

The Many Lives of Herbert O. Yardley

This story may be only 80 percent true. The rest is somewhat doubtful because of incomplete records and the fallibility of human memory, and because the story attempts to trace the career of a man who was by all odds the most colorful, controversial, enigmatic figure in the history of American cryptology. He worked as a cryptanalyst for three countries, was commended by the U.S. government for his cryptanalytic achievements, then saw the same government summarily abolish his organization and, with it, his job. For later publicly revealing his successes in cryptanalysis and secret writing, he was generally acclaimed by the press but reviled by the cryptologic community.

He wrote melodramatic spy novels and radio programs, and traveled the country speaking on cryptology and espionage. He hobnobbed with movie stars, famous authors, a future presidential candidate, and a future prime minister and winner of the Nobel Peace Prize. He played championship golf; he played winning poker all his life and wrote a best-selling book on the subject. Motivated, probably, by bitterness and a need for money, he apparently sold cryptanalytic secrets to a foreign power, with results that, together with his other exposés, affected the course of U.S. cryptology for the next decade.

Herbert Osborn Yardley¹ was born on 13 April 1889 in Worthington, Indiana, the second of four children. After graduation from high school, where he excelled in sports and debate and was president of his class, he became, like his father, a railroad telegraph operator. He took a year of English at the University of Chicago before becoming, in late 1912, a \$900-per-year code clerk and telegrapher in the State Department's code room. There, while working the night shift, he became interested in the construction of

State Department codes, and he began to try to solve them. According to his own account, written later,² it took him less than two hours to solve a 500-word message to President Wilson from Colonel Edward M. House, the president's adviser and confidant, then in Europe. That he, a mere dabbler in cryptology, could so easily read the president's private communications both amazed and appalled Yardley. He was now more than ever determined to become a cryptologist: he would devote his life to improving the security of America's communications and solving the codes of other countries. Studying U.S. codes was, of course, a simple matter, since they passed through his hands every day. As for foreign codes, they came to him through "friendly connections previously established."³ He later explained what that meant: "I knew most of the telegraph operators in Washington, and got some of them to steal a few coded diplomatic messages of various governments; these I practiced on."⁴ In 1917, he submitted a 100-page memorandum titled "Solution of American Diplomatic Codes," which resulted in a new method of encoding State Department messages. This system, too, he solved, but by then the United States had declared war on Germany, and Yardley was preparing for bigger things.

Maven of the American Black Chamber

On 29 June 1917, Yardley was commissioned a first lieutenant in the Signal Officers' Reserve Corps. On 5 July he was ordered to active duty as head of M.I.8, the cryptologic organization of Military Intelligence. Known both as the Code and Cipher Section and the Cipher Bureau, M.I.8 (Military Intelligence Branch, Section 8) operated initially at the Army War College in Washington with only Yardley and two civilian clerks. During the next two years, as it gradually



Lieutenant Yardley in 1917 or early 1918.

expanded, Yardley's organization moved several times to various locations in Northwest Washington, D.C. M.I.8 was responsible for examining and, if possible, reading all secret communications coming to the attention of the War, Navy, State, and Justice Departments, Postal Censorship, and other official and semi-official agencies. In addition, Yardley began a course of instruction in cryptology for new people coming into the organization.

Most of M.I.8's material came from the War and State Departments. The latter, under provisions of the wartime censorship laws, had access to all messages carried by the commercial telegraph and cable companies. The rest of Yardley's material came from radio intercept and surveillance of overseas and domestic mail. Typical of the requests made of "Yardley's bureau," as it was later known, is a letter of 8 February 1918 from Leland Harrison, Office of the Counselor at the State Department, which reads: "Dear Mr. Yardley: I beg to enclose herewith copies of two suspicious telegrams, and would appreciate your making an effort to ascertain their contents." In most cases, he was apparently able to read the messages,

for the record shows a steady flow of decipherments back to the State Department. Many of these messages, as well as those intercepted by Army radio units, were to and from Mexico, a fact reflecting America's preoccupation with that country during the early 1900s.

From the Navy came morse traffic from the powerful longwave station at Nauen, near Berlin. Some of this was intercepted by ships, for example, the U.S.S. *San Diego*, and some by the quaintly named "Listening-In Stations," one of which was located at City College in New York. The FBI sent Yardley such things as a suspicious message written on a postcard addressed to San Francisco. Similar material was forwarded to M.I.8 by the U.S. Postal Censorship organization.

As its responsibilities increased, the Cipher Bureau was organized into five subsections—Code and Cipher Compilation, Communications, Shorthand, Secret Ink, and Code and Cipher Solution. At its peak—in November 1918, the last month of the war—M.I.8 had 151 people: 18 officers, 24 civilian cryptographers, and 109 typists and stenographers.⁵ One of the civilian employees was the poet Stephen Vincent Benét, who served in November 1918 for seven days.⁶ He was but one of many famous people with whom Yardley would be associated during the next forty years.

Captain Yardley spent the last few months of the war in Europe, observing the work of the British and French cipher bureaus and learning their methods of solving enemy codes and ciphers. After the Armistice, he remained in Paris to head a small cryptologic support group attached to the American delegation to the Peace Conference. On his return to the United States, in April 1919, he found demobilization in full swing and M.I.8 being rapidly dismantled. Convinced of the necessity of maintaining a peacetime cryptologic capability in the government, Yardley encouraged the Director of Military Intelligence in his efforts to establish a "permanent organization for code and cipher work" to be funded jointly by the War and State Departments. The supporting arguments—probably written by Yardley—claimed that M.I.8 had, during the past eighteen months, read almost 11,000 messages in 579 systems. This was in addition to "the enormous number of personal codes and ciphers submitted by the Postal Censorship" and the letters examined for secret writing; these were said to number 2,000 per week for several months. The section was also said to have compiled cipher tables and code books and to have trained military attachés, code clerks, and cryptographers.

The arguments for a permanent cryptologic organization were summed up this way:

If it is worth while to know exactly what instructions foreign powers give to their representatives at Washington, it is important to maintain M.I.8 with a sufficient personnel in time of peace. If the impressions and opinions of diplomatic representatives at other capitals and the instructions they receive as to attitudes and actions are of importance for the maintenance of peace, the cheapest, indeed the only, way to keep constantly and promptly informed on these matters is to preserve M.I.8 with a suitable personnel. Intimate knowledge of the true sentiments and intentions of other nations may often be an important factor in determining whether we are to have peace or war.⁷

The plan called for a code and cipher bureau to be headed by Yardley and staffed by fifty civilians. Yardley's salary was to be \$6,000 per year. There would be twenty-five "code and cipher experts," ten of whom would be paid \$3,000 each; the other fifteen would each receive \$2,000. There would be twenty-five clerks at \$1,200. The proposed annual budget was \$100,000, of which \$40,000 would come from the State Department. The War Department would supply the rest on "confidential memorandum," that is, on vouchers not subject to review by the Comptroller General.

Acting Secretary of State Frank L. Polk approved the plan on 17 May 1919, followed two days later by Army Chief of Staff Peyton C. March. M.I.8, later to become famous as the American Black Chamber,⁸ was now officially in business as a permanent, peacetime organization.

The Move to New York

During the summer of 1919, Yardley, now a major,⁹ moved his organization to a four-story brownstone at 3 East 38th Street, just off Fifth Avenue and across the street from the Bonwit Teller department store. Just why he left Washington is not known with certainty. The generally accepted reason was given by Yardley: "I was told," he said, "that there was a joker in the Department of State special funds: they could not legally be expended within the District of Columbia."¹⁰ Nothing in the existing records confirms this, and Yardley himself later gave another reason for the move: it was necessary, he said, to get away from Washington because it "was overrun with spies."¹¹ A third possibility is that Yardley decided on New York because his close friend and head of M.I.8's Shorthand

WWJ	OFFICE OF CABLE CENSOR		
For Cable Censor	From	Western Union	Cable Company
Date 11/18/17	Check No 1627BR	RG	Code Used
			For information:—
From: Petrograd			
(Name)		(Address)	
To: New York	Russkomit	Piotrovskomu	Translated
(Name)	(To be Unpacked)	(Address)	Decoded
Translation:			
Proshu uskorit vysylku avtomobilei Pakkard I K nim zapasnyia			
tshasti poslednia osobenno nujny alia ranee priobretenyh Pakkard			
dvenazati cilindrovyy modeli			
Umateh Kapnist 12428 Vosemnadzatyi			

Russian message sent to Yardley's Cipher Bureau for translation, November 1917. Petrograd (Leningrad) is asking New York to expedite the shipment of some Packard automobiles and spare parts.

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Subsection, Franklin W. Allen, had operated there during the war.¹²

Due to budget cuts, Yardley's bureau never reached the size planned for it. Rather than twenty-five cryptologists, there appear to have been, in the early days, only nine, and instead of twenty-five clerks, there were seven. Even this number was later reduced when appropriations were slashed during the mid-1920s.

The organization operated under deep cover. All ties to the government were cut. Employees were paid in cash from a secret payroll and had no civil service status. Official mail from Washington was received, at least occasionally, at a post office box—number 354, Grand Central Station. New locks were installed throughout the building and other security precautions were taken. Yardley and his wife occupied one floor of the house, a guard or custodian lived in the basement, and the cipher bureau occupied the rest of the space. If questioned about their work, employees were advised to say that they worked for the War Department's translation section. As a cover for their real work, Yardley and a part-time German linguist, Charles J. Mendelsohn, later formed a business called the Code Compiling Company, which produced commercial code books, one of which, the Universal Trade Code, sold in fairly large numbers. The public could visit the company's office but was of course not allowed in, nor was even aware of, the secure area behind it.

Administratively, the bureau was part of the Communications Section of the Military Intelligence Division, which, together with the State Department, paid the salaries and rent. The State Department's contributions, which began 15 July 1919, varied from \$1,250 to \$3,333 per month, with the largest amounts coming in 1921–23. Contributions from Military Intelligence began 30 June 1921 and remained constant at \$833.33 per month. Total support thus ranged from \$15,000 to \$50,000 per year. The procedure apparently was for the State Department to transfer its share of the funds to the War Department, which deposited the combined payment in Yardley's bank account. (It is unfortunately impossible to reconstruct Yardley's expenditures because his financial records were inexplicably destroyed in 1950.)¹³

Operationally, the emphasis was on foreign diplomatic communications. During the first year, for example, the bureau worked primarily on Latin American countries, plus Germany, Spain, and Japan. Traffic came from the commercial telegraph companies—Western Union and Postal Telegraph, possibly others—through an arrangement with the State or War Department, although other methods of obtaining

material, including stealing or photographing code books, were considered.¹⁴ Decrypted, translated messages were forwarded to Military Intelligence, which in turn sent copies to the State Department. In July 1919, Yardley promised his boss, Brigadier General Marlborough Churchill, Director of Military Intelligence, that if he could not solve the Japanese diplomatic code within a year, he would resign. Considering that neither he nor anyone on his staff knew Japanese, this was a somewhat rash promise on Yardley's part. But he did what he said he would do—within five months he had identified enough groups to know that he had the correct solution, although he could still not read the decoded messages. As he put it, in a letter to General Churchill:

...I have passed through various periods of confidence and depression, but it was not until Saturday morning, about One A.M., that I locked my safe, and with it the correct solution of the code. . . . With the aid of a good Japanese scholar there is no doubt but that I can have the Japanese code complete for you and probably some important messages before you go to Congress for the MID [Military Intelligence] appropriation. . . . With the exception of clerical assistance I have worked practically alone, and it is the first thing that I have ever done which I feel really proud of.¹⁵

Several things then happened in quick succession: General Churchill telephoned his congratulations; Yardley, now concentrating on Japanese, made one of his analysts, Frederick Livesey, the bureau's Japanese specialist;¹⁶ and he hired a former missionary, the Reverend I. H. Correll, as a Japanese linguist, at a salary of \$4,000 per year. With Correll's help, the bureau translated its first Japanese message in February 1920; Military Intelligence called it the "most remarkable accomplishment in the history of code and cipher work in the United States."¹⁷ This was one of several expressions of appreciation which Yardley received from the War and State Departments during 1920–21.

