

Interview of Ralph Pillsbury Gates, Jr.

Interviewer: All right, give us your full name.

Ralph Pillsbury Gates, Jr.: Ralph Pillsbury Gates, Jr.

Interviewer: And --

Crew Member: Can I have him spell that please?

Ralph Pillsbury Gates, Jr.: Pillsbury? P-i-l-l-s-b-u-r-y, and Ralph is R-a-l-p-h and Gates is G-a-t-e-s.

Interviewer: And, you're how old?

Ralph Pillsbury Gates, Jr.: I'm 84 and a half. I'm getting to the age where I can put the halves back in.

Interviewer: Um, all right, where were you born?

Ralph Pillsbury Gates, Jr.: Well, I was actually born in Chicago, but I never used to like to admit that because I was raised in Nashville. And the only reason I was born in Chicago was because my Dad had been transferred down to Nashville two years before I was born, and when it came my time, Mother went back to Chicago where the family doctor was to have me and I was there about two weeks and came back to Nashville. But I never let any of my friends in Nashville realize that, that I was born a Yankee.

Interviewer: Um, okay, tell us about growing up and how you got into Vanderbilt, was it Vanderbilt you went to?

Ralph Pillsbury Gates, Jr.: Vanderbilt.

Interviewer: Tell us that story, that part of your life.

Ralph Pillsbury Gates, Jr.: Well, it started in Pearl Harbor, of course. It was in December there of 41, and I was still 16. But I was a senior in high school, and when the war was declared, my Dad was in the trenches in France in the First World War and he had been in the Army in the Chemical Warfare. But I knew when I was 18 that I was going to get in the Army rather than anything else. And, he died that following March. But in June when I graduated, I was now 17 and I started right into engineering school at Vanderbilt because it was, I could walk to school from where I was in Nashville. And I remember that particular summer was early in the war, in the fraternity class there, we had probably 50 members in the fraternity there. And, that fall, they begin to disappear as they were drafted and volunteered and so forth. And when I was 18 next January, I immediately went to the draft board in a hurry because I wanted to volunteer for the Army because I figured I could dig a fox hole better than I could swim, and so, they said, "Well, okay." They checked what I was doing and said, "Well, we'll call you soon." And about a week later, I got word from them that I had been given from them a 2A deferment, which I had no idea what that meant or why it was. So they said, "Go back to school. Go back to engineering school, and we'll call you when we need you." And now I realize that was significant, because by this time, they had pretty much decided they were going to go ahead and build the bomb, and this was in '43 now. So they were already assembled with the physicists at Los Alamos, and they knew that sooner or later, they needed some technical trained people to do the grunt work, so to speak, to build the darn thing. So where were they going to get these engineers, or these young kids or something? Everybody that graduated from college was already overseas, or committed somewhere else. So they decided they would defer -- this is maybe a puckerful, but it sounds sensible to me -- that they would defer a bunch of young

engineering students, keep them in hold, and when they needed them, call them. That's what happened to me.

So, it was another year and a half before I finally got called in the summer of '44, but believe me, that year was a nice one at school. Most of the guys had already gone, there I was. And from 50 in the fraternity, we now had about eight when I finally got called in the summer of '44, said, "Now, we want you." Okay, so I went and joined the Army, and was immediately assigned to infantry replacement training because that's where they figured they needed bodies, and I was sent to Fort McClellan in Alabama for basic training. Supposed to be a 16 week program, but about the second week of December that year, '44, the Battle of the Bulge started. And all of a sudden, they realized they needed some bodies sooner. Infantry replacement trainees sooner and that was us, so we were assigned -- they cut it short. We were going to go overseas on the third of January. And we went on a final bivouac after Christmas that year in the mountains or the hills of northern Alabama; there was a lot of snow. And I remember it was on the morning of the 30th of December, I was out with three other guys. We put our shelter halves together and made a tent and had a kettle to keep us warm, but it was snowing like crazy. And about 4:00 in the morning, the sergeant came in and said, "Gates, are you in there?" And I said, "Yes, sir." Well, he was a sergeant, but we were privates. "Yes, sir." "Get your stuff together, you gotta go back in." And I said, "What's up, sergeant?" He said, "I don't know, just do as you're told. Get your stuff together. Go to the mess tent and get some coffee and you gotta march back in. We don't have a ride for you." Well, this was 19 miles with a full pack and a rifle, probably 80 or 90 pounds, something like that. Well, I got over there and there were four other guys, there were five of us. And I was concerned that my Dad had died,

and my grandfather was there at home, and he had what they called "local parentis," in case there was any difficulty if you were to die, I could get a furlough. And I figured that must have happened. Grandpa must have died. But I talked to these other guys, they had no such story to tell, so none of us had any idea what it was all about. We were told to go back in, and we did. We got back in that afternoon, and we were immediately issued brand new uniforms and told us to sit tight till we were called. We were in different units. I was by myself in the barracks, and this was -- so the night of the 30th, I was there. The night of the 31st was New Year's Eve, and nothing had happened. I was reading or whatever, and I finally went to the sergeant. "Do you think you can get me a pass to go into the USO in Anniston, Alabama for New Year's Eve?" There were probably 15 or 20 thousand soldiers down there, so the USO -- it was not a small deal. It was a big deal. So I got a pass and went in and had one heck of a good time on New Year's Eve. Got back to my barracks about 5:00 or 6:00 in the morning and went to sleep. Well, about 1:00, all my buddies came back in. All that snow had melted. They were a muddy mess. And here I was, sitting on the edge of my bunk, and they said, "Gates, what's going on?" And I said, "I don't know." But I was beginning to get nervous, because I saw they were getting ready to go overseas, and obviously I wasn't. So, I was delighted when I got orders at about 4:00 to get on board of a train.

So, there were five or six other guys in this train, and we headed for New York. I had a bunch of orders for the bunch of us I was supposed to hand to a lieutenant when we got to Penn Station. Which I did, and he took us up to Gould Hall, which is up near where the hall of fame is where it used to be in New York University Engineering School is now Bronx Community College, and we were billeted there. There were about 40 of 50 of us there,

accumulated there. And we were put in what was known as ASTP. Army Specialized Training Program and we were studying electrical engineering. Well, I had been a chemical engineer in my training, but this was fun, too. And besides that, it was in New York. And they couldn't do enough for us. We had complete freedom to go into New York and I saw more plays and saw more fun than -- anyway. Probably in about March, we were interviewed by two civilians. They weren't in uniform; we didn't care much for them. They were probably 40 years old. They interviewed us all individually, and we didn't know what this was all about. Certainly had no idea about the Manhattan Project at the time, and we were there when VE Day took place, and I remember that very well.

Interviewer: Don't tap your foot because the microphone will pick it up. I get excited, too, when I talk. Right where we left off from. Time's Square, VE Day.

Ralph Pillsbury Gates, Jr.: I was, of course, there on VE Day, when the war in Europe ended, and it was a time for great celebration. A couple of my buddies and I went down to Times Square, and millions of people there.

Crew Member: I want to start that again.

Interviewer: I'm sorry.

Ralph Pillsbury Gates, Jr.: Wave your hand when you want me to start.

Crew Member: Just go ahead and look at Jeff.

