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Interview with William Conover

William Conover

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WRIGHT BROTHERS - CHARLES F. KETTERING

ORAL HISTORY PROJECT

UNIVERSITY OF DAYTON

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WILLIAM CONOVER

Interviewed by

Susan Bennet

on

February 4, 1967

WC Over to Washington D.C. and demonstrated to the President.

NH You're on.

WC This is W. H. Conover of 1148 West Race Street, Troy, Ohio.

NH And the day is February the fourth.

WC And, oh my birthday is today.

unknown No.

WC Oh, today February third.

NH Today is the fourth.

WC No, today is the third because I stayed in yesterday.

SB 1967. Well, what's one day. Well, now will you tell us how, you first came to know the Wright?

WC Well, in other words, I had a friend. See the Wrights was over in Europe flying, and when they first came to Dayton...

SB Now this was what, what year was this?

WC That was in 1909. 1909, July the ninth. 1909. And the friend of mine. They had just established in the, in West, the Edgemont of the Dayton, in and started to build a, the planes, see? And I came over there with.....

SB Well, now, was this the plane that they were, the plane for the army? That they had?

WC Oh, no. No, no. In other words, at that time, they was more interested in exhibitions.

SB Oh, I see. Now they had not, had they sold the plane in Europe, at this time?

WC Oh, no. The first plane, now see, other words, in 1903, when Orville flew the first plane, that one was sold. That is not the original, but a copy of that. See, that was the first one that was sold to the government for twenty-five thousand dollars. From then on, most of everything was exhibition. And they flew, or they built, started building, I started in 1909, as a mechanic. And we built, oh I guess, maybe eight or ten in Edgemont. And those are all out on exhibition, see.

SB I see. Now they were all of the, the Wright's...

WC Model B.

SB Model B.

WC Yes. Then they moved to the West Side. Built their own plant. Then they started building contracts for the government, which was a six cylinder engine, Model C. Which they had sold a few of before, that's a Model B. And then they started selling the Model C. And when they sold the Model C, then I traveled for them to take the planes to College Park, Maryland, which was the first airfield.

SB How many men were working for the Wrights at this time?

WC Oh, not too many. I don't think there was see, there. Not over ten.

SB Is that so. Were they there every day in the business or did they come....?

WC Well, Orville was. Orville was there all the time. But then Wilbur was not. Wilbur was in New York, taking care of the lawsuits. See, those lawsuits in the early parts you know, between the Curtiss Company and the Wright Company. He spent the most of his time in New York. And that is Wilbur.

SB Now, did Orville talk about the lawsuits with you men, or anything.

WC No, no. No, no. See Orville absolutely designed and we built, while he was gone, but we had, it was very funny that Wilbur was the cleverest well he was the cleverest of the two. He'd go away oh for oh, maybe a month, well we'd be designing a motor or something, and start testing it and so forth and having trouble, and we called in the men in the shop. We would call Wilbur "Eagle Eye". He hadn't been there for a month and he'd come in the back door of that shop and know everything. Now how did he know it, I don't know. But that that was Orville was there all the time. But Wilbur never was. I don't think that from 1909 I started there 'till they closed out here in 1915, that's when they sold to Wright-Martin. I don't think Wilbur in all that time, in the shop, spent more than a month.

SB Is that so?

WC Just a few hours at a time, and right back you see. At that time, you see, the Colliers, the paper Colliers you see. And they were backers of the Wright brothers. And they spent, he spent most of his time there, see? But then Wilbur or Orville rather, did all of the designing, and he had, he had a couple of draftsmen, see.

SB Did Orville fly the planes also or did all the men fly the planes.

WC No, no.

SB After they were tested out.

WC Orville flew all the planes. We had at that time, see they had a bunch of men out on the road. They had Lincoln, not Lincoln but I'm thinking of a Curtiss man. We had Welsh, Welsh was flying army jobs, and we had Brookins, Hoxsey, Johnstone, and all of those fellows, see they were out flying contract. And that was the last flying at the field. It ended up just here. Howard Rinehart came early but he wasn't I think I've got one here, I'll show you. Real test pilot.

SB That was the picture you showed first, gave me first?

WC No, this one here I showed you. That's the crew, see. Here this was Brookins was the first man that they learned to fly.

SB Yes, that was the neighbor. He was a neighbor.

WC That was a neighbor, see. In other words, well he wasn't exactly a neighbor, but he was from Dayton. Well, he did some of it. See. Then this boy here, was one of the first exhibitions. He was a millionaire.

SB Well, who was that?

WC And this boy here, Johnstone came in later, exhibition now there's a funny story about Johnstone. He was a trick bicycle rider.

SB Oh, is that so?

WC And he went out on the first exhibitions in Belle Town Marcy, New York where this little plane I showed you I told you was a racer. Well, this fellow here,

was suppose to fly the one. See, there was we don't, oh, I think four different stands of wings. One of them was very, very small, you see. And Orville flew this to Dayton. He flew it in New York, making eighty-eight miles an hour which was the fastest thing at that time was around sixty. And in the race, this fellow here, Brookins, was supposed to fly it in the race, and he got the yellow streak you know. He took it and run it down in the ditch, and busted it up quite a bit. But nevertheless, this fellow flew the other small plane. See, one of the racers had an eight cylinder engine in it. The smaller one had four cylinders in it. And so Johnstone tried to fly in that. And he took all the prizes.

SB Oh, my.

WC See this, these two here was buddies. This is the millionaire and Brookins was just....

SB Is that the fellow from Pennsylvania, was he originally, the millionaire, was he originally from Pennsylvania.

WC Hoxsey, I think was from somewhere around Illinois somewhere. I'm not sure of that. But anyhow, Johnstone, was a trick bicycle rider see. Well they didn't have too much to do with him, Brookins and Hoxsey because he was just an ordinary shell man. And he took all the prizes.

SB Oh, is that so?

WC He come back with a big diamond stud on, and a big diamond ring and helmet in one hand and goggles in the other.

(laughter)

WC He, well in, after the...

SB Were, excuse me, was Orville good about sharing all these things with his men, or did, was he.

WC Well, other words, very very other words, we used to go down, like that, pontoon down, we used to go down there along the river, down there behind the, where the Frigidaire is now. That belonged to Deeds and we used to go down

there and try out our boats. He sat there and tell stories and you know. And he used to go up in Canada oh, every summer, and then tell little fish stories and different ones. And all in all it was very, very friendly. But Wilbur was, he was oh, business you know.

SB He was all business.

WC In other words, he'd come in you know, and all. He'd just recite you everything, you know, just perfect. But Wilbur, was then out in, out at the field you know. Getting ready to fly. And there wasn't anything that was ready to fly, he'd get in it and fly. And I have a very odd one here.

SB There was quite, quite a lot of the book that said that they tried to, to be very secretive about their work, with their planes, they didn't want people around. Did you find that true?

WC No, that, that could, that could exist in 1903 when they was at Kitty Hawk. See I have a picture of that...

SB Well, even in later years. That, that...

WC Well, you see, in the early early part, they was at Kitty Hawk and they had their own camp there. And naturally everybody wanted to get in there I imagine.

SB But when you were working for them, they didn't make any effort not to have people see them fly?

WC Oh, no no no. Now that's the type that we flew exhibitions for. That's a type B. Model B.

SB Is that, the Models just started out, A would have been the first plane, and then the B.

WC Yes, we had A. But the army had the A. See that would have been their A.

SB Well, what, they were improving the plane as they went along, was that it?

WC The model?

SB What model, what model was the first one that had the cockpit? Do you remember?

WC The first one we had, let's see, model E.

SB Model E. And did Orville fly those, or did some of the other...

WC Oh, no, Orville flew all of the early, see in other words there was nothing, that went up that Orville hadn't flown first, see? That's some stuff there at the Wright Field, they're supposed to have a new library out there.

SB These engines, who made the engines, did they make them here in Dayton?

WC They made them, absolutely. We made everything out there.

SB How many cylinders did they have?

WC Beg pardon?

SB How many cylinders did the engine have?

WC Four cylinders. We had a four, six and we built one eight. And the eight was in that there racer.

SB Oh, is that so?

WC And the only thing we built after that, was just the four cylinder and the six cylinder job.

SB On one of the articles said that they, you had trouble with spark plugs.

