## INSTITUTE FOR THE STUDY OF WESTERN CIVILIZATION SUMMER SERIES ON THE HISTORY OF ESPIONAGE LECTURE 8: ATOMIC ESPIONAGE







Stalin and Truman at the Potsdam Conference, July 24, 1945

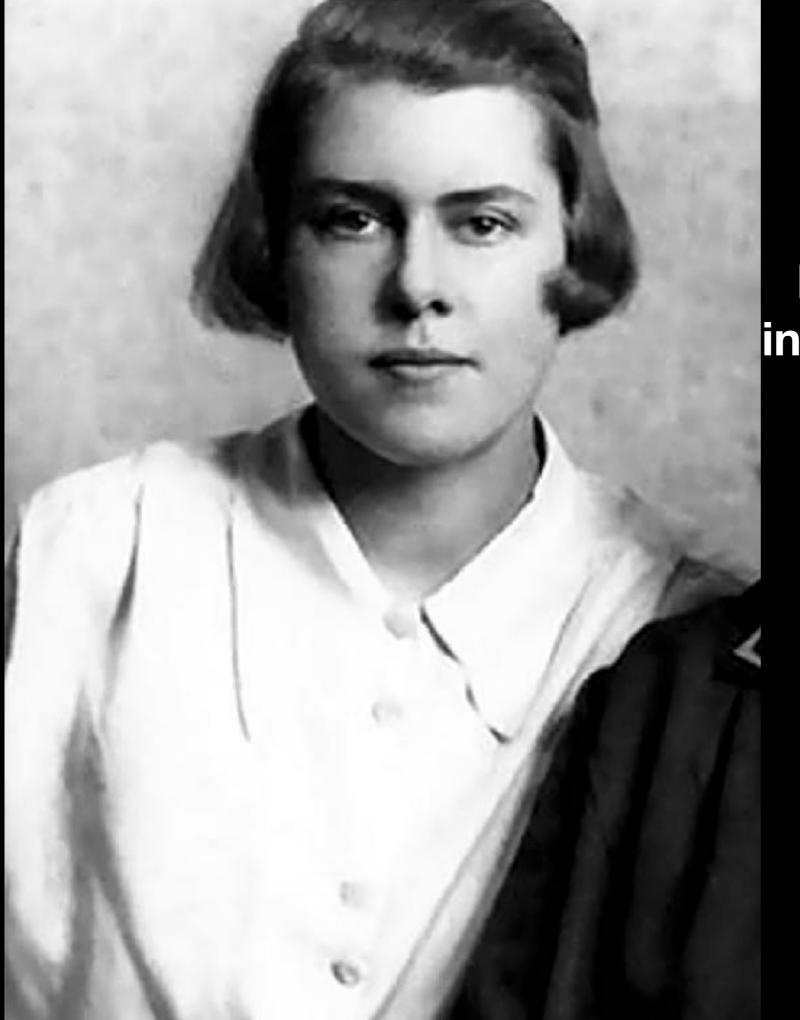
"On July 24, I casually mentioned to Stalin that we had a new weapon of unusual destructive force. He showed no special interest. All he said was he was glad to hear it and hoped 'we would make good use of it against the Japanese."—Harry Truman



"The great-grandmother who came in from the cold"

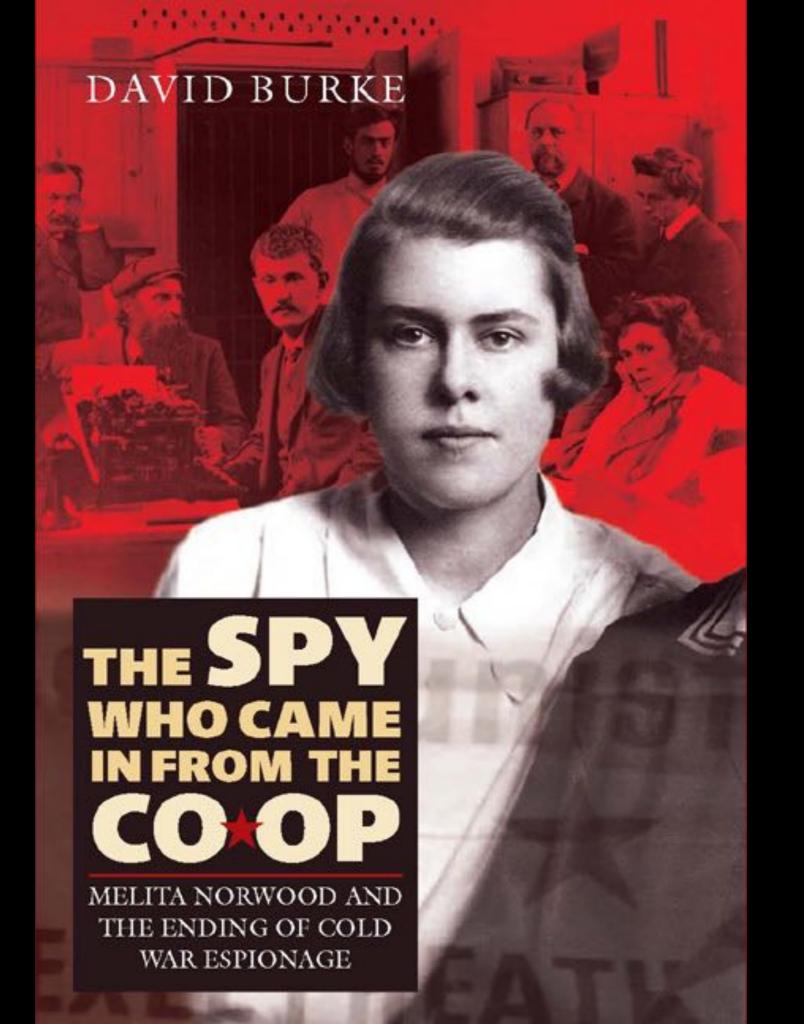


Exposed in 1999, at 87



Melita Norwood worked in the research department of the British Non-Ferrous Metals
Association:
TUBE ALLOYS was the code name for the British atomic

bomb project.





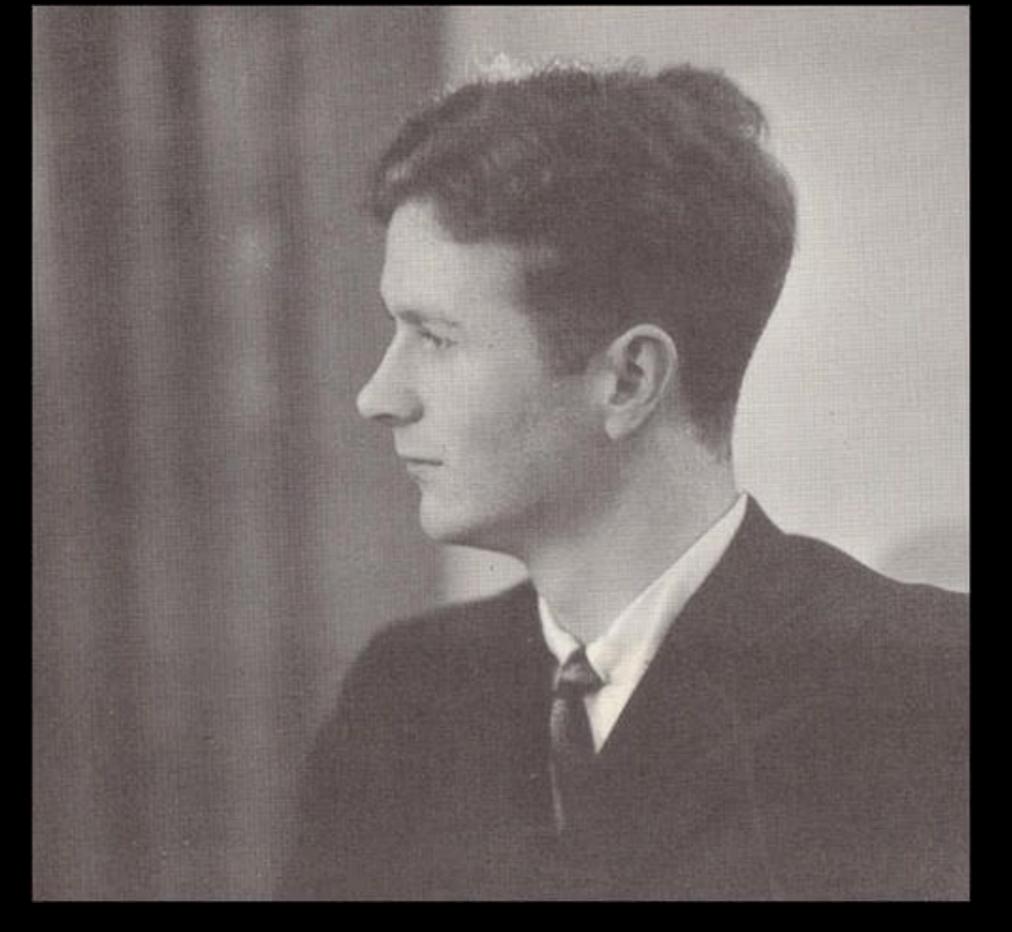




I did what I did not to make money but to help prevent the defeat of a new system which had, at great cost, given ordinary people food and fares which they could afford, a good education and a health service.

— MeIita Norwood —

AZ QUOTES



John Cairncross, one of the Cambridge Five spies, also sent information about TUBE ALLOYS to Stalin.



As did Donald Maclean, another member of the Five.



