

History

of the

U. S. Food and Drug Administration

Interviewee: Tom Bellis

Interviewer: Robert G. Porter

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INTRODUCTION

This is a transcript of a taped oral history interview, one of a series conducted by Robert G. Porter, Fred L. Lofsvold and Ronald T. Ottens, retired employees of the U.S. Food and Drug Administration. The interviews are with persons, whose recollections may serve to augment the written record.

It is hoped that these narratives of things past will serve as one source along with written and pictorial source materials, for present and future researchers. The tapes and transcripts will become a part of the collection of the National Library of Medicine.

RP: The date is July 24, 1984. This is a recorded interview with Tom Bellis at his home in [REDACTED] Tom retired from the Food and Drug Administration in 1972 as a Food and Drug officer in the Office of Regulation Making.

Tom, I'm going to let you do most of the talking today. I wonder if you would start out with a thumbnail sketch of your education and your career with the Food and Drug Administration so that we'll know just who you are.

TB: Okay, Bob. I attended college at what is now called the Southeast Missouri State University in Cape Girardeau and received a bachelor's degree there. From Southeast Missouri State University, I went to the University of Cincinnati and received a master's degree in physical chemistry there. From the University of Cincinnati, I returned to Cape Girardeau and was an assistant professor of chemistry at Southeast Missouri State University until the summer of 1934. While I had been a student in Cincinnati, I took a Civil Service examination as a junior chemist, and in the summer of 1934 received an appointment as a seafood inspector with the Food and Drug Administration. I got a temporary leave of absence from the faculty in Cape Girardeau and reported for duty as a seafood inspector in Biloxi, Mississippi. As I recall, it was in September of 1934. The seafood service was just getting started then, and there were at least four men who had already received some training as seafood inspectors. One of them was Bill Stokes, another was Jimmy Skipper, and another one was Walter McRae. I don't remember the fourth.

We reported to Charles W. Crawford at the Riviera Hotel in Biloxi. He was training the new men to become seafood inspectors. After something over three years as a seafood inspector, I was transferred to Chicago as a Food and Drug

inspector. I worked two years in Chicago as a Food and Drug inspector, and then was made the resident inspector at the substation of the Food and Drug Administration in Omaha. That substation was under the direction of Kansas City. I was in Omaha as a field inspector with the Food and Drug Administration until Memorial Day of 1941. At that time, I was asked to come to Washington and join the staff of Mr. Crawford, who I believe was then called the chief of the Interstate Division. Walter G. Campbell was the chief of the Food and Drug Administration.

I was in Mr. Crawford's staff until past Pearl Harbor Day. Then I was sent by the Food and Drug Administration to the Board of Economic Warfare. It had a slightly different title then--it had been called the Defense Board--but shortly it was the Board of Economic Warfare. The chairman of the Board of Economic Warfare was the vice president of the United States, Mr. Henry Wallace.

I was sent in the summer of '42 to South America and established a laboratory for the analysis of cinchona bark for quinine and related alkaloids in Bogota, Colombia. I ran that laboratory until December of 1945. We managed to get from the wild trees of the Andes some 2 million ounces of quinine, calculated as quinine sulfate, which was needed by the army because of the soldiers going into malarial regions in the war.

I came back to Washington in January of 1946 and was assigned to the Food Standards unit under Joe Callaway. That was, in turn, under Mr. Crawford's overall supervision. I worked in that unit until 1950. We then undertook the establishment of pesticide standards. After Mr. Callaway retired about in 1960, I was the one in charge of the Food Standards work, and was called the secretary of the Food Standards Committee. The Food Standards Committee was

composed of representatives from a number of the state agencies that had responsibility for food regulation. My work from about 1950 until I retired was altogether in standards work.

At the time I came to Washington, I almost immediately saw that I needed to have legal training, and enrolled in George Washington Law School, and in 1948 received a degree in law from George Washington Law School. In 1949, I got my jurist doctor's degree from that school. That year also I was admitted to the bar of the District of Columbia and to the bar of the Supreme Court of the United States. So in the latter years of my work for the Food and Drug Administration, my work was more legal than scientific.

I think that, Bob, is kind of an outline of my career.

RP: Good. Tom, I want you to talk about the things you want to, but it seems to me that you might like to tell us something about the early days in seafood inspection, and then surely you have some good stories of the times you were in South America. What we'd like to get here are not so much the kinds of things that somebody can already look up and find in the old files. Let's try to get some stories about people, interesting things that happened, how you went about something, problems you had and how you solved them. With that in the back of your mind, why don't you start back now to the beginning and fill in a little?

TB: I think it's appropriate in 1984 to turn our minds back to fifty years ago, to 1934. I would like to report some of my recollections of that period and the development of the seafood service of the Food and Drug Administration. A good

many years ago, a number of years before 1934, it was found that the abundant shrimp in the Gulf of Mexico could be preserved by canning.

At first the fishermen used seines to seine out the shrimp. Then they developed a fishing device called an otter trawl that was towed behind the fishing boats and could catch great quantities of shrimp in the gulf waters. That was before there was very much preservation of seafood by refrigeration and freezing, but there had been developed a considerable business in the canning of salmon on the West Coast, and some of tuna. Canning of shrimp got started on the Gulf Coast. Dunbar-Dukate interests were among the pioneers in the canning of shrimp there.

The town that was a center for the canning of shrimp was Biloxi, Mississippi. The shrimp canners were very dependent upon credit to operate. They had to pay for the shrimp that came from the shrimp boats, and they had to pay for labor. It was a labor-intensive industry. They developed the practice--I think it's pretty general--of using their canned product deposited in a bonded warehouse as collateral for borrowed money that was used in operating their cannery. The canning season was fairly short; it began in about September of the year and ran on past Christmas. Then there was a period when they didn't catch very many shrimp; and then later on in spring they had another run of shrimp and it ran up until possibly June. The distribution of the canned shrimp was fairly uniform throughout the year. So being able to borrow money on the product that had been canned in anticipation of sale some months hence was very essential to the business.

With the Depression, which came along the Gulf Coast a little later than it did in the East--in the East it started in '29; on the Gulf Coast it was real bad

in '32--the canners became pretty careless in the way they handled shrimp. Shrimp is a very fragile seafood. They die not long after they're taken from the water. There's an enzyme in the digestive tract of the shrimp that attacks the shrimp, and also bacterial contamination occurs. So shrimp can undergo a decomposition, and that decomposition produces some toxic substances, degradation products of the protein.

One of my earliest memories of canned shrimp was of an outbreak of food poisoning in Paducah, Kentucky. There's a large hotel in Paducah, the Irvin Cobb Hotel. A number of their clients were made sick from food poisoning, which was traced back to canned shrimp. The Food and Drug Administration felt it had a responsibility to look into this, and so they investigated the practices of canning shrimp. One of the investigators was Lawrence Strasburger, who was a bacteriologist, a graduate of the University of Maryland; and another was Herbert Switzer, who was a graduate of Purdue University in Indiana. Switzer was the older of the men and had more experience. He had worked in the crab-meat industry at Chesapeake Bay before he came down to work on shrimp.

Switzer and Strasburger permitted shrimp to undergo decomposition and canned them in various stages of spoilage, and developed a competency to identify canned shrimp that had been canned from seafood that had undergone substantial decomposition. We called it an organoleptic test; it depended largely upon their sensitivity to the odors of the canned shrimp.

After they had done their preliminary work, they went to the warehouses in Biloxi, Gulfport, and elsewhere along the Gulf Coast, drawing samples of canned shrimp that were there in the bonded warehouses. They found that a lot of the canned shrimp that was intended for distribution was really unsafe for people to

eat. Shipments made interstate from those warehouses were reported, and seizures were made to prevent the canned food from going into the channels of consumption. Those seizures were made pursuant to Section 10 of the so-called Pure Food and Drug Law of 1906.

After a few seizures had been made, the bankers refused to accept canned shrimp as security for loans. They had lost money on some that they had held as a chattel to cover their loans. And when the bankers refused to extend further credit on canned shrimp as the security, the canners were in a very difficult position. When the canners could not afford to continue to operate, they laid off a lot of people who had worked in the canneries, a lot of fishermen were out, and it was a very bad situation.

So the canners, the leading members of that industry, decided that they needed some protection against the seizures that were being made subject to Section 10 of the Food and Drug Law. One of the leaders of the group was a Dalmation man from Biloxi named Steve Sekul. A group of the canners came to Washington to take up their problem with their senator here, Senator Pat Harrison. Pat Harrison was a senior senator from Mississippi and was a resident of Gulfport, which was one of the shrimp cannery centers. They got to Washington in the early summer of 1934. They got in to see Pat Harrison. But Pat Harrison had been made the chairman of the Senate Finance Committee, and that was at the time of the New Deal era. That committee was overloaded with work.

Pat Harrison listened to their problem and wished them off on the junior senator from Mississippi, who was Hubert Stevens. With Hubert Stevens, these men developed proposed legislation to cope with their problem. They knew something of the Meat Inspection Act, but they concluded that they did not

want to have their industry regulated under the Meat Inspection Act. They developed an amendment to the Food and Drug Law, and they amended Section 10. Section 10 of the Food and Drug Law was a section that had to do with the seizure of articles which were not entitled to use channels in interstate commerce. The Seafood Amendment was Amendment 10(a).

It would strike a lawyer reading the law as rather peculiar that this section concerned with seizure by the rules of admiralty law should provide for a voluntary inspection of seafood plants, but that's the way it came about. The amendment that was sought was enacted by the Congress of the United States, and became law on June 22, 1934, which is almost fifty years and one month ago now. Enforcement of the amendment was placed under the Food and Drug Administration, which was under the old Bureau of Chemistry. It had only been known as the Food and Drug Administration a couple of years then.

Walter Campbell, the chief of the Food and Drug Administration, designated Charles W. Crawford of his staff to go down to the Gulf Coast--New Orleans, Biloxi, and along there--and develop a set of regulations and put into effect a seafood inspection service. Mr. Crawford got a young Food and Drug inspector from Chicago named Malcolm Stevens as someone to work with him in developing these regulations. Mr. Crawford himself wrote the regulations for the seafood inspection work. Also he, with the assistance of Switzer and Strasburger, developed a manual for the use of inspectors which was not actually a regulation, but were guidelines for the inspector to use.

We were trained there in Biloxi--or I was; several others were trained there--at the Riviera Hotel in Biloxi. My first assignment for a seafood cannery under my jurisdiction was for the Mavar cannery. Adjacent to it was the Anti-

cich cannery, and Walter McRae was over at the Anticich cannery. We worked together somewhat because the two were contiguous.

After I'd been at the Mavar cannery for, oh, a month or thereabout, I was moved over to Houma, Louisiana, the Pelican Lake Fish & Oyster Company in Houma. After that I was assigned to the Indian Ridge Canning Company, which was down at the mouth of one of the bayous called Little Callioux out of Houma.

