



Aeronca

The little airplane that could
BY JEFF SKILES

AIRPLANE MANUFACTURING in the past, and even today, seems to be a boom or bust industry. The back tie-down rows of many airports are often littered with the progeny of corporations that have long since shuttered their hangar doors. Where are the Taylorcrafts, Swifts, or Bellancas of the world today?

Others seem to be able to place themselves in a perpetual state of reincarnation regularly popping up anew as the type certificates change hands and new designs are added to the family tree. The newly found success of Mooney would be a case in point.

Perhaps the most long-lived family of aircraft designs began in 1928 with the proud name of Aeronca, and one of its many successor companies is still building aircraft today.

The original Aeronca Aircraft Corporation was founded just as the nascent financial storm clouds of the Great Depression were massing over the land. The prominent Taft family of Cincinnati, Ohio, funded the launch of a company dedicated to producing an everyman's airplane, small and inexpensive enough for common folk. Its beginnings along the banks of the Ohio River at Lunken Field were modest, yet the company grew to produce more than 50 designs and 17,000 aircraft over its subsequent 23 years.

Above: Aeronca advertisement from 1946.

THE "FLYING BATHTUB"

Aeronca's first product was an ungainly looking craft designed by Jean Roche. It had a triangular steel tube fuselage with wire-braced wooden wings using an even then dated-looking kingpost support structure. The Aeronca C-2 still employed a tailskid when tail wheels were the new rage, and it was powered by Aeronca's own E-107 engine producing all of 26 hp in its original incarnation. The dated wire support structure was necessary to keep the weight of the overly large 36-foot wing in the air behind the overly small Aeronca engine.

The Aeronca C-2 was quickly nicknamed the "Flying Bathtub" because of its uniquely pugnacious appearance deriving from the high-mounted two-cylinder Aeronca engine and its prominent Y-shaped exhaust. The reason Roche chose to mount the engine

exactly level with the pilot's sightline, obscuring all vision directly forward, is lost to history. But the Aeronca "look" persisted with all the descendant aircraft employing the small Aeronca engine. Later the C-3 two-place version was developed allowing fliers to share the low and slow experience. It even boasted side-by-side seating to perhaps better teach others the mysteries of flight.

The gentleman two hangars down from me owned a C-3 until half a dozen years ago. I remember its takeoffs as displaying much bluster from the low-powered Aeronca engine but initially very limited movement. Then, however, the entire affair would sort of levitate into the air at seemingly too slow a speed to sustain any sort of flight. With its comparatively massive wings the Aeronca C-3 could indeed fly.

AERONCA K

The next design of any import was the K-series, which appeared as a more traditional strut-braced, high-wing aircraft. The pugnacious Aeronca look was preserved in

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the K, however, with the continued use of the Aeronca engine, albeit an improved version with dual ignition. Boasting only 40 hp and a 1,040-pound max gross weight, the Aeronca K would today qualify as a light-sport aircraft. While only 350-some examples were produced, the later versions sported a more conventional Continental four-banger ushering in Aeronca's transition to more traditional powerplants.

I have always appreciated the unique looks of the C-3 and the K-model Aeroncas. In my mind they bridge the gap between pioneer aircraft and the more accepted designs of today. Both engine and airframe were designed to bring aviation to everyday people, whilst the rest of the industry was concentrated on producing comparatively massive biplanes.

WAR IS BREWING

The Aeronca K was further developed into the Scout model in 1937 and the more familiar Chief and Super Chief the next year. A massive flood of the Ohio River inundated the production facility in that same year, however, and design progress slowed as the company moved to higher ground in Middletown, Ohio. The first Middletown Aeronca rolled off the assembly line in mid-1940 only a scant year and a half before the world would erupt in conflict.

Aeronca rose to the challenge of international crisis by producing training and observation aircraft for the U.S. Army Air Forces. Aeronca's primary offering was the tandem seat L-3 Defender.



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Aeronca only existed for a little more than two decades and hasn't produced an airplane in more than 65 years now. But, in that time the company manufactured more than 17,000 aircraft.

One of Aeronca's more unusual designs was the TG-5 glider trainer where the engine was replaced with an extended nose to house a third pilot strategically placed to preserve the harmonies of weight and balance.

PEACETIME

The end of the war brought back civilian production with two models familiar to those of us who peruse the back row tie-downs, the 7AC Champ and the 11AC Chief.

The Champ was a clean sheet design aimed at being everything that the Piper Cub was not. The Cub must be soloed from the back seat, and the resulting lack of

forward visibility is not a favorite feature. The Champ is soloed from the front seat and has a wider, more comfortable cabin. The visibility over the nose is excellent, and a real door replaced the clamshell affair on the Cub. Oddly enough, the ability to fly with the Cub door open wasn't as prized a feature back then as it is today. More than 7,000 Champs were produced from 1945-48. It even spawned a tricycle-gear variant.

The new Chief was based on its prewar namesake but had a wider cabin and a different wing. The Chief was aimed at the flight-training market where side-by-side

seating was thought to be advantageous. The Champ and the new Chief were designed in tandem to allow for commonality of production. More than 70 percent of the parts of the tandem-seat Champ and the side-by-side seated Chief were the same. The wings, tail, landing gear, and engine were common to both aircraft, and the Chief also shared some other parts with the later four-place Aeronca Sedan.

While many Chiefs still exist, the Champ far outpaced its production numbers with four times as many Champs being produced as Chiefs in their few short years of manufacture. By 1950, the Chief had ceased production entirely.

THE SEDAN

In the late 1940s Aeronca began production of the even bigger four-place Aeronca Sedan. This was to compete with the offerings of similar companies such as Cessna, Luscombe, and Taylorcraft. The Sedan employed a rather unusual combination of



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construction methods with a fabric and steel tube fuselage mated to all metal wings. The Sedan became particularly popular for use in seaplane operations, and in its three short years of production, more than 500 were built.

END OF THE LINE

By 1951 the postwar airplane boom had turned into a bust, and even with Aeronca's inspired design and manufacturing prowess, the end was clear. Aeronca ceased all light airplane production in 1951. Although it hasn't produced an airplane in 66 years, the Aeronca name carries on as a division of the Magellan Aerospace Corporation.

REBIRTH

The end of Aeronca lightplane production, however, was not the end of the Champ. In 1954 the ownership of the type certificate for the Champ was sold to the Champion Corporation, which continued building variants of the original model. The designs were acquired by Bellanca in 1970 and after Bellanca's bankruptcy in 1988, by American Champion, which still produces offspring of the 7AC Champ today.

AMERICAN CHAMPION

The Champ line has expanded over the years to include the Citabria, Decathlon, and the Scout, although the Champ still lives on as an LSA with a 100-hp Continental O-200 engine. All four models are produced at the American Champion plant alongside the Fox River Airport near Rochester, Wisconsin.

Back in the welding shop at American Champion is an interesting-looking art project of ancient steel. It's an old welding jig, and as it turns out every Champ, from the first produced in 1946 to the modern Champ variants of today, has had its fuselage tubes welded on this very same jig. Thousands of them. Each one began right here even as the jig has moved from factory to factory.

LEGACY

Aeronca only existed for a little more than two decades and hasn't produced an airplane in over 65 years. But, in that time the company manufactured more than 17,000 aircraft. At one point, it was reported that the factory was completing 50 of the little Champs and Chiefs each and every day. While Aeronca's time as an aircraft manufacturer was certainly short, its outsized impact on aviation still carries on with no less than nine American Champion models in production today. *EAA*

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