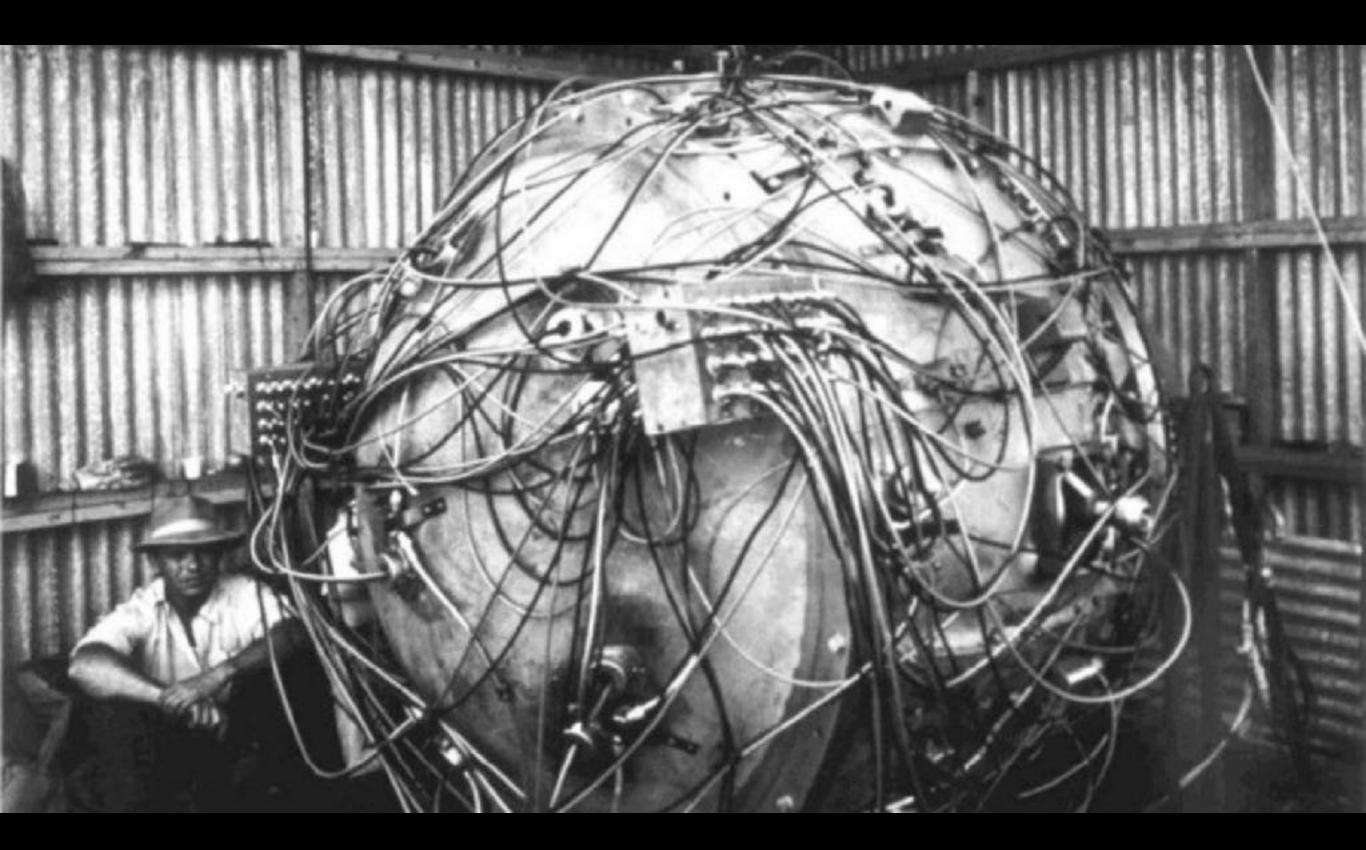
Klaus Fuchs (1911-1988)

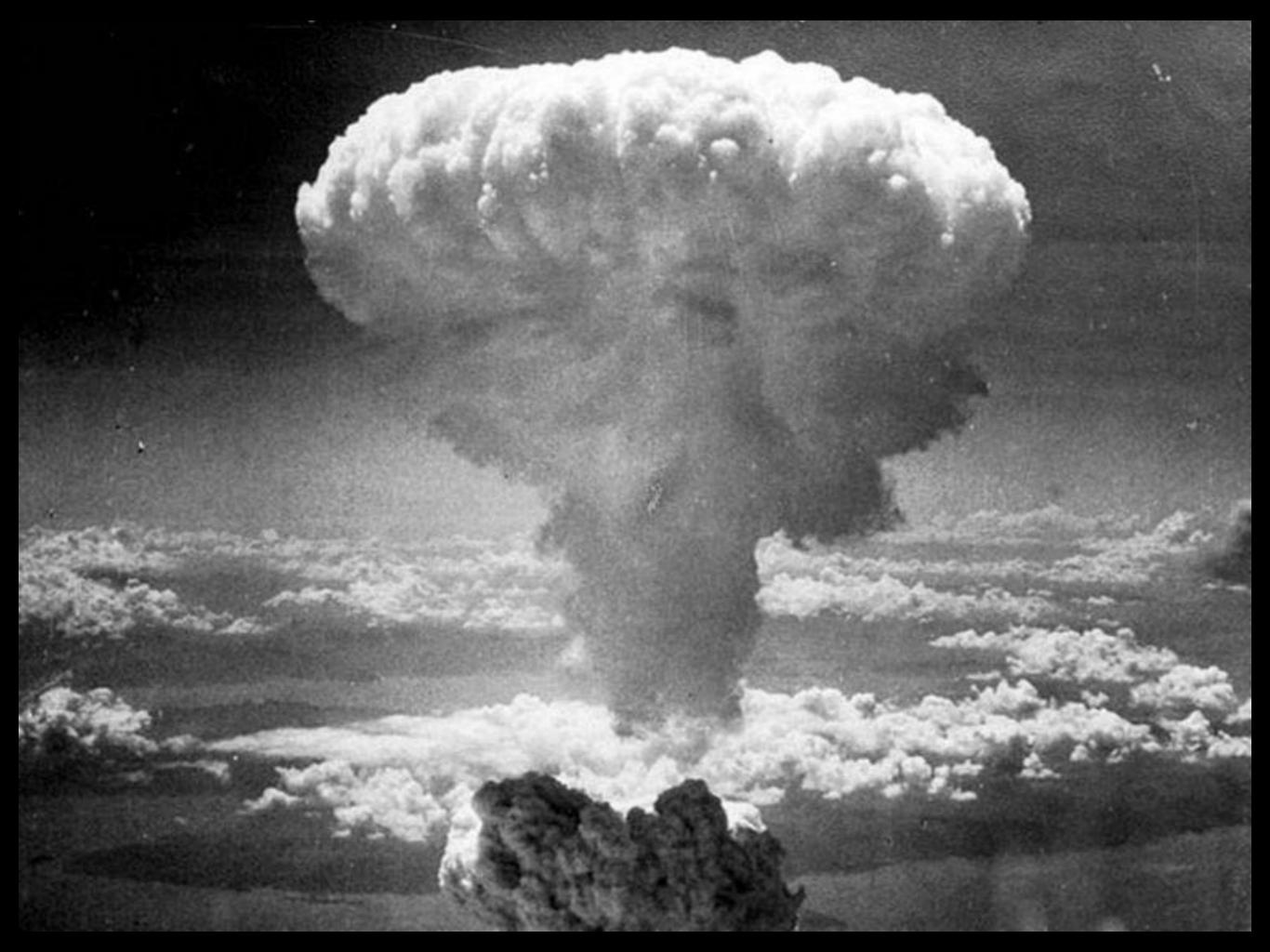
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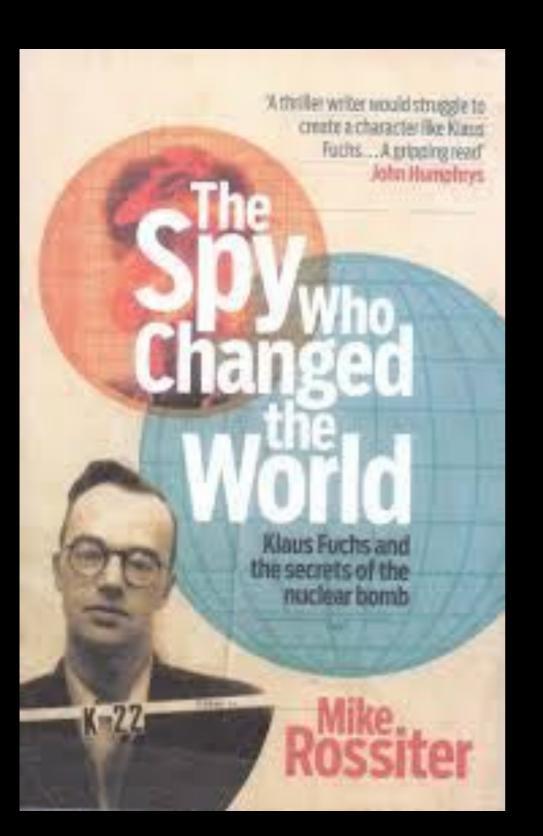
Why did one of the most intelligent men on the planet think he was performing a service to humanity by sharing the secrets of the most powerful weapon ever devised with a regime headed by one of the worst mass murderers in history?