WC Oh, I got records on spark plugs, see part of that belongs to that over there. The first plane which I'll show you one of them, right here it is, at the College Park, Maryland. Those planes, when they first went there, the spark plug trouble was so bad, you, we had to make a test to stay in the air for two hours, and it was just impossible, see. In other words, the plugs may last thirty minutes, they may last ten minutes. And that existed until the World War came on.

SB Is that so?

WC I took, I had records in Washington there, where I sat straddle of the engine and took up twelve plugs and come down with twelve dirty ones.

SB Oh, gosh.

WC You keep a six cylinder in the air for two hours.

SB Those were days, in other words you had to carry men.

WC Oh, they always carried two. You always said that you never strap...

SB (unintelligible) Laughter.

WC That same, same plane that you're looking at there, Herman Kabitzke and I nearly got killed in that. We was over the Washington Monument, making one of these two hours, and you're always strapped in, you know. You get a down trend you know, and you reach down and pull yourself back on again, and, and the motor caught fire. And the boy was flying, you see, he'd fly so long, and I would fly so long. But he was flying, and his mother, he was from Chicago, and wanted him to get out of his business entirely. And he was flying, and four below zero, and we setting out there, just same as if we were out here. We just covered ourselves with newspaper all under our clothes, to keep from freezing you know. So the motor started to pop and jumping around you know. And finally it cut off. See we headed back to the field, the monument was about twelve miles from College Park, that was the first air field, for the Army. By the time we got, we was five thousand feet in Washington. And the time we staggered back to, oh I'd say within five miles of the field, I got up, got up out of the seat, you can imagine being four below zero and cold, get up to climb out what get the fire out. I got the fire out of the thing finally after I got up on top. The, underneath the motor, you didn't have no place to put the weight for the carrying for the army you know. And we laid shot bags in there, see. And he got so scared, that you see in the controls, the elevator here, and there's a strut runs in here see? You got the elevator here, and you had the wing, the wing warp and the rudder on your right hand. Well, if it hadn't been for that strut, he'd have fell out. See, he pushed that thing over to get back down, and I was up, up on top of the engine, and the shot all moved down forward you see? So then in that tight plane, four hundred pound shots you know, going that much farther. Well, I finally got back in the seat, after, after the fire was out, and I was

on the inner seat and there's a strut here, and the motor parked right here. We used to lift the valves, see to shut the engine off, see in other words, you just pull it around in the, and it misses all the valves. Well, I got my arm in between there, I had to go too slow because of the cold, and finally I twisted and I got the engine going, just like that. The engine hit and we hit. And it just, if the engine hadn't come for another second, we would have buried us right there in the ground you see. But the motor started just enough to...

SB Lifted out.

WC Started out. And we spent about three days, getting cooled off, or warmed up rather. We both felt it. But that, that's the type that we used. And then we built this similar type of that there racer job. We built that. That was a, this was a Model C here. And that's the Model D. That small plane, we built a bunch of those. And Oscar Brindley was the first...

SB Did anybody help Orville in the design of these early planes?

WC No.

SB Other than Wilbur.

WC In other words, they would listen to most anything, see. But the designing was between Wilbur and Orville absolutely. All they had was a draftsman.

SB They'd give him their ideas?

WC Yes, in other words, they built that all themselves. Now like when we first built the cylinder engine. Well, we run into an awful lot of trouble. See, in other words we had to take and drive the mag off an aluminum shelf off the side, and go to idler gears, which was something that nobody's ever done see? Well, we just started, first we started to bugging our magnetos, we was using all German mags. And the magnets would go to pieces, see. Vibration between the rows of gears you know at the end of the motor. Well, by the time we got all of, I mean the gears started to go first rather. And when we

got the gears beefed up so bad so they would not break the teeth out, then the mags went bad see, and we had to whip all of that. And Orville was, or Wilbur was never there, but he knew all about it. When he'd come back. And I blackened myself, oh I don't know how much because, the trouble we was having, at that time, we had navy men in there and army men see? And I did all the testing on the motors, and if something happened, I'd you know it out so they wouldn't know what it was all about. Well, these gears would break and so forth you know, and I'd lie about something, you know.
(laughter)

WC That I did. You know, to cause it, and it went down all right. We finally got it going alright, see. But then the spark trouble we never whipped that until World War II. We're down south Dayton, old Rinehart well the Liberty twelve had twenty four plugs in it, dual ignition, you see. And so he took off of the field I don't know, how many, many times, and just barely got over that little church down there at end, where the field was. And he'd have to come back in and land see. The motor was almost ready to quit and the plugs was all gone. All were, the twenty-four would be out. Oh, Mr. Kettering he had something designed you know, oh I think he paid twenty-five dollars a piece, that is the custom. And they're all the same; just a pre-ignition. They'd just heat up. They had plugs, they came from Germany. This trouble that I had in Washington, see I used our American plugs to get by, that is I had a few German plugs that I helped out with. And to get that motor through then the major, not the major, there was no such thing as a major then. Captain was the highest ranked man then, and there was one Colonel, in charge of the Signal Corps, see that was the Signal Corps then. And the major, you never saw one of them, and see a second lieutenant, or lieutenant and a captain. And the captains were similar to the generals now, see. And after we got all through with the tests and said, is there a plug that, no I had to go back to Dayton that was the after all the trouble. He said, is there a plug

that, no I had to go back to Dayton that was the after all the trouble. He said, is there a plug that will work in that engine? I said, yes there is. I said it is a German. German plug is a four pointed plug, flat see like that. Well, he said, "When you come back with the next bunch, he said, you're going to have them. He said, we'll make them get them." See, Orville, was trying to to use American parts, see. And there was just no plug that would take it.

SB Did people, did people in the later years feel that he had, that he had sold everybody out when he sold out to the Eastern capitalists?

WC Well.....

SB Was there hard feelings?

WC I, I, I don't know. See there was so much corruption between the manufacturers that is there wasn't too many at that time, see the only, the only one really was the Curtiss. And I got, they just got so tired of that. And then I, I imagine Orville was getting so much piled up on him. See he was a major of science.

SB Yes.

WC They made him a major of science. And I think that they insist, because there was some bigger manufacturers at that time coming on. And it, it took a lot of money and the Wright boys didn't have too much, they didn't get very much out of it because they were spending it you know. And when the war came on, the only people that would give the Wrights, Germany paid two hundred, I mean a million dollars. And that's what they worked on. The rest of the country didn't pay nothing for the Wrights to build the planes you see. And when we were experimenting, like when they'd go down to Kitty Hawk, we built, while I was with them, we built two different gliders. They didn't use their regular big one, but then they built special gliders, and all that data that they got Orville would go over to Germany for a month after the data was picked up. Now they got it, that's why they were the best in the First World War.

SB Now they, they had a German company.

WC You see, because other words, the Ger... you couldn't blame them for that because Germans did pay for the Wrights. And the experimental work that they did, went over there. Then he'd bring some of the stuff back that they they were doing over there, but it didn't work on our engines.

SB Oh, is that so?

WC Like when trying to get the six cylinder engine, we tried to get a water head see, and put a plug down into a cylinder like and fire that. They were doing it over there, but we didn't have no luck with it, because we just kept bringing. Lifting the plug up until they almost had it to the surface again. So just little details like that, but I don't think that anybody really figured that he was selling out. See the Burgess-Wright was another, they paid the Wrights, see they built the same type plane, only a little heavier. But the biggest, oh the biggest fight that they had, was with the Curtiss.

SB Yes.

WC And the fight was with the combinations in control. And see the, Wilbur had a control of his own. See, in other words, he operated all in one stick. Orville had the elevator and then the wing warp here and the rudder here, see.

SB Oh, when the two, when the two of them were flying together, you're talking about?

WC Well, dual, but then, but either one could fly that way see. Now we finally went to the wheel. In other words, we had a wheel for the rudder and then an extra one around here for I mean for the rudder here, and the Ailerons here, and the elevator for that see?

SB Did it take?

WC We had a wing warp, we warped the whole wing.

SB That was, that was the significant part about the plane wasn't it, originally?

