

## Interview of Dan Shafarman

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3  
4Interviewer: This is Shirley Bradley and Dan Shafarman. We are at Dan Shafarman's  
5 garage. We're just going to talk a little bit about the, uh, antique REO's  
6 and how he goes about restoration; and a little bit like that. This is May  
7 13, 2004. So, good morning Dan.  
8  
9Mr. Shafarman: Good morning Shirley.  
10  
11Interviewer: [0:22] I assume I have your permission to do this?  
12  
13Mr. Shafarman: Oh yes.  
14  
15Interviewer: Okay. After we get finished, I just I have a permission slip for you to  
16 sign.  
17  
18Mr. Shafarman: Okay. We can do that.  
19  
20Interviewer: [0:33] Okay, let's just start a little bit talking about you. Where were you  
21 born? Where did you go to school? How did you get into this?  
22  
23Mr. Shafarman: Okay. I was born in New York, in the city, um, in 1941.  
24  
25Interviewer: [0:49] Not December 7<sup>th</sup>, I hope?  
26  
27Mr. Shafarman: No. A little bit before that.  
28  
29Interviewer: [Laughter]  
30  
31Mr. Shafarman: And um, lived there until I was – in the Bronx – until I was nine years old;  
32 and we moved to West Ghent, New York in Columbia County.  
33  
34Interviewer: [1:09] How do you spell that?  
35  
36Mr. Shafarman: G-H-E-N-T  
37  
38Interviewer: [1:11] G-H, oh Ghent, like...  
39  
40Mr. Shafarman: Yeah.  
41  
42Interviewer: [1:15] G-H-E-N-T, okay.  
43  
44Mr. Shafarman: Yes. Part of the patroonship of Van Rennselear.  
45  
46Interviewer: Von Rennselear?  
47

1Mr. Shafarman: Van Rennselear.  
2

3Interviewer: Van Rennselear, okay.  
4

5Mr. Shafarman: Yes. As a matter of fact, that was very interesting to look at the deed to  
6the house that we bought at that time. Um, traced the title back to the  
7patroonship of Van Rennselear.  
8

9Interviewer: How would you spell Van Rennselear? I say this because we have people  
10that are going to transcribe this and they're going to say, "What?"  
11

12Mr. Shafarman: R-E-N-S-S-A-E-L or E-L-E-A-R. Van Rennselear.  
13

14Interviewer: V-A-N...  
15

16Mr. Shafarman: Yeah, there's a city in upstate New York called Rennselear; and it's the  
17same spelling.  
18

19Interviewer: Okay.  
20

21Mr. Shafarman: New York State has this very interesting Dutch history, which some  
22people know about and some people don't. But um, it's... Anyway, that's  
23where I lived.  
24

25Interviewer: [2:19] That's where you lived and where you went to school and  
26graduated from there?  
27

28Mr. Shafarman: Yes.  
29

30Interviewer: [2:23] And then where did you go?  
31

32Mr. Shafarman: Um, I went to... [phone ringing]  
33

34Interviewer: [2:30] Okay. We were saying now... Where did you go after school?  
35

36Mr. Shafarman: After high school?  
37

38Interviewer: Mm-hm.  
39

40Mr. Shafarman: Well let me see. I had two years at Farmingdale Ag & Tech...  
41

42Interviewer: In New York?  
43

44Mr. Shafarman: ...in New York State. And then um, another two years at, uh, State  
45University at Oswego. I graduated with a teaching certificate.  
46

47Interviewer: A teaching certificate?

1Mr. Shafarman: Yes.  
2  
3Interviewer: [2:58] You were going to become a teacher?  
4  
5Mr. Shafarman: Yes.  
6  
7Interviewer: [3:01] And did you do that?  
8  
9Mr. Shafarman: Uh, I substituted for a year; and then I, uh, dropped out and joined the  
10 Revolution.  
11  
12Interviewer: [3:14] The Revolution?  
13  
14Mr. Shafarman: The anti-war movement in the 60's.  
15  
16Interviewer: From Vietnam?  
17  
18Mr. Shafarman: Yeah. And uh, went to New York City and spent three years there. Did a  
19 short stint as an ordinary seaman.  
20  
21Interviewer: [3:30] Now, an ordinary seaman, is that like on a freighter?  
22  
23Mr. Shafarman: On a freighter, yeah. Joined the Seafarers International Union of North  
24 America.  
25  
26Interviewer: [3:41] Where all did you go?  
27  
28Mr. Shafarman: Puerto Rico. [Laughter]  
29  
30Interviewer: [Laughter]  
31  
32Mr. Shafarman: Twelve roundtrips to Puerto Rico.  
33  
34Interviewer: Okay. So, you know that route by heart, huh?  
35  
36Mr. Shafarman: Oh yeah, yeah, yeah. And uh, with various stops at, um, let's see, um,  
37 Jacksonville, Galveston, um, Charleston, you know, different ports. And  
38 then, always back to New York at the end of the trip. Several different  
39 ports in Puerto Rico – Ponce, Mayaguez, as well as San Juan. All very  
40 entertaining, but most of the time it was... It was one of the first  
41 automated container ships.  
42  
43Interviewer: [4:30] Oh, this was a container ship?  
44  
45Mr. Shafarman: Right. The officers, I mean the crew was... I mean, it's just their job, but  
46 the officers were fit to be tied because they didn't get very much time in

1 port. They were used to going to a port and spending three or four days  
2 unloading and reloading.  
3  
4Interviewer: [4:50] So, they had shore time?  
5  
6Mr. Shafarman: Yeah, so they would have shore time while everyone else was working.  
7 They could completely unload and reload this ship in 18 hours if they  
8 wanted to. Of course, they never completely – or very seldom –  
9 completely unload and reload a container ship. There’s always some  
10 portion of the cargo that’s going someplace else...  
11  
12Interviewer: Going someplace else, sure.  
13  
14Mr. Shafarman: ...and then they’re taking empty containers or containers full of something  
15 else to go elsewhere. So, you unload and reload part of the cargo.  
16  
17Interviewer: So that’s...  
18  
19Mr. Shafarman: So, they were...  
20  
21Interviewer: [5:33] You finally said, “I don’t want to spend my life doing this”?  
22  
23Mr. Shafarman: Right.  
24  
25Interviewer: “I’ve seen Puerto Rico.” [Laughter]  
26  
27Mr. Shafarman: Yeah.  
28  
29Interviewer: [5:39] So then what did you do?  
30  
31Mr. Shafarman: Then I stayed in New York for a couple years doing anti-war stuff.  
32  
33Interviewer: Mm-hm. Marching? Protesting?  
34  
35Mr. Shafarman: Right.  
36  
37Interviewer: Rallies and all that kind of thing?  
38  
39Mr. Shafarman: There were two things. One was Free University of New York, which ran  
40 a lot of radical courses and anti-war stuff, as well as poetry and art and  
41 things like that, which I was involved with that. And then, um, there was  
42 a film group called News Reel which was affiliated with SDS; and I  
43 worked on the films, not as a cameraman but I did sound for them. I  
44 maintained the equipment and things like that.  
45  
46Interviewer: [6:36] You said STS? That stands for...?  
47

1Mr. Shafarman: SDS  
2  
3Interviewer: SDS  
4  
5Mr. Shafarman: Yes. Students for a Democratic Society...  
6  
7Interviewer: Okay.  
8  
9Mr. Shafarman: ...which was a prominent anti-war student group at the time.  
10  
11Interviewer: Oh, is that right?  
12  
13Mr. Shafarman: Yes.  
14  
15Interviewer: So, while I was home taking care of kids, you were out doing things.  
16  
17Mr. Shafarman: Yeah, I had a great old time.  
18  
19Interviewer: I would see all these things on television, you know?  
20  
21Mr. Shafarman: Yeah.  
22  
23Interviewer: Um.  
24  
25Mr. Shafarman: We had an expression, "The Revolution will not be televised." Oh well.  
26 [Laughter]  
27  
28Interviewer: That's lame plans. It's like, "I will be an honest president."  
29  
30Mr. Shafarman: For sure.  
31  
32Interviewer: [7:17] So then, your protesting years kind of dwindled away or whatever?  
33 The war was over.  
34  
35Mr. Shafarman: The war was over. I had come to East Lansing with a bunch of films to  
36 show... And I did show films at the college.  
37  
38Interviewer: Oh, you did? Out here at MSU?  
39  
40Mr. Shafarman: And uh, I was driving my prize '59 Jaguar, 3.4-liter sedan, headed for  
41 California; never made it. [Laughter]  
42  
43Interviewer: [7:56] Why? What happened? [Chuckle]  
44  
45Mr. Shafarman: Well the car broke down; it was January and I didn't really want to fix it in  
46 the driveway. [Laughter] So, I sold it and stayed in East Lansing.  
47

