RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

NEW BRUNSWICK

AN INTERVIEW WITH RALPH SCHMIDT

FOR THE

RUTGERS ORAL HISTORY ARCHIVES OF WORLD WAR II

INTERVIEW CONDUCTED BY

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This begin an interview with Ralph Schmidt at Rutgers University in New Brunswick, New Jersey. It's June 22 at 10:00 o'clock in the morning. June 22, 1994 just to be precise.

Kurt Piehler: I guess I would start out with your parents. Why did your parents come to the United States in 1921?

Ralph Schmidt: They came here in 1928 actually.

KP: Oh, Okay.

RS: And they came basically to escape the inflation in Germany. And they brought with them billions of marks, which were absolutely worthless, but which I kept as souvenirs for some time. I no longer have them now. But that was the basic thing. ... There ... was a depression, as well as inflation, which was kind of a strange combination. The good times were still rolling here in the United States until we arrived and then the Great Depression hit.

KP: Had your father been unemployed in Germany?

RS: I remembered him as being employed, but not full-time. I remember him coming home at noon for the main meal of the day, which, it used to be the custom there. And he'd come walking up the street from the factory in which he worked and I could tell by his bouncing walk that it was my father coming. I remember that as a youngster. And I don't remember him being home very often, so I assume that he was fairly, routinely employed.

KP: Your father worked as a toolmaker?

RS: A tool and die maker, yeah.

KP: You don't remember which firm he worked with, worked in, in Germany, do you?

RS: Not in Germany, the little city where we came from is a place called Schwenningen and they considered themselves the clock center of the world. They had three different factories that manufactured all kinds of timepieces, from grandfather clocks to wristwatches, and all that sort of thing. So, he found employment among one of those three, but I don't know which one. I could take a guess and come pretty close if it's of interest.

KP: Yea, you could, why don't you just take a guess.

RS: All right. Actually, that same company is still making the dashboard clocks for Mercedes.

KP: Oh, okay.

RS: It's called Kienzle, K-I-E-N-Z-L-E. I believe that was the one he worked with. He was also a volunteer fireman. And, we had no telephone and we didn't rely on the central signal in the city, so we had an eight inch gong on the side of the bedroom wall and whenever there was a fire, that gong would go off and I'd climb up, half-way up the wall before I woke up. (laughs)

KP: Did your family have any relatives in the United States?

RS: Yes. Both ... sides of the family scattered over the world pretty well. My uncles and aunts on my mother's side came to the United States and on my father's side, they went to Spain and they went to Argentina and there's one other place that I don't recall. I just don't remember that one. At any rate, they were scattered all over the world, and we did have relatives on my father's side here, I'm sorry, on my mother's side here in the United States.

KP: Why did you settle in Newark?

RS: The reason is quite simple. My uncle lived there.

KP: Oh, okay.

RS: And, he sort of looked after us while we were getting settled in. We lived with him for a period of about two or three months, as I recall, and while we were looking, while my father was looking for a job, and while we were looking for a place to live. Luckily, we found both and so ... we set up our own homestead but that also happened to be in Newark. We looked in Newark basically because he was located there. Some of the other relatives were living out in Brooklyn and some of the boroughs of New York.

KP: New York. You had mentioned your father's experiences in World War One at the group interview. Could you recount them? He was drafted into the army in 1913?

RS: Yes, that's when his class, as they call them, came up. So, he was drafted as a routine matter.

KP: For two years?

RS: It was to be a two year period, yeah, and I think he served about 6 months of that period before the war broke out. Then when the war broke out, of course, he was completely involved and he fought through the war on many of the fronts, Italian, Russian, in France, and so on.

KP: You mentioned that he and only one other member of the unit survived.

RS: Only he and one other, yes. They were the only ones, of the original members, that survived. Of course, and so he considered himself quite lucky.

KP: What did he tell you about the war? World War I?

RS: He was very reticent to say anything about it. I mean, you had to get him really started before he would discuss his feelings about the war. But he thought it was, he used to phrase it in some fashion that it was, "The equivalent or the most stupid activity humanity or human kind can participate in." And he would not talk too much about it. If you got him really interested, he would discuss some of those things. I used to wait for those moments, but there were few of them.

KP: You had mentioned that he had fought on on all these different fronts. Which, did he ever say which ones, where the fighting was the worst?

RS: Oh, in France. He was in the battle of the Somme and I don't remember about some of the other battles, {Ardennes} I think he was involved in. Those were a little bit later in the war and I don't know too much about the beginning. I think he did go up through Belgium and into France with his unit. And he described, used to describe the battles there ... [as] being the worst possible.

KP: Did he say why?

RS: Well, because of the, well, basically because of the war, in the first place, but also because of the trench warfare; where literally, people were buried by shellfire, by artillery fire. And he used to refer to a strong thunderstorm as a drum fire because that's what they called it in the trenches when the artillery barrages were set up, usually in anticipation of a charge out of the trenches. And those barrages might last for days before the actual charge came and they used to huddle in their trenches and just hope that they weren't going to be the one who was going to be buried. They said ... people just disappeared or interred right by the ground thrown up by shells. They said there was no place to go. Find the best hole that they could nearby and wait for it to get over.

KP: What did your mother do during the war?

RS: During the ...

KP: World War I.

RS: World War I, I don't know.

KP: Did she ever speak of it?

RS: She never spoke of it. She was at home, I know that. What kind of work she did, to aid the war effort or whatever activity she participated in to aid the war effort on the German side, I don't know. She never spoke much about that.

KP: Did your father ever talk about why Germany had lost the war in World War I?

RS: Well, he thought the German army was out-classed by all the other armies, in numbers and equipment. So, he felt that that's why they lost.

KP: Did it ever seem strange to him that he fought in the German army in World War I and settled in the United States? Did he ever find that ironic?

RS: He never mentioned that. I don't know whether he ever thought of it in that light. ... He never expressed that. He would express, you know, some of the tides of battle and then the way they used to be the chief target of any attack, that is, the machine gun nests, because they did so much damage to the opposite sides. He actually, I think he received a hernia from dragging ammunition cases around in and out of trenches and so on. And he didn't have that hernia repaired until many, many years later, here in the United States.

KP: Really, so he had been hurt?

RS: He had that hurt for years. He was wounded and got the equivalent of a Purple Heart. He was wounded by shrapnel from an artillery barrage.

KP: So, even he didn't escape war unscathed?

RS: Not completely, no. But it wasn't anything life threatening or very serious, I mean, he got hit in the back of the neck, and in the rear-end.

KP: How did your father respond to *All Quiet on the Western Front*, the novel and the movie? Did he ever compare his experiences to the movie or novel?

RS: Well, he went to see it several times.

KP: Oh, he did. In Germany or the United States?

RS: Here in the United States. In Newark, we lived fairly close to a cinema and I remember [it] playing there and I went to see it and I saw it several times. First time, I believe I went with my father, if I remember correctly. Second and third times I went with friends of mine, about my same age. It was sort of a touching thing, you know, and I can still see the sniper pull the trigger when he was reaching for the butterfly. Things like that made an impression. Or when he was carrying a sergeant over his shoulder and the planes zoomed in. See, I still remember fragments of that.

KP: How did your father respond to that movie? Did he...

RS: He, well, certain aspects of it ... he said, "Oh, that's...

KP: Not accurate.

RS: ... "Not accurate" you know. But in many places, he said, "That's exactly the way it was." So, in actual battle scenes with all the confusion and everything else, he said, "That's the way it was." You could tell ...

KP: Did it affect him emotionally, or bring back bad memories, or ...

RS: He never let it be known what kind of emotions it created. He didn't say too much about such things. As I say, we had to really get him started to get him to talk about it at all. And so, he didn't express himself too frequently. As a youngster, I probably missed a lot of the things he said anyway, not realizing the impact or the importance of what he was saying. He used to marvel at the fact that he survived.

KP: He considered himself very lucky?

RS: Yeah.

KP: Did he ever talk about other men in his unit, or ...

RS: Other men, he used to call ... there was a nickname all right, which I don't remember. He probably made friends with one man. I got the impression that nobody got close to anybody else for fear that tomorrow that other fellow wasn't going to be there anyway. So, they limited their association to just one or two people. And they fought together and they, you know, I guess it took three men to fire that machine gun anyway and load the ammunition, and feed it in, and do all the rest of it. So he was in charge of that squad. But, he didn't feel that he should get close to anyone because tomorrow somebody else will be here.

KP: Did your parents speak German at home? What was the split in languages?

RS: Well, when we came, we arrived in this country, neither one of us knew how to speak English. So, we were dependent upon my uncle to make initial contacts. And the contact, of course, was also with my relatives that were already here, but that was not the place to learn any English, because they were all speaking German. And, of course, we spoke German at home. I actually attended school in Germany for two years, grammar school. And ...

KP: How old were you when you came to the United States?

RS: Eight years old. And in that school in Germany we learned reading and writing pretty rapidly. They used to push us much harder than the American schools did. We, I could read some German, as a matter of fact, quite a lot of German except for the complicated high-level

discussions and that sort of thing. But, when we moved into our first home in Newark, I knew none of the youngsters in the neighborhood and I didn't know how to contact them simply because I didn't know the language. They didn't, they couldn't speak mine. And I remember what I did in an attempt to kind of break the barrier. In Germany, we used to make hand puppets out of potatoes. We would carve potatoes in the form of the head and hollow it out for the finger movement, then wrap a handkerchief around the rest of the hand and duck behind something and pretend Punch and Judy show. So this is what I did in Newark. I took a blanket, draped it over the railing on the front porch of the house which was right on the sidewalk. I crouched behind. I just made noises, I didn't speak anything because I couldn't, so I just made noises. That would attract them. Then they'd want to see how I was doing this and how to carve the potatoes, so I began to set up associations. One of those youngsters is a graduate of Rutgers University (laughs) and I remember him very well. Bert Manhoff is his name, and he's very active with the football letter winners club. He and I just smile at each other when we pass. (laughs) We went through grammar school and half way through high school and then he transferred to a different high school and we sort of lost track of each other at that point. But, any rate, to get back to the original story, I did get to make contact with these youngsters and we started to play together and make noises and pretty soon, I began to pick up a word or two and I began to converse with them.

That was helped by the fact that in grammar school, I had some wonderful teachers who were helping me. When we lived with my uncle in Newark, I went to summer play school, which is in North Newark and no one there knew any German and I had two years of German in Germany, but no one knew German and they put me back in kindergarten because I didn't know any English. So, what was I to do in kindergarten? I was a little too old for sandbox, so this rather creative teacher did two things. She took a pad ... or composition booklet and she drew it into columns and she would put the English name of something at the top of the column and then I had to put the equivalent in German in the next column. So, side by side I had to repeat that over and over until the page was full. For example, chair. She would write it in English and I'd write it in German and we'd come on down and repeat and repeat and repeat. And while other kids were playing sandbox, this is what I was doing. I found it very helpful. Began to make me think in English and thinking there must be another way to do this. It got confusing sometimes because she'd point to something that was red and she'd put down red and I'd put down the name of the object, rather than the color. So, but we overcame that. When we moved to another part of Newark, there was a...I started again in kindergarten. I was getting to feel like the old man of kindergarten. But, eventually, of course, I got into the first grade and the teacher there knew some German and she used to teach me, she didn't have to, but she volunteered to stay after school a bit if I could, and sure I could. School was in walking distance, so I was happy to have someone pay attention to me. And she began to teach me English. As a result of that, I think I had a head-start. I picked up English quite rapidly.

