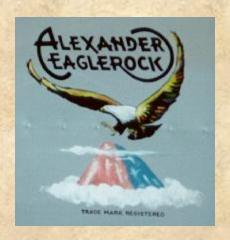
# Walter L. Clifford

An excerpted transcript relating stories of his time building Airplanes at Alexander Aircraft Company in Colorado

Including a short biography

By Dana Kelley Bressette





Transcribed, written and printed



Walter Lemon Clifford (1897-1986)

My grandfather, Walter L. "Cliff" Clifford, worked for Alexander Industries in the late 1920's building airplanes: the Alexander Eaglerock and the Bullet. A woodworker by trade, he left his job at Hallack & Howard Lumber Company's mill to follow his dream of working in aircraft. He worked initially in the woodshop and then in the research department at Alexander Aircraft.

Following is an excerpted transcript of an interview that his son-in-law, Dean D. Kelley, my dad, did of him in the 1980's. (W.L. Clifford would have been in his 80's at the time.) I have included several footnotes. My grandfather did not seem very good at remembering numbers very accurately, or he exaggerated a bit!

W.L. Clifford: ..... I got the job with the Alexander Aircraft.

**Dean Kelley:** That's where you got into the aircraft.

**W.L. Clifford:** That's where I got into the aircraft.

**Dean Kelley:** What year was that?

W.L. Clifford: 20...must have been about 20... Well, Bob was 2 years old. So it must have been about

1925. And then we had a fire there in Denver ...

Dean Kelley: It must have been later than that if Bob was 2 years old. Wasn't it?

**W.L. Clifford:** Well, he was born in... about 25, 26, something like that but anyhow Jay B. wasn't born yet so that's the reason I know that Bob was only about 2 years old. And then we had a fire there in Denver and then the plant moved to Colorado Springs; so we moved down there.

**Dean Kelley:** Now that fire you are talking about, that's where you said that those guys were trapped in that building and they...

W.L. Clifford: Yeah, that was in Denver.

Dean Kelley: Huh?

W.L. Clifford: That was in Denver.

1-- His oldest son, Robert, was born in Wichita in January of 1926 and according to an interview of Walter's wife, Alice, they left Wichita when Bob was 4 months old, around May 1926, because "Pop wanted to go to Colorado. He had lived there in Colorado [with his first wife] and built a home there." He had worked for Hallack & Howard Lumber Company in their general mill in 1922-23. He had cut off 3 of his fingers there and had verbally been promised a lifetime job there. But when he returned, he did not like the man, Fred, who had been promoted to Superintendent. So he quit his job and got the job with Alexander Aircraft because, "he always wanted to work in aircraft." He must have started work with Alexander Aircraft sometime in 1926 or 1927.



Alice, Walter & Bobby Clifford

**Dean Kelley:** Yeah, that was in Denver.

**W.L. Clifford:** Well, it really wasn't Denver. It was a...hold on...some little suburb<sup>2</sup> just outside of Denver. But anyhow...

Dean Kelley: Alexander Aircraft?

W.L. Clifford: Alexander Aircraft. Well, it was Alexander Film Company, actually the name of it.

**Dean Kelley:** Alexander Film Company?

**W.L. Clifford:** Yeah, They made adver...they made films. That was their business, main business. You see airplanes was just a hobby. There was two brothers and the aircraft was...that was just a hobby as far as they were concerned.

**Dean Kelley:** Single engine aircraft?

**W.L. Clifford:** Yeah, they made their money in films. They made advertising. They advertised... back in those days they, you know, film, there was advertising. And, I stayed with them until 1929. That's when I come out here.

**Dean Kelley:** Well, I am a little confused, if Jay B.<sup>3</sup> was [born] in Colorado Springs, was this aircraft plant in Colorado Springs?

**W.L. Clifford:** Yeah, we moved from Denver to Colorado Springs after this fire<sup>4</sup>. See after we had the fire, why, Alexander was offered, I don't know, a couple - 300 acres there north of Colorado Springs to build his plant down there. So he went down there and built his plant and then moved us all down there.<sup>5</sup>

**Dean Kelley:** Now, the plant was a...was still a film...

W.L. Clifford: Yeah, he still made films.

