visits to Chicago in 1944, and General Leslie R. Groves, who was the military commander of the American atomic research organization, has recorded in a letter to Senator Hickenlooper what the Americans knew of him. In this letter, dated 23 March 1946, Groves says:

He has been investigated, for security purposes, by the British Intelligence. That organization cleared him for access to any atomic energy work. It was not practicable for us to attempt to look behind the approval of the British organization as to the trustworthiness of any individual whom they had investigated. I am sure that they found no indication that he was not completely loyal and of unquestioned integrity.

The General goes on to relate the details of May's visits to Chicago and he adds:

By this time [October 1944] May had spent more time and acquired more knowledge at the Argonne than any other British physicist. Although I had absolutely no reason to suspect him, I did not like to have him acquire such a wide knowledge of latest developments. It is for that reason that in the spring of 1943 I declined to approve a proposed fourth visit of one month's duration. May never returned to the Chicago Laboratory and never visited any other Manhattan District installation.¹

There is an obvious contradiction here. General Groves is in effect saying: 'We accept the British clearance of these men: on the other hand we do not trust them.'

¹ Manhattan Engineer District was the name given for the atomic research organization in the U.S.A.

General Groves was, of course, in a difficult position. The Americans wanted the help of the British, but the British were after all foreigners. The Americans had no means by which they could readily investigate the scientists who were sent to them even if it had been politic for them to do so. They had to take the British clearance on trust. Yet the fact is that some sort of investigation was necessary, since all the atomic traitors, both British and American, were for a long time in America and the great bulk of their spying was done there. It is one of the unhappy objects of this book to prove that all security is inevitably fallible, particularly in the case of the atomic spies, and on both sides of the Atlantic.

This is a point we can return to later on. All we need note here is that the American misgivings about the British—misgivings that were justified as it has turned out—had a strong bearing on the mind of Allan Nunn May, for as soon as you keep a secret from your friends you breed a mystery, and even though you have the best intentions in the world, that mystery breeds distrust.

Nobody likes to be kept in the dark. And it is a fact that the British scientists in Canada did feel they were being kept in the dark, especially in the early days of the project when they hung about idly at Montreal waiting for equipment and supplies of heavy water with which to carry on their experiments. It would be foolish to pretend that there has been a full interchange of information between the Americans and the British. There has been scientific collaboration on a scale never attempted before between two nations, but it stops short of a full exchange. By how much more then did the Americans stop short in their relations with Russia. To a man like Nunn May, a self-appointed world-saver, this was a galling thing. It was not right. The Russians were our allies, and in this important matter he considered that they should have been taken into our confidence. He chose, through some peculiar logic of his own, to overlook the fact that the Russians

themselves were the worst of collaborators, incomparably more suspicious than the Americans. Throughout the war they confided practically nothing to their Western allies. But Russia had a special sanctity in the eyes of Nunn May; perhaps the hope of the world lay with them after the war. And so he decided to present them with his small hoard of knowledge, acquired and stolen, in order to redress their ignorance.

The methods by which Nunn May proceeded to his espionage are fully well known through the documents which Gouzenko brought out of the Russian Embassy at Ottawa and the evidence of Gouzenko himself. Certainly by the spring of 1945 his contact with the Russians was established; the vital spring when the first atomic bomb was about to be let off in the Alamogordo desert, and the Russian intelligence service was pulling every possible wire to obtain advanced knowledge of it. The Director in Moscow first suggested to Colonel Zebotin in Ottawa that May should be approached through Fred Roe, the Communist Member of Parliament, who was one of the central figures in the Canadian spy network. Zebotin, however, thought this too obvious and therefore too dangerous. He asked and got permission from Moscow to use one of his own men, Lieutenant Pavel N. Angelov, to make the contact. This Angelov was the same man who, with three other Russians, subsequently broke into Gouzenko's apartment. It is always the practice of the R.I.S. to disguise their agents' real names, even inside the network, and Angelov was given the code name "Baxter". Nunn May became "Alek". By some means, not now known, Moscow got in touch with Alek and warned him that Baxter would approach him, giving the password, "Best regards from Mikol".

At this stage Nunn May was primarily interested by the Russians towards obtaining information about uranium and atomic energy rather than about the bomb. Through the spring and early summer there may have been one or more meetings with Baxter at which Alek handed over all the information he

his possession about atomic research in Canada and the U.S.A. This information was sent by cable to Moscow, while Alek's own handwritten notes followed on by bag. For these services Baxter, early in April 1945, gave Nunn May 200 dollars. The notes were stuffed into a whisky bottle, presumably for the purposes of secrecy; meetings between spies usually took place in the street.

A second genuine bottle of whisky was apparently given to May at the same time. Baxter on his return to the Embassy made a note of the transaction: '200 dollars ALEK and two bottles of whisky handed over 12.4.45.'

Then, some time in July, Alek warned the Russians that his job in Canada was coming to an end and that he must soon return to London. Zabolin wired Moscow for instructions, and in a telegram dated 28 July 1945 the Director replied:

Try to get from him [Alek] before departure detailed information on the progress of the work on uranium. Discuss with him: does he think it expedient for our undertaking to stay on the spot; will he be able to do that or is it more useful for him and necessary to depart for London?

Nunn May was contacted again in the first week of August, and this turned out to be for the Russians perhaps the most fruitful meeting of all, for Nunn May had succeeded in stealing, probably from the laboratories in Montreal, minute samples of separated uranium isotopes. By now the first atomic bombs had been dropped and Alek was able to report on this too—no doubt he got his information through some grapevine of the scientists. The samples, together with May's written report, were regarded as so important that a Colonel Morinov, the Assistant Russian Military Attaché at Ottawa, was instructed to fly with them at once to Moscow. They were placed in a container marked by May '21' or '250' 'enriched'. At the same time the following telegram was sent:

To the Director:

Facts given by Alek: (1) the test of the atomic conducted in New Mexico (with '49', '94-239'). The bomb dropped on Japan was made of uranium 235. It is known that the output of uranium 235 amounts to 400 grams daily at the magnetic separation plant at Clinton. The output of '49' is probably two times greater (some graphite units are planned for 250 mega watt, i.e. 250 grams each day). The scientific research work in this field is scheduled to be published, but without the technical details. The Americans already have published a book on this subject.¹

Alek handed over to us a platinum with 162 micrograms of uranium 233 in the form of oxide in a thin lamina. We have had no news about the mail.

The telegram was signed 'Grant', which was Zabolin's code name. Zabolin was also able to send some further details with which May supplied them about the American electronically controlled anti-aircraft shells which were then being used against the Japanese suicide-flyers. Finally, on this most successful day, the Russians had got a report from May on another Englishman, Norman Veall, whom they were thinking of employing. May went to some length in advising them about Veall. Although Veall was a junior man and some eight years younger, May knew him well. They had met at Cambridge at meetings of the Association of Scientific Workers and for some time May tutored Veall for a degree in physics. For this purpose he visited Veall at his home every week. Veall was a member of a party of British scientists that crossed the Atlantic to Canada on another ship at the same time as May and the two men renewed their acquaintance at Montreal.

Veall gave evidence to the Canadian Royal Commission, and in the course of it he said that he was a member of the Young Communist League. 'I knew quite a few Communists

¹ This was the H. D. Smyth report, published by the U.S. Government in August 1945. It is still in 1952 the fullest account yet given on how the bomb was made.

in Cambridge,' he added, 'and one or two at least were close friends of mine and continued to work in the same lab.'

Veall was much too open in airing his political views for May's liking, and in Canada May warned him about it. For obvious reasons, May himself had grown cautious about discussing politics in Montreal: and it was a settled rule of the R.I.S. that agents should have no open connection with the Communist Party. Veall moreover had compromised himself by carrying Communist documents about with him, and he had openly visited the Russian Embassy at Ottawa—which was another thing that was strictly forbidden to agents or prospective agents. So now, in August, 1945, when May was asked his opinion of Veall's usefulness he was very precise. Veall, he said, occupied a fairly low position and knew very little. He was also inclined to be careless—as an example of this May pointed out that on one occasion Veall began a conversation with him while Veall's wife was still in the room. Worse still, he was known in the laboratory at Montreal to be a 'red'.

As a result of this the Russians decided not to employ Veall and the network was warned against him. There is no evidence that Veall gave information to the Russians at any time and the Commission exonerated him with the words: 'Veall did not communicate information with respect to atomic work for the reason that the Russians designedly did not ask him.'

But from this time forward Zabolin had need of any reliable agent he could get, for the Director began pressing him for more details. Zabolin himself made a journey to the vicinity of Chalk River so that he could make a personal inspection of the exterior of the plant; he urged his men to obtain every fact they could get hold of, and on August 31st he cabled a little fretfully to the Director who was not an exceptionally grateful master:

I beg you to inform me to what extent have Alek's materials on the question of uranium satisfied you and our scientists (his

reports on production etc.). This is necessary for us to know in order that we may be able to set forth a number of tasks on this question to other clients.

May himself, having supplied his samples, went off on a visit to Chalk River. He was there on August 16th, and it was probably some time before this that he made it clear to the Russians that there was no question of his remaining in Canada: he had to return to England where a post was awaiting him at King's College, London. It was therefore necessary for careful arrangements to be made so that May could make contact again in England in the event of his continuing to have access to useful information there. These arrangements were worked out between London, Ottawa, and Moscow. Already several messages on this subject had passed through Gouzenko's hands at the Embassy. They were: from the Director to Zabolin:

Work out and telegraph arrangements for the meeting and the password of Alek with our man in London.

To this Zabolin had replied at the end of July:

To the Director:

We have worked out the conditions of a meeting with Alek in London. Alek will work in King's College, Strand. It will be possible to find him there through the telephone book.

Meetings: October 7, 17, 27 on the street in front of the British Museum. The time, 11 o'clock in the evening. Identification sign—Best regards to Mikol. He cannot remain in Canada. At the beginning of September he must fly to London. Before his departure he will go to the uranium plant in the Petawawa district where he will be for about two weeks. He promised, if possible, to meet us before his departure. He said that he must come next year for a month to Canada. We handed over 500 dollars to him.

Meeting on October 9 or 17 or 27.

Moscow then got in touch with their London agents who evidently suggested an alteration of the arrangements. On 22 August 1945 the Director cabled Zaitsev:

The arrangements worked out for the meeting are as follows:

1. Place: In front of the British Museum in London, on Great Russell Street, at the opposite side of the street, about Museum Street, from the side of Tottenham Court Road street Tottenham Court Road, the contact man from the opposite side - Southampton Row.

2. Time: As indicated by you, however it would be more expedient to carry out the meeting at 20 o'clock, if it should be convenient to Alek, as at 23 o'clock it is too dark. As for the time agree about it with Alek and communicate it to me. In case the meeting should not take place in October, the time and day will be repeated in the following months.

3. The Password: The contact man: "What is the shortest way to the Strand?"

Alek: "Well, come along, I am going that way."
In the beginning of the business conversation Alek says: "Best regards from Mikol."

Report on transmitting the conditions to Alek.

No doubt these details were communicated to May. He made a final visit to Montreal to Chalk River on September 3rd and a few days later set off for England. He arrived on September 17th and shortly afterwards took up his appointment at King's College in London, where his work was no longer concerned with secret material. But whether or not he had the desire and the power to do still more harm was no longer of any consequence. For by now Gozenko had decamped from the Russian Embassy in Ottawa and Canadian intelligence officers had already translated the Russian telegrams which are quoted above. Allan Nunn May's espionage was finished, at least for a decade, and probably for ever.

¹ In 1945 there was still a special black-out of street lamps in London.

In the work of counter-espionage the first object is not to obtain the names of spies, but to determine their objectives and to follow up the espionage as far as you may observe. It is not sufficient to know the methods by which he works, but the identity of his contacts as well. This is a particularly profitable ground. You can reasonably say that the spy has no longer done his job if his performance and is a police agent which includes themselves of course, are perfectly aware. Hence the elaborate and often theatrical precautions taken by the Russians against their meetings. At no time could any of these have been certain that they had not been discovered already and were being watched.

There is one other aspect. Counter-espionage is often limited to work upon half-truths, suspicions, implications, and even guesswork. Often it may pick up half the links in a chain and never unearth the rest. You may be left with the logical certainty that a man is guilty but the evidence available will not stand up in a court of law and so a conviction cannot be obtained. Then, too, it may often happen that counter-espionage officers will not wish to reveal their evidence publicly lest they prejudice other cases they are investigating; lost in catching a sinner they miss the sheep.