KP: How did your parents do in terms of picking up English?

RS: Well, they picked it up more slowly, of course, because their contact was with people speaking English was rather limited. My father was limited to his work, which generally had to do with work functions and so on. My mother began to do housework for outside people and she didn't get, of course, to see too many people in that way. So, what actually happened was, while I was going to grammar school, all three of us spoke German at home. When I went to high school, I spoke English and they spoke German. When I went to college, all three of us spoke English. (laughs) We sort of progressed that way. I didn't intentionally set the pattern, but it seems that it evolved around me. That now's the time to pick up and take the next step.

KP: Were your parents active in any German American organizations?

RS: No, no.

KP: Newark used to have a very ... into the 1930s and 1940s had a large German American population.

RS: That's right. And we were aware of a Bund camp in Andover, I think, New Jersey and we never went up there and we never got interested in it. Instead of me becoming a Bund youngster or whatever they called it ...

KP: You joined the Boy Scouts.

RS: Yeah, I joined the Boy Scouts. You know, and I was the all American kid that got to be Eagle Scout, you know and I was active in this and active in that and I got all these merit badges and was big man on campus in high school and I was athletic and did all those other things. I just didn't have time for anything else.

KP: So, your parents encouraged you?

RS: Oh yeah. They said, "If that's what you wanna do, you go do it."

KP: So, they didn't have any desire to maintain ties with the German American community?

RS: No. Most of their families had moved out of Germany. My father had some sisters left in Germany, but that was the only contact. One brother too, my godfather.

KP: So your family and you viewed that this was the place you were staying?

RS: Oh, definitely. And we got, well, we, I say, my father and mother got their citizenship as soon as they could. There was a five-year period, and, which later on proved to be very helpful when my mother was stuck over in Europe.

KP: She, well, we're gonna get to that.

RS: We're gonna get to that.

KP: Yeah, yeah, no, I hadn't.

RS: But at any rate, they went right ahead and got their citizenship. And, of course, I was less, I was sixteen years old at that time and I wasn't of age to get my own citizen[ship] papers, so I got what they called a "derivative citizenship" and I was a citizen because my father was. Then, sometime after I got out of college, I cleared that little mix-up, that's not a mix-up, I mean, but that hurdle. I cleared that by actually taking out my own papers just so I'd have my own, so I didn't have to bother him for his if I needed a passport to go somewhere else. Things of that kind.

KP: You attended the Washington Jamboree?

RS: Yes. (laughs)

KP: I saw a clipping on that in the files. Is that the furthest you had traveled at that point, except for your travel into the United States?

RS: At that point, that's right. I mean, that was a big thing for me. Yeah, so I was selected from our council. Well, it was a competition. You got so many points for a merit badge, you got so many points for this, you know I figured I'd like to go. My best friend and I were competing for it and I managed to sneak past him and beat him out of it.

KP: What is your memories of that event?

RS: Oh, I remember being greatly impressed by Washington, D.C. We were camped on the agricultural experiment station, which is just across the river. But we, of course, were given an opportunity to see all of the sights and the monuments, and the museums, and the Senate, and the House, and all of that sort of thing. And we were introduced to the governmental procedures, not that we understood them at all at that age, but, it was a good beginning. Some of the things stuck with us and helped in the future. But, I remember also that Franklin Delano Roosevelt came to visit our camp. He came in an open touring car and he drove through our camp. With his unfortunate legs and all of that, of course, he couldn't walk through the camp. So he was driven around the camp and the car would stop every so often in front of a group of tents and he'd talk with the youngsters, he talked with us. And that was a big thing, wow! I can also remember getting on a train in Newark, and I hadn't been on a train in the United States up to that point. In Germany, I'd done a little bit of traveling, but not much. Anyway, I got on the train and I remember, gee, this is going to Washington. So I enjoyed that thoroughly, that was fun.

KP: Did you meet people from different regions of the country?

RS: Oh, yes.

KP: And what were your impressions of southerners and westerners, and...

RS: Well, there are obviously differences, at least to me because of my speech. There was a southern accent and there was a western twang and there was that kind of thing; but I accepted it. Well, this is the United States and this is a big place, and well, sure. And even in Germany you have all kinds of dialects you can't understand. So that didn't make much difference to me. We did a lot of bartering. I can remember, in those days, Newark Airport was the largest airport in the world and we were given medallions that depicted this airport. The old bi-wing planes and all that sort of thing. And we would trade those for very strange things. There would be neckerchief slides made out of vertebrae of animals. I even traded one for a Texas horned toad, a live one, it's a type of a lizard, and I brought that all the way home with me. So we had a great time just exchanging things. And we would just wander from one camp to another. They had it all laid out with this region is for people from this state, or this group of states, or whatever it happened to be, and this region was someplace else. We were, as I mentioned, on the agricultural experiment farm site, but there were many on the other side of Washington, wherever there was an open spot, they camped. The place was covered with tents and we would just wander. Of course, we had certain programs too, that we were required to attend, although we weren't going to be sent home if we didn't. (laughs) But, at any rate, we ... did do a lot of wandering and a lot of bartering.

KP: You mentioned you were a man about campus in your high school. Did you know you wanted to go into the sciences?

RS: I have always blamed one of my uncles for that. He gave me a chemistry set for Christmas. (laughs) And what I did, I set up my own laboratory in the basement of our house and I emitted some pretty bad odors.

KP: But you didn't blow anything up?

RS: No, I didn't blow anything up. I could tell you some stories where I tried. (laughs) But, I was interested by the time I got into high school, yes.

KP: What was your school like? What was the make up of the student body? How many were new immigrants? What ethnic groups did they come from? You mentioned you went to West Side High School.

RS: That's right. In those days, the ethnic make up...we didn't pay a hell of a lot of attention to it, quite frankly. But it was about 15% black, and the rest were all Caucasian.

KP: Were they first generation Americans?

RS: There were quite a number of first-generation of Americans, there were quite a number of Jewish people in that area, there were quite a few Italian people in that area. Then there were the people from the Vailsburg section of Newark, which is one of the better sections of Newark, and they, of course, they were all white and Caucasian. So, that was the makeup, but I considered it a very good school at the time. And yes, I was active. I got into anything I could get into. My folks said, "You want to do it, go do it."

KP: So, they were very supportive of your educational activities?

RS: Oh yeah, I must tell one story though, about my football playing. Because when I started play[ing] football in high school, they said, well, all right. ...

KP: Did they expect soccer?

RS: No. Well, they knew the difference by that time.

KP: Yeah.

RS: But I finally talked them into coming to see a game. They had never seen a game with me in it and they stayed for one half and then they said, "This is a ridiculous sport and we're not going to stay any longer." So they walked out at half-time and never came back and never came to another game.

KP: Even in college?

RS: Even in college. Even in college.

KP: What sports did they enjoy seeing you play?

RS: I don't know. (laughs)

KP: Did they come to any of your other ...

RS: No, no, they never came to a wrestling match, never came to basketball, nothing. They just felt that if that's what he wants to do, that's fine, let him do it. And I was given a lot of leeway, which I kind of appreciated, more in retrospect than at the time. The one thing they did say is that, "You have to keep your studies up." That was the one thing they wanted me to do. And then, I managed to do that. I graduated third in a class of 275. I was valedictorian. I won the Bamberger medal, a science medal, and so on. So I was keeping that end up quite well. But I must also admit that I did well largely because of my Scoutmaster who took me under his wings for reasons I still don't understand. He was a great man. He was an engineer for the Hoffman Beverage Company. And if I had any problem with a algebra problem, for example, if I had difficulties with it, I could jump on my bicycle and pedal, {it was about 3 miles} to his house,

unannounced at 9:00 o'clock at night, knock on the door, and he'd say, "Come in. I know what you want. What's the problem today?" (laughs) And he gave me so much of his time, that I really feel badly that I didn't demonstrate my gratitude any more than I did. I've seen his daughter, {who graduated with me in the same class}, just recently, we had a high school reunion, and we reminisced a great deal about that. She said, "You were a member of the family." And that was the way it worked out.

KP: How long did you stay in touch with him after you left the Boy Scouts?

RS: He left first. He resigned as Scoutmaster having put in something like, oh, I think twenty years or some such thing. And I kept in touch with him into college. And things are sort of intertwined. His daughter was in my class. She was voted best athlete, I was voted best athlete; she on the female side, and all that sort of thing. He had two sons, one went to Brown and the other one went to Bucknell. Both became doctors, M.D.'s that is. When we played Brown up in Providence, I played against one of them and the two of us were kicking each other around and getting in those few extra digs, but, of course, we were the best of friends. And we saw each other during the Christmas recess. We compared notes and that sort of thing. The other brother, I didn't see too much of. It was a wonderful experience just to be associated with that family. And if I needed guidance of any kind, where as my folks would say, "If that's what you want to do, do it.", he would say, "Well, you want to consider this, and you want to consider that." ... So, I was very fortunate to have him.

KP: How important was the Upson scholarship in making in your decision to attend Rutgers or had you considered other schools? What role did your Scoutmaster have in your decision to come to Rutgers? It seems like you consulted him.

RS: You're absolutely right. You saw right into that one. My parents knew nothing about college and they thought it was like in Germany. I mean, if you didn't belong to a certain class, you know, you just didn't get into any college or any university or anything like that. So they never encouraged me to go to college, because they figured there's not a chance that you'll ever be accepted. ... Of course, when my Scoutmaster came along, he began to realize that I had the grades and all the rest of the qualifications to get into a college. He recommended that I go to Rochester. Being a technical school, and being interested in technical things, he thought that would be a good match. And he thought he knew somebody that could get me a scholarship and so I jumped at the chance, of course, you know what I mean, I made application and all that sort of thing. In the meantime, my football, high school football coach, who took his master's degree here at Rutgers, began to look at me and say, well, maybe we could do something for you at Rutgers. So sure enough, the alumni secretary, who was sort of in charge of recruiting in those days, came up to see me, and so did the coach, Taskar was his name at the time. And they talked about the Upson scholarship, you know, you can have a Upson scholarship. Well, I thought, you know, the man had come from heaven by doing that. By comparison with today's scholarships, it was really nothing. It covered tuition, period. No books, no ...

KP: No housing?

RS: No living expenses, no housing, no nothing. One of the questions, I remember, that the committee, when I did come down and was interviewed, the dean and all the rest. ... The one question asked, "How are you going to support yourself the rest of the way?" So, I discussed this with my parents and they said, "Look, we'll find it, you just go." So I told this to the committee.

KP: Were your parents surprised you were able get the scholarship?

RS: Oh yeah. The whole neighborhood was. I can remember, everyone said, "Oh boy, he's going to school at Rutgers." But they were surprised, pleasantly so, of course. they said, "Look, no matter what it takes, we'll sacrifice, you just go, and don't you worry about it, we'll take care of the difference." And that's really what they did. ... So there's my connection with the Upson scholarship. Just as an aside; when I arrived here and had accepted the scholarship, I found out that there were ten Upson scholarships awarded every year, and awarded almost without exception to football players. So I walked on the field with ten freshmen football players and just about every one of them, except me, had been captain of his team in high school.

KP: Had you been captain of your high school team?

RS: No, I was captain ... co-captain of the swimming team, but not of [the] football team. We had a darn good tackle who beat me out. He was good, so he was captain. But you know, I arrive and there are these ten hulking people, all of them captains of their teams. So I figured, they must be pretty good. (laughs)

KP: From going through the yearbook and your alumni file, you very much a man about campus at Rutgers. Did you set out that role, or did that ...