When the lease to Yardley's house was sold, he and his staff moved, on 1 July 1920, to another brownstone, at 141 East 37th Street. The Reverend Correll, disillusioned with espionage work, resigned at about this time, and Frederick Livesey, a fine linguist who had added Japanese to his other languages in only six months, took over Correll's duties. Japanese communications were now the bureau's first priority, and work was begun on military and naval attaché codes, which, along with diplomatic systems, were to figure decisively in the Limitation of Armament Conference soon to open in Washington.

"Exceptionally Meritorious and Distinguished Services"

Yardley considered it "the most important and far-reaching telegram" that ever passed through the doors of his bureau. It was message number 700, Tokyo to Washington, dated 28 November 1921, and received, decoded, and translated by Yardley's group on 2 December. Addressed to Admiral Baron Kato, head of the Japanese delegation to the Washington disarmament conference—a kind of early SALT conference—the message contained Japan's fallback position on the relative tonnages of capital ships of the naval powers. Japan had been insisting on a 10-7 ratio with the United States and Britain, but now, wishing, as the message put it, to "avoid any clash with Great Britain and America, especially America, in regard to the armament limitation question," Tokyo told its representatives that, if pressed, they were authorized to accept a ratio of 5-5-3 for the United States, Britain, and Japan, respectively. Armed with this knowledge—thanks to Yardley—Secretary of State Charles Evans Hughes had only to continue to press the Japanese, knowing that in the end they would agree to our terms, which they did about a week later. Yardley, the master poker player, later said, "Stud poker is not a very difficult game after you see your opponent's hole card." It had been a trying time for the head of the Black Chamber and his staff of fourteen people. They frequently worked nights and weekends during the three months the conference was in session; they produced several thousand translations, and when it was over they were exhausted. Yardley, suffering from a mild case of tuberculosis, left for Arizona to rest and regain his health.

For their hard work during the conference, Yardley and his group received a Christmas bonus in 1921. (This kind of reward, normally unheard of in government, was possible because Yardley's funds came from a secret, nonaudited account.) The \$998 bonus was distributed according to salary, and ranged from \$37 to \$184 per person, with Yardley receiving the \$184. This amounted to a little more than 2.5 percent of each one's salary, which at the time ranged from \$1,400 to \$6,900 per year.¹⁸ Yardley also received a letter of appreciation from Secretary of State Hughes. Early in 1923, he was awarded the Army's highest noncombat decoration, the Distinguished Service Medal, "for exceptionally meritorious and distinguished services in a position of great responsibility. . . ." The citation of course said nothing about his role in providing highly important intelli-

gence during the arms conference, but referred instead to his military service during the war.

The next few years saw the bureau decline in size and importance. A reduced budget for 1924 forced Yardley to cut his staff by more than 50 percent. The six who remained—Yardley, two analysts, two cryptanalytic clerks, and a secretary—moved to more modest quarters in an office building at 52 Vanderbilt Avenue.¹⁹ They continued to work such material as was available, but traffic was becoming harder to get, apparently because the telegraph companies were becoming increasingly reluctant to provide copies of messages. Some traffic was by now coming from radio intercept, but it was too limited and sporadic to be of much value. According to Yardley, in *The American Black Chamber* (p.368), he was "forced to adopt rather subtle methods" of obtaining traffic, methods not always supported by his superiors. He was presumably referring to illegal means—break-ins, theft, bribery. Nothing in the existing records supports his claim, but that is not to say that such attempts were not made. In 1926, Yardley received another Distinguished Service Medal, again with a citation referring to his wartime service; the real reason for his receiving it is not known. During the waning years of the 1920s the bureau reported successes against Japanese, Mexican, Nicaraguan, Peruvian, and Chinese cryptosystems. During its twelve years of operation, in Washington and New York, the Black Chamber read messages of some thirty-five or forty countries, a rather remarkable achievement considering the small size of the organization.

The Coming of the End

Telling *what* happened is easier than explaining *why* it happened. Briefly, what happened is that the State Department suddenly decided to withdraw financial support from Yardley's bureau effective 1 November 1929; since State was supplying most of the money, this meant that the Black Chamber would have to go out of business, leaving the United States with no cryptanalytic capability against foreign diplomatic communications. (It was not until 1932 that the Army resumed cryptanalytic work, and then only on a limited, part-time basis.)

Exactly why the operation was closed down is still not clear, but, of the various theories, two are most frequently propounded. They might be called the Standard Version and the Revised Standard Version. The Standard Version holds that when the new Secretary of State, Henry L. Stimson, learned what Yardley was doing he ordered funding discontinued on

the grounds that it was unethical for the United States to engage in such unprincipled activities. This is the view later expressed in the famous statement attributed to Stimson: "Gentlemen do not read each other's mail."

The Revised Standard Version seems to have originated with Yardley. By the early 1930s, a few years after his bureau was abolished, he had come to believe that, in closing down the operation, Stimson was carrying out orders from President Hoover. Yardley's source for that information was "a famous woman correspondent"—never identified—who reportedly heard it directly from President Hoover at the latter's weekend retreat at Rapidan, Virginia.²⁰ Years later, New York Governor Thomas E. Dewey, then the Republican candidate for president, added a new dimension to the theory by claiming that Stimson himself had acknowledged that he had acted on Hoover's orders. Moreover, said Dewey, Stimson had sent Yardley a letter of apology for the abusive manner in which he had been fired.²¹

Although probably coincidental, it happened that in the spring of 1929 the Army undertook to transfer its cryptanalytic functions to the Signal Corps, which was then responsible for compiling but not breaking codes. The first known correspondence on the subject is dated 18 March 1929,²² or ten days before Stimson took office and anywhere from several weeks to several months before he learned of Yardley's bureau and ordered it abolished. On 4 April 1929, the proposal was approved by the Secretary of War, and on 10 May it was incorporated into a change to Army Regulations 105-5. Ladislav Farago, in his book *The Broken Seal: "Operation Magic" and the Secret Road to Pearl Harbor* (page 63), attributes the change of functions to the influence of William F. Friedman, then chief of the Signal Corps' Code and Cipher Compilation Section. Farago gives no source for his claim, and it is not substantiated elsewhere.²³ It is of course true that Friedman was the principal beneficiary of the demise of Yardley's bureau. In October 1929, he was sent to New York to take over Yardley's files and records and to supervise their transfer to Washington. From that modest beginning evolved the Signal Intelligence Service, which, greatly expanded and renamed, became the Army predecessor of the National Security Agency. It was also the beginning of Friedman's ascendancy in the Signal Intelligence Service and later in the Armed Forces Security Agency and NSA. He would eventually become known as the dean of American cryptology.

For all practical purposes, Yardley's bureau had ceased operation in June or July 1929, though it was

not officially closed until November. Yardley and his five employees were given three months' advance pay; two of his analysts, Ruth Willson and Victor Weiskopf, were offered jobs with the Signal Corps, but they preferred not to move to Washington. Yardley was offered a temporary position paying considerably less than he was then receiving. The officials making the offer believed it "highly probable that this offer will be unacceptable, in which case this office [the Office of the Chief Signal Officer] is free to go ahead and reorganize from the very bottom, with no entanglements from the past."²⁴ They had, in other words, made Yardley an offer they knew he could not accept, and he didn't. On 1 June 1930, he was again offered a job as a cryptanalyst, at a salary of \$3,750 per year, exactly half of what he had been making in New York.²⁵ (Friedman's salary at the time was \$5,600 per year.) He again declined the offer. Sometime in 1930, he sought employment as an instructor in the Navy's cryptanalytic research section, but was turned down, probably on the grounds that he lacked experience in Japanese naval cryptosystems.²⁶

A Bombshell in 375 Pages

Yardley, with no civil service status or retirement benefits, found himself unemployed just as the stock market was collapsing and the Great Depression beginning. He left Queens and returned to his hometown of Worthington, Indiana, where he began writing what was to become the most famous book in the history of cryptology. There had never been anything like it. In today's terms, it was as if an NSA employee had publicly revealed the complete communications intelligence operations of the Agency for the past twelve years—all its techniques and major successes, its organizational structure and budget—and had, for good measure, included actual intercepts, decrypts, and translations of the communications not only of our adversaries but of our allies as well.

The American Black Chamber created a sensation when it appeared on 1 June 1931, preceded by excerpts in the *Saturday Evening Post*, the leading magazine of its time. The State Department, in the best tradition of "Mission: Impossible," promptly disavowed any knowledge of Yardley's activities. Secretary Stimson, whose offended principles had reportedly led to the closing of the bureau, was now said never to have heard of it, and State Department spokesmen indignantly denied that Yardley had broken Japanese codes during the Washington arms conference of 1921-22.

The War Department declined public comment except to say, curiously, that Yardley's bureau had not operated in the last four years. Privately, however, officials in Military Intelligence and the Signal Corps were seething. What we today would call a damage assessment was immediately begun, led, in the Signal Corps, by William F. Friedman, who was by now the principal cryptologist in the newly formed Signal Intelligence Service. The verdict? Yardley's action was highly improper and a breach of confidence, America's relations with other countries would be damaged, and the book was full of distortions and exaggerations designed to glorify Yardley at the expense of others.

Reaction Around the World

In Britain, the *Black Chamber* was published first under its original title and later as *Secret Service in America*. If the British reviewers noticed that Yardley obviously had been reading British diplomatic codes, that fact went unmentioned in the reviews. The book also appeared in French, Swedish, and Canadian editions, but it was in Japan that it created the greatest furor. A translation of the *Burakku Chi-yemba*, as it was called, sold by the thousands for one yen (about fifty cents), and two major newspapers, the *Osaka Mainichi* and the *Tokyo Nichi-Nichi*, serialized the book, along with reports of interviews with Yardley conducted by the papers' New York correspondents. A few newspaper headlines will suggest the sense of outrage felt in Japan: "Betrayal of International Trust," "Treachery at the Washington Conference," "Disgrace to the Convener of the Conference." Many in the government blamed Baron Shidehara, Japanese ambassador to the U.S. at the time of the Washington Conference, for Japan's reverses at the conference because he hadn't changed the diplomatic code. This charge became the basis for attacking not only the liberal, pro-American Shidehara, by now the Foreign Minister, but the entire Cabinet. The continued charges, denials, and countercharges threatened to produce a governmental crisis.

A wave of anti-American feeling swept Japan. Relations between the two countries, already strained, worsened with the appearance of Yardley's book. The increased hostility probably contributed to the difficulties encountered by the American fliers Clyde Pangborn and Hugh Herndon when they reached Tokyo on a round-the-world flight in August 1931. Because of a communications breakdown, Japanese officials were not aware that the Americans were on the way; then, to make matters worse, it was discovered that they had overflowed and photographed Japanese forti-

fied zones while enroute. They were fined and, despite American protests, were detained in Japan for six weeks. The ill-will toward America did not dampen the enthusiastic welcome accorded Colonel and Mrs. Charles A. Lindbergh, but it was felt by individual American teachers and military officers living in Japan.

Not surprisingly, improved Japanese cryptographic security soon followed. In August 1931, the Foreign Ministry's communications department requested permission to purchase 138 copies of Yardley's book for distribution to Japanese embassies and legations in order to alert them to the vulnerability of their codes.²⁷ More importantly, the Foreign Ministry soon began to replace its manual systems with a newly developed cipher machine. This was probably the M-1, a Navy-developed predecessor of the Red machine, for its time a sophisticated device which remained the mainstay of Japanese high-level diplomatic communications until later replaced by the famous Purple machine. Aware, thanks to Yardley, of how insecure their communications had been during the Washington Conference ten years before, the Japanese were determined not to make the same mistake again: they would use cipher machines at the next armaments conference, scheduled to open in Geneva early the following year.²⁸ The U.S. Army's Signal Intelligence Service, still a very small organization, did not begin working on the Red machine until 1936, but once it did, the solution came in fairly short order.