WC Yes, see. Other words, the combination control that they had to use the rudder with the wheel, whenever they turned. And Orville would lock his controls,

that is different ones and you know, it was impossible to, to maneuver a plane unless he did use the combination. And that was the, see Curtiss-Wright had it in the shoulder and that went out when the war came, when they was training the boys for the war, when they got the big heavy plane, they couldn't, they'd get over and couldn't get back, see. They used the ailerons on their shoulders you know, and had the others on wheels and they just couldn't take it that way see. And the Wright brothers in the early days, they rolled in the cradle. And....

SB How did you move the planes, did they, on the railroad or did you have a wagon or....

WC Well, the planes that we had and delivered, in open end cars.

SB On the railroads.

WC They fold the front back, take the tail off and shove that in, in the plane, and tie that all up and they went on a dolly and we'd haul it to the train, and just pick the whole airplane up, and put it into the freight car.

SB About how much would it weigh?

WC Well, this one that I told you we delivered at College Park, weighed around, I think it weighed somewhere around twelve hundred and fifty ^upounds. But then we'd have to lift that bodily; many, many times I lifted half of that plane. I used to take them down you know, to the railroad; I'd have an open end car. And we'd go down to the saloon, you know. These fellows that hang around the saloon, we'd give them twenty-five cents, or fifty cents to come down and help. We'd usually get four men see. The only place that you could lift would be on the skids see, it would be about oh, here and here. And we'd pick it up see, and then push it into in the car. And these guys would get all tired out. Well, I told them to rest and there I sat with, holding half of the plane you know. Standing there, and then getting it and then we'd shove it on in, see and then back it down. And that's the way we would ship them all. And the exhibition planes, they usually had a, well,

there was a lot of them. They had a special, oh, there was one of the fellows in exhibition that had a Pullman car built. Pullman in one end they had the cooking utensils and the berth and the rest of it they had made up where they could just shove the plane in, and room with it.

SB Altogether. Were the Wright men of fairly simple taste, or did they.

WC Beg pardon?

SB Were the Wright men of fairly simple taste or did they, what did they like to do when they weren't, when they wasn't flying.

WC Well, other words, that was very, very, very few times.

SB How many hours a day did you work?

WC Well, other words, we could take, we'd take a plane out to Wright house or Simms Station, they'd stay out there until dark, till they couldn't fly anymore. And go back out again the next morning and start all over again until they did whatever they wanted. They, we then, we'd practically developed a motor industry farther than the average person knows. We took two engines, that's when Wilbur was still living. And we'd go and decide whether we was going, see we used to scrape bearing, scrape everything, you know, and lap pistons and stuff to get the engine back. And he said, well we're going to try the ring bearings. We're going to not grind stones, we're going to get a perfect bore, and so forth, and we're going to build up one engine like that, and then build up a regular. And put them on the, on the stand, and see what happens see. Well, the one that we reamed and didn't do all the fussy work on there, was right up there to power and the other one never did catch up with it.

NH Oh, really?

WC And that was the funniest thing. That particular engine, we was short on getting engines, and Wilbur came in from New York and he said, the Navy has to have, yes the Navy, had to have a four cylinder engine, and the only one

we've got is the one we've been experimenting with. See, the only one we had left. And he said, would that be all right to send. And I said yes, we'll just put standard stuff in that. That is all it would take.

SB Now, what did the Navy need it for. Did he say?

WC Well, that navy had a couple of our planes also.

SB Oh, is that so?

WC And so I got it ready, and and sent it out. When they called me out here to Wright Field to check on that plane sent they had out there, the Colonel wanted to know if I'd check on it, to see whether it was all right. And he said well that's the original and that's one of the original engines. Now this particular engine, this twenty-four, number twenty-four. That, that we were experimenting on was sent to Navy. I said well what is the number on it. I said I don't know, I says, twenty-four? He said, twenty-four I believe. I said, well, where did you get that, I said, that belonged to the Navy? Well, he said, no, it original I said, no it isn't an original, and I went up on the engine, and sure enough it was a twenty-four with the same engine that that we sent to the Navy.

NH Oh, I wonder how he got it?

WC Well, in other words, I, I don't know just how they did get it.

SB Well, it was government property, I suppose. What did what, how did, do you remember when Wilbur died, how did Orville react?

WC I couldn't tell you. I tell you, I was In New, in Washington. I had five planes there. And I before I left, Orville, Wilbur got just a little bit better. I went on with the planes, and got into College Park, and we just got up, ready to fly and the word come in that Wilbur had died, and they closed up the field, see, until the funeral was over. In other words, I, I didn't get the reactions of what came because I had been away, been down at College Park for, oh, a long, long time, and I got them.

SB Did any ladies ever come down and see Orville?

WC See who?

SB Orville?

WC I don't, I think that was the least of Orville's worries.

SB (chuckles)

WC Mrs.....

SB Worries?

WC Well in other words, the, the women didn't worry him. Mrs. Beck was his stenographer for years and years and years. And she was with him until he died.

SB His stenographer, his secretary?

WC She was a very nice looking lady. I don't know whether.

SB (Chuckles)

WC But he, other words, even out on exhibitions or whatever we was going a lot of flying you know, you know. Nothing like that interested him, because he was all flying and what's what's happening here, and so forth. So I in other words, I, I don't think, like I said, that might be crude the way I said that, but then you know, it wasn't anything that excited him.

SB After, after he retired and he no longer worked for them.....

WC That's, that plane out at the Wright Field.

NH Oh, really?

WC Say what?

SB Did you ever see him after he retired and you no longer were with the company?

WC Oh, yes, he still had, he still had his laboratory out on Broadway and Third you know.

SB Now what was he, what was he working on there?

WC Well, a major of science, in other words, he just, data, other word, he had the wind tunnel there, and so forth. You getting pretty warm, that stove

gets pretty hot over here.

NH I noticed.

WC And different data that the Navy would have trouble with or the Army or Signal Corps, and he'd work it out.

SB Trouble with their planes.

WC In his office, he had all the patents that would ever exist to any part of an airplane. He had them right in his office there, you know, if anybody. And he was willing to show, in other words, that's another, see he liked to you wondered what sort of a man he was. If you had trouble of some sort in connecting with an airplane or something, you could go there and he'd talk to you, and help you right out.

NH Really?

WC And there wasn't anything that you could bring up about an airplane and what it would do, and what this would do, that he didn't have data on it. And there wasn't anything that they brought up years and years after them, we hadn't tried.

SB Is that so? You have, why, why was it that he didn't want to go out and make speeches, was it....?

WC Well, I don't know why he didn't want to do that, but I guess he was just because he, he was so wrapped up in to the other. I don't remember him ever going anywhere to make a speech, and Wilbur, likewise, I don't, while he was living, I don't think he ever did. Now, it's like when the war came one, we was down there, Howard Rinehart was flying this DeHavilland and Orville came down and he said, I'd like to take a ride in it. That's the fastest thing he ever rode in, see?

SB Where was this?

WC At South Field, at Colonel Deed's Field, you know, which is all built up now.

SB Oh, yes.

NH Yes.

SB Where, the Huber plat?

WC And he came down there, and that Rinehart could fly anything. It didn't make no difference what kind of control it had. It could just be the reverse of anything that he ever flew. The minute that thing was off the ground, he had it. He was just that type. And he took Orville for a ride and and Orville thanked him very much and then Orville flew down there. In other words, we was demonstrating while we was down there the DeHavilland and the Liberty....

SB This is 1917.

WC 1917, yes 1918.

SB 1918.

WC That's when we started building them down there, at the Moraine City see?

SB Oh, I didn't know that.

WC And they had the test field over at Colonel Deed's Field and right across the road where Frigidaire is now, is where the main plane was.

SB They built planes for World War I.

WC Yes.

SB This Liberty, Liberty engine...

(break in tape)

(end of side one)

(start of side two)

SB You're talking about?

WC That's the Liberty, that's the one that. Other words, Colonel Deeds was the, really the backbone of the first aircraft engine.

SB Is that so? Now they used the plane?

WC Well, now there is very few people that gives Colonel Deeds or knows Colonel Deeds was, he, he was the nicest man that I believe I ever knew. Now Colonel Deeds was was responsible for the Liberty engine, and the way it operated. The way he he let these contracts out to the different concerns, all the

best engineers in the country, a little here, here and all over and when they all got together and started arguing, well, now that's when the engineers, he says that's it.

SB Well, now, is that...?

