

After graduating from college I went to Chicago to seek a congenial way of earning my living. At that point I could hardly suspect that in a few months I would embark on a lifelong career as a code expert and wife of a man who was to become one of the world's greatest minds in that secretive field.

As an English Literature major, with heavy minors in languages and applied sciences, I was sent by an [?]agency to the famous Newberry Library. The librarian told me that she knew of a position in Shakespearean research because of the library's possession of a first folio. I was so stunned by this information that the possibility of finding a job seemed momentarily unimportant. First, I had to see the manuscript. My first sight of an original 1623 Shakespeare folio gave me something of the feeling, I suppose, that an archaeologist has, when he suddenly realizes that he has discovered a tomb of a great pharaoh.

I had hardly recovered from my wonder of seeing the folio when she began telling me of the proposed job. It was something so startling that I could not grasp it all at once. There was a very wealthy man who lived on a nearby estate who had become interested in the disputed authorship of Shakespeare's plays and was carrying on a private investigation. He wished a young, personable, attractive college graduate who knew English literature. As our talk went on, she decided to telephone this millionaire at his Chicago office and let him know that I was there at the library. Instead of sending me to his office, she informed me he had decided to come to the library. When he arrived, he turned out to be a large man, bearded, which was very unusual in those days, not too well dressed, but with a very dashing, imperious manner, who called himself Colonel George Fahvan

He wasted no time talking there but at once invited me to go with him overnight to his estate at Geneva, Illinois. Though I was a bit taken back and at first refused, he was the kind of man who did not take 'no' for an answer. His city car, with a chauffeur, was waiting outside and I was almost forced to proceed with him to the Chicago Northwestern station where we took a train.

He talked about everything except the possibly forthcoming position, until we were seated on the train. Then after a very few moments of silence he turned to me and shouted, "WHAT DO YOU KNOW?"

By this time I was realizing that I must appear to be a demure little nobody. Although I had had a reputation for volubility in college, I had done no talking whatsoever for he had kept up a constant stream of conversation. So when he thundered at me, 'WELL, WHAT DO YOU KNOW'... I leaned against the window as far away from him as possible, and looked at him quizzically out of my half turned head and said, in a firm but low tone, "that remains, Sir, for you to find out". My answer pleased him and he burst forth in a loud guffaw which could be heard all over the car. After that, the restraint between us somewhat eased and the rest of the short journey was passed in pleasant conversation by his narrating to me in a more or less calm and restrained manner, that a woman employee of his, Elizabeth Wells Gallup, had discovered a cipher which proved that Francis Bacon had written Shakespeare.

At Geneva, we were met by a limousine and driver who drove us the short distance to Riverbank, Colonel Fabyan's three hundred acre estate. ^{was long} On one side of the highway, there was a high stone wall with impressive gates. He told me that his own residence, swimming pool and stables were in that part of the estate. Our car, however, turned off on the opposite side of the highway and we shortly reached a house known as "The Lodge". This was where Mrs. Gallup and her ~~sister~~, ^{sister}, Miss Kate Wells, resided and where they had all of their accouterments to prove their certain claim that Francis Bacon was the author of the Shakespeare plays and sonnets. This lodge was staffed with servants and it was there that I was to spend the night in a guest room.

At the dinner table, after I had been very briefly introduced to Mrs. Gallup and her work, I met the young men who were pursuing occupations of some sort or another on the estate. They did not live in the Lodge but took their meals there. Mrs. Gallup presided at the head of the table. She was an elderly woman of extremely aristocratic appearance and her varied conversation was of travel and residences abroad ^{of} her stays with various distinguished families, who believed in her cause and who had financed her over periods of years. But I could not help but deduce from this conversation and some following ~~fact~~, that Mrs. Gallup had dwelt only among those who agreed with her premise and that she had little personal contact with the viewpoint of those who did not believe in the non-Shakespeare authorship of Shakespeare.

Before I returned to the city the next day, I had had two or three hours of consultation with Mrs. Gallup and gathered some idea of what was facing me. She planned to obtain a certain number of intelligent young women who would be taught to master her cipher-proof of Bacon's authorship of the plays. By proceeding over the same ground she had covered, they would prove that her decipherments were correct. Then after that, they would go on to reading other portions of the cipher from the plays and other works of the Elizabethan era. For Mrs. Gallup's researches had led her into the claim that Bacon had authored many other distinguished works of the Elizabethan age in addition to those of Shakespeare.

I was, of course, during my short visit there, shown over the part of the estate which was on the other side of the ^{Rt. 1} Lincoln Highway. Here was ^{Colonel Fabyan} ~~his~~ own residence which he called the Villa^{*}. There was a Japanese garden ^{F. W. Wright designed} which I was told had been planned and its construction supervised by one of the Emperor's own landscape gardeners. Colonel Fabyan had also built a Roman pool at the edge of the Fox River. On the opposite side of the Fox River he had erected an authentic Dutch windmill which he had bought in Holland and reconstructed there. The Villa itself was a rather small house and quite informal in appearance.

It was obvious to me, even on this initial visit, that Colonel Fabyan had a passion for things which swung on supports rather than sat on legs on the floor or the ground. For the living room or drawing room, in the villa, was furnished mostly with divans and chairs which swung on huge chains from the high beamed ceiling. The beds in ~~his~~ and Mrs. Fabyan's quarters, were also swung on chains in the center of large rooms. The grounds outside the villa on the hillside, with enormous great trees, had many hammocks swung around a fireplace as large as a room, built like a pool, low in the ground. There was also a large wicker or reed ~~armed~~ chair, held by chains, which swung twenty or thirty feet from an enormous tree. This I soon came to know as "the hell chair". In it, the Colonel, who was given this title by the Governor of Illinois, sat and swung back and forth, chain smoking and poking an enormous fire which burned even on summer evenings. In my first weeks in Colonel Fabyan's employ, I learned that evening after evening he sat there in the "hell" chair, with anyone he could gather around, either guests from the city or from somewhere away or a few of us on the estate. If anything displeased him, he would stand the offending person, guest or employee up before the hell chair and literally give them hell. Thus the name, it was never spoken of in any other way.

From the first I had been struck with Colonel Fabyan's unusual dress which he invariably wore while away from his Chicago office. It was a kind of twentieth century Edwardian costume, what one might mistake at first appearance as an original design of riding costume. But Colonel Fabyan never rode a horse. He was, in manner and conversation, as startling as his manner of dress. He was very profane; he bellowed at people. He gave orders on every phase of life, even dictating what sort of clothes I should wear and where I should buy them. What resulted, of course, was that I spent more for my clothes than I could afford. But if I raised my voice, and complained, he always reminded me to hush. He was quite sure that the label of Marshall Field in my clothing meant a great deal more to me than the fact that I had to go into debt to buy them.

But magnanimous millionaire that he was in indulging his personal whims of scientific and literary pursuits on his estate, he was downright niggardly in some other aspects. For example, in travelling to his Chicago offices, he wore disreputable looking clothes, even though they consisted of striped trousers and a formal morning coat. His shirts were always frayed at the cuffs. Many times I watched him, riding from Chicago in the dining car, light a cigarette and use the match to burn the frayed threads from his cuffs.

Colonel Fabyan had a great desire to appear as a knowledgeable person in the fields of science and learning which he chose to establish on his own place. He actually had no education himself, although he had come from a distinguished Boston family. His father was the head of the Bliss Fabyan Corporation, the largest cotton goods corporation in the world at that time. George had run away from home when a boy and had grown up, I believe, on the lumber docks in ~~Chicago~~ ^{at Chicago}. After being disinherited as a black sheep by his family, he had gone as a young man into the lumber regions of the north and had made quite a reputation for himself as a forceful person. Whether from a sense of humor or a desire for revenge, when he was nineteen, he went to St. Louis and obtained a job as a salesman with the St. Louis office of the family corporation. But he convinced the manager to forward his sales reports simply as the accomplishments of "Mr. X". At the end of two years, he had made such an amazing record that the Senior Fabyan demanded that the St. Louis manager bring this remarkable young salesman to the home office. There was a ~~very~~ dramatic and emotional reunion between father and son, and two years later George Fabyan not only inherited millions in actual money but he was made, under the terms of his fathers will, the head of the Chicago office which was the second largest office of the corporation. In the meantime, the young man had married the daughter of an army officer. Her name was Nell Wright. *Miss Wright* It was after this that he established the estate, Riverbank at Geneva, Illinois and began developing his hobbies. After he succumbed to the argument that Francis Bacon wrote Shakespeare, he had undertaken to bring Mrs. Gallup and her sister to Riverbank to pursue the conversion of the academic world to like beliefs.

As the summer progressed and I had mastered the details of Mrs. Gallup's cipher system, Colonel Fabyan began to invite as guests to the estate, various Professors from all over the country, who were to come to see and be conquered. My job was to assist Colonel Fabyan in his lectures to the many distinguished professors who visited the estate. At first I was very much impressed with Colonel Fabyan's capacity to sound like an expert in any of the many fields where he had young people like myself hard at work. However, I never saw him read anything beyond a newspaper headline. But he kept us about him all the time, talking. He had an absolutely verbatim memory and a photographic eye. Whatever anyone said to him, technical or not, he could repeat. So to the unwary, he could sound extremely convincing. Nevertheless, the professors he tried to win over, in turn, were polite, uncommenting or downright challenging, if not to say hostile. This latter was true of the great John M. Manly, Head of the Department of English of the University of Chicago. He even tried some tests of his own devising on Mrs. Gallup and was skeptical and scoffing from then on.

At any rate, the summer passed delightfully. It was a very beautiful estate, in a beautiful part of the country and there were many glamorous and exciting guests whom I met casually or for longer periods.

There were some young scientists on the estate who were very happy to have my company. We swam in the Roman swimming pool; we bicycled over the country roads; and we drove occasionally in a roaring Stutz Bearcat.

These young men were employed by Colonel Fabyan on one or another of his many other activities. Under the direction of Professor Wallace Sabin of Harvard University, there was being built at Dierker

Sound chamber

the first I believe, in the United States, outside of Harvard's, for the testing of acoustics. Colonel Fabyan was also interested in genetics and had established a greenhouse and adjoining laboratory for the conduct of experiments in the field. His geneticist was a dark-haired young man, who experimented with the fruit fly and with plants, testing the Mendelian Law of heredity. There was a windmill in the center of the area where the geneticist worked and Colonel Fabyan had constructed ^a sort of a studio on the second floor where the young man lived. I saw him at meal times and on off hours when all of the young people on the place were swimming, bicycling and riding. As time went on, the geneticist was found to be an accomplished photographer. So he was pressed into service by Colonel Fabyan who believed that enlarging the type forms in Elizabethan books would show up the differences which Mrs. Gallup claimed were there. This work threw us together a very great deal, and we were married within the year.

The antithesis of Colonel Fabyan, my husband was gentle, considerate, polite, very handsome, always immaculately dressed. As we were thrown together so much in our examination of the cipher proofs, we had many quite talks ourselves. Even that first summer we began to wonder about the authenticity of Mrs. Gallup's "solution".

It was convincing and indubitably true that Francis Bacon had invented a really scientific, workable, and provable cipher system. It could quite obviously be applied as an explanation, as Mrs. Gallup claimed, for the use of two different forms of type which appeared in all Elizabethan books; it could certainly do all the things that Francis Bacon had claimed for it in his own description of his invention in "The Advancement Of Learning". However, the application of this cipher to the type forms in the Elizabethan books required so much personal judgement, so much variation, that we soon doubted all of the superficial arguments for Mrs. Gallup's cipher being accurate and authentic. But when we attempted to raise any question with Colonel Fabyan, we were shouted down. We were not there to question but to follow his lead and to convince the academic world of the authenticity of the work.

However, it was not long until a new interest diverted some of Colonel Fabyan's attention. Being a man who loved power, he had acquired a certain amount of influence in Washington. Along with his minus qualities in education, he had either as a natural gift or had acquired it, an extraordinary capacity for seeing into the future, sensing developments that others, even those at the hub of the wheel, did not. Thus it was, that he sensed early in the winter of 1916 and 1917, that this country was going to be soon at war. His interest in cipher had led him to collect what little fragmentary knowledge there was in those days concerning military ciphers, in short, he saw war coming for the U. S. and also, he knew that the U. S. had no capacity whatever to deal with the secret communications of an enemy, even in peace time, let alone in war.

He therefore began to organize and establish a staff who could take over these duties of reading enemy secret communications, if and when war would be declared. He convinced Washington that the government would be much too long in establishing such an organization that he, George Fabyan, could with his own personal ability and money, establish an organization to do this work on his estate. Hence, it came about that even before the United States had actually declared war, Colonel Fabyan had a tiny nucleus of operating staff prepared to go ahead with this plan which he had "sold" to Washington. Hence, it was, that my husband and I found ourselves no longer a Geneticist and an English Literature student, but the heads of this staff. Colonel Fabyan began at once to have us train the staff which had been working with Mrs. Gallup, a tiny staff, and also to employ others including stenographers and translators. He had operating at Riverbank, therefore, practically a going concern when declaration of war was finally made and Washington began to send us material which we solved and returned to Washington.

At that time in the United States, there were possibly three or at most four persons who knew the meaning of the term, codes and ciphers. They were all army officers who had dealt with cryptographic communications in their professional careers. Among these were Major Joseph O. Mauborgne, who had as far back as 1912 solved the Playfair cipher, which was the official British Army cipher at that time. He was the first ever to solve it. There was also Major Parker Hitt, who had written a small booklet going a short way into the solution of general ciphers and cipher systems.

This booklet was called MANUAL FOR THE SOLUTION OF MILITARY CIPHERS and was used for instruction at the army school at Leavenworth, Kansas.

A third army officer was Major Frank Moorman, who became the head of the code and cipher branch at General Headquarters in France and as Colonel Moorman was there throughout the war years, at American GHQ. The two young officers, Mauborgne and Hitt, were both brought to Riverbank by Colonel Fabyan, and from that brief meeting to this, at the present time, we are still devoted friends.

Major-General Mauborgne later became Chief Signal Officer of the Army, and retired in 1928; Parker Hitt retired as a Colonel in 1941. Both had won the DSM ^{Designation Service Medal} an uncommon distinction in those days.

It was obvious that with the exception of the twelve page pamphlet describing Major Mauborgne's achievement on the Playfair cipher and the thirty page booklet produced by Major Hitt for use at Leavenworth, there was nothing in the English Language which could be considered a book of instruction of any nature whatsoever. * We had a lot of pioneering to do. Literary ciphers may give you the swing of the thing, but they are in no sense scientific. There were no precedents for us to follow. We simply had to roll up our sleeves and chart a new course. We therefore became the learners or students and the teachers and the workers all at once, at the same time, in this interprise which Colonel Fabyan had launched as a gesture for Washington, and into which we had been forced by the mere physical fact of having been present on his estate at the time he conceived this striking idea. The fact that we became the leaders - I suppose - indicates that he had been impressed with our abilities.