- 2--The Alexander Film Company and Aircraft Plant was originally in Englewood, south of Denver.
- 3--Their 2<sup>nd</sup> son, Jay B., was born in October 1928 in Colorado Springs.
- 4--The fire at the Alexander Aircraft Plant occurred on April 20<sup>th</sup> 1928.
- 5--According to Col. John deVries' book, *Alexander Eaglerock:* "The Pike's Peak Exhibition Club DONATED their rodeo arena and racetrack as the site for the Alexander factories...And the Alexanders bought 264 acres to the east of Nevada Avenue to serve as their airport." The move to Colorado Springs was planned for July 1<sup>st</sup> 1928. But because of the fire, they moved earlier than planned. The move was accomplished in less than a week, including all the equipment, and "over 300 industries' members." "Company facilities WERE spread out all over Colorado Springs but, by the end of 1928 Summer, most of Alexander's operations were consolidated in the Nevada Ave. compound."

**Dean Kelley:** But he wasn't making airplanes anymore?

W.L. Clifford: No, we was making airplanes.

**Dean Kelley:** Still making airplanes. Do you remember the name of the airplane?

W.L. Clifford: Eaglerock.

**Dean Kelley:** What?

W.L. Clifford: Eaglerock.

Dean Kelley: Eaglerock Airplane.

W.L. Clifford: Yeah.

**Dean Kelley:** One engine airplane?

W.L. Clifford: Yeah.

**Dean Kelley:** Well, what were they built for? What were the planes built for?

W.L. Clifford: Just passengers.

**Dean Kelley:** How many passengers?

W.L. Clifford: Two.

Dean Kelley: Two passengers.

W.L. Clifford: Just two passengers. Open cockpit...

**Dean Kelley:** Biplanes? Or single air...?

W.L. Clifford: Biplanes.

Dean Kelley: Biplanes.

**W.L. Clifford:** And there was two brothers. One of them was the salesman and the other one was the manufacturer. So the manufacturer sold them to his brother for 1500... \$1500 apiece. I don't think I said 15,000. \$1500 apiece is what he sold that airplane for. Then the other brother sold them for \$2500.

**Dean Kelley:** Did they fly?

**W.L. Clifford:** Did they fly? Sure they flew. Yeah, we built 1501<sup>7</sup> of them.

6--According to ad in to Col. John deVries' book, *Alexander Eaglerock*: "CASH PRICE--\$2475 ON THE FIELD—DENVER."

7--Col. deVries only lists 905 Eaglerocks (C/N 101 to 1005) and 19 Bullets (C/N 2000 to 2013 plus 5 more.)

Dean Kelley: What kind of materials did you have on the wings?

W.L. Clifford: Wood... It was a wood frame with fabric on it.

Dean Kelley: Fabric on it.

W.L. Clifford: That was the reason we had this fire. We had what was called a dope fume...very

explosive.

Dean Kelley: Dough?

**W.L. Clifford:** Dope. In other words, we put linen. The wing was built with wood, then covered with linen and then it was "doped." It becomes tight, you know, and hard, you know, to make a regular wing out of

it.

**Dean Kelley:** Do you remember what kind of engine you had on them?

W.L. Clifford: Well, there were 2 or 3 different kinds. They had the Wright Whirlwind.

Dean Kelley: The Wright Whirlwind?

W.L. Clifford: Yeah, that was a air-cooled motor.

Dean Kelley: Air-cooled motor?

W.L. Clifford: Yeah, there was 2 or 3...We had 2 or 3 different kinds of motors. And then that's where we

built the first low wing monoplane that was ever built in the United States.

**Dean Kelley:** And what was it called?

W.L. Clifford: The Bullet.

Dean Kelley: The Bullet?

W.L. Clifford: Yeah, and we could never get it tested. It killed 6 pilots.<sup>8</sup>

Dean Kelley: Six test pilots were killed.

W.L. Clifford: Yeah.

Dean Kelley: A structural defect.

8-- According to Col. John deVries' book, *Alexander Eaglerock:* "Four Alexander Bullets crashed during the spin-testing program. Two pilots bailed-out successfully, but two valiant men rode their gyrating mounts to the ground and were killed."

W.L. Clifford: Well, it would get into a spin.

**Dean Kelley:** Aerodynamics.

**W.L. Clifford:** And according to the... as I understand, according to the law at that time, In order to go through a test, it had to make 6 turns to the right and 6 turns to the left...straight down; but it never come out of a left-hand spin.