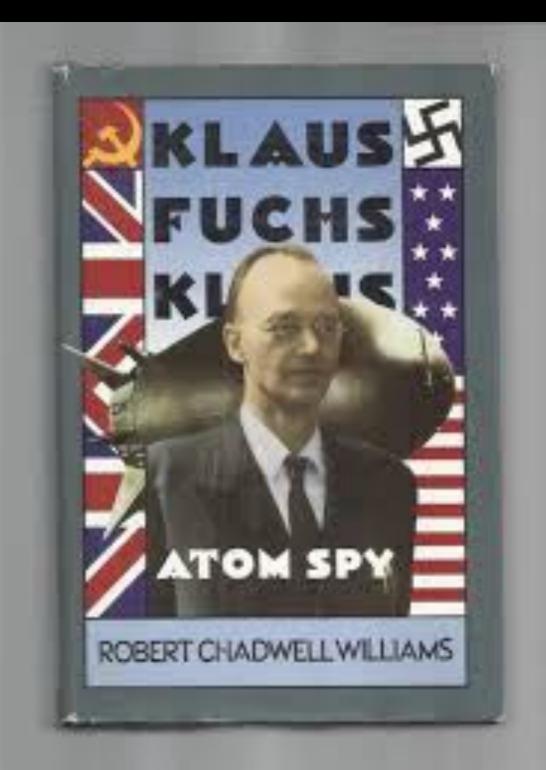


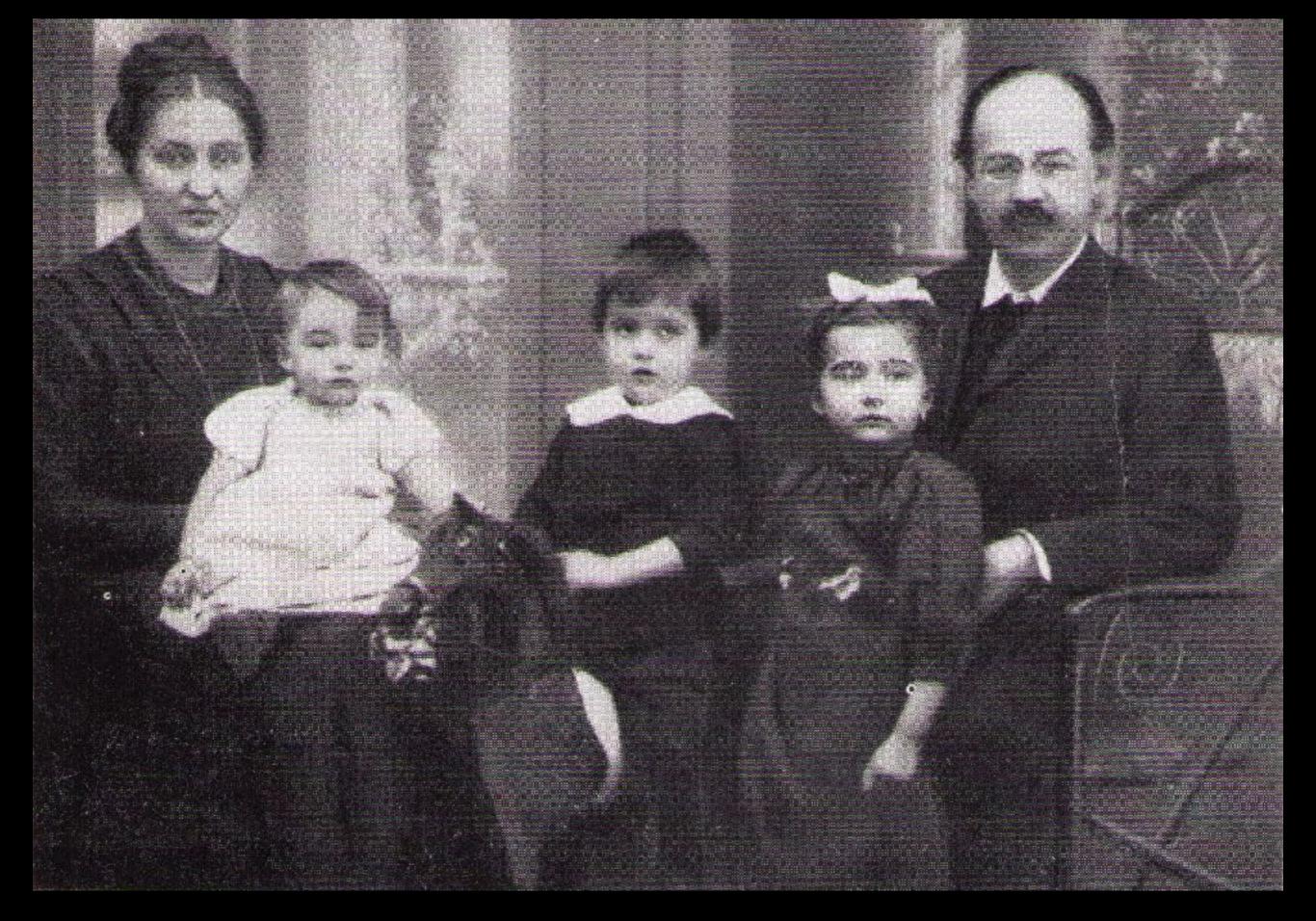
WHAT YOU SEE HERE
WHAT YOU DO HERE
WHAT YOU HEAR HERE
WHEN YOU LEAVE HERE
LET IT STAY HERE











Fuchs's father was a professor of theology



Germany 1920



Germany 1933



"The only people who had risen above the fear and demoralization of the victory of Hitler and the Nazis, who had kept their strength and optimism, were those who had fought. Only amongst those were there happy people."—

Klaus Fuchs



Einstein addresses his fellow scientists



**Nevill Mott 1905-1996** 

University of Bristol



Max Born 1882-1970

**University of Edinburgh** 



## Rudolf Peierls 1907-1995

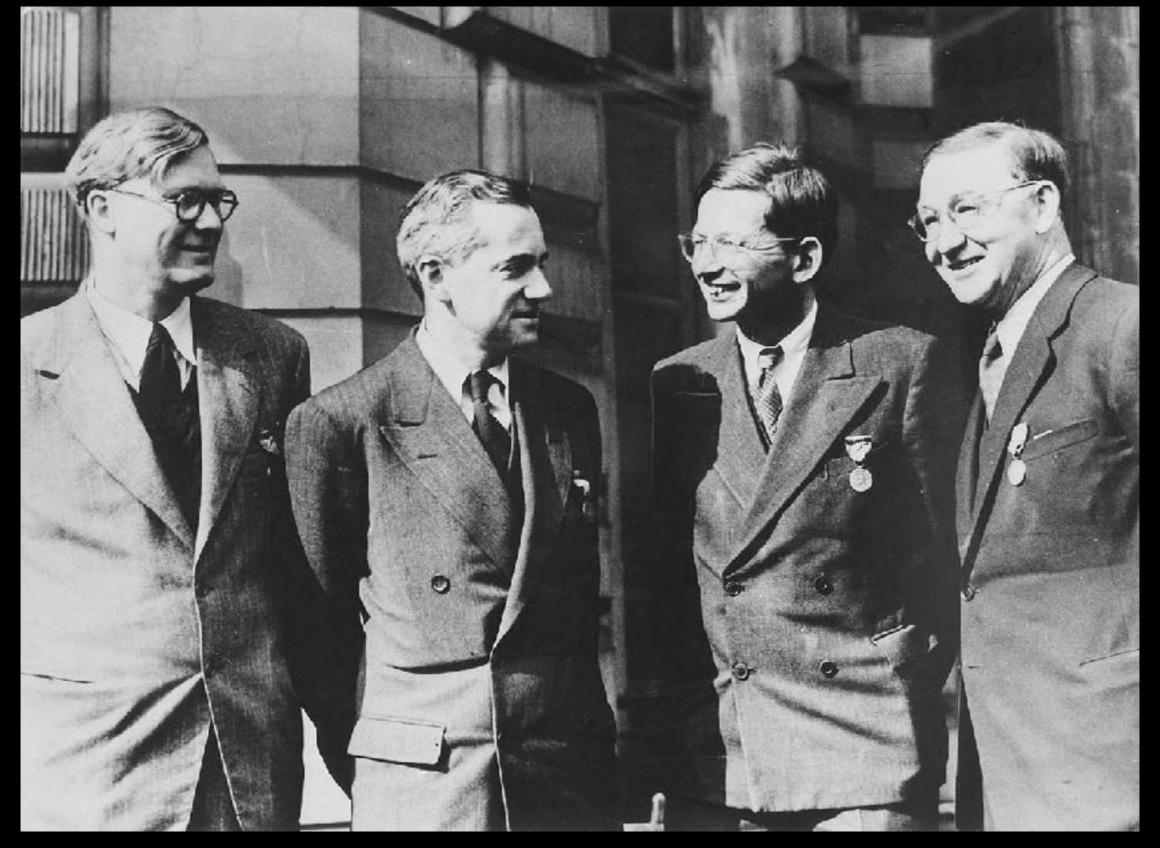
**University of Birmingham** 



Poynting Physics Building, University of Birmingham



"On the Construction of a 'Super-bomb,' based on a Nuclear Chain Reaction in Uranium"



William Penney, Otto Frisch, Rudolf Peierls, and John Cockcroft receiving Medals of Freedom for their contribution to the Manhattan Project, 1946



Klaus Fuchs, 1940

"Between 1941 and 1943, Fuchs had handed over 570 pages of calculations and description of the construction of an atomic weapon and the process of enriching uranium. It was almost the sum total of the research that had been produced in Britain on the subject."—Mike Rossiter

At that 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.

QUOTEHD.COM

Klaus Fuchs German Physicist



## Columbia University 1943

Fuchs was sent to work on the gaseous diffusion method of uranium enrichment



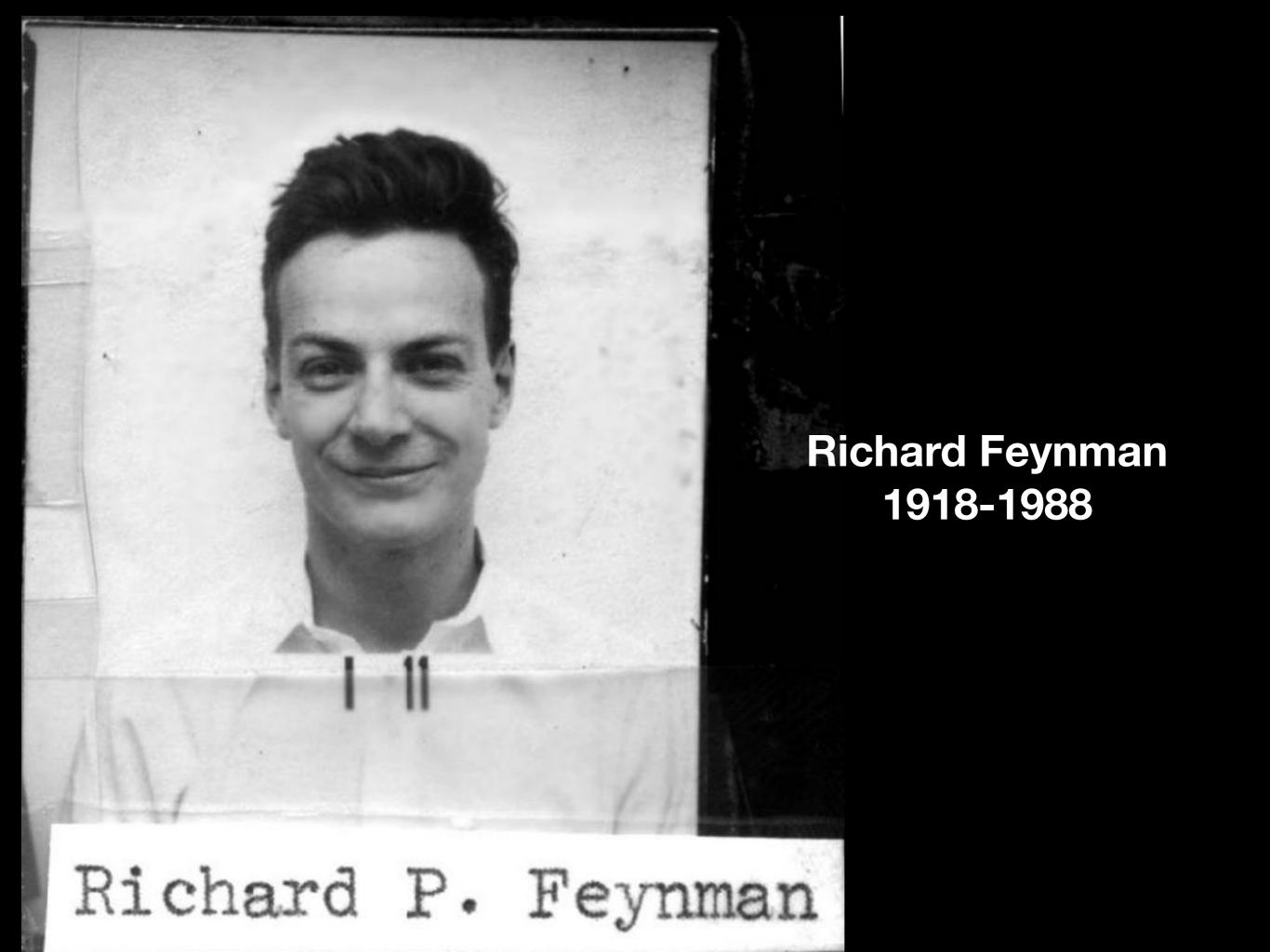
The Manhattan Project: Los Alamos, New Mexico