These matters were admirably discussed by Mr. J. Edgar Hoover, the head of the F.B.I., when he appeared before the Senate Appropriations Sub-committee in Washington in

February 1950. He said: 'In a criminal case the identification and arrest of the wrongdoer are the ultimate objectives. In an espionage case the identification of the wrongdoer is only the first step. What is more important is to ascertain his contacts, his objectives, his sources of information, and his methods of communication. Arrest and public disclosure are steps to be taken only as a matter of last resort. It is better to know who these people are and what they are doing, and to immobilize their efforts, than it is to expose them publicly and then go through the tireless efforts of identifying their successors.'

Consequently the Special Branch at Scotland Yard did not proceed to the interrogation and arrest of Allan Nunn May directly they had word from Canada that his name was mentioned in Gouzenko's documents. Quite clearly it was of great interest to learn whether or not Nunn May was going to keep his appointment on either the 7th, 17th, or 27th of October, and if not in October then in November or December. It was important, too, to learn the identity of the man he was supposed to meet. It was to be presumed, of course, that as soon as Gouzenko defected, the Russians made a rapid check on the documents he had taken and had warned their agents accordingly.

Still one could never be sure.

Great Russell Street, the place of the rendezvous, is a fairly busy street in the centre of London. It is dominated by the long façade of the British Museum, and the other buildings for the most part are tenanted by respectable publishers. The front of the Museum is an easy place to watch, for it is an open place with no shops fronting the pavement, and no great crowds at eight o'clock at night, and it can be easily observed from the windows on the opposite side of the street.

But Nunn May kept none of the alternative appointments in October; nor did he appear in November. Moreover, there was nothing to excite the slightest suspicion in his comings and goings at King's College. He gave his lectures in physics

dates in the usual way and challenged himself with every appearance of being a normal member of the staff of the University. He took rooms at Stafford Terrace in Kensington, saw few friends, and lived very quietly. It seems possible, therefore, that May had been watched by the Russians. He could not have learned by any legal means of Gouzenko's defection or of the investigations then going on in Canada, for nothing was related to the Press until 15 February 1946, when Mr. Mackenzie King made a public statement in which he announced that a Royal Commission was being set up to investigate the communication of secret and confidential information to a foreign Power.

Up to the time of this announcement Mr. King had had a puzzling and difficult five months. In the previous September, directly he was convinced of the seriousness of the matter, he had visited Mr. Truman in Washington and had then gone on to England to see Mr. Attlee. He arrived at Southampton on October 6th, the eve of Nunn May's first alternative rendezvous outside the British Museum. May's identity had by then been definitely established, and both May himself and the place of rendezvous were watched.

Meanwhile Mr. Attlee and Mr. King proceeded on the wider aspects of the case, and they were very serious indeed. The Moscow Conference of the winter of 1945 was impending. The foreign ministers of all the major United Nations Powers would be attending, and there did seem to be some hope that, negotiating on their own ground, the Russians could be brought to an international settlement at last. Neither Mr. Truman nor Mr. Attlee was at all eager to bedevil the atmosphere of the Conference before it had even started—and that most certainly would have happened if Mr. King had come out with a denunciation of the Russian Embassy's activities in Ottawa. In any case many weeks were required yet by the Canadian police before they could translate and disentangle Gouzenko's documents—there were about a hun-

...I gave and had given very careful consideration to reports
...of making sure that development of atomic energy was
not confined to U.S.A. I took the very painful decision that
it was necessary to convey general information on atomic
energy and make sure it was taken seriously. For this reason
I decided to entertain a proposition made on me by the indivi-
dual who called on me on 10/10/45.

After this preliminary meeting I met the individual on
several subsequent occasions whilst in Canada. He made specific
requests for information which were just nonsense to me
and I mean by this that they were difficult for me to compre-
hend. But he did request samples of uranium from me and
information generally on atomic energy.

At one meeting I gave the man microscopic amounts of
U₂₃₅ and U₂₃₃ (one of each). The U₂₃₅ was a slightly over-
riched sample and was in a small glass tube and consisted of
about a milligram of oxide. The U₂₃₃ was about a tenth of
a milligram and was a very thin deposit on a platinum foil
and was wrapped in a piece of paper.

I also gave the man a written report on atomic research as
known to me. This information was mostly of a character
which has since been published or is about to be published.

The man also asked me for information about the U.S.
electronically controlled A.A. shells. I knew very little about
these and so could give only very little information.

He also asked me for introductions to people employed in
the laboratory including a man named Veale but I advised
him against contacting him.

The man gave me [here the phrase '300 Annas, was crossed
out] some dollars (I forget how many) in a bottle of whisky
and I accepted these against my will.

Before I left Canada it was arranged that on my return to
London I was to keep an appointment with somebody I did
not know. I was given precise details as to making contact
but I forget them now. I did not keep the appointment because

...I had decided that this clandestine procedure was no longer
appropriate in view of the official release of information and
the possibility of satisfactory international control of atomic
energy.

The whole affair was entirely painful to me and I only
embarked on it because I felt this was a contribution I could
make to the safety of mankind. I certainly did not do it for
gain.

May was arrested on 7 March 1950. Detective Inspector
William Whitehead of the Special Branch went to King's
College and at 3:30 p.m. met May as he was coming out of a
lecture. The Inspector, who did not want to make the arrest
inside the college, said to May: "I have in my possession the
warrant for your arrest, which I will read to you in a moment"
and he asked May to step outside into the street. May got
into the police car which was standing there and Whitehead
read him the warrants. He made no comment. He was taken
to Bow Street and charged under the Official Secrets Act but
again made no comment. Indeed, he has made no comment
ever since.

Meanwhile the storm had broken. Maclean's King's Col-
lege statement, which indicated that many others besides May were
implicated, had given the public's first intriguing view of a
new landscape in treason, where the mystery of the bomb was
added to the mystery of the spy: and it had opened up a new
and sinister relationship between Soviet Russia and the
countries of the West.

On February 20th, while May was being questioned in
London, Solomon Lozovki, the Deputy Commissioner of Foreign
Affairs in Moscow, sent for Leon Mayrand, the Charge
d'Affaires at the Canadian Embassy, and read to him a state-
ment:

"The Soviet Government", it said, "considers it necessary to
make the following statement:

"Soviet organizations have become aware that in the latter

periods of the war, certain members of the staff of the Soviet Military Attaché in Canada received, from Canadian nationals with whom they were acquainted, certain information of a secret character which did not, however, present great interest for the Soviet organizations. It has transpired that this information referred to technical data of which the Soviet organizations had no need in view of more advanced technical attainment in the U.S.S.R.: the information could be found in published works on radio location, etc., and also in the well-known brochure of the American H. D. Smyth, *Atomic Energy*.

It would therefore be ridiculous to affirm that delivery of insignificant secret data of this kind could create any threat to the security of Canada.

Note: the less, as soon as the Soviet Government became aware of the above-mentioned acts of certain members of the staff of the Military Attaché in Canada, the Soviet Military Attaché, in view of the inadmissibility of acts of members of his staff in question, was recalled from Canada. On the other hand it must be borne in mind that the Soviet Ambassador and other members of the staff of the Soviet Embassy in Canada had no connexion with this.

The statement went on to accuse the Canadian Press and Government of deliberately making bad blood between the two countries.

The last point in the statement quoted above was probably true inasmuch as Zabolin, we know, reported direct to the Director of the R.I.S. in Moscow, and according to Gouzenko he used his own code which was not known to the Ambassador. What was not true, however, was that the information given by the Canadian net, especially by Nunn May, was either insignificant or available in officially published pamphlets.

Nunn May's information went a long way beyond what has appeared in the Smyth report, it went further than any-

thing which has been published even today. Far from it being of no great interest to the Russians, the Director in Moscow was, as we have seen, intensely anxious to get it. Nevertheless May did not tell the Russians how to make the atomic bomb; no one in Canada had that information. That secret was known only to a very few people in Washington and at Los Alamos in New Mexico, and May had no access to any documents from them.

The Nunn May trial in London attracted no very great interest, or at any rate no very great public indignation. At that time, so soon after the cease-fire, the public mind was much more concerned with a different sort of traitor, men like William Joyce, who had worked for the Nazis in Berlin during the war. In France, Italy, Holland, and Belgium it was the Nazi collaborator who was being hunted down in 1946; not the man who had gone beyond his duty in giving assistance to our allies the Russians. Even for the more politically conscious people who saw that the war with the Germans was dead and done with, and that a new alignment was taking its place, the East against the West, this was no moment to provoke an outcry against Russia. What we wanted was to collaborate with Russia, to achieve some basis of mutual understanding and, at all costs, to avoid another war. Another war was unthinkable. We wanted, in Wendell Willkie's phrase, one world.

Very many of the scientists who had worked on the atomic bomb came forward and proposed that while there was still time, while this awful weapon was still undeveloped, we should legally do what Allan Nunn May had already illegally done in his own small way—pass information to the Russians, so that we could arrive at some reasonable arrangement with them. Through its spokesmen at Lake Success, Mr. Bernard Baruch and others, the United States proposed the outlawing of the bomb. It was a handsome offer. The United States was ready to give up its lead in atomic weapons, to demolish its

stockpile, and turn over its laboratories to the peaceful development of atomic energy—provided only that Russia on her side would guarantee to do the same thing. To some men it seemed inconceivable that Russia, who had suffered so much, could fail to agree. Somehow in some way Russia's suspicions could be overcome and she could be got to see that the West was sincere. This may seem naïve in 1952, but it was not considered so then: and so a spy like Nunn May, a Russian collaborationist, was not outrageously at odds with the current political thinking. In a strange underhand way, he was a guarantee to the Russians that there were men in the West who were on their side, who wanted them to be equals in a free world, so long as there was peace.

This, of course, is putting the most charitable possible interpretation on Nunn May's actions—it is accepting his confession at its face value; since it does not take into account that he was a Communist and therefore must have wanted to see the Russian, not the democratic, way of thinking dominate the world. He wanted, presumably, not just one world, but one Russian or Communist world. And as a Communist he must have been prepared to see the destruction of the institutions of democracy in order to get it.

But then he was an intelligent man, just the sort of man, it was thought, who could be brought around to some rational plan for the security of the world. He did not look like an anarchist. He was as mild as Einstein, as serious as Mr. Baruch. He was a university lecturer, and that was where the scandal lay: that a university man could ever have got himself mixed up in this business. He was not very high up in the hierarchy of physics, it was true, nevertheless he was an able man and the representative of a great institution. It was deplorable that he should appear in a police court, something had gone wrong somewhere, and perhaps he was telling nothing less than the truth when he said: 'When I returned I decided to wash my hands of the whole business . . . the whole affair was ex-

travely painful to me and I only embarked on it because I felt that was a contribution I should make to the safety of my kind.' In other words, he was claiming that he had acted on the best of motives and he could not bring himself to admit that he had really done wrong in the larger moral hemisphere of thinking in which, apparently, he lived. This was the stand upon which his counsel based his case in court.

There were two police court hearings and a trial, each conducted with dispatch, and since so much was still secret, with the minimum of evidence. He first appeared at Bow Street on 5 March 1946 and was remanded for a fortnight while the prosecution gathered further evidence. On March 20th he was brought again before the court at Bow Street, pleaded not guilty, and reserved his defence. Having heard a brief account of his career, his confession, and the circumstances of his arrest, the magistrate committed him for trial at the Old Bailey. Bail was refused.

The Old Bailey trial on 5 May 1946 was a full-dress affair before Mr. Justice Oliver with the Attorney-General, Sir Hartley Shawcross, prosecuting, and Mr. Gerald Gardiner appearing on behalf of the prisoner. The proceedings opened with:

The clerk of the court: 'Allan Nunn May, you are charged with communicating information contrary to the Official Secrets Act, 1911, and the particulars are that on a day between the 1st of January and the 30th of September 1945, for a purpose prejudicial to the safety and interest of the State you communicated to a person unknown information which was calculated to be or might be useful to an enemy. Are you guilty, or not guilty?'

The prisoner: 'Guilty, my Lord.'