RS: No, I didn't really intend to do it. I had sort of a curiosity to find out, well, what's this sport like? You know, yes, I had played football. I was president ... in high school I was president of what they call the senior council, which is the same as the student body. And as I mentioned, I won the other awards, and did that sort of thing. So I sort of had a running start in high school. It wasn't unusual for me to get involved in these things. And, of course, naturally, football came first. I mean, that was really why I was here. I was not kidding myself, that's why I was here. And so I went out for the team and made it with no problem and then I, after football season was over, I said, 'Gee, our high school never had basketball, I wonder what that's like,' so I went out for the basketball team, never having played it before. And I made that team. ... In the spring time...I had already done track in high school. I had run the low hurdles and had thrown weights and javelin and discus and shot and that sort of thing, so that didn't require a heck of a lot of effort. Not too much practice was required, so I went out for it and I participated, but I said, this is a funny looking sport we've got here called lacrosse, so I wonder what that's like, so, I went out for lacrosse and made that. And when there was a conflict between the two, I'd run from the

lacrosse field and throw the shot-put a couple times and come back. ... (laughs) It was a ... very strange arrangement. That was my freshman year.

KP: So, you did all this your first year?

RS: Yeah, that was all.

KP: When did you find time for academics?

RS: Well. (laughs)

KP: How did you manage to, it's a busy ...

RS: It's a busy schedule. And in addition to that, I met my wife at freshman reception. (laughs) She accused me of partitioning my activities, you know, everything goes into one category for so much period of time during the week and so much time ... period of time devoted to something else. I guess I did do that. And studies came into the same category. Although, not particularly the junior year, but in later years, I used to put in extra time in the laboratories to get my laboratory work out of the way and make more room during the course of the week for other activities. I used to go down [to the] laboratory on Sunday, for example, and I'd run my unknowns, which I had to identify and make derivatives of. And Saturday where usually had some activity, at least in the morning, and I would go into the laboratory in the afternoon. So, I spent time, a good deal, in the laboratory, just to get that out of the way so that all I had to do was attend the lectures in order to get the exposure I needed for that particular course. The newspapers used to call me "The Galloping Ghost" in later years because I used to come running out, especially in junior year. I had laboratories which lasted until 5:00 or 6:00. And by the time I got out to the field, got into my gear, they were coming in and I was coming out. And a few minutes later, the lights were on and there was no one there, except me.

KP: And you went through the whole practice?

RS: I would, by myself, kick the ball, chase it down the field, turn around, kick it back, and do that for a while so I got my running in and got the kicking practice. Then, of course, we had the blocking sleds, and the tackling dummies, and you don't need any help there, so I kept doing it. One of the reporters saw me one night and there was nothing there except this lone figure jumping up and down-- so, the Lone Ghost.

KP: Where did you live your first year on campus?

RS: In Pell Hall, right up here.

KP: And when did you join your fraternity?

RS: That was at the end of freshman year; Alpha Chi Rho.

KP: Now, how did you see the divisions at Rutgers in your day between the different groups? What did you think of them?

RS: I was so busy. It was really difficult to really analyze that much of that. There was some differences between the so...called commuters and the people who lived on campus, there was that. And they had their own organization and we had ours; which I thought was a little bit strange because we were all going to the same university. However, I guess most people explain it in a way by saying, well, they're never really on campus, they just come here to go to class and then they disappear again. The rest of us are here and we take part in other activities, in addition to studies. But that was the only thing I remember. Otherwise, we got along quite well. Classes were relatively small compared to what it is now, and we did pretty well.

KP: Did you try for the Rhodes scholarship?

RS: No.

KP: Had you considered it, or had any recommended it?

RS: No. Some people said, maybe ... somebody should have, but that was after I graduated and when they became aware of my background, it might have been worth it if someone had. By that time, I no longer had my faithful scoutmaster to guide me. (laughs)

KP: So you had no one who was pushing you or suggesting this?

RS: No, no.

KP: I was reading your alumni file. I was looking at what you had done in college and you seemed like the perfect Rhodes Scholar candidate. Is there anything I forgot about Rutgers College, or even about high school, or ...

RS: Well in high school, I mentioned my campus activities there. And the three sports I participated in there were football, track, and swimming. And our swimming team won the city championship that year and I was co-captain of that team. I participated in student council, of which I was president. There were other groups there in the high school yearbook, clubs and things of that kind, you know, but I was pretty busy with what I was already doing.

KP: How do you think the war affected your career as an athlete?

RS: Well, the question, of course, is, ... did I want to consider athletics as a career, you know. And after my senior year, I did get a letter from the Philadelphia Eagles, offering a try-out. In other words, you report to their camp and you spend a couple of weeks there and then you go

through their routines and that sort of thing and see whether or not they're interested in you. That meant that somebody from the Eagles, some scout, had watched me at some point and decided that I was worth trying out. I didn't accept the letter, because at that point, the war was just blasting everything apart, and we didn't know where we were going to go and where we were going to wind up. So I never even responded to the letter. I think I did say, "no thanks," or something like that. It was a very lucrative offer, because it offered, if I were to make the team, it offered $5,000.00 a year.

KP: Which back in the 1940's ...

RS: Which back in those days ... WOW, I mean, you were a success if you made that kind of money. It was better than the $1,800.00 a year job that I had taken. So I never considered, seriously, going on with a sports career of any kind. I enjoyed playing. I actually coached here for one season as assistant coach Heiney Benkert. And we had a lot of trainees here from the army special training program and they had to, they were required as some part of their curriculum to take some sort of physical activity, some gymnastics, whatever. And team sports counted. So we had a lot of youngsters come out for football and Heiney Benkert took care of them on sort of a J.V. basis. The other regular Rutgers team, while it was fairly decimated by now, still had their varsity structure.

KP: So the ASTP people were segregated from the regular Rutgers people?

RS: Well, only to an extent. If we found someone on the ASTP who was good enough to help Rutgers get a good score. ... (laughs)

KP: There was some movement?

RS: There was some movement possible, yeah. But we used different plays, we didn't meet with the varsity team. It was not that kind of a J.V.-varsity arrangement.

KP: You mentioned, I think at the lunch, you had an experience with ROTC. ROTC, where, if you could recount that in terms of the shell.

RS: Oh, that was the mortar. ... I was taking basic ROTC and one of the classes dealt with how to operate a mortar. And this was done in the basement of the College Avenue Gym. This room in which it was done was actually a concrete vault, you might say, because it had a concrete ceiling, concrete walls, and so on. And a Major Malone was showing us how to fire a mortar and he had set up a mortar, I think it was a great big three or four inch mortar, a monstrous thing. And he showed us the shell which is dropped in to the tube and he explained, well, "This shell is empty, it's the metal weight, we're not going to have anything happen, but you'll see it disappear. The next thing normally, would be to come back out, so keep your head out of the way." Things of that nature he would tell us. And then he showed us how the primer charge fitted into the end of the shell with this primer charge ... looked like a shotgun shell. He also showed us how to put

the boosters right around the shotgun shell, this would give the shell more distance. So he slipped that on and took off the rings themselves, the booster rings, but he didn't take the shell out, he thought the primer shell was a dummy, just a phony. Well, he dropped the thing into the tube and several pounds of empty mortar shells ricocheted around the concrete walls.

----------END OF TAPE ONE, SIDE TWO----------

RS: At any rate, after that we called Major Malone, Mortar Malone. (laughs) But luckily no one was hurt.

KP: Had you given any consideration to staying into ROTC longer? And how did your family feel about ROTC?

RS: Well, again, I got their usual answer, "If that's what you want to do, you might just go ahead and do it." But I was involved in so many different things by the end of my sophomore year, that I just felt that, I don't have time to do this. So being no pro-military that much anyway, that's why I said, "No, I'm not gonna take it." So I just took the two years of basic.

KP: In the 1930's and early 40's, how did your family feel about the rise of Hitler and the Nazi party?

RS: Well, they were very interested in watching it. I know that my father used to subscribe to the German paper and he always followed that through.

KP: The German paper in Newark, or ...

RS: In Newark, yes, yes.

KP: Did he ever express his views regarding the change over the course of the 1930s?

RS: Well, he was encouraged in some ways by what was happening on the theory that Germany's had it pretty bad and it's time that they got something better, better conditions than there existed.

KP: For example, how did they feel about the Treaty of Versailles? Did he ever talk about Versailles?

RS: No, he never said that was a bad treaty or anything like that. I don't remember him saying that. I do remember him talking about the end of the war, World War I, in that the German general staff after the Armistice was signed just walked away and left the soldiers in the field and he felt abandoned by the Germany High Command. The only exception was Hindenberg. He had great respect for Hindenberg because Hindenberg came back and brought the soldiers back across the border into Germany. Otherwise, something might have happened. I don't know

whether at that point, whether they would be considered prisoners of war or what, but anyway, he managed to organize the retreat so that they found their way back home. He used to think quite highly of Hindenberg. But as far as the rest was concerned, he didn't make many comments about that.

KP: He just followed it very closely, though?

RS: Yeah, yeah. He liked to see Germany get something that he thought they needed, which I guess is a natural type of thing. He didn't look at what was really happening, because he didn't understand, I don't think, just exactly what was happening. As more and more of that came out, you know, that all kinds of nasty things and horrible things were happening, he began to drift away from it. He said, "Well, that bunch of something or others." ... I forget what he called them, the National Socialists, the ones he ...

KP: Was this before or after we entered the war?

RS: Oh, this was before we entered the war, yeah.

KP: So, he was increasingly skeptical?

RS: More and more he became ... at first he said, "Here's somebody who's leading us, leading Germany, and it's good that we have somebody to take care of it and plot the thing and get us going." Then, gradually, he began to drift away when he began to find out all of the things that were doing. He was basically opposed to a set up that has storm troopers, so called, a special group which has special powers, and he didn't believe in that.

KP: Did he every say why the storm troopers were so alarming to him?

RS: Just, well I think it related, he related it back to World War I. That here were storm troopers that were going to tell the regular army, which he was, what to do. ... Like SS for example, you have an SS officer assigned to each company, or whatever unit of the military, and he thought that was not the way to run an army. Politics no. The army's there and if you're going to get into a fight, the army's there to win the fight. But don't start to put all of this politics into it. He hated politicians. (laughs)

KP: Both German and American?

RS: Any kind. (laughs) He didn't trust them really. But that was his reaction, as I remember.

KP: Now, your mother actually, you might want to recount, if you would your mother's experiences. You mother left for Germany and returned to Germany for a visit in ...

RS: It was in August of '39.

KP: And was this your first visit back for anyone in your family ... to Germany?

RS: I think it was the first visit back for either one of us. Yeah. My grandmother had come over to the United States and she stayed with us for a couple of months or so and then went back. But that must have been about the mid '30s or thereabouts. But my mother did go back to visit my grandmother, her mother, and my grandmother was about 80 years old, or in the 80s somewhere ... it was apparent she wasn't going to live all that much longer. So my mother sort of felt obliged to go and visit her one more time. That was basically the reason for the visit.