It was practiced then, and advocated by Mr. Crawford, to have inspectors only spend a month or two months or so at a cannery and then move them along. You didn't want to develop any very close negotiation between the inspectors and the men that ran the canneries. That was a very wise move on the part of Mr. Crawford. You had chaps like me that came down to be seafood inspectors who were from an altogether different environment. It was easy for a new man to cease to be as objective as he should be and have the authority that seafood inspectors had. A seafood inspector could actually close down a factory if he saw fit to do so and could support his charge.

From the Mississippi-Louisiana canneries, I was sent down to the Texas canneries. I worked at Crawford's Canning Company in Palacios, Texas. Then in the summer of '36, I went to Aransas Pass and took over the cannery that had been under the direction of Bill Hays. Bill had developed some kidney trouble, and he was not able to go to the cannery. So I was sent down.

The day I arrived in Aransas Pass, Bill was put into the hospital over in Corpus Christi. I talked with the urologist who was attending to Bill, and he said that he was going to have to perform an operation. So on the first day I was in Aransas Pass, I recruited some young men to go over to Corpus, which

was only thirty miles away, to be checked for their blood types to see if they could furnish a blood transfusion for Bill. That was before you had blood available from the Red Cross. My own blood didn't match Bill's, but we did get a boy in there that had a good match for Bill's blood and got a transfusion.

(Interruption in tape)

RP: Okay, we're back on. Would you repeat that last sentence?

TB: Yes. I talked to the urologist, who was trying to perform the operation on Bill, and asked him if it was possible to try to save the infected kidney. The next day they did the operation and after the operation he told me that it was impossible to save the left kidney, that he had remove it altogether. That was before you had Medicare, Medicaid or before very many people had health insurance, and the bills were running up. So after a few days, I'd say about five days, Bill and I managed to talk the physician into letting him come over to the hotel in Aransas Pass and let me take care of him there. That's the way I got acquainted with Bill Hays. I took care of Bill until he was able to go back to New Orleans and regain his health; he went ahead as a seafood inspector.

RP: I've heard Bill tell me more than once what you did for him at that time.

TB: Well, I was awful happy to be able to do it.

Getting back to the story about the seafood inspection service. After we had been operating a few months, substantially all the cannerys of shrimp, not

only along the Gulf Coast but those along the South Atlantic Coast, decided that they wished to have the voluntary inspection service extended to their plants. The staff of the seafood inspectors increased, I would say, to about sixty men. It didn't cost the packers very much; the banks were assured by the legend on the labels, "production supervised by the U.S. Food and Drug Administration," so that canned shrimp from inspected canneries were very good collateral for loans. The fishermen for the most part became enthusiastic for the service, I would say. Boats were cleaned up, canneries were cleaned up, people who worked in the canneries were required to wash their hands every time they came back from being out of their picking room or packing room, and the seafood service was, I think, quite a success.

After four or five years, however, the need for a government agent to be there to supervise and see that things were going according to the regulations that had been established lessened, and the seafood service worked itself out of a job. There is no seafood service now, although the legislation still exists and it could come back. But there was no reluctance on the part of the Food and Drug Administration, I believe, to give up the seafood service. Many of those who were hired in the seafood service served as a very good source of personnel for the labs and for the Food and Drug inspection staff for the whole country. I was rather proud of the fact that I was one of the pioneers in that seafood inspection work.

I was made a Food and Drug inspector while I was still in New Orleans; I was changed from the staff of the seafood service to the general Food and Drug inspection staff. And in the spring of 1937 we in New Orleans began to hear about something called Elixir of Sulfanilimide put out by a company in Bristol,

Tennessee called the Massingill Company. I received assignments to go out to seek samples of Elixir of Sulfanilimide. Sulfanilimide was one of the first sulfa drugs brought to this country; it was brought over here from Germany. Its earliest form was called prontosil, which is an injectable drug. Drug sales from detail men in the south of our country, where they had lots of Negro patients, didn't find the form of the sulfanilimide very acceptable. The people didn't like to have injections. They asked the Massingill staff if they couldn't furnish this same medication in what they called a tonic, a liquid form.

So the company undertook to respond to this demand and asked their man who was their research man down in Bristol, a doctor, to try to get a liquid form of sulfanilimide. It wouldn't dissolve in water and for some reason they found it not advantageous to use alcohol. That director of laboratories found that the sulfanilimide powder would dissolve quite well in diethylene glycol. Diethylene glycol is the thing that we call Prestone as an antifreeze. It's one of the glycerin-like products. It developed later on that the doctor who had recommended that the product be dissolved in diethylene glycol was not an M.D. but a doctor of veterinary medicine. He didn't know very much about diethylene glycol. He didn't run any tests or anything. They made up 128 gallons of solution that they called Elixir of Sulfanilimide. Under the U.S.P. an elixir was an alcoholic preparation and this was not truly an elixir. It was distributed mostly in the South, a lot of it in Mississippi State.

We who were on the Food and Drug staff in New Orleans station had to recover as much as we could of that 128 gallons. I received assignments to trace it out. Massingill had a peculiar mode of distribution. They didn't go through wholesale drug houses. They went through detail men who distributed directly to

physicians. I was informed that there had been a distribution up in Mississippi. I've forgotten the name of the town now, but it was north of New Orleans. I went up there and in the course of that investigation was informed by the physician, who had been using the Elixir of Sulfanilimide as an anti-gonorrheal drug, of deaths that had occurred. I reported eight death certificates of people who had died from the taking of Elixir of Sulfanilimide.

It was not at that time known that the causative agent was a solvent. That was worked out in the University of Chicago by a pharmacologist by the name of Dr. Geiling. Dr. Geiling used the samples that we had collected and worked with dogs and found that it was the solvent, the diethylene glycol, which, when it hit the kidneys of the dogs, would destroy the tubules in the kidneys. That was the culprit.

The result of that episode which was reported in a report by the Congress-- I don't remember the number of the report now but it's easy to look up--was that at least 107 people had lost their lives by being given by their physicians this Elixir of Sulfanilimide. It was such a shocking thing that it had a strong influence on the passage of a new Food and Drug law. The law of 1906 had been pretty generally called the pure Food and Drug Act. The new law was expanded to take care of cosmetics as well as foods and drugs. It coped with this problem that was raised by the Elixir of Sulfanilimide by providing a section that required that so-called new drugs had to be tested for safety before they were introduced into the channel of commerce. Pre-distribution testing was only for safety and it was not until after the Thalidomide episode of 1961, as I recall, that pre-distribution testing extended to efficacy. But the Elixir of Sulfanilimide episode, in which I had some minor role, was of great significance in

changing the law. The Elixir of Sulfanilimide episode occurred in early 1937 and Congress did not enact the Food and Drug Cosmetic Act for more than a year later. It was in 1938 before that was enacted. But it was influenced very greatly by this Elixir of Sulfanilimide episode.

I'll skip over experiences as a Food and Drug inspector in the Midwest. Coming to Washington, I came over here and joined Mr. Crawford's staff. I worked in regulations, primarily regulations for establishing definitions of standards of identity and standards of quality and standards of filled containers for foods. We established a standard for oleomargarine, for example, which was patterned pretty closely after the 1923 Burr Act of the Congress, providing that food should contain not less than 8 percent fat. We had to take that case to the Supreme Court of the United States to make it stick, but the Supreme Court upheld our standard on it.

I worked on the standards for enriched foods. The first one was enriched flour. And from that, it went over to a number of other enriched foods.

RP: Can I interrupt a minute, Tom? Where did we get the authority for food standards, and why did we get it?

TB: The original 1906 law did not authorize the establishment of food standards. But it was almost mandatory that there be a recognition of standards for foods. So we depended in the early days on trade understanding of what, for example, was strawberry preserves.

I was involved in a lawsuit in Chicago on the fruit preserves standard in 1938. The courts were not very willing to accept standards for foods developed

by common understanding within the trade. We lost the lawsuit that I'm talking about in Chicago on that basis. The judge said he would not permit competitors of the company that we had charged to appear and testify in his court as to what would be the composition of fruit preserves, placing at peril the man whose views differed from theirs.

The first legislation for the establishment of food standards, had its origin in the National Canners Association. An amendment to the Food and Drug law of 1906 was passed in 1930, which was called the McNary-Mapes Amendment. The McNary-Mapes Amendment did give authority for establishing standards for a number of foods, primarily canned foods, excluding meat products. So some work was done on food standards then. And the National Canners Association supported in the bill, which became the Food, Drug, and Cosmetic Act of 1938, the incorporation of a section which authorized the Food and Drug Administration by administrative law hearings to establish standards for food. I think it's been a very advanced position to take.

Later on in my career, when I was sent on various occasions to Spanish-speaking America, South America and Central America--I had several assignments down there--we were able to persuade those countries to accept the standards that we had established for foods. They have some food standards in Latin America now. The impetus for them came from the United States.

RP: Tom, did you play any part or remember any instance in regard to the passage of the new law, as it related to food standards, or anything else?

TB: Not a great deal. At that time, 1938, I was a Food and Drug inspector in the Chicago staff. I do not remember that anything I did in that assignment had anything to do with putting food standards provisions in the law that was enacted in '38. However, just after that law was passed, we in the field received a number of assignments to collect authentic samples, in some instances prepare authentic samples, for developing evidence to be used at the hearings which set food standards.

In Lincoln, Nebraska, I put up authenticated samples of uncured cheeses that contributed to evidence in the hearing that set the standards for cottage cheese, creamed cottage cheese, creamed cheese, Neufchatel cheese. Samples that I put up, however, in Lincoln were in the cottage cheese category.

RP: What do you mean by an authenticated sample?

TB: That the product was made in a factory under the personal observation of the Food and Drug inspector, and all the constituent parts of the prepared food were sampled, sent into the laboratory, and it was a sample which you knew the full history on. That is, I think, the proper way to go about a factual investigation, which these were.

One of the things that was done right early in the food standards work, and this was the idea of Dr. Ben White, who was the chief of the Food Division of the Food and Drug Administration, was to establish what was the composition of milk in the United States. I'm talking about a long time ago, almost fifty years ago. The distribution of milk then was . . . Milk was placed in bottles and was hauled around in early hours of the morning and left on doorsteps. Ben White

thought that if we could establish what is the average composition of doorstep milk in the United States--doorstep referring to this milk that was distributed in these bottles--that that would stand in good stead for all of our work.

So one of the things that we did was to go to the milk distribution plants, the dairies, and get the samples of milk that were ready to go into the bottles--some of the samples of the doorstep bottles--and get a lot of information as to the quantity of the distribution. That assignment extended to the whole country. We established that the milk-fat composition of the average doorstep milk for the United States was 3.375 percent milk fat. Some states required more, some states required less. There was a good deal of confusion. But that was a job that was thoroughly done, and I believe almost everyone after that would refer back to it--that is, what does milk mean when you say milk?