It was not only on diplomatic circuits that communications security was improved. In October 1931, the U.S. Navy reported that whereas it had previously been able to readily obtain "information regarding the naval activity of a foreign power," it could no longer do so because "the systems of conveying this information have undergone a complete change." This, too, was undoubtedly a result of the introduction of cipher machines on Japanese naval circuits. Reconstructing the new systems would, according to the Navy, require "the entire efforts of our personnel for a period of at least two years."²⁹

Yardley's book was widely reviewed in the American press, and the reviews were generally favorable. The *New York Times*, for example, said it could "almost be regarded as a treatise on cryptography." The *Saturday Review of Literature* said it was "written with sprightliness and interspersed with startling and amusing tidbits," although it was "quite impossible to check up on many of its statements and incidents." There were, however, a few dissenting voices. The *Japanese-American*, a New York biweekly, called it

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"an immoral book," one which no decent-minded person could read "without a sense of revulsion." The *New York Herald Tribune*, while generally praising the book, pointed out that such an exposé could not have been published elsewhere; only in the United States were the authorities "so naive as to permit a Major Yardley to pass out of their service with a *carte blanche* to tell all that he knows." An editorial in the *New York Evening Post* stated, "We wish Theodore Roosevelt were alive to read to the author of this book a lecture on betraying the secrets of one's country." Going even further, the *Boston Post* suggested editorially that Congress revoke Yardley's Distinguished Service Medal.

It was not revoked; in the final analysis, nothing was done because nothing *could* be done. When asked, Yardley had declined to submit his manuscript to Military Intelligence for review before it was published in the *Saturday Evening Post*, and he was vague in describing the exact nature of its contents. He said only that he would not publish anything which, in his opinion, would be prejudicial to the best interests of the War Department.³⁰ The Judge Advocate General advised Military Intelligence that, based on the information then available, little if anything could be done to prevent the articles from being published.³¹ Meanwhile, Yardley was preparing to resign his commission in the Army Reserve because, as he put it, "I do not approve of the policies of Military Intelligence Division and therefore no longer wish my name identified with this division. My resignation is unconditional and without rancor of any sort."³² He explained it differently many years later: "I resigned it [the commission]," he said, "so they wouldn't court-martial me when the *Black Chamber* book came out."³³ After some discussion, the Army accepted his resignation effective 1 April 1931, just twenty-four hours before the first of his *Saturday Evening Post* articles appeared on the newsstands.

Why Did He Do It?

Yardley gave several reasons for publishing the book and magazine articles. He reportedly told William Friedman that his family's financial needs left him no other choice.³⁴ He told an old friend and colleague, J. Rives Childs, that he felt he had been badly treated by the government and therefore had no compunctions about revealing the operations of his bureau.³⁵ He also apparently believed that inasmuch as the government had removed itself from the business of cryptanalysis, there was no harm in disclosing what he had done—it was, after all, now only of academic interest. A

corollary to that was his belief, apparently quite sincere, that the American people needed to know that the United States was at a serious disadvantage vis-a-vis other countries, especially since our refusal to engage in cryptanalysis was not likely to persuade others to follow suit. He seems to have been voicing this feeling, almost wistfully, when he dedicated *The American Black Chamber* ". . . to Our Skillful Antagonists, The Foreign Cryptographers, who still remain behind the Curtain of Secret Diplomacy." He expressed the same view in *Liberty* magazine (19 December 1931), saying that he regretted that the *Black Chamber* had not been sufficiently recognized "as an exposé of America's defenseless position in the field of cryptography." He had also hoped that the book would alert the country to the woeful insecurity of our diplomatic communications, which he considered to be little better than those used in the sixteenth century.

Finally, did Yardley fully realize the security implications of his disclosures? We will probably never know with certainty, but the evidence is strong that he had taken a secrecy oath³⁶ and that he was once very security conscious. There is, for example, a letter of 22 October 1924 to a Major C. M. Milliken, presumably of Military Intelligence, in which Yardley says: "Ever since the war I have consistently fought against disclosing anything about codes and ciphers. My reason is obvious: it warns other governments of our skill and makes our work more difficult." He was in the habit of warning his staff and consumers of the dangers of security compromises. The warnings sometimes took the form of notes added to decrypts, and sometimes were apparently fashioned into posters put up around the office. Some examples: "SECRET! If enemies learn that we can decipher their present codes, they will try to devise more difficult forms. Let's keep them ignorant of our success." "SECRET! Remember that making public a single code message deciphered by M.I.8 may lead to a discontinuance of the code and thereby nullify the labor of months." He was unknowingly prophetic when he wrote, in a letter of 19 May 1920: "If the Japanese should learn that we can read their messages they may make such a violent change in their codes that we could never read them." That didn't happen—the United States eventually solved the best systems the Japanese could devise, but time had been lost and we unquestionably suffered to some degree from Yardley's indiscretions.³⁷

Early in June 1931, Yardley became a code and cipher consultant to Northwestern University's Scientific Crime Prevention Laboratory. He was said to be ready to drop everything to help in the effort to clean

up crime in Chicago. Compared to the systems used during the war, "codes used by gangsters are of the crudest kind," he said. It is not known how long he remained a consultant to Northwestern, but while advising the crime laboratory—he was working from his home in Indiana—he was again preparing for bigger things.

Author, Lecturer, Outcast

Another of his articles, a historical survey of cryptology, appeared in the *Saturday Evening Post* toward the end of 1931. His next published book, after the *Black Chamber*, was called *Yardleygrams*, a collection of cryptologic puzzles with accompanying narrative intended to teach readers the rudiments of cryptology; the same or similar puzzles were serialized in *Liberty* magazine.

The Yardley book that had some of the most far-reaching effects is, ironically, one of the least known today, for it was never published. It was *Japanese Diplomatic Secrets, 1921-22*, an account of the diplomatic maneuvering behind the Washington arms conference as revealed through translated Japanese communications. The book was ghostwritten in 1931-32 by Marie Stuart Klooz, a young journalist who met Yardley through a literary agent, Viola Irene Cooper. Miss Klooz wrote the book from carbon copies of translations given her by Yardley, who told her that the messages had been "intercepted," and that if the government learned what he was doing it would disapprove. The Bobbs-Merrill Company of Indianapolis, the publisher of *The American Black Chamber*, declined to take the book, possibly because the Justice Department, at the request of the War Department, had asked the company to forward to the War Department any possibly classified material which Yardley might submit for publication.³⁸

The manuscript was next submitted to the Macmillan Company in New York, where, on 20 February 1933, a U.S. marshal seized and impounded it under Section 32, Title 50 of the U.S. Code, which prohibited the taking of secret documents. (The request to obtain the manuscript came from General Douglas MacArthur, then Army Chief of Staff, via the State Department to the Justice Department.) A company official, together with Yardley's literary agent, was ordered to appear before Assistant U.S. Attorney Thomas E. Dewey, later governor of New York and twice Republican candidate for president. After testifying before a federal grand jury, the men were released. It is not clear whether Yardley testified, but it is known that when he learned that the government

was looking for the manuscript, he insisted on removing his name from it and replacing it with that of the ghostwriter, Miss Klooz. She was willing to have the book published in her name, but it was too late—it had already been seized.³⁹ Dewey later said that it was he who persuaded Yardley, over drinks in a New York speakeasy, not to publish the book; he added that he and Yardley had, in the process, become good friends.⁴⁰

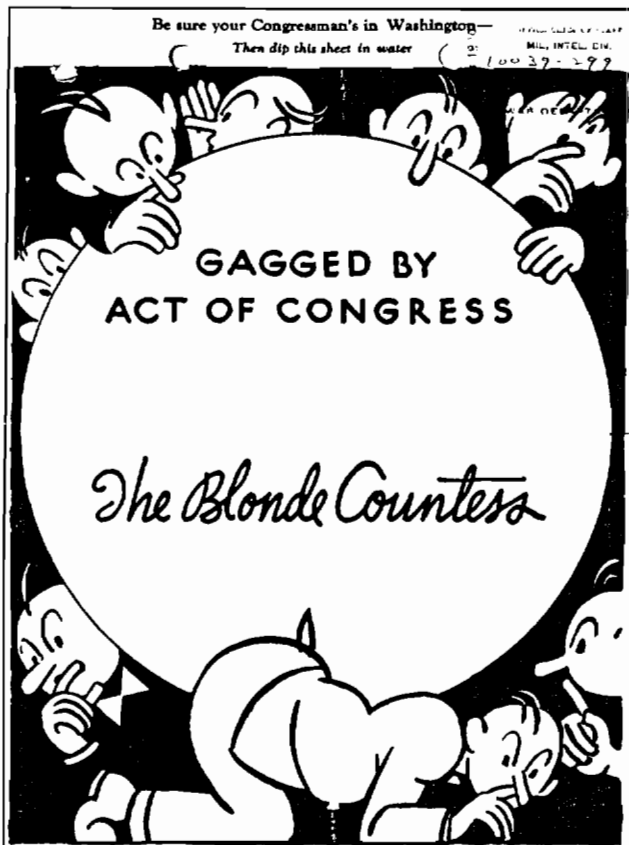
The book owes its fame to the legislation it created, legislation that Yardley called the "Secrets Act" and which is officially known as "An Act for the Protection of Government Records." At the request of the State Department, the chairman of the House Judiciary Committee introduced the bill on 27 March 1933; the House passed it overwhelmingly a week later. When the press complained about possible violation of First Amendment rights, the Senate briefly debated the bill, now shortened and modified, before passing it on 10 May 1933. On 10 June it became Public Law 37, 73rd Congress. Very narrowly written, it was intended to deal with exactly the kind of thing Yardley had done. In one long sentence, it provided that "whoever, by virtue of his employment by the United States, . . . shall obtain . . . or have access to . . . any official diplomatic code, . . . and shall willfully, without authorization or competent authority, publish or furnish to another any such code or matter . . . which was obtained while in the process of transmission between any foreign government and its diplomatic mission in the United States, shall be fined not more than \$10,000 or imprisoned not more than ten years, or both." Minor changes in phraseology were made in 1948; today the act remains on the books as Section 952 of Title 18, Crimes and Criminal Procedure, United States Code.

During congressional debate, Senator Arthur R. Robinson of Indiana invited Yardley to comment on the bill. Referring to the book that had inspired the legislation, Yardley asserted that the government's fear of the manuscript was based on "false sensational rumors originating in New York." And in any case, he said, the book was "a dull treatise for scholars and students of history. The ordinary person would fall asleep while reading it. Whether it is published or not is of no consequence to me." He was, he said, much too busy developing "a commercial invisible secret ink for children and adults to write their letters with to be at all concerned about anything else."⁴¹

Where is Yardley?

Meanwhile, the Army, too, was busy writing letters. In September 1932, while letters were going out to

Bobbs-Merrill and the Justice Department, Military Intelligence was trying to locate Yardley in order to retrieve from him the classified material he was believed to have taken from his New York office. A coded telegram to the Fifth Corps Area at Fort Hayes, Columbus, Ohio, brought forth the news that Yardley was living in Worthington, Indiana. A letter immediately went back to Fort Hayes directing the Commanding General to send a Regular Army officer and two witnesses to Worthington to see Yardley. They were to advise him that the Secretary of War had reason to believe that Yardley had in his possession "divers original documents" obtained while employed by Military Intelligence. He was to deliver all such material to the Adjutant General, and was to "refrain from making or causing to be made any copies thereof



Ad publicizing one of Yardley's books. Dipping the ad in water revealed a hidden message: "The only author ever Gagged by an Act of Congress resorts to fiction in his novel about the American Black Chamber. 'The Blonde Countess,' by Major Herbert O. Yardley, published by Longmans, Green and Company, 114 Fifth Avenue, New York."

of any kind or nature whatever." These demands were to be made orally; Yardley was not to receive a copy.