Unfortunately, of course, September 1 everything broke loose as far as Germany and the European situation was concerned. So we suddenly lost track of her and the fact that no letters came through. And it seems that the German authorities had just sealed the borders and it was not a question of just plain censorship, I mean nothing came through. That way, it was much more efficient to control. But it did create a lot of other problems. At any rate, as far as my father and I were concerned, we just lost track of her for months. And we wondered where she was, we didn't hear, and we didn't know. We asked for help from the Red Cross, and the Red Cross was swamped with a lot of such requests, so then they just didn't have the time to jump on everyone's request as a top priority, so they weren't too helpful. All they could say is, "We're working on it, you know, we have inquiries out." And all that sort of thing, but there's no news, no answer. And I guess it was close to six months later that we suddenly got a cable that my mother was on an Italian ship going to dock in New York within a few days. That was the first we heard from her. And it turns out that she, with her American citizenship was able to get out, although with difficulty, get out of Germany, whereas the Germans were sealed within the borders. So she worked her way into Switzerland. From Switzerland, she worked her way into Italy, which was not yet involved in the war. Then she found passage on an Italian ship to New York. So, she pretty much took care of herself, actually, in the long run. And she was able to work it out. Now, helpful in that, as I mentioned before, was that she was an American citizen. I mean, she could use that, to say, "I'm an American citizen, you can't hold me, I'm not German."... And this kind of stuff. And then, of course, she had to prove all this every time she crossed a border and even on board ship. The ship was stopped several times by British patrols, naval patrols. And they would go through the manifest, the passenger list, and see who was on board and what names they had. And with a name like Schmidt, they checked twice. So, at any rate, she did clear all the hurdles and she got on the ship and we were finally reunited. But it was an anxious six months or so.

KP: You mentioned, when I talked to you over lunch, in terms of her impressions of Germany at war and you might want to recount. For instance, she had noticed that soldiers did not wear patches.

RS: Yeah. Well see, she noticed a lot of troop movement on trains and on trucks and she also noticed that their soldier patches identifying their units had been taken off. They were in just a drag uniform, you couldn't identify from which unit any one of them was. And she said that

could only mean one thing, they're trying to cloak the troop movements so that someone from inside can't say well unit such and so is heading toward the Polish border. Somebody else is heading toward the French border or whatever. And she told the relatives that were still over there, with whom she was living, that she wanted to get home, that this was going to start ... doesn't sound good to me, there's going to be trouble, and this was before they invaded Poland. ... She said, "My relatives are very over confident about the whole thing, they felt, well, everything's gone so quick, and so fast ... so nicely up to this point, that this isn't going to last long either. It's going to be over in a very short time and you've got nothing to worry about." And she was convinced that there was a lot to worry about, because, she said, "I know the United States, and they've got productive power that you never imagined". She was convinced that the United States would ultimately get involved in the whole thing.

KP: Did she say anything else about her impressions of Germany?

RS: Well, she felt that the people really were highly in favor of what was happening because they were winning so much. It was one of these things where when you're winning, you keep going along those lines. And they thought that Hitler was doing great things and restoring Germany to a status in the world community and that sort of thing. And he ... had them really, really fooled. If you said anything negative about Hitler or anything about one of his policies, "aw, naw, you're wrong."

KP: So, your family was really in Germany?

RS: Yeah, my family, in Germany, was pretty much sold on the idea.

KP: How did the war affect your family in Germany, and did you have any contact through the Red Cross during the war and then what happened in terms of ...?

RS: We didn't during the war. Immediately after the war we made quite a number of shipments of Care packages because there was no food there. So we used to wrap up packages regularly. My uncle sent us a letter and said he was ashamed to go down and pick up the letter, pick up your packages of food because other people here starving and they're not, there's no one there to help them pick up food. So he used to distribute some of the stuff that we used to send him. And they all lost a lot of weight. "Well, that's a good thing anyway, look on the bright side of it." (laughs) But they were occupied, of course, our particular town was occupied by the French and my uncle had quartered in his home, three or four French soldiers. Billeting is that the name?

KP: Billeting, yeah.

RS: Billet somebody. At any rate, he said, gee, "They were nice kids." He said, "They didn't give us any trouble, they slept there and they brought their food in and ate there, they gave us some, sometimes, you know, and he said they were really nice kids."

KP: So these were French soldiers?

RS: French soldiers, yeah. They had a lot of Moroccan soldiers as well, as part of the French army in that particular area. But I think the only thing he said, "The only thing I [he] had, having to do with Hitler, was a small bust of Hitler. That was the only thing in the whole house we had and he said we had to get rid of that real quick." (laughs) So it's buried somewhere out in the backyard somewhere. (laughs)

KP: This was your uncle?

RS: This was my uncle. He was sort of an elder statesman of the town and he largely, his doing that the town was not bombarded, that they surrendered when the French were approaching.

KP: Oh, he had brokered the surrender of his town then?

RS: Yeah, yeah.

KP: Do you remember, was he a member of the Nazi Party?

RS: He was not a member, no. He did not. ... I don't know any of my, well, let me see. No, I have a cousin who was a member of the party. He was an SS trooper and he went to Russia and he was severely wounded with a wooden mine blasted his ear drums and shot splinters into his head and that sort of thing. And he when the things were going bad on the Russian front, he decided he was going to go back home, period. And so, we don't know just exactly how he worked his way all the way from the Russian Front...all the way back into Germany.

KP: He just, a ...

RS: He just deserted it is what it amounted to.

KP: And he lived to talk about it?

RS: He lived to talk about it. I had another cousin by marriage, who also, he was not a Nazi member, but he also served on the Russian front. And my cousin got word from him, {it was her husband,} that he was going to come back and he was going to try to do the same thing, he didn't emulate my first cousin, because he wasn't aware of it, but he was going to try to do the same thing. He was going to find his way home from Russia. He never made it, he just disappeared. Nobody knows what happened to him. ... The only one I could say was a real SS or Nazi was the one that made it back from Russia. Of course, he came back with greatly altered ideas. (laughs)

KP: So, he expressed regret at the end?

RS: He did, he said, "This was ridiculous, you should have seen this, you should have seen that." ... But it was a little late then.

KP: When war was declared in 1941, how did your family and you feel? What were your concerns, what were your feelings?

RS: Well, we were most concerned about our own future ... the impact on our own lives here in the United States because of, first of all, the Japanese attached and we knew we were in the war. But we didn't know how we stood vis-a-vis Germany. At least, as I remember, a couple of days, but those few days until Hitler declared war on the United States. And then you should have heard my father, "He's a crazy man, does he know what he's doing taking on the United States?" (laughs) So that was his reaction to it. My mother just shook her head and said, "This is terrible, you know." But she didn't make any profound statements about it.

KP: How did your family feel about your could be drafted?

RS: The feeling that they had was that some things are inevitable. My father said, "Well, I had to go through it." And he said, "If you're drafted, what are you gonna do?" You serve so, you serve. My mother was a bit more fearful, she didn't want to see me go into the service. My father, well, he sort of took the attitude, well, your a man, you have to do what you have to do.

KP: Was your family concerned at all, that you could potentially be fighting Germany and in a sense, fighting your own family? Was that ever expressed?

RS: That was mentioned, only very rarely, I mean, you know, it could be that you're going over to Germany, and then my father said, "They'll probably send him to Japan." Things of that nature. But my uncle, ... who lived in Stuttgart there, when I saw him after the war, this was back in 1949, he said, "You know, every time we heard a knock on the door, we thought that you were going to stand there in an American uniform". I remember that statement. And he expected me to be in uniform, and fighting against the Germans. But my parents, well, you go to war, it doesn't matter where you fight, you're gonna have your hands full.

KP: Did you, in fact, receive a draft notice?

RS: Several times.

KP: Could you recount your experience with the draft board?

RS: Well, I had a very active draft board up in Union, New Jersey.

KP: Now, were your parents still living in Newark?

RS: No, we had moved in freshman year, we moved to Union, New Jersey, so that's where all of this took place. But yes, I fell under the Union draft board. And the head of that draft board swore he would not induct a father as long as there was a single non-father out on his list. And so, every time I came up for a deferment, he would say, you're not a father, you're going, you know? And we had to make an appeal. But anyway, to start at the beginning with the draft board, I registered like everybody else for the draft, and they didn't really get around to calling me, until I was, working in Merck & Company. And what I was doing there is going to take a little time to tell you, I mean, if you don't mind. What I was doing there is I'd been hired for manufacturing of various pharmaceuticals and chemicals. And I'd had some experience at Merck as a pipe-fitters helper the summer before, you know, to make some money for the following school year. And I liked production, I'm not a bench chemist at all, I'm a manufacturing chemist if there is such a thing and I like to work with big equipment. I like to produce things, I like to hook up the equipment, you know, that's my thing. And so, here was an opportunity to do just that. The Merck & Company had been making vitamins and they had just built a brand new plant for vitamin B2. And while it was being finished, I was employed before it was actually finished. There were about three or four months until it was completely finished, they put me on the manufacturing of vitamin B1, which was an established process. But apparently, what had happened was that the army and the other military services had come to Merck and said, can you make DDT for us? That sounds like a strange request for a pharmaceutical outfit, but, the fact is that Merck was making chloralhydrate as a sedative. They made only a few hundred pounds a year, but nevertheless, they had the process to make chloralhydrate. DDT is only one step away from chloralhydrate, so they thought, we'll simply make chloralhydrate and we'll couple the dycorabenzen through it and you've got DDT. So, they actually put in a bid for this particular contract with the armed forces. And so the decision was riboflavin, vitamin B, tear it out. We haven't even finished yet, so we tore it out and we rebuilt to manufacture DDT. And I got involved in some penicillin fermentation too, at that time, because while the construction was going on, there wasn't too much for me to do. So, I got involved in that for quite a time. At any rate, the DDT project got to be quite horrendous because we did not have the proper equipment to do it. It's very corrosive, hydrochloric acid all over the place, chlorine all over the place. It's very corrosive and the only thing we had was some ancient equipment on a reserve junk pile out in the back of the yard. And we took that and we patched up wherever it was leaking and we put it into service and we made DDT. It was quite a horrendous thing. We used to have chlorine tank cars, you know, about 5000 gallons of liquid chlorine in one car and we had four cars sitting out there.

KP: Is this in Rahway?

RS: This is in Rahway. We used to vaporize the stuff and reacted it with ethanol and all that sort of thing to make the DDT. Well, ... we had so many chlorine leaks in this old equipment that we were using, we used to look through the building and see this green haze and we were working in that green haze. I was in charge of a shift of operators producing this DDT and we would work seven days on and one off, seven days on and one off, etc. And each time, each shift from one shift to another. One week would be four to twelve, another one would twelve to eight, another

would be eight to four, so it kept constantly going around the clock. And we lived with that, and we also found that it was hard to sleep when you're on that kind of a routine. But I was in charge of such a shift, and there were four shifts all together that covered the whole thing. And we used to get complaints from some of our operators during a course of a shift, "Hey, I'm having trouble breathing." Okay, go down to plant medical and get some oxygen. So they'd give them oxygen for 15 minutes and send them back. That was the condition in which we worked.

KP: Comparing it to today's health and safety standards, what were problems, beginning with the leaking equipment. What would a modern toxicologist chemist say about your plant and product?

RS: Of course, the DDT itself, that has a very bad name. In those days, we didn't know it was so bad for mammals. And as a matter of fact, I personally believe that its toxicity is much overstated, the toxicity of the material. But we were literally covered with DDT dust everyday, head to toe, just as though we were working in a flower mill; except that was a hundred percent DDT. And so, that was kind of the exposure we worked under. And we had mountains of DDT on the floor. Literally, because the DDT had to age to change to a less amorphous structure, or otherwise you couldn't mill the stuff. And so we had to age it for a about a week. We had mountains of DDT all over the factory floor and then we milled it and put it in to whatever they wanted. And we had visits almost every day by military personnel. How are you coming with your project? What do you need? And they ultimately got us good equipment. So we gradually replaced the really bad stuff on a sort of rotating basis and keep production going at the same time. We upgraded the plant and so it got to be a decent operation where we really cranked it out.