Interviewer: Start over again. I have your full attention.

Ralph Pillsbury Gates, Jr.: I was there on VE Day that spring, and I remember it well because it was a massive celebration. Of course, we went down to Times Square, which is the place where everything happened, and then there were millions of people down there. And I remember particularly a group of the Free French Force that happened to be

in New York marched down Time's Square singing "La Marseillaise," and boy, that was something. And then, later on that evening, my friend and I decided we wanted to take the Staten Island Ferry out to Staten Island and back to go by the Statue of Liberty, which was lighted for the first time that night on VE Day. And that makes the hair stand on the back of my neck when I think about that. And then, in addition, that evening when I went to bed, I had a little radio there and I listened to the late news and as they signed off that night, they rang the Liberty Bell from Independence Hall. That cracked Liberty Bell. And that really hit me. This was an exciting time. The hair stands up on the back of my neck right now.

Anyway, we had quite a time in New York because we were -- nobody knew that we were in school. We might have been soldiers coming back from overseas, or on our way over. So we had a good time, and one evening, Harvey Willard on my left and Dick Reed on my right, no, Dick Reed in the middle. We were on the sides of him. He wore dark glasses; he was a very handsome Irish kid from the Boston area. I'm not sure where he'd gone to school. But anyway, Harvey Willard was a student at MIT at the time when he was brought into that group. And we supported Dick on either arm as if he were blind walking down Time's Square amid all these people. And, "That poor guy lost his sight overseas." This is a horrible thing to do, but it was kind of fun at the time. So we had many experiences like that.

Well, anyway, these two guys who had interviewed us had apparently broken us up into two separate groups. And, in late May, all of a sudden, we were given orders to go. Half of us, about half, went up to (inaudible) Maine. And they were involved in the Air Corps, and some of them became chief engineers of the B-29, which was a new super -- supposedly secret bomber. Anyway, the rest of us were sent down on the train to Oak Ridge. We were sent to Knoxville.

Interviewer: So May 8th is VE Day, I believe, something --

Ralph Pillsbury Gates, Jr.: It was a month or so after VE day.

Interviewer: And you were going down to --

Ralph Pillsbury Gates, Jr.: This was around the first of June that we finally shipped out. The war in Europe was over, and we didn't think there was likely to be much more of the war going on. But nevertheless, we were sent to Knoxville, Tennessee. And we were met there by a lieutenant in a bus of some sort. And we were told we were going somewhere else. Well, we left Knoxville, and we were out in the country and all of sudden, we came to this town of Oak Ridge, which didn't mean anything to any of us, but we could see that it was a big operation going on there. And so, I spent exactly one night in Oak Ridge. And particularly, when I was crossing the little bridge to go to the mess hall that evening, coming across the other way was a friend of mine, Hugh Richardson who graduated from Vanderbilt the year ahead of me. He'd already graduated in chemical engineering. And he come across the bridge and I said, "Hugh, what in the world are you doing here?" And I remember his words so clearly. He said, "I'm dogged if I know. I know what I do, but I don't know what I'm doing." And it turns out, he was an operator in probably the gaseous diffusion plant. He was operating something, separating uranium 235 from uranium. He didn't fully know what he was doing. That was very secret.

And anyway, the next day, we were put in a Pullman car. There were maybe 20 or 30 of us, and we were in effect sealed up in a Pullman car, and the train left Knoxville and went up to (inaudible) and was switched off and connected to another train, and that train took us to Saint Louis, and there we were switched off and attached to the Santa Fe chief heading west. And overall, this took probably three nights and maybe the better part of four days, and we were sealed up in this car. We were not permitted to get off at all. There was one guy who was a corporal. He was in charge of us. He had all of our orders. And he would get off the train at certain places where it stopped, and pick up the telephone and make a call. And I've heard later on what that call was all about. He said, "This is corporal so-and-so, Corporal Hull or somebody reporting. My shipment is intact, and no one has approached us." And they tell them, "Well, get back on the train." Which we did. And this was all the way till one early afternoon; we stopped out in the middle of the New Mexico desert at a place called Lamy, New Mexico. Now, the Santa Fe railroad does not go through Santa Fe, but it goes through Lamy, which is a junction close by. Our car was detached from the train, and we were left there and the train went off and there we were. Well, it was probably two hours before a bus came by and picked us up, and somebody checked our orders and what we were doing and, "Where are we going?" "You'll find out." We took off and pretty soon, I saw we were coming into a town, the sign said Santa Fe. Well, I'd never been Santa Fe, but I heard about it. So I said, "This must be a base around here somewhere." Except we went right through Santa Fe, right out the north end and headed up to the Colorado River on the east side of it, quite a ways till we got to the town of Española, which was the only place you could cross the Rio Grande at that time up there. Crossed over, turned around, came down the other side a few miles, and then turned off on a gravel road which went up into the mountains. Well, this was the road to Los Alamos.

Interviewer: Were you in a truck?

Ralph Pillsbury Gates, Jr.: We were in a bus, like a school bus type thing.

And we didn't know where we were going, we were told, "You'll find out." Well, pretty soon, we came to a barb wired fence enclosure, and there were a couple of soldiers there with rifles and they checked our orders and sent us on through. Then we came to the next gate, and here we could see a massive activity going on, and there was a sign up there that said, "The Los Alamos Ranch for Boys." Well, we got inside that gate, and there we were until the war was over. And, we were billeted in some sort of a building there. I remember we played soft ball that night. We didn't know what was going on. But the next morning, 8:00, we were supposed to report for indoctrination, which we did, walked into this room. I think it was in the tech area at Los Alamos, which is where most of the research work was done, and there was a blackboard there and this gentleman came in and drew a great big circle and said, "This is why you're here." Now, I don't know who that was. I'm pretty sure that was not Oppenheimer. It might very well have been George Kistiakowsky, who was head of the implosion development of the Nagasaki type bomb. And whoever it was, neither one of the names meant anything to me at the time, I had had three years of engineering and all the physics that they offered in engineering school, but didn't know anything about radiation. We didn't have that at the time. This is back in 1942 and '43. He said, "We're building a new type of bomb." Well, okay. We had been dropping two ton block busters on Germany from B-17s. They may have had two or three of them was all they could handle, but they were big and they did a lot of destruction. This guy said, "We're building a new type of bomb that will be equivalent of more than 10,000 tons of TNT." Well, that sounded a little bewildering to me, and I think today I probably would have thought to myself, "Yeah, right." But I was 20 years old. I did what I was told, and the next day, I was assigned to

S-Site. Now, Los Alamos, the main tech area was on a mesa sticking out from the Hamam Mountains. S-Site was on another area, probably another mesa a little further to the south of there because you had to go down into the valley and back up again to get to it. But, that's where I was until the war was over. Only a couple of months more. But this is where we cast the high explosive lenses that were used for the detonation of the implosion bomb, the so-called, "Fat Man," the one that was dropped on Nagasaki.