Colonel Fabyan brought in two Spanish translators and, of course, a German translator, and we set to work. One of our biggest volumes of work was correspondence between Germany and Mexico. The material was sent to Riverbank usually by mail but occasionally something was urgent and was telegraphed in cipher to Riverbank and we worked on it at top speed and returned the information by wire also. For eight months, we, this energetic but small unit of workers on the Fabyan estate, Riverbank, at Geneva, Illinois, performed all code and cipher work for the government in Washington. We did work for the Army and Navy Departments, for the Department of State, the Department of Justice, for Censorship and for the Post Office Department.

~~There were many amusing things which turned up in the course of the work. Particularly the items coming from the Post Office Department and the Justice Department. I recall in one case that I worked for days upon a message in cipher which turned out to be, when finally mastered, in the Czech language; after an exaggerated amount of effort by me and others who did not know the Czech language, had reduced it to something which seemed logical in that language, it was submitted to a Czech translator and turned out to be a love note from a Czech to his girl friend during some travels on his part.~~

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J. J. 1/25*

During the following eight months after Colonel Fabyan launched this unit for the solution of secret communications, he made several trips away from home on behalf of his interests which in turn were in behalf of the government. On these trips he always took my husband with him. I recall that Colonel Fabyan used to depart with a tiny handbag for luggage. My husband told me that the Colonel carried in his handbag several changes of stocks, the upstanding type of collar which he affected. He took no change of suits, no change of laundry, stating that he could always have suits cleaned and the laundry laundered over night wherever he was. He ridiculed my young husband, who maintained his fastidious appearance at all costs, because the young man insisted upon carrying a full suitcase. When my husband returned from these trips, he used to tell me with considerable amusement of Colonel Fabyan's behavior. On these trips, Bill told me, the Colonel would take a taxi in the morning and they would start, for example, from the Willard Hotel in Washington to the War Department, on what is now known as Constitution Avenue. After some consultation there, Fabyan would go with an official or would be sent by some official perhaps to some place a long distance away such as, for example, Annapolis. Fabyan and Friedman would be dispatched for this outlying and sometimes fairly distant area in an official War Department car. However, Fabyan's invariable practice would be to have the waiting taxi which he had hired in the morning follow the official car. On one occasion when the taxi returned them from the War Department to the Willard Hotel, my husband noted that Fabyan paid a bill of thirty-five dollars. He said to Fabyan, "Why do you do this? Here we were gone all day and you did not use this taxi for one moment. Why did you have him follow you, you certainly didn't need him".

Fabyan said, "Yes, I didn't need him but who knows, I might have needed him". And yet, the next morning my husband was made to go forth from the Willard Hotel to buy a morning newspaper upon the street because Colonel Fabyan refused to pay the fancy price, as he called it, which was demanded by the newsstand in the hotel for newspapers. Mr. Friedman also made some trips to Boston with Colonel Fabyan and, although staying in a hotel in Boston, they were invariably invited to dine with the eldest brother of George Fabyan, then head of the Bliss Fabyan Corporation. And for these occasions, of course, the Boston family, and guests if any, were always in formal evening dress, even when there was no one except the family present. However, George Fabyan was so intent upon preserving his image of the black sheep of the family, that he not only would refuse to wear evening clothes to his brother's home or the home of other relatives or friends in Boston, but he refused to let my husband wear evening dress ~~as well~~. They occasionally carried such clothes for appearance in other places but Fabyan's vanity had set up this image of behavior with his family; and there, evening clothes were forbidden in his book - a mode of conduct which embarrassed my husband greatly but he did not dare transgress Colonel Fabyan's orders.

This imperious mode of conduct of George Fabyan which was felt by those immediately around him in his entourage but about which nothing could be done by his "underlings", was undoubtedly felt sooner or later in Washington.

The Departments of the United States government finally became impatient, so they said, with the length of time consumed by sending all traffic in secret communications out to a small town west of Chicago and wait for its return from there, demanded that Colonel Fabyan remove his cipher and code unit to Washington and turn it over to the government for operation there. This, Colonel Fabyan not only refused to do, but we who performed the work for him were not even told about his having been broached by the government with this plan, until the government organized and established a cipher bureau located in Army Military Intelligence in Washington; and thus was removed from under Colonel Fabyan's aegis, the work which had been done on his estate and which had given him such a great thrill and feeling of personal triumph and power. He censored all knowledge of this and at times I regret to add, censored our personal mail. By virtue of this, he became the supreme commander of our personal lives.

For example, my husband learned many months later, that he had been requested by the War Department for work at General Headquarters of the American Expeditionary Forces in France. However, during the time intervening, which was the better part of a year, work had gone on at Riverbank. Four regularly commissioned young army officers had come to Riverbank for specific and detailed training to proceed thereafter to GHQAES. In addition to training these four students, we were doing the work for all departments of the government which had to do with coded or ciphered correspondence. Knowing little about military ciphers at the time, we determined our own methods of solution of those which were commonly used between Mexicans and Germans,

as Germans carried on correspondence with people in the United States and other countries. We know this method now as Poly-Alphabet Cipher. That is, letter... one, two, three, four, five, six, of a given message are each enciphered by a different cipher alphabet and then the cipher alphabets are repeated, seven, eight, nine, ten, eleven, twelve. Repeated alphabets are used to defeat simple frequency analysis. The messages were, of course, in Spanish, a language which neither Bill nor I had studied. But since we both had excellent training in ~~Laine~~^{SECRET}, we quickly grasped enough to suffice for the purpose of deciphering in Spanish, so long as we had translators to carry the language into English. Messages were also in German with which we were both familiar, from high school and college studies.

By this time we were used to visitors of all sorts being brought in by Fabyan, among them - stage personalities, a movie director or two and of course, a stream of college professors who came, more or less reluctantly, to look into Mrs. Gallup's ~~claim~~^{claim} that her cipher proved that Bacon wrote Shakespeare. Among all these were a few who came to ask for help.

18-21

maps in R 659, Entry 539.
Harriman's memo, Box 5

/10020-87/1 Nov 17 / selected by Fabyan in 2
days

One day into our office strolled Colonel Fabyan with a large heavy-set man. In his normal stentorian voice, Colonel Fabyan introduced the gentleman as a representative from Scotland Yard, who had come to us for help.

92 7
10020-984
Mr. Merrifield
with office

What the Scotland Yard official brought in his attache case was a significantly large mass of correspondence which had been intercepted by either British or United States censorship officials. The correspondence, he believed, passed between nearly 200 agents - Hindus aided by Germans who were fomenting a revolution in India. Many of the letters were very long and the fortunate thing which we noticed at once was that the signatures were in the same type of cipher as the body of the letters. This cipher consisted of groups of three numbers, such as: 26 - 2 - 39, 4 - 1 - 7... and the like. In many of these numeral groups throughout a whole letter, the middle number would be either 1 or 2. Then another group of letters showed also groups of three numbers but in this case, the middle numeral might be any number, such as: 4 - 21 - 8, 9 - 23 - 2, etc. This, even in our early days of self instruction, we recognized as a kind of code transcribed from a not so special book. In other words, a code book which was not a formal code book consisting of groups of letters, such as J-A-K-R-E... to represent a word or phrase, but some type of book which could be carried about and not arouse suspicion. Even today this system is still regarded by the innocent as being impregnable. It's hard to imagine how one could decode a letter composed from one unknown book in any language printed. But we were not deterred. The numbers, of course, represent page, line and letter position in an agreed-upon book. A number such as: 4 - 21 - 8 instructs one to go to page 4, line 21, letter number 8. which might be an E or Z or even another number.

One of the sets of letters gave us our obvious clue. A dictionary, bible, or a similar book where words appear in two columns of a page was being used; hence, the middle number was always 1 or 2. But what book in what language? Perhaps it was in German or English (prayerfully, we hoped not Hindustani) but more probably because the books must be carried about, the code book was in English.

Bill and I started to work upon this great mass of material. We had been given a list of names, and made assumptions for the names of a few of the leading conspirators who were well-known. The leader in the United States was a Hindu prince by the name of Harambda Lal Gupta. We were also supplied with two or three other Hindu names and the name of a German or two, although the British knew far less about the German conspirators than they did about the Hindu members of this secret organization. We knew that this mass of correspondence, if deciphered, would be used in trials against the Hindus and Germans in the United States who were conspiring to foment this revolution in India against Great Britain. The United States at that time was responsible for enforcing neutrality and if caught these conspirators would be tried in this country. Starting with the known names of signatures and proceeding by hints, intuition, and intelligence about what was going on, we were able not only to decipher practically every word of the letters, but we were able to build up a kind of skeleton text of the book which had been used by the conspirators. We were convinced that the book was on the subject of political science or a subject closely related and that it concerned Germany in some manner or other.

We were also able to state with authority that on Page 7, for example, line 3, there appeared the word constitution; that on page 13, line 11, appeared the word government, and like identifications. In this manner, we built up a set of requirements which the volume, carried about as a code book by these conspirators, might be located.

Colonel Fabyan spared no expense after we had deciphered the letters to locate such a volume. He phoned, he wired, he cabled Great Britain with a full and complete description such as we could offer, for the book. None was forthcoming, but luck, we were to find, was leaning our way. Some months later there came a day when about fifty Hindus and Germans were brought to trial in Chicago. Bill was to appear as a witness in this case. Although we were only a short distance away he, nevertheless, stayed in a hotel in Chicago during the time he was waiting to be called to the witness stand. We felt that our decipherments of the messages were convincing and complete for any one who could understand the processes involved. But a jury might find considerable difficulty in being persuaded of the credibility of such solutions, so stated the prosecuting attorney.

We constantly regretted that the actual book used by the conspirators had not been located. Consequently, as Bill spent time listening in the court room and going back and forth to the hotel, he continued his search for the book in whatever manner he could.

One morning as he walked toward the Federal Court House, he passed a large bookstore. On an impulse, Bill went in and rummaged about. Miracle of miracles, here was a book that satisfied our requirements!

"GERMANY AND THE GERMANS", by Price Collier.

The Chicago trial ended in conviction of all fifty-some Germans and Hindus.

Some weeks passed and a second trial was set for hearing in San Francisco, California. In this case, there were more than a hundred Hindus and Germans on trial. This was the group that was using a two column book of some sort, and that volume was still to be found. Here one got whole words for each series of three numbers - a less laborious type of decipherment than the other, dealing with single letters. The numeral 3 - 2 - 7, for example, would mean Page 3, column 2, line 7, (first word). Perhaps it was the word AND. Many of the first numerals of these groups of three ran considerably greater in numerical order than those in the other groups of letters. Laziness and haste had persuaded the conspiring letter writer to choose his single words sequentially from the early pages of the "Code Book". Consequently, we never saw high numbers, such as 187 or 312. Here, we were dealing with the dictionary and again we had great success. We felt that it was not a too modern dictionary, that it was a dictionary which had been published well before 1900, but we could state with absolute certainty that on page thus and so, column thus and so, appeared this word or that word.

Again Colonel Fabyan wired and telephoned all over this country and cabled Great Britian with no result. The book was not forthcoming from anywhere. Of course, we did not know the title. All we knew was that it was a two volume English-German dictionary. We would not, of course, determine which was volume 1 and volume 11.

Then came the day when my husband proceeded to San Francisco to appear again as an expert witness. As before, while waiting to be called to the witness stand, he continued his search for the elusive dictionary. One day he went across the Bay to the University of California and searched through the library. This would seem like a very possible source for an old dictionary. However, he had no luck. He was walking somewhat disconsolately across the campus at the University and met face to face a man he knew but whom he had not seen since his early years at Cornell University. This man had been his instructor in English during his freshman year in college. He was now a Professor at the University of California. Greatly surprised to see Bill Friedman, he asked him what was his reason for being there. When my husband explained, the young Professor said, "Have you tried the Co-op?" Bill replied that that had not occurred to him; so off he went to the Cooperative Bookstore. It was, at that time, attended by an elderly man who became interested in my husbands request and made an industrious search. He rummaged for a long time among books on dusty shelves and in piles on the floor. He finally pulled forth a book and said, "Here is one volume of a German-English Dictionary, but I fear it is not the right volume". My husband took a look. The dictionary was dated 1880, which was about the

He hurriedly looked for the position of certain words and found them there without question. It was the German-English volume of the two volume dictionary! For the second time Lady Luck had found my husband, as she has throughout our lives. I was, in fact, soon to become her accomplice.

This San Francisco case, charging conspiracy against this great number of Hindus and Germans was receiving much more attention than the Chicago case. Back at Riverbank, we followed the proceedings with special interest. Ram Chandra, a Hindu, had turned states evidence and was testifying for the prosecution. Each morning, the more than a hundred defendants were brought into the court room under heavy guard, and removed at the end of each portion of the trial. Other Hindus, whether part of the conspiracy or not but at least some who had not been detected, as such, were greatly interested in the trial and constantly attended the court room. A very few days after the trial began Ram Chandra was in the witness chair. There was a sudden stir - a Hindu rose in the gallery and shot Ram Chandra dead. Immediately a U. S. Marshall aimed at the assassin and next - he too lay dead. I wasn't sure I wanted Bill in such a court room. But soon the trial was over with all convicted. The leader of the conspiracy in this country, Prince Harambda Lal Gupta, however, escaped to Mexico and never served sentence.

It was a matter of considerable regret to me that I could not accompany Bill to San Francisco or that I had not been summoned as a co-witness with him, since we had completed this task completely alone, but someone had to stay behind and sort of oil the machinery at Riverbank. During this period, while we were the Cipher Bureau at Riverbank, my husband began writing on solutions of ciphers. As related earlier, so little was known of codes and ciphers in this country that we had to be the learners, the workers and the teachers simultaneously. Bill's wonderful mind never rested. In less than a year, he developed methods of decipherment in systems which had hitherto been considered indecipherable. I joined him in the production of a brochure entitled, "THE SOLUTION OF RUNNING KEY CIPHER'S". This was the first of a series of brochures. Colonel Fabyan, as always, spared no expense to bring forth results of any experiments on his property. However, he was utterly unwilling for anyone to have his name appear as the author of anything produced at Riverbank. The brochures were published privately, as "Riverbank Publication" No. 1, 2, 3, . etc. , with only a letter of transmittal from my husband in the beginning of each brochure.