KP: The safety conditions improved?

RS: Oh yes. The biggest thing was the leakage, the chlorine and hydrochloric acid leakage were the worst things. You can't live in a gas mask all day long, you can live in it for a few minutes, a half an hour beyond that, you had difficulty breathing and everything fogs up and you can't see anything.

KP: You occasionally used this in the ...

RS: Oh yeah, yeah, we had 'em stationed pretty well around the plant, you know, these gas masks. But they were only good for about 15 minutes, enough to, perhaps, take care of an emergency situation.

KP: Did you have very many emergency situations?

RS: Quite a few. (laughs) We used to have fountains of chlorinated alcohol because the chlorination was done under slight pressure, if the glass lining of one of the vessels failed, it would blow the chlorinated alcohol up and spray it over the top of the vessel like a fountain. Of

course, you had to clean this up and you had to shut off the chlorine. Oh, it was quite an experience.

KP: Do you ever have any explosions, or near explosions, or ...

RS: In my particular operation, no.

KP: Or other ones in the plant?

RS: We had an explosion in the middle of a blackout one time. It was the night shift and we were operating a plant and there was a practice blackout and so everything had to be, not shutdown necessarily, but all the lights had to be off so that there would be no lights showing. In the dark, these things could still be made to agitate and do things. And they were working with something in the pilot plant, which was about 100 yards away and all of a sudden. BOOM. Flame roared up into the middle of the sky in the black of night. And, of course, it luminated everything and it was a spectacular sight because of the darkness around it, you know. Yes, we had some of those. We had others at other times, but not during the war period.

KP: How in terms of your personnel, how were you able to keep the plant staffed?

RS: Well, there are some interesting stories there too. Almost everybody wanted to get into a defense job in those days and we had all kinds of people applying for the job. We didn't have many people to select from, because so many people were in the military. We had a band leader, for example. He had done nothing in his life except lead a band. We had to start from scratch and you know, "This is a test tube." (laughs) And we had little grandmothers come in all of a sudden, they hadn't worked in years and years. They were in their 70s and they were trying to do this work, and, of course, their stamina wasn't exactly great and I hated to see them exposed to the conditions that we had, but what could you do?

KP: So you increased the number of women?

RS: Greatly.

KP: And what you might call the non-traditional workers.

RS: Greatly, yeah.

KP: What was the age of the work force? Do you have any idea what it went from? You hadn't started there before the war. How old would you say was average, if you have a rough idea, how old was the average worker?

RS: This would be a really, really rough guess. Most of the people of military age, of course, were in the military. So, that kind of skews the average quite a bit. We got some older men in,

which would bring the average age up. We also got some younger women in, which kind of offset that. So I would think that overall, the average age didn't change very much.

KP: But you had larger numbers of women?

RS: We had large numbers of women, yeah.

KP: Did you have any women in your production unit?

RS: Oh yes. ... I had to fire one ... little grandmother because she liked to drink too much and we just couldn't have that. (laughs) We had enough problems on site. ... Yes, I would say that I probably had about 75 percent of women on my crew.

KP: How did that work?

RS: I guess, all kinds of people, but it worked out quite well. As a matter of fact, some of those women could outwork some of the men. Not only in operations where you had to know what you were doing, but in physically handling the material. I mean, they could roll those drums around and they could charge things and they could do all kinds of things, it was amazing. So I think they women really did a big job in contributing to these efforts.

KP: In terms of ... people in your section, how many were high school/college, do you have any sense of, for example, were your women very well trained?

RS: No, we had to do all of our training. That was one of our biggest things. We had to do the training. Just as an example, we hired a laundry worker. And we were teaching him what to do and so on and we had a neutralization step where he had to put in some caustic and so we began to explain about the caustic and what it would do, and how serious and corrosive it was and keep it out of your eyes and all the rest of that and don't let it pick up moisture and all that, and it got heated reaction and he said, "Oh, I've handled this in the laundry. We always cook up our laundry with caustic, I know what it's like." Oh, okay, great, now we'll go on to something else, you do that. He blew the batch right out of the still with caustic. (laughs) It came out of a manhole like a gushing geyser and that's how much he know about it. So, we had to start with him right from scratch. It was difficult to teach them because they just hadn't had any experience, particularly in the chemical plant operation. Most of them never had chemistry, even if they had went to high school. They didn't know what a molecule was, you know. So we taught 'em by rote, first you do this, then you do that, when you see this happen, you do something else.

KP: Now, was this by section, or did Merck create a sort of standard program to teach people?

RS: No, this was by section. I mean, everything was specifically slanted toward that section. We didn't have a general educational kind of a thing, giving a total background in chemical operations, no.

KP: So you, in sense, did this on the job, it wasn't a formal program.

RS: We called it, "On the Job Training." And that's why I say, it was one of our most difficult things. You had to keep going around, keep the production rolling, and at the same time, ... you had to educate these people. Do it right now, do that right, he's doing the wrong thing, let me go over there. We were very busy.

KP: In terms of your colleagues or other managers in other sections, were any women hired to be managers? Did the number of women managers increase at Merck?

RS: I don't remember any. I don't remember any at all. In those days, the theory was that women really don't belong in this kind of work anyway. But because of the war effort... sure we're going to let them work. But managers, ... you know ...

KP: As chemists?

RS: Well, we had chemists, we had women chemists in the laboratories, yes, but none in the manufacturing.

KP: So women were hired for the research end of it?

RS: Yes, the research and quality control. Things of that nature.

KP: But the manufacturing ...

RS: The manufacturing, it was considered too difficult and too hard of work, too heavy a thing for women to do. But as I say, some of them amaze you with the things they could do. But you started to talk about the draft, how this worked. I backed up and talked about what I was doing. Every six months I would get another letter, report for a physical and so I would report and I would get a 1A and the company had to make appeal to ...

KP: So Merck did not want to lose you?

RS: That's right. There were two things. Dean [William Thornton] Reed, who was a dean of the School of Chemistry here, as a matter of fact, he was the chairman of the Office of Scientific Personnel in Washington D.C., and it was his job to kind of keep the technical requirements matched against the technical people and of course, he was working against the draft, if that's what you want to call it. So, generally, the company would take it to an Office of Scientific Personnel in Washington and they would come through with a recommendation: "No, the work

he's doing is important enough that he stay where he is." So then we'd get a deferment for six months and then we'd go through that again every six months. It was quite a routine.

KP: You mentioned at lunch that you had sought to, in fact, enlist in the chemical and biological warfare branch.

RS: Yes, I did. Because I had had some experience with deep fermentation and penicillin manufacture, I thought that I was perfectly qualified to run bioreactors, which make these nasty biological warfare agents. As a matter of fact, some of the Merck people had enlisted in it and they were down in Camp Dietrick running this thing, you know, and I thought, gee, I am as qualified as they are, I should do the same thing, get away from all this deferment stuff and all. At least I'll know where I'm going, which I didn't otherwise. So, I did try to enlist. The navy was actually the recruiting arm for Camp Dietrick and I went over to New York to enlist and I made out my application and I looked up their recruiting officer who was a fraternity brother of mine from here at Rutgers and I said, my God, I'm in, I know he'll give me a good recommendation. So then I saw a a lot of discussion going on behind the glass of an office and thought, this doesn't look quite right. He eventually came out and said, "I'm sorry, we can't use you." "Why can't you use me?" "Because your name is Schmidt." This is what he said. I figured, uh oh. So I went back and continued at Merck

KP: You mentioned the only way you could serve was to be in infantry.

RS: After that, yeah. They would take me in the infantry, sure. I figured, I made the election myself not to do that because I thought I could contribute more than in the infantry, in what I was continuing to do.

KP: You mentioned you had something that was quite a struggle though, between the Union County draft board, and Merck, and you. Could you elaborate a bit more, you mentioned that he ...

RS: Well, he, I could count on the fact that I would get a 1A after six months. Now, for some people, they gave them a deferment immediately without challenging it. But he always challenged mine.

KP: For any reason?

RS: No. Just that he had this feeling that I'm not going to draft any fathers while I have non-fathers on my list. That's basically what he said and he tried to do that. He lived up to it, he was overruled a good many times, but because of this position, he wasn't taking the overall picture into view.

KP: To him, the father ...

RS: To him, the father were important that the family. You know, the worth of the family is good. He had the point, I suppose, but he just didn't have the overall picture. So whenever we made an appeal, he was overridden. Then that happened and continued until the war was actually over. Then he hit me with a 1A, a 1A and I was on my way to Fort Dix with my toothbrush packed and I had passed the physical and all that sort of thing. What I had suffered from, if you want to call it that, is an allergy to rag weed. During the season, I used to get tremendous attacks of asthma, and chlorine and all the rest of that stuff didn't help, you know, that condition. And I reported with my toothbrush and they give you one more or they used to give you one more final physical exam before you walked through the gates of Fort Dix, and the doctor listened to my chest, you know, and there was a lot of rumbling going on in there and well, sounds like asthma. Well, you know. (laughs) So he said, "Well, where's your letter from your doctor?" And I said, "I didn't bring any letter from my doctor." And he said ...

KP: This is in 1945?

RS: Yeah, I would have served in the occupation forces, that's what it would have amounted to. He said, "Well, you should have brought a letter from your doctor explaining your condition. So I said, "Well, I didn't realize that this was a critical thing." (laughs) So, he, [said] okay, give me your doctor's name. They called my doctor, they got the story and he said, sit over there and said, we'll be back to you. I sat there for two hours and they'd come in and listened again, you know, and it's still rumbling in there and I was there, I guess, about four or five hours just sitting there waiting for this thing to subside. They thought maybe it might have been just an acute attack which would pass. And they were sitting me in the corner to let it pass, but it didn't, so the doctor said no, 4-F reject, and they sent me back home.

KP: So then you were ultimately rejected, you probably would not have been drafted during the war.

RS: Yeah, I probably would not have been.

KP: Did your company face any labor tensions during the war?

RS: No, we had some discussions. Merck, had what we called an independent union. It wasn't affiliated with the AFL, CIO, or any others. It was an independent Merck union. Those individual units are more difficult to work with because you have so many dissident voices within that one group, there isn't some central group that says you're going to settle for this, you know, we're going to ask for that, and so we had a lot of dissident people that were dragging things in many different directions. But we didn't have any trouble during the war. The fact that we were fighting the war would just mitigate against anyone trying to shut down a place or give any difficulty or slow down production or do anything like that. That just didn't happen.

KP: It also strikes me, from what you said, that you also had a lot of workers who were glad to have this job. In the sense, that this was a defense ...

RS: Yes, yes. I mean they came basically because this was defense work and secondly, because there was an opportunity to make some money that they hadn't made before.

KP: So the pay scales at Merck, at your company, were fairly high with the defense?

RS: They were fairly high, compared to, well, most pharmaceutical companies are a little higher than the rest of the chemical operations, and, or any other kind of work.

KP: Now, during the war, you were living with your parents?

RS: I graduated, of course, in '42, my wife and I were married in '43. So, for that year, I did live with my parents.

KP: And when you and your wife were married, did you have a hard time finding a place to live?

RS: No, well, we were extremely lucky. My wife is a real go-getter, so she covered just about every place she could find and we found an apartment in Plainfield. So we were married and moved in there. It was a nice garden apartment and we were very lucky. But, other people I knew had more difficulty doing that.

KP: How were your workers, and housing for them? Did they face any problems?