Interviewer: Explain --

Ralph Pillsbury Gates, Jr.: The bomb that was dropped on Hiroshima, there was only one of those. That was based on uranium 235. And that's interesting because that whole big complex at Oak Ridge, something like 3 billion dollars or something like that was spent was originally designed for a lot of research work, but also to separate uranium 235 from the rest of the uranium because it was a very small percentage, maybe three percent or something like that because that was the only fissionable part that would work. And they had accumulated enough of that so they could make one bomb, and that was the bomb that was dropped on Hiroshima, and it worked. They never had a chance to test it ahead of time, but they didn't have any more uranium 235, but in the meantime they discovered they could take the total uranium, the fissionable and un-fissionable, and put it in an atomic pile and radiate and jump it up to plutonium. And in effect, they had an unlimited amount of plutonium, which was fissionable, and that's what the next bombs were made out of, and that's the one that I was working on.

The original 235 bomb was what they called a gun. They called it, "The little boy." It was like a long cylinder, explosions at both ends. Ramming the 235 together to

make it achieve a critical mass and set off the chain reaction. And it worked. It was pretty strong stuff, but a lot of it, as you see it running together, a lot of the neutrons or whatever they were achieving the chain reaction would go out and wasted in the other direction. If they could contain that in one sphere that came up with the little idea of, "Let's make plutonium into a ball, and let's encase it totally in high explosives and squeeze it all the way around at the same time," you get much more efficiency out of the fission, which is what the Nagasaki bomb was.

We were casting these high explosive lenses which were lenses. If you picture a sphere of plutonium surrounded by explosives, and you want it to explode such as it compresses equally around the total sphere, but you can only detonate this bomb at points on the outside of this, I think there was something like maybe 32 separate detonation points, each one of those points, a shock wave would be created like a circle, expanding from that point. Well, if you visualize that point of explosion, and the shock wave comes out concave around that and goes down into plutonium in the middle, that shock wave is like this unless you can put a lens to it and get it to curve this way, so that all these points will come in with a shock wave that would compress it equally around. And that's what these lenses were, just like glasses lenses. And this was done by using TNT as one part of the lens, and the other part was a mixture of TNT and barium nitrate, which slowed the burning rate down. We called it a burning rate, it was all explosion, but it exploded more slowly. But, by physically combining those in such a way from that point of detonation, you change that shock wave from concave around that point to where it was convex and came around and squished the plutonium in the center. And it worked. But we had enough of that so we tested it, and that was the first test down at Trinity in New Mexico, and

it worked. And, so, I was a junior member in this group. These were, they called them powder men who had spent their lives handling high explosives. I think they were all from the Holston Ordnance Works up in East Tennessee. And they loaded bombs and shells and all this, so they weren't afraid to handle high explosives, but this was different because we had to melt TNT, and we melted it in a sugar kettle. A great big sugar kettle, just commercially done, and you had to control the temperature because if you got it too hot, it would self ignite, and that's not what you wanted. So, we use high pressure steam to surround this jacket. Pressure steam will give you the temperature that you want. So if you have the right pressure, you will have the right temperature. So these were heated below the detonation point, or the firing point, till this melted. And after this was melted, you put the barium nitrate, if that's what you're making into it. You had to stir this up and then pour it into these molds, and that's what these were. The lenses. I think there's something like 32 of these around each sphere, and it's just like a soccer ball is what it amounted to. It even looked like a soccer ball when you draw a picture of it. And you had to cool these things in such a way you did not get any holes in it, and you didn't have a separation. So there was some pretty sharp guys who had done the preliminary work on this before they got out there. I think they finished in January or February of '45. They had done the protocol of how they would cast these things, so all I was doing was following orders along with these other guys. But I was a junior member of these group, so they had a lot of fun with me. These old guys were 35 or 40 years old, and I got all the detail jobs. And I remember one. At the end of each shift when we were through casting, someone had to clean up the floor because there were little pieces of TNT that would inadvertently be around on the floor, and you took a high pressure hose, hot steam, and you melted them and shoved them down into a sleuth way where they were connected.

Well, the first time I did this, they knew it was going to happen. All of a sudden, I stepped on a little piece of that with my heel, and "bing!" Scared the day lights out of me. And they laughed and laughed and laughed. And so, I was the junior member of that group. But these S-Site, which is no longer there. It was burned down in a fire, I think, around 2000. There were earth works around it. Pretty high, such that if we inadvertently exploded ourselves, the explosion would go up instead of out and it wouldn't do any damage anywhere else. And fortunately, we never had that. It would not have been a nuclear explosion; it would have been a TNT explosion. But it would have done us in. Nevertheless, we never had that. But I remember being told when I was first there that, "You guys here are no more important than what you're doing, or your life is no more worthwhile than anybody who's over in the Pacific or anywhere else fighting. So this equipment we have must be protected at all cost." Well, it just reminded me of people, well, there's another part of the story. But nothing ever happened, so this was fine. Well, when the war ended, we immediately stopped making these, that particular Nagasaki type bomb. And, I remember when I was talking to a class of physics students, one of the young ladies said, "How many of those bombs had you made?" And I said, "How many would you guess?" And we'd been hearing, you know, 10,000 bombs or 20,000. We completed a grand total of six assemblies, that's all. And the reason I knew this, being the junior member, I was given the job by Mr. Popham, who was a civilian who was in charge of administrative head of S-Site, and I had a little three by five metal card case, and I had three by five cards in there, and every time we had built enough of these lenses that had been checked out with high speed x-rays and they were deemed okay, I had another entry for another bomb. So I told these kids when the war ended, we had a grand total of six. And that was all and we quit making them. And as far as

I know, we never made any more of those. The first of those six was exploded down in New Mexico, the test bomb. The second of those six was the one dropped on Nagasaki. Now, that left four. So of course this young lady said, "Well, what happened to those other four?" And I said, "Well, I'm glad you asked that." This is kind of fun because I said, "Any of you girls in this class have bikinis? Well, whether you do or not, I'm sure your mothers probably did. And I'll tell you what happened to at least two of those other four bombs. They were shipped out to the South Pacific, and they were used in some test work. One above the water and one under the water to see what destruction would be to Navy vessels. And these tests were taken in a group of little islands called the Bikini Atolls. And, there was a very smart Frenchman at the time, this may be a puckerful, but I don't think it is, who had designed the itsy-bitsy teeny-weeny yellow polka dot bikini, he called it, because it was so explosive." And I think that's a true story is how that originated.

Interviewer: So, and how did it all end? Were you shipped out from there?

Ralph Pillsbury Gates, Jr.: Well, the war was over, and I didn't have a job at S-Site anymore, but I didn't have enough points to get out of the Army, so there were other things to be done. They were still processing plutonium, so I asked if I could be transferred to DP-Site, and I was. I thought that was more like my chemical engineering or something, and I was assigned to the tail end of the processing of the plutonium at DP-Site. And, what I did, the last effluent that came out of it, we ran it through dry boxes on to filter paper to collect any solids that may be there, and we worked doing that. And the solids from that filter, that filter paper was put in lead casts and they were stored. The liquid from this was shipped out back into 55 gallon drums, and we must have had a couple three dozen of them when I left there in June of next year, and I don't know what happened to them, but they were hot as Hades. Interesting story, in 1995, I

went back with my wife to the 50th Anniversary of the SED, the Special Engineering Detachment, and I wanted to show her the places I'd been. So first of all, I went out to S-Site, and I couldn't get any near where that was, and this young fellow there, I said, "I was here before you were born." And, of course, he told me that didn't make any difference. "Do you have a Q clearance?" And I said, "No, not anymore, I don't." And he said, "Well, I can't let you in." Well, I understood that. But I did take her to the, they had a little cafeteria there. It was not like what when I was there as a GI, because that's where I had lunch with Oppenheimer one day. He was the manager, and I knew he was the manager. I still didn't know anything about his fame as a nuclear physicist, but as a good manager, he came out to all the various sites from time to time, and he had lunch with across the table. A big mess hall table like that. And I sat right across from him, Dr. Oppenheimer. And that's, so I had lunch with Dr. Oppenheimer.