1Interviewer: I'll be darned. Isn't that funny how life turns on a small thing?  
2  
3Mr. Shafarman: Yeah, I liked it a whole lot and I stayed. At about this time, it was January  
4 of '69. There were things happening in the anti-war movement that I  
5 didn't really agree with, like um, the whole [Wetterman 8:35]  
6 phenomenon was starting.  
7  
8Interviewer: [8:44] That was violent wasn't it?  
9  
10Mr. Shafarman: Oh yeah.  
11  
12Interviewer: You were obviously anti-violence.  
13  
14Mr. Shafarman: Yeah, yeah. I knew some of those people and didn't really get along with  
15 them very well.  
16  
17Interviewer: You had different viewpoints.  
18  
19Mr. Shafarman: Yeah. We wound up a parting of the ways. So, I uh, stayed in town, East  
20 Lansing; and then moved into Lansing. I needed a job.  
21  
22Interviewer: You bet.  
23  
24Mr. Shafarman: So, I got a job at Lynn Harriman Volkswagen, which hasn't existed in  
25 years.  
26  
27Interviewer: Right. Out on the west side.  
28  
29Mr. Shafarman: Yes, out on the west side when there were barns and farms and things out  
30 there.  
31  
32Interviewer: Oh really? [9:29] So this would have been in the late '70's?  
33  
34Mr. Shafarman: No, this is very early '70's.  
35  
36Interviewer: Very early '70's?  
37  
38Mr. Shafarman: This is '71 or '72 maybe.  
39  
40Interviewer: Okay. I lost my timeframe here for a few minutes.  
41  
42Mr. Shafarman: And then uh, I got a job with what was then called BNN Volkswagen,  
43 which was a small independent shop right over here on Detroit Street in  
44 Kalamazoo. Ray Bokus was the proprietor of that.  
45  
46Interviewer: I'm sorry, who?  
47

1Mr. Shafarman: Ray Bokus...B-O-K-U-S.  
2

3Interviewer: Just like it sounds?  
4

5Mr. Shafarman: Yes. And uh, I showed up for work the first day. He handed me the keys,  
6 showed me around the shop and um, the next morning he didn't show  
7 up... [Laughter]  
8

9Interviewer: [Laughter]  
10

11Mr. Shafarman: ...until much later in the day.  
12

13Interviewer: [10:31] He automatically trusted you to open the place up and keep it  
14 running until he showed up?  
15

16Mr. Shafarman: Well he was involved in some kind of other scheme. He used to um, he  
17 would show up in these extremely shiny suits, you know, things that had  
18 been kind of out of fashion or a little while. They were a little bit too  
19 small for him. In the company of some other guy and always in a, you  
20 know, big fancy Cadillac or Lincoln or something. And apparently, they  
21 had some um, one of these pyramid companies going...  
22

23Interviewer: Oh.  
24

25Mr. Shafarman: ...where they would... And I don't know if they were selling... I never  
26 did get the details of that. But um, meanwhile I had hired a couple of my  
27 friends to work for me. One guy who I had met over at Harriman  
28 Volkswagen. Bokus went bankrupt at a certain point. We arrived at work  
29 one day and the place had been cleaned out.  
30

31Interviewer: What a shock.  
32

33Mr. Shafarman: Over-night he had just removed his equipment and left. So, we rented the  
34 space and we had a business. Got some credit from the part suppliers and  
35 uh, um...  
36

37Interviewer: [11:58] How long were you there in that building?  
38

39Mr. Shafarman: I was there until '74, at which point I was good and sick of being in  
40 business because I was the responsible person in this business. I had to  
41 deal with all the customers. I had to... You know, the automobile repair  
42 business... It's probably the same now, but in those days, there was an  
43 awful lot of contention and um, uh, there was a feeling that everything was  
44 a rip-off.  
45

46Interviewer: Mm.  
47

1Mr. Shafarman: That was before the days of licensing mechanics and things like that.  
2

3Interviewer: I see.  
4

5Mr. Shafarman: There were a lot of rip-off garages...  
6

7Interviewer: Because you could charge...  
8

9Mr. Shafarman: You could charge anything you wanted. You didn't have to give  
10 estimates.  
11

12Interviewer: They would say, "You needed this. By the way, this broke and I replaced  
13 that."  
14

15Mr. Shafarman: Right. And there were some people who were just experts at writing these  
16 things up.  
17

18Interviewer: Wow.  
19

20Mr. Shafarman: They could look a car over; and to do two little things on it would cost  
21 hundreds of dollars or whatever. So, that atmosphere was pervasive in  
22 those days. I got good and sick of it and sold the business to my  
23 employees, um, and moved across the street to that building on the corner  
24 that is now some kind of film production studio.  
25

26Interviewer: [13:42] And that's on Detroit?  
27

28Mr. Shafarman: It's on Kalamazoo actually.  
29

30Interviewer: Kalamazoo.  
31

32Mr. Shafarman: Yeah. And I started repairing Volvos rather than Volkswagens. A couple  
33 of my customers from the Volkswagen shop had antique cars at the time.  
34 Now, I had been into antique cars since I was in high school.  
35

36Interviewer: Oh, you had?  
37

38Mr. Shafarman: Yes.  
39

40Interviewer: [14:05] I wondered where your interest started.  
41

42Mr. Shafarman: I had bought my first REO when I was – actually when I was in college.  
43 And uh, we were cruising the barns of New York State looking for old  
44 cars. My friends and I would jump in a car and go looking in barns.  
45

46Interviewer: [14:27] With the idea of buying an antique?  
47



1Mr. Shafarman: Yeah. At the time, the Taconic State Parkway was being built. A big  
2 portion of it, they had...the state had bought the land or condemned the  
3 land for it. So, there were still all these houses and barns and things that  
4 were standing in the way of where the parkway was about to be built. All  
5 this stuff was going to be torn down...  
6  
7Interviewer: Progress...  
8  
9Mr. Shafarman: Yeah. We came across a barn that had a bunch of old cars in it, including  
10 this old REO...a 1925 T-6 sedan. But it had several other more interesting  
11 cars in it, including an Earl, which I've never heard of since.  
12  
13Interviewer: An Earl?  
14  
15Mr. Shafarman: Yes. So, we got in touch with one of our older friends, who was a real  
16 wheeler-dealer type and knew a lot more about old cars than we did. We  
17 just liked old cars. It really didn't matter what.  
18  
19Interviewer: It just fascinated you.  
20  
21Mr. Shafarman: Yeah. We said, "There's an Earl in the barn." The guy just lit up and  
22 went and bought the contents of the barn...  
23  
24Interviewer: The whole thing?  
25  
26Mr. Shafarman: The whole thing; and later on, sold me the old REO for 50 bucks.  
27  
28Interviewer: There was a REO in it?  
29  
30Mr. Shafarman: Right.  
31  
32Interviewer: [15:58] Now the Earl. I'm curious about that. Is that a model or is that a  
33 make?  
34  
35Mr. Shafarman: It's a make of car. I don't know very much else about it.  
36  
37Interviewer: It sounds British almost, doesn't it?  
38  
39Mr. Shafarman: No, it's an American car.  
40  
41Interviewer: It's an American car?  
42  
43Mr. Shafarman: Yeah.  
44  
45Interviewer: I wonder how old that would have been?  
46  
47Mr. Shafarman: It was early '20's.

1Interviewer: Early 20's...  
2  
3Mr. Shafarman: Yeah.  
4  
5Interviewer: So, now you've got your first REO?  
6  
7Mr. Shafarman: Yes.  
8  
9Interviewer: [16:21] What model was that?  
10  
11Mr. Shafarman: That was a 1925 T-6 sedan...20<sup>th</sup> anniversary sedan or 20<sup>th</sup> anniversary  
12 model, because the first REO was 1905. So, 1925 was the 20<sup>th</sup>...  
13  
14Interviewer: [16:41] What kind of condition was it in?  
15  
16Mr. Shafarman: Um, it was missing a headlight; and it was missing the radiator.  
17 Apparently, the radiator for these cars had been scrapped during WWII  
18 because they contained brass and copper, which were valuable for...  
19  
20Interviewer: ...the war effort.  
21  
22Mr. Shafarman: I mean, for shells.  
23  
24Interviewer: For shells? Okay.  
25  
26Mr. Shafarman: Shell casings.  
27  
28Interviewer: Yeah, the shell casing, mm-hm.  
29  
30Mr. Shafarman: I knew a guy who was a [root 17:21] salesman for an automotive store;  
31 and he told me where to find a radiator for my REO. The first weekend  
32 hunting for a radiator, I found the proper radiator; and...  
33  
34Interviewer: Well that was luck, wasn't it?  
35  
36Mr. Shafarman: That was years before I found the right headlight though. [Laughter]  
37  
38Interviewer: [Laughter]  
39  
40Mr. Shafarman: I would do things like, um, I'd be in an antique store or I'd be at a flea  
41 market or something. I'd say, "Hey, that headlight looks exactly like the  
42 one on my car. I think I'll buy that and take it back."  
43  
44Interviewer: So, you ended up with lots of headlights?  
45  
46Mr. Shafarman: Lots of headlights that were almost right.  
47

1Interviewer: Aw, some little thing wasn't...  
2  
3Mr. Shafarman: Some little detail was different.  
4  
5Interviewer: [Laughter]  
6  
7Mr. Shafarman: And uh, I finally got the right one. But I sold that car a long time ago.  
8  
9Interviewer: Did you? [18:15] That was the beginning...  
10  
11Mr. Shafarman: Yeah.  
12  
13Interviewer: ...of you really...  
14  
15Mr. Shafarman: Well actually, I had other old cars before that.  
16  
17Interviewer: Oh, you did?  
18  
19Mr. Shafarman: Yeah, I had built up a Model T from parts.  
20  
21Interviewer: Really?  
22  
23Mr. Shafarman: Yeah, um, when I was still in high school. The REO came along... Let  
24 me see. I can't remember exactly the year, but I kept it... I stashed it in  
25 my folks' barn; and um, when I settled here in Lansing, I brought it out  
26 here.  
27  
28Interviewer: Weren't you lucky to have a place to store it?  
29  
30Mr. Shafarman: Well I was kind of on the outs with my folks at the time.  
31  
32Interviewer: They wanted you to get that old thing out of there.  
33  
34Mr. Shafarman: And I got this phone call from my father saying, uh, "The [Bose's 19:05]  
35 need to put their combine in here and uh, we've got to get rid of that car."  
36  
37Interviewer: [19:10] So, you were born on a farm or your folks were farmers?  
38  
39Mr. Shafarman: No, we owned the house and barns, but the land had been sold separately.  
40 My father was a truck driver.  
41  
42Interviewer: Oh, I see. So, they needed that thing out of the...?  
43  
44Mr. Shafarman: But all the neighbors were farmers and they were on real close terms with  
45 this family down the road. My mother is still in contact with this family,  
46 even though she's out here now.  
47