RS: Well, most of them had established housing, actually, they were [not] moving into the area or in to that job as a new thing. Some of the younger workers, of course, they might, but they seemed to have been established living with their parents and I guess getting married was a questionable thing anyway. Depended on how you felt about the future and what the future might hold for you and what kind of changes you wanted to take and so on. We, my wife and I, as I mentioned before, met at the freshmen reception and then we went together all those four years in college and we had said that the important thing is to get an education and get a degree. That's primary. We're not going to get married until that happens.

KP: So your wife both started college the same year and graduated in, she graduated from Douglass in '42?

RS: That's right. That's right. So she-- I lost my train of thought. But, anyway, we were quite lucky-- so we were talking about the fact that for four years, we said the education's an important part, but then when we did graduate, we said, now we got the sheepskin, but the war is here and what's going to happen to us now. And, do we want to get married now. The theory that I may be drafted, I may go away and never come back, that kind of thing. So, we discussed that for quite a while, and we kind of delayed it and delayed it and so we were married a year after

we graduated. We finally said, well, what's the use of worrying, life is life and if it's going to happen it's going to happen and we took a more philosophical approach to it. So, we were married. We lived in Plainfield.

KP: What did you wife do during the war?

RS: ... She worked at a bank in New York City as just clerical type of thing. And then she moved out this way and worked at American Cyanamid in Bound Brook, which was known as Calco in those days. And she did some kind of clerical work. I don't really know what it was. But, well Bound Brook of course, was really bound up with defense work, I mean, they had a lot of defense work going in that area. Some big heavy ...

KP: What changes did you notice during the war to this part of New Jersey? You mentioned Bound Brook with a lot of defense plants. Were there any other changes that struck you besides, I think, full employment was probably ...

RS: Well, full employment was a big thing right after the war. And then, of course, it tapered off a bit and then it jumped again. But there weren't any great construction efforts in the way of production facilities. Merck was right next door to the General Motors plant in Linden and General Motors was putting out the Grumman Wildcat fighters during the war and they used to buzz us every once in a while, they'd take the planes up for test runs and then circle us and dive-bomb us and we kept praying that they'd pull out. But in those days, those pilots they had were real jockeys. But, that was just reconverted to an automobile plant. I think maybe that small air field across the Route 1 highway there might have been made, ... might have been there, as a result of their Wildcat production. But I don't remember anything that where suddenly we have a blossoming of new plants to do new things.

KP: And in terms of travel and transportation, in other words, your facilities did not put a strain on the surrounding communities.

----------END OF TAPE ONE, SIDE TWO----------

KP: Since we're on the discussion--after the war you were on a team to--

RS: Yeah, ... I was on a team to bring back some process information from Germany. ...

KP: This was in 1945?

RS: That was in 1949. And, I'm hesitating because I'm a little confused. I went over there twice, once to Switzerland, once to Germany, but it makes no difference because the Swiss spoke German anyway, and in the same dialect where I came from.

KP: What was your impression of Germany when you went after the

war? Your initial impressions?

RS: It was very depressing. Everything was shattered and in ruins. People were still living in bombed out buildings and cellars. In the cities only the center of the streets had been cleared. The rubble had been pushed onto sidewalks and against what buildings were left. Water supplies were still being restored. Railroad tracks, bridges were just beginning to be rebuilt. Railroad stations were wooden shacks put up where a station might formerly have been. Food was only then becoming adequate which was evidenced by the food pressed upon me by my relatives whom I took the opportunity to visit. They looked upon food as a most valuable thing, having survived on CARE packages for four years.

As regards communication between the German and American teams, we were told by our American bosses that the Germans knew English quite well and that we should have no trouble. When we got there we found that the English of the Germans was not all that good and I found myself playing interpreter. It was difficult at first because of the scientific terminology required. However, after two weeks of this I found that I was beginning to get into the swing of things.

Universally, the German people would use the term, "Nachtes mal ohne mich" {Next time, without me} whenever the subject of the war came up. It said much in a few words.

KP: Tom Kindre developed a list of sort of questions in an earlier project that involved the Class of 1942. One of the things he was interested in seeing was how people's attitudes towards sex had changed. We've become, ... American society has become much more ...

RS: Promiscuous. (laughs)

KP: Yeah, you could use that term, or at least clearly much more open about it. Where do you see the changes from when you were in college to today? Has anything struck you as really different?

RS: Well, it's much more out in the open, as you mentioned. A lot of the things we hear about nowadays probably existed in those days as well, but people were a lot more discrete about what they disclosed to you. What they talked about. What they did, and I think that's the big difference. I don't think that the practices necessarily are much different. People have been people for a long time, and they are going to continue to be. It's just their attitude in how freely they express themselves. They don't seem to care too much whether or not people approve or not. Approval is no longer a consideration.

KP: You have a real sense, in growing up, that approval is very important? That society ...

RS: I think it was important, yes, used to be. I think that you wanted to be accepted by society. Whatever that meant. It was never really clearly defined, and you'd run into all segments of society surely. There used to be a larger base for behavior, I would say... you know. I'm groping

for some words that I'm not quite catching up to. At any rate, I think things are much more open. Do I approve? Not necessarily, you know. I'm of the old school, and I enjoyed growing up when I did, and I think those standards were good enough for me, and I think they are still good enough today. I don't necessarily approve, but for someone who's never known anything else, this might not appear to them to be that way, so you have to consider that too.

KP: After the war, why did you leave Merck? How long did you stay with Merck?

RS: I stayed with Merck for eleven years all told, and during that time, I became department head of ... at different times, of course, two different factories. And I built, actually, designed and built, and I published papers things of that kind. On a unit, a multi-purpose unit. This was equipment ... general chemical equipment on a large scale. Batch equipment, which is usually the type that you run in pharmaceutical manufacturing, but versatile so that you could run it for six months on something, and then with minor modifications, run it on another five months with something else, and change the use of that equipment so it's supposed to be versatile equipment, and Cyanamid was doing the same thing in their Linden plant, and they were not using it to manufacture pharmaceuticals. What they were doing was making a multi-purpose facility very similar to the one I had just built and operated. So they hired me as general superintendent of new products manufacturing. There's a mouthful for you. The purpose was that we were to take laboratory or pilot operations, new ones, adapt them to the equipment that we had, and manufacture enough of a new material so that a potential customer could evaluate it on a large scale, and then we'd swing to something else. We struck it rich. We did well with one unit that manufactured a product called acrylamide. We started off making a few hundred pounds of that and by the time we were through we had the equipment turning out several million pounds a year of this particular material. So that was the type of operations I was hired for. There again, they didn't quite have the ... equipment finished when ... I came on board.

KP: This is with American Cyanamid?

RS: Cyanamid yeah. So I had a similar situation, also the department manager of the sulfuric acid contact plant left and so I was greeted, "Come in you're the new department head." (laughs) I had never run a continuous unit with pipes 48 inches in diameter. You don't find that in the pharmaceutical industry. And so I had to learn to run that pretty darn fast. Both at Merck and in Cyanamid I ran across the old acceptance problem, you know. The people that work for you don't necessarily accept you. And at Merck when I reported, I didn't even have one day off. They said, you're starting the night shift tomorrow night and you're there and so and so is your foreman. Okay, fine. Well, this foreman wasn't about to accept dictates from the likes of me.

KP: You had this problem at Merck?

RS: Yeah. These young college kids, you know. And this guy was a pretty husky fellow. About 35 years of age and he thought himself quite an athlete. I couldn't get through to him, and he wouldn't cooperate. He wouldn't be where I needed him and he wouldn't tell me what was

happening. He wouldn't guide me in any way. So we had a little discussion one night and he said, ah you think you're a tough guy uh. Where did that come from, you know? He was challenging me to a wrestling match. That's what it turned out. So we cleared the tables in the laboratory, (laughs) and I pinned him pretty quickly, and after that, no trouble, no trouble. At Cyanamid I ran into the same thing. There was an old fellow there. He was in his sixties who ran this plant for years and years and he knew every nut and bolt in it, but he wouldn't cooperate. He wasn't going to take any dictates from these young college kids that don't know what the hell they're doing, and that kind of stuff. He had his little book, and if I had that book I could write the directions easily, but he wouldn't show me the book, that lasted a couple of weeks, and finally I said, let's you and I go out and have a beer, and I didn't drink beer. (laughs)

KP: Oh really. (laughs)

RS: Not at that time. (laughs) So we went out to the local tavern and we had a little drinking contest at the time. I established myself with him, and after that again no problem. He couldn't do enough for me. But you had to establish your acceptability. It was funny, too. (laughs)

KP: So the foreman really was as crucial ...?

RS: Very crucial.

KP: In many ways, you might compare the relationship to that of a young lieutenant with a sergeant?

RS: That's exactly right. That's exactly the way it would be. They were the sergeants that knew what to do. (laughs) You were the lieutenant that needed to be advised what to do, you know. (laughs)

KP: In both ... beginning with Merck, how did the end of the war affect your unit in the larger company as you can see it, and the transition from ... in terms of workers ... returning veterans versus established workers. The workers that had been working during the war?

RS: Well, not to many veterans came back to the original job, although their jobs were guaranteed them. A lot of them took advantage of the GI Bill, and so they went to school. Some had found other interests in other parts of the world or other parts of the country or they had met some girl and married and settled down on the West Coast or some such thing. I've never seen the tabulation of percentage return to the original job, but just by observation I can tell that it wasn't that great.

KP: So in your unit, you really didn't have ... one day where you woke up and it was completely different with all the returning veterans coming back?

RS: No, no. And even those that came back we gave them a reorientation course so that ... in case they'd forgotten something ... they'd been away for so many years. We gave them a retraining course, and without the war-time conditions it was much easier to provide training because you weren't under that constant pressure of, you know, the lieutenant colonel was going to come in tomorrow and count the number of bottles of DDT that you made. So it was a lot easier that way.
KP: So in other words, many of the workers who were hired during the war stayed on?

RS: Some did yes. I'd say a fair number of them did. The women began to drop off because they were figuring, well okay my husbands back or somebody's back from the war and I've managed to build a little nest egg during this period of time so I'm going to relax and quit, and they did.

KP: I saw a press account that you attended the first Pan-American games, how did that come about?

RS: Well I.

KP: And had you ever thought of trying to go to and Olympics game? Do you think the war affected that?

RS: No, the war affected the wrestling a bit. I have to give you background on that to understand it better. And that is that I didn't get along well with the basketball coach.

KP: At Rutgers?