Interviewer: What was your impression of him?

Ralph Pillsbury Gates, Jr.: He was just the boss. He was a good man. He was out joking and laughing and talking with us. He was doing a good job as manager, just talking with the boys. That's what it amounted to. We didn't know anything about physics. We were powder men at the time.

Interviewer: You were at the end, they were shutting things down.

Ralph Pillsbury Gates, Jr.: They shut it down, and I got this new job in plutonium refining, and this was interesting because when I went back to see that site after I showed my wife S-Site where it was, I couldn't get to it, I wanted to show her DP-Site. Well, you can't get near DP-Site. It's encased in barbed wire and totally off limits and I was told because it was so highly radioactive. Well, I didn't get in, so I don't know, but it didn't surprise me because those drums that we left out there were pretty hot, and they probably did something

with them. But I never heard any more about DP-Site. But I do have this pair of coveralls that I wore when I was working there, and it says, "CM 12." That stood for Chemistry Metallurgy Unit 12, and that's what our uniform was at DP-Site where we worked with plutonium.

Interviewer: Um, here's a question. What were you doing?

Ralph Pillsbury Gates, Jr.: Well, every morning when I left the barracks which was in the main Los Alamos area, we either had a jeep or we called it a bus to get out there. We get out there a little bit before 8:00, and the first thing we do would be listen to the radio because we knew some of the bombs had left the hill and were gone. We were expecting them to be used, and one morning, sure enough at 8:00, I think it was Bo Carter was the radio broadcaster at the time, he announced this new bomb that had exploded. And wow, were we excited. We had no knowledge of how many thousands of people had been killed at the time, but nevertheless, this is what we'd been hoping for and working for. And, then couple of days later, we heard the Nagasaki bomb and then we heard the war was over. And that's when we immediately stopped making these things. That was the end of the job. But, it was -- the war was over. And that, we knew and you think about it later on, thousands of GI's and others, if they had to invade Japan, would have died. Plus probably even more than that of the Japanese because they were not willing to surrender at that particular time. We'd seen that on the islands in the Pacific. They would all give up their lives rather than surrender. So in my opinion, even though all were these terrible amounts of Japanese killed in Hiroshima and Nagasaki, probably more than that would have been killed if we had had to invade Japan as well as an equal number of Americans would have been killed. So if you're looking for numbers, whatever that's worth, I'm sure that many lives were eventually saved by that. So, I will always be aware of a certain degree of guilt of having worked on something like that that killed so many people. The bombs

that we dropped on Tokyo, the fire bombs, I think killed equally as many then. Certainly than the ones that we dropped in Germany on Dresden and in other places, many many people were killed, maybe not in an instant. So that makes it seem so much worse. We did what was necessary.

Interviewer: Tell us about what you had to go through.

Ralph Pillsbury Gates, Jr.: Well, first of all, once we got in the gate, we were not out of there until after the war was over, and we were told that. No one is going to know where you are, you can send out letters. You can mail, no telephone calls, so you can send letters, open. We have people that are going to read all your mail going out, and any mail that comes to you in this particular case, they came to us at PO Box 180 in Santa Fe, New Mexico. That was where the mail all went. And, when they came in, they were all opened. Even the letters from your girlfriend or whatever, and they read them to see what was known or what was not known. So that was total censorship, and we were not allowed off the hill at all till the war was over, and then we were free. And, I did have some pretty good times after the war, because working with plutonium like that; we were checked every morning and afternoon to see if we picked up any radiation. And every six weeks, I had to leave the hill for a three day pass. It was obligatory, and very pleasurable so, to get away from there and I went to the Grand Canyon and I went to Juarez, New Mexico. I went to Denver on these things, and came back and when you checked back in, you immediately went into the infirmary, the hospital. And they checked you for 24 hours everything that went in and everything that came out of you to see about any residual radiation. And as far as I know, I never had anything that was sufficiently high to cause concern. But I have wound up with two different types of cancer in my lifetime, so who knows what that was all about.

So, I think they did an excellent job of protecting us because they watched it carefully all the time, and I think about all the claims of concern from cancer from downwind radiation of the tests out in Nevada. Maybe that's so, and I suppose it could be so. But I know that we, under control by the government, were much closer to it. And as far as I know, we never had any serious difficulties. But there were not very many of us, maybe I'm a statistic out of that, I don't know. I'm alive at 84 and still doing well.

Interviewer: Um, tell us about -- there's S-Site. Was there a T-Site or an L-Site?

Ralph Pillsbury Gates, Jr.: There were several sites. S-Site was for an old sawmill that was out there. It happened to be a convenient place where they could set up this laboratory to cast explosives and be protected in case there was an explosion. Right next to that was V-Site. "V" for "victory" site. And that's where these castings were taken over and the bombs were finally assembled. Now, V-site is now an historical site preserved. S-Site which was close by was destroyed by fire. Then there were other sites, other canyons where they did testing of certain number of these lenses they would explode to make sure. And they had high speed cameras that were designed for this. When they exploded one of these, they could check the progress of the shock wave going through them. So, it's amazing what they developed for the Manhattan Project and new things of all sorts that had never been done before. And, the other canyons, I don't remember, Piritto Canyon or something where they did some testing and firing and stuff like that. But we were on a separate mesa from the main, the Los Alamos tech area.

Interviewer: Did you have conversations with other people in other parts and put these things together? Were you segregated from other parts of Los Alamos?

Ralph Pillsbury Gates, Jr.: No, we were free to go where ever we want. As a matter of fact, after the war was over, they started what was known as Los Alamos University in the tech area, and these world named physicists taught class. They wanted to get back into teaching. So any of us who wanted to, had nerve enough to attend those classes could do it. So I sat in on some of those classes, and I didn't know anything about nuclear physics. And these were for post-doctoral type stuff. And I listened, I remember Dr. Kistiakowsky, he was the guy who developed, he was a chemist and developed this combination of barium nitrate and TNT that gave the right burning rate. He was giving this course, and I took furious notes and all that. And I remember he was talking about the Clausius-Clapeyron equation. I had no idea what this was, but I enjoyed that. So, we were free to talk to anybody back then. Now, before the war was over, I could get into the tech area, but it was restricted. That was right in the middle of town, and that's where they did a lot of work. You probably remember maybe the story of Dr. Louis Slotin, who was the, I think he was a civilian. He was working, testing the progress of the chain reaction as you removed dampening or lead from a pile, as you removed it more and more, the chain reaction would get faster and faster, and they were measuring this for some of the calculation they needed in designing the bomb. And then an accident happened, and one of these lead dampenings came out and dropped, and all of a sudden the things went critical, and it apparently started glowing and he realized right away that they were in trouble. So he hollered to the other two guys that were in the lab with him, "Put a mark on the floor where you are, and then get out at once!" And in the meantime, he pulled this pile apart with his hands. And it stopped the chain reaction, but he died six days later. This was Louis Slotin. And I think of that guy, he was not too much different as were some of the GI's that we knew in Europe and in Japan who fell on hand grenades who were tossed in. And they fell on the hand grenades to

protect the other guys around them. That's what this guy, Slotin, did in effect. And I don't know if they gave a Congressional Medal of Honor, I don't think he was in the service. But that would have been worthy of a Congressional Medal of Honor, as far as I was concerned because he did give his life in a hurry to save others.