1Interviewer: Mm.  
2  
3Mr. Shafarman: They still talk on the phone can send cards back and forth and everything.  
4  
5Interviewer: Oh, that's nice.  
6  
7Mr. Shafarman: They were real good to her after my father died; and she was in the house  
8 alone for several years. And um, there was a period when, uh, she would  
9 have difficulty getting out in the wintertime and they would help her out  
10 and plow the driveway and whatever.  
11  
12Interviewer: Helped her out a lot.  
13  
14Mr. Shafarman: They were real good neighbors, yeah.  
15  
16Interviewer: Good neighbors do that. [20:12] So, you sold your... You brought your  
17 REO here?  
18  
19Mr. Shafarman: I borrowed a trailer and brought it out here. This was at the time that I had  
20 that Volkswagen business.  
21  
22Interviewer: Over on Detroit Street?  
23  
24Mr. Shafarman: Yeah. And I was living in Laingsburg– or on the way to Laingsburg at the  
25 time.  
26  
27Interviewer: [20:23] So, then when did you come to this shop and when did you get  
28 full-time into just doing antique autos?  
29  
30Mr. Shafarman: Well after I got out of the, uh, Volkswagen shop, very shortly thereafter,  
31 uh, some of my customers from the Volkswagen shop also had other weird  
32 cars like Citrons; and some of them were members of Veteran Motor Car  
33 Club; and found out that I was interested in old cars as well; and got me to  
34 fix various old cars that they had. So uh, over a period of several years, I  
35 began to concentrate on the older cars; and so now for the past, uh, at least  
36 20 years that's all I've been doing is old cars.  
37  
38Interviewer: I'd imagine that's not easy to find – an antique car owner – to find  
39 somebody that knows the cars and can fix them and fix them right. I  
40 mean, I'd imagine that's a limited – what do I want to say? I don't  
41 imagine there's very many of you doing this, are there? Especially in the  
42 mid-Michigan area?  
43  
44Mr. Shafarman: There are a few people doing it.  
45  
46Interviewer: Are there?  
47

1Mr. Shafarman: Yeah, but the main thing is that there's sort of this big divide. There are  
2 these commercial restoration shops that will do a beautiful job and do  
3 everything perfectly for big bucks.  
4

5Interviewer: Mm-hm.  
6

7Mr. Shafarman: And you better have a car that's really worth something if you go to them.  
8

9Interviewer: If you're going to put that kind of money into it.  
10

11Mr. Shafarman: Right. But for ordinary cars that are not worth a king's ransom, uh, and  
12 most REO's fall into that category. There are few REO's, like the  
13 Royale's, that are recognized classics and are uh, really top dollar type of  
14 cars.  
15

16Interviewer: [22:39] So, they'd be the car to put the money into if you need restoration  
17 – if you want to be a purist about it?  
18

19Mr. Shafarman: Yeah, but uh, everyone else, it's a labor of love; and um, there's not a  
20 huge amount of money when you sell the car. You very rarely get out of a  
21 car what you put in in restoration costs.  
22

23Interviewer: Is that right?  
24

25Mr. Shafarman: For ordinary cars. Although, people will try. [Chuckle]  
26

27Interviewer: [23:12] Is there something unique about the REO cars? Are they different  
28 in any way from other antique cars? Are they a better car? Are they, uh...  
29

30Mr. Shafarman: Um, well that's a huge generalization, isn't it?  
31

32Interviewer: Well it really is.  
33

34Mr. Shafarman: There are lots of cars to choose from, right, because after all there have  
35 been thousands of different makes. Most of them... I mean, the vast  
36 majority of cars have been the mass-produced ones like the Fords and the  
37 Chevys and the Buicks, in the later years. The companies that had  
38 relatively low production, um... REO was... I think when they started,  
39 they were about in fifth place maybe. But as the big ones grew enormous,  
40 REO never really kept up. So, their standings slipped a little bit as far as  
41 numbers are concerned. But they always made a quality product. And uh,  
42 they always had a very loyal following. Uh, so there are a lot of well-kept,  
43 preserved REOs around just because people liked them and...  
44

45Interviewer: A sentimental thing.  
46

1Mr. Shafarman: They were sort of a solid middle-class car. They were not nearly as cheap  
2 as a Ford or a Chevy or a Plymouth.  
3

4Interviewer: Mm.  
5

6Mr. Shafarman: They were always three times the cost, at least.  
7

8Interviewer: [25:05] And I know that you've worked on a lot of antique autos and  
9 put'm back on the road and the Curved Dash Olds and...  
10

11Mr. Shafarman: Oh yes.  
12

13Interviewer: [25:14] What do you think is unique about that Curved Dash?  
14

15Mr. Shafarman: About the Curved Dash?  
16

17Interviewer: Mm-hm.  
18

19Mr. Shafarman: Well it was the first car that was, um, practical in a way that just about  
20 anyone who could afford it... It wasn't everyone that could afford it. They  
21 cost \$650, which was, uh... The ordinary working man could not afford it.  
22 But a lot of, uh, middle class people could afford it. The Curved Dash was  
23 the first one that was really available in numbers.  
24

25Interviewer: And I've heard that when you took delivery on one, you had to pay for it  
26 in advance; and then maybe it wouldn't be just right and you'd had to get  
27 burrs off the parts or do some minor repair once you got it or...?  
28

29Mr. Shafarman: Uh, sometimes you'd have to assemble parts of it yourself. Usually... The  
30 Curved Dash was usually shipped... Um, they usually tested it at the  
31 factory.  
32

33Interviewer: Okay.  
34

35Mr. Shafarman: But all kinds of things could happen in transit. You might wind up with a  
36 car that had some damage to it. Who knows? There weren't... There  
37 wasn't a dealer network as we know it today. There were a few dealers  
38 and distributors in various places, but um... They didn't always take  
39 responsibility for the cars they sold.  
40

41 Um, there was a great deal of correspondence between individual owners  
42 and the factory, because if you needed to buy parts, you would write or  
43 telegraph to the factory; and you would... That's how you got your spare  
44 parts.  
45

46Interviewer: Oh, that's interesting. I didn't know that.  
47

1Mr. Shafarman: In the very early days it was absolutely necessary that you be able to fix  
2 the thing yourself if something went wrong, because something was bound  
3 to go wrong. [Chuckle]  
4

5Interviewer: Afterall, it was a new thing.  
6

7Mr. Shafarman: Yes. And either you'd have to fix it yourself or you had to employ  
8 someone who was able to deal with it.  
9

10Interviewer: I wonder if that was the beginning of American know-how when it came  
11 to cars? I don't think... Kids today can't just get under the hood and soup  
12 it up and fix it, because every... You know, the newer cars.  
13

14Mr. Shafarman: Yeah.  
15

16Interviewer: ...because everything is completely different. But I think in the early  
17 days, maybe people were learning because they had to do what you just  
18 said.  
19

20Mr. Shafarman: Well that was a big part in spreading that kind of knowledge.  
21

22Interviewer: Right.  
23

24Mr. Shafarman: But it had existed before. For instance, farm machinery had to be fixed.  
25 Uh, local blacksmiths had to deal with putting tires on wheels, either steel  
26 or rubber tires.  
27

28Interviewer: And springs and things.  
29

30Mr. Shafarman: Yeah. So, there was a lot of that. Mechanical knowledge was around, but  
31 when the automobile came around, in the first few years, that sort of  
32 knowledge just spread like wildfire because people had to deal with if they  
33 wanted a car; and everyone wanted a car. They might not be able to afford  
34 it today, but in short order there were used cars available that they could  
35 buy.  
36

37Interviewer: That's an interesting point – used car market.  
38

39Mr. Shafarman: That's right. And that sprang up almost immediately at the turn of the  
40 century. The rich folks would buy a new one; and the old one could be  
41 sold for peanuts or relatively... So...  
42

43Interviewer: Then along came the runabouts; along came the touring cars and on and  
44 on and on...  
45

46Mr. Shafarman: Yep.  
47

1Interviewer: [29:25] I see that you've got some here in your shop – touring cars.  
2

3Mr. Shafarman: Yes.  
4

5Interviewer: [29:30] You've got a runabout, haven't you, up near the front?  
6

7Mr. Shafarman: Uh, that one is, I think called a Sury.  
8

9Interviewer: A Sury?  
10

11Mr. Shafarman: Yes. They were still using the terminology that's appropriate to horse  
12 drawn vehicles.  
13

14Interviewer: That's interesting – that transition.  
15

16Mr. Shafarman: Yeah.  
17

18Interviewer: The early dashboard into the... And the hood being a bonnet and all that  
19 sort of thing.  
20

21Mr. Shafarman: Yeah, right. This one that you're sitting next to is a Cadillac touring car –  
22 1906. It's still a 1-cylinder car with the engine underneath; but it has a  
23 hood out front, so it looks like a modern French machine. The most  
24 advanced cars in the early part of the century were French.  
25

26Interviewer: Oh really?  
27

28Mr. Shafarman: Yes. They uh...  
29

30Interviewer: Design and, and mechanically in every other way?  
31

32Mr. Shafarman: And all those things; and also, of course, an expense because most of them  
33 were individually handmade.  
34