On a Friday evening in September 1932, three officers—a colonel and two captains—from the ROTC unit at Indiana University visited Yardley and read him the War Department letter. By way of response, Yardley made four points: he had refused to write a series of articles on espionage for *Cosmopolitan* magazine; he was not interested in nonfiction writing because he was already under contract for all he could produce; he had "no documents that could injure the strength of the U.S. Government"; he couldn't understand why the government should attempt to embarrass him, and he would like to discuss the matter with the Adjutant General. Yardley's reply was forwarded to Washington where it was duly filed in the offices of the Adjutant General and the Assistant Attorney General, who had drawn up the original demand. The latter advised waiting to see what happened: now that the demand had been made and Yardley had responded, he had nothing more to suggest. As for wanting to see the Adjutant General, the move "was for Yardley himself to make if he so wished." There is no record that he ever did so.

In the early 1930s, Yardley branched out from writing and began lecturing on his experiences and achievements during twelve years in cryptology. Under the management of W. Colston Leigh, Inc., a prominent New York lecture bureau, he spoke before clubs and service organizations from coast to coast. Typical of his lectures was one he delivered before the Cincinnati Country Club. According to the *Cincinnati Enquirer*, which previewed his speech, "He lifts the veil of secret diplomacy and international intrigue and shows the photographs of international codes . . . Major Yardley will illustrate for his audience this evening his methods of working with code books, secret inks, mysterious test tubes of chemicals . . . his authoritative addresses . . . publicize more important facts about international diplomatic affairs than have been heretofore offered from the lecture platform."⁴²

Writer of Spy Thrillers

In September 1933, the public relations branch of Military Intelligence was directed to watch the book notices for any indication that Yardley was contemplating writing or publishing another book. Any such information was to be forwarded immediately to the head of Military Intelligence; there was to "be no discussion of this matter except within the branch."

They had to wait only about six months before Yardley's first novel, *The Blonde Countess*, appeared.



With Rosalind Russell, co-star of the MGM film "Rendezvous," based on Yardley's novel *The Blonde Countess*.

It was a classic *roman à clef*, a thinly disguised, if glorified, account of some of Yardley's experiences during the years 1917-1929. Yardley wrote himself into the story as "Nathaniel Greenleaf," head of the "Department of Chemical Supervision," a covername for the Black Chamber. His choice of the name Nathaniel Greenleaf is interesting as an indication of his strong attachment to his native state, Indiana. His hometown, Worthington, is in Greene County, which is named for the Revolutionary War general Nathanael Greene. Yardley simply changed the spelling slightly and became "Nathaniel Greenleaf." He gave Indiana—and perhaps himself—another boost when he wrote "...Mr. Greenleaf was from Indiana, where the authors come from..." He was certainly describing himself when he has Greenleaf's secretary say that she liked "distinguished men with expressive lines in their faces and hair growing thin. Like Mr. Greenleaf, for instance." The secretary, "Joel Carter," was modeled after Marguerite O'Connor, Yardley's secretary during the later years of the New York operation. Certain other characters in the book also had real-life counterparts in Yardley's bureau. Several actual incidents

are described more or less accurately—the Waberski affair and the solving of the German ADFGVX cipher, for example. Possibly voicing his feeling of resentment at what he considered to be his own government's lack of appreciation for his accomplishments, Yardley has the British ambassador say to Greenleaf, after a particularly important achievement, "In my country, they'd give you a knighthood and a D.S.O. for this."

Yardley wrote in an interesting, entertaining way, and the book received generally good reviews. The *Saturday Review of Literature*, for example, said, "Mr. Yardley knows his spy stuff and can tell a good story, though there are a few rough edges." The MGM film studios liked it enough to make it into a movie called "Rendezvous" starring William Powell and Rosalind Russell. Yardley spent about a year in Hollywood as technical adviser during the making of the film. (In 1934, MGM had also bought the film rights to *The American Black Chamber*, but it was never made into a movie, although the possibility that it might be prompted Military Intelligence to alert the State Department and the FBI.)

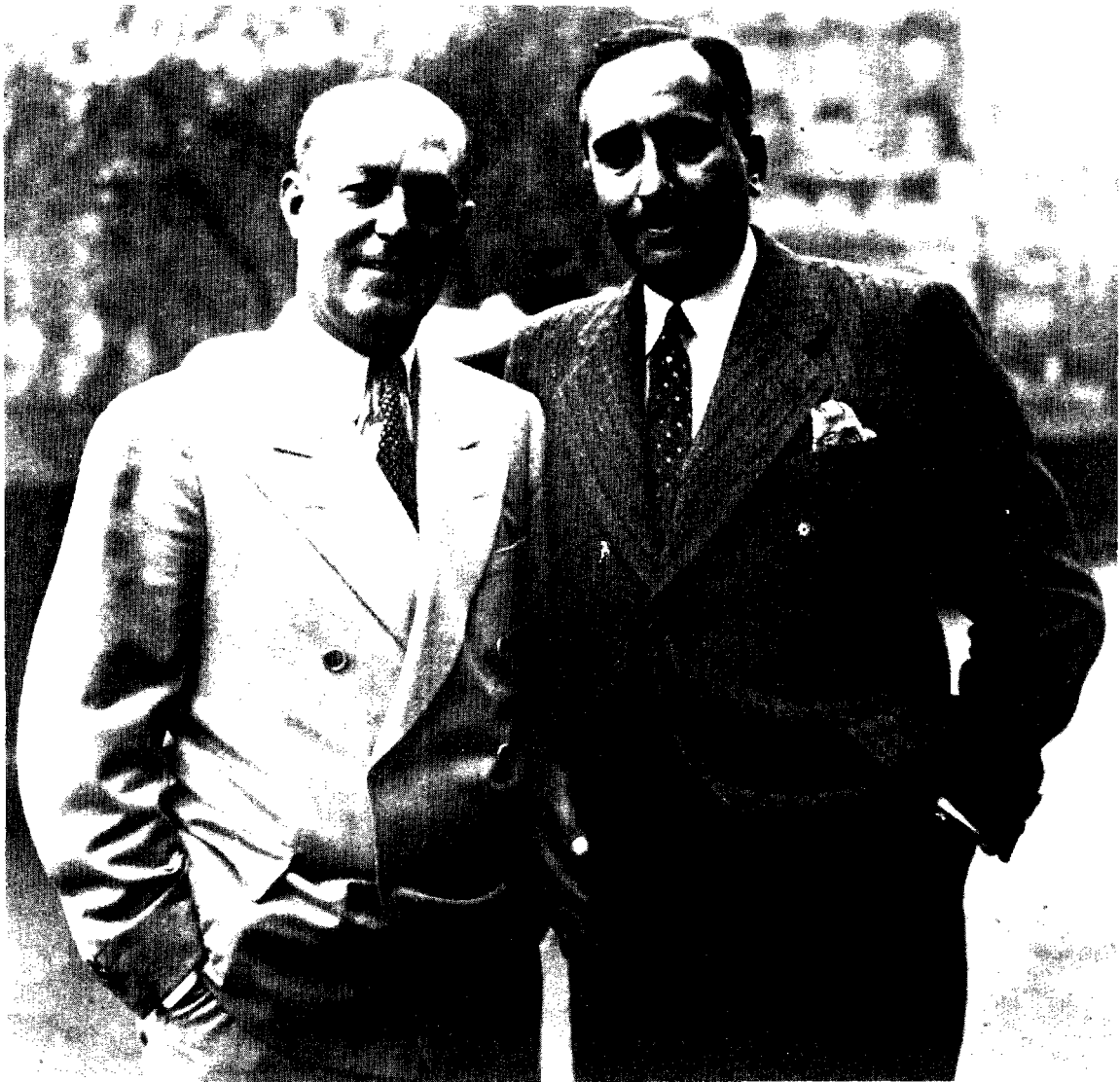
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Yardley's second novel, *Red Sun of Nippon*, again featured Nathaniel Greenleaf, this time as a young State Department officer in love with a beautiful Chinese-American girl who helps him uncover a network of intrigue by which Japan is preparing for its Manchurian adventure. Again, the reviews were good. *The Japanese-California Daily News*, before seeing the book, predicted that "Hell, or a particular piece of it, is bound to pop this fall when 'The Red Sun of Nippon' . . . is published. . . ." Some reviewers thought the plot a bit far-fetched, as indeed it was.

Yardley made it clear that he was still chafing at the way his bureau had been summarily abolished, for he says of Greenleaf: "Perhaps he was once young and

trusting and was deceived"; and, in a pointed reference to Secretary Stimson, he says, "Greenleaf had been told that 'gentlemen don't use such methods' and his force [was] dismissed overnight." Yardley reveals much of himself and his feelings when he has Greenleaf say things like: "I go on the wagon when I'm working really hard"; and "Official recognition of my helpfulness has been so rare that I'm a bit overwhelmed"; and, referring to the Hoover administration, "You can hardly know how little I am loved by them."

Nor was he particularly well loved by parts of the Roosevelt administration, during whose early years he was writing his novels. The government, already nervous about anything Yardley might do or say, was not



Yardley and Georges Painvin, the famous French cryptanalyst of World War I. Picture taken in New York about 1935.

reassured by his disclaimer in *The Blonde Courtes* that the characters and events were entirely fictitious, and that "no official secrets have been disclosed." Military Intelligence immediately asked for damage assessments from its own operations branch as well as from the State and Justice Departments. After some discussion, which included consideration of an FBI investigation, all parties agreed that the act of 10 June 1933 had not been violated. The operations branch of Military Intelligence, in an opinion concurred in and perhaps written by William Friedman, added that the hero of the story "is modeled quite closely on what the author's astounding ego conceives to be his own character and abilities." Similarly, the New York District Attorney, Military Intelligence, and the State and Justice Departments all agreed that *Red Sun of Nippon* did not violate the recently enacted "Secrets Act."

About 1935, Yardley turned to radio writing. In collaboration with Tom Curtin, a journalist with some background in intelligence, he produced a series called "The Black Chamber." According to Curtin, the military, fearing that the program might violate the "Secrets Act," brought pressure on the sponsor and the advertising agency not to produce the show. Curtin and Yardley then auditioned the program for NBC and Army officials, all of whom were enthusiastic, the Army feeling that it would encourage patriotism. The fifteen-minute show was heard on the NBC network three times a week for about a year. Each episode began with these words: "A thrilling play written by Major Herbert O. Yardley, for 15 years the chief of that mysterious bureau in Washington which solves all secrets." The sponsor, Forhans toothpaste, offered a vial of secret ink and a decoding device to listeners who sent in an empty Forhans toothpaste carton.⁴¹

Yardley was in Hollywood during much of this time, and his whereabouts and activities were, as always, of concern to Military Intelligence. During the summer of 1936, G-2 learned, through inquiries to Army Intelligence officers in California, that Yardley was probably no longer connected with the movie industry but was associated with the M. J. Nolder Distilleries, Inc., of Colton, California, near San Bernadino. And he was still on the lecture circuit, speaking, for example, before the Breakfast Club of the Los Angeles Athletic Club. The subject of his lecture: "Diplomatic Secrets That Can't Be Told."

China

Yardley soon returned to the East Coast and began dealing in real estate on Long Island. In January 1938,



In the 1930s, before leaving for China.

he was interviewed on a program called "Radio Newsreel" sponsored by Energine cleaning fluid and broadcast over the NBC network. Military Intelligence heard about the interview and immediately obtained a transcript; they and William Friedman must have been more than a little surprised to read that the United States had no cryptologic organization, and presumably had had none since 1929, when Yardley's bureau was abolished.