Dean Kelley: What was your job

there?

W.L. Clifford: I was in the research department on that plane. I was the engineer, designer, right-hand man of the research department at that time. Before that I run a mill. I run...

**Dean Kelley:** You were in the engineering department, designing the plane.

W.L. Clifford: Yeah, and the designer, he was only 29 years old<sup>9</sup> and him and I flew it all the time. Neither one of us had license, but we flew it. But, we just flew it straight; we didn't test it. That's where I got all my flying; I done a lot of flying. Both in the biplane and...

**Dean Kelley:** Sticks?

W.L. Clifford: Yeah.

A consistent idea winner in the Wood Shop, Mr. W. L. Clifford, was awarded second prize for an improved "wrinkle" in making spars for the Eaglerock wings. His idea has been estimated to save about \$1.50 per ship. Under the old method one spar was cut and squared at a time, but under the improved scheme one hundred spars are handled as a unit.

### Idea Committee Name Talented Ten

Selected Men Who Contributed Most Valuable Ideas

> By W. G. HELMICK Sec'y of Committee

Following the plan outlined by J. Don Alexander over a year ago, the idea committee has selected ten names for the "genius club." Those selected are the ten who have submitted the most valuable ideas and have contributed the best "mental energy" to the up-building of the Industries for the year ending F-bruary 1, 1928. In making its selections he committee took into consideration quality of ideas, quantity of ideas and the co-operative spirit shown in helping to carry out the ideas to their utmost benefit to the business.

Before introducing the "Talented Ten," it is worth while to consider the importance of new ideas to the success of the business. These ten members have thrown out a challenge to the rest of us which should spur everyone on to be a better thinker. The man who contributes valuable ideas not only helps his company, but also indirectly helps his fellow man, and most of all he

helps himself, because by working out ideas he improves his own brain power, gains self-confidence and increases his chances for bigger success.

Our company recognizes the importance of ideas and pays for the best ones with prize money. The committee has quite a large number of ideas to consider every month, many of them good ones, so it is a real distinction to be placed among the ten best idea-producers for the year. Hats off to the following persons, who have been selected as the ten highest in the idea contest:

Elmer Olson
Homer E. McKee
Jarvis Buck
W. L. Clifford
H. A. Hanson
R. P. Dawson
Dred D. Seymour
F. G. Milner
E. O. Reinhardt
Pete Geshell

#### W. L. Clifford Wins Idea Contest Honors

His Idea Increases Output of Ribs in Wood Shop

First prize in the August Idea Contest was awarded to W. L. Clifford, of the Wood Shop, for a practical idea for increasing output in building ribs. His idea has been in operation about three months and is said to increase production in this particular operation about 25 per cent.

Newspaper clippings reporting W.L. Clifford as "Idea Contest Winner"

Dean Kelley: Stick and rudders.

W.L. Clifford: Yeah, all we had was just...We didn't have all this damn...

**Dean Kelley:** Well, I know you didn't have other equipment....but you had a compass and a gas gauge...throttle and rudders.

9—According to *The Al Mooney Story: They All Fly Through the Same Air*, (<a href="http://www.mooneyevents.com/review.htm">http://www.mooneyevents.com/review.htm</a>), Al Mooney, the designer, was born April 12, 1906. That would make him only 23 in 1929! Al Mooney left Alexander Aircraft on April 15<sup>th</sup> 1929, unhappy "with the changes in to his design that Don M. had dictated," according to Col. John deVries' book.

**W.L. Clifford:** And a rudder, you work with your feet. And your wings, you know, you worked together [stager?]...you worked back and forth for your aileron down there.

**Dean Kelley:** And did that fold?

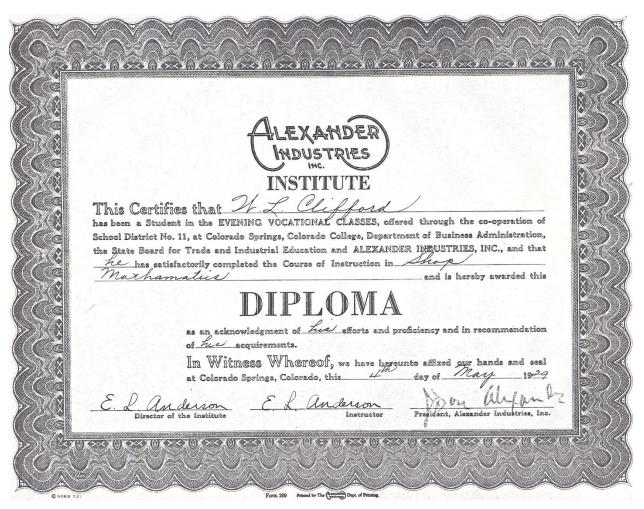
W.L. Clifford: Huh?

