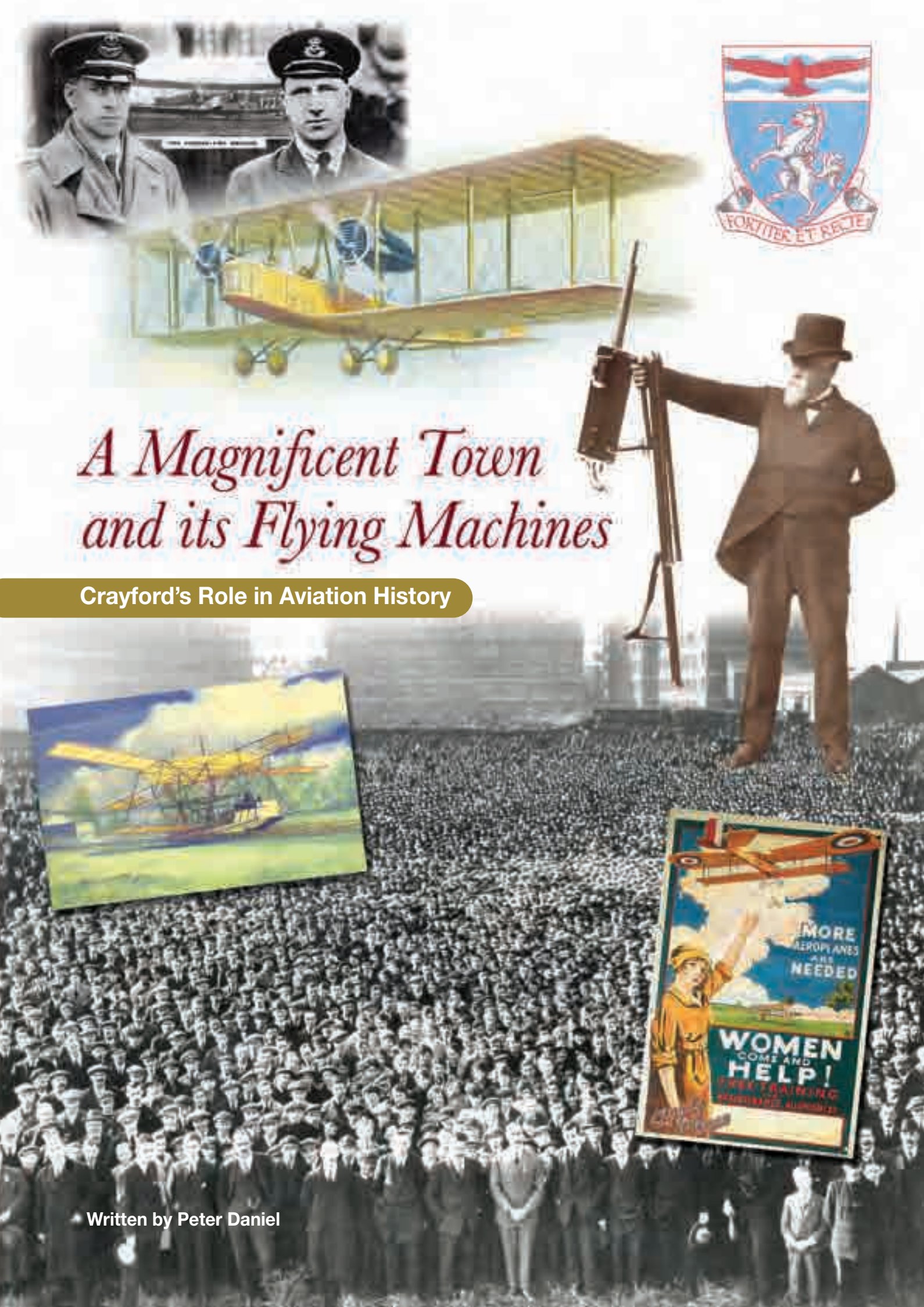

A Magnificent Town and its Flying Machines

Crayford's Role in Aviation History

Written by Peter Daniel

Introduction

I grew up and still live in Crayford. I remember the old Vickers factory and know that we had neighbours, where I used to live, that worked there. What I never realised, until it was too late and most of the factory had gone, were the incredible things that happened behind those walls by Crayford Clock tower.