35Interviewer: Mm. So, it would take quite a while to produce one car?  
36

37Mr. Shafarman: Oh yes. There were many, many firms whose production amounted to  
38 maybe 100 cars a year. And very few firms, um, that had maybe over  
39 1,000 cars production. Even the ones with 1,000 cars production, uh, like  
40 even the early Reno, um, they didn't use machinery in the same way that it  
41 was used in the United States.  
42

43 In America, we had developed what was called the American System of  
44 Manufacturing, which depends on interchangeable parts and progressive  
45 assembly. And a lot of planning. When you want to produce something,  
46 you make sure that you're going to produce huge numbers – thousands.  
47 You don't go to the trouble of producing one or two of these, unless it's a



1 prototype; and then you know you're going to spend a lot of money. But  
2 if you want to go into production, you make sure that it's something you  
3 can sell thousands of.  
4  
5Interviewer: You've got to make back the money and make a profit.  
6  
7Mr. Shafarman: Right. And that system had already developed in America – to a much  
8 larger extent than it had in Europe. Um, they had the concept in Europe,  
9 but they didn't have the practice. In America, we had things like... Well it  
10 goes way back to firearms, where... American firearms manufacturers  
11 were the first ones to truly have interchangeable parts. The concept was  
12 around for who knows how long. I've traced it back as far as, uh, the  
13 middle of the 18<sup>th</sup> Century...  
14  
15Interviewer: Oh my.  
16  
17Mr. Shafarman: ...in France.  
18  
19Interviewer: Mm-hm. In France.  
20  
21Mr. Shafarman: Yeah. And then, uh, there was a gentleman by the name of [Gribovo  
22 33:03]. Don't ask me to spell that one.  
23  
24Interviewer: Okay. Just say it again.  
25  
26Mr. Shafarman: [Gribovo 33:10]  
27  
28Interviewer: Alright. [Chuckle]  
29  
30Mr. Shafarman: ...um, who ordered 100 muskets made with interchangeable parts. And he  
31 finally found a guy that could do it for him; and they finally accomplished  
32 this by 1785. He had started trying to do it around 1760. But by 1785,  
33 they actually had 100 muskets, where you could take apart from one; and  
34 without any filing or fitting it would work in the other one, right?  
35 [Chuckle] And this was amazing at the time. And of course, the reason for  
36 this is if you have a battle going on and you get a bunch of firearms  
37 smashed, blown up, damaged in one way or another on the battle field,  
38 you collect all the pieces and you can reconstruct at least a few good ones  
39 from all the wreckage.  
40  
41Interviewer: Salvage.  
42  
43Mr. Shafarman: Yes. And this is very important on the battlefield, because previously in  
44 order to repair any firearms they have to have very skilled gunsmiths come  
45 along with the army to deal with it.  
46  
47Interviewer: Oh.

1Mr. Shafarman: If the pieces were interchangeable, then the ordinary soldiers would be  
2able to do this for themselves. So, it was a great advantage.  
3  
4Interviewer: That's interesting.  
5  
6Mr. Shafarman: At the time, Thomas Jefferson was American Minister to France. If you  
7want references for all of this stuff, I can give you the names of books.  
8  
9Interviewer: Okay.  
10  
11Mr. Shafarman: It's a fascinating story.  
12  
13Interviewer: Oh, it sounds like it. Of course, I love history so...  
14  
15Mr. Shafarman: And he was just amazed at this whole thing and just loved the idea of  
16interchangeability of parts.  
17  
18Interviewer: Ah, he did?  
19  
20Mr. Shafarman: Yeah. And he wrote to John J.; and then to John Knox, who was Secretary  
21of War, just overflowing with enthusiasm for this idea. And he pushed it  
22to a great extent when he came back and became President. Also, there  
23were French officers who came to America with, for instance, with  
24Lafayette, who stayed in America. And they also had this idea of  
25interchangeability of parts.  
26  
27Now, they didn't actually accomplish this for quite a long time. They  
28established the Springfield Armory and Harpers Ferry Armory. And these  
29armories were staffed with American officers who were trying to make  
30things interchangeable. And, you know, machine tools were very  
31primitive at the time; and it wasn't until the beginning of the 19<sup>th</sup> Century  
32that they had sophisticated enough machinery to be able to make things  
33truly interchangeable.  
34  
35One of the big breakthroughs was the carving of the gunstock, which  
36always had to be done by hand to a pattern. There was a standard pattern  
37that was made, but of course there would be little variations since it was  
38done by hand. Well, I guy by the name of Blanchard invented a copying  
39lathe, where most of the operations of carving the gunstock were done by  
40machine. And uh, if they worked things right, they would all come out the  
41same. And this was tremendous. Not only that, but it speeded up the  
42production of gunstocks, which was one of the big bottlenecks in the  
43production of firearms.  
44  
45Interviewer: Now we've got a production amount to arrive at.  
46

1Mr. Shafarman: Yeah, previous to the invention of this machine, a very skilled wood  
2 carver could turn out maybe five a week. Maybe if someone was real  
3 good, he could do six. Um, they got the basic, um, carving down to about  
4 20 minutes with the machine. So, that just, you know... It was a  
5 tremendous advance.  
6

7Interviewer: [38:01] So that knowledge and that beginning of interchangeable parts  
8 really fit right into the new “virginizing” automotive industry then?  
9

10Mr. Shafarman: Well, of course, the automotive industry didn’t come along until 100 years  
11 later.  
12

13Interviewer: Oh, oh I know. But I mean that knowledge and that idea of  
14 interchangeable parts, is what I’m saying.  
15

16Mr. Shafarman: A lot of things were necessary before you could have an automobile  
17 industry. You had to have some way of making interchangeable parts.  
18 And all those little pieces came together over the course of the 19<sup>th</sup>  
19 Century. You had to have a supply of steel. At the beginning of the 19<sup>th</sup>  
20 Century, steel was a rarity and was used very sparingly. There was iron in  
21 quantities. But if you wanted something made of steel, like a sword or  
22 something, that was something super – or the barrel of a gun – that was  
23 very expensive and usually imported from Sweden, which made the best  
24 steel.  
25

26Interviewer: Ah-ha. [39:12] And you had to have, I imagine, places to buy the gasoline  
27 and places to buy the oil...  
28

29Mr. Shafarman: Oh yeah. Of course, gasoline wasn’t available until after crude oil was...  
30 It wasn’t just discovered, but the method of extracting it from wells, uh, in  
31 the late 1850’s... I think it was 1859 in Pennsylvania. Right around the  
32 same time in... Maybe a year or two earlier in Canada, in Ontario –  
33 Petrolia. Have you ever been? If you ever get a chance to go to... It’s  
34 near Sarnia, in Ontario, there’s a little town called Petrolia.  
35

36Interviewer: Oh, I’ve been by there, I’m sure, because I’ve been through there a lot.  
37

38Mr. Shafarman: Yeah. Well go and see their... They have several museums and exhibits;  
39 and they have an oil field set up. It’s actually where an old oil field was;  
40 although it’s no longer producing. They have all the old methods of  
41 drilling wells by hand.  
42

43Interviewer: Oh my gosh.  
44

45Mr. Shafarman: And uh, the old methods of pumping oil out. Anyway, there are numbers  
46 of these prerequisites for mass production...  
47

1Interviewer: All had to be in place first.  
2

3Mr. Shafarman: ...before you could have an automobile industry, yeah. Um, you had to  
4 have the idea of the automobile and you had to have people working on  
5 building experimental ones. But they couldn't really get into it until they  
6 had all the pieces available. If you didn't have petroleum, what could you  
7 use in an engine? I don't know. You could use alcohol.  
8

9Interviewer: Right. Wow. [41:13] So, I imagine when R. E. Olds was experimenting  
10 and he came up with the steam car first...  
11

12Mr. Shafarman: Yes.  
13

14Interviewer: ...and then I believe electric a little later?  
15

16Mr. Shafarman: Yes. He did electric sort of at the same time that he was doing internal  
17 combustion engines.  
18

19Interviewer: Okay.  
20

21Mr. Shafarman: But then you... He dropped steam early on.  
22

23Interviewer: [41:39] Is it because he could see that it wasn't going to be...?  
24

25Mr. Shafarman: Well I think it was too complicated to be portable. Not that other people  
26 didn't make steam cars – they certainly did.  
27

28Interviewer: Mm-hm.  
29

30Mr. Shafarman: But those were also very expensive.  
31

32Interviewer: He wanted something he could mass produce and sell a lot of...  
33

34Mr. Shafarman: That's right.  
35

36Interviewer: ...to the middle class.  
37

38Mr. Shafarman: Right. And I think that's the meaning of that phrase that you always hear.  
39 They quote the organizational meeting of the Olds Motor Vehicle  
40 Company that was formed; and they said to make one carriage in its  
41 perfect condition as possible?  
42

43Interviewer: ...condition as possible.  
44

45Mr. Shafarman: Right. And then he made four that year; and you always wonder why.  
46 Well, I think what he was doing was looking for a design that could be  
47 mass produced; and that's what he meant by one carriage.