By this time the United States had entered the war and we became involved with helping other Government Bureaus and also our allies. Some of the oddments we received were also from the Post Office Department and the Department of Censorship. These were likely to be in almost any language. I recall one message in particular which was on a post card. I labored over it for some time and began to get ^fragments of something which I thought was language, a strange language, which I did not recognize. But between the smatterings of language among our stenographers and students and translators, we found enough fragmentary knowledge to piece together this particular message. It turned out to be entirely innocent. In content, it was in the Czech language and was the love message of a suitor in this country to his fiance in his homeland.

Since all our solved material was returned to Washington and several copies were sent, there were, of course, in the files in Washington not only our completed plain language messages in whatever language, but the final work sheets were shown in which the method and the keys and the steps of solution were clearly indicated.

Meanwhile the Cipher Bureau had been formed in Washington just as Fabyan had formed his - from anyone interested enough to try. People who had only dabbled in cryptography and only two of those, and others who knew nothing whatsoever, were gathered as a small group in the War Department. The man chosen to head the Cipher Bureau was Professor John M. Manly of the University of Chicago who had for years made a hobby of cryptography. He was commissioned in the rank of Captain. Herbert O. Yardley, who became so infamous afterwards in connection with the book, THE BLACK CHAMBER, who had been a telegraph operator in the State Department, was also commissioned and placed in this bureau. A college professor, Charles J. Mendelssohn, an expert in Greek and Latin and many modern languages but who knew nothing of ciphers and codes, and a man named Knott, a newspaper editor.

Soon thereafter the material which had been coming to us from Washington was no longer forthcoming. Colonel Fabyan still did not reveal to Bill that he had been asked for; neither did the Colonel reveal to any of us workers that we had been asked for by Washington. In a strict sense, this was his right since he was the sole financial backer of the project at Riverbank. He payed all expenses, including the salary and the living quarters and food for all of us who were at Riverbank and Uncle Sam was spending hardly a penny. Colonel Fabyan, whose love of power was greater than his fondness for money, enjoyed to the last degree his command over the U.S. Government. But one final triumph for Colonel Fabyan remained for us to perform.

After actual arrival in France of the American Expeditionary Forces, the use of a machine cipher was contemplated; that is, a cipher device which had been developed by the British and believed by them to be indecipherable. Although the Playfair cipher had for generations been the official field cipher for the British Armed Services, they now believed that they had an indecipherable cipher produced by this small device. Their own experts had tested it and pronounced it invulnerable, as had the French, and as had the newly formed cipher bureau in Washington. However, Professor, now Captain, Manly suggested that the device be looked at by Riverbank. The officer sent with it had formerly been at Riverbank before being commissioned and had been made liaison officer between France and Washington.

We were given five short messages to solve.

We had seen the device and we knew the principle on which it worked. It was an ^{concentric} ~~eccentric~~ device, with an inner and an outer disc. The outer disc contained a normal alphabet, that is... A to Z or it could be key word mixed, random mixed or whatever. The inner disc which also contained an alphabet was however not concentric. (It did not prove out according to a fixed pattern so that if letter number one on the outer disc be set at letter number one on the inner disc, letter number two on the outer set at letter number two on the inner and so forth; then after once around the discs no longer matched.) The outer disc had twenty-seven intervals and the inner disc twenty-six.

Of course, when these five short messages came to us for solution, we had no knowledge or even a wild guess as to the sequence of letters on either of the two alphabets. However, Bill set to work upon these messages. It looked like an insurmountable task because we were

A field cipher, used in war, would be utilized probably one-hundred or two hundred times a day. Even if the key changed every day, there would be a great mass of messages to study. But here we had five short messages and we were dealing with two alphabets; one moving irregularly against the other and we had no knowledge of either. Bill lined up the five short messages and began to puzzle them out. His only hope of solution was to make assumptions or guesses at the text and attempt to build up an alphabet or a part, at least, of an alphabet. After nearly two hours of work, he believed that he had the basis of the alphabet on the outer disc.

The assumption that Mr. Friedman made after some time was that the person who had enciphered these test messages had used in one of the alphabets the word "cipher". This proved, of course, at once that it was a key word based alphabet. ~~XXXXXXXXXXXXXXXXXXXX~~

~~_____~~
~~_____~~ Next, he reasoned that if a person who enciphered these messages were so foolish as to use a word connected with the process that the other word forming the basis for the other alphabet would be of similar nature. He therefore began to try to build up a second alphabet based upon every word in which, in his mind, he could conjure up as an associated word with "cipher". After ^{nearly an} ~~some~~ hour~~s~~ of more work, ^{during which} ~~and~~ he had ^{tried many "matching"} ~~gotten nowhere~~, words he appealed to me. I was sitting across the room from him busily engaged on another message. He asked me to lean back in my chair, close my eyes and make my mind blank, at least as blank as possible. Then he would propound to me a question to which I was not to consider the reply to any degree, not even for one second, but instantly to come forth with the word which his question aroused in my mind. I proceeded as he directed. He spoke the word cipher, and I instantaneously responded, "machine". And, in a few moments Bill said I had made a lucky guess. The officer in Washington had broken a fundamental rule, that is, when choosing a key word, never choose one which is associated with the project with which one is engaged. The word "machine" which I had ^{exclaimed} ~~reacted~~ with a springlike elasticity, when asked the ^{above related} ~~above related~~ question, ^{as related above,} was the correct word. Oddly Bill had not attempted to use it because his meticulous mind's eye saw a device, not a machine. He tried to pair up with the word, cipher, words like, alphabet, indecipherable, solution, system, method and the like. But since a very small hand-operated device was before him, it did not occur to his meticulous mind to use the word machine. But to me it was a machine.

The five test messages were solved and on their way back to Washington within three hours of the time they had been received. ~~The hope of~~ The waiting services, British, French, and American who had expected to install this device on the western front as a means of communication in the front lines ~~at that time~~, were constrained to cancel those plans.

For some months prior to this, our contacts with Washington had been steadily declining as Manly's Bureau built up. Fabyan now began to feel frustrated because he was not holding his power. Therefore, he developed an idea offered to train a vast number of officers for overseas work in code and cipher, both cryptographic and cryptanalytic stages of the work. He suggested that they would not necessarily be located at General Headquarters of the American Expeditionary Forces, but they would be equipped with adequate knowledge to operate in units of field command. They should understand how communications operated, what was proper to do and what was dangerous to do and thus command the communications ~~and~~ ^{for} their operations in the field with the utmost capacity and knowledge. With ^{idea} in mind, he again, with his persuasive manner, assembled a group of approximately 80 officers. They came to Riverbank and they and all our ^{small} staff were housed in the Aurora Hotel in Aurora, Illinois. For two months, ~~during~~ ^{for} the early part of nineteen eighteen we assiduously instructed these officers covering both phases of cryptography and cryptanalysis. At the end of that time, they went on their way and our cipher unit, at Riverbank, was again left with no official orders or work from Washington.

It was at about this time that Bill finally learned that he had, almost a year before, been offered a commission to go overseas in this work. He soon passed the necessary examinations, was commissioned and left for France in May of 1918. Though the war was to end in ^{seven} six months, I did not see Bill again for almost a year. In France he was assigned to GHQ under the command of Colonel Frank Moorman of the Signal Corps. (Moorman had been one of that less than handful of Army officers who before the war had delved slightly into the subject of codes and ciphers.) Following the Armistice, Bill was selected to write the history of the section and was thus retained in France until April of 1919.

~~_____~~ After William Friedman departed from Riverbank as a young Lieutenant ^{had} ~~_____~~ proceeded to France, activities at Riverbank began to dwindle. I stayed at Riverbank until late August and then I too determined to leave. Colonel Fabyan's deceptions while posing as a great benefactor to us in our individual lives had caused me to lose my taste for connection with this institution. In addition, all during the time I had been at Riverbank, whether actively or in a minor way being associated with Mrs. Gallup's cipher, I was becoming disillusioned with her and her work. No more sincere person ever lived, I am convinced, but she was a victim of, what is best to call, perhaps auto-suggestion. She had been a teacher of English Literature. She had studied many of the Elizabethan books and had noted the variant forms of type used in those books. It occurred to her that the use of these differing forms of type might have some significance and it was suggested to her by the fact that she and her sister, Miss Kate Waller, had been influenced by the ...

work with Dr. Orville Owen, in Detroit, who had developed what he called a word cipher, a method which he used to prove that Bacon wrote Shakespeare. Dr. Owen had become so convinced that Bacon was Shakespeare that he persuaded Colonel Fabyan (and here again, we learned of this long afterwards) to finance him as he conducted diggings in the River Wye, in England for Shakespeare manuscripts. Mrs. Gallup, ~~however~~ ^{had} through this association with Dr. Owen, ^{become} interested in the authorship of Shakespeare, ^{was} ~~was~~ ^{was aroused by} a far greater student than Owen and thus her interest ~~in~~ the variant forms of type used in Elizabethan books. She knew of Francis Bacon's mention of a cipher system in the 1605 edition of the Advancement of Learning. The Advancement of Learning was published in 1623 in Latin, in a greatly ~~very~~ extended form, in which Francis Bacon describes a cipher method which he said would defy detection, that it was a perfect method of concealment. He stated that he had invented this cipher system when he was in Paris in his early youth, and that he had never doubted its value. Mrs. Gallup applied this cipher system of Francis Bacon's to the type forms in the Elizabethan books. And, to her eyes, she was able to classify them in the manner dictated by Bacon.

By now I was very skeptical of Mrs. Gallop's work. The method was absolutely scientific, but that it was used, I was not ready to admit. In the summer of 1916, I had myself spend many hours, days and even weeks trying to see the classifications of the type forms that Mrs. Gallop claimed to see. The young students who were brought there to work under my direction had never been able to decipher a simple message, not even a single word. I, therefore, could

not honestly stay at Riverbank laboratories and continue to work in Mrs. Gallup's field. Forty years later Bill and I were to take up the study again in our book called, THE SHAKESPEARIAN CIPHERS EXAMINED.

By this time the armistice had occurred and my husband had been asked to stay in France. There was, therefore, no point, so I thought at least, in my going on with military cipher work and making any attempt to join the cipher bureau in Washington. I returned, therefore, to my home town where my father was still living. I felt that for the short time that my husband remained in France, I should give some attention to ~~my father~~ ^{my father} who was ill. My father had been a character somewhat like George Fabyan in his rigid requirement of running everyone's personal life, ^{but those days were over.} I obtained a part time job in the local library to pass some of the time away and stayed in this small town of Huntington, Indiana until the letter came with the news that my husband was coming home. I went to join him in New York City. From there we went to Pittsburgh to visit his family and we began to discuss what he should ^{do} and the field he should pursue in looking for a peace-time position. Colonel Fabyan had been wiring my husband in France for months to come back to Riverbank, even stating, "...your salary has been going on. Come immediately, your military services are ended". But for one thing, we both doubted the validity of Mrs. Gallup's cipher and therefore, ^{felt} we could not return to Riverbank.

My husband made inquiries and we went several places in other cities, for him to be interviewed in connection with a position as a geneticist. He felt that he would like to have a position in industry somewhere in some manner where his extraordinary gift of scientific analysis could be utilized. But before too long we^e found ourselves in Washington.

NEW CHAPTER

With Colonel Fabyan importuning us by telegram, over a period of weeks, demanding William Friedman's return to Riverbank, that May in 1919, we finally agreed to discuss re-employment with him. We made several conditions which we insisted must be met.

The first, that we should not live on the Riverbank estate. Two, that we should be free to live our personal lives without direction or dictation from Colonel Fabyan and three, that we should be permitted absolute freedom to prove or disprove Mrs. Gallup's "cipher". He quite readily, in fact too readily, we should have suspected, agreed to our conditions.

One of our expectations, of course, was that my husband would be presented on his return with a check, so often mentioned in Colonel Fabyan's pursuing telegrams that his salary had been going on. However, days, weeks, months passed by and we were doomed to disappointment. Once Colonel Fabyan had the bird in the hand, he forgot or deliberately ignored the promise made by cable and telegram, it is true, but nevertheless a promise made several times.

Colonel Fabyan managed to gather together a small group of fairly interesting people and proceeded with the work of testing and authenticating Mrs. Gallup's cipher by their attempts; first, to authenticate Mrs. Gallup's reading of cipher messages, then to elicit further readings by their own efforts.

Friedman began to write, at Colonel Fabyan's urging, some brochures and pamphlets on the solution of military ciphers. These were privately published by George Fabyan and my husband's name, as in the case of the first one on running-key ciphers, did not appear except on the letter of transmittal.

We also valiantly tried to get Colonel Fabyan to consent to some psychological tests of Mrs. Gallup. With our limited knowledge of psychology, it seemed to us that her belief in the cipher had been so great that her eyes had been influenced to see things which no other eyes could see. However, every time arrangements had been made for an expert to come to Riverbank and proceed with such a test, Colonel Fabyan managed somehow to have the plans changed or cancelled. Thus, as time went on, we began to be convinced that he would never fulfill his promise to permit us to "prove or disprove Mrs. Gallup's cipher".

Shortly after our return, requests and urgings began to come from Army officials in Washington, who had been so impressed with William Friedman's abilities in the field of communications both in cryptography and cryptanalysis, that they wished him to accept a permanent commission in the Army, and later the same Army officials began to press him to come to Washington as a civilian.

So it was that at the end of 1920, we conducted a negotiation with the War Department in which we signed contracts which were to begin January 1, 1921 for a stated salary. We then prepared to leave Riverbank quietly. When it was almost the actual day of our departure there, which was just before the Christmas holidays in December of 1920, we then informed Colonel Fabyan that we had had a third offer from Washington, that we had accepted it and had signed contracts and were leaving Riverbank within a few days.

At last departure was a faite accompli. George Fabyan accepted his fate, although not in a very gracious manner.

One of the items which we were forced to leave behind, was a completed manuscript of William Friedman's for a very important piece of writing in the elucidation of cipher solution. It was the manuscript which finally came into print under the title, THE INDEX OF COINCIDENCE. Although all other of William Friedman's brochures had been printed in the vicinity of Chicago, this manuscript was not treated in that manner and my husband was left to wonder a long time what had happened to this important piece of scientific analysis. Finally a long, long time after we had taken up residence in Washington, two bound copies came from Colonel Fabyan. He had indeed placed Mr. Friedman's name upon the title page (by the way, this was one of the conditions we had made on returning to Riverbank, as well as the others mentioned, namely: that anything which either of us or both of us together wrote while we were at Riverbank would be published with the correct name as author.) However, as time went on, this proved to be another example of Colonel Fabyan's deceptions. This brochure, William Friedman learned some

two or three years later, had been published in French in France, had been attributed, although not shown in the book itself, to a well-known Frenchman in the field of intelligence and communications and that the two copies which had been sent to William Friedman in English, with his name on the title page, had been printed separately and individually for him alone, so that he would not discover that Colonel Fabyan had had the pamphlet printed in France without any indication of its true authorship.