In the near future Crayford is about to undergo drastic change. A new town square and library and development of both Waterside and the British Telecom site alongside the River Cray will radically alter the way the town looks forever.

Change is nothing new to Crayford. The First World War changed a small village into an industrial town almost over night. Many of the residents of the town live in 'Vicker's houses' but how many of these residents know why their homes were built? The Vicker's factory which led to the creation of their homes is long since gone. The Tower Retail Park swept away most of the remains of a factory, which had been the most important firm ever to operate in the area. Fortunately, the clock tower and the town hall have remained as links with the town's industrial heritage. However, as the new development changes the town still further and new housing brings new people to the area, there is a danger that Crayford could be cast adrift from its roots.

Partly this is because there is no place in Crayford itself that can try to convey to newcomers what this town once was. There is no memorial in the town telling people the history of Vickers at Crayford.

The 15th June 2009 marks the 90th anniversary of Alcock and Brown's first non-stop flight across the Atlantic in a Vickers Vimy designed and constructed from parts largely made in Crayford.

Even before Alcock and Brown's Vickers Vimy, Crayford played a significant role in the development of Hiram Maxim's flying machine, which on the 31st July, 1894 became the first aeroplane to lift itself off the ground briefly in the nineteenth century. These are significant landmarks in World aviation history which go unmarked in the town that made them happen.

This amazing contribution to the development of aviation needs to be relayed to the people who now live in Crayford and perhaps think of it as a place lacking any significant history. The 90th anniversary of Alcock and Brown's flight gives us the opportunity of changing this and making today's Crayfordians aware of their magnificent town and its flying machines.

Peter Daniel
May 2009

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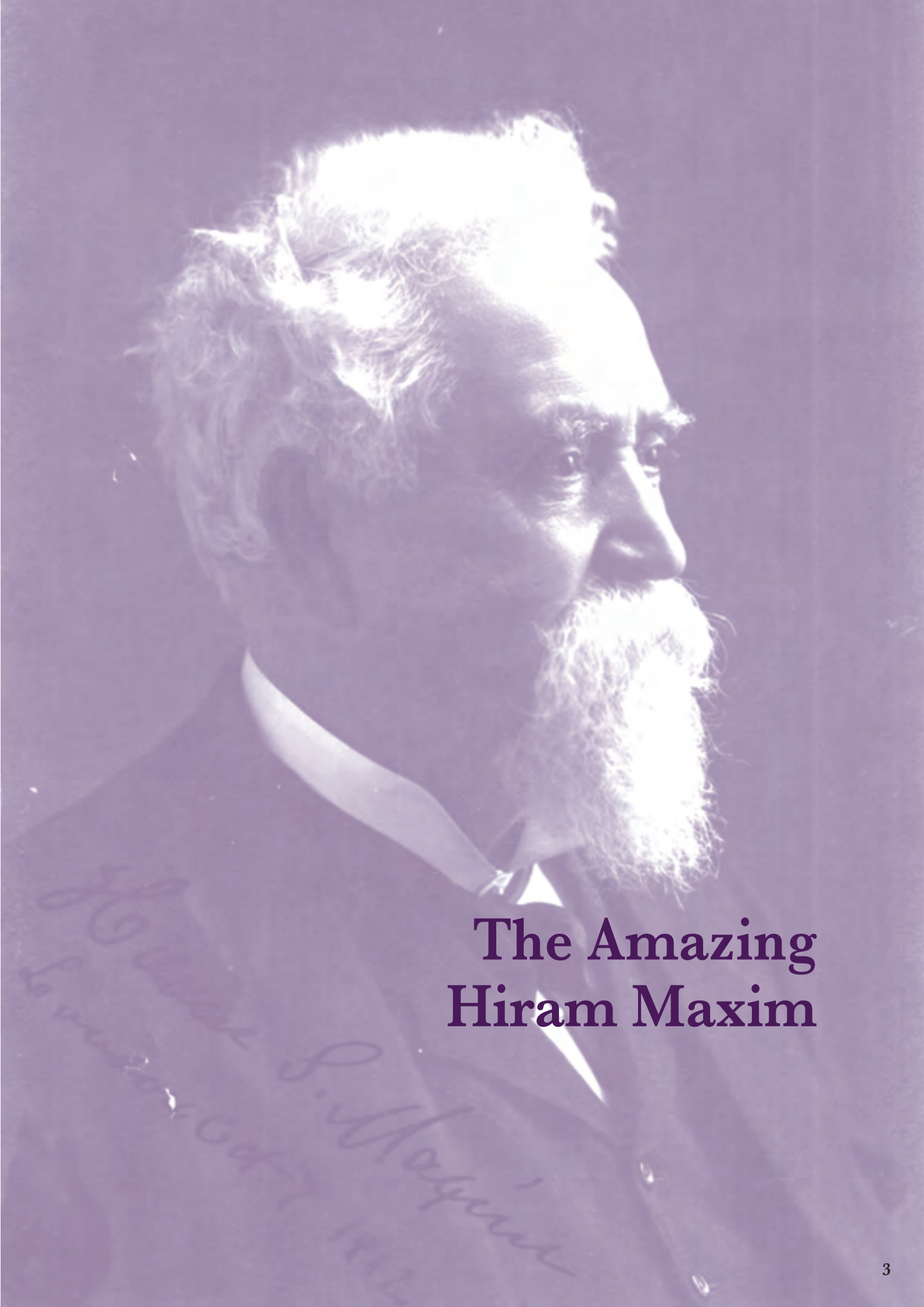