The next major turning point in Yardley's life came in May 1938 when the assistant military attaché of the Chinese embassy approached him with an invitation to set up a cryptanalytic operation for the Chinese government. Specifically, in return for a salary of about \$10,000 a year, Yardley was to intercept and exploit the communications of the Japanese army then operating in and occupying much of China. He was also to train a cadre of Chinese in the fundamentals of cryptanalysis. (Yardley later liked to say that he was actually a confidential adviser to Generalissimo Chiang Kai-shek, as indeed he may have been, given the proliferation of advisers of all kinds in China at the time.)

In the fall of 1938, after a circuitous two-month-long trip by way of Europe, Yardley arrived in Chungking, the capital of unoccupied China. His roundabout travel and his use of the alias "Herbert Osborn" were intended, he said, to reduce the chances of his being

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recognized and possibly assassinated by the Japanese. He at first lived and worked in a spacious but primitively furnished, rat-infested chateau overlooking the Yangtze. He posed as a dealer in hides, a fiction which did not long deceive the American community in Chungking. One member of that community was Theodore H. White, then a twenty-three-year-old correspondent for *Time* magazine who was later to become famous as the author of "The Making of the Presidents" books. He remembers Yardley as "a delightful man. . . a man of broad humor and unrestrained enthusiasms, and among his enthusiasms were drink, gambling and women."⁴⁴ Another American writer, Emily Hahn, saw him differently. She enjoyed the company of most of the residents of the Chungking Hostel, she wrote, but Yardley was an exception. To her, he was "an American with a loud manner of talking. . ." who was actually "a secret agent and everyone knew it."⁴⁵

The first official notice of Yardley's presence in Chungking came in September 1939 when the veteran assistant military attaché in China, Major David D. Barrett, radioed the War Department to ask about Yardley. His paraphrased message was: "Can you tell me if Yardley (of the 'Black Chamber') has left America? According to a reliable report he or another individual of his trade has been employed since about May 25 by the Nationalist Government."⁴⁶ The answer



In Chungking, with two of his students.

was, yes, it's Yardley and, the message continued, "You are authorized to approach him discreetly and to inquire if results of his work can be made available to you. Particular interest attaches to material pertaining to military subjects. Be guarded in your radio messages about this matter even when in secret code." The interest in Yardley's work undoubtedly originated in the Signal Intelligence Service, which was then having little success in exploiting Japanese army field communications. The cautionary note about safeguarding the privacy of communications may have stemmed from a suspicion that Yardley was monitoring the War Department's radio circuits to and from Chungking.

Barrett and the War Department then exchanged a number of classified messages and memos about Yardley, although in none of them was he ever mentioned by name. In one of the first of these, Yardley was reported to be thinking of returning to the United States. If he does, Military Intelligence told Barrett, notify us by radio and, "if it can be obtained with extreme discretion," report his destination and expected time of arrival. Barrett next radioed that Yardley had changed his mind and would remain in China provided he was given control of a new 800-man intercept service. He very much wanted to cooperate with the War Department, he said, but he needed to know more specifically what was wanted. He admitted, however, that he didn't like "some of the War Department's civilian personnel [probably a reference to William Friedman] and for this reason. . . he might prefer to make available to the Navy rather than to the Army such results of his work as he might be able to furnish." To that, Military Intelligence told Barrett "to maintain absolutely reserved but friendly relations with him without any commitment or encouragement which he might interpret as an approach to obtain his services." If, however, he should, out of patriotism, offer information on Japanese army field systems, Barrett was authorized to accept it. Yardley's response was to propose a deal—he would give Barrett "complete technical records [of] all steps in busting Jap military codes" in return for which the government would hire Mrs. Edna Hackenburg at a salary of \$6,000 per year. (Mrs. Hackenburg, née Ramsaier, was one of the early Black Chamber employees and would later become the second Mrs. Yardley.) She was, according to Yardley, worth at least \$2,000; the other \$4,000 would help to compensate him for "risk and work which he is not willing [to] endure for patriotism alone." This was impossible, said Military Intelligence, because "Edna already employed by Chief Signal Officer as clerk. . . at satisfactory salary with obligation of complete se-

crecy." For Barrett's information, there was this additional note: ". . .the gentleman's past publications have seriously jeopardized national defense. War Department fears repetition upon his return. Exercise greatest discretion." Barrett, in a long summary of his dealings with Yardley over a six-month period, reported that Yardley's activities were becoming increasingly well known. Those familiar with his work included the officers of the American gunboat *Tutuila* and several foreigners living at the Chungking Hostel.

The Japanese had also learned that Yardley was in China. A circular message from Tokyo to its embassies and legations warned that "the Chungking Government has . . .made the American, Yardley, an adviser. . . ." He employed, according to the message, 700 to 800 people "to study Japanese codes and they are making a considerable success of it."⁴⁷ The embassies and legations were instructed to be vigilant in safeguarding their codes and to change the safe combinations frequently.

Continuing his report, Barrett noted that Yardley had "a decided weakness for women, and many Chinese women visit his apartment, but as far as is known, no foreign women." He occasionally drank quite heavily and became talkative, but was not known to have divulged anything about his work. Cut off from contact with foreigners by the nature of his work and unable to speak Chinese, he was lonely. As for sharing the results of his work with the U.S. government, he wasn't willing to do that solely for patriotic reasons. Those working in Washington were well paid, he said, and he didn't see why he too should not be compensated for his hard work, which was, moreover, performed in a city undergoing heavy Japanese bombing; considering all of that, he thought his information was worth at least \$100,000. He believed that William Friedman, because of professional jealousy and personal dislike, would try to sabotage any attempt on his part to establish connections with the War Department. Barrett further reported that it was not altogether clear whom Yardley worked for. Yardley claimed that it was a Mr. Tai Li, head of Chiang's Secret Service and the civilian head of the secret police, the Blue Shirts. Tai was often referred to as "the killer," or "the Generalissimo's Number One Hatchet Man." The assistant U.S. naval attaché, however, told Barrett that Tai was only the recipient of Yardley's work, and that the real boss was another Chinese, who had been engaged in intercept work and codebreaking for about ten years but whose association with cryptology was known to only a few government officials. Finally, Barrett said, there was some disagreement about the quality of Yardley's work. Yardley



Major Hsiao Hsin Ju, who recruited Yardley for service in China, and his wife, Ch'in Meng.

maintained that his organization was producing highly satisfactory results. Barrett, on the other hand, had heard "from very reliable sources that the Chinese are not particularly pleased with what he has accomplished."

Yardley meanwhile was reporting to a "General Dai" (probably General Tai Li) on the results of his work. He had, he said, solved nineteen different Japanese systems and partially solved another one. As for his remaining in China, he said that his health was poor, he had lost forty pounds, and he respectfully requested the \$600 return fare to America so that he could leave the country when his contract expired on 31 March 1940.⁴⁸ As it turned out, the Chinese persuaded him to remain in Chungking for a few more months. During that time another report on his activities was filed with Military Intelligence, this one from Major William Mayer, the military attaché in Peking. He

confirmed Barrett's earlier observations about Yardley's fondness for women and drink, also that his real name and occupation were an open secret in Chungking. He added that Yardley had "two violent hates. One is Mr. Friedman. . . who Yardley believes undermined him. The other is Major Hsiao, ex-assistant military attaché at the Chinese Embassy in Washington. [It was Hsiao who recruited Yardley for service in China.] According to Yardley, Hsiao prevented his 'true love' [Edna Hackenburg]. . . from joining him in China." Mayer doubted that Yardley's accomplishments were as great as Yardley had claimed in his memo to General Tai, and in any case, he said, Yardley was undoubtedly under surveillance and "the Chinese would know of any transfer of data he might make."

Mayer reported that Yardley had admitted to using him and the War Department in an effort to obtain better terms from the Chinese when his contract was renewed. This he did by telling General Tai that the War Department had told him, through Mayer, that it was anxious for him to return to Washington. Mayer emphatically denied that any such request had been made and that if questioned about it he "would most certainly tell the truth," which he did when he talked with General Tai a few days later. Tai said that Yardley's work was not yet complete and that the Chinese would like him to remain in Chungking for at least another year. If Yardley's work produced any results, Tai said, arrangements might be made, unofficially, to turn over the data to Major Mayer for use by the United States. Mayer ended his report by saying about Yardley ". . . all in all I do not trust him very far. I recommend that we have as few official dealings with him as possible. In view of the nature of his work, I doubt that the Chinese will willingly permit him to leave China before the end of the war."

They obviously relented, for on 13 July 1940 Yardley flew over the Japanese lines to Hong Kong. (Yardley later claimed that Chiang Kai-shek had personally urged him to remain in China; he said also that he had been offered a job in France, but France's fall to the Germans upset his plans.) From Hong Kong he went by China Clipper to Manila and then on to the U.S. According to Major Barrett, the intensive bombings had limited the amount of work Yardley had been able to do during his last few months in Chungking. This was undoubtedly a factor in his decision to leave China. (In letters to Edna Hackenburg, Yardley wrote of the great suffering of the Chinese people at the hands of the Japanese. He was particularly moved by the deaths and injuries suffered by the children of Chungking, a city virtually defenseless against Japa-

nese air raids.) Barrett gave Yardley a noncommittal letter of introduction to the Intelligence Officer in the Philippine Department. The War Department, ever distrustful of Yardley, immediately dispatched a message to the Philippines, saying that the letter "is not to be taken as a request for favor for bearer or as a guarantee of his reliability."

The Six Brochures

As is already evident, Military Intelligence, despite its deep distrust of Yardley, was willing to use his knowledge whenever possible, provided it could be done at a distance. There was no intention of bringing him formally back into the cryptologic business. William Friedman's opposition probably would have been enough to prevent it, but there was also the fact that Yardley's well-known association with cryptology would have exposed the existence of an American cryptologic activity. These considerations thus made it impossible for him to return to a cryptologic position in the government. This, however, was not the view presented to the public. In December 1940, a former member of M.I.8, Herbert S. Spencer of North Tonawanda, New York, wrote General Miles, acting head of Military Intelligence, to say that if Yardley was not already working for the government, he should be. "In my opinion," he wrote, "the U.S. Military Intelligence can not readily replace, if at all, an expert of Yardley's ability. To me it has never been understandable that he was not retained somewhere in our service." General Miles's reply, drafted in the Office of the Chief Signal Officer, was in the time-honored tradition of employment letters: "Please be assured," it said, "that should circumstances require the employment of additional personnel in connection with cryptographic work, his name will be given full consideration along with those of other persons now in prospect. Your interest in calling our attention to this matter is appreciated."⁴⁹

Actually, however, the Army's Signal Intelligence Service was willing only to contract with Yardley for everything he could tell them about Japanese army field codes and ciphers. He had, after all, been on the scene for almost two years, possibly collecting low-powered signals that the Army, from its station 1,000 miles away in the Philippines, could intercept only sporadically. (It may also have been that he had somehow obtained Japanese code books or tables, a not inconsiderable advantage in breaking the systems.) At any rate, soon after his return to Washington he sent a sample of his work to the Signal Intelligence Service via Edna Hackenburg, who was then working in the Japanese section of SIS. Interested in what they

saw, SIS commissioned Yardley, for a fee of \$4,000, to write a full report on his work in solving Japanese army field codes. With the aid of a Japanese-keyboard typewriter which he had built for the purpose, he set out to produce a 218-page report that has come to be known as the six brochures. In addition to the code and cipher solutions, it contained the Japanese radio code, radio procedures, frequency counts, and an introduction to the Japanese language. It also described how each system was used, how messages in one particular cipher were considered so important "that Chinese Divisional Commands often gave our cipher men at the front a bonus of \$500(Mex) for their work," and how Japanese bombers broke radio silence to send a single dash as each bomb was dropped. "This is a good time to duck," he said.