Interviewer: What would have happened if that would have gone critical?

Ralph Pillsbury Gates, Jr.: Who knows? The thing was getting faster and faster. I don't know that it would have exploded, because it wasn't contained in any way. But it certainly would have done a massive amount of radiation in the tech area and probably forced him to close the place down. Was quite hazardous.

Interviewer: Tell us about some of your friends.

Crew Member: We need to change --

Interviewer: We'll get back on track once we're rolling again. We ready to go?

Ralph Pillsbury Gates, Jr.: Where were we before we start up again?

Interviewer: Okay, we were --

Crew Member: You were talking about the man, Slotin.

Ralph Pillsbury Gates, Jr.: Oh, Louis Slotin.

Crew Member: Slotin.

Ralph Pillsbury Gates, Jr.: And Louis Slotin, I think if anybody in the civilian could get something like the Congressional Medal of Honor, it would be he because he certainly gave his life as much as a guy fell on a hand grenade to protect his buddies just like that. And, there's no telling how much damage would have happened there at Los Alamos if he hadn't been willing to do that.

Interviewer: Have you met him?

Ralph Pillsbury Gates, Jr.: No, I never met him. I think this may have happened before I got there even, but it was a memorable experience.

Interviewer: Do we want him to read that letter?

Crew Member: Yes, please read it.

Interviewer: Read it out loud, and slowly.

Ralph Pillsbury Gates, Jr.: All right. It's several pages. Anyway, when I was in the service, I wrote letters home. And mother saved all these letters, and I had written some that were memorable that were important to me on VE Day when I was in New York. But this was one I wrote on Tuesday afternoon, August 7th, 1945. This was the afternoon after the first bomb had been exploded on Hiroshima, and it became knowledge, and I could at least talk about where I'd been in secret so long. So, I was 20 years old. Pretty naïve.

"Dear Mom.

Well, at last you know approximately what goes on up here. I guess by now, the cat is out of the bag or completely out of the bag. You know the little yo-yo we're making. It's quite a destructive thing, as Japan should know. Ever since that day I arrived at Los Alamos, everyone here on the hill has known what was coming. You can understand now why such a device was guarded so closely, why not one of us dared mention it off the area, and why all our mail was censored. I wish I'd been here several months sooner to actually have taken part in

some of the early, more exciting experimentation. The day I arrived here, they told us of the success accomplished that very morning; however, it took two days to fully comprehend its full extent."

Crew Member: Can you read slower, please?

Interviewer: We have plenty of tape.

Ralph Pillsbury Gates, Jr.: "Now, when one was actually dropped, perhaps I was a little better prepared than you, but certainly just as amazed and fearful. It must certainly be true that there can never be another war. However, I think that one side of this subject has been forgotten or at least slighted. Not because destruction would be universal, but more because construction would be world-wide. An accumulation of unlimited power for the good should erase economic reasons for wars. It's not likely that they could begin for any other reason. Maybe I can let you in on a little piece of Army life up here at this place. We, as you probably have heard by now, did not live directly in Santa Fe, but off up in the mountains at a little old boy's school known as Los Alamos. We must be at least a thousand feet above Santa Fe, and it does get quite cold at night. However, the warm weather that I like so well takes over completely during the day. The Special Engineering Detachment and a group of MP's make up the Army compliment. The rest of the group are civilians, living in trailers and huts right here on the hill. I consider myself very fortunate to have seen such men as Dr. Oppenheimer and Dr. Kistiakowsky. They are now rather famous as promoters of this new discovery. They were the men present at the trial experiment down south of Albuquerque. It is now Wednesday, and I hear that Russia has just declared war on Japan. I believe, as Drew Pearson did last fall, that the war should be over in a week. Let's see." This was -- the first part of this was written before the second bomb. "This new bomb may sound inhuman, but thousands of people who have been

fortunate enough to have worked on the project and to have known in advance what was up, like myself, would be sorely disillusioned if the American people or any part of them should be afraid to face the fact that this thing will mean peace forever, even at the cost of several thousand Japanese civilians' lives at the present. Let us pray that it will be unnecessary to use any more, even on our enemy. However, if they should doubt our intentions and refuse to give unconditional surrender, Japan may well be completely obliterated. I'm sorry I haven't been writing quite regularly, but you can imagine how excited we were in knowing the world's greatest secret.

Love, Buddy."

And the personal P.S. Is, "I have been going to Post Chapel at evening fellowship group. Can you rush me my picture and approximately six coat hangers?"

That was --

Interviewer: Do you want to read that first part again?

Crew Member: I was going to ask you if you could read just the first part till you started slowing down again.

Ralph Pillsbury Gates, Jr.: Okay. Tuesday afternoon, August 7, 1945.

Crew Member: One moment, I'm sorry. And try not to tap your feet.

Ralph Pillsbury Gates, Jr.: I cleaned my socks this morning, so I guess I can do that.

Crew Member: Tap away.

Ralph Pillsbury Gates, Jr.: Okay. This was written in the afternoon after the bomb was -- first; the announcement of the bomb on Hiroshima was given public knowledge. Tuesday afternoon, August 7, 1945.

"Dear Mom.

Well, at last you know approximately what goes on up here. I guess by now, the cat is completely out of the bag. You know the little yo-yo we're making. It's quite a destructive thing, as Japan should know. Ever since that day July 16, everyone here on the hill has known what was coming. You can understand now why such a device was guarded so closely, why not one of us dared mention it off the area, and why all our mail was censored. I wish I'd been here several months sooner to actually have taken part in some of the early and more exciting experimentation. The day I arrived here, they told us of the success accomplished; however, it took two days to fully comprehend its full extent.

Now, when one was actually dropped, perhaps I was a little better prepared than you, but certainly just as amazed and fearful. It must certainly be true that there can never

be another war. However, I think that one side of this subject has been forgotten or at least slighted. Not just because destruction would be universal, but more because construction would be world-wide. An accumulation of unlimited power for the good should erase economic reasons for wars. It's not likely that they could begin for any other reason. Maybe I can let you in on a little of Army life up at this place. We, as you probably have heard by now, did not live directly in Santa Fe, but off up in the mountains at a little old boy's school known as Los Alamos. We must be at least a thousand feet above Santa Fe, and it does get quite cold at night. However, the warm weather that I like so well takes over completely during the day. The Special Engineering Detachment, known as the SED, and a group of MP's --

Crew Member: That's good, thank you.