I received an assignment in Washington in late 1941 I believe--it was cold weather, as I recall--from a new unit of government which had to do with the planning for war defense. They asked that the Food and Drug Administration find out how much quinine, as quinine sulfate, and how much cinchona bark was available in the United States. That was even before Pearl Harbor, but just shortly before Pearl Harbor, and I'm sure that the army who originated this request anticipated they might have need for it. It came to the office of the commissioner, and for some reason--I don't know; just happenstance, I guess--it was assigned to me. I undertook to collect data on that question.

On the basis of that, after Pearl Harbor a bit, the folks in the Board of Economic Warfare concluded that they needed to go back to the original sources of cinchona bark, the wild trees of the Andes. They came to Commissioner--by then we had changed the title from chief of Food and Drug Administration to

commissioner of Food and Drug Administration--Campbell, and asked for me by name, because I had collected some data that they had seen. A fellow named Atherton Lee was the one who came over and asked for me.

I was working with a lawyer who later lost his life in the Second World War. I've forgotten his name now. I was down in his office when I got a call to come to the office of the commissioner. I came up to the office of the commissioner, met this fellow Atherton Lee, and before I hardly knew what was going on, I had been assigned by the Food and Drug Administration over to the Board of Economic Warfare to help them in this program of collecting cinchona bark from the wild trees of the Andes.

The first records we have of cinchona trees were in Peru. The seeds from some of the better trees of Peru were taken by the Dutch out in the Dutch East Indies--Java, and that area around there--and made into a cultivated crop. But with the attack of the Japanese, Java fell about the time the Philippines fell. As a matter of fact, there was some cinchona being cultivated on the Philippines, too. We lost that, so we had to go back to the wild trees. The cultivated trees were fairly rich in alkaloids, around 5 or 6 percent. The bark of the wild trees was much poorer, more like 3 percent. But we went back to the Andes and the laboratory I established in Bogota was the principal laboratory that we had down there.

There was a movement on the part of the military--the army sent a couple fellows down--to do the extraction of the alkaloids from the bark in South America. I opposed that. I felt that the wise thing to do was for us to get the bark, ship it to the United States, where we had better facilities already in existence for the extraction of the alkaloids. My recommendation was accepted

on that one. One of the objections to it was that the Germans had U-boats in the Gulf of Mexico and the Caribbean Sea, and it would sink the boats. We only lost one shipment from that source in all that time. The army had indicated that the thing to do was extract out the alkaloids and then haul it up here by air, but that was, I thought, a very extravagant way to cope with the problem. And we didn't do it that way.

In 1950, the Food and Drug Administration finally got around to having a hearing to establish tolerances for pesticide residues in foods. It had been authorized since '38, but we had not really formally established pesticide residues. They had some carry-over tolerances for residues of arsenic and lead, and there was an informal tolerance for DDT. Mr. Crawford assigned me to monitor that operation. I was a witness at that hearing, and eventually developed pesticide residue tolerances under the Food and Drug Law. Not long after that, however, the government underwent some reorganization. That work is now handled by a new unit of government; it's no longer handled by the Food and Drug Administration.

(Interruption in tape)

RP: Okay, we're ready when you are.

TB: Frank McFarland went with this new agency of government, the Environmental Protection Agency, and the administrator in charge of that agency was Mr. Ruckleshouse who is now the commissioner for the Environmental Protection Agency again.

I would say that the greatest contribution I was able to make was in Spanish-speaking America. After the war, when I was back here, I had a limited Fluency in the Spanish language, and I was used for a number of assignments in Central America and South America and tried to encourage the people in the government there to do some of the things I had learned were important to consumer welfare in this country

The last year of the Batista regime in Cuba I was sent down to Havana to make a survey and a recommendation as to whether or not this country should spend what were called point-four funds in helping them to establish an agency of government like the Food and Drug Administration. That was after Fidel Castro and his rebels were in the mountains of the eastern end of the island, and I was warned by the embassy not to carry my investigations over into the mountains of the east, not even Santiago de Cuba. But I was able to survey their food and drug industry pretty well around Havana. Havana is the principal city.

As a result of that investigation I made a recommendation to the Department of State, which was adopted, that the United States government should not appropriate four-point funds to be used to establish an agency in the government of Cuba comparable to the Food and Drug Administration up here. My reason for that was that I was able to establish to my satisfaction that they did not have a civil service in their country and that if they had additional authority it would be abused and misused. I did not want to be a party to such a program. I didn't want to see inspectors going out and demanding bribes and things like that, which I felt would happen if they set up a food and drug administration.

The last Latin American assignment I had was for the Republic of Panama. On that assignment I undertook to train, in a limited way, primarily food inspectors for Panama. One of the things I did while I was in Panama was to visit their shrimping industry. I have a vivid recollection of being in a plant in Panama City where they had wooden paddles they were using to handle the shrimp. These paddles had soaked up the liquid that comes out of shrimp, high in protein, and that had undergone decomposition. I had seen that kind of stuff before. Those paddles were terrible. I ordered them to be destroyed and hoped that they went over to the impervious paddles made of metal. I'm not sure they did.

I went to a cannery that canned sardines. I've forgotten the name of the town now, but it's west of Panama City on the Atlantic side. We came in and word went through the plant by the grapevine pretty fast that the food inspectors were here and that they had some food man from Washington along with them. We went to where a boat was unloading, and when we came back I saw a chap going around throwing a white powder, particularly around behind places. I thought he was spreading lime. They sometimes use quick lime to cut down on bad odors around a plant. I examined that. It was not a lime, but powdered DDT. He was just throwing it around like he was spreading lime. After I found out it was DDT, I pointed out the danger of that and they discontinued it.

I was first in Latin America on this cinchona assignment. I had worked a little bit along the Rio Grande Valley, but my first real assignment was on cinchona. We had a policy that was called the Good-Neighbor Policy, a policy that was headed up by a chap named Nelson Rockefeller under Henry Wallace. Under the Good-Neighbor Policy, we frankly admitted to our friends down in the Andes

countries that they had some things we were very badly in need of. Cinchona was one of them. Good quartz crystals was another one of them. We used quartz crystals to make the crystals in the radio sets we used in tanks. In the Amazon Basin they had natural rubber, and we had need for natural rubber. Approaching those people down there, I got acquainted with the president of the country of Colombia, Alfonso Lopez, saying, "We have some things we can do for you; you have some things you can do for us. Let's be good neighbors and exchange." It worked out pretty well and made a pretty good policy, I think.

Later on we had a policy that was enunciated by President Kennedy called the Alliance for Progress, in which we undertook to help our neighbors to the south to be more progressive in their agricultural practices and manufacturing practices. That was a good policy. I feel that we ought to go back to good-neighborhoodness. I am very much concerned about recent developments where we send devices down to kill people and send trainers down to teach them how to kill more people. I think it's not a good thing for our country to be promoting those bad developments in Central America especially. But I don't have very much to do with that. It's beyond my competency.

It's now 12:30. I suspect we'd better have our sandwiches.

(Interruption in tape)

RP: Tom, now that we've had our lunch we're ready to start again. I think you had an incident you were going to talk about.

TB: Yes. In the early months of 1942, Walter Campbell, the commissioner of Food and Drugs, received a telephone call from a Dr. Meyer in Washington saying that he had had a prescription filled which had, he thought, produced some untoward results when he gave it to some patients. And he gave the name of the pharmacy where the prescription had been filled.

Mr. Campbell called George Larrick in and asked him to investigate this complaint from Dr. Meyer. George Larrick came to Mr. Crawford and asked Mr. Crawford if I could not be assigned to do that task. Mr. Crawford gave permission. I talked very briefly with Mr. Campbell about it and went to the pharmacy where the prescription had been filled and looked up the prescription which was for the morphine-derivative drug, dilaudit hydrochloride.

We found the prescription. The pharmacist was quite an old man. This shop was not a drugstore in the modern sense of the term but was more like an apothecary shop, specializing in filling prescriptions and in doing it with great care. I asked the pharmacist if he would not, to the best of his recollection, repeat just what he did when he filled that prescription. He went to his bench, where he had a torsion balance and apothecary weights, and he said, "I didn't use this balance. I remember now that I used an analytical balance."

He showed me an analytical balance very similar to the ones we used in chemical laboratories. He said that the prescription was written with a mixture of apothecary units and metric units, and for his analytical balance all he had was metric weights. So he looked in the back of the United States Pharmacopeia in order to convert the apothecary weights into metric weights. He looked down the column and, on basis of what he read there, he put the metric weights on the scale pan. I asked him to just redo that, and he put the metric weights on

the scale pan. It became obvious to me as I was watching him that the quantity he was putting out was too great. I let him finish. He showed me just what he had done. I said, "Now, you're quite sure that's what you did?" As I recall he had a two-hundred-milligram weight and a one-hundred-milligram weight, a twenty- and a ten-milligram weight on the pan, the right-hand pan to his balance. I said, "You think that's just what you used?" "Yes, that was it."

I felt for sure that was too much. I said, "Let's look back in the Pharmacopea again for that." When we looked the next time in the Pharmacopea we found that there were three columns. There was a column of apothecary weights, a column of decimal equivalents in the apothecary system, and a column of metric weights. He had read the decimal equivalent of the apothecary weight and had assumed that was for, the metric weight.

About the time we worked this out, and not long after I saw what the mistake was, he saw it too. He looked at me very seriously and said, "I've made a mistake." We did a little calculation and the mistake he had made resulted in the prescription being filled with $14 \frac{7}{10}$ times the quantity of dilaudit hydrochloride that the prescription called for the doctor intended.

So I borrowed the prescription and got a photocopy made of it. That was before we had Xeroxing machines, but we could take pictures of things. I got a picture made of it and reported to Mr. Larrick, and Mr. Larrick said, "You should go see Dr. Meyer and tell him this." So I went to Dr. Meyer's office, and after some delay managed to get in to see Dr. Meyer and identified myself and told him what I had found. Dr. Meyer did not look directly at me. I have a vivid recollection of it. He looked up kind of in the corner of his office. I said, "The pharmacist made a mistake in filling this prescription." He said in a low voice,

"A fatal mistake." And I called him; I said, "Did you use the word fatal?" He was reluctant to answer, but he said yes, that it had resulted in a death. There was a fatality. Dr. Meyer asked me what I was going to do about it and I said, "I'm going to report it back to my superior officer at Food and Drug. I don't know just what will come of it."

So I went and told Mr. Larrick about it and he said, "We've got to go back and see the pharmacist." So we went back to the pharmacist. Mr. Larrick was very good in handling a situation like that. He suggested to the pharmacist that we sit down together and talk about it. After the pharmacist, who was a man along in years, I think seventy years or older, was somewhat at ease, I told him that the mistake had resulted in a fatality. Mr. Larrick suggested to the pharmacist that he should get an attorney to represent his interests in this matter. We were very convinced that it was just a mistake, that it was inadvertent; it hadn't been intended at all.