Sir Hartley Shawcross began by describing this as 'a somewhat squalid case' of a man who had set himself up above the laws and the policy of his country—though it was true that there were people who thought that the atomic discoveries

should be shared between all nations. Indeed this was a hope to which we must aim—that the United Nations Organization would be able to establish conditions of sufficient confidence and stability to make that course possible.

Nunn May had signed the Official Secrets Act. He had known what he was doing. Yet he had given information, and accepted money for it. May's confession was read out in full except for the reference to the samples of uranium—those details were still judged secret at the time.

Mr. Gardiner in defending admitted at once that the agent to whom May had given information was a Russian. He said that May had not given away the actual secret of the bomb; his information had merely saved foreign scientists engaged on atomic energy research a certain amount of time. Mr. Gardiner went on: 'Doctors take the view, rightly or wrongly, that if they have discovered something of benefit to mankind, they are under an obligation to see that it is used for mankind and not kept for any particular group of people, and there are scientists who take substantially the same view.' May, in doing what he did, had not worked in concert with any other British scientists—he had come to this decision entirely on his own responsibility and without reference to anyone else. In February 1945—when the acts were committed—the British Army was mostly in Holland, certainly not across the Rhine, and the Russians were in the course of their drive to Berlin. It was customary to refer to them as allies who were doing at least their fair share in the war. It was perhaps an ironical expression if anyone at that date referred to them as enemies or potential enemies.

At this point the Attorney-General interjected: 'My Lord, I think I ought to make it abundantly clear that there is no kind of suggestion that the Russians are enemies or potential enemies. The Court has already decided that this offence consists in the communication of information to unauthorized persons—it might be to your Lordship, it might be to me or

to anyone. . . . What is hit at by this section is the fact that once information passes out of the control of His Majesty's Government, although in the first instance it may be to persons whose attitude to this country is entirely friendly, there no longer remains control over it and it may get into the hands of enemies.'

Mr. Gardiner then returned to his point that May had been influenced by a statement made by Mr. Churchill to the effect that we had offered Russia any technical or economic knowledge in our power which was likely to be of assistance to them. Rightly or wrongly May felt full of indignation that the promises of communication of technical assistance which had been given to one ally should have been made the monopoly of another.

Mr. Gardiner concluded: 'He had nothing to gain, except what we all have to gain by doing what we believe to be right; and he had everything to lose.'

May was asked if he had anything to say and he answered, 'No, my Lord.'

This was Mr. Justice Oliver's sentence:

'Allan Nunn May, I have listened with some slight surprise to some of the things which your learned Counsel has said he is entitled to put before me: the picture of you as a man of honour who had done only what you believed to be right. I do not take that view of you at all. How any man in your position could have had the crass conceit, let alone the wickedness, to arrogate to himself the decision of a matter of this sort, when you yourself had given your written undertaking not to do it and knew it was one of the country's most precious secrets, when you yourself had drawn and were drawing pay for years to keep your own bargain with your country—that you could have done this is a dreadful thing. I think you acted not as an honourable but as a dishonourable man. I think you acted with degradation. Whether money was the object of what you did, in fact you did get money for what you did. It

is a very bad case indeed. The sentence upon you is one of ten years' penal servitude.

Having uttered nothing in his own defence, still refusing to identify his contacts or help the authorities in any way, May vanished from the public scene to Wakefield Prison, in Yorkshire. His case was like a rehearsal in an empty theatre, a prologue delivered to an unresponsive house before the atmosphere had been created and before the real action of the tragedy had begun. There were still, however, one or two echoes from the case which sound oddly now in the nineteen-fifties when so much has happened and when our feelings about this sort of treason have become so firmly fixed.

A month or two after the trial the Association of Scientific Workers in Britain issued a statement calling for a reduction of the 'extremely harsh' sentence of ten years passed on May. 'It is noteworthy', the statement read, 'that the maximum sentence under the proposed Atomic Energy Bill is penal servitude for a period of five years. It is clear that no account was taken of Dr. May's positive contribution to the winning of the war by his scientific work, and that the sentence is out of all proportion to the magnitude of the offence committed.'

A few days later an independent member of the House of Commons, Mr. W. J. Brown, asked the Home Secretary, Mr. Chuter Ede, if he would review the sentence.

Mr. Brown said that it was perfectly obvious that May was no common criminal and no traitor in the ordinary sense of the word. He had suffered a much heavier sentence than had been passed on many people who had sold their country for money. The whole issue of atomic bomb secrecy constituted an extremely doubtful ethical area and would the Home Secretary have another look at the case?

Mr. Ede replied: 'It was open to this man to appeal against the sentence, although he would have run certain risks had he done so. It is still open to him to apply for an extension of time within which to lodge an appeal. I do not accept the

implications of the statement made by the honourable member. I can understand although I cannot condone the attitude of a man who said he was willing to make knowledge he had acquired generally available. But this man did sell knowledge he had acquired in the service of this country to a foreign Power for their private and particular use.'

There were, at this, loud cheers in the House.

Just one more attempt was made by the Association of Scientific Workers when they waited in a deputation upon Mr. Ede in the following year, 1947, and again asked him to reduce the sentence. The deputation was led by the late Professor Harold Laski and the answer was no.

After that nothing more has been heard of this matter. Nunn May indeed may hope for a reduction of his sentence by one-third on the grounds of good behaviour—and he has been a model prisoner. If this happens he will be released at the end of this year or early in 1953 after a term of a little more than six years. He may emerge changed in his political views. But that perhaps is no longer of much importance. What matters is that politics themselves have changed drastically in these six years, many new issues have come forward, and there is a cast of unreality and puniness over all the things that Nunn May and his friends may have hoped for in 1945.

...the news of Allan Nunn May's interest reached the atomic research station at Los Alamos, New Mexico, in March 1946, there was not unnaturally some little excitement among the British scientists and their families there. Here was one of their own people and he had turned out to be a spy.

FOUR

One of the wives heard the news first on the radio, and she came running to tell Klaus Fuchs and others who had been working there on the atomic bomb for the past year or more. As once they began asking each other: 'Who knew Nunn May? What was he like?'

'I knew him fairly well,' one of the women said. 'But I don't know how you would describe him. He was like—why, he was rather like Klaus here.'

Dr. Fuchs smiled politely but made no comment. However, he did discuss May's treason and he doubted whether May could have told the Russians very much. He had no very high opinion of Allan Nunn May either as a scientist or a man.

Even in 1946, before anyone knew about Fuchs's real character, it was perhaps stretching the facts a little far to suggest there was any real resemblance between the two men. There were certain superficial similarities, both physical and mental. They were very nearly of the same age—Fuchs was just eight months younger. Both were rather detached and non-committal in their manner. They were serious and shy and self-effacing. Both of them were adorned with the same bulging

forehead, the receding hair, the horn-rimmed glasses, the set mouth and the slightly weak chin. And in their sooty hearts, as we now know, both of them thought they had a mission to reform the world. So the pattern was the same. But in the quality of that pattern, its design and emphasis, they were as different as hydrogen and lead. Everything about Fuchs was lighter and more finely made. May was a square man and Fuchs was lean. Fuchs had a sensitive and refining face, a mildly lost air, and this made a great appeal, especially to women. He was just as silent as May but his silences were endurable. He was woefully short-sighted but behind the thick lenses his eyes had a certain inward quality that comes usually from reflection, over long periods and alone. His thin body was a good deal stronger and more resilient than it looked. He never played games (because he believed he could never play them well), but he was an exceptionally good dancer, a mountaineer of more than average tenacity, and a skier. The idea of poise, of holding yourself perfectly under control in difficult circumstances, played a very large part in Klaus Fuchs's scheme of life.

From America he came on to Harwell in England after the war, with a great reputation for his work at Los Alamos and New York. He was a senior man at Harwell, the head of one of the most important departments. He did not, of course, rank with Niels Bohr, Einstein, or the other half-dozen at the top. Still he was well up in the second flight, a distinguished and respected scientist of international standing. By 1949 he was earning a salary of £1,800 a year; though a bachelor, he enjoyed the obscure privilege of having a prefab house of his own, and he was rated as a possible No. 3 in the Harwell hierarchy under the Director, Sir John Cockcroft, and Professor H. W. B. Skinner.

He had just a very few close friends, and outside these he was not notably well liked by his department or his acquaintances at Harwell. He was too difficult to know. Despite all

probably never have a chance of seeing it again. He remained unmoved, not humpish or cynical, but detached and unimpressed.

He would go to the movies as everybody else did at Harwell, but it was impossible to obtain any real reaction from him after the show. He had liked it. He liked them all.

In the society of women he relaxed. He was the kind of man who needs women and that need naturally evoked a response. From his student days onwards there was always some woman with whom he was intimate, with whom he would be at ease and talk as he seldom did in the company of men. He was not gay but he was devoted. And on the woman's side there was usually a motherly desire to comfort this sincere and introspective man, to draw him out, to nurture him and give him a haven from his endless searching.

He was not an untidy man, either in his clothes or in the way he ran his house; but there were days when he did not shave and his dark blue beard sprouted in an ugly mat through his pale skin. But in all else he was a precise man. He was the sort of man who can look through a railway timetable in a moment and make clear and exact arrangements for a rendezvous—and he was never late. He was the chairman of a civil servants' committee at Harwell—a committee which settled the domestic affairs of the community, dealing with complaints and deciding who should approach the authorities over the drainage and the water rates and so on—and he was a balanced and excellent chairman.

He was almost a fanatic about security. He was the one who at declassification conferences, was often opposed to the release of information to the public. He was for ever going to the security officer to give him his keys for safe-keeping, and he was meticulous in the matters of locking up his documents and of guarding his speech among non-official people. No one ever accused Klaus Fuchs of careless talk; his was the type of bureaucratic mind which is always on the safe side,

which keeps silent when it is quite unnecessary, purely out of ingrained habit, and yet absurd for the injustice of the official word. As far as possible he liked things to be either black or white, and a genial compromise was, to him, always a mistake. He never mastered the art of talking easily or stringently. He had a sense of humour but he lacked warmth. He ate sparingly, often without appetite, and he was contented in nothing except those endless cigarettes and the occasional, showy bouts of drinking.

One of the staff at Harwell with a taste for clericalism, Professor Skinner, wrote this:

Fuchs
Look
An ascetic
Theoretic

There used to be a game in England—the sort of game that is played at a Christmas party—in which someone thinks of the name of a man and the rest of the party has to identify him by asking: 'What sort of music does he resemble? If he were architecture what period would he be? What painting does he remind you of?' and so on.

In his own mind, perhaps, Fuchs thought of himself as Sidney Smith thought of heaven—'Eating caviare to the sound of trumpets'. But to his friends he was Gothic, his music was Handel, and in painting he reminded them of the mystical bright colours of El Greco.

He was not a mean man. He paid his father's expenses on a trip to America, and, at the time of his arrest, he was arranging for his dead sister's child to be brought from Germany to school in England. He took great trouble in finding a suitable school; arrangements were made for the boy to live in Fuchs's house at Harwell and Fuchs was to pay all the expenses.

In the late nineteen-forties a spot developed on his lung, and he handled this illness in a curious way. There were times

when he looked haggard and exhausted, but he persisted in going on with his work and he never complained. No one then could induce him to see a doctor and go to bed. One of his friends recalls a drive along the Riviera during these winter holidays. The boat was crowded and the driving was fierce. The boat was full of traffic. Fuchs drove all day with a moans and frantic determination and he looked as though he would faint at any moment. In the morning when he was obviously better he said to his friends with a cold, dry temperature last night. It was 104°.

Then on other occasions he would give up and never give way, to his illness. He would lie for hours, even days, on end with his face turned to the wall, eating next to nothing, saying nothing, reading nothing, abandoning himself to a trance of physical grief. Then nothing could be done with him. He lay there hour after hour without speaking or making any sign. Sometimes these morbid fits went far beyond anything created by his illness, for that was adequately looked after by a doctor and he has been cured. Once one of his women friends went to him and said: 'Look, Klaus, why don't you get up? There is no need for you to stay in bed. You are not really ill any longer.'

He turned round and answered in a normal voice, 'All right. I'll get up if you think so.' Then he calmly dressed himself and went out to his office to work.