It was particularly ironic that this brochure should have been published in France and attributed to someone other than William Friedman, for it is considered by experts in cryptanalysis to describe one of the most important principles which has become the basis of modern cryptanalysis. Later all of the series of Riverbank pamphlets were properly established under William Friedman's authorship by the copyright office and today these pamphlets are genuine collectors items. Some of them are no longer in existence, that is, further copies are not available, although greatly in demand by collectors.

Our arrival in Washington in January of 1921 was exciting. I myself had never been in Washington before. Housing was very scarce, in fact unobtainable, as was proved by the fact that we had been in Washington exactly one year before even one apartment in any part of the city became available, although it was a daily pursuit of mine to cover the field for available living quarters.

In our official capacity, we went to work for the Signal Corps which was ~~and~~ ~~still~~ is the communications arm of the Army. The Signal Corps was housed in a low flat temporary building on what is now known as Constitution Avenue. Major George C. Squier was the Chief of this branch of the Army at that time. He had achieved some fame as a minor inventor in the field of radio, as had the then Colonel Joseph O. Mauborgne, whom we had met in the very early days of the war, and who was in 1921, in charge of the Research and Development Division of the Signal Corps.

Our desk work, however, at that time consisted in revising and creating new codes for Army field use. The experience of the war had taught everyone that codes must be two part codes: one part for enciphering and one for deciphering and that they must be of frequent issue, in other words, they must be changed frequently.

(After six months, our original contract expired, but was renewed. We moved into the building known as the Munitions Building on Constitution Avenue - one of the two "temporary" buildings built in (1918 ? 1916 ?), one for the Navy, one for the Army. ~~They are still standing.~~)

For one year I worked with William Friedman on this phase of employment with the Signal Corps. During that time the American Telephone and Telegraph Company had developed a large machine which was called a tele-printer and which could, by the simultaneous use of tapes, punched with the 5 unit code called the Baudot code - one tape being a cipher key and the other a plain text key, produce an automatic encipherment fed out on a third tape which could be the original plain language converted into cipher.

My husband played with and tested the machine, over and over and over again. Its advantages and drawbacks were all carefully assessed. One of its drawbacks was that it was so large a machine that it could never have been used anywhere except in a sizable headquarters office.

We worked very assiduously and at least my husband, if not I, produced things of enormous value to the Signal Corps. We were enjoying our life in Washington, the Capitol city, to the utmost. The population of Washington had grown from a mere (?) in 1915 to three hundred and sixty-five thousand by the end of the war. There were four legitimate theaters and I, who had grown up in rural Indiana, was starved for theater. We attended, at least three times a week, one performance or another. The winter was very beautiful... the days very sunny, seemingly quite warm in the daytime and nights not too cold. No ice whatsoever, and no bad wind and very little snow, all elements which had been present with us in over-abundance in the Chicago area. We foolishly concluded that the climate in Washington would always be like that exceptionally lovely winter.

I recall very vividly the inauguration of Warren Harding in March of 1921. As now, the inauguration ceremony took place on the East Capitol steps. However, there were no seats provided, no amphitheater arrangements, just the bare ground for those interested who came to stand around the bare steps with the ceremony taking place upon the steps with little formality. I recall that we had no difficulty getting fairly close to the front of the audience for that inauguration. There were no microphones in those days and so the

audiences were perhaps smaller because everyone knew that it would be impossible to hear in the open without a set of earphones. Although it was a March day, it was very pleasant, rather mild weather and we were not uncomfortable at all standing in the outdoors, first waiting for the official party and then waiting until the new President had been sworn in.

As Harding's term went on, many rumors flew about Washington: about the green house on H Street and the poker games in that house and Harding's cronies and his use of the Edward Beale McLean house on I Street, his friendship with McLean, the publisher of the Washington Post, and many others. Therefore, as time went on and the Teapot Dome scandal broke on the public, we were not particularly surprised that Edward McLean's name should be brought into this matter. The Congressional investigative committee used William Friedman's services to decipher the private correspondence in this shocking case wherein the Secretary of the Interior, Albert Fall, was not only indicted but convicted and served a long prison term for his complicity in selling government property for use to private developers. To this day, we have never understood how Edward Doheny was not guilty, since he was the payer of the bribe, yet Fall was guilty of accepting the bribe.

William Friedman was much commended by the Congressional Investigating Committee for his work in this case and the Washington newspapers reported fairly full accounts of the revelations of the Committee with the result that Edward Beale McLean sent for my husband one day, some months afterwards, and inquired into the possibility of having a private code constructed for his personal use. Apparently the fear that had struck him with the revelations in the Teapot Dome scandal and his friendship with the chief operatives in the Teapot Dome plot, if I may call it that, had caused him to determine that it was unsafe to use ordinary means of communication. After my husband had been broached by McLean in this matter, we consulted a lawyer. The lawyer said it was all right for us to go ahead. I say is, because I was not in office then, having resigned and was staying at home. Our plan was that my husband would be the director and that I would do the hour to hour work of compiling this private code.

We were advised we should execute a contract with McLean and do it on a basis of a firm agreement for money being paid as certain portions of the work were completed. We executed the contract duly signed by both parties. That winter of 1924, we spent approximately six months working in our second-floor library before an open fire, my husband in the evenings after he returned from the city and me all day long as well as evenings, on the two-part code which McLean had contracted for and for which money was to be forthcoming during the progress of its preparation.

By the time we completed our part of the contract, we were becoming weary of very wealthy men and their dealings in money matters. After all our unfair treatment at the hand of George Fabyan, we now found that we were going to have a great deal of difficulty in holding Edward Beale McLean to the terms of the contract. We had great difficulty collecting any money from him and we waited a long, long time indeed, before he made his final payment, contract or no contract.

During this period, I had spent approximately six months working for the Navy Department, here again in code compilation.

(The Navy Department wanted my husband, but he chose to stay with the Army. This was a case of "if we can't have William Friedman, we will make use of his brains through his wife". Navy officers spent approximately four months persuading me to accept the position. The Navy Communications section had had a young woman, a mathematician, in their employ as a code-cipher specialist, who had been trained by William Friedman, but she had left the Navy to join Hebern, inventor of the Hebern cipher machine, whom she had met while he was attempting to sell his invention to the Navy. (HERE ... CONTINUE AND FINISH STORY OF HEBERN.)

I had given birth to our first child and by this time we had taken a house in the country, very much in the country, as it was in those days: a five acre place in the heart of nearby Maryland in tall forest trees and with nothing visible within sight anywhere. Now it is a part of what is known in Washington as the greater metropolitan area and is heavily built up in all directions from that handsome country place which we named Green Mansions - after the W. H. Hudson novel.

During our little more than two years residence at Green Mansions, we learned two important lessons about living and people. We learned, for example, that anyone who has a country place or a watering place never becomes lonely; indeed one hardly has an opportunity to do what one wishes or even one's chores on the place because everyone who drives for entertainment and passing of time on weekends and summer evenings, invariably drops in on one. We, I suppose, entertained more people at an outdoor cook-out supper in one year there than we would have in five years or more in a city house and garden. The other life time lesson that we learned was, as our lawyer put it, that "rich people never pay their bills".

Edward Beale McLean was the son of the founder and publisher of the Cincinnati Enquirer and many years before the latter had placed his son in charge of the Washington Post which by that time he had acquired. The rich young playboy had married Evelyn Walsh, daughter of a very rich family who had come from the west and built a great residence in Washington on Massachusetts Avenue. She had been a debutante at the same time as Alice Roosevelt, daughter of Theodore Roosevelt. Evelyn Walsh had appeared in newspapers all over the country in a reproduction of a portrait which had been painted by one of the foremost artists of that time. After she married Edward Beale McLean, united two great fortunes as they did, they occupied a sizable estate, with a nine hole golf course, on Wisconsin Avenue in Washington. This now where the McLean Garden complex of apartments lie, but at the time we knew the McLeans they were still living at Friendship.

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We had now had been in Washington almost four years. Although we had originally come upon the basis of a contract for services for six months, that contract had been extended for another six months, and at the end of the year I decided not to work in office any longer. My husband became a regular employee of the Signal Corps on a "specialist" appointment through the Civil Service and I began to stay at home and write a book.

We had grown very fond of Green Mansions. However, my husband was a person who could not tolerate not being busy every minute and he found that the two hours or more which it took him to drive in and back from Constitution Avenue in downtown Washington, took a slice out of his day which he was reluctant to give up. ~~So we engaged to build a house in Chevy Chase, Maryland~~ We regretted to leave Green Mansions behind, but my husband felt that time was important to him, so we engaged to build a house in Chevy Chase, ^{D.C.} ~~Maryland~~, one quarter mile south of Chevy Chase Circle, west of Connecticut Avenue. Our house was finished and we moved into it in late 1925.

It was only a very short time after we had moved into the Chevy Chase house that I was called by Captain Charles Root, a Coast Guard officer who had the title of Intelligence Officer for the United States Coast Guard. He was extremely interested in developing anti- or counter-intelligence work by the Coast Guard in its duties as one of the law enforcement agencies of the Treasury Department. At this time, of course, smuggling of liquor was beginning to be a big time business. The 19th Amendment to the Constitution, making the Volstead Act the law of the land, had been in effect since 1920. Captain Root had been working with Harry Anslinger, who was at that time a vice-consul in Nassau in the Bahamas. The water routes back and forth between the Florida coast and the Bahamas and also Florida to Cuba and back had become one of the highways of liquor smuggling. These men tried to procure my husband's services. He was very much interested in his work for the Signal Corps, for by now he had done considerable development work in the field of inventions and had gone far beyond anybody else of the day in the cryptanalytic side of cryptology, that is, the solution of "enemy" codes and

He was approached by many employers inside and outside government; so it came about that when my husband was unavailable, my services were requested. Hence, I was appointed a "special agent" to be paid by the Department of Justice, on loan to Captain Root. A special agent in those days was someone who did not have to conform to the requirements of office hours and the like but is expected to go wherever and be wherever he can best pursue the investigation on which he is engaged. For this reason, it came about that I was able to do the work at home for which I was requested. I went to Captain Root's office, collected papers and information and the like took them home and when solved the material was returned.

The Prohibition Amendment to the Constitution had been established and the law became effective on January 28, 1920. Numerous books have been written about the early days of rum-running, both by rum-runners and about rum-runners. It was at that time that the phrase, which is still in our American language, "the real McCoy", came into existence. One of the first and most famous of the rum-runners was Captain William McCoy, who became known for the excellence of the liquor he sold. Of course, all liquor was claimed to be uncut and unadulterated but during the Prohibition era, this was not by any means the rule. Although in the early years of rum-running, New York and its vicinity even to the end of Long Island, was a hotbed of liquor smuggling, a great deal of this liquor came from the Bahamas and for that reason Mr. Anslinger, Vice Consul in Nassau, had become almost fanatically interested in this illicit dealing. He had persuaded the Justice Department to establish a Bureau of Foreign Control and he had become the head of it.

So it was, that Captain Root, of the Coast Guard Headquarters in Washington and Mr. Anslinger worked together and I was called in to solve the secret communications of rum-runners. During the years that Prohibition had come into effect, the great profits in this illegal occupation had attracted many persons and operators. The Coast Guard, being the organization which at sea had to combat the rum-running vessels, had need of something more than just patrol by Coast Guard vessels to operate effectively. Captain Root, as the head of the intelligence office at the Coast Guard Headquarters, had, through Mr. Anslinger and other means, come into possession of stray communications which, in one manner or other, were connected with the liquor smuggling on the east coast. These messages or communications were usually not by any organized group but by individuals, ambitious men who aspired perhaps to be the Capones of the profitable game of rum smuggling.

Hence, the communications I solved were scattered in origin. I recall a single long message which had come to the United States by telegraph from Havana, Cuba. It, when examined by me, revealed itself as a transposition cipher. Since this was the only communication I had between these correspondents, the only method to use in my attempt to solve was by trial and error.

I remember that a very young Lieutenant in Captain Root's office, totally unexperienced in this field, suggested to me when I told him that it was a columnar transposition cipher, as my analysis had shown, which could only be solved by an infinite number of trials and that if I could guess a keyword which might have been used, the problem would be simplified and that it might be the only method of ever solving the message.

In his inexperience, the young man suggested that probably the keyword "Havana" had been used as a method of transposing the columns in the message. I laughed at him, saying that no one in his right mind would ever use a keyword the name of the city from which he was sending a message. However, the young man was proved right and I wrong because after I had worked a long time, laboriously going through the trials of solving the message by analysis, I did find that the word "Havana" had been used as a key word. I decided right then and there that I would not permit my mind to become so rigid as to exclude the obvious but that hereafter, I would try first that very supposition and thus clear away the possibility that the sender of a secret message had been so foolish as to employ a tool of such naive practices.

Although I had solved several problems for Captain Root and Mr. Anslinger before 1927, this was my first official and more or less permanent connection with the business of smuggling. The Prohibition Amendment had now been in effect for more than seven years. Neither my husband nor I had ever been consumers of alcohol except an occasional glass of wine and therefore we were not among the people who during prohibition, insisted upon having their drink at all cost. We read the newspapers, we heard mention of such things as bathtub gin, we knew that in the very early years of prohibition there had been a widespread practice of procuring doctors permits for acquiring "spirits"! But the thirst of residents of the United States could not be satisfied by this slow and laborious process. Thus it was, that the smuggling in of liquor by sea routes on all coasts of the United States was begun during the 1920's. New York, of course, had been the leading port of entry for the smuggled liquor, but the whole Atlantic coast with its coves and inlets, its chopped waterline, with its

many secluded spots where boats might secretly dock and unload, created a problem which defied description.

The country was a seething hotbed of irreverence and defiance for this unpopular law. In spite of the fact that thousands upon thousands of persons were arrested each year, that is, the "small fry", prohibition became more and more unenforceable as time had gone on. The irony of this dry decade, as it has been called by one writer, was, that although prohibition could not be enforced in the United States, bills had been introduced in Congress to require prohibition in the Philippines and several other places in the world where the United States had a supervisory control over the area. The added irony is that bootlegging was reported to be very common in the halls of Congress. I quote from the book, RUM ROW by Robert Carse, published in 1959, "The moral tenor for the nation was set in Washington, where in the halls of the Capital and the Senate Building, bootleggers busily solicited trade from the solons". Carse goes on to relate that Liquor was delivered in broad daylight to private clubs by uniformed policemen. He cites instances of this in Chicago particularly.