SIS's contact with Yardley was through Frank B. Rowlett, head of the Japanese diplomatic section, who visited Yardley at his apartment on or near F Street, N.W., every few weeks to discuss the brochures. (Edna Yardley says that her future husband was then staying with author William Faulkner and his family in their apartment on Lanier Place, N.W., near Columbia Road, and Rowlett came *there* to see Yardley.)⁵⁰ To meet the terms of the contract Yardley periodically visited the head of the Army's War Plans and Training Division, Colonel Spencer B. Akin, to deliver completed work and collect his money. He was not allowed into the working areas.

(S) **Canada**

The last of the three countries Yardley worked for as a cryptanalyst was Canada. His employment there came about this way. In May 1941, a delegation headed by Professor Gilbert de B. Robinson of the Mathematics Department of the University of Toronto visited Washington seeking assistance in establishing a cryptographic capability in Canada. Major General Joseph O. Mauborgne, Chief Signal Officer of the Army, recommended Yardley, saying, "He is the best qualified person for the job; he is in Washington, but because of political considerations I cannot use him right now."⁵¹ (Mauborgne and Yardley were old friends; in correspondence, Yardley sometimes referred to Mauborgne as "General X.") The Canadians hired Yardley on a six-months' contract, to expire in December 1941. Known as the Examination Unit, the organization "Herbert Osborn" founded—he was again using his alias—was housed by the National Research Council under the administration of the Department of External Affairs. It apparently served the armed forces, the Royal Canadian Mounted Police, and the

postal and telegraph censors. The Examination Unit, small and for the most part cryptologically inexperienced, consisted of Professor Robinson and two other professors, a member of the Royal Canadian Mounted Police and a civilian friend of his, a Japanese woman who spoke no English and her Canadian husband who interpreted for her, two typists just out of high school, and Edna Hackenburg, who had been granted a six-months' leave of absence from SIS to assist Yardley in Canada. Their office consisted of two rooms in a secret location outside Ottawa. Their traffic came from a nearby intercept station, apparently the only one in Canada. Targets were agent networks operating between Germany and several South American cities, and Japanese diplomatic links. The greatest success was against the German agent systems, one of which used Rachel Field's book *All This, and Heaven Too* as the basis, probably, for developing transposition key. Yardley, the RCMP man, and his civilian friend worked the German systems; one of the professors, a good German linguist, translated the deciphered messages. Not much was accomplished against Japanese diplomatic codes, only one low-level system being read.⁵²

Mrs. Yardley remembers those six months as the happiest period of her life. The Canadians were warm and friendly toward her and Herbert; the pace was more relaxed than in Washington; and everyone in the group felt his work was important. If they worked until 2 or 3 a.m. to break a new German cipher, it was because they were so completely engrossed in what they were doing. For Yardley, it was a time of renewal, a chance to forget the horrors of wartime China and the nightmares they produced. It was inevitable, of course, that it would not last. Yardley, the author of *The American Black Chamber* and *Japanese Diplomatic Secrets* and lecturer on America's cryptologic successes, had become persona non grata, a pariah in the cryptologic community. No matter that the Canadians considered his work first rate and wanted him to stay. No matter that he and Edna had become good friends of Lester B. Pearson of the External Affairs Department and the man to whom Yardley reported, and that Pearson traveled to Washington to appeal for a renewal of Yardley's contract. (Pearson later served as president of the U.N. General Assembly and as Canadian Prime Minister, and was the first Canadian to receive the Nobel Peace Prize.) No matter that Thomas E. Dewey intervened on Yardley's behalf with a number of government officials, including Secretary of War Stimson, the same Henry L. Stimson who, as Secretary of State in 1929, had reportedly abolished Yardley's bureau. And no matter that Yard-

ley's friend and literary agent, George T. Bye, who was also President and Mrs. Roosevelt's agent, had arranged for Yardley to see Mrs. Roosevelt at the White House. Given all of this, why then did he not remain in Canada? Because, ultimately, none of these things counted for anything. Yardley's patron, Major General Mauborgne, had retired from the Army, and his successor, Major General Dawson Olmstead, knew Yardley only by reputation, a reputation reflecting William Friedman's feelings toward Yardley. Pearson's appeal to Olmstead was thus a waste of time. The meeting with Mrs. Roosevelt was the victim of unfortunate timing—it was to have been held on Sunday, 7 December 1941, the day the Japanese attacked Pearl Harbor, or the following day. Needless to say, it was cancelled. Mrs. Roosevelt turned the matter over to General Watson of the White House staff, who told Dewey that he could do nothing. Dewey, trying to keep Yardley in *American* cryptology, fared no better with Secretary Stimson, although Stimson said he had nothing personal against the former head of the Black Chamber.

Because of his past disclosures, the Americans and British were uneasy about Yardley's continued involvement in cryptologic operations, and the British dissuaded the Canadians from renewing his contract. As the prominent American cryptologist Frank B. Rowlett put it, "Yardley had broken faith with the cult when he published the book, and he might publish another one."⁵³ Mrs. Yardley recalls a Captain Drake⁵⁴ in Ottawa saying to her, "I only wish Herbert had omitted four pages from his book," an obvious reference to Yardley's disclosures about reading British codes. In the final analysis, Yardley's only support came from the Canadians. In November 1941, when it became evident that Yardley might not remain in Canada, Professor Robinson wrote this:

1. . . the question of replacing Mr. Osborne. . . should be considered from every point of view.

In the first place, one might ask whether his successor has equal ability and would be able to command the interest and loyalty of the staff.

The fact that Mr. Osborne is an American citizen and that he has had difficulties with the United States government may be taken as a disadvantage. From our contact with him I can truthfully say that he has adopted Canada as his country and would serve the Canadian government to the very best of his abilities. Personally, I have been very greatly impressed by his attitude towards his work and by his enthusiasm for everything connected with it.

2. Under his direction our bureau has shown considerable originality in attacking the problems presented to it. Would it not be wise to encourage this originality? We might make other contributions to the common cause.

3. Whether Mr. Osborne and Miss Ramsaier stay or go I feel that the appreciation of the Canadian government should be

expressed to them in a very tangible form for the work which their coming here has made possible. Previously I have referred to Mr. Osborne, but Miss Ramsaier, loaned to Canada by Washington, has played no small part in our success.⁵⁵

In a last-ditch effort to avert the inevitable, Yardley asked that his successor's departure from England be postponed for thirty days to "give me time to defend myself in Washington and attempt to clear up the matter." It was to no avail. When his contract expired on 9 December 1941 Yardley was relieved as director of the Examination Unit, to be succeeded by the veteran British cryptographer Oliver Strachey. Yardley's friend Lester Pearson spoke of the valuable work Yardley had performed for the Canadian government, and the Under Secretary of State for External Affairs commended him for his accomplishments. "I understand that you are now returning to your own country," he wrote, "and that you will probably be following similar lines of work there. May I take this opportunity of wishing you the best success in all your future undertakings."⁵⁶

According to Yardley, several job possibilities then arose, both in Canada and the U.S. Friends tried to arrange for him to lecture at Canada's war college. There was a plan for him to help intercept Japanese communications from a site on the Canadian west coast. Colonel William J. "Wild Bill" Donovan was said to be interested in hiring him for the Office of Strategic Services, a new U.S. intelligence and espionage organization.⁵⁷ None of these schemes materialized, and in January 1942 he returned to the United States, never again to work in cryptology.

Later Years

Soon after returning to Washington, Yardley bought the Goodacre White Coffee Pot restaurant at 13th and H Streets, N.W. He renamed it the Rideau—after the Canadian lake country which he had particularly enjoyed—and managed it until December 1942, when he gave it up as a loss. He returned to government service the following month, as an assistant chief investigator in the enforcement division of the Office of Price Administration (OPA), a wartime agency concerned with price control, rent control, and rationing. In 1944, he was divorced from Hazel Milam, and he married Edna Ramsaier Hackenburg.

Turning again to writing, in 1945 he published *Crows Are Black Everywhere*, subtitled "a novel of international intrigue in Chungking." It was co-authored by Carl Grabo, a professor of English at the University of Chicago from whom Yardley had once taken some courses. As usual, the book received good reviews: "The background of Chinese life has the ring

of authenticity. . . ." (*Boston Traveler*); "...much more solid and convincing than any fiction of its kind I have recently come upon." (*Washington Star*); "...a rousing story, with good plotwork. . . ." (*Hartford Courant*); "Good adventure stuff and plenty exciting at times." (*Philadelphia Record*). In the story Yardley is "Bill Fremont," an American flyer and leader of the Chinese fighter pilots. Naturally he is from Indiana, and of course the breaking of Japanese codes and ciphers figures prominently in the story.

As a result of a postwar reduction in force, Yardley left the OPA in 1947 and, with his earnings from the *Crows* book, he opened an electrical appliance agency known as the Osborn Sales Company. In 1949, he went to work for the Public Housing Administration. He retired from government service in March 1952, and for the next few years he built houses in Silver Spring and Kensington, Maryland. In 1953, he became interested in republishing *The American Black Chamber*. Writing to his agent about it, he told of the continued demand for the book, how "scarcely a week passes that I am not asked where copies may be purchased. Only last week I received three requests: one from a member of Civil Defense, one from the Un-American Activities [Committee], and one from Air Force Intelligence. As long as copies were obtainable it was placed in the libraries of all Naval vessels. And a survey of Public Libraries shows a long waiting list of readers."⁵⁸ Yardley's idea was to present the case informally to the State Department with the hope that it wouldn't care one way or the other about republishing the book, that politically State would consider it, as Yardley put it, "as dead as last year's bird's nest." Taking a different tack, the agent, George T. Bye, forwarded Yardley's letter to Governor Dewey, who said he saw no problem in reissuing the book. Bobbs-Merrill, the original publisher, was less optimistic. "A Federal law stands in the way of further distribution of 'The American Black Chamber,'" they wrote. "During the Second World War, when Japan was our enemy, we tried to get the State and Justice Departments to say there would be no prosecution if a new edition were issued. They would not agree. We have no idea they'd agree now."⁵⁹ After another letter from Dewey, Yardley retained an attorney to acquire the rights to the book, which he succeeded in doing on 1 August 1955. Bobbs-Merrill was probably glad to be rid of it; they were "always scared pink with that book anyway," said Yardley. But, for reasons not entirely clear, it was not republished.

Herbert and Edna were by then living in Orlando, Florida, where he fished, hunted ducks, played poker, and began writing his last book, *The Education of a*

Poker Player. In 1957, they returned to Silver Spring, where he divided his time between playing poker at the National Press Club and finishing his book. He claimed to have analyzed 35,000 poker hands for each game, more, he said, than the number of words he analyzed when he "broke the Japanese Diplomatic Code back in 1919." *The Saturday Evening Post*, which excerpted parts of the book, said this about its author: "Because he plays such a tight game of poker, Herbert O. Yardley has been dubbed 'Old Adhesive' by his friends. He brings to the table intuition, patience, boldness, and a deep understanding of mathematical probabilities—the same talents which have won him enduring fame as a breaker of codes and ciphers." *Time* magazine called it "a primer for all serious players." The British edition carried an introduction by Ian Fleming, of James Bond fame: "I can recommend this book to every consenting adult card player in Great Britain," he wrote. Theodore H. White, reviewing the book for the *New York Herald Tribune*, described it as "the happy autobiography of an Indiana boy who began life as a dealer in Monty's back-room, became one of America's most spectacular cryptanalysts and secret agents, and ended his career in the Orient." It was an immediate success, both here and in Britain; Mrs. Yardley says it had fourteen printings and sold over 100,000 copies. Readers were reportedly offered their money back if they didn't win more than the book's cost in their next poker sessions.



Herbert and Edna Yardley and his son, Jack. In Washington, D.C., late 1940s.

UNCLASSIFIED

Herbert Yardley suffered his first stroke shortly before the book was published. The fatal stroke came less than a year later, on 7 August 1958, at his home in Silver Spring. He was sixty-nine years old. He was buried, with full military honors, in Arlington National Cemetery. Several of the obituaries referred to him as "the father of cryptography in America," a term not unlike that later applied to his sometimes rival, William F. Friedman.