The Amazing Hiram Maxim

The Amazing Hiram Maxim

Have you ever seen the coat of arms above the door of Crayford town hall? You'll notice a red bird sitting above a Kentish horse. The red bird recognises that the first heavier than air flight in history was made by a plane built just across the road, where the Tower Retail Park is now.

The record books give the credit for the first heavier than air flight to the Wright brothers in 1903. However, some people claim that this record was broken nine years before by Sir Hiram Stevens Maxim and his Crayford built flying machine.

The Wright brothers' Flyer 1903.

Maxim was an American inventor whose most famous invention was the Maxim machine gun. In 1888 he set up a factory in Crayford to build his gun. It could fire six hundred and sixty bullets a minute and people came from all over the world to see his gun demonstrated.

Maxim (far right) with Chinese delegates at a demonstration of his gun.

A caricature of Hiram Maxim who was knighted in 1901.

He later went into partnership with the Vickers brothers and their factory soon came to dominate the town. Most of it now has been knocked down. However, the Crayford clock tower, which now stands alongside McDonalds, once stood at the factory gates, the town hall was its canteen and the building now occupied by Topps Tiles was once the bus station that brought its employees to work.

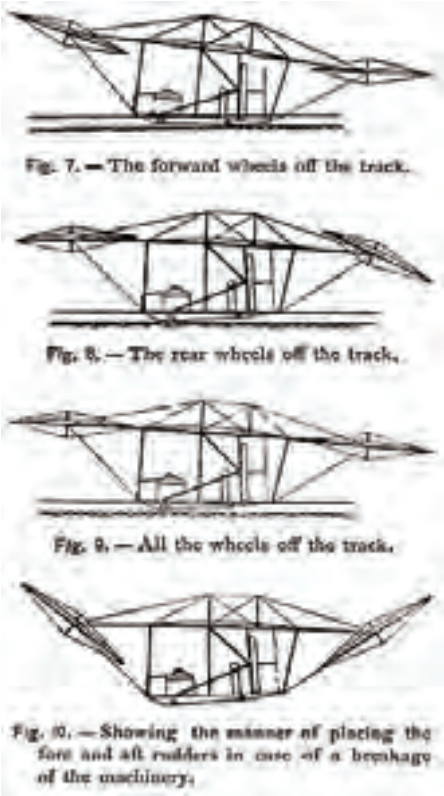
The Amazing Hiram Maxim

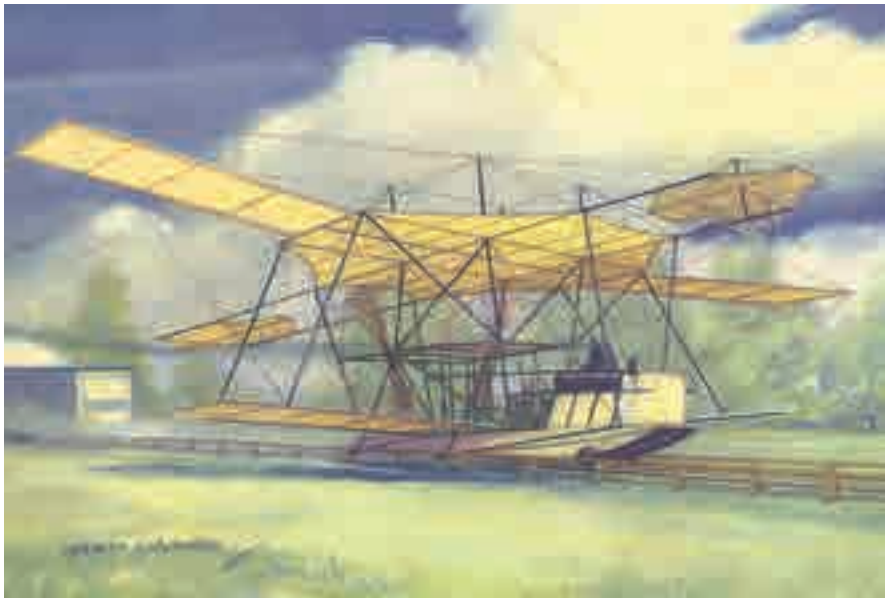
In 1890 Maxim told the Vickers brothers that he could build a flying machine and that it would take him five years and £50,000 to do so. On Tuesday, 31st July, 1894 at his home at Baldwyn's Park, Bexley (formerly the site of Bexley Hospital, now a housing estate) Maxim prepared to make history.

Amongst the audience gathered at his home were the Prince of Wales (the future King Edward VII), and three famous authors: Rudyard Kipling, Sir Arthur Conan Doyle and H. G. Wells.

Maxim's Flying Machine on the rails at Baldwyn's Park.

Maxim's enormous biplane weighed 8000 lbs (3629 kg) and had two specially designed steam engines, which each produced 180 h.p. and turned two pusher propellers each 17½ feet (5.3 metres) in diameter.