WC So they built that engine.

SB Was that as much different from the original Wright engine?

WC Oh, yes. See that's a big Liberty twelve. A four hundred horsepower.

SB Oh, well, how did you get those engines light enough so that...

WC Well, it wasn't a matter of, in other words, the early ones, yes. You had to work on the, on the power, see, on the weight, rather, every place. But that, that gradually worked out, you know. It was just a matter, like the Army and Navy said, well, make it so it looks strong. See that's when they started getting bad, you know where the early early motors you know. They didn't have power. That was the cause of lot of accidents they had in the early days. See, because they, they wanted to add weight to make it look, it didn't make any difference whether it was right or wrong, see. In other words it was looks. That's like those, those Zeppelins, you know, that they had all the trouble with? Well, those things would come over here with two hundred and fifty horse, and step them up to about three hundred and fifty. You can't take a motor, you know, and start beefing it up, pouring the smoke into it like that, you know, and hope that it's going to stay together. But you, you, I don't know exactly, I suppose they did, but, exactly putting that much more power onto the construction that's already been built, you can see what might happen.

SB Did Mr. Orville seem to be in fairly good health after he had his accident, in, in Washington?

WC Well, yes. The only thing, it left him, one leg shorter than the other. See, in other words, you can always see, Orville, Orville always limped. He had a extra heel on there. That was with Selfridge.

SB Yes.

- WC Well, that was funny you know. They rushed Selfridge to the hospital and thought Orville was dead.
- NH Oh, really?
- WC And Orville, Selfridge was dead when they got him to the hospital, and Orville was still living. So that was the first plane that, that, that, ..you care to smoke?
- NH No, thank-you.
- WC That's the first plane that they had demonstrated for the Army see.
- SB Yes. Oh, did it shake him up? I mean would, to have a man with him killed like that. No, thank-you sir I don't smoke. Did it, did it, did he, had his attitude towards aviation change?
- WC Well, he killed the man that was with him, you know.
- SB Yes. Did it, did it show in the way he worked, is what I'm trying to ask.
- WC No, no, no. Nothing like.....Orville always said to me, me, you know, different things that. Oh, I went to different places you know, and, and built up planes, and told him a little about the conditions that we was under. Well, he said, "try anything once." He said, "Don't go too far." That's like, the last plane that I built, I built it all alone at, at Washington, or not, oh where the mountain is in Pennsylvania, it's on the, on the route to New York. Well, I can't think. Anyhow, I built a plane there in a hangar at Briar Hill. And I had a field there, I guess oh, maybe it was seventy-five feet long. And that was it. And we were flying off of it, with other parts. And I built, this particular plane was my own idea. I built the first all steel fuselage, all steel tail, and steel struts, and I used an OX-5, and I made the, a three place job out of it, carried about three hours fuel. And we had to take off of that. It come in bottles, well, he says, "don't play with that too much."
- SB Is that so?
- WC And so this here, at the time I don't know whether you would remember or not.

It's back pretty far, you were probably little boys and girls then, when they dedicated Union Town. Well, when they dedicated the Union Town Field there, because the Honeymoon, we built a DeHavilland for, one of these DeHavilland, and called it a Honeymoon, you know. It had a cabin closed you know, and the pilot was out in front. And these boys was killed at, at Union Town, so they dedicated the Field see, and named it after these boys. And this plane that, that I built, I took it over there, and that was the first time I had a chance to find out just what it would do. And the army at that time, was, had a, well, over there was the National Guard. They had a what they call a diso-plane and it had a Hispano-Suiza engine, that's a French engine, hundred and fifty horse. And I'd get out performing, and I had ninety-five horse.

SB Is that so? Now did you build this for the Wrights? Or, or did you build this on your own?

WC I built that one on my own. That wasn't...

SB That was just for fun?

WC But I built...I had a big picture here.....

SB Now, what did, was it their idea to, to make this seaplane? Would you tell us about that?

WC Well, now see. That was still the Wright Company. Sante Vought of the Vought Airplane Company, Sante Vought came and he was a designer of that boat, see. And the Wright Brothers still had the manufacture at that time, and Loening came in and we built this boat.

SB Now, about what time was this?

WC That was, it had to be in, oh, I'd say around '14.

SB 1914. Now this, Orville took this, flew this plane also?

WC He, the one, he flew the experimental job of which I, I had the...

SB Did you ever, did you ever see him when he got scared?

WC Beg pardon?

SB Did Orville ever act scared, all through his life?

WC No, no. I don't think so. No, Orville, I don't think Orville ever....See here's, I made to it.

SB Well, he had some pretty close calls. I think he'd be getting shook up after all.....(laughter).

WC Well, anyhow, here's here's the one Orville flew. This, now I lost it, I got more, darn, I had these all lined up. Now this is down at, when I told you down at the river in Dayton see, at the, behind where they where the Frigidaire is now. That's the experimental plane, which they, this plane that you just had in your hand. That's the the one that was rebuilt after all the experimental work was done. We did all the pontoon flying here. Find out just how much the position would have to take, and get the vents in it just right.

SB Did their sister ever fly?

WC Beg pardon?

SB Did his sister ever fly? Katharine?

WC No, I never saw her in the plane.

SB Never saw her.

WC And she was the nicest person. I was surprised; she got married, you know. In her very late years. She married a newspaperman. There's that same boat where we was flying down at the Miami Shores, that's what the name of it was.

SB Miami Shores. That's right there in Dayton.

WC That's the boat after all the experimental work is done, see that's where all the experimental work is done, see that's where it was in the factory.

SB Well they didn't do much, but build planes then did they really.

WC Oh, yes, the Orville?

SB Yes.

WC Oh, yes. We built a, let's see, we built a Model A, a Model B, Model E, Model D,

and we built one, two, three, four, five different type engines.

SB Well, when you changed models, was only the engines changed or were there other subtraction or change?

WC Oh, no, no, no, no. See in other words, the Model A and Model B carried the four cylinder engines, see? When we went to the Model C, that's the Army, the one that the Army had and the Navy. Then we had to build and design an engine for it, see? That was the six cylinder engine, for this race job.

SB Well, did they also change some of the structure of the wings.....or?

WC Oh, yes, oh yes. Every, everyone is changed. And it was very funny, the way they test, you know, our struts. And you see now they have all sorts of instruments you know. The crush stuff you know, to get the data on it, get the strength of it and pull it, and so forth. Well, we did, we built a strut you know, and then put a tail on the plane, and one of the times when Wilbur would come in to factories in New York, then we'd load the front end of it down, and they'd get out on, way out on the tail end of it, you know, just see how much weight it would take to buckle it, see? And that's the way it was all tested. But the clever, it was funny, Wilbur once in a while he'd be out at the field, he had a yardstick, you know what a yardstick is, and he had a little place in it, fit on the yardstick, had two little pointers out here. And he'd take that yardstick and when a plane was coming up, when we'd fly up, he'd take and slide that up there, you know, and when they'd get right up over, he'd tell you exactly what speed he was making.

SB Oh, is that? How did he do that?

WC I don't know.

NH Well, that's remarkable.

SB It is.

WC Well, it's just hard working endeavors, in both of them.

SB And they were just, they were good mechanics.

WC They were just geniuses, that's all. They were just, that's all could you say

of them. They, and they, they could other words, you know, if you could live what you know, in other words, I don't know, this sounds funny to you. Ivan Griggs and I was together for many years, we designed this old plane here, that we designed. See here's two different models job, before he came back. Now he and I talked that over. And we could picture the parts that we was talking about. See, in other words, the different fit, and what we had to do here, and so forth you know. And he'd go in and try to put it on a blueprint. I would go out and start making jigs and never even had a print see? And that's the way it comes, you know. I have a, a experience that nobody else had, I think. Because I've built them from the plank right up to flying them. And that's very seldom anybody's ever had anything like that.

NH That's true.

SB Were, when people would come to work for the the Wrights, would they stay? Usually? I mean would the same men stay with them or would they...

WC Well, yes, in other words, they used to bring the pilots in, like Fisher and Brindley, and and all of the different pilots, they'd bring them in the shop and make them zigzag around. But the the old fellows that worked there, stayed there, most all of the time.

SB They were easy to work for?

WC Oh, yes.

SB Did they pay very well?