Yardley and Friedman

One can imagine how Friedman reacted to that tribute to Yardley. Not to put too fine a point on it, but relations between the two deteriorated after 1931, when *The American Black Chamber* was published. Though the rift was less evident in public than in private, and though Friedman voiced his feelings more often than did Yardley, it was nonetheless a serious, permanent breach. Before 1931, they had been friendly rivals, with considerable respect for each other's professional abilities. As early as 1919, they were disagreeing, amiably, on which cryptologic organization—the Riverbank Laboratories and the Code and Cipher Solving Section of G-2 (Friedman) or the Military Intelligence Branch, Section 8 (Yardley)—was the more advanced and had made the greater contribution to the war effort. In 1922, Friedman sent Yardley "a method of deciphering code messages in which the code groups of the coded messages are derived from the normal code groups by adding a series of key numbers." Yardley found the material useful and asked that if anything else came Friedman's way that he remember him. They continued to correspond during the 1920s, always addressing each other by last name ("Dear Yardley," "Dear Friedman"), and they occasionally visited each other's offices. In 1929, Yardley took a two weeks' reserve officers training course in cryptanalysis sponsored by Military Intelligence. In his critique of the course, he wrote, "I should also like to compliment Major Friedman upon the way in which he conducted the classes and to assure him that not only I, but all officers of the class, hold him in very high esteem indeed."⁶⁰ After Yardley's bureau was abolished and the SIS had acquired all its material, Friedman wrote, "You have no idea how badly I feel at the way things turned out for you, not that you need my sympathy, but that I can appreciate what a raw deal you got, and that I was powerless to avert it."⁶¹ Early in 1931, Friedman invited Yardley to come to Washington on active duty.



William F. Friedman in the early 1930s.

"...I would be extremely anxious to have you come for several reasons," he wrote, "but in particular, if you want to see some interesting stuff along R [Russian] lines, now is the time. Also I would like to see you because I really miss our former contacts of a personal nature."

Yardley didn't take him up on the offer, probably because he was still busy with his book and magazine articles. The latter became the subject of a series of letters exchanged during the spring of 1931. Friedman thought Yardley had divulged too much about secret inks, tampering with diplomatic seals, and the like, and he upbraided him for including a photograph of a page of a reconstructed British Foreign Office code book. (The same picture later appeared in *The American Black Chamber*.) "That wasn't war-time stuff," wrote Friedman. "But on this point I will say no more and leave it to your own conscience." He ended by saying, "Please consider my remarks above as friendly, wholly unofficial, and purely my personal reaction to your story." In a P.S. he complimented Yardley on his

"fine job of writing," adding that "Mrs. F. says you write in a thrilling style." Yardley thought Friedman took the disclosures too seriously—"...the world will continue to turn around in spite of any thing I may write or say. . . .we've argued about secrecy a thousand times, so I guess we'll never agree on that point."⁶² After a few more letters, they stopped corresponding, apparently forever.

Much less friendly than his letters were Friedman's remarks penned in the margins of his copy of *The American Black Chamber*, along with annotations by Charles J. Mendelsohn and A. J. McGrail, alumni of Yardley's bureau. A few examples: "This is a mass of misstatement, exaggeration and falsehood" (page 44); "A lie! which can be so proved to be" (page 45); "This is pure bunk" (page 147). Friedman expressed resentment at Yardley's allegedly taking credit for work done by Friedman at Riverbank Laboratories, and for claiming to have broken cryptosystems for which he had the keys.

Friedman's preoccupation with Yardley never waned, and his neatly written marginal notes today adorn much of the correspondence by and about his rival. His feelings toward Yardley were such as to affect to some degree the objectivity of parts of a history of cryptology in the U.S. Army to 1940, the three-volume *Historical Background of the Signal Security Agency*, published in 1946. During the early 1950s, while a research consultant at NSA, Friedman became interested in Yardley's belief that it was President Hoover rather than Secretary Stimson who closed the bureau in New York, and he asked a friend at the State Department whether he could confirm that from official records.⁶³ Later, he obtained from the Justice Department a microfilm copy of *Japanese Diplomatic Secrets, 1921-22*, the unpublished manuscript ghost-written for Yardley by Marie Stuart Klooz. Through the Deputy Coordinator of the U.S. Communication Intelligence Board, he asked the FBI a number of questions about Miss Klooz, her connection with Yardley, and the circumstances of her obtaining secret decoded Japanese messages. It was explained that, although the passage of time had nullified much of the value of the messages, it was important to locate them or to insure that they had been destroyed, "since according to USCIB regulations for the protection of COMINT sources, 'the time limit for the safeguarding of COMINT never expires.'"⁶⁴ (The messages were probably never found, since, according to Miss Klooz, she returned them all to Yardley when she finished the manuscript.)

What of Yardley's feelings about Friedman? We know comparatively little about them because he

seldom voiced them. In fact, according to Mrs. Yardley, it was hard to get her husband to talk about Friedman at all. The few extant records show an increasing personal dislike, though no lessening of respect for Friedman's professional abilities. Early in 1942, Yardley said this: "Dating from the closing of the American Black Chamber, Friedman . . . had preached a hymn of hate against me." He claimed that the calumnies had been voiced to General Mauborgne and "every other staff officer that Friedman could reach. . . ."⁶⁵

Frank B. Rowlett, one of the few persons alive who knew both Yardley and Friedman, sums it up this way: "Until about 1930, Friedman was in Yardley's shadow. Then, with the publication of *The Black Chamber*, Friedman had a club with which to beat Yardley. The book was the culmination of a long-standing rivalry."⁶⁶

The Farago Allegation

In 1967, nine years after Yardley's death, a writer named Ladislav Farago published a book called *The Broken Seal: "Operation Magic" and the Secret Road to Pearl Harbor*. Farago (accent on the last syllable) was the author of some twenty books on espionage and military history, including a biography of General George S. Patton on which the Academy Award-winning film "Patton" was based; *The Broken Seal* was the basis for the movie "Tora! Tora! Tora!"

For the cryptologic initiate, *The Broken Seal* is a disappointing book, being full of inaccuracies and questionable conclusions, a point made by several reviewers, including the late Lambros D. Callimahos, in the *NSA Technical Journal* (Summer 1967). But it did contain one startling revelation: a charge that Yardley had sold secrets of his Black Chamber to the Japanese for \$7,000 in order to support his gambling and drinking and because he was embittered at what he thought was lack of recognition by the government. Farago's source for the allegation was material contained in the archives of the Japanese Foreign Ministry, microfilm copies of which had been deposited in the Library of Congress in 1953. Was the charge true? We didn't know, but it had to be looked into. As Callimahos said, "In order to set history straight, it behooves us to get copies of the prints and have some of our Japanese translators go over the material."

This was done, not once but several times. But before discussing the results of the investigation, it would be well to recap what Farago had said. He claimed that Yardley approached a Japanese newspaper reporter in New York, asking to be put in touch

with the Japanese embassy because he had information of interest to the embassy. The reporter arranged for Yardley to meet the embassy counselor at a house on Crescent Place in Washington. Yardley wanted \$10,000 for his decrypted messages and cryptanalytic methods. The Japanese offered \$3,000, then \$5,000, and finally \$7,000, which Yardley accepted. He agreed to cut back on his exploitation of Japanese messages. If he decided to continue working for the Japanese, he would receive more money, the amount unspecified. This all happened, according to Farago, in 1928, while Yardley was still head of the bureau in New York.

NSA's investigations tend strongly to substantiate Farago's basic claim, although much of the rest of his account of the transaction either could not be confirmed or was found to be wrong. The key document is an internal Foreign Ministry memorandum saying that the Japanese paid Yardley \$7,000 for copies of deciphered Japanese messages and cryptanalytic techniques.⁶⁷ Despite Farago's assertion, the transaction is not "recapitulated in great detail" in the memo; there are, in fact, no details at all, this episode being almost incidental to the subject of the memo, which was Yardley's book, *The American Black Chamber*.

Could the memo have been a fake, created to reduce the adverse effects of Yardley's book by discrediting its author? Possibly, but if so, the ruse was not only superintricate in concept, but it failed in its purpose since the material remained undiscovered for thirty-five years, long after it had any practical value.⁶⁸ Assuming that the deal took place, the evidence shows that it occurred not in 1928, while Yardley's bureau was operating, but in 1930, after it had been abolished, although Yardley may well have neglected to mention that fact to the Japanese. As for motivation, the most likely reasons are, first, that he needed the money, not to support his gambling and drinking, but to support himself and his family—he had been unemployed for about six months, and jobs were hard to find during the Depression; and, second, that he was resentful of the way the government had abolished his organization.

The revelations in Yardley's book embarrassed the Japanese; moreover, they felt betrayed. Here they had paid \$7,000 for "sole rights" to information they believed would be kept secret and now it was available to anyone with \$3.50, the price of the book. Several courses of action—all of them impractical—were considered: (1) the Japanese embassy in Washington could reprimand Yardley for breach of contract and ask him to retract the offending passages in his book; (2) the U.S. government could be asked to confiscate the book or prohibit it from being sold on the grounds that

Yardley had obtained copies of foreign messages illegally; (3) Japan might make common cause with other countries, particularly Britain and Germany, whose messages Yardley had also read. If Yardley should admit to taking money from the Japanese, the Foreign Ministry was prepared to say, yes, we paid him because we could not afford to ignore such an offer from a person in his position, and it was important for us to know whether he had actually broken our cryptographic systems.

Of course, Yardley never admitted to dealing with the Japanese, so the Foreign Ministry's statement was not needed. As for the other ideas, they were rejected as being not only infeasible but likely to make matters worse. The strategy finally adopted was to try to minimize the damage by ignoring the whole thing, while at the same time improving communications security as much as possible under the very austere budget then in effect.

There is a curious footnote to this episode. Among the records of the Japanese Foreign Ministry is a scrap of paper containing a scribbled note, in Japanese, referring to a message from the British ambassador in Tokyo to the British Foreign Secretary, Anthony Eden. The message was dated 30 September 1941. The intriguing part is that the note begins by saying, according to the original translator, "A message decrypted by Yardley. . . ." *Decrypted by Yardley?* How was that possible? How could he decrypt a message for the Japanese when he was 6,000 miles away in Ottawa decrypting messages for the Canadians? Particularly baffling was the fact that the decrypted message was received in the Japanese Foreign Ministry only about forty-eight hours after being sent by the British ambassador. The assumption was that it must have been decrypted on the spot, in Tokyo, by someone with access to British cryptomaterials. But if so, how explain the reference to Yardley, if indeed it *was* a reference to him?⁶⁹ We couldn't explain it then and we can't explain it now. Until an explanation appears, if one ever does, this episode will have to remain another of the many mysteries surrounding Herbert O. Yardley, one of the dominant figures in the history of American cryptology.

The author, a writer on the History and Publications Staff, wishes to express his appreciation to Mrs. Edna R. Yardley for her kindness and generosity in providing most of the photographs used in this article and for sharing many memories of the life and career of her late husband.

Notes

The source documents listed here are in the files of NSA's History and Publications Staff.

The following abbreviations are used in these notes:

AMFA — Archives of the [Japanese] Ministry of Foreign Affairs, Tokyo, 1868–1945.

Historical Background — *Historical Background of the Signal Security Agency*, published, in three volumes, by the Army Security Agency, Washington, D.C., 12 April 1946.

1. His middle name, which was his mother's maiden name, often appears with a final 'e.' It is spelled that way in many of his Army records.

2. *The American Black Chamber*, pp. 21–22.

3. *The American Black Chamber*, p. 21.

4. Lecture given before the Los Angeles Athletic Club, August 1934.

5. Memorandum from Brigadier General Marlborough Churchill, Director of Military Intelligence, to the Chief of Staff, 16 May 1919, subject: Permanent Organization for Code and Cipher Investigation and Attack.