We went back and reported to Commissioner Campbell what we'd found. Commissioner Campbell told me, "You must report this to the coroner for the District of Columbia." Mr. Campbell was an attorney and knew what the proper thing to do was. So we went to see the coroner. We looked up the death certificate that had been made out by Dr. Meyer. The death certificate said that the cause of death was heart failure. The coroner then told me, "Do you know who it was that was the victim of this accident?" I said, "No, I don't." He said, "It was Z. Barney Phillips." I still didn't know who Z. Barney Phillips was. But Z. Barney Phillips was the chaplain of the United States Senate.

The death had occurred so recently that the funeral hadn't occurred yet. So the coroner went to a court and got a court order to get the body before it

went to the interment. I had nothing to do with this, but learned about it later on when there was a coroner's inquest into the cause of the death of Z. Barney Phillips. He had, after the funeral services were completed at the Episcopal cathedral in Washington, gotten the body and taken it back to the morgue and removed some organs. A chemist for the District of Columbia had analyzed it, and then on the basis of his analysis found that the cause of death was the drug in substantially larger quantities than a person could stand.

On the basis of that, we in the Food and Drug Administration called on the United States Pharmacopeia to change that table in the back of the Pharmacopeia book to avoid having the three columns--one headed apothecary, the other, the decimal equivalent of apothecary, and the third, the metric column--and instead have two separate tables. As far as I know, such an episode hasn't reoccurred. But that episode convinced me that we would be very well advised in this country to go over to a strictly metric system. A system of trying to blend the English system into the metric system over a long period of time is going to result in these kinds of episodes coming up. Ultimately, this country is going to go to the metric system. And I think we should bite the bullet and go to the metric system whole-heartedly.

RP: It looked like we were going to do it, didn't it, for a while? And now it's all kind of died down again.

TB: Yes. It has been my intention, if a committee of the Congress ever held hearings onto it, to ask for permission to testify for the hearings about the Z. Barney Phillips death. I haven't seen any such hearings being held, but I would

think that it would be much better for us, rather than just to gradually try to get more and more things into the metric system, to just go ahead and make a clean break of it.

RP: I guess one of our problems is that the people who have it in their power to make decisions like that really don't understand the situation very well.

TB: Well, probably that. We're conservative and we're very reluctant to make changes. The time that gasoline prices increased very greatly, there were a number of gas pumps not set up to function for prices in excess of one dollar per gallon. And out in the Midwest, one or two of the companies said, "Well, we'll solve that; we'll sell gasoline by the liter. Our machines will work all right. All we do is just sell it by liter instead of a gallon." I was out there; I thought that was a very good idea. But it didn't take hold; people wanted to continue to use the English gallon.

RP: People without scientific training don't know what a liter is, really. It's hard to teach them. We all know what a gallon is. We've seen it and carried it and looked at it.

TB: Yes. But it wouldn't take very long to make the adjustment; it would go over pretty fast. I guess a good many of the speedometers, odometers, now carry two scales: the kilometer scale and a miles-per-hour scale. I think maybe that is a mistake. It's hard to blend the two together. It's intended to be kind of a painless conversion. But at times, I have advocated that in the declaration

of weight on packaged foods they have the weight in both the English system and the metric system, and that gradually people would notice that something that was labeled "one pound" would be labeled "454 grams." I think now that we ought to just go straight to the metric system; I believe it would be less trouble in the long run.

When we were developing a proposed standard of identity for ice cream, Mr. Crawford got in touch with the trade association representing the ice-cream manufacturers, and invited the secretary of the Ice Cream Manufacturers Association and their lawyer, both of whom are dead now, into his office. They wanted to bring some ice-cream manufacturers with them. So we had what I call a "pow-wow," a rather informal discussion of what provisions there should be in a standard for ice cream.

A man in Philadelphia, whose name I think I'll not use, because he's still living, who was the chief executive officer of one of the largest ice-cream manufacturers in the United States, was in the conference. One of the things that came up was whether or not we should provide, in a standard identity for ice creams flavored by fruits, the use of dried fruits. This man saw that the Food and Drug people at the meeting thought that if dried fruits were used in making the ice cream the label should clearly indicate that they contained dried fruits rather than fresh fruits. And he said, somewhat plaintively I thought, "I can't make fresh peach ice cream without dried apricots" (laughter). There you are. The standard which eventually came out provided that if dried fruits were used, the label had to reveal that fact.

RP: Tom, how long did it take for that standard to come out?

TB: We started work on it in '42. Then it was interrupted during the war. I guess it was probably '48, '49 before the standard was completed. Some of those standards will drag on and on. The one for peanut butter was a pretty simple standard, and yet it took years and years for that to be completed.

RP: Kind of narrate what happens from the inception of the idea to the final standard, Tom.

TB: Most of the food standards, during the time that I was with the Food and Drug Administration, had their genesis in the Food and Drug Administration. But there is a provision in the law that interested parties can file an application for the establishment of a standard at the initiative of the industry. But most of them came from the Food and Drug Administration.

The Food and Drug Administration would try to determine when there was a need for a food standard. The case of peanut butter is maybe as good an example as any. Peanut butter had its origin many years ago as milled, roasted peanuts, generally with a bit of salt added, sometimes some sugar. Not very much of the salt or the sugar, either one. It was primarily of milled, roasted peanuts. It had some disadvantages. They now call that more fundamental peanut butter old fashioned. Old-fashioned peanut butter would stick in your mouth. And if you had a jar of that kind of peanut butter and let it sit awhile, it would develop a layer of nearly clear peanut oil on top of the peanut butter. Before you made a sandwich or something, you needed to stir that back down in, which was kind of onerous.

(Interruption in tape)

TB: The manufacturers of peanut butter would use mono and diglycerides or other emulsifying agents to make a smooth peanut butter that would stay stable and wouldn't oil off. Generally, the amount of the stabilizing ingredient, and the sweetening ingredient, and salt used, never exceeded 5 percent in total. Then we learned that the Procter & Gamble Company, whose reputation had been made from soap and from vegetable oils, had acquired new management and was branching out into other areas, making toothpaste, ready mix for making cakes, and things like that.

They bought a company in Lexington, Kentucky that was putting out a peanut butter that they put into a heavy glass tumbler. The tumbler could be reused. It was called Tip-Top. The company bought the Tip-Top Company, and Procter & Gamble had pretty good laboratories there in Iverdale, which is a suburb of Cincinnati. So they sent samples of the peanut butter made in the Lexington plant to the laboratory, and asked the chaps working in the laboratory if they could see about the possibility of making some improvements onto it, besides the type of packaging. They wanted to change the type of packaging, which seemed to be altogether justified. The reusable tumbler was very heavy, and not a wise container for packaging the food.

These young chemists from the East who were working in the laboratory there found that the peanut butter the company they had recently acquired was putting out was viscous and stiff, and wouldn't spread very well on the bread. They did a little survey and they found that one of the complaints that housewives had was, "When we try to make a sandwich with the kind of bread that

we have now, which is very soft, this kind of peanut butter will tear the bread up. It doesn't spread nicely and make a nice, thin layer of peanut butter on a sandwich."

So the chaps in the laboratory reached the decision that they would use lightly hydrogenated vegetable oil, which they called "Crisco base," because that was the material from which they made the hardened vegetable shortening called Crisco. They put Crisco base in with the peanut butter, and it would spread much better. Also, Crisco base was relatively cheap, and peanuts were quite expensive; so they made the recommendation that the peanut-butter formula be modified to incorporate quite a lot of this so-called Crisco base. They varied the amounts in various lots, but 10, 15 percent of Crisco base.

The Food and Drug Administration saw that as debasement of a very well-known food, peanut butter. So we proposed that there be established a definition and standard of identity for peanut butter, and require that peanut butter not have less . . . Our original proposal was not less than 95 percent peanuts. Subsequently, when it was finally worked all out, it dropped down to 90 percent.

But an odd thing about that operation, we had published our proposal and received comments onto it, and the comments were in general adverse to the proposal we had made of requiring a high proportion of peanuts, even from the competitors of the Procter & Gamble people, whose JIF peanut butter was becoming the most popular peanut butter on the market.

We thought that the growers of peanuts--there's a trade association representing the peanut growers of the southeastern part of the United States--would support a standard for peanut butter that would require a higher propor-

tion of peanuts. When we approached the executive officer representing that Farmers Peanut Growers Association, we found that they had already been approached by members of the Peanut Butter Manufacturers Association, and were opposed to having the standard come out that would require a high proportion of peanuts.

We had lengthy hearings about the standard for peanut butter. It finally went to court, and an eventual standard was sustained at 90 percent of peanuts in peanut butter. But you don't always know which way the people will go on that. And the farmers undoubtedly were voting against their own interest when they said that you ought to be able to stretch out peanuts by putting in more soybean oil product, Crisco base; but that was the view that they took.

RP: Maybe they were persuaded that a more saleable product would result in the end in a greater number of peanuts to be used.

TB: I have my doubts that that was the thing that persuaded them. I think that the persuasion was not by the actual producers of peanuts, but by some trade representatives who purported to speak for them. But it would cost too much to carry out a real poll of the actual producers.

When we went to establish a standard of identity for salad dressing, which is a mayonnaise that is somewhat diluted with a starch paste, we encountered a firm in Philadelphia that was distributing a salad dressing that they called "cream whipped." A factory inspection made there by John Breckenridge found that there was no cream in cream-whipped salad dressing. There was a little bit

of a dried dairy product, which had some cream before it was dried; but the quantity used was infinitesimal; it had no influence on the taste of the product.

So when we held a hearing, Heine Lepper, as a witness at the hearing--and Heine Lepper was a very competent witness--said that if the product is named cream whipped, it ought to have enough cream in it to amount to something. This did it. So we did not make cream a permitted ingredient in salad dressing; it wasn't listed as an optional ingredient. The case was taken to the Third Circuit Court of Appeals, and the Third Circuit Court of Appeals upset us on that one. As far as I know, the company in Philadelphia still is distributing a product they call cream whipped with very little cream in it.

They first used the name cream whipped for it, and the lawyers for Kraft Food Company, who have a salad dressing, very popular, called Miracle Whip, protested that cream whipped interfered with their trade name for Miracle Whip. That dispute was settled by changing it from w-h-i-p-p-e-d to cream w-i-p-t, a coined word. I haven't seen it in the stores, but if the product is still on the market, I presume it's still called Cream Wipt.

There was, at the time of the litigation with the Kraft Food Company, a possibility that they might not be able to retain their name. And they didn't; they had to modify it. But the company in Philadelphia then changed the name of the company. The company had operated under the name Golden Brands Product Company before that, and they changed the name of the company to Cream Wipt Products Company, so they'd get cream whipped on their label one way or another (laughter).

RP: A case that's always interested me was the Imitation Jam case. Were you involved in that?

TB: Yes, I had something to do with that. That was an instance where I think the court made a very grievous error. The Food and Drug law provides that if there is a standard for a food, and the article is or purports to be the one for which the standard was set, it's misbranded unless it carries that name. Elsewhere in the Food and Drug law is a provision that if a food is an imitation of another food, it would be misbranded unless it's labeled to show it's an imitation in conspicuous labeling.