WC Well, they did a pay back then you know.

SB For the pay back then.

WC You know, back in those days, I don't know, I think top wages for a toolmaker back in the early part, when I started, was about fifteen dollars a week. If you was making twelve dollars a week, you was top man, see? Because you could take a dollar and get a basketful. And that was the difference between, in the early parts you see, now the way we built those planes, back there, and the finish we put on them, the workmanship, well its thirty, forty thousand dollars now. And we sold them for; I think they sold them to the Army for seven thousand dollars

SB Well, that bought a lot of things in those days. Did they ever seem to worry about making them for wars? That they were going to be war planes?

WC I tell you, really and truly, if he thought that the, that, well see their father was a minister, you know. I think if he'd had thought back in the early days, I don't know, about Wilbur, but Orville that they were going to fight a war with them, that he wouldn't have been too much for them. Now I that's just my own opinion of it.

SB Well, that was brought out, that he didn't, he didn't do much in 1917, because he didn't feel, he didn't want to think of his planes for war.

WC Well, in other words, just like when we were building the planes, see they started arguments you know. Curtiss, I, a lot of things you got to watch you know, I don't want to let loose here you know, that some of the dirty work that went on in some of the early parts.

SB Well, you can say anything you want to, and then if you don't want it published, we won't.....

WC Well, in other words, you know you could, there's there's things that I know, of nearly all the early companies, that wouldⁿt wouldn't be too good published. (laughter,), but.....

SB Well, say it, and if you don't like it, we'll take it out.

WC Other, words, Orville, I don't think think would say too much about it, he wouldn't, he wouldn't care no I don't think he would even say, but I'm getting off my base now, what was we talking about, the...

SB How he felt about the planes being used for war?

WC Oh, what I was going to say, I brought him back, and I told him what they were doing in Washington, I said, we got men in Washington. The pilots, see, they volunteered to take those jobs, you see. And I got in pretty much with the pilot, because, after I was there, they wouldn't fly it, unless I'd go and check the planes you know, they got cold feet you know, they, the mechanic that they had, and I heard, I couldn't see it offered then, that Curtiss was paying thousand dollars for men that would see they could pick the plane they wanted. See,

in other words, if they was going to buy a new planes, alright if you wanted a Curtiss was paying thousand dollars for these pilots to pick their plane. So I came back and told Orville that, Orville says, we're building them and he said if they them, we'll sell them, he says we're not going to bribe them. We sold more than they, Curtiss, did. And all the men down there in Washington, liked that plane much better,. But the thousand dollars back in those days was a lot of money

SB Yes, that was a lot of money.

WC Yes, that's back when Lincoln Beachey was a test pilot for Curtiss.

SB Did any of them, any of the pilots go from from Wright to Curtiss and back...

WC No, I don't think so. I think all of the Wright pilots, see some of them, got killed there's a few of them living yet. There Coffyn, Brookins, and there's a few of them but they never shifted back over to Curtiss.

SB Is Brookins still living?

WC Yes, I think he is, in California.

SB Oh, is that so?

WC See, he had that little business, you know, there in Dayton, that can business stuff, oil cans, measuring, and so forth. But I was with Brookins when he was ready to quit, down in Pensacola, Florida. We got so down there, the first ships that we delivered to the Navy, that was back see, 1915, that's when I was flying, going to fly from coast to coast. I left the Wright Brothersto go with this millionaire in New York, and we moved his plane, shipped it out to California, because we were going to get west-east winds you know. We burnt up, so when I came back, to the Wrights, they was having trouble down at Pensacola, see, with the planes, and they sent me down there. And I went down there, and I had, well we built a whole lot of stuff that they got in there. And Brookins was test pilot down there so they....

SB Now what year was this exactly.

WC That was 1915.

SB 1915.

WC And well we got the planes all running and everything you know, and Brookins would get out with his silk hangers, like they used to do in the early days, you know, because the early planes, you know, that run on just on the track you know, where they used to have the weight, and they eliminated the weight and we put a hundred and sixty foot of track down on the ground and we usually headed right into the wind, get it all to sixty and get it all lined up and the wind would shift over here and it would tear it up. And you would (unintelligible) (laughter)

WC Well, he'd hold this silk flag up you know, and wave a little bit, you know like that. And the commanding officer was a friend of mine, who was a good friend of Orville's, Captain Whiting. He was a submarine man. And he said, what are you going to do, Bill? He says, "Are we going to just let them set here or what?" I says, "you're in charge of this place," and I said, "there ain't a thing wrong with those planes." I said, "All you have to do is get out on that dock, and say, alright Wilbur let's go." You had to go with him, you know. To judge the tests you know, so they did, Brookins after he left there and went to (unintelligible) I don't blame anybody in other words, back in the early days, if they was finished, why quit. It was too much big money. See, in other words, they used to, back in, when the exhibition days 1910 '11 '12. They'd get for ten minutes flying, fifty thousand dollars.

SB Well, did the Wrights ever seem to want any of this money? Or were they merely interested in the scientific side of it?

WC Well, in other words, they was interested in the money because they had to have that to keep going, see? And they had these men out. I don't know just how much you take a bunch of men out, you know, in the airplane, always got a pilot and a mechanic and you know all the.....

SB They paid their expenses.

WC Paid all their expenses and so forth you know. Why railroads.....

SB Did they say why they were doing this?

WC What?

SB Why, why were they sending these men out on exhibition?

WC On exhibition flights for the, for the money?

SB For the money, and they charged so much for.....

WC For the money. And also it, it was the demand for it, you know. Just like anything else, for a fair or anything else you know, is to have that excitement, you know. But people, you know, would do a lot to see an airplane fly you know. Even in 1914 a lot of people never seen or heard of one. Some of these exhibition fellows would get into some of these little towns, like a contract out of Chicago's J.S. Burger which I nearly got killed down in Mexico with him, you know. He, he went down, there with the Wright ships you know. He got Rinehart and I all talked up. And we went down there, and Rinehart was supposed to fly one, and I was suppose to fly another. And he had it so fixed up with Villa, see Villa was just giving him money. He could buy anything he wanted over here. Got us down in there. Well, I had a wreck. The plane I was going to fly was in pretty bad shape. And I got it all rebuilt, got it in first class shape, and I was at the back end of it, reaching up at the top, and it was just as calm there as it is in here, now. And I had no more than reached up there, when a whirlwind took me, airplane and all, took me about from here down to the corner, slammed us up against a doby, and smashed it all pieces. Just skinned me all down the whole side and so I, I couldn't go any farther. Well, the other plane, Rinehart's could go on in, see. We loaded it up, but I was still going to go on down in with them. And we had this, we was supposed to ride a, a troop train. It had a pullman car, and the airplane was in a car on the rear end of it. So we got in Juarez and we got all loaded. And it was getting dark, well in fact it was dark. And we hadn't had anything to eat. I was going down to the cabaret and get some sandwiches, so we'd have them. This J.S. Burger, hadn't paid us. He promised a hundred and fifty dollars gold a week you see? And he, we hadn't neither one of us had got any, and this is kind of a criminal affair,

(chuckles) cause, cause the Villa gave him a bale a money. It was eighteen thousand dollars American money; you can imagine it was ten to one in Mexican money. Just like that, you know. So that he could go on in, and do what ever he wanted with it. Well, we hadn't got any pay, and had been there for a month. And I went down after sandwiches, and when I came back almost to the train, I, the red light in the tail, you couldn't, the train was so long you couldn't hear the engine. And it had started to move and finally I was running and couldn't catch it, so I just heaved the sandwiches, and got out, over in the United States as soon as possible. See in other words, what we was going to do, this fellow was quite a gambler. We was going to play poker with him you see. If we could win the money and get out of there, see? Because.....

SB Pretty rough days, I would say, wouldn't you?

WC Well, it was because Eugene Heft, the man that was in there ahead of me, and tried to tell Rinehart what we was getting into, and we couldn't believe it, and he got in there, and they was trying to kill him. And he killed two men to get so far. And he rode two horses until they died. And he finally got to the United States, see? And he's a rough boy. His name was, he's out of Chicago. One of the real early flyers. And he used to fly in zero weather. Shirt sleeves.

SB Was this after you left the Wrights?