1Interviewer: Oh, okay. One that he could then use as a... It would be a prototype, I  
2  
3  
4Mr. Shafarman: Yeah, a prototype.  
5  
6Interviewer: [43:40] So, the body of the 1897, um... That was the car that four were  
7 made from or like? I've lost my train of thought here. Oh, the body was  
8 actually from the Clark Carriage Company?  
9  
10Mr. Shafarman: Yes.  
11  
12Interviewer: So, he was using outside suppliers even then?  
13  
14Mr. Shafarman: Oh yes. Everyone did. If you could buy something, you certainly went  
15 and bought it, rather than make it yourself. Even today, it's easier to do  
16 that; and lots of times cheaper.  
17  
18Interviewer: Oh, sure. [43:18] So, that 1897, of course, that's the only one that exists.  
19 We've got it at the museum. But gosh, we used to hand move that thing  
20 around the building. It makes me just shudder to think now we could have  
21 ruined the priceless artifact. I mean, we were careful. But still.  
22  
23Mr. Shafarman: I just read a little thing in an old issue of, I think it's *Lansing Magazine*.  
24 They're talking about the 75<sup>th</sup> anniversary of Oldsmobile and about two  
25 Oldsmobile executives trying to climb into the thing for a... They had  
26 borrowed it from the Smithsonian. This is before the museum, right?  
27  
28Interviewer: Got it. Okay.  
29  
30Mr. Shafarman: They tried to climb into it and it almost tipped over. [Chuckle]  
31  
32Interviewer: Oh my.  
33  
34Mr. Shafarman: We would never do a thing like that. I mean, we'd handle it... The  
35 Smithsonian regulations say that you have to put on cotton gloves and,  
36 you know, keep it in an atmosphere controlled...  
37  
38Interviewer: Climate – heat and light.  
39  
40Mr. Shafarman: ...climate and everything. If you lose a little splinter off of it, you put that  
41 in an envelope and label it.  
42  
43Interviewer: Ah. Well, considering it's the only one in the world. My gosh.  
44  
45Mr. Shafarman: Yeah.  
46

1Interviewer: [44:44] So, after he was successful, or at least proved that he could do it  
2 and now had a reason to go into production and got his backers, then he  
3 came up with the Curved Dash Olds. And of course, upward and onward  
4 – bigger cars, bigger cars... I'm just thinking how unique those early cars  
5 were and that they still run. And of course, you're helping them to still  
6 run.  
7

8Mr. Shafarman: I don't know if I've ever worked on a car that is a true pioneer. All of the  
9 ones that you see here were mass produced. I mean, mass production is a  
10 thing that developed over a period of time and really didn't come into  
11 existence as we know it until Ford did it in a big way. Olds, um, with the  
12 Curved Dash, you can't really call that mass production in the same sense  
13 that you call the Model T mass production – just because of the scale that  
14 Ford did it on. Just, um, in way I'm very happy to have Ford, uh, take the  
15 credit for that, because in a way it was quite awful. The working  
16 conditions in the factory were really terrible and the pace was killing men.  
17

18Interviewer: Was it?  
19

20Mr. Shafarman: The assembly line... There are written accounts that you can read today  
21 that just show how men would do it because the wages were relatively  
22 high. But it was mindless work. There was no skill involved at all in  
23 assembly line work. And um, very often dangerous... Awful conditions...  
24

25Interviewer: Just thinking of the safety aspect...  
26

27Mr. Shafarman: Yeah. No safety cards on the machines, etcetera. Of course, productivity  
28 went way up and profitability went way up, but working in those factories  
29 must have been one of the more truly awful experiences.  
30

31Interviewer: I can see where that all led into the employees wanting a union or wanting  
32 at least better conditions. I can see where that leads into...  
33

34Mr. Shafarman: Oh yes. I think Olds avoided that.  
35

36Interviewer: He did.  
37

38Mr. Shafarman: I'm very glad that he did. Not that he was pro-union or anything like that.  
39 He was certainly not.  
40

41Interviewer: No, I know he wasn't.  
42

43Mr. Shafarman: But he went through a lot of trouble and the people that he hired to run the  
44 factory. You see, Olds himself, began to ease himself out of management  
45 pretty early on. Um, I don't know the details. I can't tell you dates and  
46 stuff right off the top of my head. He was easing himself out of active  
47 management. But um, the people that he had hired, you know, his

1 managerial staff and the other officers of the company had developed um,  
2 what is called a paternalistic attitude or welfare capitalism, I think was the  
3 official term.  
4  
5Interviewer: Oh, welfare capitalism?  
6  
7Mr. Shafarman: Yes.  
8  
9Interviewer: Okay.  
10  
11Mr. Shafarman: And Lisa Fine is all about this.  
12  
13Interviewer: Lisa Fine, uh-huh. I was happy she was able to get it. It's supposed to  
14 come out just before the centennial, I believe.  
15  
16Mr. Shafarman: Yeah.  
17  
18Interviewer: That'll be great.  
19  
20Mr. Shafarman: The important thing about that is that the management went through a  
21 great deal of trouble to make the individual workers feel that they were  
22 appreciated and that they had a place in the REO family.  
23  
24Interviewer: They took pride in their product.  
25  
26Mr. Shafarman: Pride in the product. And uh, they may not have had better wages than  
27 anyone else. Wages were probably about the same. And uh, working  
28 conditions may not have been much better. But they had a certain kind of  
29 job security that you wouldn't have had anyplace else. Like at Ford, if  
30 you missed a day or if you got into trouble with the foreman or if you were  
31 caught smoking, you could be fired for any of those things. Lots of people  
32 were. Um, there were... I've just been reading and listening to stories  
33 about um, uh, Ford found out that one of his employees was Jewish. Fired  
34 him. Came back a few days later with his name changed. [Laughter]  
35  
36Interviewer: [Laughter] He got hired back in.  
37  
38Mr. Shafarman: He got hired back in.  
39  
40Interviewer: That's funny. The man was ingenious – problem solver. [50:52] I see that  
41 you work on different makes of antique autos. Is there something that you  
42 like especially about the REO cars or are they all kind of generic – the  
43 Cadillac, the Buick and the...  
44  
45Mr. Shafarman: No, each of them is different. Each one has its own, uh, you know,  
46 personality, so to speak. I don't know. As far as I'm concerned, the older  
47 and more primitive the better. I like to work on the very old ones.

1Interviewer: Do you?  
2

3Mr. Shafarman: Yeah.  
4

5Interviewer 1: You've done a lot of restorations – put things back on the road for people.  
6 I remember Jim [Linds 51:33] Curved Dash Olds.  
7

8Mr. Shafarman: Yes.  
9

10Interviewer: And uh...  
11

12Mr. Shafarman: I've done a number of Oldsmobile's. I don't do the restorations, per se. I  
13 do the mechanical work.  
14

15Interviewer: I understand. What you're doing is mechanically.  
16

17Mr. Shafarman: Yeah.  
18

19Interviewer: [51:50] Um, when I came in the door, I noticed a car and asked you how  
20 you got it; and you said, "A barn" and there was a story behind that.  
21

22Mr. Shafarman: Oh yes. Well... Of course, Jim Neal is one of the, uh, centers of  
23 communication in the REO Club. So, when a REO surfaces someplace in  
24 the world, Jim Neal is probably one of the first people to know about it.  
25 So, I got this call from him one day, about four years ago, saying, "Hey, I  
26 just got a call from someone who found the REO Club on the internet; and  
27 then the REO Club delegated the job to Jim Neal saying, 'there's this REO  
28 in a barn and why don't you go and look at it and maybe we'll put it in the  
29 *ECHO* and see if someone wants to buy it.'"  
30

31 I got down there and I said, well there's no sense in putting this one in the  
32 *ECHO*. I'll buy it. [Laughter]  
33

34Interviewer: [Laughter] And what year is it and what model?  
35

36Mr. Shafarman: It's a 1922, seven passenger touring car. I've left it just the way it was in  
37 the barn...  
38

39Interviewer: Oh.  
40

41Mr. Shafarman: ...with the exception of I put top dressing on the top and I patched it up.  
42

43Interviewer: Oh, on the cover – the top?  
44

45Mr. Shafarman: The top, yes. And I oiled the upholstery. It's got leather upholstery. But  
46 the upholstery is falling apart, so I made kind of a temporary seat cushion



1 for the front seat. I just don't want to destroy it any more than I can avoid,  
2 you know.  
3  
4Interviewer: Working on it a lot would do that? You mentioned destroying it. What  
5 would destroy it?  
6  
7Mr. Shafarman: Well, just use, because the leather is crumbling.  
8  
9Interviewer: Oh, we're talking about the seat coverings.  
10  
11Mr. Shafarman: Yeah.  
12  
13Interviewer: I thought you were talking about the entire auto.  
14  
15Mr. Shafarman: And as you drive down the road, the top is flapping.  
16  
17Interviewer: Mm-hm.  
18  
19Mr. Shafarman: So, I reinforced it a little bit with patches and things; but...  
20  
21Interviewer: [54:21] What are the tops made out of?  
22  
23Mr. Shafarman: Canvas.  
24  
25Interviewer: Canvas.  
26  
27Mr. Shafarman: Yeah.  
28  
29Interviewer: [54:25] Is that what was on the tops of the... You see, the cars in the '20s,  
30 they weren't metal tops. Was that...?  
31  
32Mr. Shafarman: Yeah, they had canvas...  
33  
34Interviewer: That was canvas.  
35  
36Mr. Shafarman: ...that was painted with a waterproof material.  
37  
38Interviewer: Painted with what?  
39  
40Mr. Shafarman: Waterproof...  
41  
42Interviewer: Waterproof material.  
43  
44Mr. Shafarman: Yeah.  
45  
46Interviewer: [54:41] And it had to be recoated a lot because it leaked?  
47