This querness was by no means a regular thing with him—it is remembered because it was exceptional. But those friends who had known him best over a long period noted something else which they regard as much more interesting. This was the great change that came over Fuchs at Harwell. In his early student days in the English universities he had been oblivious of what was going on around him, of the little ordinary things of life. He was not gauche or unwilling, but it would simply never occur to him that he might open a door for a woman, or give a present on a birthday or make a gesture of any

...the first to arrive at Harwell in 1946 when it was nothing much more than a bleak encampment on a deserted airfield. He had seen it grow up from next to nothing, and he had helped in all the planning. If there was one thing about Fuchs that was entirely apparent it was his devotion to

Consequently there were people like Fuchs very much indeed. He was their friend, their guide, he was much more to them than a brilliant distinguished scientist. He had come to England sixteen years before, a refugee, unable to speak the language, a refugee from the Nazis in Germany. In those sixteen years he had never been involved in a scandal, had never come to the notice of the police in any way except in so far as he was an alien when war broke out. And now, entirely through his own devoted work with the British and for the British, he had risen to the top in the most exact and difficult of all sciences, the theory of nuclear physics, and they were proud of him in a way...

He was one of the first to arrive at Harwell in 1946 when it was nothing much more than a bleak encampment on a deserted airfield. He had seen it grow up from next to nothing, and he had helped in all the planning. If there was one thing about Fuchs that was entirely apparent it was his devotion to

ONE of the things that must be put down against the Nazis is that they probably did more towards the corruption of Klaus Fuchs's mind than anything the Communists ever achieved. They ruined the Fuchs family just as effectively as some contagious plague might have done. They put the father into prison after the mother had committed suicide. They drove the eldest son and the younger daughter into exile and they caused another daughter to throw herself out of an underground train in Berlin. Finally, having set their brownshirts on to Klaus, the youngest boy, they forced him too into hiding and converted him into a bitter and hardened Communist.

The Fuchses were not Jews and in the beginning they were not Communist, so they were not natural targets of the Nazis. They were a Protestant family and they lived in rather poor but respectable circumstances in the industrial west of Germany. Dr. Emil Fuchs, the father, was a Lutheran pastor of immense religious faith, and he brought up his family in the belief that they must always do what they felt to be right whatever the consequences might be. It was not sufficient merely to know what was right; you had to act upon it. This was the centre of his creed, a positive and active Christianity supported by the love of God and a firm belief that every man knew within himself what was right and what was wrong. It carried him superbly through afflictions which are still unheard of among most families in England and America. He became a Quaker, an active pacifist, and as a member of a

group known as the Religious Socialists he was the first Lutheran pastor to join the Social Democratic Party after the First World War. He was a man of great courage and Dr. Fuchs enjoyed forty years of life in a fairly normal and settled community in Germany before the 1914 war broke out, and in that time his faith became strong. What he could not foresee was the effect of his teachings upon children who never knew his stability in their daily lives, who were born and brought up in a world of their stomachs when all the old values and loyalties were breaking up around them. Life for them became a frantic struggle for existence before they had fairly got their roots into the ground. The love of God was not so apparent to them as it was to Dr. Fuchs, and consequently there was a great danger in his teaching; for there was always the possibility that his children would absorb one part of it and forget the rest; that they would lose their faith in God and yet still believe in their absolute right and their duty to take decisions into their own hands, to act as they themselves thought best. This was a dangerous proposition, a demand for positive individual action which was not based on faith but on personal judgment, and it is precisely what destroyed the youngest son.

Klaus was born in the village of Kusselheim, not far from Darmstadt and Frankfurt-am-Main, on 29 December 1923, and he was christened Emil Julius Klaus. His first memories were of life in provincial towns in the industrial belt where his father travelled from one poor parish to another. He was too young to remember that he had been happy enough at school, and more particularly he remembered his first act of public defiance soon after the First World War was over. This happened one day when there was a celebration for the Weimar Republic which had succeeded the Kaiser's Government. Not all Germans by any means were ready to accept their defeat and the same compromise of a Socialist republic. They were willing to erect the Weimar flags on the public

buildings, but in privacy they had to be done. The flag went up on Klaus's school building but once the pupils got inside many of them took off their republican badges and put up the Imperial colours instead. At home, no doubt, Klaus had heard a great deal about his father's fervent hopes for the new constitution. So he stuck to his Weimar colours and the other pupils tore them off him. That was his first ostracism; his first effort at doing what he thought right no matter what the consequences might be. It seems possible that there could have been other incidents as well, for his father's pacifism could hardly have been popular in that atmosphere and it was still something of a scandal for a pastor to have openly joined a political party.

In 1925, when Klaus was thirteen, his father joined the Society of Friends, and the background of these schooldays is that of a poor, pious, and strictly Quakerish home.

Klaus then moved on to the university at Leipzig, and was gathered at once into those tortuous and futile undergraduate intrigues which bedevilled university life all over Germany at that time, and never ceased or made sense until he left the country for good in 1933. Even in the French and Italian universities in the nineteen-twenties there was no real parallel for these political upheavals among the German students, and certainly nothing approaching their violence occurred in England and America. Probably there was nobody in Europe less qualified than the German undergraduates to lay down political rules for themselves or anybody else, and in the absence of any real knowledge of government their half-digested philosophy flew into direct action. They operated in a political vacuum where nothing was established, neither the new Russian Communism nor the new democracy nor the old monarchical ideas of the West, and as yet nobody had foreseen that all these politics were going to be demolished by something quite new and horrible in the world, the doctrine of Fascism. However, for the time being this was a grand field

of operations for a boy like Klaus Fuchs, with his natural missionary desire to convert and to restore order out of chaos, and he plunged into the struggle with enthusiasm.

First, like his father, he joined the Social Democrats. As a pacifist he did not approve of the party's plans for the arming of the *Bannertrager*, but he much preferred the Social Democrats to the Communists who did not even bother to think for themselves—they simply took the party line. To an individualist like Fuchs this was quite impossible. He and he alone was responsible for his decisions and his actions.

Next, according to his own view of his father's teaching, he had to act, and so he joined the *Bannertrager* as well. This was already a contradiction of his pacifism, for the *Banner* banner was a semi-military organization designed to defend the democracy in case of violence. It was his first break with his father's philosophy, the first stage of the long downhill slide that was going to take him up to the Communists in Berlin.

In 1931, when Fuchs was eighteen, his father was given a professorship of religious science at the Theological Training College at Kiel, and the whole family moved to the north. Prior to this they had been living at Blumhof, the industrial town in the Thuringian Basin, and now their circumstances were somewhat improved. Fuchs obtained a diploma for his degree in physics and mathematics, and at once plunged up with the political lines he had left behind at Leipzig. Kiel was a good deal smaller than Leipzig, he was now an old hand at undergraduate politics, and he began to strike out for himself. He made his first decisive move to the left when he joined a new organization which was comprised partly of Social Democrats and partly of Communists, and he became chairman of it. This was an unwholesome group on any count. In the first place no genuine Social Democrat could have joined it, for it was the persistent policy of the Communist Party to attack the Social Democrats. The Communists loudly proclaimed the united front of the left against the Nazis and the

right wing; but this did not prevent them from decrying the Social Democrats as too spineless and inactive, not from trying to undermine them in every way. As in every other country, the long-range object of the Communists was, of course, to destroy the Liberals as well as the right wing; but that was something which Klaus Fuchs and his friends would not see clearly for many years to come.

There was one other reason why the new Social Democrat-Communist group was unwholesome and that was because it had a secret and treacherous object. It sought to infiltrate the Nazi Party, to gain the confidence of Nazi members by drawing them into illegal adventures, and then double-cross them by exposing them at the last minute. As chairman of the group, Fuchs soon found an admirable occasion for a manoeuvre of this kind. The Nazis were agitating for a reduction of the university fees. Very well, Fuchs proposed to them, let us jointly organize a strike of the students. The Nazis were a little taken aback at this, but they were ready to discuss the matter. Fuchs waited until the negotiations were well advanced, and then, without warning the Nazis, he issued a public pamphlet making it clear just what had been going on. As a method of making enemies it would be hard to find an improvement on this; and indeed the Nazis did not forget.

Long after, Fuchs said he had some repining. It had not been necessary to issue that pamphlet, he reflected. He had violated some standard of decent behaviour by doing it, and for a long time he could not straighten out the incident in his mind to his own satisfaction. Finally he accomplished this by saying that in a struggle of this kind any such regrets were simply weakness.

Meanwhile he was rapidly moving further to the left. He was already regarded as unreliable by the Social Democrats for his friendship with the Communists over the pamphlet affair, and then the series of Reichstag elections beginning in June 1932 gave him the opportunity of going the whole way.

Hindenburg had been proposed by the right for Reich President and the Social Democrats decided not to oppose him with a candidate of their own. If they should split the vote and let Hitler in, if Hitler was elected he would control the police organization and that would be the end of the Social Democrats in Prussia. Fuchs's argument was that you could not stop Hitler by combining with the right. The only way to do it was through a united working-class party; and upon this he finally broke with the Social Democrats. He offered himself as a speaker for the Communists at the election and the Social Democrats expelled him.

When Hindenburg was elected, and Von Papen as Reich Chancellor dismissed the democratic Prussian Government, it was all too painfully clear to Fuchs that he had been right. The Social Democrats were moribund and finished. They did not even have the strength to fight for the dying Prussian Government—all they did was to refer the matter to the Reich Central Court. The only place for him now was with the full-blooded, fighting Communists.

It did not occur to him that he and the Communists had played their part in destroying the Social Democrats and the last remaining hope of liberal democracy in Germany. Nor does he seem to have realized that by this time the Communist Party was committed to the deliberate policy of letting Hitler take power so that he could hang himself in the process, and in the resulting chaos the Communists themselves would sweep in and demolish all other parties, right, left, and centre. They turned out to be wrong about that, of course, but wrong or right Fuchs appears to have known nothing of it.

He had now performed the full cycle. From a practical democrat of Christian principles and a firm believer in the freedom of the individual he had developed into a militant Communist, an atheist who had handed over his free will to the party; and he convinced himself that it had all happened logically, step by step, the whole way.

... he had realized what he believed to be a first political
... to guard the Communist outright and he was the
... of the party of evolution for the one, was party. It was
... that called for some sort of action, and probably the
... of the party.

In 1933 Hitler became Reich Chancellor and
... that the Nazis in Kiel felt strong enough to go ahead
... with their work at the university. The Department
... was still in view the cover up people behind the scenes
... and Fuchs, who had something of his father's courage, did
... himself among them. They might have
... but they might have killed him, which would have been
... that thing among all the universities that were following
... Germany that year. However, in the end they simply
... killed him and show him in the streets.

... there was one thing needed to confirm Fuchs in his
... Communist it was that. Now he had suffered for thirteen
... years now on he was prepared to accept the party line
... or it might be—the situation was too critical to permit
... small the luxury of any qualms or doubts.

All that followed helped to confirm the idea that Fuchs
... he and his. 'Not a single party word against the extra-
... ordinary powers which were given to Hitler by the new
... Reichstag and in the universities there was hardly anybody
... who stood up for those who were dismissed either on political
... or racial grounds; and again you found that people whom
... you normally would have respected because of their decency
... had no force in themselves to stand up for their own ideas
... or moral standards.'

In other words the time of half-measures had gone. The
... fight was on. You either stood up to the Nazis or you were
... destroyed and all causes now had become either black or
... white. There were no half-tones in between; you had to be
... either a Nazi or a Communist.

Very early on the morning of 28 February 1933, Fuchs got

... and early in the morning he had been chosen as member
... of the Communist Party. He was the only one who did not
... know that the Nazis were looking for him that
... day in Kiel. He had been in the office for a week
... and did not know that the Gestapo had been hunting
... for the high school. The Gestapo had begun to
... in Kiel immediately after the seizure of power
... (of the Reichstag) and he knew that the Gestapo
... might have started to look for the high school
... from the first day that he had started work there.
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... for the high school.

The other three children—Gerhardt, the eldest brother, and

the two girls (Klára and Elizabeth) had also gone over to Communist sympathies by this time. Gerhardt managed to avoid arrest, and for a time he did his father's business for getting anti-Nazi refugees out of the country. Eventually Gerhardt escaped to Switzerland, where he obtained treatment for his tubercular infection. Klára managed to get to America later, and they settled down with her husband at Cambridge, Massachusetts. Elizabeth had the most tragic fate of all. She was an artist, and she married a Communist sympathizer named Kiszewski. They had one child, a son. The family was arrested and put into prison. From prison Elizabeth managed to help in organizing her husband's escape to Czechoslovakia. For months she heard nothing from him, but she herself and the baby were released from prison and they got word through underground channels that he was in Prague. The strain of this separation and the danger in which they were all living began to unhinge Elizabeth's mind. When the Munich Treaty was signed, and in March 1939 the Nazis marched into Prague, she became frantic with grief and worry. Her father was travelling with her one day in the Berlin underground. He held her hand, knowing that she might do something desperate since she was convinced that her husband had been caught in Prague and tortured by the Nazis. He let go her hand for a moment while he took the train tickets out of his pocket, and in that instant she threw herself out on to the track and was killed.

