

# The other Wright Brothers

## Slide 1

You will all have heard of the American aviation pioneers Orville and Wilbur Wright and their flight at Kitty Hawk.

But in the early days of flying and motoring there were also two English Wright brothers, Howard Wright and Warwick Wright, engineers and motoring and aviation pioneers of importance. They were much the same age as Wilbur and Orville. Warwick Wright himself said in a later interview that they had been "the Wright Brothers of Europe". When you have heard their story you may well agree that they should be remembered. They were both remarkable men.

Warwick, the younger was a very much larger than life character and remained a celebrity of his time for most of his adult life. Howard, the older, was very different, obviously preferring his workshop, his drawing board, and his aeroplanes and various other inventions. The brothers collaborated for many years, but in 1912 they moved apart.

## 2

Our Wright brothers originally came from the Black Country. Their family, on both father's and mother's side were ironmasters and big employers in the Dudley area .

Their father was Joseph Wright. He too was a Black Country man, born in 1826 at Dudley where his father had an engineering works. Joseph's early career took him to India, where he was involved in the construction of the first railway there. On return to England in 1856 he joined Thomas Howard Head in founding the Teesdale Iron Works in Stockton. The firm was known as Head and Wright, and eventually became Head Wrightson. That later became a huge business.

Joseph left the Teesdale partnership in 1860 and returned to the Black Country, where he joined up with the powerful Tinsley family. The first step was to set up the Neptune Foundry, in association with Thomas Tinsley. Not long after this he married Grace Tinsley, Thomas's cousin, daughter of Theophilus Tinsley, Mayor of Dudley in 1859. But the biggest local business was that of Eliza Tinsley, Theophilus's remarkable sister-in-law. She inherited two Tinsley businesses when widowed and her powerful leadership created one of the biggest operations in the area, employing 6000, and with a branch in Australia. She was known as "The Widder". The business lives on, though the Tinsley family have long departed.

But back to Joseph Wright. Initially his business was cast iron chains and anchors, but he later became far more interested in steam technology and started a profitable sideline in pre-heaters for steam engines. I'll come back to that in more detail, since, rather surprisingly that would lead his son Howard T Wright into aviation.

Howard Theophilus Wright was born in 1867 and Joseph Warwick Wright in 1876. There was another son, Walter, who also became an engineer. They were all born in Dudley, but in the 1870s the family moved to Edgbaston, no doubt to find cleaner air for the family - and for Joseph himself who was soon diagnosed with throat cancer. He retired from his foundry business in 1887 but retained his steam technology business renamed Wright's Patent Heater and Condenser Company. This business flourished for a while, building some huge feed-water heaters and water softeners. The whole family moved to London, but Joseph died in 1893.

## 3

The sons continued with the business. Between 1894 and 1898 Howard registered 5 patents and Warwick another two . But the company became bankrupt. The cloud of bankruptcy enveloped Howard and Walter Wright and their mother Grace - but apparently not Warwick! Perhaps he was too young.

Hiram Maxim came on the scene. He was attempting to build steam powered aircraft. It seems that this made him interested in the Wrights and their technology. He engaged Howard Wright as a Works Manager in the Maxim Electrical Engineering and Export Company, and involved him in aviation experiments. The Vickers Maxim company also employed Warwick Wright. In 1901 Vickers Maxim had taken over Wolseley cars under Herbert Austin, and it seems possible that this was Warwick Wright's introduction to the motor business.

## 4

In 1901, following the bankruptcy, the two brothers , described as mechanical engineers, were both living with their mother in a modest part of Streatham. And yet Warwick would soon be living the life of Riley, consorting with the wealthy aristocracy and indulging his whims. Perhaps there was an inheritance. Part of his secret was that Warwick Wright was a charmer. Lord Brabazon was later to say that Warwick Wight was the most amusing companion he ever had !

I'll first of all cover the period up to about 1912 when the brothers were working collaboratively, based at premises in Marylebone. After that I will tell you of their separate careers in later years.

By 1903, motor cars were becoming consumer products. It was C.S. Rolls who started the first motor dealership in London, importing Belgian Minervas. It seems that soon after this, Warwick Wright opened a Minerva dealership and also became associated with the French Darracq brand. Genevieve in the film was a 1904 Darracq. This seems to have brought him into contact with John Moore Brabazon, who worked as an apprentice at Darracq in Paris in 1904. And they were both prominent in motor racing.