One of the problems with fruit preserves in the early days was the debasement of the product with very little fruit. Fruit is the more expensive ingredient in strawberry preserves, raspberry preserves, or any kind of fruit preserves. Fruit is more expensive than sugar, which is the other ingredient. In the early days, there was a cheap fruit preserve made which was highly watered. Water is the favored adulterating ingredient of food. You can buy water awfully cheap, and if you can sell it at the price at even a cheap jam, there's a lot of profit to be made from selling water that way.

So there were cheap preserves made, which the National Preservers Association recognized as an unfair article of competition, and supported the Food and Drug Administration in the establishment of definite standards of identity for fruit preserves, which came out to require almost half of the food when it's labeled fruit jam or fruit preserves or fruit jelly, to be the fruit. There was a company in the West—I think it was in Denver, but I'm not sure of that . . .

RP: Yes, Pure Food Manufacturing Company.

TB: Yes, that continued to make this cheapened product. They were advised by someone that they should label it "imitation jam." And they did. Phelps-Dodge Corporation acquired a shipment of it, and the Food and Drug Administration sampled that shipment, on the basis of that sample alleged that the product was misbranded in that it purported to be a food for which there was a standard, and did not comport with the standard of identity and wasn't labeled with the name prescribed by the standard; instead, it was labeled imitation.

That went to the Supreme Court of the United States. The ruling in the Supreme Court was written by Justice Felix Frankfurter. He felt, and the opinion reflects that, that if the product is labeled imitation, that's all the warning that the consumer needs, and you can deviate from the requirements of a definite standard of identity if you're willing to label the product imitation.

When that ruling came out, there were very few products on the market that were labeled imitation. Really, they were very scarce. And the general view in the food trade was that to label a thing imitation is to give it a kiss of death. Since then, and partly in response to statements made by representatives of the Food and Drug Administration, a great number of products are on the market that are generally not a good bargain but are labeled imitation. You have various kinds of imitation cheeses. You'll find imitation is used as a word on the label of a lot of foods, and almost invariably the purchaser doesn't get his money's worth when he buys something labeled imitation.

RP: Losing that case kind of opened the floodgates to this type of product?

TB: It did. It opened the floodgates to the use of the word imitation to cover up adulteration. And it's never been corrected. It should have been, but it's never been corrected. I feel that the Supreme Court . . . I'm a member of the bar of the Supreme Court, and have followed their cases generally as they're announced. But I think they missed the ball on that one. I was a great admirer of Justice Frankfurter. He was a pretty smart man, but I think he reached a wrong decision on that one. I think he should have held that labeling a product that fails to comply with the standard by the word imitation doesn't correct it at all.

RP: Do you think we would have fared better if we had picked a product that was a more flagrant example of this kind of thing? The reason I say that, Tom, as I recall the case the product the Pure Food Manufacturing Company made looked and tasted like jam. It was a very good imitation, a very tasty product.

TB: I have said back at that time that if we could have found a case of watered milk being distributed as imitation milk, we could have won that one; but we didn't find it. There weren't very many foods on the market then that carried the name imitation. You had to sort around pretty hard to find one. You could now.

RP: It was a poor subject. I always thought that: we picked something that really wasn't too bad a product. And it had maybe 35 percent fruit. It had quite

a bit of fruit in it. It wasn't the kind of so-called fruit jams you'd probably see now that never saw any fruit, I suspect.

TB: In the early days they used to make a strawberry jam in which they didn't use any strawberries, and used timothy seed to make it appear they had strawberry seeds (laughter). If we could have found one like that, that would have been better, of course. But in hindsight, probably we did not select the best case to bring, and I don't think that the case was presented to the court as well as it could have been.

RP: They had a real good lawyer; they had Ben Stapleton, Jr., who was a very capable man.

TB: Yes, I remember that case. The Congress would be quite well advised, I think, to pay heed to the fact that the consumers' interests are being abused by the distribution of foods labeled imitation, and try to correct the statute onto it.

However, by and large, the foods distributed in the United States are about as good as you'd find anyplace in the world, I believe. One thing, they're pretty safe. Very few people have ever been made ill by the commercial foods that they buy in their grocery store in this country, in recent years. You can't say that for some countries. I've been in countries where you couldn't trust the food that you bought in a store. There was no regulatory body to look over it, and they're just as careless as could be.

I was in Havana, Cuba, and went to the largest bakery in the Republic of Cuba. Downstairs they had a retail store and a wholesale outlet down there, too, which was very attractive. I said, "I want to see where your baking operations occur, and where your mixing operations occur." So I went in, got up in an upper floor, and there was a chap mixing up a batch of bread. He was dipping out a hardened vegetable oil to go into the mix with the flour to make bread. He was smoking a cigar. Cigars were smoked pretty generally at the time I'm talking about--that's before Fidel Castro came to power; just a year, though.

This chap who was dipping the hardened vegetable oil out of the drum to go into the batch--he had a ladle he was dipping it out--in the other hand he had a cigar. The cigar was pretty well burned down, a lot of ash onto it: he just knocked the ash into the hardened vegetable oil, put that in all with the rest of it in the mix.

He was using not a refined sugar, but a somewhat crude sugar--turbinado. It was not raw sugar, not refined sugar; it was at a stage in between, turbinado. He spilled a lot of the sugar in getting it out of the bag onto the floor. He just scooped it up off the floor, threw it in. Mostly, you'll not see that in the United States anymore. I was told, however, that back before we had the sea-food inspection service, one of the canneries had a belt bringing cooked, peeled shrimp along the belt for some operation for the inspectors. And the fallings that went off the bottom of the belt fell down below the floor of the cannery. The superintendent, the foreman, sent a man down in underneath to pick and shovel up the shrimp that had accumulated down there on the dirt. He brought them back in and put them in cans.

RP: I believe it.

TB: I one time saw a fellow in a tomato cannery where they were making ketchup. You have to run the tomatoes through a machine that makes puree out of them. They were getting out on the floor quite a little bit there. He had a cloth mop, a string mop, and he was mopping the tomato juice up from the floor; but instead of throwing it out, he was putting it in the batch! You wouldn't see that anymore.

RP: No, we don't see things like that much anymore. We have very few sanitary violations that we run into. I think we'll always find some.

TB: I think one of the reasons is that if you don't look, you don't find.

RP: Okay, right.

TB: I think there's a lot of chances for improvement if we worked hard at it and had appropriations adequate to do the job. But we don't have them.

RP: Do you want to break?

TB: Yes, let's break a minute.

(Interruption in tape)

TB: When I went to the Pelican Lake Fish and Oyster Company in Houma, Louisiana in October 1934, the toilet facilities for use of the employees were pretty inadequate. My supervisor, who was at that time Bill Stokes, told me that I should notify the management that they would have to provide better toilet facilities for the employees. Then you had to have privies for the men and privies for the women, and for the black men and the black women; and even in Texas canneries, you had to have one for the Mexican men and Mexican women. I have a picture in some of my collection of the cannery in Palacios that has six privies in a row.

But going back to the Pelican Lake Fish and Oyster Company, their privies were not good; so I notified the management they'd have to make a change on that. They claimed they didn't have any room for having outdoor privies. You had to have outdoor privies; they didn't have provision for indoor toilets in that plant. And I said, "Well, over there where you've got those oyster shells piled, there'd be room in there; that's your land." Well, they didn't want to do it, but with much reluctance they decided to have the boys take wheelbarrows, move the shells from the shell pile so they could get down to the dirt level, and they built some privies over there.

I was down at the warehouse part of the plant one day on maybe a holiday or the day after there had been a storm, so that the rest of the plant wasn't running. Somebody came to me and said, "Mr. government man, I want you to come over here and see this." So I went with him. They were digging trenches where the oyster shells had been removed to be a trench-type latrine. And down quite deep, about as deep as I am tall, they ran into some cypress boxes. So I looked down and was pretty suspicious; I got down there and found that they'd

hit some coffins. So I told the boys, "Well, kick some dirt over this part of it and move down to another place a little further down."

I got out and made some discreet inquiries, and there was this very old Negro woman that lived not very far from there. I got somebody to take me over to talk to her. They called her Aunty, some of them. After talking with her a bit, I said, "Do you have any recollection of there having been a cemetery around here, a burial site where they bury people?" "Yes. In fact, the Negroes used to have a Negro cemetery right in there where those oyster piles are." That was all the evidence I needed to convince me that they'd dug into some old cemetery, some coffins.

So dirt was put back at that part, and the trenches went on down further, and we got the privies built in there. Word went out--almost all the pickers there were Negroes--word evidently went out. At the end of the week I had to go into the toilets to inspect them, see if they're clean. There were rolls of toilet paper that hadn't been broken open all week long! I had the cleanest toilets in the whole Gulf Coast. Because they had a suspicion that it was a desecration to use them! There wasn't much I could do about that; we had the facilities there. Many of those things you get to reminiscing, and they come back to mind and you remember about them.

(Interruption in tape)

RP: Okay.

TB: Around the pea canning season of 1938 which was probably June—I'm not real sure—I was assigned to visit the canneries in the Chicago station territory where peas were being canned. I was out in Freeport, Illinois on a Saturday and got a Western Union telegram telling me to phone the Chicago office. I called the office at nearly noon on that Saturday. We used to work until one o'clock on Saturdays and people were still in the office.

I was told by Al Garrett, the chief inspector over in Chicago, that they had a complaint from Washington headquarters about deadly nightshade berries showing up in canned peas. Some physician had reported that a small child who had died, died as a result of eating canned peas that contained deadly nightshade berries. Al asked me, "Tom, do you know the plant deadly nightshade?" I said "No, I'm not familiar with it. What is the botanical name for deadly nightshade?" After a little he answered that it was *solanum nigrum*. I said, "Well, I think I can find out about it." He said, "We believe those peas were canned by the California Packing Corporation, and the California Packing Corporation is canning peas in the vicinity of where you're working."

I went to the library, got a botany book, and looked up the *solanum nigrum*. In my notebook, which I still have, I drew a picture of the leaves and the berries and the blossoms of it, and asked about whether there was a nursery or greenhouse in Freeport. I was sent out in the edge of the country and found a chap out there that was running the greenhouse, and I asked him if he knew about *solanum nigrum* or deadly nightshade, the common name. He didn't know much about it, he didn't believe. He said, "See the county agent."

I went to the county agent. As I recall, the county agent was off that afternoon. This is getting along in the afternoon. But somebody told me that there

was an elderly woman, quite old woman, a widow, that lived out on the edge of the country someplace, who knew more about herbs and plants and things like that than almost anybody. So I drove out to her place with the government car. The shield on the government car seemed to give her some concern, but I talked with her a bit.