The fate of Klaus had been a good deal easier. The Gestapo never found him in Berlin when he arrived there in February 1933. He attended the students' conference which was held surreptitiously and received much praise for his work at Kiel. He was advised then by the party to make his way out of the country so that he could complete his studies abroad and then return one day and help in the building of the new Germany when Hitler's régime had collapsed. As a first step he was

¹ Kiszewski in fact was never caught by the Germans, and is still alive.

sent to a Soviet Labor Frontally while waiting to be assigned by Heinz Barbusse in Paris in August, 1933. After he had been five months in hiding, Fuchs clandestinely crossed the frontier into France in July and made his way to Paris. He was now twenty-one. He had no funds and friends outside Paris, except in the French Communist Party, and he spoke nothing but German. It happened that about this time a friend of his, a German girl who was engaged to one of his cousins, was living with an English Quaker family in Somerset, England. Fuchs wrote to her from Paris, where he was by now destitute. When the Quaker family heard the story they sent a generous invitation to Fuchs to come and join them in England, so that he could complete his studies. He arrived in England, ship-board, half-starved, with a bundle of dirty linen in a straw bag on 24 September 1933.

He told the immigration officer that he had come to England to study physics at the Bristol University, and he gave the reference the name of his father. He was registered on the official records of the Aliens Branch of the Home Office as a refugee; a steady stream of refugees was arriving at this time, and he was given leave to land. Fuchs said nothing about his Communist connections to the immigration officer. He went at once to his Quaker friends in Somerset and remained with them for the next two years.

Already in 1933, when he was still only twenty-one, Klaus Fuchs was an interesting study in loyalties—especially for those who had been brought up in secure homes in the Western democracies, and who had no real conception of what had been going on in Germany. Already he had betrayed—perhaps that was too strong a word for it—he had abandoned not one, but several causes. He had walked out on the Social Democratic Party. He had turned his back on both his pacifism and his Christianity. And now he was about to adopt an entirely new nationality. It would have been difficult for anyone to

have said precisely what he would say, and what he was going to remain. He had been subjected to frightening experiences—his father says he was sentenced to be hanged by the Nazis—and they had very nobly faithed him.

For his father, who had remained in Germany and who shortly would be left there alone as being up the street, the old child of his dead daughter, the letter was not the answer for Dr. Fuchs had his faith in God and that was absolute.

"The spring and summer of 1933," Dr. Fuchs writes, "was good to look upon. But my children were scattered, my life work broken. My friends were in danger, some had fled, others had been imprisoned, many had been killed. And around me was the success of what I know was the power of destruction and injustice. I hated the beauty of that spring and I fled the sight of families and the sounds of music. Hiding in terror behind sparkling life made for some doubly cruel. But then came the experience of Christ's presence, and it became stronger and stronger into my being."

Klaus Fuchs had none of this faith to bear him up. He was hungry, threadbare, and bitter. It was probably out of nothing more or less than a natural instinct for self-preservation that he turned towards the only two things that had any appearance of solidity in his life. One was his study of physics and the other was Communism.

The Nazis were very well aware of all this. Their gathering among the refugees and other groups attracted for the refugees were an admirable source from which to recruit new members for the party. Greater Communist gave them a lift with their hopes, and there was always the prospect, though through Communism, they would return to Germany once Hitler was ousted. In England, France, and all the Western democracies new cells of refugee Communists were springing. They profited by the current left-wing liberalism and anti-fascism of the West, especially on the outbreak of the Spanish civil war. They became active in all refugee organizations, in charitable and religious groups, in working-class movements, and in the universities. Such societies as these were obvious points of gravitation for every homeless refugee as soon as he arrived—there he could find friends, financial help, and people who could speak his own language—and the Communists at once set about drawing him into the party. With the increasing pressure on the Jews in Germany and with the fall of Austria and Czechoslovakia, the flow of these refugees continued steadily, and every refugee was at least a prospective Communist.

The Nazis were very well aware of all this. Their gathering

and consulates abroad were supplied by the Gestapo with lists of Germans who had escaped, and they never ceased warning the democracies against these dangerous reds. At times they demanded their extradition.

In November 1934 the German Consul at Bristol reported unofficially to the Chief Constable of the city that Klaus Fuchs was a Communist. This piece of gratuitous information was hardly likely to make any great stir in the Chief Constable's office. In the first place the German Consul was the representative of the Nazi Government; and secondly he admitted that the source of his information was a Gestapo report from Kiel (and it is worth while remembering that already in the early 'thirties the Gestapo was regarded with a horror which has hardly been eclipsed by the Russian secret police, even yet). In any case it was not illegal for a man to be a Communist in England; it was indeed a guarantee that he was not a Nazi. Moreover, there were no means of checking Fuchs's past record except from the Germans themselves, and they were scarcely unprejudiced—automatically they branded a man as a Jew or a criminal or a red or all three if he dared to escape from the Fatherland.

This report from the German Consul in Bristol in 1934 was the only definite evidence of Fuchs's Communism that was ever presented right up to the time of his confession and arrest. It was known, of course, among his friends that he had left-wing views; he never made any secret of it at Bristol. He associated with other German refugees who were known to be strongly anti-Nazi. But he never committed any public act which indicated his allegiance to Communism. He never joined the British Communist Party. He never told the police or any official body, now or later, that he was a Communist. And he never took an active part in any Communist meeting or demonstration, unless you count the fact that he was on the committee of a Spanish Relief organization which was largely concerned with assisting Spanish refugees.

In forwarding the Gestapo report to his authorities in London, the Chief Constable commented that Fuchs was not known to have taken part in any Communist activities in Bristol, nor had he in any way come to the unfavourable notice of the police. As an alien whose permit to stay and work in England had to be extended from time to time, Fuchs was checked on three separate occasions by the Bristol police—each time with the same negative result.

If it is, of course, true that had the police cared to inquire among Fuchs's friends and neighbours they would have turned up the fact that privately he held strong left-wing views—which was nothing more than they might have suspected already. The Quaker family with which he stayed used to make Intourist trips to Russia and were, at that time, enthusiastic about what they saw there. But friends and neighbours were hardly likely to volunteer much information of the boy's political background in Germany, even if they knew anything about it. In any case there were scores, even hundreds, of Fuchs's running round England in the nineteen-thirties, and provided they did not break the peace or openly make a nuisance of themselves the police had neither the means nor the desire to pry into their private lives.

Fuchs, in fact, was living a very quiet life indeed. It was as though his recent experiences in Germany had exhausted him and drained him of all desire for action. The record of the next six years in England is one of uneventful and continuous work in the universities while that excellent brain took hold of its subject to the exclusion of almost everything else.

For the first year he stayed in the country with his Quaker friends, eating very little, learning English, reading his books, seeing very few people, and he was a shy and unobtrusive visitor in the house. Those who knew him then describe him as an exceptionally gentle young man. He would never have hurt a fly. And he was grateful for what was being done for him. Soon after his arrival he was taken down to the Univer-

sity of Bristol, and there he met Professor Nevill Mott of the physics department, who spoke fluent German. Mott heard the story of how Fuchs had all but completed his degree in physics in Kiel when he was forced to go into hiding, and it was arranged that he should attend the Bristol University free of charge. In addition to this, Fuchs was helped by the Academic Assistance Council and the Society for the Protection of Science and Learning. In October 1934 (when the German Consul no doubt got to hear about him) he entered the University as Mott's first research student. About the same time his Quaker friends moved into the city and Fuchs moved with them. Later, when a little money reached him through the charitable institutions, he moved into rooms of his own in the suburb of Redland.

The physical laboratories of Bristol University have had few students of the ability of Klaus Fuchs. He worked with a persistent, methodical concentration, and there was very little in his life but his work. In 1937 he was awarded his Doctorate of Philosophy in mathematical physics; and at the same time he was given a research scholarship to continue his studies under Professor Max Born at Edinburgh. It was not a particularly good scholarship, for Fuchs was still an alien and quite unknown. Professor Mott says now that he possibly underrated Fuchs's abilities at the time, but his later success in physics was certainly not apparent then. However, he did well at Edinburgh. He began to contribute accounts of his original research to the scientific journals, he wrote a thesis 'On Some Problems of Condensation Quantum Dynamics and Stability of Nuclei', and within two years got his Doctorate of Science in theoretical physics. In 1939, on taking this degree, he was awarded a Carnegie Research Scholarship and he continued to work at Edinburgh.

Meanwhile, through these years, Fuchs was treating himself to a thoroughgoing study of the philosophy of Karl Marx in the privacy of his bedroom at home. He described this later

in his confession: 'The idea which gripped me most was the belief that in the past man has been unable to understand his own history and the forces which lead to the further development of human society; that now, for the first time, man understands the historical forces and he is able to control them, and that therefore for the first time he will be really free. I carried this idea over into the personal sphere and believed that I could understand myself and that I could make myself into what I should be.'

The method was pythagorean and the object messianic: the approach to glory by numbers. In Germany events had happened so rapidly and so violently, the struggle had been so immediate and so personal. But here was the philosophy behind it, the explanation and the justification: the indication of the way ahead. *Das Kapital* captivated him, just as it was captivating so many others in the universities just then. But Fuchs's faith was doubly strong, for he had already fought for the cause in Germany and, having been brought up in the habit of religion and having abandoned Christianity, he was desperately in need of something to replace it.

All this he wrestled with quite alone. He never tried to convert anybody else; indeed, in a political conversation he tended to retreat more and more into the private certainties of his own mind and keep silent. Equally there is no ground for believing that all through these six years he was in England he was acting as an agent for either the German or the Russian Communists. To a great extent he lost touch with Germany. He corresponded innocuously from time to time with his father (who was not a Communist), but most of his old Communist acquaintances inside Germany were either dead, imprisoned, or in hiding. He himself went abroad only once on a visit to his brother, who by now had escaped to Switzerland. He saw his sister Kristel once very briefly when she passed through England on her way from Germany to the United States in 1936. In any case, at the time of Fuchs's escape from

Germany in 1933 it was not the established practice of the Russian Intelligence Service to employ non-party members abroad—this came later. Fuchs, moreover, was still not in possession of secret information; up to 1939 there was a free—even an eager—interchange of information on nuclear physics throughout the world.

As for the effect of England itself and the life of a democracy upon Fuchs, it is impossible to say very much. As the years went by he did tend to become less political in his conversation and more engrossed in his work. It has been suggested by one of the scientists who knew him well that Communism was for Fuchs a kind of Sunday observance. The faith was always there in the background, but he had only a certain amount of time to give to it. Like a business man who is involved in his affairs all the week, he kept his religion in a separate compartment of his mind, and for the most part it did not impinge on his work in the laboratory. He never felt strongly enough to enlist in the International Brigade in Spain, and it may have been that by the outbreak of war in 1939 there was a certain weakening of his Communism. Certainly, he confessed later, he received a jolt when Molotov and Ribbentrop signed the Russo-German Pact. Up to that time he automatically accepted that most of the things you heard about Soviet Russia were deliberate lies. But here was a solid, avowed, and indigestible fact: the Russians had gone over to the Nazis, the people he most loathed in all the world. However, he explained this away by reassuring himself that Russia had signed the pact simply to gain time so that she could expand her influence against Germany in the Balkans. And then, when finally Hitler *did* attack Russia in 1941, he observed with delight that it was precisely so.

For a time also he found Russia's attack on Finland in 1940 an even more difficult pill to swallow. But this too was susceptible to logic, once one worked it out: Russia was simply preparing her defences against all imperialistic Powers. Had

not France and England themselves been thinking of invading Finland in 1940?

