



Episode 805, Story 1: Cromwell Dixon

Elyse Luray: Our first story explores a faded scrap of fabric, and one of the most heroic figures in early aviation. On a December morning in 1903, two bicycle repairmen from the Midwest changed history. For twelve seconds, Orville Wright soared over the sand dunes of Kitty Hawk, North Carolina. The age of aviation had begun. Almost immediately, entrepreneurs rushed to build more of these new-fangled machines. And at air shows across the country, a new breed of pioneers flew ever faster and higher, enthraling crowds more used to gaslight and horsepower. One of these barnstorming pilots was a 19-year-old prodigy named Cromwell Dixon. Now, Patricia Godwin from Salt Lake City thinks a fragment of fabric may have belonged to a plane flown by this little-known early aviation hero. I'm Elyse Luray, and I'm on my way to meet Patricia, and hear the story behind her fabric.

Patricia Godwin: Hi Elyse, nice to meet you. Come on in.

Elyse: Thanks.

Patricia: This is what we found one evening when my children were all together and we were going through some things that my grandfather had left. And my son got this out.

Elyse: Okay.

Patricia: Opened it up, looked through it and found this fabric. And we noticed on the fabric that it says, Dixon, Grand Island and we think the date says 1911. I know my grandfather would have been 13-years-old at the time.

Elyse: Patricia says her grandfather, Alfred Luce, had lived in Hubble, Nebraska, with her great-grandmother. Okay, and what does your son think this is?

Patricia: He thought it was fabric from a bi-plane. He has a great interest in airplanes and he looked at it and thought, well it doesn't seem like just regular fabric. And then inside of the fabric were some articles on the death of Cromwell Dixon and another article from popular science.



Elyse: Who's Cromwell Dixon?

Patricia: We found out he was an aviator and that he was the first to cross the continental divide. And then he died a few days later in an air show.

Elyse: So you think Dixon is Cromwell Dixon?

Patricia: We think so, but we're not sure.

Elyse: Well, I notice that there is something else written on the other side also.

Patricia: Yes, it says, "Jimmy Ward" and "Shooting Star".

Elyse: Do you know anything about them?

Patricia: Not a thing.

Elyse: Okay. So what do you want me to find out?

Patricia: We'd like to find out if this really is a fabric that was part of the bi-plane that maybe Cromwell Dixon flew.

Elyse: Okay. I've honestly never heard of Cromwell Dixon before, so this should be interesting. Okay. Let's take a look. It's linen. Now I have done a story before on fabric from early aviation in the 1900s...I did a story on the NC-4. The Navy Curtiss-Four was the first plane to cross the Atlantic, in May 1919. It was also a bi-plane with fabric-covered wings. So I do have a little bit of experience here. And I can tell that it has been varnished or "doped". I want to get a second opinion on whether this is aircraft fabric from the early 1900's. But first, I want to learn a little more about Dixon. In 1907, at the age of 14, Dixon built a bicycle-powered dirigible called "The Sky Cycle". Papers called him "the boy genius". And, at 19, Dixon became the youngest licensed pilot in the world, number 43 in the United States. Incredibly, this was only eight years after the Wright Brothers made their historic flight at Kitty Hawk in 1903. Aviation was brand new, and enthralled the nation. Every distance flown was treated as a monumental achievement. America was flexing



its technological muscles, and daring, young pilots became heroes. Later it would be Lindbergh and Earhart, but in these early years, it was men like Dixon. On September 30th, 1911, Dixon became the first to soar over the great Continental Divide, just outside Helena, Montana. Here's a picture of him in front of the plane that he flew over the Continental Divide. It was called "The Little Hummingbird". But two days later, Dixon ran into trouble just 100 feet above the ground in Spokane, Washington. A freak wind gust knocked his plane out of the sky. Spectators heard him yell, "Here I go!" before he crashed to his death. The date on our fabric is August 31, 1911. That's just a month before his divide flight, and his death. What happened on that day? And why does our fabric say "Grand Island," and carry the names Jimmy Ward and "Shooting Star"? First, I want to get a second opinion on whether this is fabric from a period plane. The Glenn H. Curtiss Museum in Hammondsport, New York, is named after one of the early pioneers in the design and manufacturing of airplanes. Cromwell Dixon flew many Curtiss planes in air shows across the country. Rick Leisenring is the museum's curator.

Rick Leisenring: Welcome to the Glenn H. Curtiss Museum.

Elyse: Thank you. Well I'm here today because I'm doing this story on this piece of material that supposedly was on a plane that Cromwell Dixon flew.

Rick Leisenring: Okay. This is Curtiss pusher; it's very similar to the one that Cromwell Dixon would have been flying.

Elyse: This looks like a kite. Doesn't look like an airplane.

Rick Leisenring: That's right. Would you like to get in it?

Elyse: I would love to. Well, there's no windshield.

Rick Leisenring: Nope.