And after a while, I got around to asking her if she could tell me where I could find some deadly nightshade. She said, yes, she thought she could. She said it's generally around pig lots. "I'll try to see some for you." So we went out in the back of her place and she found some very small plants. She said, "This is what I call deadly nightshade; it's got black berries on it. But these are too small." She said, "You go down to the corn field; there's some big ones down there, I'm pretty sure." And she pointed about where to go.

I went down and with the notes I had—she didn't go with me; I just went on down there to where she pointed out—I was able to find some plants of *solanum nigrum* two feet high or taller that had blossoms on; it had some green berries on it. I don't recall that there was any of the ripened berries which are black. But berries of *solanum nigrum* are substantially larger than a BB, but smaller than most peas. From that I was able to go to the edge of a pea field that hadn't yet been harvested, and find some more plants of *solanum nigrum*.

So I was very pleased with the findings, and loaded them in the car, and drove back into Chicago. I didn't get back till midnight. I put my specimens in the bathtub with a little water in the bathtub, went to bed. I got up in the morning and my wife fussed with me about using the bathtub as an herbarium. But I kept the plants in pretty good condition until Monday morning, and went

to the labs and packed them up to send some of the plants and berries that were taken from them to Washington.

And then Al told me more about it. What had happened was, a complaint had come to the president's wife, Eleanor Roosevelt, that canned peas had had nightshade berries in them, and that was the cause of the death. They wanted to check up onto it. The samples were checked in the laboratories of the Food and Drug Administration in Washington by chemists and by people who checked the food that is given as gifts to the president. They used monkeys to ingest the food. And they never found that these berries we found out there had anything toxic about them. But it was kind of an interesting investigation we carried out.

It was reported through to Eleanor Roosevelt, and she seemed to be satisfied that we performed all that she expected us to do in the way of investigation on it. That company, in fact, has changed its name now. It's no longer called the California Packing Corporation, but it's called the Del Monte Corporation. They've made Del Monte a pretty well-known trade name; and so they changed the name of the corporation to be Del Monte.

Some other companies have done that. There was Hawaiian Pineapple Company, and they now are called the Dole Company. They changed the name of the corporation to correspond to the more popular brand name of the product they'd been putting out. That's a trend that has occurred during my experience.

I learned enough about that plant that to this day, I'm very sensitive seeing them. There's one growing over here in the neighbor's yard; I can see it from here. I'm very sensitive to spot *solanum nigrum*. But I guess the doctor was just mistaken about what caused the death of the little girl.

RP: When I was trained as an inspector doing pea canneries, that's something we always looked for. And particularly if they were canning petite peas.

TB: Yes, petits pois. I suspect that that all dates back to the assignment that I'm telling you about. I don't think the Food and Drug Administration was at all interested in this plant until that complaint from Eleanor Roosevelt came through. We carried out that assignment in Chicago.

RP: And then the word went out to keep your eyes open for it.

TB: Yes, watch out for them, because they'll go through the screen.

Another experience while I was in the staff of the Chicago station. We got a complaint from down at Bloomington that somebody had been made sick from eating pancakes. I was not the first one to investigate that complaint, but I was down fairly early on it. I interviewed a young man who had been reported as being made sick by eating pancakes. I asked him how many he'd eaten. I believe it was on a Sunday morning that he'd had a pancake breakfast. And he said, "About a dozen" (laughter). They had been made with buckwheat flour. Buckwheat flour is an old-fashioned flour used to make pancakes, or buckwheat cakes. It's not used very much anymore.

I got some samples of the buckwheat flour that his mother had used to make pancakes. It had come from a town over in Indiana called Monticello. Back in Chicago, then, I got samples of buckwheat flour that was made up in Penn Yan, New York—which is kind of a center for this industry; there may be some others

--for comparison. An inspector was sent from Chicago down to Monticello, Indiana to check at the mill where the buckwheat had been milled. I've forgotten what inspector did that. Well, it doesn't matter who it was. He did a good job; I'd say that.

He got down there and found that the miller said that he didn't get a great deal of buckwheat; there wasn't anybody that raised a great acreage of it. But around the buildings where they had bees, they wanted to use the buckwheat as a source of nectar for the bees to make honey--they prized that--they'd have an acre or two of buckwheat. And when they harvested the buckwheat, he would be able to buy the buckwheat, which is a seed that's black in color and it's bigger than a BB, but not a great deal bigger. So he had milled the buckwheat.

Further investigation showed that the same place where the buckwheat was grown, they generally had some jimson weed. Jimson weed has a pod, and in the pod, they have seeds that are little black spheres about like buckshot. The miller in Monticello had not removed all of these jimson seeds from the buckwheat. So he had milled it up together.

Well, the seed of the jimson weed has atropine in it. Atropine is a drug that will dilate the pupils of the eyes. He got samples of the buckwheat and samples of the jimson seeds. And we had the samples that I had collected of the buckwheat flour they shipped over into Illinois. The boys in the laboratory were a little hard put to try to analyze to get a reading as to how much atropine alkaloid, or how much jimson-weed seed was in the samples, in the food that had been shipped across the state line.

They sent to the pound and got some cats. A cat has a slit eye; it doesn't have a round circle for a pupil, it has a slit. They rigged up a kind of a jerry-built device there to measure the width of the slit in a given light, and then they made an extract from their sample, which they thought would have some atropine in. Then they put that in the eye and saw if it would cause the pupil to expand, because they could measure how much it was widened. On the basis of that, they were able to ascertain that the labeled buckwheat flour that was shipped down to Peoria and Bloomington had measurable amounts of this adulterant--the atropine that came from the jimson-weed seeds.

So we ran a libel on the shipments of the buckwheat flour there, and I was sent down to accompany the United States marshal to serve the libel and tie up the product. That was handled out of the Central Division of Illinois, which had headquarters down in Springfield. I picked up the deputy United States marshal at Springfield to go up on that, and a judge down in Springfield required that in the case of the seizure of a product under libel, you had to publish a notice in a periodical about it. An old-fashioned way of giving notice on this. So we got back up to Bloomington and I believe the United States Attorney had told me that's what we'd have to do. So I went to the newspaper office, the Daily Pantograph. And the Daily Pantograph was published by the Stevenson family, and that's the first time I ever saw Adlai Stevenson. I was an inspector in Chicago from '37 to '39. I don't remember just what time of the year this was. It was cold weather, though; there was some snow on the road as I was driving down. I guess it was the winter of '38, '39. Adlai Stevenson, who subsequently ran twice to be the Democratic nominee for president--he got beaten both times--he was the publisher of the Daily Pantograph where we published this.

RP: That's an interesting story.

TB: Well, it's kind of interesting in that it shows, I think, the cooperation of various people in getting a job done. The inspectors who went to interview the people who were made sick; the inspectors who went to the factory where the food was produced; the chemists who did a real good job in working out a device. They didn't have gas liquid chromatography apparatus then; it was at a time when the chemists had to use some ingenuity. That's the way they worked it out, with these cats that they got out there.

RP: So many of the methods started out using animals, and maybe later they got a chemical or other method.

TB: Yes. I hope that in your write-up you are able to get from somebody--and I'm not the one you should interview on this--the story of the organization, the Official Analytical Chemists.

RP: A book has just been published, literally almost this week, a history of the AOAC.

TB: Who was the author?

RP: I can't think of his name, but Bill Horowitz . . . You know Bill Horowitz?

TB: Oh, sure. He followed Heine Lepper. Heine Lepper was Mr. AOAC, but Bill was his successor.

RP: Yes. Well, I don't have a copy of it, but Bill has some copies of it; and I bet you that he'd send you one if you gave him a ring. He's still working; he still goes down.

TB: He goes down from time to time I guess.

RP: I think full time.

TB: Full time? Well, I'll be damned.

RP: I don't know whether he's retired.

TB: He's old enough to have retired.

RP: Oh, yes.

TB: Yes, I would like to have that because that story is a very important one in the history of the things that we're interested in.

RP: I'll tell you what I'll do, Tom. Fred is actually going to interview Bill Horowitz tomorrow, and I will give Fred your address, and ask him if Bill has an extra copy just to put one in the mail to you.

TB: Yes, and if he doesn't, give me a buzz.

RP: It isn't a full-sized book. I saw a copy yesterday. It's a paperback. You know, a quarter to three-eighths of an inch thick.

TB: Well, that publication, The Book of Methods, goes back seventy-five years or longer. Harvey W. Wiley was the chief of the Bureau of Chemistry of the Department of Agriculture, and I'm sure that before there was a pure Food and Drug Law, he was active in promoting these methods of analysis. The name had agricultural chemists in it then: the Association of Official Agricultural Chemists, AOAC. More recently, Bill has talked with me about the name of the thing. But we wanted to save this acronym, AOAC. It's been used for so many years. But he didn't want to restrict the thing to agriculture business. The earliest chemists were agricultural chemists. So the choice was made--and I think Bill was the one that made the suggestion--analytical chemists. So it's now the Association of Official Analytical Chemists.

I've got various volumes of The Book of Methods. But I don't have the current one, I guess. I don't know; do they bring them out every five years?

RP: Something like that.

TB: About every five years now. And earlier, they went longer than that between issues. But after Wiley, various ones in the Food and Drug Administration pretty much carried the ball. Heine Lepper inherited it, and it was a labor

of love with Heine; he worked hard at keeping the AOAC going. I think Heine was the first one that had a gal that was strictly an AOAC secretary. After Heine was getting pretty well along in years, Bill Horowitz came in and worked with Heine until he retired. And then Bill was giving his best attention to AOAC work. And I suspect that's maybe the principal thing he's doing now when he comes into Food and Drug.

RP: I don't really know.

TB: I would imagine that that might be what keeps him going.

RP: He seems to have gotten a big interest in computers. I see him sitting at a terminal and doing some kind of computer programming or something he's working on. But I haven't talked to him about it.

TB: Bill is a quite valuable man. Bill's got a brother that's an important person in the Bureau of the Census. You see his name once in a while in papers that he has published. I never got acquainted with his brother. But Bill was from, as I think, Duluth.

RP: When I first knew him, he was chief chemist in Minneapolis District.

TB: I think he was born in Duluth, and then he came over to Minneapolis as a lab chemist. He wasn't chief chemist very long before he came over here to work with Heine, and he stayed on here. He was pretty close friends to Joe

Carrol. Joe Carrol died. And I had lost track of Bill; I haven't seen Bill in quite some time. Bill brought in this chap; he's a cheese man. I expect he might still be working for the Division of Chemistry, if that's what they call that unit. Meyers, Dick Meyers. Dick had been with the department of the army at the quartermaster corps. Out on 22nd Street in Chicago they used to have a lab and setup out there, which was subsequently moved over to Natick, Massachusetts. And I don't believe that Dick wanted to go to Massachusetts. I think that's when he changed over and came to the Food and Drug Administration. I imagine Dick is probably still working. He was about a generation younger than I am.

RP: I don't think I know him.