In New York, a sort of international headquarters for Rum Row, it was said that policemen made arrests at the rate of fifteen thousand a month. These were not the big time operators, of course, but again the "small fry". Frank Costello had been dominating the New York area as the head of a tremendous gang of operatives. It was said that Costello took his directions from Bill Dwyer, (This person in later years was confused in the public's mind with the mayor of New York.) Dwyer was serving time in the Atlanta penitentiary. He was a rich young man, very well educated and an intimate it was said of Jimmy Walker

the then mayor of New York. When Fiorella La Guardia was elected to office as mayor of the city of New York, he made a statement that there were two hundred and fifty thousand speak-easies in New York City alone. La Guardia estimated that it would take two hundred and fifty thousand policemen to enforce the law in New York City and that it would probably take another two hundred thousand to keep the police in line. The liquor, of course, which came in during the operations of such persons as Frank Costello's gang plus innumerable individual operators, was gobbled up with great eagerness by the dispensers of the alcoholic drink and cut usually about five times before reaching the consumer. However, the thirsty public drank the result and no questions asked. As I became more familiar with this game, I realized how a conscientious officer like Captain Root of Coast Guard Intelligence would become very eager to find means of aiding the Coast Guard job of patrolling the waters in this fight against the rum smugglers. It was estimated that the coast of the United States in its entirety meant approximately nineteen thousand miles of area which the small agency, the Coast Guard, had to patrol and protect in this battle.

I stated before, that although I received my material from Captain Root and returned it to him, that actually I was appointed as a special agent of the Bureau of Foreign Control in the Department of Justice. In 1928, however, I was transferred to the Customs Investigative Service in the Bureau of Customs, Treasury Department, still holding the title of special agent. The Bureau of Foreign Control in the Justice Department went out of existence as a result of Mr. Harry Anslinger's persuasive powers with Congress, and a new agency was established which would be called the Bureau of Narcotics; it would be another

law enforcement agency of the Treasury Department in addition to the five law enforcement agencies already there.

In my work for the Customs Bureau, in the years 1928 to 1930, I became familiar with many of the rum smuggling operations in the Gulf of Mexico area and also on the Pacific Coast. We learned of the plan for the use of short wave radio through solution of their messages.

(NEW CHAPTER ?)

As the smugglers began to take to the air waves, that is, short wave radio, as a means of communication with their agents on land and sea, there were three government agencies operating their own wireless intercept service.

In addition to the Coast Guard, there was the Alcohol Tax Unit, and the Federal Communications Commission. As usual among government agencies, there was rivalry. Many of the cases of those caught in this ramified game of rum smuggling became a source of jealousy and some suspicion among these operating agencies. The Customs Agency Service, however, went quietly on with their thorough investigations and concerned themselves not at all with this inter-agency struggle or indeed, with wireless intercept in any way.

It was, generally speaking, the customs service for which I appeared in the trial of cases after arrest of smugglers on the coast of the Gulf of Mexico and on the west coast. I appeared as an expert witness in several cases held in Galveston, also Houston, Texas, and New Orleans, Louisiana. I had also made a trip to the west coast in the summer of 1928 to instruct shore operatives there against the Pacific coast smugglers who were, so to speak, of a different class from those on the Atlantic coast. Indeed, in the latter case, the activity in the Atlantic area between Florida and New Orleans

for the smuggling from the Bahamas was very small potato indeed, compared to the other areas.

By early 1930, smuggling of liquor had become a gigantic problem. The Treasury Department came to believe that a cryptologic unit should be formed and that young people with the proper qualifications should be trained in this mental battle against the underworld of smuggling. The idea was accepted and I found that I was to head a small unit, the physical location of which would be in the Coast Guard, the better to receive rapidly the wireless intercepts by the Coast Guard radio staffs which had expanded greatly in the last two or three years; however, this unit was to serve all of the law enforcement bureaus of the Treasury Department. The unit was small indeed and the appropriations forthcoming were only such as would pay for modest salaries. I had two secretary-stenographers and four persons who came from civil service registers, having passed examinations for one or another analytical science such as physics, chemistry, mathematics. On such registers I found no girls, hence the four in this category hired were young men, who were just out of college and it was their first job. (One only had been a teacher for a year.)

I recall that I was compelled by the civil service law to take the highest person of the three names submitted from a given register unless I could show cause not to do so. I had been forced to accept a young man from New York City who was a "brain". He was only 21 years of age, the civil service record showed, but he had a Ph.D. degree from Columbia University and he had made the highest grade that had ever been made on a civil service examination in mathematics.

He came to the office, was given a desk and a series of lessons which I had prepared to submit to these young trainees. The lessons comprised beginners' courses in the solution of codes and ciphers without a knowledge of the keys or systems used. These preliminary lessons were simple and the answers to the questions and problems were to be submitted to me in writing when finished. In the case of this 21 year old Ph. D. , I was appalled after the first few lessons to observe the fact that, although born and brought up in New York, he did not comprehend the English language, at least nothing outside of strict mathematical language. I called him in and talked with him personally, going over his papers and explaining this and that, and then gave him the same lessons to do over again. Within two days he was back at my desk demonstrating no understanding whatsoever of the subject he was supposed to be mastering, but instead proposing to me a system for what he boldly termed the indecipherable cipher. As you might guess from his history, this "indecipherable cipher" was based upon mathematical curves. When I explained to him that it would be impossible to use such a system, either by air waves or cable or telegraph, in this modern in this modern day, would be of extremely limited use indeed if at all, he argued at length with me, not accepting my statements in the least degree. After this kind of thing had gone on for a number of days, I decided that it was useless to attempt to train him in this field.

I therefore called the Civil Service Commission and explained and asked them to send me three names again from the top of the register of mathematics, which was done. In the meantime, I told the young man that he should resign. He was quite recalcitrant, and saw no reason, he said, why he should resign. I explained then that there was a very good reason: if he resigned his name would be returned to the civil service register and he would still be eligible for any position anywhere in the government in the field of mathematics for which he was fitted properly, and that he was utterly unfitted for this particular field. For a few days he obstinately stuck to his ground that he would not resign, but finally he did so and left my office and the building. Within an hour or two I had telephone calls from Capitol Hill. He had gone to his Congressman from New York and also to one of the New York Senators and objected to what he called my rugged treatment. These men turned him over to their administrative assistants from whom the telephone calls to me had come. I explained, patiently, exactly what had happened and wherein the young man failed, and that I was convinced he could never succeed in this particular field. They were quite satisfied and I heard no more about this. The three young men who came from physics, chemistry or mathematics registers who then became regular employees of my unit, were able, agreeable and cooperative. Two of them were still in my unit when we were taken over, in World War II, by the Navy in toto. Also, one of the girl secretaries had resigned to marry and had been replaced by an extremely gifted young man who, although he had come in as a secretary, proved the most able, imaginative, persevering and generally gifted of all of the young men who worked with me in this unit.

He had been attending college through all this period at night and had won his degree there and as in other extracurricular activities had gained considerable distinction as a performing pianist and as a composer of revues in the amateur musical circles of George Washington University and elsewhere in Washington. After he had completed his army service, it came about that I was able to place him in the field of cryptography and communications with the International Monetary Fund. There he has served with great success and distinction.

Many times I've been asked as to how my authority, that is the direction and superior status of a woman as instructor, teacher, mentor, and slave driver to men, even to commissioned and non-commissioned officers, was accepted by these men. I must declare with all truth that with one exception, all of the men young and older who have worked for me and under me and with me, have been true colleagues and have never been obstructionists in any way. I recall particularly that just before World War II, in the period when the Treasury Department was responsible for the enforcement of neutrality after the European war had begun and the United States was not then at war, I trained four non-commissioned Coast Guard officers in the work of classifying intercept correspondence and in the process of solution. These were not young men, all from five to ten years older than I. When they were leaving at the end of their course they took particular pains to inform me that when they had received their orders to report to my office for training that they had had great misgivings, but that the two years training had been one of pleasure and benefit and profit in every way and

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There were not only the far ranging gangs of operatives under Costello in New York, but there was the Torrio-Capone gang in Chicago. Capone was said to make from fifty to one-hundred million dollars a year from beer alone. Rum smuggling became the new criminal occupation.

Andrew Sinclair, the author of PROHIBITION-ERA OF EXCESS, a tremendous tome which he wrote after two years of assiduous study in the United States upon a fellowship, describes prohibition as "the golden grease through which organized crime insinuated itself into a position of incredible power in the nation".

There have been many books written about the "Roaring Twenties", the rebellion of the young generation, the sex, the depredation, the excesses of that period, the kind of life described in the F. Scott Fitzgerald novel, THE BEAUTIFUL AND DAMNED. All of these things were as nothing, in my opinion, among the contributing factors to the decline of uprightness, if not to say morality in the United States, compared to the criminal syndicates which flourished so widely, so boldly and so freely, because of the existence of the Volstead Act. Never had the criminals found such a gushing well of profits. Never had the anti-criminal forces encountered such universal tidal waves of law-breaking.

*better known as the author of MY FRIEND JUDITH, a novel which upset the town of Cambridge, England and his university there.

Conscientious though the vast majority of enforcement agents in the government were, it is true that it was a battle lost from the beginning. Furthermore, the organization among criminals has never been broken up since their origin in that Era of Excess. As Sinclair states, "The Volstead Act not only placed a severe strain on U. S. courts but it nearly burst the prisons with seventy thousand arrests in one year in the New York area alone". The U. S. Commissioner dismissed as a rule nine cases out of ten, that is, fifty thousand cases a year, in order to enable the courts to work at all. There was also a great deal of time spent in prosecuting prosecutors. When indictments did indeed reach a court and a jury, the juries made acquittals the rule. In San Francisco a jury itself was actually tried for drinking up the evidence. The Wickersham Report in 1932, which surveyed the whole matter of prohibition in this country, stated, "A law can only be enforced when the majority of people support the law".

The foregoing is a very small fraction of the background with its myriad of reasons why the Prohibition Amendment had to be repealed and the Volstead Act wiped off the books, which occurred in 1934. Sinclair states, "The preoccupation of the twenties with sex and the liquor was displaced by a more basic search for food". He was referring to the great depression which followed the stock market crash of 1929 and was at its height when President Hoover left the White House and Franklin Delano Roosevelt came in for his first term. Sinclair ends, "A rebellion against reform can only flourish on East Street".

It has been said that America has the strongest criminal classes and the weakest public sentiment against them of any highly civilized people. Hence, it took a great depression to arouse public sentiment against the cause, that is, the Volstead Act and the resultant prohibition era for the fact that the great criminal gangs had developed because of it. All thoughts were turned now to food and jobs.

NEW CHAPTER

President Roosevelt was determined that the 18th Amendment, always referred to as "the Prohibition Amendment" to the U. S. constitution must be repealed. It was. Harry Gabbett in the Washington Post had some recollections and comments: "Thirty years ago this Thursday, the United States climbed bleary-eyed aboard a strange water wagon ending a fourteen year binge unsurpassed in many of its aspects before or since".

Utah had just ratified the twenty-first amendment making the repeal of the 18th amendment, that is, the Prohibition amendment, as extinct as a dinosaur. The "Noble Experiment" was dead. There had been only two states which had not ratified the original 18th amendment and finally Connecticut and Rhode Island saw their vindication.

To quote the Gabbett article further: "Instead of the sober industriousness the Volstead Act had envisioned, there was unleashed the era of gang warfare and bathtub gin; of commonplace corruption in high places and of a national resentment no other single piece of legislation had ever aroused". It was true that all during the Prohibition era, drinking had been taken up as a kind of dare by the very young and the very old: two classes about whom generally speaking no charge of imbibing anything beyond an ice cream soda would ever have been made before. Now the fun of defiance was gone. As Gabbett says, "With nobody around to tell you you couldn't have one, an awful lot of the fun was gone".

My husband and I, during all those years of Prohibition, had had no particular strong conviction on one side or the other. We were a bit disgusted with acquaintances, some of them even friends, who spent time at supper and dinner parties telling of how they created their bathtub gin and how much of it they consumed. During all those years, whatever drinking we did was on the two occasions when we were in Europe where it is our custom to drink wine with meals. We were in Europe in 1928 when my husband was sent by the United States government to Brussels, Belgium to the International Telegraph Conference as Executive Secretary and Technical Advisor of the United States delegation; and again in 1932, where he represented the United States in a double capacity at a very much larger and more ramified international conference - the International Radio Conference where his position in the United States delegation was that of technical advisor and committee chairman; but at the same time

In 1927, the first international conference in the field of communications, meaning radio and telegraph, had been held in Washington. This was near the end of the Coolidge administration. There were, I believe, at that time 87 countries represented. My husband had written a brochure published by the Government Printing Office, called "The History Of The Use Of Code And Code Language". In this publication, the title Code And Code Language is a technical term and is used properly to describe the language medium which is used in order to transmit by telegraph, radio and cable. As with so many of my husband's contributions in the field of communications, this publication was a "first"; it became a unique item and even to this day remains a standard publication. It was greatly in demand by foreign governments in the late twenties and the thirties when international communications rules and regulations became of interest to so many nations as the world became more international. Whereas, for example, in 1927 there had been only 87 nations represented at the communications conference in Washington, in 1932 in Madrid, there were more than a hundred governments which sent delegations to that conference which lasted from August to late December, 1932.

It had been quite easy for me to accompany my husband to Europe in 1928, because as I have related before I was not a full time employee with prescribed office hours. At home we had our marvelous Cassie, cook and housekeeper, who lived in the house and had been with us since before the birth of our first child. Also there was present in our home at that time an Englishwoman friend of ours whom we had met first at the Riverbank estate in Illinois, who had become an American citizen and had done service as a yeomanette in the United States Navy during World War One. She had come to Washington for a special six months assignment with a government department. She was staying as a guest in our home and was devoted beyond description to our two children as, indeed, they were to her. With this happy arrangement, I was free to leave with my husband and the official delegation when it departed on the famous old ship Leviathan. We returned about the first of November of that year.

In 1932, the situation as far as our household was concerned was quite different, our beloved Cassie having died at the age of 39 of cancer. We had at the time of the conference in Madrid a housekeeper Alice, who also lived in our house except for Thursday off, and who was also a very fine person. But at this time I was spending full time each day in office because in 1930 my office had become physically located, not in the Bureau of Customs, but in the Coast Guard Headquarters in Washington for reasons stated heretofore, that is, to be at the "fountain-head" of intercepts.

In the office work at that time there were some crucial matters and I felt that I could not go to Madrid with my husband when he left in August of

However, I kept receiving messages from him, even telephone calls, urging me to come. Finally, I had worked out a plan which would enable me to go to Madrid. I made up my mind one Tuesday night that I should go.