Ralph Pillsbury Gates, Jr.: Okay.

Interviewer: Is this a poem?

Ralph Pillsbury Gates, Jr.: This is a poem that I can't claim that I was totally author of, but I think I revised it and maybe, anyway. I wrote this in July of 1945 after the bomb, the test bomb had been exploded and before the Hiroshima bomb.

It's called, "Los Alamos Lament."

"I'm just a PO number,

I have no real address.

Although we were selected,

I wonder for the best.

We're not like other people,

No one knows what we do.

So, PO Box 180, here's to you.

They put us on a mountain, outside of Santa Fe.

Where the only signs of wildlife are GI wolves at bay.

We're on a secret mission, and secret work we do.

And when folks ask us what we do, 'I don't know, do you?'

And when this war is over, down from this hill we'll roam.

We'll ride down from the Shangri-La right down to a veteran's home.

So, heed my words you children, of brilliance do not boast.

Or you'll end up as we have, up in Los Alamos."

Crew Member: Thank you, that's great.

Interviewer: Um, so, do you have any personal friends that you knew that you had there that stand out? Tell us about them.

Ralph Pillsbury Gates, Jr.: Well, yeah. There were quite a few. When the war was over and they were getting ready to make the tests out in the Pacific, we were all invited

to sign up for another tour of duty. Six months to a year, and we would be given the privilege of going out to the South Pacific for the tests. Well, this was now May or June, and I was anxious to get out, and I knew I would be discharged fairly soon and get back to Vanderbilt next fall and complete my senior year. So, I turned a down. But we had one or two guys who decided they wanted to do that, and I'm -- I can't think of their names right now, but they did stay on and went out to the South Pacific. I've lost touch with them since then, but one of my closest friends back in Nashville, Bill Acres, had been in the Navy and was assigned as a young lieutenant to these tests and piloted one of the boats that went into to check the radiation after the bombs exploded. The first bomb, he didn't stay for the underwater bomb. The first bomb was above the water, so probably there's not as much radiation thrown around as after the one that was under the water, which sprayed water everywhere. And I asked Bill, "How did you get in there?" And he said, "Well, we waited till the wind was blowing in the right direction, so it was blowing any radiation away from us, and we went in and tested all the radiation on the ships." And he said, "It was most unusual because it was not uniform explosion everywhere. Some ships were damaged, but hardly even touched. It was like when the bomb exploded, fingers went out from it, and they destroyed some things completely and others not." This was just a casual observation of his. But he was there to see one of the bombs explode that I had made.

Interviewer: Okay, the test bomb at Trinity, were you aware of it?

Ralph Pillsbury Gates, Jr.: I was aware of it, yes.

Interviewer: Could you see the flash in the sky?

Ralph Pillsbury Gates, Jr.: No, I'll tell you about that.

We all knew when the test at Trinity in southern New Mexico was going to take place, sometime very early in the morning on that day, and several of those guys who had been there longer than I were probably a little more involved in the physics of this, and they climbed up onto Via Grande, which is a mountain top outside of Santa Fe, up maybe 9,000 feet, up something like that, to see this bomb. And, I declined to hike up during the night to get up there. I think I played baseball that night. But anyway, they did go up and they could see the flash, and I guess this must have been at least 200 miles away, something like that. They saw the thing when it exploded around, I don't know, 5:00 in the morning or something like that whenever it was. But in the Albuquerque newspaper, there were several stories that came out. One in particular about a girl who supposedly was blind and this flash was so bright that she said, "What was that?" And seen it. Other stories which may be a puckerful of things like that, but no. I did not see the bomb exploded, I was sound asleep.

Interviewer: Were you aware that it has been successfully tested?

Ralph Pillsbury Gates, Jr.: Oh, right away, yes indeed. Sure, immediately, the next morning because I was back out to S-Site to do some more casting, and we knew it exploded and what we have been working on worked. So, it was pretty exciting.

Interviewer: So, what were your feelings about -- you touched on in your letter very nicely. But tell us about your feelings about the war and America and why this was so crucial, and how you feel about America and how you felt about it back then.

Ralph Pillsbury Gates, Jr.: Well, I'm old enough that I can be very concerned about young people today who think that things like this couldn't happen again. Well, that's what my dad thought when he was in the trenches in France and happened to be working with poison gas. This was terrible. He was gassed twice. He died when he was 52, right after the war

started. And so, I was concerned about his feelings, concerned about war coming. It was unbelievable, all right, we got into the war, and it's over, and people -- young people today, I think may be inclined, some of them anyway to look back at it as being history, ancient history. "How could people have been so bad, so evil to do things? How could Hitler have done that? That's got to be ancient history, that can't happen again." Well, I think we had some degree of that idealism before the Second World War. I know before Pearl Harbor, the majority of the people did not want us to get in the Second World War, but I think Roosevelt knew this was going to happen, and I have to say just like I think our current, ex-President George Bush felt this was something that needed to be done even though the people did not agree with it, and it took 9/11 for us. It took Pearl Harbor then to convince the people that evil is still here, and it was not going to go away. And you can be in danger of being too idealistic. Impractical idealism will cause you to wait too long for things. I don't necessarily want to get into how I feel about what we're doing.

Interviewer: I want to know you felt back in 1943.

Ralph Pillsbury Gates, Jr.: Oh, I had, listen, before I went in, there were five kids that lived right around me in the street where I was in Nashville. Bill Hager across the street was badly wounded, Harry Dunum just to my left was killed at either -- was a marine at either Taroa or Guadalcanal. Johnny Osher on the right was a B-17 pilot and didn't get back. Conrad Jameson, who was immediately behind me, was killed D Day. John Manchester was a Navy pilot just like George Bush, Senior; and he didn't return to his plane and they didn't find him. It was probably during the battle of Midway. These were neighbors of mine that I'd known. So, whatever we could do to end the war, I was so happy it was done. And never had any questions or doubts about it.

Interviewer: Tell us about VJ Day.

Ralph Pillsbury Gates, Jr.: Well, VJ Day, we were up on the hill isolated in Los Alamos. Now, if you've been to Santa Fe, it's quite a bustling little arty town now. Back then, it was a little quiet town. So, we had a big celebration and we all got in GI buses when Japan surrendered, and thought we'd go down into Santa Fe and have a big time. Well, we got down there, four or five bus loads of us. We got down there and the esplanade, which is in front of the palace. The governors, I think it's still there. We rode around the esplanade, and the Palace of Governors was still with Mexicans with their sombreros out selling jewelry, sitting there. No excitement, no nothing. So we went back up to the hill and had a hell of a time celebrating the war was over. Yeah.

Interviewer: So, you felt like you'd done something worthwhile?