Maxim's machine was really a test rig, it wasn't meant to fly, only to show that flight was possible. This was because he had not solved how to steer his plane in the air. The intention was to make the machine raise itself off a set of rails below its wheel base but be prevented from soaring into the air by a second set above.

On its third test run, Maxim, alongside Crayford mechanics Tom Jackson and Arthur Guthrie, found themselves lifted with such force that their plane broke from the upper rail and took to the air. Maxim, in his autobiography *My Life* (1916), said that it felt like 'floating in the air with the feeling of being in a boat.'

It has been calculated that it flew 922 feet (281 metres) at a height of 57 inches (1.4metres). Was this really the first heavier than air flight taking place in Bexley nearly a decade before the Wright brothers? Opinions are divided. It's true that the Wright brothers were the first people to actively control their flight, but some people say Maxim claimed the higher prize of being the first heavier than air flight in history.

The Amazing Hiram Maxim

Maxim thought it was fitting that his home at Baldwyn's Park later became Bexley Mental Hospital. He later joked, *'I had prepared the ground, all that was necessary was to erect the buildings.'* So many people thought flying was crazy that he found it hard to raise funds to continue his experiments.

BEXLEY COTTAGE HOSPITAL

FLYING MACHINE & GUNS

PROGRAMME

WORLD-RENOWNED AUTOMATIC MACHINE GUNS

In an attempt to raise money himself Maxim built his 'captive flying machine,' a fairground ride, which can still be seen in Blackpool today. He wanted funds to build a new biplane in Crayford. However, before it was ready, Louis Bleriot had stolen the headlines with his cross Channel flight, in 1909.

Louis Bleriot at Dover Castle 1909. He claimed a £1000 prize from the Daily Mail.

Maxim's 1910 biplane in its hangar facing Crayford Road.

The test flights of his biplane at Joyce Green, Dartford in 1910, proved unsuccessful and Maxim did not have the funds to continue to develop his ideas. In 1911, he parted company with Vickers and tried unsuccessfully to form a new company with Louis Bleriot and flight pioneer Claude Grahame White. Old age and failing health now brought his flying days to an end.

WHEN SIR HIRAM MAXIM FLIES OVER LONDON

THE VETERAN INVENTOR IN HIS NEW BIPLANE

BRITISH FLYING MACHINES.