Klaus Fuchs 1943



Hans Bethe 1905-2006





Harry Gold (1910-1972)
was Fuchs's
courier in New Mexico,
and David Greenglass's
contact as well.
Greenglass was Ethel
Rosenberg's brother.

# THE INVISIBLE HARRY GOLD

The Man Who Gave the Soviets the Atom Bomb

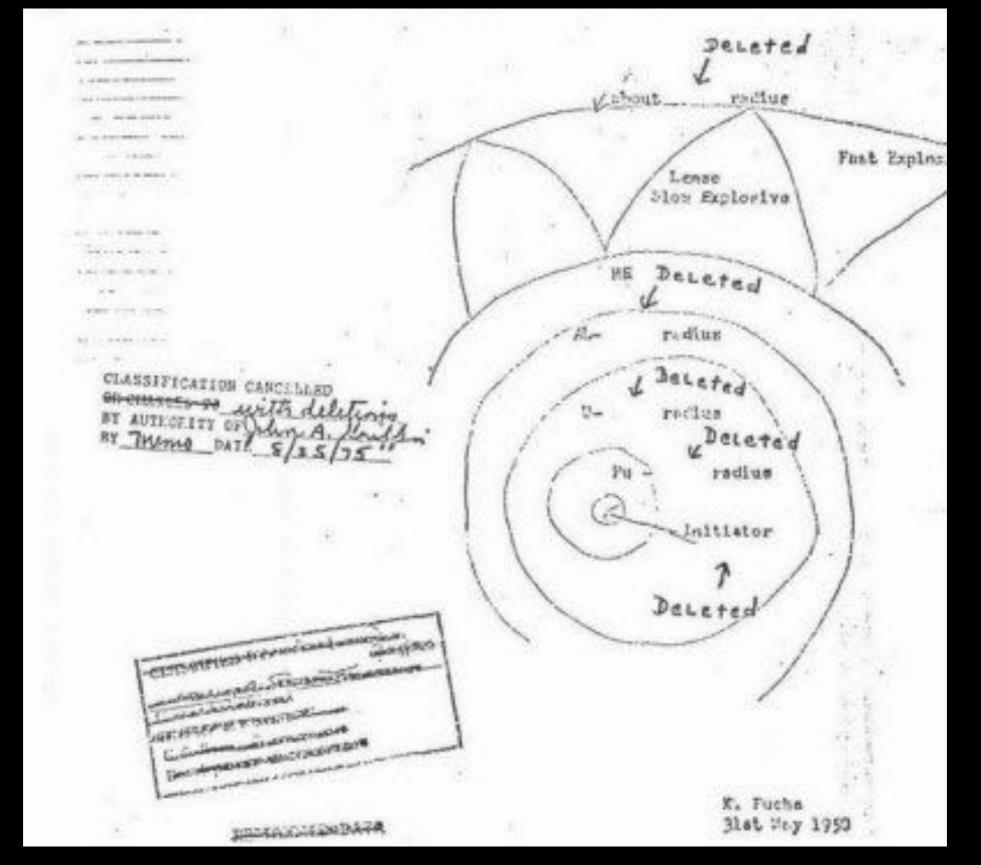
"A riveting page-turner."
Ron Radosh,
The Weekly Standard

ALLEN M. HORNBLUM





Soviet diplomat-spy Anatoly Yatzkov (1913-1993) Fuchs's major contributions at Los Alamos: to calculate the approximate energy yield of an atomic explosion, and to design the complex ignition process that would initiate the explosion.



Fuchs gave this diagram to Alexander Feklisov, his controller in Britain, who had previously worked with Julius Rosenberg in New York



Alexander Feklisov 1914-2007 "Feklisov estimated that Fuchs gave him more than ninety documents covering the whole gamut of weapons research, from the construction of the bomb, the design of isotope-separation plants and nuclear reactors, to the recovery of plutonium. He also passed over information about production rates from which the NKGB could calculate the size of the nuclear arsenal of the United States."—Mike Rossiter

CLASSIFICE DECISIONS FINALIZED DATE 7-9-97 February 12, 1951 e following paged contain (Bureau File 65-58805) Las been declassified and marked according EPLAGIS 7/5/9 ( CAR 75-114 JARRY OUID, was., 36 April 1, 49, 13, 35, 53, 54, 65, Best crage - R 76, 72, 754, 756, 119, 145, 147, 48, 2634, 350, 354, 367, (Bureau File 65-57449) ь ACREEMENT THAT IT WILL NOT BE DESCRIPTION. THE E ALSO AFFEASS INJURBATION CLASSIFIED TOP SECRET OR BY THE SHITLES ATMUSTICES.

## From Fuchs's FBI File



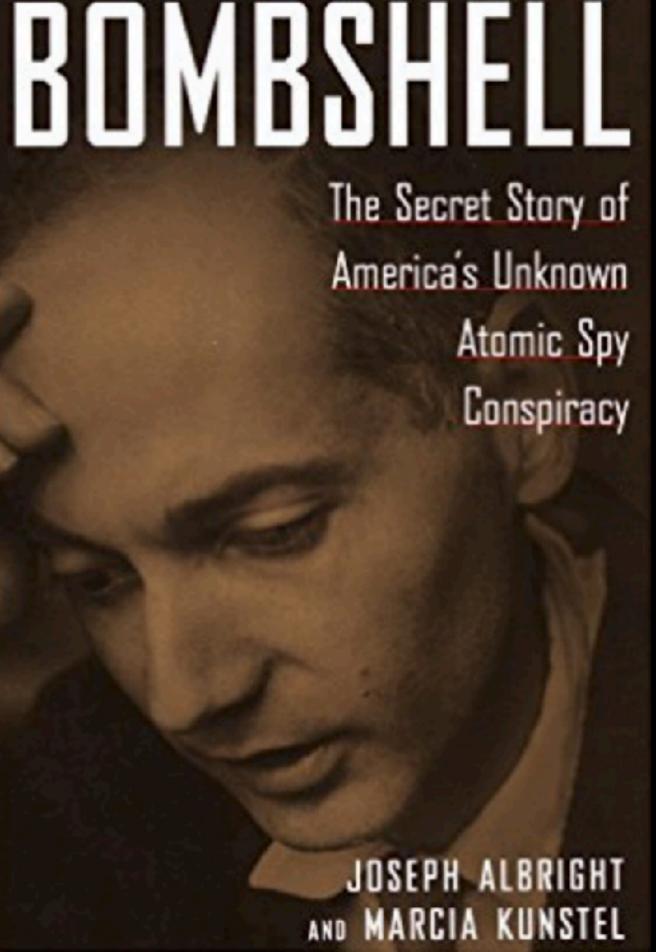
William James Skardon 1904-1987

MI5 interrogator of Klaus Fuchs and the Cambridge Five









#### SIX PRINCIPALS IN THE RUSSIAN ATOMIC SPY RING



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



COORDINATOR: Julius Rosenberg recruited spies and advised them what information was required.



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



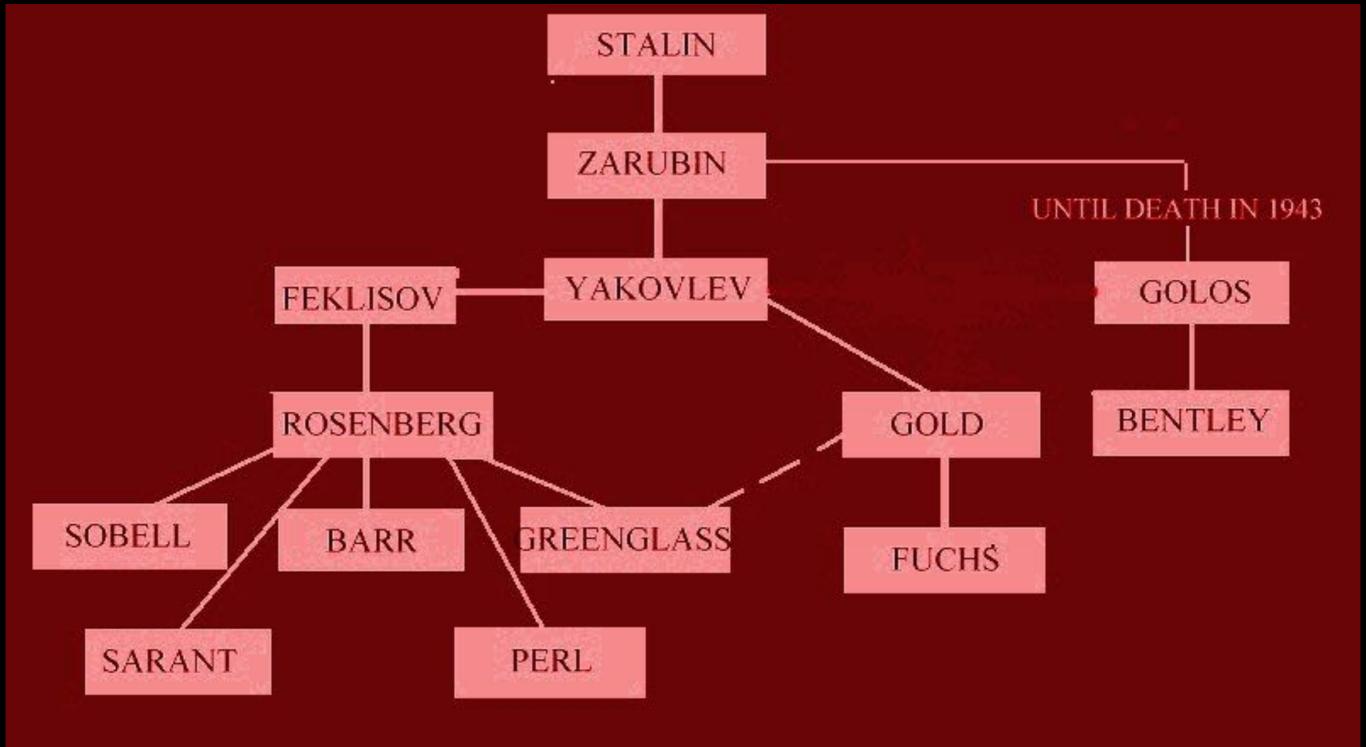
SOURCE: Klaus Fuchs turned over material on basic atomic research and on the bomb's design.