Ralph Pillsbury Gates, Jr.: Yes, yes indeed. We did feel like we'd done something worthwhile. Our small part. Actually, the rest of the war went on and our Armed Forces kept the battle going while these things at Los Alamos and Oak Ridge and so forth were being developed. It took awhile. It's amazing how fast that happened. I think it was probably in 1941 or '42 right away that, let's see, Leo Szilard and maybe Enrico Fermi, some of the others realized -- these physicists around the world knew about fission by then. I think the German Jewish scientist Lise Meitner is the one who discovered that, and they realized that this was very likely to be dangerous, and they were concerned about the Germans, which is where most of the development started, would get there first. So, they went to Einstein and asked him, would he go to Roosevelt and plead their case that something needed to be done? And Einstein was known around the world and of great respect. And he wrote a letter, I think, to Roosevelt, and warned about this possibility. And Roosevelt saw the danger of this and gave the okay to get this thing

started. And that's when they began to gather all of the nuclear physicists that they could get and they, Oppenheimer chose Los Alamos because as a teenager, he had been at that Los Alamos Ranch as a boy. He knew how isolated this was, so he decided that this was the place. And Leslie Groves, who was the military commander, agreed with him and the two of them worked this thing out. Started the construction at Oak Ridge where they had an unlimited supply of electricity to run these big diffusion, gaseous diffusion plants and other things to separate uranium 235 from 238. And as the thing wore on, they realized that they were going to need people to do the work if this thing were successful, and that's why they deferred a bunch of young kids before they went into Army who had been in engineering school. I don't know, there were several hundred of us, I suppose, who were at Oak Ridge and Los Alamos and probably up at Hanford, Washington.

Crew Member: I have a question.

Interviewer: Yes, go ahead.

Crew Member: Were there, back then, I don't know if impractical. Was there any citizen branching community. I knew there was, there had to be unrest. There had to be because there was lots of animals dying. What was going on? Tell us about, and look at -- look at Jeff when you're talking. Tell us about what you knew about the protest of this.

Ralph Pillsbury Gates, Jr.: Well, environmentally, I don't think if I have ever heard anyone complain about what we were doing to the environment around Los Alamos. I know there was some wild animals there because one day on a jeep going from where my barracks was in the main area out to S-Site, a cougar ran across the road. And they were out there then, and one Sunday afternoon, I had an interesting experience. Mr. Popham, who was the civilian head of S-Site, he had a coupe, a car, and he had a friend who was a bounty hunter back

up in the mountains. So he invited me to go along with him on Sunday afternoon to go up to see the bounty hunter. And I thought this was great. And I had a friend named Johnny Tempco, with whom I'd been playing basketball, and I said, "Johnny, coming along with us." There would be only three of us. So the three of us went, and we went up and talked to the bounty hunter and came back. Well, when I walked into work the next morning, these old timers, these powder men were snickering and, "How'd it go? How'd it go?" Well, I had no idea what they were talking about. There was some concern about Mr. Popham's gender, and they thought that I -- I was pretending I had Johnny with me and there was never to have any indication of it. But these guys knew all about this apparently, and I was given a lot of hard times because of that. As far as animals, there were some, but I don't know that anybody was concerned about the environment at all.

Interviewer: I think what Sally is asking, also, is not just environmentally, but morally. Did anyone have any doubts back then?

Ralph Pillsbury Gates, Jr.: Any number of the physicists had doubts about this.

Crew Member: Talk about that.

Ralph Pillsbury Gates, Jr.: The, several of them, and I think Oppenheimer was certainly concerned about this, but he didn't let this concern about what this might do, what might have been unleashed, stop him from his loyalty to our government, and of course, his wife and his brother or something had supposedly were Communists, and because many of these physicists were concerned about this. They didn't like the idea. Some of them that, "Well, we should never have exploded the bomb directly on Hiroshima, we should have told Japan we had this new thing, and exploded it on an island somewhere and let them see how destructive it was,

and tell them, you better give up now." Well, that's a bit of impractical idealism, because they were not about to give up. They killed themselves rather than surrender, so I think the decision by Truman was made. We are not going to do anything like that; we're going to drop it. And that will end the war, and it did. But there were many people who were concerned about the outcome of this. Now, from my position as a GI just working on the thing, I was told what I was told to do. I can't say that I was ever concerned about this. I just wanted to get the war over, and it meant killing people, lots of people, but we'd been doing that for three or four years already. Now, as you look back on that later on, for several years after the war, I never let anybody know that I worked on the atom bomb. When my kids were growing up in that flower power age, "Your dad worked on the atom bomb? How horrible." You know, something like that. So that wasn't discussed back then. And another point, after the war, I finished up at Vanderbilt and went to MIT to grad school. And I was up there I think in the fall of 1948, that Life Magazine came out with a spread, and there was a total picture of this lens system that was used for the implosion bomb. And I thought, "My gosh, I was never supposed to talk about this." The word implosion was something I was told never to let cross my lips. That was a new concept, not explosion, but implosion. So, I never used that. And here, a year and a half later, it was in Life Magazine, and it talked about how the spies, I don't know whether it was Klaus Fuchs or it was Greenglass or somebody had given this information to the Russians before we exploded the first bomb in New Mexico. They knew what we were doing, and they knew it worked. They had the pictures of it, and this probably was realized when Truman met with Stalin after the war, and they were planning Japan and so forth. Truman apparently made some comment to the effect that we had a new type of bomb or something like this, and the attitude of Joe Stalin was, "Yeah,

you know." Something like that. And apparently, they did know before the bomb, the first one was exploded, they knew all about it because the spies that had given that information to them.

Interviewer: Yeah, so this leads to the security question that we will talk about again. So, you knew how secret this was. You knew how grave the secret was, and you were working on it.

Ralph Pillsbury Gates, Jr.: When I left in July of next year, we had a de-briefing, and we were told what we should talk about, and what we should not talk about. And I never described anything about the lenses, none of that. The was all highly secret stuff, supposedly. So I never -- I was at Los Alamos, I worked on the bomb. "What did you do?" "I was just a GI doing what I was told to do." It was simple like that, and that was true anyway. But then, a year and a half later to find out that everybody in Russia and everywhere else knew about it was disheartening that we had spies that would give that away. But we had lots of people that did not like this idea, and if I refer to them as being impractical idealists, so be it. It would be wonderful if our ideals could be real, but it's been a long time in the history of man, and I think it's got a long time to go.

So, where we are right now? If I may make a comparison that the population of the United States did not want us to get into Second World War, and it took Pearl Harbor to get us into it whole heartedly. We are in what I consider the Third World War from several years, decades before 9/11, certainly starting with the marine barracks and all the many things that happened where the terrorists were doing this, and culminating in 9/11, which suddenly united the people temporarily. But then people, however you might want to describe them, seemed to take on (inaudible). "This was all our fault, that we had led the world to do this." And

here we are trying to do, and anyway. And why did we go into Iraq? There were no Weapons of Mass Destruction there. Well, first of all, there were, because the gas bombs that had killed so many people there. But we didn't find any nuclear bombs, but we certainly found evidence that they'd been working on. "It was all because of oil. That's why we went in there." Well, oil was part of the fabric of our civilization, and we protected it, and the terrorists were fighting against us, and as far as I'm concerned, that war is still going on, and the impractical idealists are doing their best to do wrong things as far as I'm concerned. But it may turn out. If you want to get into it, I'm very much in favor of what Obama is doing right now, and I hope he is successful. I didn't vote for him, but I hope he's successful, but there's highly question in my mind that we will be able to stop the use of a nuclear device in our country if we don't keep our guard up.