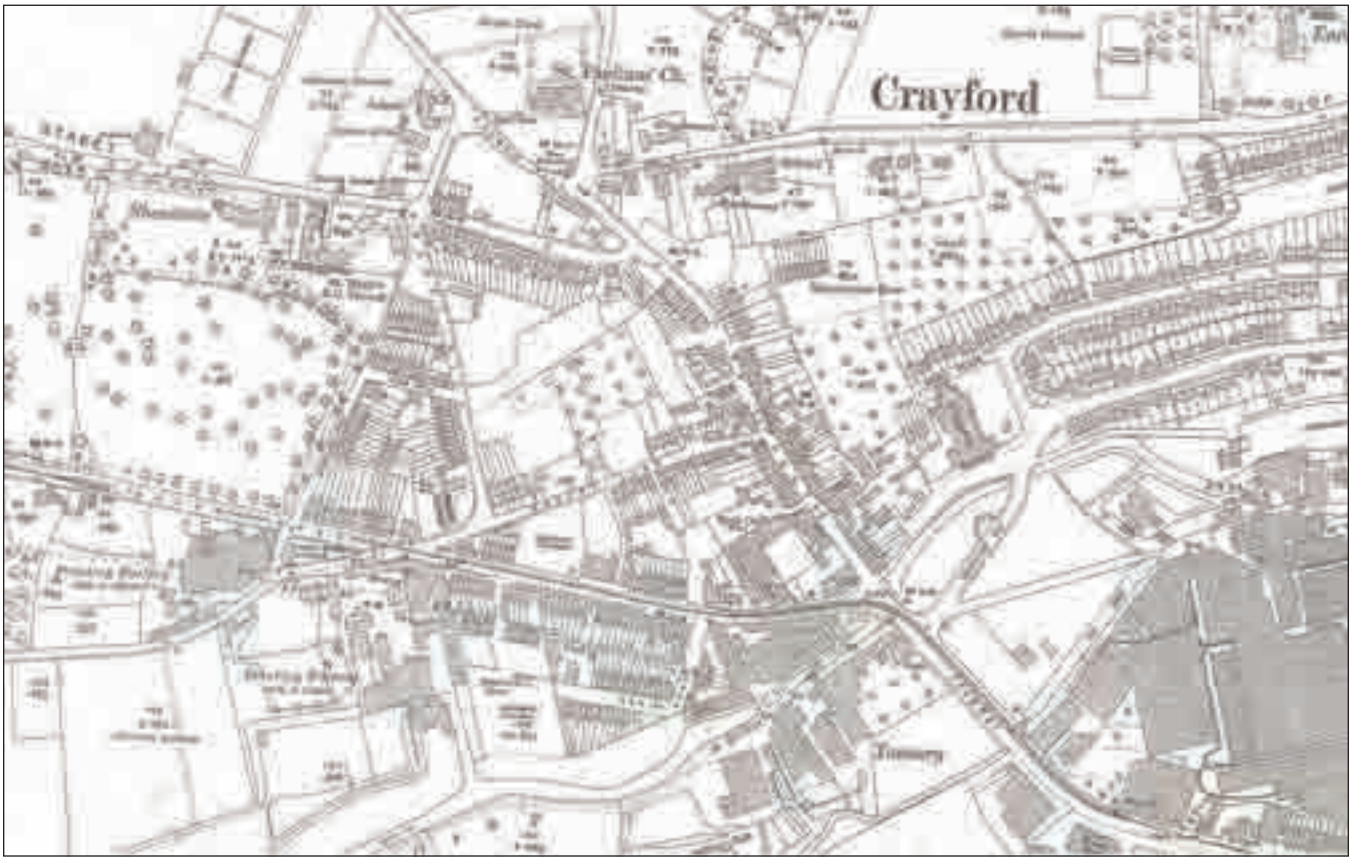
PLAN TO CARRY PASSENGERS.

Sir Hiram Maxim is constructing a new flying machine at Crayford, Kent. A special track has been prepared on the old motor track at the Wolseley works, and thirty men are employed building the new machine. Sir Hiram has taken living accommodation near the ground.

The Amazing Hiram Maxim

By the year of Maxim's death in 1916, Crayford had been transformed from a sleepy Kentish village into a small industrial town. When the First World War broke out, in 1914, huge orders were placed for planes and machine guns with Vickers Crayford. The factory was greatly enlarged and Vickers built a new estate at Barnes Cray, Crayford for its huge new work force.