In the next two days I had arranged affairs at my office and at my home, had packed up the belongings necessary for a prolonged stay of my two children and housekeeper and had put them on a train for Detroit, Michigan where my sister lived. I, myself, packed and left New York on Friday at midday, two and a half days later. I crossed on the old Ile de France, and went by train from Le Havre to Paris and from Paris and from Paris to Madrid and joined my husband on October 8. The conference lasted a long time and we did not return to Washington to rejoin the children and housekeeper, who had been instructed to return and be at home on our arrival, until two days before Christmas 1932.

In 1928, we had travelled elsewhere beyond a direct route to Brussels and back to the USA because my husband, after his duty with the State Department of the International Conference in Brussels, was ordered by the War Department to proceed to northern Europe on some official business. We therefore, went north by train through Cologne and Hamburg, Germany. We spent sometime in Stockholm and stopped over in Copenhagen where we saw friends whom we had met at the International conferences. We crossed the North Sea from Denmark by boat to Harwich, England and proceeded from thence to London where we met and did some travelling about with friends from the conference who were at that time in London. This was a contrast to 1932, where we were unable to do any travelling outside Spain and not as much of that as we should have done.

With my husband's manifold duties at the dual conference, he was much confined to Madrid and so burdened with his dual duties, that he was unable even to enjoy the luxury of a daily siesta as everyone else did. We did have such trips as were taken by bus or private car going out from Madrid, most of these being the planned entertainment for conferences, limited only by such distance as could be traversed away and back again in the same day. Although the conference was not ended, in November we left for southern Spain. This was by way of returning home, since my husband was given the impression by the War Department that he was being away longer than was desirable. We therefore planned a few days in Sevilla, Granada and others of the most interesting spots in southern Spain and planned to take an American Export Line vessel from the port nearest to the Strait of Gibraltar. However, my husband received a command message from Madrid to return to the still unended conference. We returned to Madrid and later went from there straight to Paris and again returned home on the Leviathan, arriving as stated before, just two days before Christmas.

One of the fortunate by-products to us for my husband having been appointed to these international conferences of 1928 and 1932 was that we had been absent from the United States during all of the hysteria, the recriminations, the bitterness, the ugliness of the Presidential campaigns of those years. By the time we returned in 1932 of course, Franklin D. Roosevelt had been elected to office.

Those months, very delightful for the most part, which we had spent abroad, had at least for the time being wiped from our thoughts the searing memories of the preceding summer when Washington was the mecca for the Army of the Unemployed. To my dying day, I shall never forget the picture which I watched with field glasses from the roof of the Army and Navy Country Club, namely the ride of Douglass MacArthur on a white charger the length of Pennsylvania Avenue, on past the Capital and crossing the river to Anacostia. He was accompanied by other uniformed men on horseback and it seemed to us he was riding like a conquering Napoleon; on to Anacostia where the unemployed, who were finding such refuge as they could in shacks and tents, were driven from their improvised shelters by the Army contingent and a fire was set to destroy their shelters.

The next day at least one Washington newspaper published a photograph of one of MacArthur's men spurring his horse right up onto the tiny leaning porch of a shack where a man sat in a rocker. As thinking intelligent persons, voteless it is true by virtue of residence in the District of Columbia, but still with opinions of our own, we had been very happy to see Herbert Hoover succeed the dour and laconic Cal Coolidge as President. By the end of the Hoover regime, however, I had a feeling of a man cowering under his desk, as the great engineer in the White House seemed to flounder in the all-absorbing problem of the depression following the stock market crash of 1929.

As I look back on it now, I realize that Hoover was one of the finest men we had ever had in the White House. His stature today as an elder statesman and the valuable public service he has performed, proves his eminently qualified capacity to handle a Presidency in his later years. Having been a rather poor Quaker boy who, in the beginning of the hey day of engineering had become so great a success in the engineering world that he had made millions, I believe that

rated one of the three or four richest Presidents this country has had in its entire history. But, by the end of his four years of office, I had become sickened by the actions which came about through his, I believe, failure to act rather than to act. In other words, I feel that MacArthur was far more to blame for the heartless and brutal treatment of the unemployed. I have never been able, to this day, to bring myself to believe that Herbert Hoover, Quaker, humanitarian, ~~EXE~~ excellent father and family man, his service after World War I as head of the American Food Relief Program in Europe, and always noted for his kindness and consideration of others, that he of all people would ever have ordered the burning at Anacostia that I had witnessed through field glasses from a club roof in Virginia.

My impression of President and Mrs Hoover in the White House had been that I was a far more considerate and thoughtful person in respect to others than Mrs. Hoover. My impression of him was that he was a tremendously shy and sensitive person and the waves sympathy were felt, rather than the latter having been expressed by him directly or in words. Mrs. Hoover, on the other hand, impressed me as being a person who made use of what we now call the creation of public image by her national work with the Girl Scouts and similar activities. I found her stiff and solemn in my brief conversational encounters with her. If sense of humor she had, it was certainly not akin to mine.

Both Mrs. Hoover and Mrs. ~~Eleanor~~ Roosevelt were very thoughtful of and encouraging to career women. Mrs. Roosevelt particularly never failed to include us in her winter tea parties and spring or summer garden parties, usually those for "ladies only".

"THE PRESS"

Although our home is on Capitol Hill, my husband and I have never even walked to the Capitol grounds to take whatever look possible on the day of any inauguration, we find it much more comfortable, thanks to the electronic age to see it in its entirety on television rather than to experience personally only a tiny section of the beginning ceremony and the parade. In fact, with the two exceptions when I took first our son and then our daughter to an inauguration parade, I have never in my life taken any interest whatsoever in the parades of the great or the near great. I have never been a hero worshiper nor an autograph seeker; perhaps my attitude towards parades is related to those attributes. I recall that at the time of King George and Queen Elizabeth's visit to the White House in 19 . My office was located in a building ^{on the} south side of Pennsylvania Avenue with a direct view of the ceremonial parade in honor of their Majesties. All government offices were closed for the day at eleven a.m. My husband and I chose to go to the Army and Navy Country Club in Virginia and remain there until the parade was over.

Hero worship has especially never been something I have enjoyed when directed at me personally. I remember very keenly the annoyance which I suffered in Vancouver, British Columbia when there in 1938, a story was published in the Vancouver newspapers about my participation in the Gordon Limmarcotics case. Thereafter I found that my life was not my own. In the Vancouver hotel where I stayed, a rush of flunkies and bellhops leaped at me as I entered the door when I returned to the hotel and the attentions poured upon me by everyone in the hotel from then on when I appeared at the dining room entrance not only the head-waiter met me, but ~~the~~ every waiter in the room rushed up to beg the favor of serving me.

All of this became so distasteful to me that I quietly moved to another hotel and used the name of Mrs. William Friedman instead of the professional name with which I had been connected at the other hotel. This was also true of news stories written concerning me which became so prolific after that particular case in Vancouver. There were many stories authorized by the public relations office of the United States Treasury Department, and there were others completely unauthorized which came to my attention from here and there which were offensive to me, either because they were written in a lurid manner or because they contained assertions and statements quite untrue. I wrote a letter recording in writing my protests to the Public Relations Director of the Treasury Department requesting that thereafter no one but NO ONE from the world of the press or radio would be given permission to get so far as even an interview with me. At that time, I supplied the Public Relations Treasury Chief with the bare facts of my life and career and told them that they were authorized to use them in any way they deemed essential for the public relations of the department. But as far as I was concerned, I felt too uncomfortable not knowing from day to day what might be said about me in some far part of the world, for it had come to the point where unauthorized stories were appearing even in the European press. Even this did not stop the straight news stories, sometimes including photographs made of me during cases in court where I had appeared as an expert witness. Sometimes they proved to be somewhat amusing, such as a New Orleans case where I spent several days on the witness stand. I appeared in press stories as "a pretty middle aged woman", (with photographs snapped of me as I sat in the witness chair one day) and the the same ~~month~~^{month} in another part of the country I was described as "a pretty young woman in a filly pink dress". I was still young

enough at that time to be piqued by the earlier description and annoyed at the frivolous adjectives in the second. Although, as I have stated already, all my connections in every professional way had been more or less on an equality with men, I was convinced that the fact that I was a woman and that the field in which I operated was so unusual that the press became so intrigued with these two aspects of the case that they lost sight of restraint. I do not mean to say, however, that all my relations with journalists were "fouls".

I find that as I go over the limited number of press stories that I still have in my possession, that I have kindly memories, speaking generally, of women, both interviewers and feature writers. Among them Carol Frink of the old WASHINGTON HERALD; Mary Hornaday of the CHRISTIAN SCIENCE MONITOR; Alice Hughes, the NEW YORK TIMES; the brief mentions by Malvina Lindsay; a story by Bess Furman of the old WASHINGTON TIMES, ^{later} presently Public Relations Advisor, Department of Health, Education and Welfare; feature writers Mary Jane Brumley of the WASHINGTON STAR; Katherine Kellock, SUNDAY MAGAZINE-WASHINGTON STAR; Leah Stock Helmick, whose lengthy story won a READERS DIGEST prize. Of this latter's story, an abbreviated version was first published in the AMERICAN LEGION magazine. *

*In those days it was a practice of the READERS DIGEST to appear at least to fulfill their claim of only re-printing from other magazines or sources.)

One man among the press who was a respectable and cooperative interviewer, carefully staying within the territory of safety and exposing nothing beyond the point he was requested, was A. H. Williamson of the Vancouver, British Columbia NEWS HERALD. The men for whom I still feel a flash of irritation, after all these years were: Theodore Adams of the AMERICAN MAGAZINE - "People Section"; Fulton Lewis, Jr. of Washington, D. C., a thundering, blaspheming, ill-bred ~~blunderer~~ blunderer into forbidden territories such as I had never met before or since; and Pat Frank, the later very respectable novel writer, book interviewer, whose name was seen constantly in the National Press, but who, back in those days, was struggling for a foothold anywhere. He could grab it and permitted his name to be used as the author of a feature article in the ATLANTA CONSTITUTION which was one of the most lurid hodge-podges of misinformation picked up from headlines and scraps of information culled from other sources, locked together in a revolting mass and sold as a respectable feature story. I would have expected that one of the few respected newspapers in the south, the ATLANTA CONSTITUTION, would have had better judgement than to use such an article. So part of my irritation falls upon the head of this newspaper as well as of the writer.

One of the fictions which somewhere, somehow, first appeared as a statement and then was perpetuated thereafter in a manner most annoying to me and which must have been extremely annoying to my husband, was the idiotic statement that I, this "wizard of codes and ciphers" had taught the science to my husband. Of all the unfounded statements made concerning me in the public press, this was the most confounding. Although I took every possible opportunity of refuting it, it kept appearing here and there in press stories up to the time of World War Two. As I had related before, we began at the same time in this field of analysis. We were teachers of ourselves, simultaneously, as well as of others; we were merely the leaders. This ridiculous story of my having taught my husband was still appearing many years after some daring imagination had first perpetrated it, for there was sent to me from London only a few years ago, by someone unknown to me, a clipping from the DAILY SKETCH of London, repeating this oft told fiction.

To return to men of the press, there was a widely printed press story with a by-line, Morris Gilbert, which first appeared in the New Orleans ITEM in 1933. He was listed as a NEA Service writer. Although he had never interviewed me personally, he must have witnessed my appearance in court in some southern state, but unlike other press writers, he had stuck to facts and not woven fancy around those facts.

To return to one of the irritants in this field: one day as I sat at my desk in Washington, very busily engaged in some analytical work upon papers on my desk, with head down in deep concentration, I suddenly became aware of a presence, a something in my vicinity. Startled, I looked up and a few feet from my desk there was a poised camera aimed directly at me. The camera was before the eyes of a pudgy face, the head on top of a pudgy but tall body, and a brash somewhat

I stood up from my desk and turned sidewise almost with my back to this interloper and said, "who are you and what do you want?" Whereupon he began pouring forth a torrent of words stating that he was Fulton Lewis, Jr., gave the name of the paper or news service he claimed to represent and that he must have the story and these photographs of me. I signaled to someone in my office to send for help and while I maintained my determination that he would receive neither photographs nor story, one of the officers from the intelligence office ~~sc~~ame up and told this brash young man that he must leave. For sometime thereafter, I expected almost any time to have some vengeful story or terrible photograph of me (of which many had appeared already which had been taken without my knowledge) and thus he would have his revenge, but at this time the Treasury Department was beginning to crack down on unauthorized press stories about the law enforcement agencies of that department. And it is possible that this ^{your} man was told that if anything appeared which had not been authorized by the public relations office of the Secretary of the Treasury, that he would be banned henceforth from the Treasury. I did ~~not~~ know of this having happened in other cases. An instance of this was brought to my startled eyes in February, 1938. I bought on a train one day a current copy of LOOK magazine; it contained one page of photographs of women whose brief biographies were listed in the just-published first edition of the feminine WHO'S WHO, (naturally without photos). LOOK had selected a page full of women "whose careers were unusual", in the opinion of Durwood Howes, editor of the volume AMERICAN WOMEN. Years later when sorting scrapbook items, I came across the source for the photograph - a crayon drawing of me made by a Washington artist. No credit was given by LOOK magazine.

One amusing incident in connection with the press stories which was noted by numerous friends who called it to my attention. The WASHINGTON TIMES of September 28th, 1933, showed a photograph of President and Mrs. Roosevelt, she with no hat and he with a hat on, with the headlines "President and First Lady In New York". For some reason or other, whatever story was meant to have accompanied this photograph, was completely non-existent, in fact there was no story anywhere in the paper which followed up the above headline. But immediately adjacent to this photograph and extending exactly the same length in the column was a story with the headline, "Dope Capture Laid To Woman", and there followed a brief story to the effect that a Washington woman had been responsible in "outwitting the master minds of an international narcotics smuggling raid". The story was a Universal Service press story emanating from San Francisco where the brothers Judah and Isaac Ezra had been arrested for extensive operations in smuggling narcotics earlier that year and, at the time of this press story, had been sentenced to twelve years in prison. The press release from San Francisco had said that the woman who had solved the mass of correspondence had not been revealed in the trial, rather they put it "the woman whose name was withheld", however, the Washington paper appeared in connection with my name. I had not appeared personally in the trial against the Ezra's in San Francisco because it was completely unnecessary; there was an enormous mass of correspondence wherein the evidence against them was so completely conclusive and so easily demonstrable that my appearance on the witness stand was quite unnecessary; as told in the section relating to the Ezra case, the Treasury Attache in Shanghai, China had supplied literally volumes of information and evidence.