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



Photos by The New York Times, Associated Press, Keystone, The Des Moines Register COURIER: Harry Gold collected data from the spy ring's various sources and submitted it to Yakovlev.



#### DIAGRAM OF SOVIET SPY RING





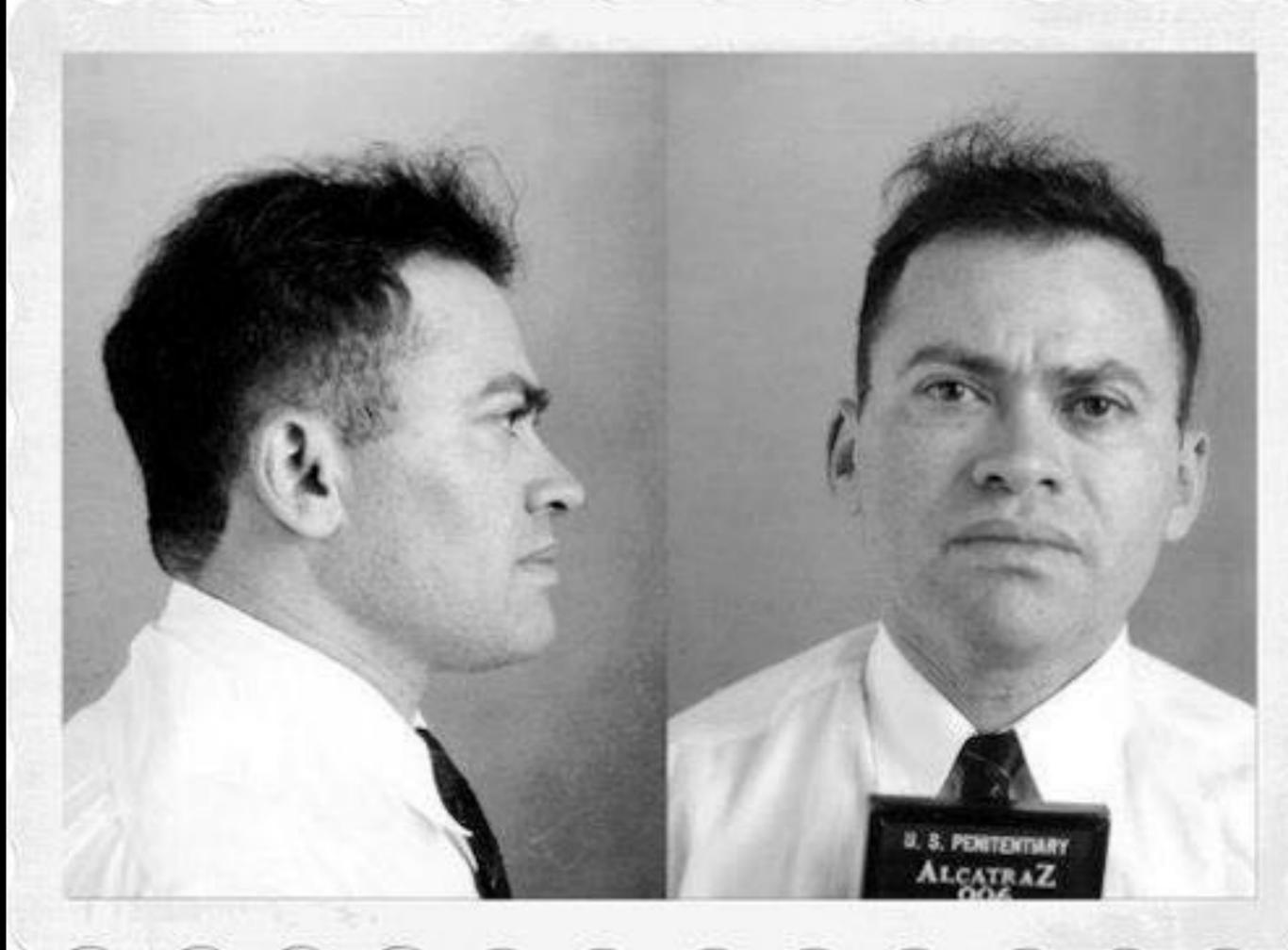
CCNY



Joel Barr and Al Sarrant



Morton Sobell (1917-2018)



#### Achievements of the Rosenberg spy ring:

- —the design for the proximity fuse that brought down Francis Gary Powers's U-2 spy plane
- —production drawings for Lockheed's P-80 Shooting Star aircraft
- —military secrets pertaining to sonar, infrared rays, and the aiming devices for artillery pieces and anti-aircraft weapons
  - -the first data on missile guidance systems and airborne radars for night-time navigation and bombing
    - -altogether over 12,000 documents



During a non-stop photo session over a July 4 weekend in 1947, Rosenberg, Sobell, and Perl photographed 1885 pages of documents from the safe of Theodore von Karman, at that time the nation's most prominent aerospace engineer.

#### COMMUNISM

- an any how two americans au 1908

spied for stalin and founded the soviet silicon valley

1123-35 public 35-35 Witwatersrand

steven t. usdin

"Rosenberg's band of amateur spies turned over detailed information on a wide range of technologies and weapons systems that hastened the Red Army's march to Berlin, jumped-started its postwar development of nuclear weapons and delivery systems, and later helped Communist troops in North Korea fight the American military to a standoff."—Steven Usdin, *Engineering Communism* 