OS map Crayford 1897



OS map Crayford 1933

Aerial photo of Crayford c. 1938.

Crayford Industrial Area

1. Crayford Industrial Estate and Swaislands Drive
2. Tower Retail Park and Tower Park Industrial Estate
3. Acorn Industrial Park
4. Former Samas Roneo Factory

Vickers Crayford factory grew rapidly in World War One. It built an improved version of the Maxim gun and planes like the Vickers FB2 Gunbus.

Women were a huge part of the new workforce that, in 1917, were asked to build what would become the most famous aircraft to be produced in Crayford. This was an order for a twin-engined plane that could bomb Germany.

Thomas Keppel North takes Queen Alexandra on a tour of Vickers Crayford 1918.

A Vickers Gunbus based at Joyce Green, Dartford was responsible for shooting down a German Taube monoplane on Christmas Day 1914 .

Vimy wings being made in the Crayford workshop 1918. Crayford was said to be one of the only factories that could build a plane from start to finish.

Four months after Rex Pierson sketched a rough design of the plane in front of the Air Board at the Hotel Cecil on the Strand, Crayford Superintendent, Thomas Keppel North was able to deliver the prototype. This first flew at Joyce Green, Dartford, on 30th November, 1917. It was named the Vimy after a great battle that had just been won in France. However, the war ended before the plane was ready to mount attacks on Germany.

The Amazing Hiram Maxim

As North stood in front of his 14,500 workforce on Armistice Day, November 11th 1918, the day the First World War ended, he knew that he now had the challenge of finding them all work. Sewing machines might be able to replace machine guns, but could the Vimy find a future as a passenger airliner?

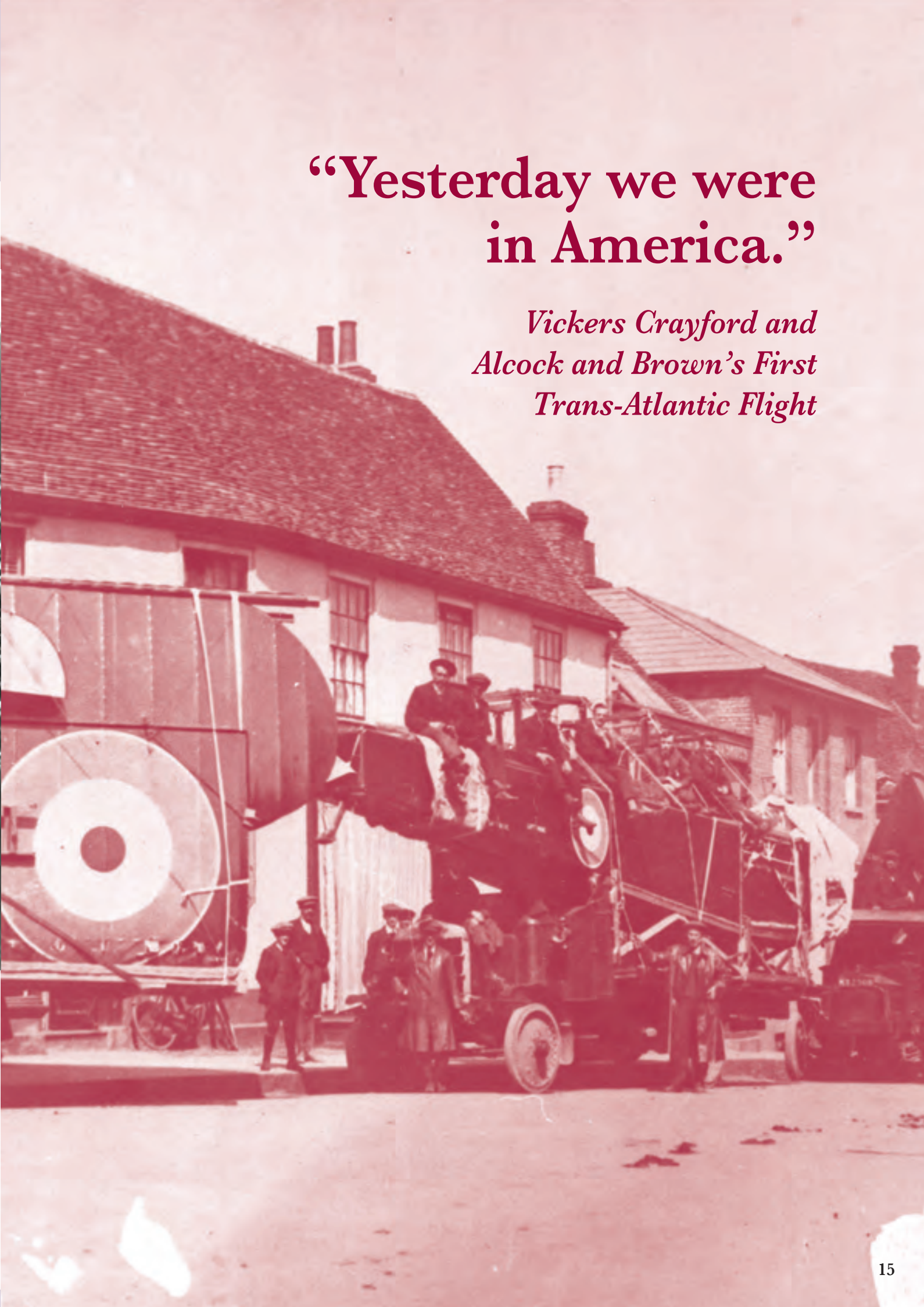
T.K. North at the head of 14,500 Vickers Crayford employees on Armistice Day November 11th 1918.