Maxim's Electrical Engineering and Import business folded in 1904, and Howard Wright linked up with Warwick in 1905. Their collaboration lasted until 1912. For a short while Howard was concerned with electricity generating equipment. One invention was related to gas and hot air turbines. Another was a carburettor. But in 1907 his activities took a new turn. Far away in Naples, Federico Capone was Italy's own aviation pioneer. He had built an experimental pilotless helicopter in 1905. That worked apparently, and his next aim was to build a piloted helicopter. For this, he joined forces with Howard Wright who built the first full sized Capone helicopter in 1908, followed by one or two more versions. After some successful tests in England, it was shipped to Italy in late 1908, and it is said that Howard Wright attended trials in Naples during 1909.

## 5

Brabazon had joined the Warwick Wright business. Warwick Wright himself was becoming very well known. He was in the Aero Club - with Brabazon and Rolls, and the wealthy. In 1905 he joined up with Brabazon and Rolls in ordering a balloon, "Venus" from the Short Brothers who were operating from railway arches in Battersea. That was delivered in May 1906. In September he drove a Minerva in the Isle of Man Tourist Trophy - won by Rolls in a Rolls Royce. In November he exhibited at the Motor Show, and soon after amalgamated with another Minerva concessionaire. Warwick Wright Ltd. was becoming a large concern. He also linked up with A. Huntley Walker in the formation of a U.K. Darracq company. Huntley Walker was "the man who broke the bank at Monte-Carlo" in 1909. Warwick Wright was with him at the time.

Brooklands opened in 1907 and Warwick Wright raced in three of the meetings there, driving Minervas or Darracqs. In 1908 a Grand Prix was held in Dieppe, and Warwick was one of the Austin drivers. In the same year he participated in the London Olympics in the unusual sport of motor-boating, before venturing into aviation later that year.

And Warwick Wright got further publicity from his appearances in the police courts for speeding.

## 6

By now Howard and Warwick had concluded that winged flight was the way forward. Warwick Wright went with Brabazon to Chalons in France in 1908 to learn to fly in a Voisin biplane. Howard Wright embarked on the construction of a Voisin type biplane of his own design. He had acquired premises at Battersea, adjacent to Short Brothers premises. Shorts had been making balloons. They too designed an aeroplane in 1908, but they decided that their way forward was to build Wright Flyers under licence from Orville and Wilbur Wright.

With Howard Wright at Battersea was a young designer, William Oke Manning, who remained prominent in aeronautical engineering for another 40 years.

Also at Battersea was the "ASL Syndicate" led by Horatio Barber who designed a monoplane, eventually known as the Valkyrie, and quite successful. Howard Wright constructed the prototype for Barber.

In December 1908, Howard Wright got a £1200 order from Malcolm Seton Karr for a biplane, and this was built and exhibited at the first Olympia Aero Show in March 1909. Remember that though the other Wrights had flown in 1903, progress had been slow and Bleriot would not cross the channel until later in 1909.

## 7

Various constructional features made this biplane and it's 1910 successor a machine ahead of its time:

Welded metal construction, using drawn steel tubing. Most other constructors were still using wood or bamboo.

Oval sections to reduce wind resistance

Ailerons, not wing warping

Contra-rotating coaxial propellers (awareness of the danger of gyroscopic effects)

Meticulous attention to shaping and surface finish to reduce wind resistance.

A production system which would allow build-to-order in two weeks.

Safe and reliable - good for beginners - many Aviators Certificates gained on it.

For the next couple of years, Howard Wright was probably the leading British aeroplane constructor. The business built numerous

aircraft to several designs including the following: Howard Wright 1910 biplane, Howard Wright monoplane, Scottish Aviation Syndicate / Howard Wright Avis/ Golden Plover, Poynter monoplane, Cooke monoplane, Ornis , ASL Valkyrie

Some aircraft used the Metallurgique engine supplied by Warwick Wright. Others used used the ENV engine, a British engine also supplied by Warwick Wright

8

I must mention Tom Sopwith. He had money and talent. He first flew in Warwick Wright's Venus balloon and he was an early buyer of a Howard Wright Avis monoplane and soon gained his aviator's certificate. Two months later he won the Baron de Forrest prize with a Howard Wright 1910 biplane

King George V expressed a desire to see Sopwith and his aeroplane, and Sopwith flew to Windsor and landed on the lawns. Sopwith then toured America with his Howard Wright biplane, together with a Bleriot monoplane, He won a great deal of prize money and topped that up further by giving passenger flights (for about \$100 each). He used that money on his return to set up the Sopwith School of Flying, followed by the Sopwith Aircraft Company. Howard Wright himself made the most of this publicity And other pioneers also possessed Howard Wright aircraft.