6. *Historical Background*, vol. 2, p. 25, n. 59.

7. See note 5.

8. The term "Black Chamber" (*chambre noire*) originally referred to the secret cryptanalytic bureaus of 17th- and 18th-century Europe which deciphered secret writings in intercepted letters and diplomatic dispatches.

9. He was released from active duty on 1 October 1919 and entered the Reserves in May 1921.

10. *The American Black Chamber*, p. 240.

11. Lecture given before the Los Angeles Athletic Club, August 1934.

12. This possibility is suggested in *Historical Background*, vol. 3, p. 45.

13. Memorandum for the Record, dated 19 May 1950, signed by B. F. Morris: "The 4 envelopes of material regarding accounts with the NY Bank, which were in the 10039-299 file of Major H. O. Yardley's file were destroyed by burning, this date, by Fiscal Branch G2." (On Military Intelligence Division Citation Sheet dated 17 April 1946.)

14. See, for example, Yardley's letter to Brigadier General Churchill, 15 December 1919, containing, in the first paragraph, probable references to alternative means of obtaining Japanese diplomatic traffic. Speaking before the Los Angeles Athletic Club in August 1934, Yardley said that attempts to steal Japanese codes had been considered.

15. Letter from Yardley to Brigadier General Churchill, 15 December 1919. The events are described also in *The American Black Chamber*, Ch. 14.

16. Livesey appears as "Charles Mundy" in *The American Black Chamber*, Ch. 15.

17. Unsigned copy of letter to Yardley dated 1 March 1920. According to *Historical Background*, vol. 3, pp. 85–86, the author was probably Colonel A. G. Campbell. Yardley says it was General Churchill. (*The American Black Chamber*, p. 277.)

18. *Historical Background*, vol. 3, pp. 66, 68–69.

19. *Historical Background*, vol. 3, p. 72. Yardley later said that the move was necessary because their quarters on East 37th Street had been broken into and the files rifled "by the secret agent of a foreign Government." (*New York Evening Sun*, 8 June 1931; also *The*

American Black Chamber, p. 331, and elsewhere.) Mrs. Edna Yardley, who worked in the New York office for ten years, recalls there being a break-in and a fire, both on the same night. (Recorded interviews, 3 and 7 February 1977. NSA Oral History Collection, Nrs. 02/03-77.)

20. Lecture given before the Los Angeles Athletic Club, August 1934.

21. *Statement for Record of Participation of Brigadier General Carter W. Clarke, GSC, in the Transmittal of Letters From General George C. Marshall to Governor Thomas E. Dewey, the Latter Part of September 1944*, p. 12.

22. Memorandum from Lieutenant Colonel W. K. Wilson, War Plans and Training Section, to Colonel Stanley H. Ford, A.C. of S., G-2, subject: Memorandum for the Chief of Staff submitted herewith.

23. Friedman made an interesting, cogent comment on this in his copy of *The American Black Chamber* (p. 370). Referring to Yardley's account of how his bureau was abolished, Friedman wrote: "He remains discretely silent as to the transfer of his office from MID [Military Intelligence] to the Signal Corps, April–May, 1929. . . . HOY's Black Chamber was doomed when this transfer was made." In other words, the functions of Yardley's bureau would have been absorbed by the Signal Corps, with or without the intervention of Secretary Stimson.

24. *Notes of a conference held in the Office of the Chief Signal Officer, 19 July 1929*. Present were Lieutenant Colonel John E. Hemphill, Major William R. Blair, Major O. S. Albright, and William F. Friedman. The suggestion that Yardley be offered a position is attributed to Colonel Hemphill.

25. Memorandum for the Executive Officer from Edward Barnett, Civilian Assistant, 30 January 1939, Sec. II, p. 7. Cited in *Historical Background*, vol. 3, p. 188.

26. Memorandum from Captain S. C. Hooper, USN, Director of Naval Communications, to Secretary of the Navy, 21 January 1931, subject: Report on Decrypting Activities in Various Branches of the Government.

27. High Court Proposal, 22 August 1931, subject: Distributing Yardley's Book, "The Black Chamber," Translated by Osaka Mainichi Newspaper, to Embassies and Legations Abroad. AMFA, Reels UD29-UD30, frames 0280-81.

28. A Navy-built cipher machine had been used at the London Naval Conference early in 1930, but it proved unsatisfactory and costly. (Memorandum from Chief of Telegraph Department to Japanese Foreign Minister, dated 10 June 1931, subject: A Book Written by Yardley, the Former Chief of the Cryptographic Bureau of U.S. Army Intelligence. AMFA, Reels UD29-UD30, frame 0170.)

29. Memorandum from Director of Naval Communications to Chief of Naval Operations, 29 October 1931, subject: Allocation of Radio Intelligence Activities between the Army and the Navy.

30. Memorandum from Lieutenant Colonel O. S. Albright, G-2, to Colonel A. T. Smith, A.C. of S., G-2, 20 April 1931, subject: Mr. H. O. Yardley. (It was Albright who discussed the articles with Yardley.)

31. Memorandum from Military Affairs Branch, Office of the Judge Advocate General, to the Assistant Chief of Staff, G-2, 28 March 1931, subject: Disclosure of Confidential Information. (Attached handwritten note provides additional information.)

32. Letter from Yardley to Captain M. F. Shepherd, Unit Instructor, Hqs., 333rd Infantry, Vincennes, Indiana, 24 February 1931.

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33. *Watertown (N.Y.) Daily Times*, 26 November 1954, p. 19. He needn't have worried about being court-martialed. According to the Judge Advocate General, a Reserve officer on inactive duty was considered a civilian; moreover, an overt act committed by a Reserve officer was considered a civil offense, not covered by federal law. See note 31.
34. *The Problem of Safeguarding Cryptologic Information, Part One: Legislation, 1933-1949*. (Washington, D.C.: Army Security Agency, April 1949), p. 4.
35. Recorded interview, 10 September 1976. NSA Oral History Collection, Nr. 12-76.
36. That a secrecy oath was required of all employees of the Washington and New York operations is clear from a number of sources, including Yardley himself. The presumption is that he, too, took such an oath. He allegedly denied it, however, during an address before the Harvard Club. (Letter from A. J. McGrail to William F. Friedman, 2 May 1932.)
37. Another view holds that Yardley's book was a good thing because it forced us to improve our cryptanalytic techniques to keep pace with the improved cryptology stemming from Yardley's disclosures. Moreover, were it not for *The Black Chamber*, the Japanese might not have introduced their new systems in time for us to master them before war came. These are the views of Frank B. Rowlett, one of those principally responsible for breaking the Japanese Red and Purple cipher systems. (Recorded interview, 31 August 1976. NSA Oral History Collection, Nr. 03-76.) See also Ronald Clark, *The Man Who Broke Purple* (Boston: Little, Brown and Co., 1977), p. 139.
38. Memorandum from Colonel Alfred T. Smith, A.C. of S., G-2, to Colonel Payne, Assistant Secretary of War, 13 September 1932, and accompanying letter to Bobbs-Merrill. This episode is complicated by the presence of another Yardley book, *The Manchuria Situation*, about which little is known except that it was written at about the same time, followed a similar course through the publishing houses, attracted the interest of the War, State, and Justice Departments, and was never published. (State Department memorandum dated 14 September 1932, with handwritten note by Colonel Alfred T. Smith.)
39. Details of Miss Klooz's writing of the manuscript are based on author's interview and correspondence with her, March and April 1981. She later used the manuscript, less the Japanese messages, as her master's thesis.
40. See note 21.
41. *Congressional Record*, Senate, 10 May 1933, pp. 3179-80. Quoted in *Historical Background*, vol. 3, p. 172.
42. *The Cincinnati Enquirer*, 26 February 1933, Section 5, pp. 1-2.
43. Much of the information about the radio program comes from an undated letter from Tom Curtin to Mrs. Edna Yardley.
44. Theodore H. White, *In Search of History: A Personal Adventure* (New York: Harper and Row, 1978), p. 75.
45. Emily Hahn, *China to Me* (Garden City, N.Y.: Doubleday, Doran and Co., 1944), p. 167.
46. This message was dated 13 September 1939. The exchange of Yardley-related messages, memorandums, and letters between China and Washington continued until 12 July 1940, the day before he left China.
47. Message #92 from Washington to Havana, 3 March 1940. Received from Tokyo as Circular Message #409.
48. Memorandum for General Dai, 11 March 1940.
49. Letter of 26 December 1940. Spencer's letter was dated 12 December 1940.
50. Interview, 17 July 1981.
51. Notes written by Mrs. Edna Yardley, probably about 1958.
52. Details of the Canadian operation come largely from notes written by Mrs. Edna Yardley, probably about 1958.
53. Recorded interview, 31 August 1976. NSA Oral History Collection, Nr. 02-76.
54. Captain Edward M. Drake, Royal Canadian Corps of Signals. In 1946, Mr. Drake became the first director of the Communications Branch of the National Research Council, a position he held until his death in 1971.
55. Letter to Mr. Stone, Chairman of The Committee on the Examination Unit, 22 November 1941.
56. Letter from A. Robertson (?), 6 January 1942.
57. Memorandum by Yardley, written in Ottawa, 5 January 1942.
58. Letter to George T. Bye, 2 March 1953.
59. Letter from D. Laurence Chambers to George T. Bye, 19 March 1953.
60. Memorandum for the Director, M.I.D., 27 May 1929.
61. Letter of 16 December 1930.
62. Letter of 25 April 1931. Yardley added that his articles had brought him mail from all over the country, "but not one word of criticism."
63. Note to Mr. Grant Manson, 4 August 1950. The reply, if any, has not been located.
64. Memorandum of 28 April 1952. Correspondence on this subject began 16 January 1952.
65. Memorandum by Yardley, written in Ottawa, 5 January 1942.
66. Interview, 24 February 1981.
67. Chief of Telegraph Section, Sakuma, to Minister and Vice Minister, 10 June 1931, subject: A Book Written by Yardley, the Former Chief of the Cryptographic Bureau of U.S. Army Intelligence. AMFA, Reels UD29-UD30, frame 0159.
68. David Kahn, author of *The Codebreakers*, doubts Fargo's claim, "an accusation not believed by many who have analyzed the evidence." In "Secret Writings: Selected Works on Modern Cryptology," *The Bulletin of the New York Public Library*, vol. 73, No. 5, May 1969, pp. 318-19.
69. Various American and Japanese sources differ in the way they render the name Yardley in Romaji, thereby possibly raising a question as to whether the name appearing on the note is actually Yardley.

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The Collected Works of Herbert O. Yardley

This is believed to be a complete listing of Yardley's works published in the United States. If any reader knows of other publications, the author would appreciate hearing about them.

Books

The American Black Chamber. Indianapolis: The Bobbs-Merrill Co., 1931. A less expensive version, the so-called "dollar edition," was published by Blue Ribbon Books (New York City) in 1931. A paperback reprint was published by Ballantine Books in September 1981.

Yardleygrams. Indianapolis: The Bobbs-Merrill Co., 1932.

The Blonde Countess. New York: Longmans, Green and Co., 1934.

Red Sun of Nippon. New York: Longmans, Green and Co., 1934.

Crows Are Black Everywhere. (With Carl Grabo.) New York: G. P. Putnam's Sons, 1945.

The Education of a Poker Player. New York: Simon and Schuster, Inc., 1957. Republished in paperback by Pocket Books, 1961, and by Simon and Schuster in a Fireside edition, 1970.

Newspaper and Magazine Articles

"Secret Inks." *Saturday Evening Post*, 4 April 1931.

"Codes." *Saturday Evening Post*, 18 April 1931.

"Ciphers." *Saturday Evening Post*, 9 May 1931.

"How They Captured the German Spy, Mme. Maria de Victoria, Told At Last." *Every Week Magazine*, 12 July 1931.

"Secrets of America's Black Chamber." *Every Week Magazine*, 26 July 1931.

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