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THE RUSSIAN SPIES

IN THE ENEMY'S HOUSE

### HOWARD BLUM

NEW YORK TIMES BESTSELLING AUTHOR

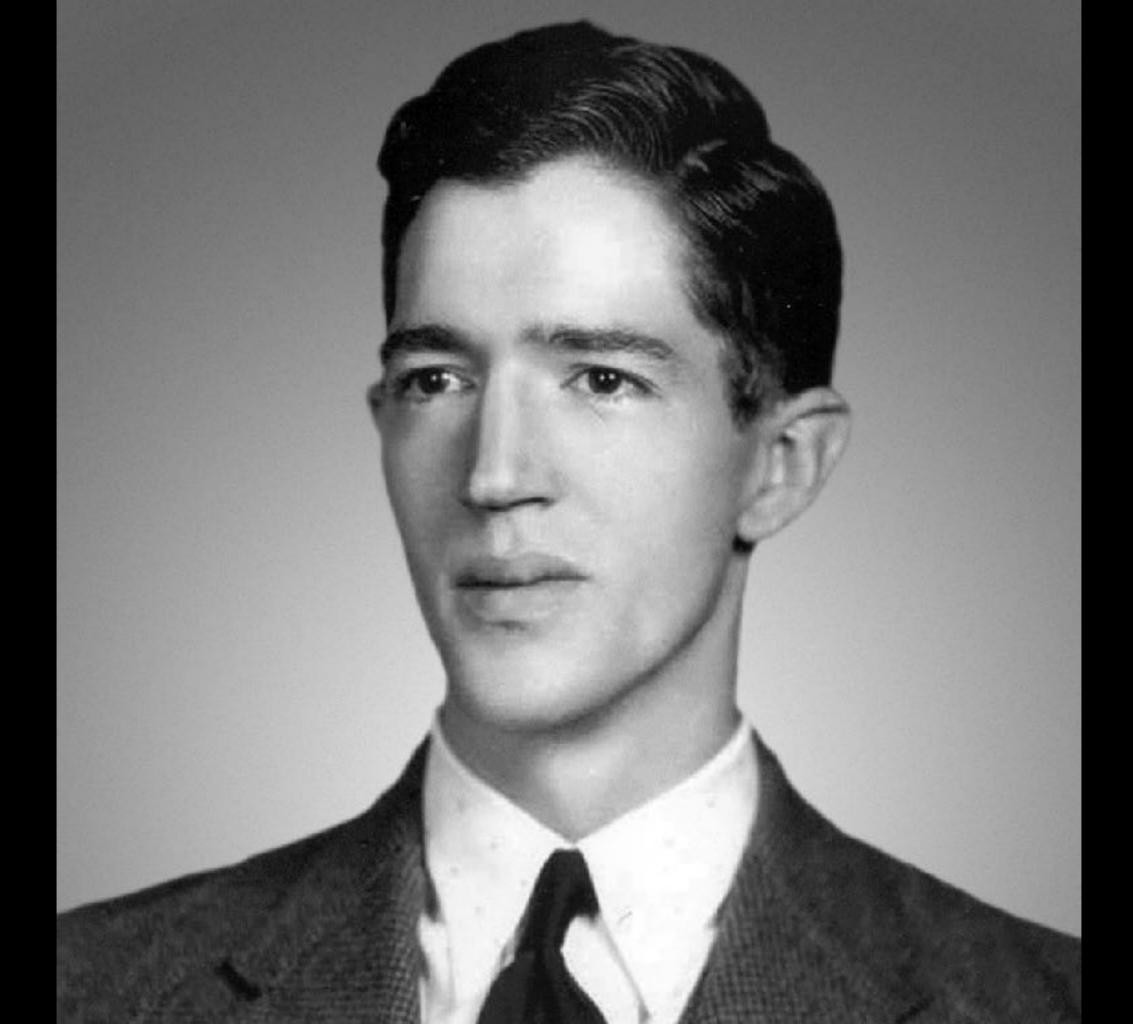
Constituted Manual

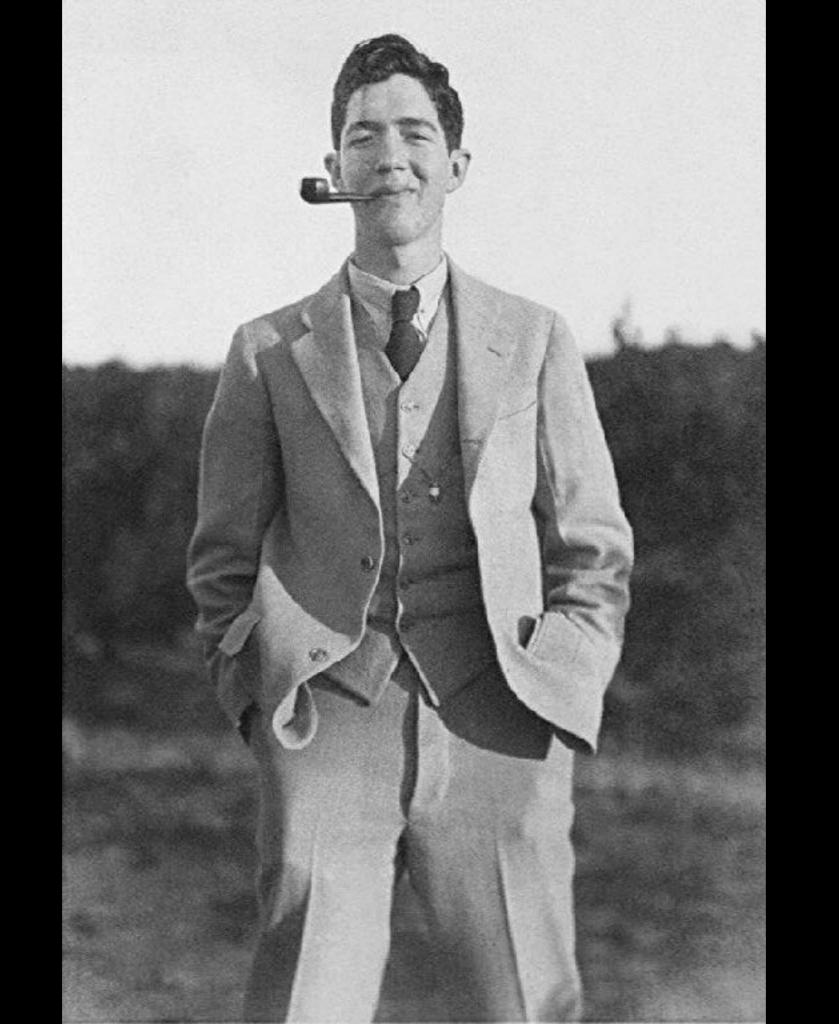


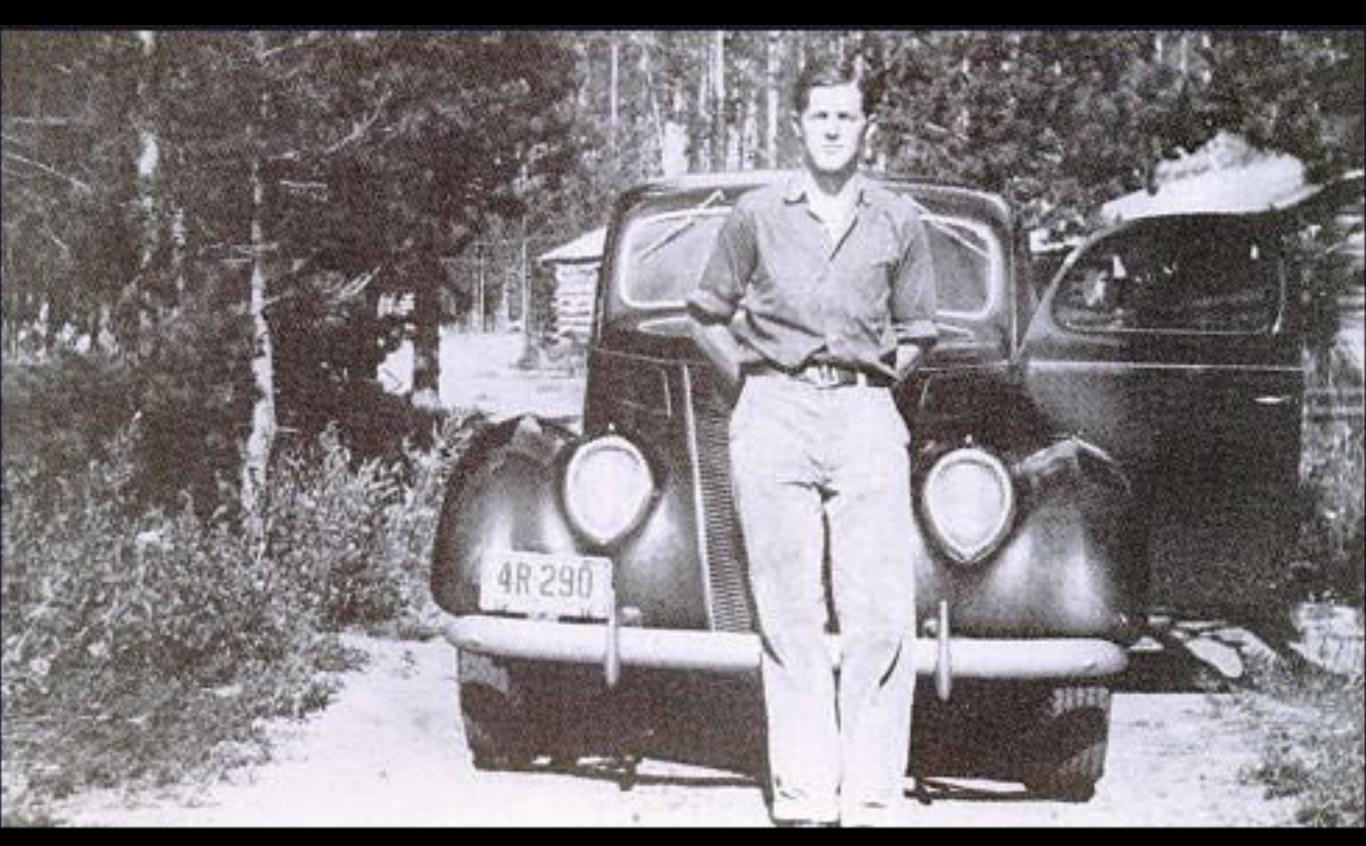
**Arlington Hall** 



Code Breakers at Arlington Hall







FBI Agent Robert Lamphere (1918-2002)



FBI agents Hugh Clegg and Robert Lamphere



Igor Gouzenko (1919-1982), Soviet defector



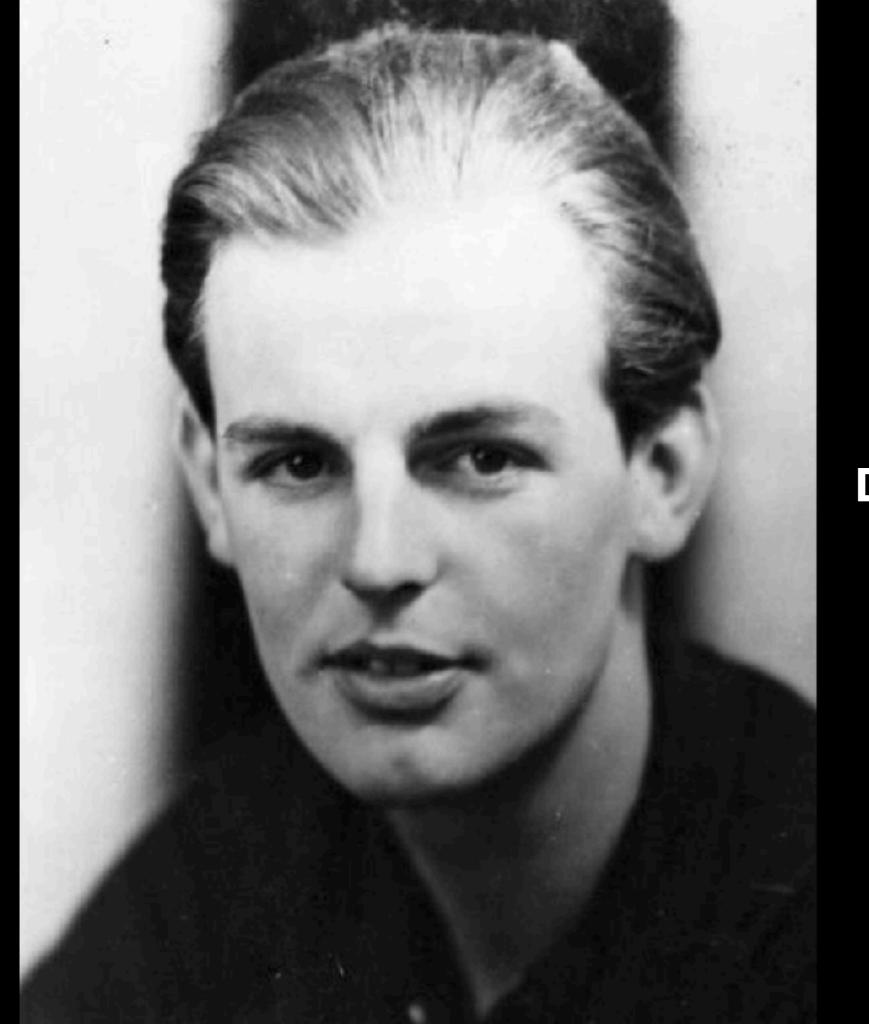
Igor Gouzenko



### Elizabeth Bentley 1908-1963



David Sarnoff's RCA provided encrypted wartime KGB cables for the code breakers at Arlington Hall



### Donald Maclean HOMER





Reissue (T9.2)

From: NEW YORK

MOSCOW

1657 Not

27 November 1944

To VIKTOR[i].

Your no. 5356[a]. Information on LIBERAL's[ii] wife[iii]. Surname that of her husband, first name ETHEL, 29 years old. Married five years. Finished secondary school. A FELLOWCOUNTRYHAN [ZEMLYaK] [iv] since 1938. Sufficiently well developed politically. Knows about her husband's work and the role of METR[v] and MIL[vi]. In view of delicate health does not work. Is characterized positively and as a devoted person.