He succeeded then in resolving his doubts, but at least he did have doubts, and that was a considerable improvement upon his earlier attitude when he accepted the party line without question. He was beginning to think again for himself. His six years in England had gone a long way towards restoring his self-confidence and his sense of security. But the trouble with Fuchs was that he never knew when to stop. His self-confidence developed into arrogance—not an outward arrogance that required public display, but the inward and convinced arrogance of a genuinely introspective mind that never comes out into the open and submits itself to criticism. He fought his campaigns for the health, wealth, and happiness of mankind within the confines of his own skull.

However, in 1939 it was not beyond the bounds of possibility that, given a little more time in the safe seclusion of Edinburgh, he might have become a little clearer still on the subject of Russian Communism. Certainly he was beginning to accept the English way of life. He was now twenty-seven. He spoke English with a German accent but fluently, and he had made English and Scottish friends. On July 17th he applied for British naturalization.

On the face of it there was no reason why he should not have been naturalized then. He was supported by the Quakers and the universities. For six years he had been a loyal citizen, and his post-graduate work in the British laboratories had been remarkably good. But by July it was too late. The war began before his application could go forward, and from September 1939 all such naturalizations of enemy aliens were, for the time being, put aside. This was a pity, for, as an enemy alien, he was now submitted to an experience which may well have shaken his faith in democracy if he ever had any such faith.

On 2 November 1939, when the country had already been at war with Germany for two months, Fuchs was summoned

before the Aliens Tribunal at Edinburgh. He had been classified by the Home Office as a refugee from Nazi oppression, and there was now an investigation into his record.

When Fuchs was finally arrested after the war it was asserted that he declared himself to be a Communist before this tribunal, and consequently the authorities should have been on their guard from that moment forward. But this was not so. Fuchs made no such admission. All the tribunal had before it was a letter from Professor Max Born of Edinburgh University saying that Fuchs had been a member of the Social Democratic Party in Germany between 1930 and 1932. And, in view of his excellent record in Britain, the tribunal exempted him from the special restrictions which were then applicable to enemy aliens. He had to report to the police, but that was all. Fuchs went back to his work at the university.

This was the cold-war period when there was as yet no bombing of civilian towns and no real activity on the western front. But with Hitler's attack on France and the Low Countries in the following summer this picture altered entirely. Britain was now faced with an acute national emergency and the prospect of invasion. There were obvious reasons for keeping the closest check upon all German nationals. Quite apart from the question of their loyalty—and there was no time to investigate it then—refugees from Germany were likely to be one of the first targets of the Gestapo if Britain were to be invaded. In addition, the food shortage was starting, and no adequate staff or accommodation was available for the internees. There was, therefore, an urgent need to get them out of the country. Fuchs was interned under the General Order of May 1940.

He was sent first to the Isle of Man in the Irish Sea, and then transported across the Atlantic to the Sherbrooke camp near Quebec, in Canada. All this was done in a state of some haste and confusion, for the country was more concerned with fighting for its own existence at the time. Without doubt

some of the internees were compelled to live under harsh conditions during the early stages of the evacuation. In Fuchs's case he was bundled unceremoniously aboard a ship where some of the prisoners felt they were treated more as criminals than ordinary human beings. He at least was luckier than those aboard another internee ship, the *Arandora Star*, which was torpedoed in 1940 by a German U-boat and sank.

Some of the indignities the enemy aliens suffered seem grotesque now, though perhaps understandable when one remembers the strains and the dangers of the time. The ship in which Fuchs crossed from Liverpool to Quebec was the *Etrick*, and the journey took a fortnight. A strict discipline was enforced, and in his daily inspection tours around the ship the captain had his presence announced by a hunting horn, so that the prisoners were warned in advance to spring to attention. The papers relating to them had been sunk in the *Arandora Star*, and this meant that on their arrival in Canada nobody for a time knew exactly who they were. There were a group of German clergymen on board, and, on their arrival in Canada, it was assumed that they were Nazi parachutists in disguise who had dropped on Rotterdam during the frightful raid which almost destroyed the city; and they were treated as such. They and the others were greeted with jeers of 'How's Hitler?' and comments which were a good deal more thoroughgoing than that. Then, on another occasion, an honest British major assembled the prisoners before him. Most of their families had been murdered, imprisoned, or ruined by Hitler, and many of them had barely escaped the Nazis with their own lives. Consequently they were a good deal astonished when the Major declared: 'I'm British and I am loyal to my King. You are Germans and you think you have got to be loyal to Hitler. As long as that's clear and we understand one another we will get along together all right.' On still another occasion, when the prisoners were making a protest—it was a minor matter concerned with their unwillingness to

use prisoner-of-war notepaper or something of the kind—the guards turned their rifles on them.

Since men probably resent indignity more than anything else, especially indignity that is founded upon misunderstanding and injustice, it seems possible that Fuchs began to harbour a resentment against the democracies. He would hardly have been human if he had not.

The confusion still persisted in Canada after Fuchs's arrival, for there had been no time to sort out the prisoners adequately in England before their embarkation. Fuchs, now wearing a prisoner's uniform with a large coloured patch on the back, found himself in a camp which was designed to accommodate avowed and unrepentant Nazis. However, he found one friend there, and that was a man named Hans Kahle, who had also been sent to Sherbrooke by mistake. It is a matter for speculation now as to just how much Fuchs may have been affected by his internment and his meeting with this man Kahle.

Fuchs himself had no specific complaint to make later about his internment beyond saying that he realized that, at the time, Britain 'could not spare good people to look after the internees', and that being deprived of newspapers he was prevented from knowing how the British were getting on in the war and from learning more about the real character of the British people. Presumably what he meant (but did not care to say) was that up to 1940 he was not at all sure that the British were seriously determined to fight the Nazis: that was a job which ultimately the Russians would have to tackle.

At all events his internment had cut him off from his work and it is not impossible that in the idleness of camp life he turned to the other and secret passion of his life—the study of Russian Communism—and refreshed his faith therein. Certainly Hans Kahle would have assisted him in this matter, for Kahle was a case-hardened Communist who had been through the mill from 1935 onwards, a much older man than Fuchs and highly persuasive. He was born in Berlin in 1899 and is

reported to have been an officer in the Reichswehr before he became a Communist adventurer. He was in the Soviet Union in 1935 and 1936 and subsequently commanded a formation of the Republican Army in the Spanish civil war. In Spain he was regarded as a representative of the O.G.P.U.

In 1939 Kahle came to England where he wrote a book on the civil war, and quickly fell in with well-known British Communists. He was also active in working among organizations for the relief of refugees from Germany and Spain until war broke out, when he was interned and sent to Canada.

Later he was released in order to work under Professor J. B. S. Haldane at the Admiralty in London. Throughout the war Kahle was a Communist organizer and propagandist and a member of the executive of the German Communist Party in Britain. Possibly he was still then on the staff of the O.G.P.U. Soon after the war he went to the Soviet Zone in Germany, was given an important police post, and died there in 1947.

This man was the close friend and companion of Fuchs during the six odd months they were together in Canada, at first in a camp of pronounced Nazis.

It is not suggested that Hans Kahle drew Fuchs into the Russian espionage net—Fuchs has said he did not—but it is possible that he reported to the Russians that Fuchs was a promising prospect. If he did make such a report, the Russians did nothing about it. They were not always, as we shall see, remarkably efficient. Kahle and Fuchs met only once again when they had both returned to England, at a Free German Youth organization.

Fuchs got no black marks against him in camp. He was a docile prisoner. He took a normal part in the camp politics. Once he joined a protest against the appointment of the son of the former German Crown Prince as camp leader. (The young man had been studying in England when war broke out and was regarded as a Nazi sympathizer.) On another occasion he protested again when there was a report that

Jewish internees were to be exchanged for Canadian prisoners in Germany. But Fuchs was not notably obstreperous on these issues. There was, however, one other interesting fact that indicates how devious are the threads that pass through an espionage pattern, some of them leading nowhere. While in camp Fuchs used to receive papers and magazines from Israel Halperin, a professor of mathematics at Queen's University, Kingston, Ontario. Halperin, who was born of Russian parents in Canada, was closely questioned by the Canadian 'Royal Commission in 1946 and finally acquitted. Fuchs says he never met Halperin and does not know why Halperin sent him the magazines—except that, just possibly, Halperin might have got Fuchs's name from his sister Kristel in Massachusetts. Halperin crops up again in another way in the Fuchs case, for when the Canadian police raided Halperin's home they found an address book. And in that book was the name of Fuchs. This information was available to the authorities in 1946—a good three years before Fuchs was arrested.

But a good deal too much can be made of this. Halperin's address book contained many names of men who had nothing whatever to do with espionage. The mere appearance of the name Fuchs in that list in 1946—or of any other name—could not have led to an immediate suspicion. It well might have been included simply because Halperin had been asked to send magazines to Fuchs in camp. Still the connexion is there, and it remains one of the by-paths of the story that has not been satisfactorily explained.

Fuchs remained under internment in Canada for the rest of 1940 (consequently missing the worst of the air blitz on England), but his friends were working for him. Professor Born and other scientists who knew and valued his work pressed for his release. And by now the authorities in England had had an opportunity to check upon the men who had been so hurriedly sent away in the crisis. In January 1941 Fuchs was released. He returned at once to his research work at Edinburgh University.

In the spring of 1941 Professor Rudolf Peierls of the Birmingham University wrote to Fuchs in Edinburgh asking him if he would be interested in undertaking some work of a special nature at Birmingham. The salary was £275 a year. The job was temporary, but would probably continue for an unforeseeable length of time. If Fuchs liked to come down to Birmingham to discuss the matter his expenses on the journey would be paid.

Professor Peierls was already working secretly on the atomic bomb and he needed assistants—more particularly an assistant who was competent to make elaborate mathematical calculations. The difficulty was that most of the able English physicists had by now been pressed into work on radar and other immediately essential war-time research, and good men were hard to find. It was necessary to look among the enemy aliens.

Peierls had known Fuchs only slightly before the war, but he had read some of his research papers and he knew that Professor Mott of Bristol, Professor Born, and others thought highly of his abilities. On his record he appeared to be precisely the man for the job.

The interview took place in Birmingham and was satisfactory. Fuchs was not told the full nature of the work—he was simply informed that it was urgent, it was secret, and it was connected with the war—and he accepted the job. The problem now for Peierls was to get the appointment approved by the authorities in London.

The security services were consulted and they put forward the facts. Here was the report from the German Consul at Bristol which had to be regarded as a tainted source. Apart from this there was nothing against Fuchs; he had studied for seven years in England, he had applied for naturalization, he had been interned and then released, and now he was engaged on research into theoretical physics at Edinburgh. Apart from the fact that he was an enemy alien, at no point in this record had he given grounds for suspicion. However, it was only reasonable for the time being to put Fuchs on a low security rating—he should not be given access to more classified work than was strictly necessary. And it had to be estimated that, if he did give away information, he was more likely to give it to the Russians than the German enemy. That was security's report on Fuchs in 1941.

However, in England it is not the business of the security services to say whether or not a man shall be given a job. Their function is advisory—to put forward the known facts and interpret them. It is the responsibility of the Government department concerned to decide whether or not they shall employ the man. In this case the department concerned was the Ministry of Aircraft Production, for all work on atomic energy had recently been put under its control. The Ministry just then was engaged in producing aircraft to fight the Battle of Britain, and pronounced views were held by Mr. Churchill and his Cabinet: anyone, they argued, who was able to help Britain towards the winning of the war ought to be pressed into service, and at once. Fuchs was employed. And since it was manifestly absurd to ask him to engage in the work without telling him what it was about he was later given access to classified material in Birmingham.

He began work in May 1941, and signed the Official Secrets Act on taking up his employment. Since he was poor and alone the Peierls family found room for him in their house in Birmingham, and he continued living with them as an inti-

mate member of their household, until towards the end of his stay in England in 1943 when he moved to quarters of his own. Through all this time—a period of more than two years—he never indicated by anything he said or was observed to do that he was in touch with the Russians. The university staff and his friends were entirely without suspicion. They found him shy, rather silent and abstracted. He was quite hopeless at the business of looking after himself; unless someone in the Peierls household had sewn on his buttons, helped him buy his Christmas presents, and occasionally taken him out to social gatherings, then none of these things would have been done. He returned from his work each evening, and if nobody prevented him he simply went to his room and continued to work again halfway through the night. He was not disagreeable to live with. He liked children, he was fond of dogs, and in a mild, unworldly fashion he assisted at (in the French sense) rather than took part in the family and university gatherings. When he first arrived in Birmingham his face became paralysed with some infection, but as a rule he seemed to enjoy at least an anaemic good health. But he had bad teeth and preferred soft foods, especially eggs and puddings. He made occasional trips down to London, sometimes in connexion with his work, but otherwise seldom went outside Birmingham.