Elyse: He took this thing up 7,000 feet...I can't even imagine. I mean he really was up there in the elements.



Rick Leisenring: What you do is when you lean back and forth in the harness you control the ailerons for lateral control.

Elyse: So he's up 7,000 feet, and he's moving to his left and moving to his right to try to make turns.

Rick Leisenring: And pulling the steering wheel forward and backwards, then turning the steering wheel for the rudder.

Elyse: No brakes.

Rick Leisenring: Correct.

Elyse: There's no instruments up here.

Rick Leisenring: It's basically where the term "flying by the seat of your pants" came from.

Elyse: Flying by the seat of your pants, I get it now. Why in the world would anyone do this?

Rick Leisenring: There's a lot of different reasons. It was a good way to make money. They got paid very well to fly at exhibition flights.

Elyse: Rick tells me that air shows were popular entertainments, like carnivals and circuses. And, much like car or boat shows today, they served as a platform for displaying the newest flying machines to the public.

Rick Leisenring: Every exhibition pilot was actually a salesman, also.

Elyse: Rick explains how Glenn Curtiss, the inventor who hired Cromwell Dixon, was fast becoming the major competitor to the famous Wright brothers. While the brothers worked on their newest planes in secrecy, Curtiss used air shows to win publicity. Cromwell Dixon performed a popular stunt called the Dixon Corkscrew, spiraling downwards from 7000 feet.



Rick Leisenring: It was very, very hazardous. The planes were very fragile and they were constantly crashing.

Elyse: Do you think they actually came to see the airplanes or to see the crashes?

Rick Leisenring: A little bit of both. Matter of fact, that's why several exhibition fliers gave up flying, is because they believed people were there just to see them die instead of actually fly the plane.

Elyse: In the workshop, volunteers are building a full scale replica of a Curtis Pusher. Rick explains how the aircraft was made: mostly from wood, bamboo and cloth.

Rick Leisenring: All of the materials that you see here are true to what was originally being used back in that period of time, except the wing covering is actually modern material due to safety regulations.

Elyse: Okay, so here's a piece of the linen that I was talking about. What do you think?

Rick Leisenring: The materials that they used at that period of time were either silk or linens, and they're tightly woven, and even though they are tightly woven, they are still porous, allowing air to pass through them. And they would dope them to seal it, to make it air tight and help with the aerodynamics. This has been doped.

Elyse: Rick is certain the weave and material are accurate to the early 20th century. All right. So I know it's period. Nebraska pilot Greg Love has offered to show me how Dixon wowed crowds from 7,000 feet.

Greg Love: Matter of fact, I'm going to have you fly and steer the plane as much as we can.

Elyse: Oh, I love it!

Greg Love: Bring, bring, bring your throttle back. Bring it all the way back to about 1500 rpm. They talked about that corkscrew?



Elyse: Right.

Greg Love: All right, now nose down.

Elyse: Down, okay.

Greg Love: Let's roll to the left. Turn to the left.

Elyse: Oh my god.

Greg Love: That's what I think we're doing with the spiral downward maneuver. Let's turn a little bit more to the left. Right now you've got about 20 degrees of bank. There you go about right there. Just hold it. That's looking real good. Real nice.

Elyse: Yeah?

Greg Love: Yeah.

Elyse: So I'm doing now what Cromwell Dixon did in 1911.

Greg Love: Except we're sitting inside a nice closed cockpit. Right over here's the runway. Nose down, nose down. Forward on the yoke. There you go. Good. We're going to aim right for the end of that runway. Keep on turning to the left. There you go; you're doing fine. Tap your brakes.

Elyse: I can't imagine Cromwell Dixon doing this at just 19-years-old. Martin Kidston is a reporter from Helena, Montana, who wrote the biography of the young pilot: *Cromwell Dixon: A Boy and his Plane*. What's your fascination with Cromwell Dixon?

Martin: My fascination with Cromwell began back in 2000 during a hike on the Continental Divide above Helena where Cromwell Dixon landed and made history in 1911.



Elyse: Dixon may have faded from history books, but the boy aviator is still remembered in the oral history of communities around the Continental Divide. Martin, a rancher, told me his story and I didn't know anything about Cromwell. He was 19 when he died. But he'd built up quite a legacy in the places he had flown. He was a memorable kid.

Elyse: Why do you think people don't know about him? I mean, not that many people have heard of Cromwell Dixon.

Martin: I think Cromwell was young when he accomplished what he did. He was a well-known pilot at the time. He made a big name for himself. But he crashed and died two days later after he made history. And aviation, the momentum of it, just passed him by.

Elyse: Okay. I have this piece of fabric, and on it is both his name, Cromwell Dixon, and on the other side you'll see is Jimmy Ward's name. And it also says August 31st, 1911. And I want to know what's the connection between both of them?

Martin: Jimmy Ward was a fellow pilot with the Curtiss exhibition company.

Elyse: Martin explains that Jimmy Ward was the scheduled attraction on August 31, 1911.