WC Well, I left the Wrights, see, to go down, down to take care of the Wrights down in Mexico, see. In other words, we, we took some down there. But then I came back there after I got out. (chuckles) And came back to the Wrights. But I should have went to the, see the first planes that we took at College Park, they was having so much trouble, but I didn't have any trouble with them. Our planes was always flying. And these different officers would have me to check the airplane and so forth. And way back there in those days, I was offered one of the nicest jobs that anybody could. They offered me pay higher than any rank in the Signal Corps, but I wasn't never braided. They had me in Washington for three days, in the one office, the other you know, trying to get me to go with that's when we were going down there to fight Mexico, see? And I didn't go. I, I said

I would, and when I came back to Wrights, I told them, they wanted to know how everything was going. I says, "Fine," and I says, "I thought maybe he did know something about it." I says, "I'm going to go along with them," I says, "Down in Mexico." I says, "They offered me an awful good job." And he give me oh, an awful about being on the base floor and all this.

SB Who's this?

WC ,,,...and that you know, talked me out of it.

SB Is this Orville, is this Orville?

WC Orville himself. He talked me clear out of it. And I never, I never did go back down there until I went to this plane that we was going to fly from coast to coast. You know, we got out to San Diego with it. And went over to North Island, tha'ts where the Army had, their Signal Corps had their field. And we couldn't get a hangar nowhere. So I went over there. And I asked the commanding officer, whether it would possible, because this millionaire that I had, was a friend of Speckles. They own all of California; railroads, hotels, and everything. And he said, "Why I don't know," he said, "this is government property." And he says, "I don't know whether it would be possible or not." He says, "I'll tell you what I'll do, he says, "I'll wire Washington, and find out." He says, "You leave your name and your hotel." And when I told him my name, see. I told him W.H. Conover. Then he says, "Well, you the Conover from College Park, Maryland?" I says, "Yes." He says, "bring it over." And then they tried to get me back in there then again. And I, I didn't go because I, this millionaire, I went out there with, and I was going to stay with him. We either get killed or get back or do something, which we did. Burn up, see. And that ended that part.

SB Did Curtiss ever come here to Dayton, that you remember?

WC Curtiss?

SB Yes.

WC I, he might have, he might have come to Dayton. But he never came to the Wrights. But.....

SB Did Mr., did the Wrights ever talk about the competition?

WC No. No.

SB Of the other airplanes?

WC There's a bigger picture of that.

NH Oh, let's see.

WC Now, this little boy here, this is Welsh, one of the test pilots we had at College Park, Maryland. I got a bump here on my head, I can feel it. Here I was flying with him, and we, we would dive to the ground you know, and try to pull up and we could never climb two thousand feet in ten minutes. In the bare grass, I went up as high as six of them tied around on, none of them would ever check right. And we tried and tried and tried it. And I had been down there longer than I thought I should, so I started to go back. I got on the train. And Welsh says, "You better go on back," And I got a message on the train, and Orville said go back that they found out something that I was supposed to do. And I got up out of the train at two o'clock in the morning, and it hit a curb and I went up against the upper berth, you know, I got out of the lower, standing up dressing, knocked me out. And the train waited you see to unload me, and I come to I says, "No", I says, "I not a going to go back, you just take me on back, and I'll take another train out." And then he was killed the next morning, I'd have been with him.

SB Oh, my.

WC So I got this and he.....

NH It's nice you got your bump.

SB Yes, that was a good bump.

WC That's that plane that's out at the Wright Field.

SB Oh, yes.

WC There's one down there, down at the.....

SB Where did he, where did he get the men to fly the planes? Were they just attracted, had, did people, did people in Dayton appreciate what the Wrights were doing at this time or was it just because they were local boys, nobody paid any attention?

WC Well, I don't think they did at the start, you know. But then any time that they did something, like the time he flew from the field over Dayton, you know. I guess half of Dayton, or practically all of Dayton, just stopped and waited and looked in the air to see that thing come over see?

SB Now, when was this?

WC That was in 1912. And sure enough, here would come Orville and I was in the back.

SB Well, did you, did you fly mainly, mainly out at the Huffman pasture in those early.....

WC Yes, we had. At Simms Station they called it.

SB Simms Station.

WC Rattlesnake pasture. It was full of rattlesnakes.

SB Oh, really?

WC Oh, yes.

SB Now is that, is that out there at the, at the base? Where is that?

WC It's at the base. If you get up I don't know whether. Have you seen Orville, that there monument they got out there, you know?

Sb Yes.

WC With all the pilots around about it. There's certain places, you get on there, and you can look down and you can see the place where the original hangar was.

SB But the, the planes, the planes were built in, in Dayton...

WC In Dayton.

SB How did you get them out to the.....

WC We towed them out there. See, in other words, we pulled them up like I told you and they'd be forty feet long. Then we'd put them up, and had a two-wheeled cart that we strapped them down, and we'd put a draw bar on the thing, and I'd hook it up to the automobile, and pardon me. And tow it out there, see. And then swing the gear up, put the tail back on and.....

SB Did, did, could he fiddle with automobiles like, make an automobile run, like he could those airplanes? I mean was he a good mechanic?

WC Well, he never monkeyed with them. He's always, he was a Franklin man. He always had Franklin automobiles, you know, that's aircooled.

SB Oh, yes.

WC No, he never, never had anything to do. But he did have this you know. We started building a rotary valve motor. And Mead, yes Mead, Mead was building a rotary valve and the two got together, in other words, we built one complete engine, and we started getting into trouble. See, we took one cylinder and made a rotary valve which the valve was turned with a chain from the crank. And oh, we got power, power, power. And, then, when we put four of them together, we didn't do so well. But the, Mead was still building them down at, in, Edgemont. And they was building them in the, putting them in the automobiles down there. And then he built a couple and they put them in planes, see? But they was a little bit heavy for the type of planes we had at that time. Then Mead was killed; he skidded into a traction car one night going home. So they just dropped it. And then as far as, after I heard know that Orville had anything to do with engines. He'd go down and see the motor run in, in the car, see? But as far as the automobile is concerned, it was just like.....

(end of side two)

(start of side three)

WC I said, there wasn't anything you could bring up. Now, like you see here, oh, quite a while back. Knabenshue. Knabenshue was one of the first to fly a zeppelin. Where they used to run up and down the cat-walk you know. They could go up and down and so forth, you know. And he put a circus on wheels. He was the first to put the circus in automobile. But what I was going to say, he came in there one time, and that was way back in 1911, yes, 1911. And he had an automatic gearshift in a car. And, see, Orville had all this data in his office there, all the, the claims on all of the patents all over the country, I guess. And he showed him where there were so many little hitches here that he'd have to fight, that he just dropped it. And the automatic was back that far, see. Just like I say, there wasn't anything that they could bring up that hadn't been tried, even in the airplane. Now like we was writing another book there. There was a man from Wright Field. What I was, I don't know what his name is anymore. Anyhow, it's got it in here. We was writing, and he'd come here to get all the data on the Wrights. And, and wait a second, I think he's in here.

(break in tape)

SB Chenault?

WC Yes, he's out in California, now. He's retired, but then...

SB Oh, is this the, I wonder if this is the son...

WC He was the, he was chief engineer out there see?

SB Of the Chenaults, the Flying Tiger Chenault? Is it any relation, I wonder?

WC They cam, he came here in, in, they wrote a book, and oh, I, he come

up here I don't know how many times. I'd give him the data. Not so much he was coming down at the other end of town where I was at. And they took it up to New York and took it to Aero-Club. And I said to him when he came back, he said he'd promise to send me one of the books. And I said, "Well, did you get any criticism?" He says, "Not, not a word." I said, "They couldn't, because everything I told you was the truth." And he give me that , that book there, I don't...

SB Well, Mr., the Wrights just concentrated on their planes then. Did they, how did the people in Dayton

(break in tape)

WC One, two, three, the Kettering Bug.

SB Now this is the missile that was.

WC That was a missile.

SB And, and who, who designed it?

WC Well, this man gets credit for it, but Orville was the one designed the wings and so forth. He was in on it. See?

SB Orville designed it, but it was called the Kettering Bug?