There was just one incident—it was hardly even an incident—that might have indicated to the scientists in Birmingham that they had a strange man here amongst them. It was a New Year's Eve party. They were singing Russian songs and Fuchs was observed standing a little apart from the others with a look of transcendental exaltation on his face—a look of such rapture that the woman who saw it imagined that he must suddenly have fallen in love.

Six months after Fuchs arrived in Birmingham the organization known as Tube Alloys was set up to co-ordinate the work of the atomic scientists in the different universities. It was not conducted as an ordinary Government ministry with a

hierarchy of civil servants, but was a small and very secret affair with unobtrusive offices in Old Queen Street, Westminster. It had a miniature staff headed by Sir Wallace Akers, of Imperial Chemical Industries, and Mr. Michael Perrin, also of I.C.I., who was brought in as his assistant. They were directly responsible to the Lord President of the Council (Sir John Anderson), and the Prime Minister. One of their duties was to act as a clearing house for information, as the work on atomic energy progressed. The scientists engaged on the project in Oxford, Cambridge, Birmingham, and elsewhere were asked to send in monthly reports which could be disseminated among themselves so that redundancies could be avoided and the work would march forward evenly. The man who never failed in bringing in his reports on time—who never pleaded that he was too busy, or that he was occupied with an experiment which could not wait—was Klaus Fuchs. And his reports were lucid, well written, and precise. When asked to interpret them for other scientists who were not working in the same field he also had a flair for reducing their technicalities to simple effective language.

Very soon Professor Peierls in Birmingham was delighted with the choice he had made of an assistant, and by 1942 he realized he had acquired something of inestimable value, a perfectly methodical calculating brain. More than that, Fuchs had a talent for understanding any problem that was put to him and he learned with astonishing rapidity. He could be asked to tackle any calculation and one could rely entirely upon his results.

The work at Birmingham was mainly concerned with the gaseous diffusion process of separating the uranium isotopes, which was still in the experimental stage both in Britain and the United States, and was only one of several alternatives then being explored. Professor Peierls was a gaseous diffusion enthusiast and Fuchs, working away in his private world of mathematics, soon became an enthusiast as well.

In 1942 Fuchs again applied for naturalization as a British subject, and he had the strong backing of the Tube Alloys directorate. Enemy aliens were only naturalized in exceptional cases during the war, and the reason given here was that Fuchs was engaged on work of national importance. He had to become a British citizen in order to be given access to certain prohibited places in connexion with his work.

There was a police investigation. The eight-year-old report of the German Consul was again brought up, and it was still the only evidence against him. Fuchs himself was examined at an open hearing—the British procedure is very similar to the system in the United States—and on 7 August 1942, on being naturalized, he took the following oath of allegiance:

I, Emil Julius Klaus Fuchs, swear by Almighty God that I will be faithful and bear true allegiance to His Majesty, King George the Sixth, His Heirs and Successors, according to law.

When he took that oath Fuchs was in active and regular contact with a Russian agent. He established that contact very soon after he arrived in Birmingham in 1941, and it was not the Russians who had come to him—he himself had approached them first and had offered to pass information.

It was not difficult for Fuchs to get into touch with the Russians. Through the refugee organizations and the universities he knew a number of Communists who had reached England from Germany since 1933, and it was one of these who passed him on to Simon Kremer, the secretary to the Soviet Military Attaché in London.

Throughout his association with Kremer Fuchs knew him only by the name of 'Alexzider', and never discovered his real identity. But Kremer was quite a familiar though a minor figure among diplomats and military people in London during the war. His full name was Simon Davidovich Kremer and he was a Russian, born in Gomel in 1900. He arrived in England to take up his post at the Russian Embassy two years

before the war, and he was accompanied by his wife and their two small children. His job was, without doubt, merely a cover for more important activities. He left England towards the end of the war, before the Canadian spy net was discovered and long before Fuchs's arrest.

What made Fuchs suddenly decide to turn active traitor in 1941? We have his own version of the matter:

'Shortly after my release [from internment] I was asked to help Professor Peierls in Birmingham on some war work. I accepted it and I started work without knowing at first what the work was. I doubt whether it would have made any difference to my subsequent actions if I had known the nature of the work beforehand. When I learned about the purpose of the work I decided to inform Russia and I established contact through another member of the Communist Party. Since that time I have had continuous contact with persons who were completely unknown to me, except that I knew they would hand over whatever information I gave them to the Russian authorities. At this time I had complete confidence in Russian policy and I believed that the Western Allies deliberately allowed Russia and Germany to fight each other to the death. I therefore had no hesitation in giving all the information I had, even though occasionally I tried to concentrate mainly on giving information about the results of my own work.'

The phrase 'another member of the Communist Party' is interesting, for it indicates that even though he had no contact with the party in England, he still regarded himself a member.

Certainly the timing was important. In June 1941 when Fuchs first began to work on the atomic bomb the Nazis attacked Russia, and then all those anxious doubts about the Russo-German Pact and the invasion of Finland were swept out of Fuchs's mind. There followed through the ensuing months Stalin's persistent demand (echoed by the Communist Party all over the world) for a 'second front'—an invasion by

the Western Allies of western Europe so that the strain on Russia would be relieved. When time went on and that demand was not answered, when Moscow nearly fell, when the battle for Stalingrad was fought and the losses of the Russians were frightful, it might indeed have seemed to Klaus Fuchs that his chosen people were being left to bear the brunt. He felt an ardent burning to do something for the cause. There were many other people in England who felt the same way at the time; Mrs. Churchill was organizing her Russian Relief Committee and an intensely pro-Russian feeling spread over Britain. Workers redoubled their labour in the factories and there was great enthusiasm when the first British arms were sent off to heroic Russia on the Murmansk run. But few people in England had either the means or the necessary arrogance to do what Klaus Fuchs did.

He took copies of his monthly reports of his work on atomic energy and gave them to Simon Kremer in London. That was his contribution to the heroes of Stalingrad and to the winning of the war.

He had at least four meetings with Kremer in London between the end of 1941 and the end of 1942. Since it was not always easy for him to get away from Birmingham during the working week—it is a train journey of several hours from Birmingham to London—the meetings were fixed at the week-ends and in the evening. The first was at a private house to the south of Hyde Park, not far from the Russian Embassy in Kensington Palace Gardens. Here he met just one man, a Russian, who spoke English and called himself 'Alexander', and seemed to be familiar with his surroundings. Fuchs, a meticulous man, may have had some doubts as to whether his contact—this man 'Alexander'—was genuine, and whether the information was actually getting through to the Russians because, soon after this first meeting, he went openly to the Russian Embassy to make inquiries, a thing that was absolutely forbidden to agents, and, unless they decided to waive

the rules in this case, he can hardly have been thanked by the Russians for it. However, he was reassured, for he took up his appointments with Kremer again and these were in the street; either a quiet residential road or a crowded bus stop was chosen on each occasion.

There was then, and still is, a technique of Russian spying. It is capable of infinite variation, but certain basic rules exist, such as the obvious one that forbids the spy to do anything so foolhardy as paying a visit to a Soviet consulate or embassy. Some time before the war the Russian Intelligence Service was reorganized, and spies were also forbidden to have any connexion with the local Communist Parties. These parties were still used as a recruiting ground for spies, but immediately a man was chosen he was obliged to break off all association with known Communists.

Under the new arrangements the Russians found it much more profitable to work through traitors—ideological foreigners like Klaus Fuchs—than through their own nationals, who tended on occasion to be atrociously heavy-handed in the unfamiliar surroundings of the West. The Russians themselves supplied the director of each net: he was usually placed in a country outside the one his net was spying upon.

The employment of traitors also called for a new kind of dealing since few of them entered the service for money. Nevertheless, it was necessary to bind them, to make sure they would not weaken or turn again; and so the Russian Intelligence Service forced money, however small in amount, upon their agents, and obtained receipts—which were useful for blackmailing purposes in case of necessity.

Russian agents are trained in the double life—it was so, despite the discovery of Fuchs's, as he appears to have imagined—and by the use of cover names and other devices they were all kept in separate compartments. The object here, of course, was to ensure that if a man were discovered he could give only limited information about his actual contacts. The main channels of

communication are normally through Russian embassies and legations. They in turn used diplomatic couriers who passed regularly to Moscow. Alternatively, coded messages were sent by illegal radio stations.

The meeting-places most favoured for spies and couriers were never private houses. Crowded streets and underground stations were found more private, since for the most part the contact lasted only a few minutes, just long enough to pass a document in a folded newspaper or a piece of microfilm in a cigarette.

As a rule spies made no signal of recognition when they met, but moved off to another place where the information was handed over and arrangements were made for the next meeting. As a precaution a third man, unknown to the other two, sometimes stood by to make sure that the meeting was not observed. There were counter-counter-espionage measures as well—constant tailing operations designed to discover just what security measures were being taken by the country which was being spied upon.

All these matters are fairly common knowledge now as a result of the Canadian investigations and the defections of so many Russians and other Communists to the West. But in 1941 and 1942 (when it was hardly to be expected that Russia was already implacably determined to undermine her allies) these things were far from commonplace. Fuchs had to learn the new conspiratorial technique from the beginning, and he showed a remarkable aptitude for it. The Russians could have had few agents as precise as he was, few men so exact in their memory, so clear in exposition, so practical and so eager.

It was October 1941 when Fuchs began passing information; it was in the form of carbon copies of his reports which he had typed himself, or manuscript in his own handwriting. All this information came from his own brain and was the result of his own work. If he had other information at the time he did not give it. It seems possible that in this

early stage he may have soothed his conscience by reassuring himself that, after all, this information was his own property. He had produced it; it was his to give away where he wished. But if these reservations existed in his mind they did not last.

At the end of 1942 Alexander disappeared, and Fuchs was told that from now on he would be dealing with a new contact, a woman. In addition the place of rendezvous was changed—no doubt to suit Fuchs's convenience—from London to Banbury. Banbury is a market town some forty miles from Birmingham. The new series of meetings began there in 1942 and continued at intervals of two or three months. On each occasion Fuchs took an afternoon train down from Birmingham in the week-ends, and then walked out along a country road just outside the town. The woman waited for him there. She did not live at Banbury; she came there specially for these meetings and left by train, no doubt for London. Just once they had a rendezvous in a café opposite Snow Hill station in Birmingham.

There have been many assessments of what Fuchs may have given the Russians through 1943. Certainly in the period 1941-3 he would have been able to tell them that we now considered the uranium bomb was a definite possibility. He could have—and in fact did—give them the results of his own calculations on the theory of the gaseous diffusion process for separating the isotopes of uranium, and the fact that U₂₃₅ produced in that way might be used in an atomic bomb.

He could also have furnished his own calculations of the amount of U₂₃₅ needed and of the efficiency of the explosion.

Dr. Karl Cohen, of Columbia University, has commented upon the state of Fuchs's knowledge at this time in a letter to the Joint Committee on Atomic Energy in Washington. He wrote:

Fuchs' name appeared on theoretical papers on the gaseous diffusion process to my certain knowledge in 1942, and I believe as early as 1941. Because of visits to this country of Peierls and

others in early 1942, when the relative merits of the Birmingham and Columbia versions of the diffusion process were discussed at length, and the established (though inefficient) channels of Anglo-American interchange of technical information, it is clear that before Fuchs' arrival he had good knowledge of the American plans for the gaseous diffusion plant. It is important to bear in mind that because of Fuchs' grasp of the theoretical principles involved, which interrelate the process variables so that the choice of a few determines the remainder within narrow limits, he would be able to reconstitute our whole program from only scattered pieces of information. Thus, even before his arrival in New York when he obtained full and detailed information, he could have transmitted a very good outline of the American gaseous diffusion project.

Dr. Cohen with some justice permitted himself to add: 'Compared to these consequences, Fuchs' betrayal of the personal integrity of scientists is of minor importance. Nevertheless it was a blow which all scientists bitterly resent.' This was a point that had not yet occurred to Fuchs himself in 1943, though it was going to overtake him with some force later on. Meanwhile he continued meeting his woman contact (she has never been arrested), and towards the end of 1943 he told her that he had been selected to go to the United States as a member of the British team which was to continue work on the gas diffusion process in New York.