Martin: He was slated to fly in Grand Island for the fair. His plane was sent to the fair. But for one reason or another Jimmy Ward couldn't come. So Cromwell Dixon came in his place.

Elyse: And what was the name of that plane?

Martin: It was called the Shooting Star.

Elyse: Ah, okay, so what happened?

Martin: His first flight Cromwell Dixon crashed the plane, and caused quite a stir in town.

Elyse: Was it a big crash?



Martin: There was wing damage. There, one of the wheels came off. The pilot's wheel came off. The plane had to be reassembled in some ways

Elyse: So if there was wing damage, then it's possible that somebody could have picked up some of the fabric.

Martin: It's quite possible. When they took the plane back to the garage that night they may have left pieces of the plane in the park where he flew. A lot of them had never seen an airplane, so to get some of these relics would have been a novel event at the time.

Elyse: This fabric could certainly have come from the plane Dixon crashed that day. But how had Patricia's grandfather, Alfred Luce, gotten hold of it? In the early 1900's, Grand Island Nebraska, was very much a prairie frontier town. Today, the Stuhr Museum has created a living history exhibit to replicate that turn of the century community. Leslie Vollnogle is curator of collections. Hi Leslie. How are you? Nice to meet you.

Leslie Vollnogle: Nice meeting you, too.

Elyse: So this is the Living History Museum. And what is this building?

Leslie: This is the first newspaper. This is where everything was printed.

Elyse: All right, cool. Let's check it out.

Leslie: Yes. Come on in.

Elyse: This is just incredible. Leslie tells me that in 1911 an air show would have captured the imagination of a population more familiar with horses and buggies.

Leslie: It was a huge deal. It was exciting. It was new. They'd never seen planes before. Unless they'd gone to the big city, Chicago, some place like that. There may have been expositions there, but not here in Nebraska. And they hadn't seen the pilots and so it was things that they'd read about but not really seen before.



Elyse: So did people travel from all over?

Leslie: Yes. All over central Nebraska. They'd come out here on the train. They could also take their own automobiles and horse and buggies.

Elyse: Did it make the headlines?

Leslie: Oh, yes. That was the major headlines for several days before and after the whole event.

Elyse: Leslie has gathered some articles for me from the air show in 1911. Here's an account of Dixon's crash... "All was confusion. A near panic ensued. It was thought that a section of the grandstand had collapsed. The police immediately centered about the scene, and drove back the crowd". There's no mention of crowd members grabbing pieces of the plane... but Leslie has pulled a clipping I didn't expect.

Elyse: Ok. So what's this?

Leslie: This is the free press from September 15, 1911. The newspaper was the social networking system of the early 1900's.

Elyse: What Leslie shows me next fills in a missing piece of the puzzle. So this investigation had a lot of twists and turns, as you would expect a plane investigation would. It was a lot of fun. I tell Patricia that the fabric is period, and that Cromwell Dixon crashed a plane in Grand Island, Nebraska, on the same day recorded on the material.

Patricia: Ah, that's incredible.

Elyse: Now you also asked about Jimmy Ward and Shooting Star. Shooting Star was Jimmy Ward's plane. He was a pilot as well.

Patricia: Really?



Elyse: Cromwell Dixon actually flew his plane on that day in August.

Patricia: That's great. Wow, our family will love to hear that.

Elyse: What remained mysterious was how her grandfather, Alfred Luce had gotten hold of the fabric.

Leslie: People would come to the newspaper and tell that they were here in town. Then they'd also tell when they were leaving town.

Elyse: Okay, what's it say?

Leslie: And it says, "Mrs. F. E. Luce and son Alfred who have been visiting in the city for the past two weeks left Monday morning for Hebron, Nebraska where Mrs. Luce has accepted a school for the coming year.

Elyse: Patricia's grandmother, a school teacher, had brought her son to see the new flying machines, and watch Cromwell Dixon take to the skies.

Elyse: So he was here during the air show.

Leslie: He was.

Patricia: That's incredible.

Elyse: How do you feel?

Patricia: Part of a link to bring some attention to Cromwell Dixon which I think was really needed. He's truly an American hero. And just the fact that my grandfather would have been very happy. He must have really admired him... at his age, he was 13. So this is pretty special and incredible.

Elyse: I explain that this is the only fragment we know has survived from the career of this aviation pioneer.



Patricia: Just to think that it was just sitting away somewhere and we happened to find it. That's great.

Elyse: The Curtiss exhibition company continued to present new flying machines to the public. But when the U.S. entered the First World War in 1917, the company turned its attention to the urgent need to develop planes for use in battle. Curtiss quickly became the largest aircraft manufacturer in the world, producing 10,000 planes for the U.S. military. In 1929, Curtiss joined forces with its chief rival, Wright Aeronautical, creating the Curtiss-Wright corporation, which became a leading manufacturer of advanced airplanes in the 1930s.