No. 922

Advise on the possibility of using in our work the engineer MAZURIN Vladimir N. [viii]. He worked as deputy to the constructor of Plant 155. He graduated from MAI[viii] in 1936. Is now working at ARSENIJ's[ix] plant [x]. [2 groups unrecovered] [D% I request your decision on the question).

of their reconstitutions are according to all according a second

No. 923 ANTON [xi]

Notes: [a] Not available.

Comments:

[i] VIKTOR: Lt. Gen. P. M. FITIN.

[11] LIBERAL: Julius ROSENBERG.

[iii] Ethel ROSENBERG, nee GREENGLASS.

[iv] ZEMLYaK: Member of the Communist Party.

[v] METR: Probably Joel BARR or Alfred SARANT.

' [vil NIL: Unidentified.

[vii] Vladimir Nikolaevich MAZURIN.

[viii] MAI: i.e. NOSKOVSKIJ AVIATSIONNYJ INSTITUT, MOSCOW Aviation Institute.

[ix] ARSENTJ: Andrej Ivanovich ShevChenko.

[x] Bell Aircraft Plant, NIAGARA PALLS, N.Y.

[xi] ANTON: Leonid Romanovich KVASNIKOV.

1 May 1975







From: NEW YORK

To: MOSCOW

No: 1340

21 September 1944

To VIKTOR[i].

Lately the development of new people [D% has been in progress]. LIBERAL[ii] recommended the wife of his wife's brother, Ruth GREENGLASS, with a safe flat in view. She is 21 years old, a TOWNSWOMAN [GOROZHANKA][iii], a GYMNAST [FIZKUL'TURNITSA][iv] since 1942. She lives on STANTON [STANTAUN] Street. LIBERAL and his wife recommend her as an intelligent and clever girl.

### [15 groups unrecoverable]

[C% Ruth] learned that her husband[v] was called up by the army but he was not sent to the front. He is a mechanical engineer and is now working at the ENORMOUS [ENORMOZ][vi] plant in SANTA FE, New Mexico.

### [45 groups unrecoverable]

detain YOLOK[yii] who is working in a plant on ENORMOUS. He is a FELLOWCOUNTRYMAN [ZEMLYaK][yiii]. Yesterday he learned that they had dismissed him from his work. His active work in progressive organizations in the past was the cause of his dismissal.

In the FELLOWCOUNTRYMAN line LIBERAL is in touch with CHESTER[ix]. They meet once a month for the payment of dues. CHESTER is interested in whether we are satisfied with the collaboration and whether there are not any misunderstandings. He does not inquire about specific items of work [KONKRETNAYA RABOTA]. In as much as CHESTER knows about the role of LIBERAL's group we beg consent to ask C. through LIBERAL about leads from among people who are working on ENORMOUS and in other technical fields.

Your no. 4256[a]. On making further enquiries and checking on LARIN[x] we received from the FELLOWCOUNTRYMEN through EKhO[xi] a character sketch which says that they do not entirely vouch for him. They base this statement on the fact that in the Pederation LARIN does not carry out all the orders received from the leadership. He is stubborn and self-willed. On the strength of this we have decided to refrain from approaching LARIN and intend to find another candidate in FAECT [FAKHIT][xii].

MAJ[xiii]







Julius and Ethel Rosenberg









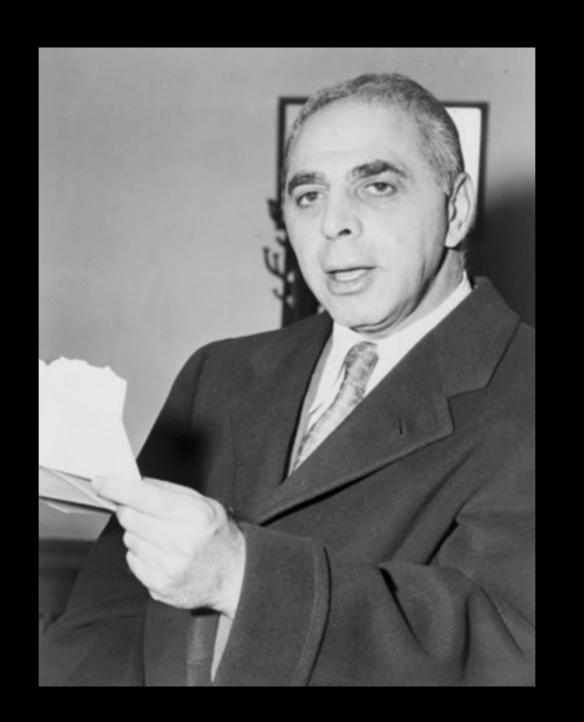
David and Ruth Greenglass













## SAUVONS LES ROSENBERG

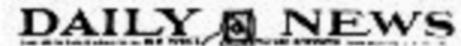
EMPECHONS LE CRIME!
SAUVINCIE ROSFNRFRG
ELA CI NUE

uprès des Elais-











### A-SPY COUPLE DOOMED TO DIE

Use Chiang's Army, Mac Asks



On Way to Chair. I then have been a both the party best agent of the control of t



IN THREE PARTS

SATURDAY MORNING, JUNE 20, 1953

42 PAGES

# ROSENBERGS DIE

Pair Executed for Atom Spying





### WEST BERLIN'S RED OFFICES WRECKED

Anti-Communist Mob Storms Party Building; Soviets Rush Reinforcements in East Sector Levels Factory

20 Injured as Fireworks Blast

### TRUCE DELEGATES FACE CRUCIAL TALK

Reds Demand Session as Communist Radios Charge Consissance by U.S. in POW Escapes Summer NearS

Clouds Clamp

### Supreme Court and Eisenhower Reject Couple's Last Pleas

OSSINING, N.Y., June 19-Atom Spies Julius and Ethel Rosenberg died in Sing Sing Prison's electric chair shortly. before sundown today. The executions followed quickly after the Supreme Court set aside a stay of execution granted Wednesday by Justice William Q. Douglas and President Eisenhower's refusal to grant them elemency.

SING SING PRISON, N.Y., June 19 (UP) Atom Spies Julius and Ethel Rosenberg were cedered electrocuted late today for betraying their country's secrets to Russia. and threatening the lives of millions by bringing the world closer to an atomic war.

The Justice Department set the time for the doomed couple's death in Sing Sing Prison's electric chair after a day of suspense in which the U.S. Supreme Court deried their final appeals: and President Eisenhower again refused exemtive elemency.

Warden Wilfred Dergo amounted first the husband and wife explorage team would be past to death to the gray-waited prison's death chamber "better sundren," shich corner at 8:30 p.m. (5:36 PDT) today at Sing Sing.

Later be said the first generation would some at 8 per., EDT, with the second a few minutes later,

### Spend Time Together

The Jewish Subbeth starts at sundown, and the plans execute the couple before that time, instead of at the Cool Damper as moterated in pre, were arrested and the forestern if they wanted to request a delay cutil terrocrew night.

The Rosenbergs speed their last afternoon inpether and then are a discove of regular prison fare-hard-boiled

### The New York Times.

Fair and quite warm today. Hot and humid temorrow.

Tompurature Rouge Today-Max., 60; Min., 66 urus Tortorday-Man., 85; Min., 63 Pall E. S. Wrather Sures Supert, Page SI

Second-Class Statter.

NEW YORK, SATURDAY, JUNE 28, 1963.

Copyright, 1965, by The New York Times Company,

There Spence, New York St. H. Y.

RAG PAPER EDITION

### RECAPTURE PRISONERS: ECESS AGAIN

# AID BILL APPROVED ROSENBERGS EXECUTED AS ATOM SPIES

i.O.P. Split on Cutting Funds but 280-108 Vote Prevails -4.9 Billion Authorized

> By FELIX BELAIR Jr. Special to Two New York Trans.

WASHINGTON, June 19-The ized today an appropriation of \$4,998,732,500 for military, economie and technical aid to fiftysix free governments and dependencies resisting communism. Too vote sending the measure to the Senate was 280 to 108, with one Representative merely voting "present."

Throughout the afternoon, a smoothly functioning bipartisan majority shouted down repeated attempts to cut the authorization items below the recommendations ident Eisenhower and the Supreme of the Foreign Affairs Committee. Court refused today to save Julius But it was the Democrats under and Ethel Escenberg from death Representative Sam Rayburn of in the electric chair. Texas, the minority leader, who . The high court vacated the stay

economy amendments. There was Federal Judge Irving R. Kaufman. tempts to slash the measure and court had announced its verdict. although the foreign policy pres- President Eisenhower refused Extige of President Eisenhower had ecutive elemency for the second Republican leadership, it was the tition on Feb. 11. Democrats who gave him his vote "I can only say that, by im-

On the final vote, 160 Democrats of stomic war, the Rosenbergs may

AFTER SUPREME COURT VACATES STAY; LAST-MINUTE PLEA TO PRESIDENT FAILS

### SIX JUSTICES AGREE

House of Representatives author- President Says Couple Increased 'Chances of Atomic War'

> Trate of related documents in case are printed on Pape 7.

By LUTHER A. HUSTON Special to Tax New York Topen.