RS: At Rutgers. I went skiing during Christmas vacation one time and came back with some stitches in my leg. It didn't affect me, I could run, but I had to tape a plastic cup over it to protect the stitches. Well, he gave me blue blazes ... didn't I tell you not to do anything, except basketball, but it was an accident, you're not supposed to get where accidents happen. (laughs) He was a funny man anyway. He used to smoke a cigar and coach at the same time. Blow smoke in your face, and you're blinded. Anyway, he was quite a character, and I didn't particularly care for him although I guess a lot of other people did, and so I dropped out of basketball. And so junior year I had nothing to do. I'd gotten my letter in basketball, but I earned that both as a freshmen and varsity, but I dropped out of it. ... I couldn't stay away from the gym in spite of the fact that I had dropped basketball. So I drifted over toward the wrestling mats, you know, and the coach looked at me, he said, why don't you try out for it. I said, I don't [know] a thing about wrestling. He said, well tryout anyway. There are some intramurals, he said, in two weeks. Why don't you come and practice, and then enter the intramurals and see how you like it. Well okay, I did that and I won the intramurals, and in so doing I beat the heavy weight member on the team. The coach said, you better come out next year. (laughs) And, so I reported for wrestling. ... Now this was senior year I was reporting for wrestling. I'd never wrestled before. I won the mid-Atlantic championships, I was undefeated that year. And of course, at that time our

wrestling coach was in the army. He was a major somewhere, and we brought in another wrestling coach to finish the season, and so on. And we finished the season and I never thought I'd wrestle again. Figured, that's the end of it. But it turns out, that the Elizabeth YMCA had a wrestling team, which was inactive because of the war. And so I figured, well I don't know if they're ever going to reform or whatever it is they need to do. It did turn out that after the war a lot of wrestlers came back and we formed a team in Elizabeth. We began to wrestle in AAU championships and so on, and I continued to be undefeated. Then in 1951, the Pan American Games in Argentina were scheduled. And so the call went out for tryouts. The regional first and then the finals and so on. And I tried out for them as a heavy weight and I won them. I won the regionals. I won the finals, and all of the sudden I found myself, hey, let's measure you for an Olympics uniform. (laughs) I never expected really to win. I never expected to do well on it, and all of the sudden I was faced with the fact that I was on the team. So I was pleased with that of course. We, I say we, my wife managed to stow aboard, ... well not quite stow, but we got approval to put her aboard the plane that took us to Buenos Aires She was the only spouse on the plane. (laughs) But we went down to Buenos Aires. We were quartered in their military academy. Their national military academy. And my wife stayed with my relatives who were on my father's side of the family. I had an aunt down there who had been living in Buenos Aires quite a bit and had a couple sons, so they're sort of cousins by marriage, so she stayed with them, and I stayed with the team at the military academy. Then, of course, the competition came around. Different locations for different competitions, and I lost. I won all the way up to the finals, and then I was wrestling an Argentinean. He was the other half of finals. In those days, the international rules were different than our own rules. No points system. You had a judge on one side of the mat that made a judgment as to who was the winner another one on another corner and a referee. Those three put their heads together and decided who was going to be the winner. No points system, no nothing. So we wrestled. Neither one of us pinned the other. Sort of a fairly even fight all of the way through. It turns out that the referee and one of the judges were Argentineans, and the other guy was from Mexico. The Mexican voted for me and the other two voted for the Argentinean. So I got the silver medal instead of the gold. (laughs)

KP: Had you considered participating in an Olympic game or trying for the Olympic team after the Pan American games?

RS: I did. I tried out twice for the full Olympic team. At one tryout I made fourth place, and in the second tryout I think it was third place. I didn't get in, the first two people went. The representative and his alternate. So I just missed it a couple of times. That happened out in Ames, Iowa. At the college out there. At the University. It was a sort of a four day workout.

KP: This was in '52?

RS: No, this was in ... I don't recall the spacing between the Pan American games and the [Olympic Games], but I think it was in, somewhere around '52, and then again four years after that. I'm hazy on the actual timing on that, but that was the experience with the Olympic tryouts. I didn't quite make it. Getting old I think at that time. (laughs)

KP: How did your wife's political career begin? Your wife has had a very successful political career.

RS: Well, she's done a lot of things. She's remarkable. She can do anything, I think. (laughs) And how did she get involved with politics? She had her own public relations firm for 20-25 years, something like that. Then she had worked for Owens Corning Fiberglass, and she was public relations for Bambergers and things like that. So she was advised to set up her own agency by one of the people she worked for. One of her bosses. So she did. And she kept that up pretty well. I've forgotten how she got to know Tom Kean. She got to know Tom Kean when he was ... I guess not a state senator, but a state legislator down in Trenton. She decided that she was going to run for the state legislature down in Trenton.

KP: When Millicent Fenwick vacated the seat?

RS: Yeah, that's part of the story. (laughs) But, at any rate, we were neophytes at this game and we thought that all you do is you get your petition list, and you put in your name and your name appears on the ballot and if you...gather enough votes you're in. We never had any experience with the machine. The political machine. So we announced, ... she said, "I'm running." And the county chairman was on vacation. He rushed home in a hell of a hurry. This was after... I think Millicent was in Congress at the time. At any rate, ... there was quite a little bit of opposition to us, you know. It had always been a closed door session as to who was chosen, and so they said, we'll open it up to everybody. So there was several running at the same time, and most of them dropped out. At any rate, it wasn't really as open as they said, because behind the scenes, and we learned this later on, they shifted around who they were going to back, and all this sort of thing. So she lost to Cavanaugh. But typically of her, she said, if I'm going to get that position down in Trenton, I'm going to find out what it's all about. So she used to go down there, and she'd sit in the gallery and observe what was going on and on, how they voted and who was in favor of this, and she was rather taken with Tom Kean. At the way he behaved himself. Well, not behaved himself, but deported himself. (laughs) When he began the run for governor, she was helping him. He had just lost to Millicent Fenwick ... had lost two years previously. Anyway he had lost to her, and he was sort of on a rebound. So, when he was elected he appointed her director of travel and tourism. The famous quotation, I guess is "New Jersey and You Perfect Together." That's hers.

KP: That's your wife's creation?

RS: Yeah, she created that, and what's more she really backed it up with a program. It wasn't just empty words, you know, that would go away sometime. She was really well liked, but there was one little bit of a problem, and that was her commissioner. A fellow by the name of Putnam. He didn't like what she was doing. At least he wouldn't have done it the same way. I knew Putnam from Cyanamid and I didn't have much regard for him. Maybe this shouldn't go on the tape. So she was appointed adviser to the governor for convention type operations throughout

the state. So she organized, I think it was eleven convention centers, throughout the state. And this was to help of course the convention business, and she did very well in that too. She was commended by the legislature for having done two jobs separately, different--in a row, and done them both well.

KP: Did your wife always work during your marriage?

RS: Yeah. She's always worked. One way or another she's done something.

KP: Always worked outside the house?

RS: Yeah. Yeah.

KP: How did you feel about this? Did you ...

RS: I never objected. It never occurred to me that it should be different, you know. She wanted to do things, she had the time to do them, and she had the energy, and the ability so I said, hey go to it. We've always been able to work it out, you know, if there's a conflict between my job and hers we've always been able to work [it] out. There's not been any real major conflict of any kind. Temporarily, we might have to rearrange a schedule for a few days, but it's never been really a problem.

KP: Did your wife in college know that she wanted a career?

RS: Oh yeah! She was always bound to have a career.

KP: Oh that was from the very beginning?

RS: From the very beginning we agreed. (laughs)

KP: Do you think your war experiences working with women affected your view or was that just ... that had nothing to do with it?

RS: I don't think that had anything to do with it. I really don't. I never looked at it critically in those days. I don't now. I feel women are free to do what they can, you know. They have to set priorities... what's going to happen. If they want to raise a family, okay. We had our daughter and my wife continued to work. She managed to get all kinds of people to help and to stay and all of that. She was always right on it. (laughs) So I've never really looked at women working as something that shouldn't be.

KP: Is there anything I forgot to ask?

RS: I don't know.

KP: I'm sure did. When I left Lew Bloom's interview and I realized that there were a few things I would liked to have asked.

RS: Well I'm sure I'll probably think of something I should have said.

KP: How do you think Rutgers and World War II affected your lives? Do you think it advanced your career? Gave you experiences quicker than you might have gotten them?

RS: It may have held back the career actually. I think I would have gone on to graduate work. As a matter of fact, I did for one term. I made arrangements with Merck to work steady twelve to eight shifts instead of twelve to eight one week and then eight to four the next week and so on, and they agreed. We were able to work it out with all of the other shift supervisors. And I enrolled in ... I guess it was three classes, in graduate school.

KP: At which school?

RS: At Rutgers.

KP: Oh at Rutgers.

RS: Rutgers, yeah. Rahway is just up the road here and so I ... moved into the fraternity house. I had classes at ten o'clock in the morning having come off the midnight shift, and I had one at ... once or twice a week I think I had one about one o'clock. And then I had some on the evening shift, so that my day was very much disrupted, ... I took a shot at it and after one term I just decided, I can't keep this up. (laughs) What was happening was, I was going to classes at odd hours. I had to prepare for classes. So that was enough. And I couldn't stay away from the gym, so in the afternoon in the gymnasium I'd be out there playing handball or doing something like that, and physically I was just getting really tired. ... I finally decided that I couldn't keep it up so I dropped that approach. But, if it hadn't been for the war I would have gone on for advanced degrees. I don't know what that might have lead to, you know. It's difficult to say.

KP: So your intention was to get a doctorate eventually, in chemistry?

RS: Eventually, yeah.

KP: With the idea of teaching?

RS: No, I wanted to be in production. I'm not a patient teacher, I don't think. Although some people tell me that they think I am. ... (laughs)

KP: Are there any other choices that you think the war had altered? Or ways it affected your career path?

RS: I might have gotten married sooner, but the mate would have been no different. (laughs) So that didn't make too much difference.

KP: The pharmaceutical industry from your observation, how did the war influence it? For Merck defense production was very important, in what way do you think the war affected their development? Did it make them more dependent on government contracts?

RS: No, not really. Those that did best in wartime were the ones that had fairly decent research and development programs, fairly involved. Those that carried that forth into the postwar years were the most successful of the pharmaceutical outfits, because that lead to new items, and in the pharmaceutical industry that is what counts. The future of the pharmaceutical industry is with new products, because there's somebody else waiting to put out a similar product to the one you've just brought out. It's not the same, and it's patented and all that sort of thing. But, it certainly cuts yours out of the market or takes a big market share, so it's difficult. It's a get in, get out kind of a proposition. You've got to have something in the pipeline all of the time. And I don't know what influence the war might have had into filling such a pipeline. I know that Merck has always been very heavy on development, which is their secret to success. For example, coming back to DDT. DDT used to be a waxy slab ... until we cast as a melt. It was rather horrible to handle, and I mentioned the dust involved in the milling and so on. Well, the research people at Merck looked at this and said, this is a heck of a way to do this ... operation. We can do a lot better than this. So they mounted a development program for DDT. They came out with a crystallization process that used the most beautiful DDT you'd ever saw. Half inch needles. Pure crystals. They were feather like. You couldn't make anything purer or better. They made it as though they were making a pharmaceutical, but it didn't kill any more insects than the old stuff did, and it cost a lot more. So they priced themselves right out of the market, and we had to give some of our know how... under the wartime arrangements to some of the other companies like Dupont making DDT and I've forgotten who else made it. We had to give them our know how because the army wanted the backup situation, so they actually purchased from two of us at least. So that in case something happened at one location, you still had the other one to depend on. So, the same thing happened with penicillin. We were given the rights from the U.K. to make penicillin and develop it and we did and we made great strides. In deep fermentation for example, used to be done in little flat bottles, now we can take ten thousand gallons at a time.

KP: This was developed at your plant?

RS: Yeah.

KP: Were you involved in the process?

RS: Only the fermentation, because I was really destined for DDT.

KP: So the bulk of your war work was really centered in DDT?

RS: The bulk of it was, yes. But, I made some contributions to it, then after the war, at Merck I was assigned to the engineering department for two years. At that point, we went out to some of the agricultural experimentation stations that fermented alcohols, and we learned their techniques, and we applied those to the fermentation of penicillin. So I got involved in the penicillin more after the war than during? While we were preparing the other plant ... I spent a fair amount of time at the other one observing, and watching, participating actually in some making experiments here and there which we did experiment on a large scale. It was worth it in the long run.