1Mr. Shafarman: Yes, right.  
2  
3Interviewer: Okay. That's interesting.  
4  
5Mr. Shafarman: So, I patched it up and made it real worthy. But I haven't done any major  
6repairs on it.  
7  
8Interviewer: [54:57] What's the cutoff between keeping a car truly antique and  
9restoring it? Does it lose its antique value if a car is completely restored?  
10You know, you hear this thing – like on Antiques Road Show – don't  
11touch it, you know. You're going to lose its value. Leave it the way it is.  
12  
13Mr. Shafarman: Well the thing with cars, so many of them have been repainted, uh, that  
14it's getting very rare these days to find a car that's in presentable condition  
15with its original paint. They are very few and far between. Of course,  
16mine is hardly presentable. It's a rust bucket, you know. But it does go  
17down the road and uh... Maybe it's foolish of me to drive it, but I do.  
18And it gets a lot of attention because it looks as if it has just been pulled  
19out of a barn, which is true.  
20  
21Interviewer: I think that's fascinating.  
22  
23Mr. Shafarman: Yeah.  
24  
25Interviewer: [56:04] For people who don't know or are curious to know, where do you  
26get spare parts? Do you have to make everything when you're repairing it  
27mechanically? Floorboards? Is there a place you can go that fits your  
28vehicles that you're working on or do you have to manufacture those?  
29  
30Mr. Shafarman: Um, this kind of depends on how old the car is and how, um, how many  
31were made to begin with. Um, for the cars where there were a lot of them  
32made and a lot of them survived, um, you can sometimes find used parts.  
33For things like Fords, there are companies that have sprung up in recent  
34years, reproducing every part of a Ford car. There are some specialty  
35shops that deal with the Cadillac, for instance. So um, if there is a part  
36which is, uh, that commonly wears out; and every car needs to have a new  
37one of this, um, there'll be someone who will reproduce that.  
38  
39But for things like... This Cadillac broke a crank shaft, so I had to go to a  
40machine shop that was capable of making a crank shaft and have them  
41make it. There are several of those shops around the country, so you can  
42find someone if you want to rebuild an engine. There are certainly people  
43that specialize in rebuilding the old engines. I do a lot of that work.  
44  
45Interviewer: Do you?  
46

1Mr. Shafarman: Yeah. For instance, with the Buick that you saw out front, I made the  
2 main bearings for that right here. But the connecting rod bearings I had  
3 poured at a shop that specializes in those things, because it's a lot easier  
4 for him to do it. He's already set up to do it. Whereas, there was a lot of,  
5 um, handwork in making the main bearings; and um, it's just as easy for  
6 me to do it as to have the specialist do it.  
7

8Interviewer: [58:50] What about buying things at swap meets and that sort of thing?  
9 Does that work out pretty well for a car owner?  
10

11Mr. Shafarman: Oh yes. Nowadays there are swap meets that are dedicated specifically to  
12 pre-WWI cars. There are several of them around the country.  
13

14Interviewer: Are there?  
15

16Mr. Shafarman: Yeah. The one that I go to – not every year – is in Chickasha, Oklahoma.  
17 There's one...  
18

19Interviewer: Are these widely advertised?  
20

21Mr. Shafarman: Oh yes.  
22

23Interviewer: Somebody would know how to...?  
24

25Mr. Shafarman: So, if you have a car that age, you know that that swap meet exists. If you  
26 need something, that's where you go to look for it.  
27

28Interviewer: That's the place to go.  
29

30Mr. Shafarman: And also, there's quite a vast network of owners and there are clubs. So,  
31 you can advertise in the club papers if you need something or you can talk  
32 to the various people in the Brass and Gas Group who... There's a lot of  
33 knowledge around.  
34

35Interviewer: Because these people have all done research, they've all...  
36

37Mr. Shafarman: Oh yeah. They've dealt with the problems on their own cars or helped  
38 other people with these things.  
39

40Interviewer: Yeah. Um, [1:00:19] I guess at this point I'm going to ask you if there's  
41 something you would like to add about the REOs; anything on that order  
42 that I haven't thought of?  
43

44Mr. Shafarman: Well, I really like 2-cylinder REOs; although there isn't one in the shop at  
45 the moment. I think 2-cylinder REOs are great.  
46

47Interviewer: [1:00:45] Now they were produced...

1Mr. Shafarman: That was the first REO; it was a 2-cylinder car.  
2

3Interviewer: Okay.  
4

5Mr. Shafarman: And they were made from 1905 to 1910. In 1910, they began producing  
6 the Model R, which is a 4-cylinder car. But they continued to produce a  
7 few of the 2-cylinder cars also during that year.  
8

9Interviewer: [1:10:13] Because they were a medium-priced vehicle or...?  
10

11Mr. Shafarman: No. They were about the same price, but they were phasing one out and  
12 they phased the other one in.  
13

14Interviewer: Oh, slowly.  
15

16Mr. Shafarman: They didn't abruptly stop producing the 2-cylinder car. So...  
17

18Interviewer: Those beautiful big... You mentioned Brass and Gas. Those gorgeous  
19 Limited with the big brass headlights. They are just are a work of art,  
20 aren't they?  
21

22Mr. Shafarman: Yes. And someone at General Motors thinks that that Limited is a Model  
23 T, by the way.  
24

25Interviewer: Really?  
26

27Mr. Shafarman: Didn't I bend your ear about this?  
28

29Interviewer: No. [1:01:51] Tell me about this.  
30

31Mr. Shafarman: Oldsmobile is a fancy car, right? At least in those years it was a fancy car.  
32

33Interviewer: Mm-hm.  
34

35Mr. Shafarman: The crank has a little device attached to it that makes it stand upright.  
36 When you're finished using the crank to start the engine, you leave it in  
37 the upright position and it will stay there.  
38

39Interviewer: Uh-huh.  
40

41Mr. Shafarman: Someone who works for General Motors and owns that big white Limited  
42 that you see at the museum all the time, has tied a Model T strap...  
43

44Interviewer: I've seen that strap.  
45

1Mr. Shafarman: ...and leaves the crank in the down or partially down position – off to one  
2 side, tied to the front frame horn by this strap. You don't need that on an  
3 Oldsmobile. [Chuckle] It looks stupid and out of place.  
4

5Interviewer: I noticed that; and I haven't seen that strap on other models, comparable  
6 years.  
7

8Mr. Shafarman: You've seen them on Model T's and a lot of cars that didn't go to the  
9 trouble of making a device to keep the crank standing up.  
10

11Interviewer: [1:03:13] Why do you need the strap there anyway? Why does it need to  
12 be in a different position than upright – or it doesn't?  
13

14Mr. Shafarman: It should be upright.  
15

16Interviewer: I know. But I'm saying...  
17

18Mr. Shafarman: It shouldn't hang straight down, because if you're driving along a road  
19 that has grass growing in the middle of it...  
20

21Interviewer: That's a thought.  
22

23Mr. Shafarman: ...and very often in the days when those cars were new, you'd drive along  
24 a two-track and there would be all kinds of obstacles in the road and the  
25 crank would be pushed in a little bit and then catch on the motor and go  
26 swinging around and make a lot of noise.  
27

28Interviewer: Could that damage...?  
29

30Mr. Shafarman: You might damage something. It was just generally annoying.  
31

32Interviewer: Okay. Oh, that is interesting.  
33

34Mr. Shafarman: So, the thing to do is to leave the crank in the upright position; or if the car  
35 doesn't have a device to keep it in the upright position, then you tie it over  
36 to one side...  
37

38Interviewer: So that it stays up.  
39

40Mr. Shafarman: ...and it's out of the way.  
41

42Interviewer: That is interesting. I'm thinking about tires too. All the tires that they  
43 must have gone through on those two-tracks and across the fields and  
44 through the mudholes and whatever else.  
45

46Mr. Shafarman: Right.  
47

1Interviewer: Must have been... Even on a five-mile excursion they must have gone  
2 through several tires, I'm thinking; or at least one or two.  
3  
4Mr. Shafarman: Well, um, if you start out with good tires and you drive carefully, you  
5 might get several thousand miles out of your tires.  
6  
7Interviewer: Oh, okay. The road conditions are what...along with the driver if he isn't  
8 going to go flying down the road. But I mean the road conditions were so  
9 bad.  
10  
11Mr. Shafarman: You had to be careful to keep the tires inflated properly...  
12  
13Interviewer: Uh-huh, okay.  
14  
15Mr. Shafarman: ...and to avoid stones and obstacles in the road. And uh...  
16  
17Interviewer: [1:05:05] What are top speeds of say the touring cars; and before that the  
18 runabouts?  
19  
20Mr. Shafarman: Well...  
21  
22Interviewer: I don't mean what's ultimately possible. But I mean, let's say 25 miles an  
23 hour on a trip or...?  
24  
25Mr. Shafarman: For the Curved Dash Olds and the runabouts, um, you're comfortable up  
26 to about 15 miles an hour.  
27  
28Interviewer: Okay.  
29  
30Mr. Shafarman: You can go faster, but um, when you go faster than that you're hanging  
31 on, because the steering is not adequate and the suspension is not adequate  
32 to higher speeds, so that you bounce around a lot.  
33  
34Interviewer: Okay.  
35  
36Mr. Shafarman: Especially with the Curved Dash, it steers with a tiller. You have to be  
37 very careful if you're going fast, because the slightest movement of that  
38 tiller will send you off the road if you're not paying attention.  
39  
40Interviewer: Really?  
41  
42Mr. Shafarman: Yes.  
43  
44Interviewer: Huh. Okay. That is interesting. Something I never thought about.  
45  
46Mr. Shafarman: Yes.  
47

1Interviewer: And most people just looking at that little car might not realize that either.  
2

3Mr. Shafarman: Well, there's sort of an art to driving the thing. You grip the tiller in your  
4 left hand and you rest it against your left knee; and you kind of steady the  
5 thing. If you're driving for any length of time, you're going to get tired  
6 doing it just with your arm; so, you rest it against your knee...  
7