There was another instance of the amusing coincidence of headline and photographs in the case of our young daughter, whose photograph in a flowing fairy-like gown under the cherry trees by the Tidal Basin, the cherry blossom festival in those days being a simple sunrise ceremony on the grass by the Tidal Basin, and this appeared in a size which almost filled the front page of the DAILY NEWS, Washingtons tabloid newspaper on But the top of this same front page had in a black headline two inches high, "War Warning To Dictators". The reader whose eye as he walked by a newsstand would catch sight of the headline, stop and as he looked at the page see the large photograph of a lovely young girl in a dancing costume.

In May of 1934, I was one of the women selected for a radio interview by Miss Margaret Santry, a radio reporter for NBC, who made a series of broadcasts called "First Ladies Of The Capitol". She had first covered society with a capital S, then wives of government officials and later career women in government service whose work was in one way or another unusual. I find that I still have a carbon copy of the script for the radio interview. NBC had been very generous about permitting me to bring our young son and daughter to the studios where they remained in the room where the technicians were instead of in the studio where Miss Santry and I were; thus, the children got a real conception of how a broadcast over a national network was carried through. It so happens that my husband was on duty with the Army Signal Corps in Kansas on some early summer maneuvers. His absence from Washington, however, did not prevent his hearing the broadcast because he was, of course, in an ideal situation since communications is the business of the Army Signal Corps.

Within a day or two following this, the script of the interview was reduced and made into a news report and this was published in the WASHINGTON POST on May 26th. I've never known whether the National Broadcasting Company or the WASHINGTON POST was responsible, but this POST article was accompanied by a reproduction of a crayon drawing made of me by a local artist named Davis while Miss Santry was in the process of preparing for the broadcast.

~~One message concerning a cargo of liquor translated by~~

Of course, as the war in Europe broke out in 1939 and for sometime before, there had been extreme censorship of the press. However, there were efforts made by the press as always to obtain stories with the coveted "inside" information.

I think that I have related elsewhere that it is the duty of the Treasury Department to enforce neutrality until the United States is actually in war, hence, from '38 through '41, my office was the eyes and ears for Henry Morgenthau, Jr., the Secretary of the Treasury, whose duties then in addition to domestic law enforcement, comprised also the enforcement of neutrality. The radio intercepts increased into the thousands because the intercept services of the Treasury Department were expected to cover all Atlantic Ocean ship traffic from whatever type of ship might be crossing or in the water anywhere.

Traffic had to be sorted, classified and if any text appeared which needed solution, it was our business to solve it if possible. Henry Morgenthau, who had been appointed by President Roosevelt to be Secretary of Treasury, was a very conscientious man I am sure, and set out to do his very best by every bureau or activity whose business was the responsibility of the Secretary of the Treasury.

Secretary Morgenthau brought with him to Washington a woman administrative assistant by the name of Mrs. Henrietta Klotz. In all my years of dealing with government officials and with women, in many if not most walks of life, and with men who were both superior and inferior to me in rank, I had never had any contact with anyone of a long list of persons who had impressed me so unfavorably as Mrs. Klotz. She was a very small woman with an obvious feeling of tremendous insecurity which was revealed in her manner by the use of rapid fire dictator-sort of requests which, of course, issued from her as peremptory orders.

We used to have a saying in our office, that we always knew when it was 4:28 in the afternoon because the telephone invariably rang at 4:28 or 4:29, the closing hour being 4:30, and it would be Mrs. Klotz on the phone with some snappish order from Secretary Morgenthau, so she said, which always had to be executed by nine o'clock the next morning and ready for his perusing, even though her order might cover a demand for a report of a nature which would take at least three months to prepare. There was no use mentioning this fact to Mrs. Klotz; her order was a royal command. I recall that once I attempted to explain to her while she was still issuing the telephone order that it would take a number of persons a number of weeks to fulfill her demand, whereupon she said to me, "shut up, you fool". It is comforting, I hope to the reader, to relate that Secretary Morgenthau usually called the next morning and remanded the order, unless it was one which could be completed in a given amount of time. But he himself was not the person who demanded something of magnitude to be produced as of yesterday. Mrs. Klotz intrigued my psychological curiosity, therefore, when I saw her at receptions at the Morgenthau home, I used to attempt to engage her in conversation to find out something about her which made her tick.

Henrietta Klotz was just as insecure at an afternoon tea or a social occasion as she was when operating as the official administrative assistant to a Cabinet officer.

It was during the Roosevelt regime that the six law enforcement bureaus of the Treasury Department were placed under one advisory-operating chief. He was to be called the Chief Co-ordinator, Law Enforcement Agencies. Harold Graves acted for a time as this Chief Co-ordinator, but not long after, Elmer Irey was appointed and served in this position as long as I had dealings with the Treasury Department.

CONEXCO IN THE GULF OF MEXICO.

The Bert Morrison Case

For the first three or more years after Franklin D. Roosevelt became President, and during the beginning years after repeal of Prohibition, my office was busy with the backwash of the Prohibition era. With such vast amounts of money and large organizations as had been operating in the smuggling era, all activities could not cease and it was physically impossible for the smugglers to wipe out and cast into oblivion the results of their past operations.

Consequently, cases still arose for a long time thereafter, and although only the most important and those with the most far reaching implications reached the courts, there was still much action^{to}/be taken.

During the year of 1933, I appeared as a witness in the Bert Morrison case, as it was known, in New Orleans. Bert Morrison was the land agent for at first the Pacific and then the Gulf Coast of the United States, acting for the Juggernaut Company known as the Consolidated Exporters Corporation of Vancouver, addressed in telegraph and wireless communications as CONEXCO. This so-called Bert Morrison case was considered so important that Colonel Amos W. Woodcock, Special Assistant to the Attorney General, conducted the case himself for the prosecution. He stated at the time of the trial that the federal government had spent five hundred thousand dollars and two years in preparing the case. If I remember rightly, this was the only case against smugglers where my work was instrumental in bringing the indictments against the defendants. I was first sent to New Orleans to testify before the Grand Jury as an expert witness after which Bert Morrison and 22 ~~co-~~co-defendants were indicted, I was present when the case came to trial.

Colonel Woodcock stated in a letter to the Coast Guard that he did not believe it would have been possible to win this case without my testimony. Colonel Woodcock, a celebrated and nationally known attorney, had been at one period Director of Prohibition for the United States government. At the time of the Preparation and trial of the case against Bert Morrison et al. . . . Colonel Woodcock had been recalled to the government as Special Assistant to the Attorney General for the trial of this case.

Morrison had been operating as the land agent for Mexico in Belize, British Honduras and from there in various places on the Gulf Coast of the United States to make arrangements for the selling, shipping and landing of liquor. His co-defendants in New Orleans were the people who aided in one or another phase of these operations, either at sea by transferring liquor to small boats, or taking it in to land and then dispensing the cargo according to prearranged plans. At the end of the trial, Bert Morrison and the other defendants all received maximum sentences and really considerable fines, all of which were later sustained by the Court of Appeals.

One newspaper item which appeared in papers throughout the south and in briefer form throughout the country, related that in the course of the case when I was introduced, that the defense had objected to my appearance.

I recall meeting this charge by the defense council in a number of cases. The attempt was often made to throw me out of court, so to speak, by claiming that what I produced as plain language for the messages was merely a matter of personal opinion. Another instance of this was carried even further in New Orleans exactly one year later from the Bert Morrison conspiracy trial. The defendant s in 1934 all charged with conspiracy, numbered four"

(home office, Vancouver, British Columbia)

All had been associated in the Consolidated Exporters Corporation activities on the Gulf Coast. At this time apparently numerous press people were present during my testimony because all over the country news articles appeared in which it was stated that I had been cross-examined by the defense attorneys and the number of defense attorneys differed widely in the varying accounts. The ATLANTA JOURNAL of May 3, 1933, stated, "Seven defense attorneys jumped to their feet and protested in behalf of the 25 defendants on trial, that Mrs. Friedman's translation was a matter of personal opinion. Judge Charles B. Kennamer ruled that she was an expert at a science and permitted her to testify. Mrs. Friedman translated one message as reading: 'OUT OF OLD COLONEL IN PINTS'. Another she said, ordered transfer of the liquor cargo from one ship to another on the high seas." A New Orleans paper of May 15th, 1934 stated as follows: "Testimony of Mrs. Elizabeth S. Friedman, Chief Cryptanalyst, Treasury Department, Washington, who decoded wireless messages during the alleged conspiracy, was the high point of yesterday's session.".

Headline: "CLASS IN CRYPTOLOGY. Mrs. Friedman at the instance of the government attorney, Norman, conducted a class in solving code messages illustrating to the jury with a blackboard how experts translate into plain language the most complex of code and cipher". Complex? Code? As is told on page this was the simplest of all ciphers, a monoliteral substitution.

In a business such as mine has been, details and accuracy in details are extremely important features. Therefore, I, unfortunately, too often expected accuracy in others and after this important case was ended and I returned to Washington and newspaper clippings appeared from here and there over the country, I was

somewhat annoyed to observe that in this New Orleans case the defendents were variously 23 in number or perhaps 25, even 27; that the number of attorneys who had jumped to their feet and demanded that the judge rule out my testimony as a matter of opinion were seven, but other news items stated there were nine. These and other slight details are doubtless quite unimportant and certainly had no effect on the outcome of the case. The news item, however, which really annoyed me were those appearing in the ATLANTA JOURNAL from May 3rd to the 6th, 1933 because of the headlines attached to them. One headline read, "NEW ORLEANS COURT FREES EIGHT OF TWENTY_FIVE TRIED FOR RUM CONSPIRACY"; another stated, "DEFENDENTS SCORE AGAIN IN TRIAL OF GREAT LIQUOR PLOT". This particularly annoyed me because it was untrue. The so-called defendents score could have referred to nothing more than the fact that all of the defendents were not found equally guilty, in other words, that some of them were found, then or later, guilty of a lesser charge than conspiracy. But as far as the chief defendents were concerned, Bert Morrison included, it had been proved that he was the "land agent" of the Consolidated Exporters Corporation of Vancouver, British Columbia and that he had operated between Belize, British Honduras and various points in the United States as the arranger for the carrying of liquor into shore from ships at sea, and also arrangements with the other class of persons who took charge of the landing of the liquor and the disposing of it thereafter. Bert Morrison, I say, received a maximum sentence and all of the other chief defendents likewise received sentences commensurated with the charge of which they were found guilty.

The following year in the same month of May, that is May 1934, another trial was opened in New Orleans. This was a kind of postscript to the conspiracy case of the twenty some defendants the year before. Loose ends left over from the previous Bert Morrison, et al, conspiracy were brought to trial and a fair number of persons, at this time fourteen (but some news items said eleven) were being tried in New Orleans. The indictment in this case claimed that this particular conspiracy had begun in the early part of 1931 and had continued through the early part of the year 1934. The reader will recall that the beginning of 1934 had seen the ratification by the final state which meant the demise of the Prohibition era. Therefore, this New Orleans case was another loose end being picked up for prosecution by the Federal government. The TIMES PICAYUNE of New Orleans stated that fifty witnesses were called for the case and mentioned my appearance among them, stating that I had appeared in New Orleans before as an expert witness for the government.

Here again, news items related that the defense attorneys, this time led by an extremely important attorney in New Orleans named Edwin H. Grace, had attacked my testimony and in one case had demanded of me why certain blanks appeared in my translation of the messages. The news items stated that I had replied, "I may be an expert on secret writings, but I am not an expert on names of liquors". Defense attorney Grace had pursued the subject by demanding why the cipher word for alcohol could not just as easily mean bananas or coconuts. The news item goes on, "Mrs. Friedman replied, that once any particular cipher system is worked out, no doubt can be entertained as to any single word appearing in a sentence. You can get any other expert in the United States, said Mrs. Friedman, and he would translate these messages precisely as I have done. It is not a matter of opinion but a matter of science."

One message concerning a cargo of liquor translated by Mrs. Friedman concluded with the words, 'suggest give Grace case'. Edwin H. Grace, who with Robert B. Todd in defending the men, maintained after yesterday's session, that the message referred to the case being tried in court, although attaches of the court, the jury and others who smiled when the passage was read, apparently took it to mean something else."

I recall very well the conduct of the class, as it was referred to in the foregoing news item. The defense attorneys had more or less naggingly continued questioning for sometime trying to trick me in one way or another and one of the things they they hit upon was to state that the names of liquors, which I had used in the decipherment of the messages, were not produced. I sought an opportunity here to silence the cross-examination in a decisive manner. I turned to the judge and said, "Your Honor, is there a blackboard available to the court?" The Judge spoke to the marshal and the defense attorney directed the marshal to bring in the blackboard. I was very quickly able to demonstrate the validity of the cipher method which had been used for that portion of messages giving the names of liquors because that part of the messages was in simple mon-alphabetic excipherment. For example: THE OLD COLONEL has three ~~e~~l's and three o's. I put the words OLD COLONEL on the blackboard in caps and placed beneath the letters their cipher equivalents, thus the three o's were shown in each case to be the identical cipher letter and the three el's likewise. E, the most frequently appearing letter in English and therefore usually represented by the letter which appears most often in a frequency table of any mon-alphabetic cipher, was present here only once but there were other names of brands which of course contained one or more appearances of the letter E and by quickly looking through the sheets of paper

before me from which I had testified, my eye was able to catch quickly brand names which contained more than one occurrence of the letter E and also the word alcohol with I's and o's which when put upon the blackboard revealed the same cipher letters as had been used for the I's and o's of the OLD COLONEL which already had been placed there. By this time the defense attorneys were nervously indicating that they had had enough of this black and white proof, that is, the blackboard proof.

This demonstration in the court room by a blackboard seemed to set the press on fire. While I pursued my business quietly in New Orleans, both short and long articles were appearing in the press all over the country. Although I had not spoken with any reporters and in fact could not have distinguished reporters in the court room from any of the general public, apparently they were there, because photographs of me and articles, short and long, appeared here and there and everywhere.

This was a conspiracy case. I had been told throughout my work in this field for the government by the legal associates with whom I had worked, that the charge of conspiracy, whatever the background or specific conspiracy is, is by far the most difficult of charges to prove. Therefore, I was not surprised to learn from the newspapers, I being excluded from the court room until I was called upon to testify to whatever knowledge I had, did come from those either prosecuting or observing the case. As I said, I learned from the newspapers, for example in the New Orleans ITEM of May 2nd, 1933: 'The conspiracy case against the 25 defendants was made at a cost of about five hundred thousand dollars to the government, it was learned today and took more than a year to make. The charge is, that the ring leaders, Bert Morrison and Goldberg, and the O'Neil brothers,

Joseph Merchant employing the other defendants, operated a syndicate which owned a fleet of rum ships, hundreds of trucks and several wireless stations and shipped millions of dollars of liquor through New Orleans and this vicinity to the middle west and east."