WC Yes, Kettering Bug, see, because it was tried down on the field. See, in other words this engine is a forty-two cycle engine. And this was so arranged there was no pilot in there, see? There's a gyro in there that operates it. It carried a hundred and fifty pounds of TNT. And it had a range of three hundred and fifty miles. When it got to it's destination, these wings flew off and caught fire, and the motor in order to turn it down, the motor flew out and blew up. And all that was left was the tail surface guilding this hundred and fifty pounds of TNT.

SB Oh, is that so? Now this was designed, Mr. Orville designed this in 1917?

WC That was 19...1918 was when that.

SB 1918, was it ever used, do you know?

WC Well, in other words, I understood that they was to build sixty thousand a day when the armistice was signed.

SB Oh, I see, they didn't have to use it. Well, that's fortunate. What did, how did Mr. Orville react when he got mad?

WC I never saw him mad.

SB You never saw him mad?

WC No.

SB How about Wilbur?

WC Well, Wilbur was just, you know, he just wouldn't, wouldn't. I never seen them really if they did get mad it was all kept inside. Now a lot of times, Wilbur and Orville would get together, not a lot of times because like I say, he wasn't there too much. But they, they would start talking about something you know. Well, they didn't agree just off hand. Then when it wasn't only a day or so later, I believe Wilbur was right. Old Wilbur shifted I believe Orville was right. See? But there was very seldom that they just didn't walk in everything that they existed, you know. They didn't...

SB Well, now. Anyone what they discussed was almost always having to do with the airplane.

WC Oh, yes. Nothing else. That's that tough man from Chicago, that I was telling you about.

SB Yes, I should say.

WC There's another little write up, I wrote that was during the War. They used that for the, and they advertised their cameras.

SB Well, after, after you finished working for them, tell me where would you see Mr. Wright, or if you did? The later years? When he had his

laboratory, did you ever see him again?

WC Well, yes, I'd go out there. See, in other words, Rinehart would go out there quite often. Rinehart did a lot of experimental work down there at the Frigidaire plant, you know. They had a flying field, just this end of where the plant was. And he'd go down there and argue with Orville. That's what made him the flyer he was. He always...

SB Argue about how to fly?

WC Well, in other words. No, he didn't. Brindley taught him to fly, one of the early test pilots. But whenever he was going to do something, which he rebuilt a, a ship down there for Rickenbacker, folding wings? Transmission. He could go right down the street with it, you know. And anything that he had any doubts about, he'd go out there to Orville.

SB Well, even after he retired he was still interested in...

WC Oh, yes, oh yes. He was always in that office every day.

SB Oh, and did he, did he have any contracts that you know of? Or was he just doing this on his own? Just for his own...

WC Oh, no. He was, he was the major of science, see? In other words, like I say, he was always doing some little data that the navy wanted or...

SB Oh, just contracts for the government?

WC Mostly...

SB Problems, working out problems?

WC Most of their troubles, you know, why they'd bring them up like I mentioned one time in Washington, a couple of the big men, "big brass" we always called them, and they said they had, we was delivering the planes there you know. And we had quite a time trying to get them through. On account of their funds. And they said Orville was having some trouble with some other. And they said, well, if we could just get Orville here

fifteen minutes he says, he would stop this thing for three years. In other words they just believed in him that much. That he could fix it up in fifteen minutes, it would take them three years to try to...

SB Did he travel very much after.....

WC Orville?

SB 1915?

WC Well, Orville was gone, gone all the time, not all the time, but then he'd take trips you know to Washington, and.....

SB Well, we've taken an awful lot of your time, here.

WC No, that's, that's alright.

SB Well, I hate to take up too much. I'm afraid.....

WC Now here's during the lawsuit fight, Wilbur would come back once in a while. Now that's a Curtiss machine. And here's one just like it. Now look at this.

SB Well, did Curtiss actually use, do you feel that Curtiss used a lot of their ideas?

WC Well, they couldn't help. In other words, they didn't directly copy piece by piece, but they had to use the combination control. That was it.

SB They had to use that to, to, now when you talk about the combination. You mean the movement of the ailerons with the, with the rudder?

WC In other words, that's the combination. See, in other words, you had to have the combination, combination, see the Wrights on the, on the see, you had the elevators here, then they had the wing warp was this way, and the rudder was this way. Now when you warped your wings, normally they'd give you the right amount of rudder, to make the turn. If you wanted to make a sharp turn, you just give it a little more rudder, see?

SB Well, Curtiss had seen this and, and they had used that idea when they

built their own plane?

WC Well, that's, that's, that was when, according to Charlie Taylor, that was the mechanic that Orville had at, way back in the early days, is when Orville was hurt that time, at Washington, and Selfridge died, why Taylor says he found Curtiss in the creek, I don't know really or not.

SV Oh, really?

WC But I don't know just how much that you can go on.

SB Was that Curtiss or Curtiss' mechanic that he seen?

WC No, it was Curtiss himself.

SB Curtiss, he used that time that opportunity to, to see....

WC Yes, the ship was in.

SB Design.

WC Here's a, here's a funny. The reason I cut this out there's Mr. Kettering, and Kettering you know is really beefed up, and his brains was....I had it on my mind just before I said it. Died just here recently.

SB Now he was, yes, he's a very prominent man. But do you think he knew some of Wright's ideas?

WC Who, Orville?

SB Kettering.

WC Oh, no, no, no. No, they, they had a lot of respect for Orville, and as far as building that Bug was concerned, why that, now here's...

SB The Wrights worked with Kettering on projects?

WC Oh, yes. Just like I say, you could go there, if you had something going on in aircraft, you know, you could get all the data you wanted.

Now, here's a DeHavilland, and there's a, the little plane we built to

- try out all this experimental work for that bomb.
- SB Oh, this was to use for the.....
- WC See, we could try that with a man see.
- SB With the missile.
- WC And that was to try out the motor and try out.....
- SB Now, this, Orville designed this plane first, is that it? To use?
- WC That, that little plane, that's, that's part of his design. See. The big one is an English job.
- SB Oh, I see.
- WC In other words, that was designed by the Dayton-Wright Airplane Company.
- SB Dayton-Wright Airplane Company. August 14, (unintelligible) Long time ago.
- WC See, I had that there plane at New York, Rinehart wanted to fly that into Madison Square Garden. And it's a good thing we didn't, didn't give it the opportunity because we, we put too much weight on it. It would take it to the, the show, would make a, a show job out of it. And it had too much weight, couldn't get off. He'd went down to Madison Square Garden and piled into.....
- SB Is Charlie Taylor gone, is he.....
- WC Beg pardon?
- SB Is Charlie Taylor the other.....
- WC Yes, he died just the awhile back. They made a, got a collection up for him, around the different governments, about thirty-five thousand dollars, and they didn't get a chance to use it, I guess.
- SB Do you know of any of the other men who worked with Mr. Wright that I could, around here, that I could talk with?
- WC Well, there was I don't know of anybody directly. I don't think, it's just like see, the fellow that worked directly under, would know anything

about what he would do and so forth. I don't know of any. Matter of fact they're all passed on and...

SB There are some people in Dayton who, who...

WC Beg pardon?

SB There are some people in Dayton who knew him, but I haven't...

WC Oh yes, they knew him, but then they, his actions they didn't know anything about that part of it.

SB No, not...

WC Because he was all the time...

SB Well, I, you've been very nice, I think we better be getting back to Dayton.

WC I have one in here I was going to show you where Orville, partially had something to do with it, just the last before you retire. Here's an interesting thing. There was the Talbotts you know, built the railroads up in Canada? And when they were building this, the senior Talbott had his home out there on that island. That's Staten Harbor. In other words, that...

SB That would be nice, wouldn't it?

WC You talk to Talbott about Talbott up there, was funny, you think he was talking about our Lord. Oh boy, they thought Talbott was, everything. Them Indians, they, they just worshipped him.

SB Who else in Dayton do you remember that worked with the Wrights?

WC Oh, see. There's...

SB Do you remember who the attorney was that they had, the lawyer that they had working with all these patents? Did, did you ever remember seeing him around?

WC Well, see. They up at the, up at the, this here, Hall of Fame.

People up there that I never seen with the Wrights.

SB Oh, is that so?

WC And one boy that I, he wasn't up there this time, was up there the time before, was in the Hall of Fame, and I, I hired him in 1918. And I don't know if he ever had anything to do with aircraft before. You know, that's the trouble, with it. There's been so much stuff that's done undercover that's not right. It should have been you know, just like I say, there's one boy out there at Wright Field, oh he was on television and everything else. Well, I knew he was out there all right, but he worked in the machine shop see.