TB: He was kind of an expert on cheeses. Heine had been our cheese expert. That's one of the things in the early days we had developed, Bob, that I fear they're not continuing to carry on. We used to take some particular chap and direct his training so he became an expert in that narrow field. I trained a chap to be a seafood inspector named Bob Dick, who went to New York and worked with the man who handled the tea import duties there. I think he might still be working up there in tea. He knew more than anybody else about tea. There was one time that I knew more about cinchona alkaloids than anybody else. I had analyzed thousands of samples of bark, and done what reading you could do onto it. Heine Lepper was quite an expert on cheeses, dairy products. We had one that was on flour and cereal products from up in Maine. I've forgotten his name just now. He had a peculiar personality, but he really knew the cereal chemistry. It seems to me like we don't do that as much as we used to.

RP: I just plain don't know; I don't know those people over there very well.

TB: I'm afraid they haven't continued to do that. To do that, you have to give the man a little extra time. You can't saddle him with routine assignments all the time; he's got to have an opportunity to read up and pursue the ideas that he develops in the field in which he is working. There was a time when the Food and Drug Administration had about the best authority in the world on antibiotics. Henry Welch, who had come up under Dr. Hunter in the division we called the Division of Bacteriology in those days--it's now called Microbiology, I believe--but Henry Welch during the Second World War was sent over to England, worked some with Flemming over there. And there was a time when he knew more about antibiotics than anybody else. It's awfully good that the Food and Drug Administration can have some well-recognized experts.

RP: Yes, it's good from the standpoint of the science of the agency, and good politically, too, I think.

TB: Yes, I believe it's pretty good politically. But it enables the agency to give a little more consumer protection. Somebody ought to give you in the course of your work the story of Doc Howard. I don't know who could do that.

RP: I'm going to see Bill Eisenberg tomorrow; would he be one to talk about Howard?

TB: Yes, Bill would probably be your best source on Howard.

RP: I'll ask him to talk about Howard.

TB: I think you should if he knows about it. Howard was a peculiar man, very peculiar. But in the early days, he conceived the idea that if they used rotten tomatoes in making these products that have gone through a cyclone like tomato juice or tomato puree or tomato paste or ketchup, you could determine pretty well the proportion of bad fruits that have gone into the vats by microscopic examination for the mycelia of mold. When a tomato starts to go bad, it almost always molds. If it develops a crack, molds will come in there. He developed a particular slide called the Howard mold-counting slide, and got the data together as to what the counts amounted to. Bill Eisenberg has done some of that; he worked with that.

That was picked up, then, by the National Cannery Association. Howard Smith with the National Cannery Association put out a publication on tomatoes and tomato products. The National Cannery Association ran a lot of the schools to teach the control agent in tomato canneries how to do mold counts. It cleaned up the tomato business very well. A lot of the credit for that goes to Howard.

Bill Eisenberg came with the Food and Drug Administration about 1937, '38, maybe '37.

(Interruption in tape)

TB: J. O. Clarke, who was the chief of the central district of the Food and Drug Administration in Chicago, decided that a pretty good project would be to try to find something that you could measure in butter, measure in the laboratory--better than the organoleptic tests we made then, which were taste and smell--to determine if decomposed cream had gone into the manufacture of that butter. He convinced Ray Vandavear, who was in New Orleans in the laboratory, that we'd do well to explore that possibility. Well, Ray got in touch with John Wildman, who was in Howard's unit in Washington--Howard's unit was called Microanalytical then--and they concluded that a measure of the incidence of mold mycelia in butter could be correlated with moldy cream used to churn the butter.

J. O. Clarke assigned me to get in touch with Wildman, work with him doing field work. I met Wildman in Tennessee. I drove down in Tennessee and we got together there. We put up a number of churnings of butter that we authenticated in the sense of which I've already explained what we mean by authentic samples. John Wildman was in the crew, and Ray Vandavear. The three of us worked in Tennessee, Kentucky, and Indiana, and then came into Chicago. I had a little break there of a few days. And then Howard sent out Bill Eisenberg, who was quite recently a new member of his staff--Bill had had a broken leg, and was kind of walking crippled--to join us in Chicago.

We went from Chicago up Green Bay and across someplace else in Wisconsin to Minneapolis. In Minneapolis, Eisenberg took over the use of the microscope and some chemical tests we were using, and relieved Johnny Wildman. John Wildman came back to Washington. I can see him yet with a pair of big brogan shoes with the strings tied together hanging over his shoulder, climbing on the

Hiawatha train to go to Chicago, headed for Washington. Bill didn't have a car so he elected to go with me in the car.

Bill had never learned to drive an automobile and he wanted to learn to drive. You didn't have to have a license then. So I kind of served as a co-pilot and monitor, and taught him to drive a car on that trip. We went out, and eventually got over to Kansas City. A story just came to my mind about that. We would go to a creamery and sample the cans of cream going into the batch of butter that we were going to authenticate. We'd locate where those cans of cream originated, and try to go to almost every farm that had produced the cream that went into the particular churning of butter that we were interested in. So we'd done that in Kansas City, and there was a farm up north of Kansas City near Cardville, in Missouri, where a farmer had had a ten-gallon can of cream in that churning, as I recall. I took Bill with me up there.

Bill had attended one of the schools in New York City--I don't remember which one--and specialized as a botanist. I think that his Civil Service exam was in botany. I never studied any botany, but had been interested in it. So I was kind of picking his brains as we went along. We passed along a fence row where there were a bunch of these hedgeapples, what we out in the Midwest call osage orange. At that time of the year, the fruit on the hedgeapple was as big as a baseball--about that big. Bill said, "What are those?" I said, "Oh, we call them hedgeapples or osage orange; I don't know the proper botanical name for them." We talked about them a little bit. He wanted to know what the fruits on them were used for, and I said, "I don't know anything they use those for. They get up as big as a softball that you play softball with and drop off, but I've never seen them used for anything."

We got off to find the farm where the cream had come, and we managed to get into the farmer's place. We called him out. He had some big, black walnut trees in the yard. We were in the shade of the trees. This was hot weather; it was summertime. I was intending to check into the sanitation that had been used in the production of the cream, see whether or not he cooled the cream. I approached those things kind of slowly, so we were making kind of small talk. Bill wasn't in on it much. I was trying to get the farmer to feel free to show me about what he did.

A black walnut about as big as a billiard ball, nearly so, had fallen off the tree and was laying there, and Bill picked it up. Bill didn't at that time carry a pocket knife and I've always carried a pocket knife. He knew that, so he came over to me and kind of interrupted our conversation a little bit, and said, "May I borrow your pocket knife?" So I handed it to him. He had this black walnut in his hands and the pocket knife. I knew he was going to get that juice that comes out the shell of the black walnut on his fingers, and it just dyes like iodine. So I said, "What are you doing, Bill?" He said, "I want to cut into this hedgeapple" (laughter). Boy, that soured that farmer. I had a hell of a time getting that farmer to answer my questions after that. Here's a couple of fellows from Washington who don't know the difference between a walnut and a hedgeapple!

Bill first came down from New York to join the staff down here. He got in Howard's staff, I'm sure. About where the old post office building is, I believe, pretty close there, he got hit by a taxicab and broke his leg real bad. He was still a little bit crippled from that at this session we had out there in the Midwest.

Well, we completed that work and it was written up in the journal of the AOAC. We managed to confiscate quite a little bit of butter on the basis of the high mycelia count in the butter. We never had a trial about it. We had been pretty confident that somebody would defend the case and we'd have to go to testify as to the authentication of the samples of butter that had shown the correlation between mold mycelia in the butter and decomposition and lack of sanitation in the production of the cream. But we never had that.

There was a case that looked like it was going to come up down at Bluefield, West Virginia. They notified me that I would have to go down, but then as so many cases do, it blew up at the last minute and it was never tried. I don't guess they do that anymore. I don't know.

RP: I don't know; I doubt it.

TB: I doubt it, too. Clarke had great hopes that Kenny Milstead would be able to get a chemical test for one of the decomposition products of a protein. That would show the use of decomposed cream in butter. But that thing never did work out. Kenny could explain why it didn't; I don't know for sure why it didn't. But he did quite a bit of work on it. Then they shifted over to this thing that Vandavear and some of us worked on. It wasn't the best device in the world, but it did enable us to give some consumer protection.

We had a heck of a lot of fellows back in those days--and you may have noticed in my conversation--that kind of go back to the home base: "What are you doing?" "Trying to protect consumers. Trying to protect the fellow that takes his hard-earned money and goes in and buys some food, that he gets a fair deal

out of it. Or buys a drug and gets a drug that is safe, and later on, efficacious. But at least safe." I don't know whether the newer boys still feel that way.

RP: I think so.

TB: Do they have that feeling among the people?

RP: Yes.

TB: I can remember times when I've been in travel status as a Food and Drug inspector, you'd get together with some other Food and Drug inspector by happenstance or by intent; and we'd go to eat supper together and go to the hotel together. We never talked about anything but Food and Drug things. Nothing else had any interest for us. Each man trying to outdo the other on what he'd achieved. Pretty dedicated bunch of fellows on that were; they really were. You never knew the chief of the Kansas City station, Bill Hartigan.

RP: No, I didn't ever know him.

TB: Bill Hartigan was an old-timer. As a boy, before he went to school, on the Fourth of July while setting off some fireworks, he got one in the eye and was one-eyed from then on. And every Fourth of July, Bill would get quite nervous. You kind of tried to avoid Bill on the Fourth of July, because people would be shooting off fireworks and he'd get excited.

Bill was from up around St. Joe, Missouri, and became a chief in Kansas City. Bill told me, "When I came with the Food and Drug Administration as a Food and Drug inspector, it looked like everybody that was working as Food and Drug inspector had a better education than I had. I made up my mind I probably could work longer than they did." So he set as a goal for himself long hours, and he worked hard at it.

Bill was very proud of being a Food and Drug inspector. Do you remember those badges we used to get?

RP: Yes.

TB: He had his badge, which was a low-numbered badge--there was some desire to have a small number on the badge--and Bill took his badge and had it gold-plated. He was very proud of that badge. He carried the badge in an identification case. In about 1941 or '42, probably in '41, word came that people who were not actually out contacting the trade should turn their badges in. Maybe some badges were excepted.

I knew that was going to go hard on Bill Hartigan. I learned from some source or other that Walter Campbell was keeping his badge. He told them, "Go to hell"; he wasn't going to turn his badge in. So I sent a letter through, I guess, to Roscoe Jordan, who was in Kansas City, and told him that if Bill decides not to turn in his badge, he's got a pretty good precedent in the commissioner of Food and Drug not turning in his. So Bill refused to turn his in. When he died, the badge was put in the grave with Bill, I was told. It was known that he wanted that badge, and he was buried with his badge.

On these badges, back in the fall of '34, there was a seafood inspector named James W. Skipper, who was kind of a military man. We started in as inspectors down there without any badge of office or without any credentials. Later they had us go someplace to get our pictures made, and they gave us identification credentials.