KP: You had mentioned earlier at the lunch... actually at the reception in terms of biological and chemical warfare and the nature of the threat. Have you ever had any involvement in biological or chemical warfare research?

RS: No, not research.

KP: You had mentioned that a lot of people from Merck had been involved?

RS: They were involved because they had experience with deep fermentation. Which is ... if you want to call it the mass production method for biological warfare, that's it. There are a lot of technologies that I'm no longer familiar with, but in those days that was the way to go. But, once you get the proper conditions for the incubation of those bacteria, whatever they be ... some nasty ones from the standpoint of biological warfare. The idea was to inoculate ... you had to have your ... I've forgotten what you call them, now. They call it the inoculum. These were frozen samples of these biological agents. They of course, ... they were melted, and a portion of them introduced into this ten thousands gallon vessel from this little bottle. This ten thousand gallon vessel takes over. You give it the proper nutrients. You give it the proper air. The proper temperatures and so on, and these bugs love that condition, and so they bloom and grow, and then the next problem is to extract that biological agent and put it into a bomb. And I've seen bomb filling devices that were used ...

KP: At Merck?

RS: Not at Merck. No. Merck was considering after the war buying one of these surplus biological plants for penicillin or streptomycin fermentation.

KP: In terms of converting ...?

RS: We would have, Merck would have done that, but one of the assignments we had in engineering was to go down and look at this thing.

KP: Where was the plant? Do you remember?

RS: I think it was down at Camp Dietrick. That was pretty well sealed off. In fact, of course, this was after the war, and there were no longer the restrictions of during the war, but we looked at it, and we looked at the fermentation capabilities, and also there were the safety devices where all the air which exits from the fermenters is put through a big furnace ... so that it destroys any viable organism that may still have survived. Then of course, after the extraction it's tricky too, you got to get those bacteria out in a form where they'll do whatever they're supposed to do after they're shot some place or dropped from a bomb. And some of the extraction and the filling was quite a tricky operation too. There's still a lot of it going on nowadays. That type of thing. Of course the agents that there using get worse and worse or better and better depending upon which way your looking at it. (laughs) Anyway is there anything else?

KP: I guess the one thing we haven't talked about was your work with vitamins. Was that a wartime project? The manufacture of vitamins.

RS: It wasn't a critical wartime project ... we had orders to fill from the government. They used vitamins for the troops or whatever. On shipboard against scurvy, and things of that kind. In the Pacific, beri beri, I think I mentioned that. So, the government was interested in keeping a supply of those handy, but it didn't have the critical secrecy that say DDT had.

KP: So DDT was very much a secret project?

RS: Oh yeah. Yeah.

KP: With the notion that the Germans and Japanese would use this?

RS: With the notion that they would get the whatever advantage DDT had to offer. Of course, what it had to offer was basically, getting out into the Pacific where you had malarial swamps, and where you had yellow fever swamps. You had to kill the mosquitoes which carried it. They used some in Europe. I'm familiar with that because they had a lot of refugees in Europe, and these refugees ultimately became flea infested, and they carry some of these illnesses too. What they actually used to do is take these refugees and line them up in double lines, and on either side of that line was an American sergeant with a DDT pump, and they would just stick the nozzle of the pump inside the shirt or under the sweater or whatever, and give that thing a big pump, and this powder would come flying out all over the place, you know. (laughs) But it killed the fleas, and so they kept flea control among their refugee population that way, and they kept illnesses down to a minimum. But as far as the vitamins are concerned, yeah they were there, the army wanted them, but if they had to make a choice between vitamins and DDT I know which one would win.

KP: So DDT was very much ...?

RS: Yeah. It wasn't a question of a new discovery or anything because DDT was I believe discovered ... {formulated} in 1880. Except its insecticidal properties weren't known too well.

KP: When were the insecticidal properties discovered, during the war or realized later?

RS: They were realized before the war, but then somebody applied them to the war. Somebody said, this will kill a lot of malaria.

KP: The project was a secret one. The workers were enjoined not to talk about what they were doing?

RS: That's right. Yea, ... we were involved in this Office of Scientific Personnel, you know, which also indicates that there was some restriction there. And I had the-- {I didn't mention this before}, but I had the Army Intelligence Service looking at my working there one time. He showed up at home.

KP: Oh, I think we talked about this ...

RS: I think we might have. He showed up, and he went over my record at Rutgers, and what are your interests and this kind of stuff, and then he left and he never came back so I guess I cleared it all right.

KP: Did he ask you your political views?

RS: No.

KP: He just had a conversation?

RS: Just general conversation, you know. What are your interests? What have you done, and what are you doing now? I know you work at Merck, but what do you do specifically, and things of that kind. Then when I was general superintendent of new products manufacturing at Cyanamid, we manufactured some specific intermediates for chemical warfare. This is not biological. This is chemical, and I had to get clearance for that. They cleared me without any problem. We did everything by codes. What went into it was coded. What came out of it was coded. It was basically something for nerve gas, but we never found out what.

KP: You were just given the order to produce something and you didn't know where it went?

RS: No. And we had some, because we couldn't really get enough information or at least the amount of information you normally would take with a new product, we experienced some pretty bad effects on the eyes. Because on this particular intermediate, it had enough vapor pressure so that the vapor pressure would condense, traces of this in the eye, and the cornea would be damaged. So we had 29 or thereabouts lost time cases. Luckily they all recovered, and no

corneal scars or nothing like that, but the potential was there, and we didn't know that because our research people didn't know that because nobody told them, because they got the original request from one of the army installations for chemical warfare. The information was so restricted that you just couldn't put everything together and really come up with it. That was just one of them, but there were several of them that we did for chemical warfare intermediates. And we had to handle those pretty cautiously.

KP: This was in the early 1950's?

RS: Yes. Yes, you know, 1953-4 something like that. That's when all of the countries were building up their ... not biological, but their chemical warfare capabilities. That's nasty stuff.

KP: You were always in the manufacturing end of things?

RS: Yes. Well with the exception of the two years in the engineering work. But then I got into the administrative end, of course, later on, but it was administration of manufacturing facilities. I didn't go out there and turn any valves or anything. ...

KP: Yeah.

RS: I didn't supervise a shift or I didn't run a department. I did everything else. (laughs) I'm sure we'll think of something else as soon as we get up from the table.

KP: Did you have any rationing? Problems with rationing?

RS: ... You mean for personal use?

KP: I guess for personal use. Yeah.

RS: As far as manufacturing is concerned the raw materials were pretty well allocated by central administration down in Washington, and they came through rather reliably. There were some hiccups, but it was remarkable with everything that was going on that they were able to keep all of that on track, and I must say they did a great job. As civilians living in a wartime situation... yes we had problems. We were rationed, of course. It was very difficult to get meat, for one thing. There was horse meat for sale at the corner butcher shop and we had it several times. It's not bad. (laughs) It was difficult to get sugar. It was almost impossible to get butter. Things of that kind.

----------END OF TAPE TWO, SIDE ONE----------

KP: What about Spam?

RS: It's still out there, but it came in these rectangular cans. You cut it open and you slice it down. And you could warm it up in the frying pan, and you could eat it like a sandwich, or you could eat it as a meat course with other things, you know... . Bread was difficult to get sometimes. Gasoline, of course, was a tricky one because gasoline was rationed depending upon where you worked and how many miles you had to go. You ordered C stamps or A stamps or B stamps depending upon what that is. Everyone got some allocation. It was an A stamp, but that didn't take you too far. You had to make application to get more gasoline so that you can drive to and from work, and of course we did car pooling just as much as we possibly could, which is rather difficult on shift work, but, you know, we did it as best we could. Tires, of course, they were almost impossible to come by. There was a retreading operation, in which all they did was take a bald tire and cut new grooves in it, and that was retreading. There was also a recapping operation. When they got some, ... I guess it was recovered tire material or gum. They actually cast it around the outside of the new tread, which gave it a little more mileage. To get your car repaired you had to go to junk shops and use old stuff. These old junk yards of automobiles they became a gold mine because you couldn't get the parts any other place and so you were lucky to find one that would fit your particular car. Even after the war, my wife and I were riding along and we were hit. ... It sort of took the side of the car with it and I had a Pontiac door on an Oldsmobile car. It didn't fit right, and whenever it would snow it would drift inside and put a foot of snow on the floor of the car. Things like that. But of course, we had victory gardens. We didn't have them in the apartment, but most people had victory gardens somewhere. Even empty lots were dedicated to a job. If you wanted to come in and start a victory garden, you got the owner's permission, can I do that? Oh sure. Entertainment was mostly cinema type things. ...

KP: Your travel was very restricted?

RS: Very restricted, yeah. You went to and from work. When we were married there was an absolute ban on what they call pleasure travel. At that point in the war when the gasoline supplies were really, really tight. And the people that came to our marriage had to come by train and or bus and then walk quite a distance to the church.

KP: Did you go on a honeymoon?

RS: Yeah. We went by train.

KP: Oh, okay.

RS: Right up to the Poconos. By train. We came back by train, and that was it, because on a Sunday, when the only people you saw on the road were people going to and from work. Otherwise the roads were deserted. On our cars, we had to paint, the upper half of the headlights black. The idea was to reduce the amount of glare. This was, I think, twenty-five or fifty miles within the shore line. The idea was to minimize the glow over the land that a submarine might be using to see a ship silhouette[d] in. The only thing we actually saw in the war was a couple of

tankers in Sewaren up here in Port Elizabeth--that had been torpedoed just off the shores. You could look right through the thing and drive a bus through both sides and yet they stayed afloat.

KP: The hulks?

RS: Yeah, the hulks. They were in port. I mean, they made it to port. It's remarkable that the darn thing didn't break in half, because the keel held, and the deck held and in between there was nothing. And ... that's the type of thing they were trying to avoid, because there were submarines operating off shore, and somehow or other this half blacked out headlight was supposed to help. I don't know whether it ever did or not. So there were all kind of things you did and didn't do in those days. But we didn't really suffer that much. We had to do without certain things. We bartered and exchanged.

KP: Did you save more as a result?

RS: Just having gotten married, and having to pay for the apartment and having fifty dollars between us on our first Christmas (laughs) we didn't save much at that point.

KP: Being German, did you feel any awkwardness during the war from colleagues or from any others. During World War I there had been widespread basically persecution of German Americans?

RS: I didn't feel any. I think I might have run across one or two instances where I was called a Nazi or something like that. For whatever reason, somebody. There was never any issue made. I was never castigated. I was never excluded, you know, kept out of anything.

KP: Except for the army.

RS: The army is the only thing that ... I was a little disappointed with that, I suppose. You see, I was trying to be a good Boy Scout, you know. (laughs) At the same time you can understand that something like that they have to be careful. Not take any chances, and I represented a chance. So that's all right. I can understand that. But we managed to get through, and as I say, you know, we really didn't suffer. We didn't have everything we'd like to have, but I think all in all, the powers that be down in Washington, did a marvelous job coordinating all this.

KP: You had the sense, at least from your industry that things worked fairly well?

RS: Yeah.

KP: In terms of needed supplies. In terms of workers?

RS: And even in our personal lives, you know, I mean what was happening in the stores. What was available in the stores and so on. There were supplies there. You might have to stand in

line. You might have to be the first there, and you might not get as much as you want. You may be turned away completely and say come back again next week because we don't get any more until next week, but it wasn't anything that we really, you know, you can say was suffering. So I think they did a very good job on supplying both civilian requirements as well as the military requirements. It's a big undertaking, honestly. Well, I guess I can't think of anything further than that.

----------END OF INTERVIEW----------

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