SB Out where, now, at the Wright Company?

WC He's out, no he out at Wright Field. See? But he was with the Wright Company.

SB Did they continue after 1915, did they continue building the planes here, or did they move the plant?

WC Oh, no no, in other words, they didn't, they didn't build any more here. They closed it up. I don't even know exactly what they did with the parts because Howard Rinehart and I, we was in New York and we was in a school there. We trained, oh, hundreds and hundreds of Canadian pilots.

SB Oh, is that so?

WC And all, we didn't send back for any more stuff from the Wright Field because I rebuilt everything as we went along, even motors.

SB What did, those early planes, what did they make the wings out of?

WC Well, that, they, the ribs was spruce, spurs was spruce, then we covered them with, that the Wrights always covered them with, Irish Linen, you know. And we got so that we put linen on and then we used rope, and we just draw right up tight. And that's what we used. And we used

rubberized cloth too. The same as they use in the balloon; we used that on some of the army jobs.

SB When did they start making them out of metal?

WC Well, all the, they didn't start making them out of metal until, oh, the Second World War. Was the first ones that started coming out with the metal. No they, I'll tell you the first ones that I think who started building metal was over in Europe, Junkers. They started building them first.

SB Did Mr. Orville ever talk about their European tours? Around the shop? Was he interested in...?

WC Oh, you mean people coming through?

SB Well, after he had been to Europe and come back, would he talk about the places he'd been or...?

WC Oh, no no.

SB Wasn't...?

WC No, that wasn't, that wasn't what he, he'd be talking about. I tell you the most interesting thing he always used to watch the foreigners come in there, you know, and copy stuff. Japanese was the worst.

SB Is that so? (laughter)

WC Oh, they just have their pencil and paper, boy and they really were pretty good, about the cleverest people for copying.

SB Then he would talk with everyone who would...

WC Oh, yes, yes yes. Anybody. Didn't make a difference like I say, if you had a problem of any kind he'd be glad to talk to you.

SB How about the newspaper people?

WC Beg pardon?

SB How about the newspaper people? Did he, did he talk with them or...

WC Well, he'd talk with them, but I, he never, he never went to the front

just to get a newspaper story out print for himself.

SB Was, was his office in the back of the shop or the front or...

WC Well, they was in the front. That is out at the shop. But then he still had his lab, his lab down there on Broadway and Third you know, all the time. All the time he had the shop, in there would do all the wind tunnel work down trying out the curve of the wings and so forth you know.

SB Where did he, did he a build a big wind tunnel or was this a small...?

WC No, he had a a oh, what would you say, a pretty good size about five or six feet. He could check a wing section in it. And they built a small one to try out instruments, check instruments. But then that one they gave to Wright Field. But then the Wright Field. See he started to build a big one, and I think that, that one that they have out there is, turned up in sections and they pushed it together. But he didn't have power enough to, the power he was using, he'durn near pulled the corner of the building in. It takes a lot of power to...

SB Where was the wind tunnel? Was it at the Wright plant, or was it in his laboratory?

WC That was at the laboratory.

SB You certainly have a fine collection of pictures.

WC You know, one thing that we almost had going would have been nice. That is a man that went around the world, he was from the Army, and the Navy, and he photographed everything and so forth, and he finally up there, he come up there, there at Carl's in order to get the data, he heard I was up here, and we finally had a thing all talked up which, when the Wright Field conked out, and get all the old-timers as we could get all, all different airplane companies, the First World War, we had about oh, maybe thirty different companies in there, and they all made good

planes and now you see, there's only about four or five and they're all owned by Chrysler and General Motors, and they could get all the old-timers together and start the conversation see. About just this plane and that plane and when this happened, and all that, get them altogether and put it on tape see? That would have been ideal, see? Because then they would really get the whole story of, you know, all sides. Now just like talking to you now. If somebody here would bring, there's a lot of subjects would come up. It just comes to me that clear, just as soon as I hear them talk about it see? Because I see, I started into it, when I was only twenty-one years old. But I had a plan advertising my own before I got into that. And.....

SB Did they ever do any work with the gliders again? After they got their first...

WC We built, after we started building the, the company out there, we built two.

SB Was Mr. Orville interested in continuing the work of the gliders, or did he, was his whole idea...?

WC Oh, no, he built, stayed with the glider.

SB But his whole, his main idea was it to build, to build a, an airplane, or to build an airplane to sell?

WC Well, he was, he wanted to sell them to whoever wanted them, just like I told you. He, he wouldn't take no bribe or sell this one or that, or give anybody a, a, anything to take one. He said, we're building them; if they want them, we'll sell it.

SB Well, how about to individuals? Was he interested in selling to individuals?

WC Well, there was, I remember one, there was one man that bought five of

them, and he even had special trains made with the hauls and for the mechanic, the pilot and so forth. And he ended up killing himself in one of them.

SB Oh, is that so?

WC And he was very, very wealthy. But he had these planes and something, and five pilots and stuff, and I used to get a kick out of Brookins looking at his, he had diamonds honestly as big as quarters. He was a showman. But then he went around and, and things...

SB Now did he come to, did he come to Orville and order the planes?

WC Oh, yes. Oh, yes. Yes. Yes, they, they'd come at to the factory and, and order the planes. And we had the school out there. We trained a lot of the early pilots out there.

SB Did...

WC Catherine Stinson, Eddie Stinson.

SB The school was part of the business?

WC Beg pardon?

SB The school was part of the business?

WC Oh, yes, yes. It was operated under, under schoolwork see? For a reason. To keep them from being sued you know. And that's always the case, wherever these airplane companies are like that, see. They had the school separated, see. Because if somebody should get killed, or then they couldn't get in on the, on the company.

SB I suppose so.

WC But that, that would be nice to... I don't know who'd be down in Dayton that...It's like one fellow was getting along pretty well out at the Wright Field until the Colonel kind of tricked him up. He called me up out there one time, and wondered if I had, I could come out at a

certain time. I said, "Anytime would be, I could, help him out." Went out there, and they got to talking about that, and then he called me out there to look at that plane that I showed you, fifty years out there. And then I, I checked the controls was backwards on in^t, and a few things like that, and he asked a lot of questions and he turned to this fellow and asked him, I won't mention his name because he lives in Dayton, and he says, "You better talk to Grover, he says, Grover Bergdoll, and he says, "He knows more about it than I do." And he'd been on television and everything else you know, telling all this and that and stuff like that. See the stuff like that, that always comes back on you.

SB Yes, it does. Well, I think we better go along. I appreciate this a whole lot and I hope that we meet again.

WC Well in other words, probably some other time, can you get some other, some more. I was on that, that A and M show down there, you know, in...

SB Oh yes. Oh, I want to take your picture. I got to get, I got to get this done. Where is it, oh there's the little camera. You don't mind?

WC No. I believe there's a better one than that. Where's that other one, I had, I guess I lost it. Well, this is the one, see he was asking questions. He was showing some of these pictures.

NH It might be in here.

WC No, that's...well this one here is alright. But there's a better picture.

SB Oh, is that so?

WC Well, that, I can't find it now, but...I'm trying to locate it.

SB There's more people.

WC Just a minute ago. Those darn things they...

SB Light back there, maybe it would be better if you took it out.

(unintelligible) Pictureraker.

WC Here's a, here's. Here's the man that trained most of the Army and Oscar Brindley.

SB Oscar Brindley.

WC He was a good looking man too.

SB A nice looking man.

WC Boy, he admired the ladies.

SB Well, I thought I'd find a lady here for Orville, but I guess not.

WC Well, they, I never saw them, anyways, near a talk show was Mrs. Beck. She's still living in Dayton.

SB Is she still living?

WC I got some, that would, that would, be somebody that you could get a hold of.

SB Yes.

WC I never thought of that.

SB What, what did...

WC She's out in Oakwood somewhere. Now you could probably, she'd probably got a phone or you could find out. And she'd probably give you data that. She'd give you data that I couldn't.

SB Well, I don't know how...

WC Because she took care of all of his, all of his books. All of his office work. She did that for years and years.

(end of tape)

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