**Dean Kelley:** Did that plant fold, or did you just leave?

W.L. Clifford: In 1929, I quit, yeah. 10

Dean Kelley: And that's when you left Colorado.

W.L. Clifford: And that's when I left to come out here.



A Diploma earned in Shop and Mathematics through a cooperative program between Colorado Springs School District and Alexander Industries

10—According to my grandmother's interview, they left Colorado October 10<sup>th</sup>, 1929, because "Pop wanted to go to California." This would have been only 3 days after the third crash of the Bullet and a couple weeks before the Stock Market Crash.

#### A short biography of Walter L. Clifford

Walter Lemon Clifford was born Aug 10, 1897 in Independence, Montgomery, Kansas. He was the 2<sup>nd</sup> youngest son of tenant farmers, Charles and Sarah Clifford. He attended the Peebler, one-room schoolhouse, in Sycamore Township, Montgomery County, Kansas. He quit school at 13 after the 5<sup>th</sup> grade.

When he was 14, Walter went to work at the Uhrich Revolving Door Factory in Independence, Kansas. It was where he learned his woodworking trade.

He married Dora Edith Lukanbill when he was 18. The next 7 years he moved around quite a bit working sometimes at planing mills or cabinet shops, but also for petroleum and gas companies. For 31 days, he worked to help build a sugar beet refinery. They worked on the refinery 4 days a week and were also required to work in the fields 2 days a week.



Walter is the baby in this picture.



Walter on the right, learning his trade.

During World War I, he was a street car conductor in Salt Lake City, Utah. His first wife left him and went to Denver. He reunited with her for a short time in Denver. It was at Hallack & Howard Lumber Company's mill that he cut off the middle 3 fingers on his left hand. After his first wife served divorce papers, he returned to Kansas and Oklahoma where many of his relatives lived.

He went to visit his cousin, Clate Miller, and met his cousin's wife's sister, Alice Cornett. They were married within 3 weeks. He got a job at a planing mill in Tulsa, for a short time and then moved to Wewoka, Oklahoma to manage a "Pig Stand" restaurant with his brother, Guy. That only lasted a few months, so they moved to Wichita where he got a job in a planing mill.

He returned to Hallack & Howard Lumber Company in Denver in 1926 and soon got a job with Alexander Industries, building airplanes. He quit in October 1929 and left Colorado for California.



A Streetcar Conductor in Salt Lake City



He got a job at Angelus Furniture Manufacturing Co. in East Los Angeles. He often had only part-time work through the depression. He worked for Angelus Furniture Co. for about 15 years while raising his family in Alhambra, California. He left Angelus Furniture Company to work for California Coast Company building radio cabinets for Sears and Hoffman companies. He also, unsuccessfully, tried owning a restaurant again, but then got a job as Mill Foreman at Morris Furniture Manufacturing Co.

He built a retirement home in Crestline, a resort town in the San Bernadino Mountains, but continued operating his own "Cliff's Cabinet Shop" business. They later moved to a mobile home park in Yucaipa, California.



Walter, Alice and their 3 children: Bob, Jay B. & Doretta







Grandpa 'C' and the house and shop he built in Crestline. All his grandchildren have fond memories of that house.

#### Walter Lemon Clifford 1986

Walter Lemon Clifford, 89, of Yucaipa, died Aug. 23 in Redlands. He was a native of Kansas and a cabinet maker for 63 years.

He is survived by: his wife, Alice C. Clifford of Yucaipa; two sons, Robert L. Clifford of La Verne and Jay B. Clifford of Placerville; one daughter, Doretta Kelley of Takoma, Washington; 10 grandchildren and 18 greatgrandchildren.

Interment was private. Hughes Funeral Chapel, Yucaipa, in charge of arrangements.