8Interviewer: Oh. And kind of use that to help steer it?  
9

10Mr. Shafarman: Right.  
11

12Interviewer: Oh.  
13

14Mr. Shafarman: And you only move it a large amount when you're going very slowly and  
15 want to make a tight turn.  
16

17Interviewer: Mm.  
18

19Mr. Shafarman: And you can do that, but if you make a large movement of that tiller when  
20 you're going fast, you're going to be off the road [snapped finger] like  
21 that.  
22

23Interviewer: Just like that; then you've got to get a horse to pull you out.  
24

25Mr. Shafarman: Yes; or a hospital or something.  
26

27Interviewer: Or the hospital. [Chuckle] [1:0714] So when the touring car came along  
28 and then later when the steering wheel came in, that kind of overcame  
29 some of that?  
30

31Mr. Shafarman: Uh, yes. Of course, even the early cars with the steering wheel, the um,  
32 sometimes the steering ratio is very quick. In other words, one turn of the  
33 wheel will send you all the way one way or all the way the other way.  
34

35Interviewer: Okay.  
36

37Mr. Shafarman: As speeds increased in the teens and the twenties, they began to make the  
38 ratio between the steering wheel and the actual steering off the front  
39 wheels more toward what we are used to today.  
40

41Interviewer: So that you don't get a reaction?  
42

43Mr. Shafarman: You don't have this abrupt...  
44

45Interviewer: Yeah, abrupt. That's a good word. [1:08:09] Okay when I have people  
46 coming through the museum and I'm pointing out the tiller and the  
47 steering wheel, I always ask, especially the children, what's different

1 about the steering wheel. They catch on right away that it's on the other  
2 side. Why was it there and why was it moved back to the left where we're  
3 used to?  
4  
5Mr. Shafarman: Um, well...  
6  
7Interviewer: [1:08:30] Did it have to do with the mechanics under the hood that were  
8 being changed?  
9  
10Mr. Shafarman: No.  
11  
12Interviewer: No?  
13  
14Mr. Shafarman: I think it had to do with... For instance, this Cadillac, you sit on the right  
15 side of the car; and with the Curved Dash you sit on the right side of the  
16 car when you're driving it. I think... And of course, the car is going down  
17 the right side of the road.  
18  
19Interviewer: Mm-hm.  
20  
21Mr. Shafarman: I think people were concerned about going into the ditch.  
22  
23Interviewer: So, they wanted to sit on the side where they could see that ditch?  
24  
25Mr. Shafarman: They wanted to sit on the side where they could see the ditch very clearly  
26 and not go off the road.  
27  
28Interviewer: Okay.  
29  
30Mr. Shafarman: And they were not very concerned with oncoming traffic because there  
31 wasn't any. But as cars became more popular and there was oncoming  
32 traffic... If you had an early car, that oncoming traffic would have been  
33 horse-drawn and you would have been required to stop.  
34  
35Interviewer: Oh.  
36  
37Mr. Shafarman: This was the law in many places. You had to stop and let the horse go by  
38 without scaring the horse. But as motor traffic increased, you became  
39 more and more concerned with avoiding hitting the other car; so, you  
40 wanted to be on the left side so you could...  
41  
42Interviewer: ...see the middle of the road more to line yourself up.  
43  
44Mr. Shafarman: Right.  
45  
46Interviewer: [1:09:59] I even heard – not heard, I read it – actually I think I saw a  
47 sketch of it – I think this man lived down around Battle Creek and he



1 designed a horseless carriage that had a horsehead on the front of the  
2 dashboard so that it wouldn't frighten horses as it came toward him?  
3  
4Mr. Shafarman: Yes. I've seen pictures of that some place. I wonder if it worked. I think  
5 horses respond more to sound than anything else.  
6  
7Interviewer: And the early cars made a lot of noise? Did they?  
8  
9Mr. Shafarman: Oh, yes. Mm-hm. And the noise that they make is very different than the  
10 noises a modern car makes. Some modern cars are noisy, but if you drive  
11 an old car down the road, you can notice that the horses and cows at the  
12 side of the road, they'll look at the old car you're driving; whereas they  
13 don't care about modern traffic. They are used to it already. Modern  
14 traffic is making some noise. It's making tire noises. You don't hear the  
15 engine as much as you hear the old cars. So, I think they respond to the  
16 noises.  
17  
18Interviewer: Well Dan, I've appreciated the interview. I think there's a lot here for  
19 people to listen to, to kind of hear how it is on the inside. You've brought  
20 up a lot of interesting points, so I thank you. Anything you'd like to add?  
21  
22Mr. Shafarman: Oh, I've got a zillion theories about production and about the early career  
23 of Ransom Olds and about the Curved Dash came about. If you look at  
24 the cars that preceded the Curved Dash; and they all have something in  
25 common. They are mostly high-wheel cars. They all look very much like  
26 buggies. All of the working parts are all suspended on a, um, just like a  
27 buggy. In other words, the engine and the wheels and all are not sprung.  
28 It's just the seats – the buggy part – which is sprung above this, uh...  
29  
30Interviewer: Because you're sitting on top of...  
31  
32Mr. Shafarman: You're sitting on this buggy that is perched on a set of wheels with a  
33 reach-rod just like a buggy; and the engine and transmission are attached  
34 directly to the wheels on the axils; and the buggy is suspended above it on  
35 springs. This is very different from an automobile, where the engine and  
36 transmission are part of the, what you're riding in, the chassis of the car;  
37 and the wheels are strung below. I mean, it's like the opposite way  
38 around.  
39  
40Interviewer: Yes.  
41  
42Mr. Shafarman: So, there's, uh... That transition, I think, is very important...from the  
43 horseless carriage to automobile. In that way, the Curved Dash is an  
44 automobile rather than a horseless carriage – if you use that distinction.  
45  
46Interviewer: Never thought about it.  
47

1Mr. Shafarman: Yeah. Um, and I think that I know why he hung with that horseless  
2 carriage idea for so long.  
3

4Interviewer: [1:13:55] Why is that?  
5

6Mr. Shafarman: I came across this obscure fact in my reading about the development of  
7 industry that when the Westinghouse Company started to produce trolley  
8 cars, guess where their first contract was to install trolley cars?  
9

10Interviewer: Lansing.  
11

12Mr. Shafarman: Lansing, Michigan, of all places in 1891. Now, George Westinghouse had  
13 this... Of course, he wasn't doing this himself; he employed engineers.  
14 But he was quite an autocrat himself; and he decreed the methods of  
15 working. He didn't believe in laboratory stuff. He wanted to make  
16 something and send it out into the world and see how it did out in the  
17 world.  
18

19Interviewer: A hands-on kind of guy.  
20

21Mr. Shafarman: You bet he was hands on. So, they went through three generations of  
22 trolley cars right here in Lansing, before they came up with one that  
23 actually worked. The first one, all of the works were attached directly to  
24 the wheels – what they call trucks on a train or trolley car. But the part that  
25 has the wheels and the axils was called a truck.  
26

27Interviewer: A truck?  
28

29Mr. Shafarman: Yeah. So, it had a motor directly mounted on the truck and propelling the  
30 wheels by a set of gears.  
31

32Interviewer: Okay.  
33

34Mr. Shafarman: The motor that they had to use for this was so heavy that it beat up the  
35 tracks. They were destroying the roadbed on the tracks.  
36

37Interviewer: What do you mean? Scraping or just the weight?  
38

39Mr. Shafarman: It was bouncing.  
40

41Interviewer: Bouncing? Okay.  
42

43Mr. Shafarman: So, uh, and then the second generation, um, they used a different gear  
44 system that was way too noisy. They made it lighter that way, but it was  
45 way too noisy. So, they reached a compromise and they used a sort of a  
46 medium/heavy motor and fewer gears. But they suspended the motor in  
47 between the truck and the body. So, the motor...

1Interviewer: They distributed the...  
2  
3Mr. Shafarman: They distributed the weight; and if you look at the Olds Electric, you will  
4 see that the motor is, um, it's attached to the rear axil. But it has this long  
5 bar that comes up and attaches to the bottom of the body, so as to  
6 cantilever the weight of the motor partially off of the body. So, I think  
7 that's where he got the idea, was from the trolley cars.  
8  
9Interviewer: Ah.  
10  
11Mr. Shafarman: I can't imagine that Ransom Olds would have lived in Lansing in 1891  
12 and not been very interested in what's going on with those trolley cars.  
13 And here it is, before his eyes, they're experimenting with different trolley  
14 car designs until they came up with this one. He used that same design.  
15  
16Interviewer: He was a person who saw – he had vision.  
17  
18Mr. Shafarman: Oh yeah.  
19  
20Interviewer: Obviously, he would be keeping track of things around him and seeing  
21 what they were doing and how to go about it – what the results were.  
22  
23Mr. Shafarman: Yeah. Unfortunately, he stuck with that design. I don't think he  
24 personally designed the Curved Dash.  
25  
26Interviewer: Oh, you don't?  
27  
28Mr. Shafarman: No, I don't. I think that Jonathan Maxwell...  
29  
30Interviewer: [1:18:00] Who is he?  
31  
32Mr. Shafarman: Well, you've heard of the Maxwell cars.  
33  
34Interviewer: Oh, the Maxwell. Oh, sure.  
35  
36Mr. Shafarman: Well, it was only later on that... The Maxwell car came much later.  
37  
38Interviewer: Mm-hm.  
39  
40Mr. Shafarman: Maxwell was employed by Olds.  
41  
42Interviewer: Okay.  
43  
44Mr. Shafarman: He had previously worked for... Let's see. Who did he work for? Uh,  
45 Haynes, maybe? He had worked for another automobile company that  
46 was making very low production cars.  
47

1Interviewer: Okay.  
2  
3Mr. Shafarman: One of Olds' ... One of the parts of his genius was he was able to find and  
4 hire people to do particular jobs; and they did it very well. One of the jobs  
5 was design a vehicle. I mean, Olds had – personally had lots of other  
6 things to do. He had to deal with financing, with advertising. He had to  
7 deal with all of these different aspects of running a company.  
  