9

Claude Grahame-White flew into his own wedding reception in his Howard Wright. Robert Lorraine, famous at the time, flew his Howard Wright at an aviation event at Hendon attended by Lloyd-George, Churchill and others.

And at much the same time a book was published "The Aeroplane, Past, Present and Future ". All the contributors were famous European constructors of the time, including Bleriot and Farman. Howard Wright provided the -"Power Plant" chapter, dealing with engines and propellers.

10

Now brother Warwick was selling cars and driving fast - but closely involved with the aviation activities. He provided aero engines. He flew Howard Wright's aeroplanes, something which Howard himself had not yet learnt. He had the contacts with wealthy customers - such as Tom Sopwith.

In 1910 Orville and Wilbur Wright came to England. They went to the Aero Club flying ground at Sheppey and it was Warwick Wright who took them there in his Rolls. Amusingly, but perhaps not surprisingly, a police speed trap caught the illustrious party at Blackheath.

Now in late 1911 it seems that Howard and Warwick's association came to an end, never to resume. We don't know what precipitated this, but they went their separate ways. I'll continue with Howard Wright's story, and later return to Warwick Wright.

11

The Howard Wright business was taken over by Coventry Ordnance Works who wanted to get into aviation. Howard Wright with Manning led the new enterprise and designed a biplane for the 2012 War Office competition. Sopwith was their test pilot. This seems to have been a capable aeroplane - but the team broke up prematurely. Howard Wright left COW very soon, and Sopwith had his own competing business interests. COW was never very successful, but it was a foundation element of English Electric Aviation

Howard learnt to fly with Sopwith, and got his aviators certificate. Then in late-1912 something interesting came along.

12

The first experimental seaplane had flown in 1910. Samuel Whites were boatbuilders in the Isle of Wight and were fairly quick to see the potential. So they started an aviation business in November 1912 headed by Howard Wright. In January 1913 they exhibited a hydro biplane at Olympia and that was soon followed by a Naval seaplane. The German Navy ordered some of these in 1914, but never received them because of the outbreak of WW1.

Next came some very large aeroplanes - some of the largest constructed at that time. One was called the Wight Elephant. The twin fuselage Wight 2 was designed as a torpedo carrier. Quite a lot of naval aircraft were built to Howard Wright's Wight designs.

Howard Wright had 3 patents in this period.

Dual-profile aerofoil

Folding wing

Engine valves

And his work on seaplane float design was influential

He was also on the Committee of the Society of British Aircraft Constructors.

The last of the Samuel White aircraft was this quadruplane land aircraft.

After the war, in 1919, Samuel White's closed the aircraft business. Howard Wright had already left them.

13

He then became something of a Management Guru. He began before WW1 had ended with "Some Thoughts on Organisation", a philosophical paper with the background that "organisation is a subject in which we as a nation do not excel" - but the Germans do.

Howard Wright then devoted his energies to the scientific study of engineering management, writing a notable book, finally published in 1922.

He never returned to aircraft design and construction, but he remained an influential figure through the 1920s - on committees, and in the organisation of aviation events. And he also seems to have become interested in the oil refining industry, patents granted.

14

We'll now go back to 1912 and pick up the story of Warwick Wright. Warwick was far less of a practising engineer and innovator than Howard, though one further patent was his. But everything that Warwick did as an entrepreneur and adventurer was based on the advancing land air and water transport technologies. I'll start by covering the motoring side.

15

A big opportunity had arisen for him. He became joint MD of Sheffield Simplex, which at that time was the big rival to Rolls Royce. Though he closed down the Marylebone Warwick Wright business, he seems to have maintained his involvement in Metallurgique car sales, the Vanden Plas coach builders, and the Darracq business.

Indeed England was not big enough for him. In 1911 he exhibited Metallurgique cars at a large importers exhibition in New York. Then in 1914 when the war began, he was quickly into supplying the Army. Sheffield Simplex built a few armoured cars; then, together with Henry Burford of Humber, he secured an agency for a Pittsburgh firm, and he then sold their vehicles to the Russians. A dispute over the commission went to the US Supreme Court. And he was involved in an attempt to sell American machine guns to the War Office.

In 1916 he joined the RNAS as a flyer. He served in Belgium, rose with extreme rapidity - mentioned in despatches, was awarded the DSO, left what had become the RAF as a Lt Col. From then on he was "Colonel Warwick Wright".