The same article mentioned me as the star witness, "of the so called million dollar rum conspiracy", and reported Judge Kennamer's ruling that my testimony was admissible because I was an expert in a science and not a victim of my own personal opinion.

This same observation was reported in other newspapers, as for example, the following day in the ATLANTA JOURNAL, which also quoted the instance of the reading of one message: "OUT OF OLD COLONEL IN PINTS"...the message which had lead to the blackboard demonstration heretofore described. Truth of the importance of the Bert Morrision case is brought forth accurately in the following quotation from a letter addressed to the Secretary of the Treasury from Amos W. Woodcock, the celebrated lawyer who himself lead the governments case against the smugglers organization. I quote:

"I am taking the liberty to bring to your attention the unusual service rendered by Mrs. Elizabeth Smith Friedman in the trial of the largest smuggling case which the Bureau of Prohibition had made during the last two years. I prosecuted the case in the United States District Court at New Orleans.

Mrs. Friedman was summoned as an expert witness to testify as to the meaning of certain intercepted radio code messages. These messages were sent to and from Belize, Honduras, New Orleans and ships at sea. Without their translations, I do not believe that this very important case could have been won.

Mrs. Friedman made an unusual impression upon the jury. Her descriptions of the art of deciphering and decoding established in the minds of all her entire competency to testify. It would have been a misfortune of the first magnitude in the prosecution of this case not to have had a witness of Mrs. Friedman's qualifications and personality available. "

The case is referred to at some length in a memorandum from the intelligence officer at Coast Guard Headquarters to the Commandant of the Coast Guard. There are stated here truthfully and forthrightly, not only the matter of my appearance in the foregoing important case, but also the importance of the Coast Guard Cryptanalytic Section as the only agency with its purpose in the entire government outside the Army and Navy.

'There is attached hereto for your information a letter of appreciation from Colonel A. W. Woodcock, former Director of Prohibition, to the Secretary of the Treasury, highly commending the work of the Cryptanalysis Section at Headquarters in general and the work of Mrs. Friedman, Cryptanalyst in charge, in particular.....

'The Consolidated Exporters Company is by far the largest and most powerful international smuggling syndicate in existence, controlling practically a monopoly of smuggling in the Gulf of Mexico and on the West Coast. More than two years ago Special Agents of Prohibition raided the headquarters of the syndicate in New Orleans and began an investigation of the smuggling activities of this syndicate of nearly two years duration at a cost to the government of several hundred thousand dollars. More than one hundred persons were indicted, including

Bert Morrison and the ring leaders of the agency of the Consolidated Exporters Company, the headquarters of which were in New Orleans, from where smuggling activities were directed throughout the Gulf. The case against the ring leaders of the syndicate was a criminal one, the charge being conspiracy, and it was absolutely essential to connect these ring leaders with the actual operations of the smuggling vessels. There was only one way in which this could be done and that was through radio messages in code and ciphers originating in the office and illicit radio station of the Consolidated Exporters Company's agents in New Orleans, which show that the defendants actually directed the movements of the smuggling vessels.

"Hundreds of radio messages in code and cipher between the rum running vessels and shore stations had been intercepted by the Coast Guard Intelligence Office in Mobile and many more were seized by the Special Agents when they raided the headquarters of the syndicate in New Orleans. All of these messages were forwarded to headquarters where they were systematized and deciphered and decoded by the Cryptanalysis Section. When the United States Attorney went before the Grand Jury for an indictment, Mrs. Friedman was sent from headquarters as a witness, and when the case came to trial a few months ago, Mrs. Friedman again went to New Orleans as a witness for the prosecution, and, as it developed, the star witness. It is unnecessary to elaborate on Colonel Woodcock's statement that without the work of the Coast

Guard Cryptanalysis and Mrs. Friedman's expert testimony, he does not believe that this very important case would have been won. I neglected to state that the case was of such importance that Colonel Woodcock, former Director of Prohibition, was sent to New Orleans as Special Assistant to the Attorney General to prosecute the case in person."

"It is an interesting commentary on this phase of law enforcement that the Coast Guard is the only agency of the Government connected with law enforcement which has such an extremely valuable section. The Department of Justice has no such section....."

"The Bureau of Narcotics and the Bureau of Customs, Department of Justice, and other agencies of the Government, frequently send codes and ciphers to this office for solution, which was one of the aims when the unit was established -- that of making the Coast Guard known as the law enforcement agency of the Government, in control of radio intelligence and cryptanalysis."

"The letter of Colonel Woodcock to the Secretary of the Treasury indicated that this aim is being gradually achieved.

"It is suggested that the attached letter be filed with Mrs. Friedman's record in the Chief Clerk's Office."

This was my last visit to New Orleans to appear as a government expert witness. Times were changing, now that the Volstead Act had been repealed along with the Eighteenth Amendment and thenceforward there were too many activities occupying the attention of law enforcement bureaus of the Treasury Department to afford time to place on trial all the "leftovers" of the Prohibition Era.

NEW CHAPTER

"CONEXCO AND TEXAS CASES"

It has been related elsewhere that I had been sent to Houston, Texas in 1928 to solve some messages which the District Attorney there had subpoenaed from Western Union and which was expected to produce evidence of value against defendants in the liquor smuggling business who had been indicted in the Southern District of Texas. I have related that a pile of messages had been subpoenaed from Western Union which was the size of a small trunk and these messages I had sorted, classified and solved over a period of a month or more in Houston and then returned to Washington. Whenever thereafter the District Attorney's Office in that district believed that cipher messages from which they obtained evidence and leads were of the water tight nature which could be used in court against any defendant, I was again summoned to Texas.

I appeared in one case there in June of 1930, having been requested by the United States District Attorney of the Southern District of Texas to appear in the court session which was to be held in Galveston for the trial of three men who were charged with not only conspiracy but the actual operation of smuggling of liquor from Belize, British Honduras, to the Texas coast. I arrived in Galveston about 9 am on a Monday Morning; the Assistant United States Attorney met me at the railroad station and we went directly to the court room. Judge J. C. Hutcheson was already on the bench and the clerk of the court was going through the roster of cases which would be heard.

As I sat in the back of the court room with Malcolm McCorquodale, the young Assistant District Attorney, I heard the names of defendants: "French" Arnautou, Joe LaRosa and John Ratliffe known as "Little Business"; when these names were read off by the clerk of the court, the young District Attorney nudged me and said, "this is the case in which you appear".

Judge Hutcheson, as is customary, requested the attorney or attorneys for these defendants to rise. I looked toward the front of the court room to take a look at the defense counsel whom I would face when on the stand. To my astonishment, to put it as mildly as possible, I saw standing up and turning to face the Judge, thus giving me a quite clear look at the profile of this person, a very buxom young woman, highly colored as to complexion, with flashing black eyes and hair, and, horror of horrors, shifting a wad of gum from one side of her mouth to the other as she addressed the Judge, acknowledging that she represented the defense. I whispered to Mr. McCorquodale, "who in the world is that?" He smiled and replied: "there is quite a story here, I will tell you when there is a court intermission".

There was a court intermission declared by the Judge at the end of the recital of cases and after Judge Hutcheson knew what was ahead of him in this session of court for the Southern District of Texas. I could hardly wait to hear the story of the woman attorney. Her name, it appeared, was Sadie Bevalacqua, a local girl of Italian parentage who had grown up and been educated briefly in the Galveston schools. At this late date, I cannot recall whether or not she was a high school graduate but if so, that had been the end of her education. She had married one of the local characters whose business had been that so common in Galveston during the Prohibition era. His friends had been the

characters whose names had now been appearing for some years as defendants in trials for felony, conspiracy, for smuggling liquor and the like. Whether the man Sadie married actually was a smuggler himself, I do not recall but certainly the associates with whom he and his buxom young wife, Sadie, comported themselves, I was told, had been of the above mentioned class.

There had come a time when Sadie's husband felt that he had made enough money that he would take his beautiful young wife to his homeland, Italy, which he did. When they returned to the United States, our immigration service had not permitted Sadie's husband to re-enter the country and he had been sent back to his homeland, never to return. The young wife, however, having been born in America, was found to have a quite-in-order passport hence she was admitted. She returned to Galveston, her native city. Whether her motive for entering upon law practice was the need of money or simply her attempt to show her friendship for the former associates of her husband and herself, I do not know. But I was told that Sadie Bevalacqua presented herself to the elderly bearded group of men who constituted the Texas Board of ^{examiners} who constituted the sole authority to say whethor or not any person could practice law in Texas. In that period it was totally unnecessary and definitely not required by law for a person to have gone to any type of law school or college nor indeed had to have even passed an apprenticeship in a practicing lawyer's office - it was entirely up to the state Board of Examiners, who if they were pleased by the applicant who appeared before them for oral examination alone, would deny or grant a license to practice law. I perhaps am cynical, but I inferred from this story that Sadie's appearance and her vocal affluence, her pertness in verbal attack and the like, had so pleased the Texas Board of Examiners, that her license to practice was granted, hence she had launched her practice by defending such men as the present

accused, whom I would have called underworld characters. Thus a modern version of "Susanna and The Elders" came to life in Texas in the Roaring Twenties.

Of course, the Prohibition era took thousands of people into illicit operations who would definitely would not have been underworld characters if it had not been for the unpopular feeling generally held against the law, the Volstead Act.

There was considerable argument in the Galveston courtroom when the United States Attorney, M. H. Holden, wished to introduce the telegrams passing between Belize, Galveston and New Orleans which Mr. Holden maintained in part were proof of the conspiracy charge: an argument which was continued into the second day, Judge Hutcheson having maintained that a "connection" between the persons named in the telegrams and the defendants must be shown. Finally, however, he agreed to permit the cipher telegrams to be introduced. I recall as I was sworn in and took my place in the witness chair, I observed the jury. I was convinced that they had neither the education or the native intelligence to understand the significance of the messages about which I was to testify. In fact, I recall observing them carefully while I sat in that chair waiting for some discussion (haggling, I personally should have called it) between the United States District Attorney and the defense counsel until the Judge made a final ruling that I would be heard. I remember thinking as I observed the jury during this period that they were probably persons as is all too often seen on juries who would decide a case on the color of a necktie that someone such as one of the defendants or the District Attorney wore, or whether or not the jury liked or disliked a defendants appearance or felt that he had a raw deal in some minor detail of the conduct of the case, or some other irrelevant

point. However, I was determined, if possible, to make an impression upon them. Therefore, I was very careful to speak in monosyllabic words, to omit the mention of all technical terms, and to keep my testimony to the bare essentials which I felt would be comprehensible to such a jury. |

At the end of my testimony, Sadie Bevalacqua, of course, was told she could cross-examine. The word which had been used in these telegrams concerning purchase and shipment of liquor in cases was the simple code word "cocoanut". It will be recalled that the code word "cocoanut" had been heard in the New Orleans courts. The remainder of the messages had been in a more or less simple cipher system. I recall that Sadie Bevalacqua had asked me concerning a message which had stated, "advising can't send more than 10,000 cocoanuts", from the Melhado brothers in Belize to an alias of one of the defendants. Mrs. Bevalacqua, in her cross-examination, asked me, "if I knew whether Melhado and Son raised cocoanuts." I smiled, and said, "no, of course I did not know". The smile was caused, of course, by the fact that the Melhado brothers were well known to be in the liquor business and the largest importers and exporters to liquor smugglers of any place in the North American hemisphere, outside of Vancouver, British Columbia. It was not fitting, however, for my general knowledge to be brought forth by me voluntarily, and so I kept silent. Then Mrs. Bevalacqua said to Judge Hutcheson, shifting the ever present wad of gum from one side of her mouth to the other as she talked, "But your honor, this 'code' and this 'cipher': I do not understand." Whereupon the Judge quickly turned to me without waiting for the defense counsel to go further, and directed me in a commanding voice, "please explain".

Here was my chance for some fun. I instinctively set forth on a period of verbal harassment of the bold defense counsel after having been so gentle and so careful in my handling of the jury. I thereupon, after the judge's command, launched into an explanation of the terms code and cipher which I loaded with as many technical terms as possible and made as complicated as possible. Directly addressing Mrs. Bevalacqua, I was hardly able to conceal my amusement as I saw her, like a drowning sailor, sinking underneath my barrage of polysyllabic phraseology. Sadie Bevalacqua struggled to her feet after about three minutes of my discourse and said, "I object". This statement on her part brought some laughter in the courtroom, for an attorney does not object to an explanation which the attorney herself had demanded. However, Judge Hutcheson was not amused. He pounded his gavel to silence the courtroom and directed his then very vocal command to Sadie Bevalacqua herself saying in a resounding voice, the overtones of scorn barely concealed, "You asked for this explanation, now you're going to listen to it". Then turning to me he commanded "proceed", which, of course, I did with no lessening of my enjoyment of the experience.

The outcome of this particular case was not to the satisfaction of the United States Attorneys. Judge Hutcheson instructed the jury that there had been no proper connection traced between the cipher telegrams and the defendants. This, however, did not invalidate my testimony but simply proved that the District Attorney's office had not produced sufficient evidence to show that the aliases used in the telegrams were really those belonging to the three defendants.

However, this case was immediately succeeded by another where a considerably larger number of defendants were tried. In these Galveston cases, as elsewhere, and as had Sadie Bevalacqua in the case just described, my testimony was always challenged as being a matter of opinion. Judge Hutcheson, of course, did not agree with this, as in all other cases wherever they were wherein the defense counsel had raised such an objection. Mrs. Sadie Bevalacqua was also overruled.

Judge Hutcheson was shortly thereafter appointed to the United States Court of Appeals in New Orleans, Louisiana where, so far as I know, he remains to this day. I had been told by the young assistant U. S. Attorney in Galveston when he related to me Sadie Bevalacqua's background story, that Judge Hutcheson was an extremely scholarly man and that he, Judge Hutcheson, actually suffered when he had to hear cases where defense counsel such as she appeared. Perhaps it was this feeling on his part which had moved him to command me to make the explanation which I had made on the witness stand, and also to silence her in such manner when she attempted to object to my answer to her own question. A few years later, I happened to see Judge Hutcheson in the Mayflower Hotel in Washington. I went up to him and greeted him explaining who I was and when I had first met him, and recalled the circumstance of my period of fun at Sadie Bevalacqua's expense. Judge Hutcheson then related to me that Sadie had a year or two before been presented to the Supreme Court of the United States for license to practice before that most august law body in this country, and had been granted this privilege. She had been a successful practicing attorney in and around Galveston for some years, although the liquor smuggling days were over. But there, as elsewhere, those who had learned the ways of the easy money

in the liquor smuggling game, doubtless continued in allied branches which also afforded easy money gains. At any rate, Sadie Bevalacqua had not lacked clients.