Precise instructions were then given him by the woman for making contact again with the Russians in New York. He was to go to a street corner on the lower East Side on a Saturday carrying a tennis ball in his hand. There he would see a man carrying a book with a green binding and wearing gloves, with an additional pair of gloves in his hand. This man would be known to him as 'Raymond'. (It was actually Harry Gold, who was arrested in 1950 and is now serving a sentence of thirty years in the United States.) The two men would then take a taxi to a restaurant on lower Third Avenue,

where Fuchs would hand over his information and arrangements would be made for their future meetings.

In November 1943 Professor Peierls, Fuchs, and others embarked at Liverpool on the troopship *Andes* for the United States.

The voyage was a long and arduous one, and the conditions were far from ideal. The ship was crowded, and the food was poor. However, the journey was a necessary one, and the men were determined to make the most of it. They spent much of their time in the ship's library, reading and discussing the latest scientific developments. Fuchs, in particular, was a voracious reader, and he was always found with a book in his hands. The voyage also provided an opportunity for the men to relax and enjoy the company of their fellow passengers. They played cards, listened to music, and engaged in various other activities to pass the time. The journey was a test of their endurance and their ability to adapt to a new environment. Despite the hardships, they emerged from the voyage as a more cohesive and determined group, ready to face whatever challenges lay ahead in the United States.

After the war, Fuchs continued to work on atomic energy. He was involved in the development of the atomic bomb, and he played a key role in the Manhattan Project. His work was highly classified, and he was kept under close surveillance by the British and American governments. Fuchs was a brilliant scientist, and his contributions to the field of atomic energy were significant. However, his involvement in the atomic bomb project also made him a controversial figure. He was accused of being a spy, and he was eventually convicted of espionage. His story is a complex one, and it has been the subject of much speculation and debate. Fuchs's life was a journey of discovery and discovery, and his legacy continues to be felt in the world of atomic energy.

EIGHT

EXISTENCE on £275 a year in war-time England was hardly very expensive, even for an active bachelor with a double life. Up to this point Fuchs had been a lean and hungry-looking man. The gradual change in his outward manner probably dates from this journey across the Atlantic in the troopship *Andes*. After his two crossings as an internee the voyage seemed a great luxury to him, and he was lively and, for him, in high spirits on board. He was travelling with friends and as a representative of the British Government (for he had been made a temporary civil servant); he was going to work that he loved and now, at the approach of his thirty-second birthday, he had an established reputation. In particular he had recently been much congratulated upon a paper on the control of a diffusion cascade which had been of considerable value to the Americans. His conspiratorial life was untroubled by any misgivings or hesitations and his conscience had arrived, no doubt, at some sort of a mystical peace with itself.

He landed with the Peierls in early December and they proceeded at once to Washington to sign the usual security undertaking with the United States Government. There was no further investigation into Fuchs's credentials—he had been cleared by the British authorities as an accredited member of the British mission, and in the ensuing two and a half years when he was in the United States no other check was made upon him.

From Washington he went to the Taft Hotel in New York. Subsequently he moved to the Barbizon-Plaza and then to an apartment of his own at 128 West 77th Street. He visited his sister Kristel at Cambridge, Massachusetts, within a few days of his arrival—she had now settled permanently with her husband and children in the United States—and he continued to keep in touch with them throughout his stay in the country. There was indeed a plan at one time for the family to come and live with him in New York, but it fell through when he was posted to Los Alamos in the following year.

Almost from the moment of his arrival in New York Fuchs was exceptionally busy. Starting on 7 December 1943 he attended a series of meetings which enabled the American and British teams to clear their ideas about the gas diffusion process with one another, and plan their future operations together. At this time the scientists working on this part of the atomic energy project were divided into two groups: those at Columbia University who were mainly engaged on research, and those at the Kellogg Corporation where the large-scale gas diffusion plant was designed.

It was soon realized that the best contribution the British could make would be to help on the theory of the control of the gaseous diffusion plant, and Fuchs was specifically asked to make numerical calculations for its design. At the conclusion of the December meetings part of the British team went home, and Peierls, Fuchs, and some others remained to cooperate with the Americans. From this time forward Fuchs was intimately connected with the work both at Columbia University and at the Kellogg Corporation. He had an office at the British centre in Wall Street, and he was a frequent visitor to both laboratories. He did little else but work. It filled all his days. One can imagine that he was content, for after so much experiment and theorizing the moment of definite action was approaching. The first chain reaction had been achieved at Chicago on 2 December 1942. It was now to be

used to produce a nuclear explosion. The end result was still far off in a mist of conjecture, but at least they had decided upon a definite path, or rather a series of paths, to follow. Fuchs's contribution was substantial. He decided to make that contribution, and much else besides, available to the Russians. From this time forward he gave them everything he could, whether it was his own work or not. He brought the answers to their questions, he indicated the success or failure of experiments, and he furnished precise details of dimensions. No one on earth could have made an atomic bomb at that time, and Fuchs then knew little of the United States plans. But he knew nearly all there was to be known about the gas diffusion plant in the Manhattan Engineering District, and that the Russians had from him.

Throughout his stay in America he had only one contact, and that was Harry Gold, alias Raymond, the obedient little biochemist who was born in Switzerland and was a naturalized American. What he did not know was that, through Gold, he was drawn into an elaborate espionage network which had already been working in the United States for some time. Fuchs and the American traitors between them made a nonsense of the security regulations, and they revealed that all the paraphernalia of barbed wire and policemen, unless carried to a stupefying extreme, is a useless barrier in the affairs of the mind. When the atomic bomb came to be exploded not only Fuchs but an American traitor as well was standing inside the barbed wire at Los Alamos, with free access to their courier outside, Harry Gold.

Fuchs proceeded with his tennis ball to the first rendezvous with Gold on lower East Side, New York, early in the New Year, 1944. They met, they proceeded by taxi to a restaurant, and they arranged to meet again. It was Fuchs's practice from this time onward to warn Gold in advance of what he proposed to give him at their next meeting; normally it would be a package of papers which he had typed or written himself.

He was also prepared to answer questions. Gold, on his side, adopted a system by which, immediately he left Fuchs, he handed over the package to his superior in the net, the Russian vice-consul in New York, Anatoli A. Yakovlev, who would often be waiting around the corner of the next street, unknown, of course, to Fuchs. Gold then went home—he had a tortuous procedure of jumping on and off trains at the last minute to make sure he was not being followed—and wrote out a report on Fuchs's conversation. This report would be given to Yakovlev at a later, prearranged meeting. In the course of these proceedings Fuchs was once offered 1,500 dollars. He turned it down flat.

There were five meetings between Fuchs and Gold in New York, possibly more. In March 1944 they met in Madison Avenue when they were together less than a minute—just long enough for Fuchs to hand over his papers. They met again in the middle of June at Woodside, Queens, and Fuchs promised that at the next meeting he would bring information of the actual plans for the design of the uranium bomb. At the end of that same month when they met again near the Borough Hall in Brooklyn he did, in fact, deliver those plans. Gold took them quickly without waiting to join in conversation. In mid-July they were together again at 96th Street and Central Park West and on this occasion they strolled for an hour and a half through the park.

Years afterwards, when he was questioned, Fuchs could only remember that his contact Raymond was a man who did understand something of the technicalities they discussed. Possibly, he thought, he might have been a chemist. For the most part at this time he passed over his own original manuscripts, which his office supposed he had destroyed after official copies had been made. The main value of this information was that it gave away the principles and some details of the gas diffusion production plant at Oak Ridge, Tennessee. He also indicated the scale and timing of the American programme.

From his notes the Russians could have deduced the principles of one of the methods which we had chosen for separating uranium isotopes; and he could have set their speculations on that score at rest.

At the Central Park meeting they fixed the next rendezvous at the Brooklyn Museum of Art and, as an alternative—there was always an alternative at a later date in case either of them failed to keep the first appointment—they were to meet at Central Park West again.

Fuchs failed to keep either of these appointments. It was a matter of concern for the net when an agent vanished in this way for there was always the possibility that he had been arrested or had decided to cease his activities and had turned traitor to the traitors. Gold's movements then were like those of some agitated insect that has suddenly lost its way. He waited fruitlessly at the meeting-places. He went to Fuchs's apartment in 77th Street, but the doorman there could tell him nothing except that Fuchs had gone away. It was Yakovlev who hunted up the address of Fuchs's sister, Kristel, and Gold was posted off to Cambridge to see her. Gold explained to her that he was a friend of Fuchs's and wanted to see him rather urgently. Kristel could remember only that Fuchs had gone off 'somewhere in the south-west'. He had promised to spend the coming Christmas with her if he could. Then, Gold said, would she ask him to telephone when he arrived? He wrote out a New York number and put it in an envelope. Then he went away to report to Yakovlev and to wait.

What had happened was that Fuchs had been sent to Los Alamos in New Mexico. Professor Peierls and his family had gone there some time before, leaving Fuchs in charge of the New York office, and now Fuchs himself was wanted to help on the work for the actual construction of the bomb. It was one of the quirks of Fuchs's pedantic mind that security should always be observed; at any rate until he chose to break it in a way and at a time of his own choosing. Los Alamos was a

great secret. The director, Dr. Robert R. Oppenheimer, was assembling there a group of perhaps the most distinguished scientific minds that has ever been gathered together. Fuchs decided not to pass on this information to the Russians nor the news of his own departure. It was, for the moment, too secret.

He arrived at Los Alamos, was given a room in the bachelors' dormitory, and there began for him perhaps the happiest time of his life. Living there, high up among the pines, in the clear dry air of the desert, he began to develop a physical well-being which he can hardly have known before. On his days off he went mountain climbing. In the winter he went skiing; in the sunlight and the snow most people look rather better than they normally do, but the photographs taken of Fuchs in his skiing clothes at this time show that the change was remarkable. He appears lithe and assured and good-looking. There was much casual entertaining among the families at Los Alamos and Fuchs frequently went out dining and dancing. He had more money and although money was never a major interest for him he knew how to spend it generously and well. Since he loved motoring Mrs. Peierls persuaded him to go down to the town of Santa Fé and buy a car—a second-hand Buick. In every way he seemed more relaxed and at ease than his friends had ever known him before.

The security regulations were not too onerous—and one feels that Fuchs would not have objected if they were. At first the military authorities had wanted to put all the scientists into uniform, give them ranks, and bring them under army discipline. At this the scientists objected, and they won their point. However, the military did succeed in ringing them round with barbed wire—there was one pass to get into the residential camp and another to visit the laboratories and offices—and the guards on the gate were punctilious. Once inside the camp conversation among the scientists and their families was free and easy, but the pass system was formidable and the

townspeople down at Santa Fé had no notion of what was going on up there on the bare heights above. They believed, as Harry Gold expressively put it in court much later, that it was a sort of boondoggling to exist.¹ Still the scientists could and did go to Santa Fé and it was always possible for them to get tickets of leave.

Early in 1945, after six months of this life of engaging work in the fresh air, Fuchs went north to spend a short holiday with his sister Kristel Heineman and her family at Cambridge, just outside Boston, and there the first contact with Gold appeared. He came first to the Heineman flat and asked Fuchs about his work at Los Alamos. Fuchs agreed to put down all he knew in writing and this material was handed over at Gold's second meeting in a Boston street a few days later.

By now Fuchs was able to reveal a great deal. In his notes he gave details of the plutonium bomb (it is distinct from the uranium bomb), its design, the method of construction, and the fact that the plutonium was produced in atomic piles at Hanford in the state of Washington. In particular he gave a description of an implosion lens (a device that explodes inwards) which was to be used in detonating the plutonium bomb. Later the Russians evinced much interest in this implosion lens; they pressed Gold to scour his mind for any further details Fuchs may have given him, and in the end Gold succeeded in getting actual drawings of the lens from a well-known can traitor, David Greenglass, who was also working at Los Alamos.

Before Fuchs and Gold parted in Boston it was agreed that they should have a further meeting in the summer of 1945. It should take place at Santa Fé, since it was unlikely that Fuchs would be able to come north again. The place was to be the Castillo Bridge in Santa Fé and the date was to be

¹ To be accurate, Gold was not a townspeople, but a townsperson. He was a native of Santa Fé and had lived there for many years before he came to Los Alamos. He was a well-known figure in the town and was known to many of the townspeople.