In 1923 he restarted Warwick Wright Ltd, selling generally up-market brands to the discerning and well to do - no Fords, Morris or Austins for him. His "Warwick Wright Says" advertisements made him a household name and business flourished. Clearly his business was closely associated with Sunbeam-Talbot-Darracq, known as STD Motors, and that would be his undoing in 1935.

His Vanden Plas business was important too, since many larger cars were purchased as chassis, and coach-built bodies then added to the purchaser's specification. By this time, Warwick Wright was also handling the American Stutz brand.

Warwick Wright had strong views about the British car market - as revealed in his letter "Wake Up England", a call to manufacturers and the government to abandon the small 4-cylinder-engined cars

16.

Here are a few classic cars very much associated with Warwick Wright.

17.

Though cars came first for Warwick Wright, he also had strong involvement with aviation, speed-boat racing and winter sports.

First there's his enthusiastic involvement with Civil Aviation.

1. Hawker's attempt to cross the Atlantic. That failed, but Hawker was given a hero's welcome in which Warwick Wright was conspicuous

2. Alcock and Brown.. There was a major celebratory dinner - and Warwick Wright was there of course

3. Alan Cobham. Closely involved with Warwick Wright. When Cobham returned from his round-Africa flight, Warwick Wright was there to welcome him. They jointly planned an airline-venture into Africa, and Cobham joined the Warwick Wright Board.

4. Zeppelin. Warwick Wright was a passenger among the famous who joined the 24 hour flight around Britain - "a wonderful experience"

**18.**

5. Return from the USA by air. There were as yet no North Atlantic air routes in 1935. But Warwick Wright realised that there was a way for a passenger to fly from New York to London. New York -> New Orleans -> Miami. Then the PanAm Clipper on the Rio-bound service. French mail-route across the narrowest part of the Atlantic to West Africa. Then French services leading to Paris. Finally Imperial Airways to London. 6 days total.

**19.**

Sunbeam and Warwick Wright were much involved with motor racing. Warwick Wright had built an aero-engined Sunbeam and this led to further monsters. Henry Segrave was the Sunbeam works driver, and they soon had their eye on the land speed record. Warwick Wright was in the party which went to America in 1929 when Segrave got the land speed record for his final time. The Segraves, Lord Brecknock, William Rootes and Warwick Wright all crossed the Atlantic together. First class of course.

And the Stutz's were fast. Warwick Wright drove one himself in at least one TT event, and George Eyston drove one for him at Le Mans.

He persuaded Talbot's to build racing models which were hugely successful at Brooklands in the 1930s

And he continued to be involved with speed-boat racing. He did some of this himself, racing in Miss London. But more importantly he was centrally involved with Henry Segrave's water-speed record successes, as was William Rootes. He was at Windermere for Segrave's final runs which ended in his death.

**20.**

But Warwick Wright didn't need engines to travel fast! He, together with Brabazon, was an expert on the Cresta Run. He went to St Moritz often. Here he is steering the toboggan with King Albert of Belgium behind him and the Earl of Northesk at the back. That was a few days before Winter Olympics at which Northesk won a medal. And here's Warwick Wright on another occasion, with Jim Mollison.

Warwick Wright was now at the height of his fame and success. He had a mansion on the prestigious Wentworth Estate close to the golf club house.

**21.**

But in 1935 STD motors, Sunbeam, Talbot, Darracq, collapsed. Warwick Wright Ltd was taken over by Rootes. Warwick Wright became personally bankrupt. And he was also divorced. Very little is heard of him during the next 4 years - but then WW2 began.

Remember that in WW1 he was a naval aviator, was mentioned in despatches, and was awarded with a DSO.

In September 1939 he immediately re-enlisted in the RNVR - even though he was over 60! And he then went on to gain a Bar to his DSO. It's not clear precisely what he did, but he was almost using his speed-boat experience - perhaps delivering agents etc into occupied Greece and Crete. Could he even have been involved with the SOE operation to kidnap General Kreipe?

And that was the end of the story. Warwick Wright died in Summer 1945. And Howard only survived him by a few months.

Warwick Wright Motors survived for another 60 years or so, under various ownerships, and mainly associated with Peugeot dealerships.

And what about Wilbur and Orville? The years after 1903 were marked by litigation, feuds and crashes which damaged their reputation and slowed aviation development in the USA. Wilbur died in 1912, and Orville contributed little more to aviation, even though he lived for another 36 years.

So if anyone talks of the Wright Brothers, remember Howard and Warwick !