Interviewer: Um, is there anything we haven't covered that you want to talk about, tell about, remember about?

Ralph Pillsbury Gates, Jr.: Well, nothing particularly. We just -- after the war, we were waiting for our opportunity to be discharged, and we had a lot of fun up there. We had wonderful basketball teams, and I went down to Albuquerque and played golf. The first time I ever went skiing was down in the Sandia Mountains out of that, this was the winter after the war was over. I was waiting to be discharged, and my points were not -- I was only in for two years, and I wasn't overseas, so you didn't get extra points, but I finally did get out and went back to college. But that last year up there, I was going to the Los Alamos School, trying to learn about advanced physics, which was way over my head at the time. Probably would have been forever. But anyway, we had a great deal of good times.

Interviewer: Sally, do you have any questions?

Crew Member: I don't even know how to ask this. Going through the flower power movement, and now you see 12 year old girls dressed as hookers on the street -- always curious how people in their 80's view society today. So I guess I'm asking you if you could explain how, I guess, how courting was back then, how society was back then briefly. Dating and women and music.

Ralph Pillsbury Gates, Jr.: Well, I was raised in the south. It was far different there than it was in the north. You want me to talk about that?

Interviewer: Sure.

Ralph Pillsbury Gates, Jr.: My home was in Nashville, and up until after the war, Tennessee was a dry state. There was no legalized whiskey or beer or anything. And high school, we had wonderful parties, which the strongest drink was Coca Cola and dances and it was fine, and outside of Nashville around 9 mile hill was a place called Hay Raise, where all the high school kids would go and the college kids would go for parties. And it was wild and a good time, but there was very little going steady among the kids. We, back in the 9th grade, I sent Christmas presents to four different girls, I remember that. And they all had double names like we did in Nashville. There was Betty Jo, and there was Lila May, and there was Lady Jean. That was, but these were all wonderful friends. We didn't go steady with anybody, we went to parties and dances and everybody cut in with everybody else. That was Nashville back before the war. Things changed after that, I suppose, but my kids were raised up in Connecticut. It was entirely different. I don't think any of them were involved in the flower power; I'm not sure when that was. We all were very much involved in skiing, all my kids, we spent every weekend in Vermont when they were young learning to ski, and so forth. They all went to college; three

of my children actually went to University of Colorado. My daughter left there after two years and finished at Barnard at Columbia. One of my sons was at Dartmouth.

Interviewer: Tell us one more time about VE Day in New York, what that was like. I want to hear a play by play of what you saw that day. It must have been astounding to be there.

Ralph Pillsbury Gates, Jr.: I guess we were in class, one of the electrical engineering courses, when the announcement came in that Germany had surrendered and the war in Europe was over. And immediately, everything stopped. And we were up near the 181st and Jerome Street stop on the subway, and it was about three or four blocks, we were in a hurry to get to Times Square. And we were down there till midnight. It was absolutely jammed with celebration. You've seen all the pictures of this, everybody climbing up on the telephone poles and everything like that and that's when we walked like down the street, Dick Reed, my friend was "blind," and had a great time. So, it was just wonderful. And we realized the war was not totally over. Somewhere I have a letter that I wrote to mother about that. You want to stop a minute? Let me see, maybe that might be of interest.

Interviewer: Or when you saw the Statue of Liberty lit up. Tell us more about that experience.

Ralph Pillsbury Gates, Jr.: Well, I can talk about that and ringing the Liberty Bell that night. When I think about that, the hair does stand up on the back of my neck. But when I was reading that letter to mother, the tears came to my eyes again. It was an emotional experience, yeah.

Interviewer: You wrote her a letter about --

Ralph Pillsbury Gates, Jr.: I haven't read through this.

Interviewer: Read it slow.

Ralph Pillsbury Gates, Jr.: This was Tuesday night, May 8, VE Day.

"Dear Mom,

Like several million more people, I believe this has been the best couple of days in several years. There has been quite a bit of unusual talk over the radio connected with VE Day celebrations. I've heard some rather bitter remarks from particularly gloomy people, civilian or otherwise, who rave and fume at any sort of joyous exposition. Then, on the other hand, there does exist the few who have gone a little too far in considering the war completely over. Only last fall, it seemed that nearly everybody thought it was all done but the shouting. Remember that confused character Drew Pearson? That nearly everybody included only civilians, basic taught me that lesson. Those very gloomy persons are generally fightin' mad with words over the celebration in England, where it seems to be felt that the war is over. I don't believe that the English people mean this literally, over a man in the street program from London, one man explained the situation in general feeling very satisfactorily when asked the general question, 'How do you feel today?' He replied, 'To me, the war is over, there is work to be done, but it will be work without bombs.' The bombs were war to him just as much as the relatives fighting. Why should an American fully understand his feeling when we've only felt half a war? The Englishman only said to me, not to the British soldiers. To him, the war is actually fighting. To us, the war is both actually fighting and civilian sacrifices. He considers

these last as rather small in comparison. I can't blame him in the least for his expression.

However, soon perhaps his idea of war will be as is ours. Am I right?"

And I just talk about some of the things I did. Should I read more of that?

Interviewer: Sure.

Ralph Pillsbury Gates, Jr.: "Saturday and Sunday, I did the following. I saw picture shows, the clock, and Billy Rose's diamond horseshoes. Saw the Song of Norway; saw "Count" Basie and Charley Patton and their bands. Saw Jane Froman and Jerry Lester and the Roxyettes. Saw the New York Philharmonic at Carnegie Hall. And finally saw little Dickey Color and Charlie Workman, old Nash (inaudible). That was our baseball team, playing with the Boston Braves against the Giants in the polo grounds. Song of Norway was terrific for scenery." Incidentally, that's where my grandmother was from. "However, I nearly went to sleep during the drama parts. I guess I'm not up to full appreciation yet. Well, when the Ballet Russe de Monte Carlo came out, or when someone was playing the piano solos, then I was wide awake. Dick Reed and I spent several hours among the half million people in Times Square last night, all the confetti flying over early yesterday morning, but the crowds walked up and down, talking and blowing horning a little. It was surprisingly orderly. It seemed that everyone was just walking and looking, looking for all the supposed riots that should occur in New York days after celebration. Many, many policemen kept the crowds moving, more or less. However, a few cars attempted to chance the mob. Hundreds of photographers were snapping pictures from all possible angles. One little kid climbed high on a war bond sign to get a picture. He could not make it down, so a mounted policeman had to affect the rescue. A very striking sight occurred

when a whole platoon of Free French Sailors marched right down the middle of everything singing 'La Marseillaise.' After spending 45 minutes in navigating the single short block in front of The Astor -- "That was the Astor Theatre. It is no longer there. "Dick and I took the ferry over to Staten Island. The Torch of the Lady was blazing --"

Interviewer: It's okay.

Ralph Pillsbury Gates: "-- for the first time since the start of the war. That was really a memorable and beautiful sight. Even with the dim out to be lifted tonight, New York skyline was breathtaking. Tonight, over the radio, I heard the sound as they rang the Liberty Bell from Independence Hall."

Crew Member: Thank you.

Interviewer: Sally?

End of recording.