A little later than that, this fellow Clarke who headed up the personnel work for the Food and Drug Administration in Washington sent out a bunch of Department of Agriculture badges. I was given a badge, and some other fellows, too. At the time, there were three or four of us that got ours together. Skipper was with me. Charlie Crawford gave out the badges, and Charlie emphasized, "Now, this badge is a symbol of office. And you're not to abuse it in any way. You're not to let anybody else have it. You keep it; you'll be held responsible for keeping it. And never misuse it." He gave us this little lecture and we took it pretty seriously.

Then the seafood inspectors wore them on their belt. And they had a keeper on the sticker part of the thing, so you could close it. It was pretty safe to keep it on a belt. Skipper was down at one of those gulfside plants in Biloxi, maybe the Anticich plant; I'm not sure. The plants were about alike; they had a long wharf that went out into the water fifty, sixty yards or so. We started work in the seafood plants in those days about two a.m. and worked till about midday or something like that. As soon as the boats made their delivery of shrimp, we wanted to get the shrimp through the plant as promptly as we could, expeditiously. So we started very early.

Skip went down to the plant that morning and it was nice weather and moonlight; things were going good in the plant. He went out on the end of the

pier, and while he was standing out there, he concluded he would admire his badge. So he reached down and took it off of his belt. Kerplunk it went into the Gulf of Mexico!

When Charlie Crawford turned over to Malcolm Stevens the running of this new service under Section 10(a) of the Food and Drug Law of 1906--the seafood inspection service--Steve had his office in the customs building in New Orleans. And under him he had Switzer and Strasburg, and then a number of working stiffs like me. The inspection service around Biloxi, Gulfport, Harvey, Houma, along there, was proving pretty successful. The canners liked it. Word went to the East Coast, and the shrimp canning plants in Thunderbolt, Georgia, Darien, along in there, decided to ask for seafood inspection. They had to make application for inspection service. And they had to pay for it.

In early November of 1934, Switzer took Bill Stokes and James W. Skipper, and maybe one other, and drove over to Savannah--Thunderbolt is kind of a part of Savannah--to inspect the plants over there that had made application for inspection service, and to assign inspectors to them. The inspectors reported back to New Orleans and sent the labels to New Orleans to be checked. At first labels were temporarily approved, and then they had to have permanently approved labels. Labels were approved in New Orleans in Steve's office. We rocked along that way as kind of a separate service from the Food and Drug Administration, this seafood service. The chaps around Savannah, Thunderbolt, Darien, didn't report to Atlanta at all; they reported to New Orleans. But they were in Atlanta's geographic territory.

So about Mardi gras time in New Orleans, the chief of the Food and Drug Administration, Walter Campbell, came down there. One of the things that

Campbell ordered at that time was that the seafood inspection service is subordinate to the Food and Drug Administration. The chief of the Food and Drug Administration stationed in New Orleans has responsibility for his territory, and the chief in Atlanta for his territory, including the seafood inspection service. He kind of straightened things out there because we were kind of getting out of step. I remember that pretty well.

Before I was transferred from Biloxi to Houma, I concluded that it would be worth my time and appropriate for me to go out to the fishing grounds on one of these "buy" boats, and see if the folks who were out there catching the shrimp were getting them iced down. It would be in line with my responsibilities. So I asked old man John Maver if it wouldn't be possible for me to arrange to go out with the boat one morning when the plant wouldn't be running, and go out to the catching grounds. So he sent a young Dalmation man who was in charge of one of the buy boats. A buy boat generally didn't drop trawl at all; they just went to the others who had trawled the shrimp out of the water, and would measure them over and ice them down in his boat and then bring them back and sell them.

So we got out there among the boats. There were a lot of little boats, small like automobile-engined fishing boats. I said to the skipper, "Let me see if I can handle the wheel on this boat." So I steered the boat around there awhile, just as a diversion. I never thought much about it. Somebody reported me to the Fishermans Union. The Fishermans Union was just getting started in Biloxi then. I was reported to the Fishermans Union. I didn't know anything about it.

After I was down in Houma, a chap named John Steelman from the Department of Labor in Washington . . . The Department of Labor in Washington was

headed up by a woman at the time, Frances Perkins. And John Steelman was in her office. He came down to Houma, checked into a hotel there, and sent word for me to come to his room. I went over to his room. Steelman was a chap maybe thirty years old, very attractive, very affable sort of chap. He put me through quite a cross examination, and as it worked out, I had been reported as having violated the union rules. And the union was going to fine the skipper of the boat that I had been on twenty-five dollars because I didn't belong to the union and I had been seen at the wheel of the boat. I didn't deny any of that. I answered all his questions for him pretty well. He went back over and straightened it out, and subsequently became a pretty famous man around Washington.

The Fishermans Union grew from Biloxi and Gulfport--they were near together and much alike. It got down to western Louisiana, and then on down to the Texas gulf coast. When I was at Aransas Pass, there was some talk there that the fishermen ought to join the union and take care of their rights a little better. I never expressed any views about that at all; it was none of my business. But not long after I left down there, the fishermen got into a squabble about unions. A fisherman that I had known personally, a pretty nice man, was coming up from wherever the boats were unloading. In Aransas Pass, you unloaded down on the wharves, and then came on up to the picking shed. There was a levee along there. Somebody was up on the levee and as he was coming through, they shot and killed him. I believe it was asserted that he had opposed the union, and maybe a union man shot him. I don't know about that. I don't know whether the unions have gone on into a big way down there or not.

I haven't thought about some of these things . . . See, I'm telling you things that happened fifty years ago. I was a seafood inspector in '34, '35, and '36.

(Interruption in tape)

TB: When Bill Stokes was temporarily the seafood inspection supervisor, I was in the plant of Pelican Lake Fish & Oyster in Houma. Bill came in one time and said, "The decision has been made to require that these people who pick shrimp"—they were all Negro pickers in that picking shed—"will have to quit having these rag bandages on their fingers. That is not sanitary and it ought to be outlawed." I said, "Bill, that's going to be awfully hard to put into effect." "Well, we have to do it."

The enzymes in the thoracic cavity of a shrimp are pretty active enzymes, and a person peeling shrimp for hours at a time would get enough on their fingers that their fingers would get raw. I said, "Is there something we can do there?" He said, "Well they can use rubber finger stalls that you get at the drugstore if you want to and put those on to protect your fingers."

So I told the folks in the picking shed they had to get rid of those rags on their fingers. It wasn't sanitary and we wouldn't tolerate it any longer. But if their fingers were real sore, if they'd go to a drugstore they could buy a rubber stall that goes over the finger and use that, and that would protect the fingers some.

Some of them did that, and things were going along, I thought, pretty well. The shrimp came in to the pickers in the morning, two o'clock in the morning or something like that. Before I would let it come in, I'd chase all of the pickers out of the picking shed—they'd be huddled around in there waiting for work--and had them come back through the door and wash their hands. Everyone had to wash their hands with soap before they went back to picking. The shrimp

came in on wheeled carts at that particular plant, and they'd get to work pretty quick after that.

I went in one morning looking around to see if things looked pretty good around there, and there was a big Negro woman sitting on one of these rails that the carts came in on. She had a sore finger and was wrapping a condom around it. I was nonplussed; I didn't know what to do. I said "Get that God-damned thing out of here. I don't want to see it again." And I chased her out. She was just as innocent as could be.

RP: Well, that would have protected her finger some.

TB: Yes. We didn't consider that we had any jurisdiction over rubber prophylactics at this time. Somebody concluded the idea that if they would not prevent disease, they were misbranded as prophylactics. And so in the winter of '37 or '38 we began to get some attention to them, and pretty soon we had a big project going in this country of checking rubber prophylactics for holes in them.

One time in the Kansas City station, Bill Hartigan lost his temper over this episode. Bill had a ruling that if you wanted to be off on a one-day annual leave and make application ahead of time for it on those 3 X 5 slips we used then, he would grant permission for annual leave first come, first serve until he got to the point until he would be short-handed. Most everybody wanted annual leave on Thanksgiving Friday. It makes a long weekend out of it. One of the boys in the laboratory, Andy something, concluded that he wanted annual leave, and he was slow about getting his application in. Hartigan looked over who he'd

have on duty that day and he was getting too short, so he had to turn Andy down.

Andy was coming through the hall and Hartigan was out in the hall with this application slip in his hand. He undertook to explain to Andy that had couldn't give him permission to take off that holiday. Andy was peeved about it and he reached out to grab the slip out of Bill's hand. He got the slip. Bill was Irish, and he hit Andy right in the chin and knocked him over! He just knocked him down. He knew what he'd done right away. So he got on the telephone and called up J. O. Clarke in Chicago and told him what had happened. Andy didn't make any case out of it, so nothing bad came of it. But J. O. decided that he'd better get rid of Andy. They didn't want to get rid of Hartigan. And Andy was as much to blame as Hartigan was.

They were going to have a meeting of the district chiefs, western district, central district, and eastern district, in Chicago. The commissioner used to have those two or three times a year. He'd call a meeting and they'd come over. So Harvey and J. O. Clarke were coming over together on a train. I guess they were drinking some coming into town. So J. O. hit up a deal to get Harvey to agree to take Andy in place of some other chap. They made a swap onto it. And both of them lost out on the swap (laughter). The chap that came from the western district was assigned to St. Louis. He was always getting something wrong. That chap, when he was in the western district, had been doing some work with a microscope on checking figs for insect filth. They got a case in a court over in the valley. It might have been in Fresno; it might have been in Stockton. I don't know; someplace over there.

Harvey was kind of an amateur lawyer and later on became a licensed lawyer. At that stage he wasn't. But he liked to kind of monitor his own lawsuits. He generally tried to get his witnesses lined up and know about what they were going to say when they testified before they went over to the trial. But in this particular case, this chap in the laboratory, a chemist or an analyst, hadn't cleared with him just what he was going to testify to, finding this insect filth in, I think it was, figs.

They got over to the courtroom. It was a very hot day in the courtroom, and not very many people were in observing the proceedings. I guess the first evidence they proved was to establish jurisdiction by proof of interstate commerce. That went off pretty well.

And then they got into the substance of the trial. They called this chap. The name's slipped my mind. But he came up to the front, to the clerk of the court, who administered the oath. The clerk said in a sing-song voice to this chap, "Do you swear in this case the testimony you give will be the truth, the whole truth, and nothing but the truth, so help you God?" In a pretty loud voice, the witness said, "No." The judge raised up. Harvey raised up. The judge caught on real quick. "Oh," he says, "you're one of these fellows that won't swear to anything. Let the record show that he has taken the oath and promised to tell the truth," something to that effect. I've heard Harvey tell that story. The question of whether he promised to tell the truth, the whole truth, and nothing but the truth, he answered no! It's a shame you couldn't have gotten that recording from Harvey before he passed on.

RP: Tom, I want to thank you very much for this interview. I think I've told you that as soon as we have it transcribed, I'll send it to you for editing.

TB: Okay, we'll do that.

RP: Then this concludes the tape.