9 So, he had to delegate some of these jobs. So, he hired Jonathan Maxwell;  
10 he hired Charles Brady King. Actually, Charles Brady King came to the  
11 Olds Motor Works when his company was bought by the Smith's, because  
12 he was making marine engines. They wanted to make marine engines, so  
13 they bought his company. So, Charles Brady King worked for Olds for a  
14 while. A guy by the name of Murray worked for Olds, who was a  
15 production expert; who had worked for, I think, Remington typewriter.  
16  
17Interviewer: Typewriter company, yeah.  
18  
19Mr. Shafarman: I'm not sure it was Remington, but one of the business machine  
20 companies – whatever it was.  
21  
22Interviewer: Okay.  
23  
24Mr. Shafarman: So, he knew a lot about the organization that you need. When you have a  
25 complicated machine, you have to order so many of this and so many of  
26 that and plan for them all to come together. It takes a lot of work to do a  
27 thing like that, especially when you're doing it the first time.  
28  
29Interviewer: Oh, yeah. When you're feeling your way and you're trying this and trying  
30 that. [1:20:24] So, do you think that perhaps maybe Maxwell designed the  
31 body or the entire vehicle?  
32  
33Mr. Shafarman: Right, the running gear and stuff like that.  
34  
35Interviewer: Okay.  
36  
37Mr. Shafarman: Yeah, because Maxwell went... After he left Olds, he joined a company  
38 called the Northern; and, so did King. He and King went to Northern. If  
39 you look at a 1903 Northern automobile, it's an Oldsmobile with a  
40 different dashboard. So, obviously he thought that that chassis design, that  
41 he had a right to that chassis design because he had done it.  
42  
43Interviewer: Ah-ha.  
44  
45Mr. Shafarman: You look at the Murray car, which Murray produced in very small  
46 numbers in Adrian...  
47

1Interviewer: Oh.  
2

3Mr. Shafarman: ...around the same time. It also has those long springs that go from front  
4to rear, which is distinctive to the Curved Dash. It had a very different  
5kind of motor and transmission, but um, that part of the design was  
6common to all three of those. Um, he hired uh, what was the guy's name  
7that did the electric?  
8

9Interviewer: Kettering?  
10

11Mr. Shafarman: No, that was much later. Um, Loomis... I think it was Horace Loomis.  
12No, I don't know his first time. Loomis, in any case. Uh, and this is  
13wonderful because Loomis' wife, who survived quite a long time and the  
14McDowell brothers actually were able to speak to her in later years. She  
15became one of the test drivers for the Olds in the pre-Curved Dash era.  
16That is the era of electric and the things that looked like the 97. They  
17produced a number of those experimenting on cars.  
18

19Interviewer: Oh, he did?  
20

21Mr. Shafarman: And she was a test driver. A woman driver.  
22

23Interviewer: Oh my gosh. That's history right there.  
24

25Mr. Shafarman: Yeah, yeah.  
26

27Interviewer: Amazing.  
28

29Mr. Shafarman: Anyway. The person to ask about that kind of stuff is Don McDowell.  
30

31Interviewer: Who?  
32

33Mr. Shafarman: Don McDowell.  
34

35Interviewer: Don McDowell.  
36

37Mr. Shafarman: Yeah or his brother Ken. But um, Don is the one who is probably more  
38able to talk about it at length.  
39

40Interviewer: Okay. And are they known to you?  
41

42Mr. Shafarman: Well sometimes. Don and his wife live in Florida for a good portion of  
43the year.  
44

45Interviewer: Uh-huh.  
46

47Mr. Shafarman: And they're up here at Lake Odessa for the summertime.

1Interviewer: Okay.  
2

3Mr. Shafarman: They're not back yet because they've had a bunch of problems in Florida.  
4 Ken has some health problems these days, but he's around. He lives in  
5 Chelsea. He comes for lunch with us a lot of times.  
6

7Interviewer: Oh, does he?  
8

9Mr. Shafarman: Yeah. They're both active in... Actually, Don used to work at the  
10 Greenfield Village and used to be the guy that did the narrations. He  
11 would have cars driving by and he would tell all the different features of  
12 the cars or explain how to fold the top down or how to start the car, you  
13 know, for the public who doesn't know about old cars.  
14

15Interviewer: So many of us don't.  
16

17Mr. Shafarman: Yeah.  
18

19Interviewer: We just say, "Oh, isn't that cute? Oh, I like that color", especially women.  
20

21Mr. Shafarman: Yeah.  
22

23Interviewer: Well, I think we could go on and on if we were...  
24

25Mr. Shafarman: Well, don't run women down so much. Nowadays there are several...  
26

27Interviewer: Oh, I'm not.  
28

29Mr. Shafarman: ...several women in the old car hobby who take care of their own cars and  
30 do it very well.  
31

32Interviewer: Good.  
33

34Mr. Shafarman: One of them is Dorothy Grace.  
35

36Interviewer: Dorothy Grace?  
37

38Mr. Shafarman: Grace, yes. She is very active in the one- and two-cylinder cars.  
39

40Interviewer: Is she in Lansing?  
41

42Mr. Shafarman: She is in...some place in the Detroit area.  
43

44Interviewer: Okay.  
45

46Mr. Shafarman: Uh, and there's a woman from... There are two women in Kalamazoo.  
47 One of them is Jane, let me see... Jane... A senior moment here.

1Interviewer: I have those all the time.  
2

3Mr. Shafarman: Okay, I can look up the names for you.  
4

5Interviewer: Okay.  
6

7Mr. Shafarman: She and her husband have a Buick. She's always fixing the thing. Uh,  
8 and there's a woman with an Oldsmobile V8 touring car, about a '21, very  
9 much like the grey one that's in the museum. She's the one that fixes that.  
10

11Interviewer: She fixes it?  
12

13Mr. Shafarman: Yep.  
14

15Interviewer: Amazing. [1:26:13] I'm thinking too, now that we're talking about  
16 women and cars. In the beginning when cars were all crank operated and  
17 it was a difficult thing to start a car, in the beginning when they kept  
18 women in the home, but once they... Well, of course, when this electric  
19 starter came in... But even before that, I've seen pictures of women  
20 cranking those cars. So... But I'm seeing... There's a real transition, I  
21 think, between being stuck in the house, stuck on the farm and suddenly  
22 being able to be mobile.  
23

24Mr. Shafarman: Yeah.  
25

26Interviewer: That must have taken quite a muscle to crank those cars.  
27

28Mr. Shafarman: Yeah, I think that by the time the electric starter came in, the thing that  
29 was keeping women at home wasn't being able to crank the car or not, it  
30 was the fact that the vast majority of women couldn't afford the car  
31 anyway.  
32

33Interviewer: Mm-hm.  
34

35Mr. Shafarman: Self-starters came in in 1912 or so. And even in 1912, only the upper-  
36 class people were – professional people, businesspeople at least – who  
37 would be afford to a car. Very few... It's amazing that the class  
38 distinctions of a century ago were much sharper than they are now. Not  
39 that there aren't class distinctions now...  
40

41Interviewer: But the lines are...  
42

43Mr. Shafarman: Now we have this vast middle-class or people that think of themselves as  
44 middle-class. They really became middle-class because they have decent  
45 jobs. But they're really working people.  
46

47Interviewer: Mm-hm.

1Mr. Shafarman: Whereas, a century ago, if you had a factory job, you were poor.  
2

3Interviewer: You were poverty level.  
4

5Mr. Shafarman: Yeah, right. I mean, you were a little bit better off than some of the  
6 people because some of the factory jobs, especially in the automobile  
7 industry, paid a lot better than mining or farming or...  
8

9Interviewer: They were predictable hours for farming.  
10

11Mr. Shafarman: ...or textile mills, things like that. They were long hours and everything,  
12 but...  
13

14Interviewer: I've seen a picture on a museum wall of the race car that uh, in Florida,  
15 Daytona, uh...  
16

17Mr. Shafarman: Mm-hm, the Pirate?  
18

19Interviewer: The Pirate. Was that all the [inaudible 1:29:07] Thomas that drove that or  
20 Horace Thomas? At any rate, what kind of speeds would that... He got  
21 the land speed record, I know.  
22

23Mr. Shafarman: Well, I'm not a race fan, so I haven't like sorted all the details out. There  
24 were several of them. One was built with two REO 2-cylinder engines.  
25 That's a famous picture.  
26

27Interviewer: Mm-hm. That's probably the one I've seen.  
28

29Mr. Shafarman: And it was driving by Danny [Worgus 1:29:46].  
30

31Interviewer: Okay.  
32

33Mr. Shafarman: I'm not sure what the speed was, but probably around 100 miles an hour,  
34 which was real fast.  
35

36Interviewer: Flying. [Chuckle]  
37

38Mr. Shafarman: Real fast.  
39

40Interviewer: You bet. Well, any last thoughts?  
41

42Mr. Shafarman: Hey, I could go on forever.  
43

44Interviewer: I know we could. I think you very much, Dan. We've certainly heard a  
45 lot of interesting things today about cars and what's under the hood.  
46  
47/al