WASHINGTON, June 19-Pres-

provided the margin of victory. granted to the atomic spies on Republicans by the score desert. Wednesday by Justice William O. ed the leadership of Speaker Jo- Douglas. It upheld the legality of seph W. Martin Jr. to vote for the death sentence imposed by

no record vote on any of the at- Less than an hour after the been thrown into the debate by the time. He had denied a similar pe-

measurably increasing the chances

Their Death Penalty Carried Out



Julius Rosenberg



Ethel Rosenberg

Eisenhower Is Denounced To 5,000 in Union Sq. Rally

### PAIR SILENT TO END

Husband Is First to Die -Both Composed on Going to Chair

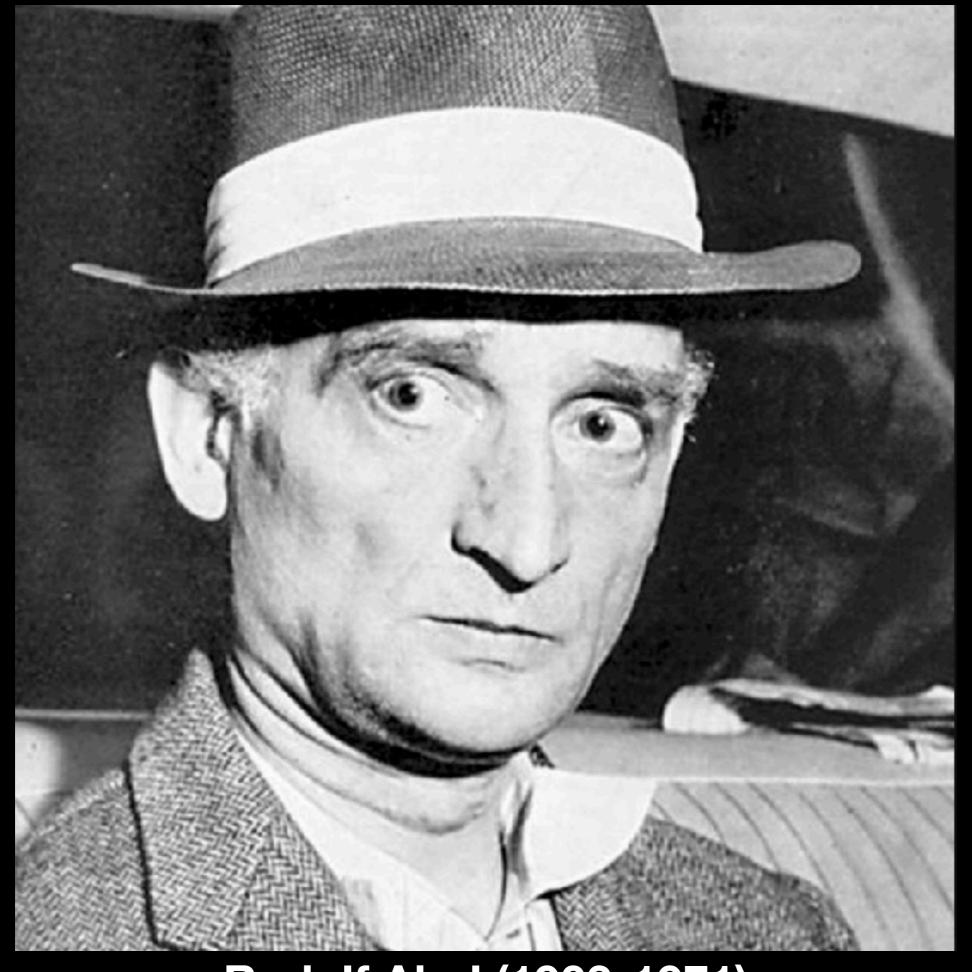
### By WILLIAM B. CONBILIN

Special to Tax New York Trees.

OSSINING, N. Y., June 19-Stole and tight-lipped to the end. Julius and Ethel Resemberg paid the death penalty tonight in the electric chair at Sing Sing Prison. for their war-time stomic repionage for Soviet Russia.

The pair, first husband and wife to pay the supreme penalty here, and the first in the United States to die for esplonage, went to their deaths with a composure that astonished the witnesses.

Julius, 25 years old, was first to enter the glaringty lighted. white-walled death chamber. He walked slowly behind Rabbi Irving Keslowe, a chaplain at Sing Sing, who was intoning the Twenty-third Panim, "The Lord is my shephred, I shall not want." As Rosenberg neared the brown-stained oak choic he seemed to sway from side in



Rudolf Abel (1903-1971)

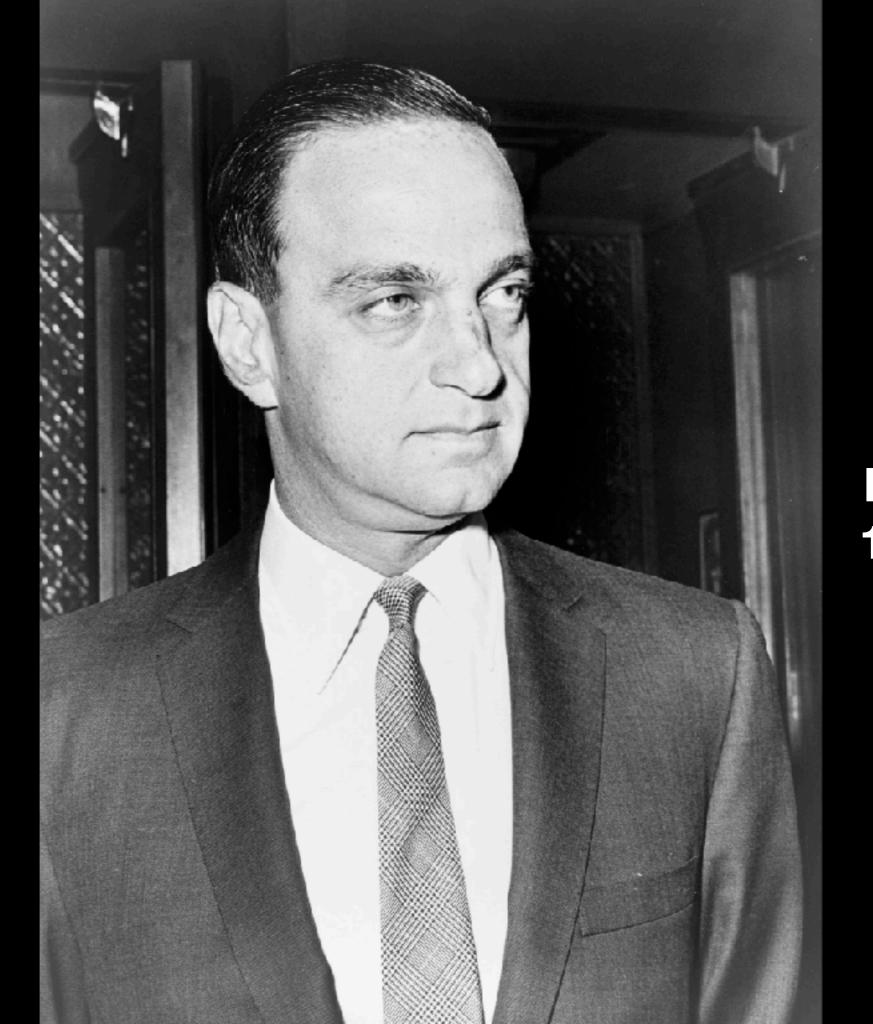
IN A WORLD ON THE BRINK

THE DIFFERENCE BETWEEN WAR AND PEACE

WAS ONE HONEST MAN.

# BRDGE OFSPES

SWARMS DUE NOT THE WAY AND THE STATE OF THE

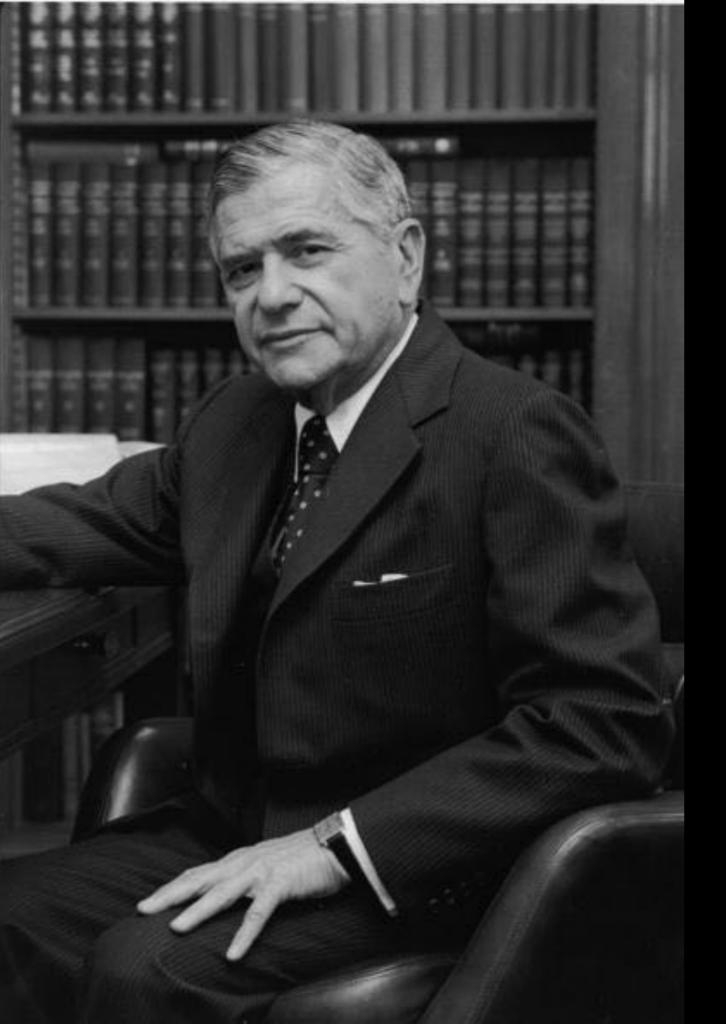


Roy Cohn 1927-1986

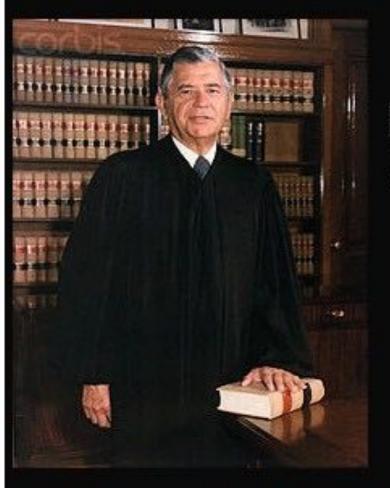
# McCARTHY en

THE WEEKLY NEWSMAGAZINE





Judge Irving R. Kaufman 1910-1992



Your crime is worse than murder.... Who knows but that millions more of innocent people may pay the price of your treason. Indeed, by your betrayal you undoubtedly have altered the course of history to the disadvantage of our country.

(Irving R. Kaufman)

izquotes.com

The information Stalin gleaned from his networks in the United States and Great Britain enabled the Soviet Union to "punch above its weight" as a player in international relations, allowing the USSR to produce advanced weapons systems after World War II without the expense of research. Stalin's possession of these weapons and of information about American negotiating positions encouraged him to harden his own line and to behave more aggressively in hot spots like Korea than he would otherwise have dared. The golden age of Soviet espionage in the West exacerbated the Cold War, introduced a paranoid element into international relations, strengthened the hand of one of the most brutal tyrants of the twentieth century, and saved the Stalinist regime in North Korea that is now threatening us with nuclear weapons.