In January 1919 Vickers put together plans to build sewing machines in place of machine guns.

Vickers Vimy Commercial airliner. The prototype was built in Crayford and tested at Joyce Green in 1919.

"Yesterday we were in America."

Vickers Crayford and Alcock and Brown's First Trans-Atlantic Flight



The Daily Mail Challenge

In 1913, Lord Northcliffe, owner of the Daily Mail, offered £10,000 to the first pilot(s) who could fly non stop across the Atlantic in either direction between North America and the British Isles (including, at the time, all of Ireland). They were allowed seventy two hours, and had to finish in the same aircraft with which they started.

By the time World War One ended, a number of teams were vying to win the prize. Many of these were already quite advanced with preparing their challenge before Vickers decided to enter their Vimy. They chose Captain John Alcock to pilot the plane and Lieutenant Arthur Whitten Brown to navigate.

The Vimy Crew

Arthur Whitten Brown
Lieutenant Arthur Whitten Brown was born in 1886. Brown served as an observer with the Royal Flying Corps during World War One. He was shot down, badly wounded and taken prisoner in 1915. While in prison camp, he taught himself navigation, but had very little actual experience of the art before the trans-Atlantic attempt. At the time of the flight, he was engaged to Marguerite Kennedy and postponed their wedding to make the journey.

Captain John Alcock
Captain John Alcock would be the pilot for the trans-Atlantic attempt. Born in 1892, he had been inspired to learn to fly after witnessing Hiram Maxim's business partner Claude Grahame White land in Manchester at the end of the Daily Mail's £10,000 challenge race between London and Manchester in 1910. He saw active service with the Royal Naval Air Service in the Mediterranean, shooting down several German aircraft before being shot down himself and taken prisoner in 1917.

The Contenders

The first attempt for the Daily Mail's prize was made by the Short Brothers' plane, "Shamrock." It left England on April 18th, 1919, but only flew twelve miles before crashing into the sea. This left just four realistic contenders in the race. These friendly rivals chose to fly West-East across the Atlantic from Newfoundland because winds across the Atlantic blow from the West.

Hawker, and Grieve, were the next to try in their Sopwith Atlantic biplane. They took off on May 18th, 1919 but had to be rescued by a ship in mid-Atlantic. Taking off just an hour behind the Sopwith, the Martinsyde Raymor crashed on take off injuring pilots Raynham and Morgan.

This just left Admiral Mark Kerr's Handley Page V/1500 'Berlin Bomber' and Alcock and Brown's Vickers Vimy. The Vimy had been the last plane to reach Newfoundland and were considered rank outsiders. Then mechanical difficulties on the Handley Page left them as the only runner in the race. Could they do it?

Short's Shamrock.

Sopwith Atlantic.

Handley Page.

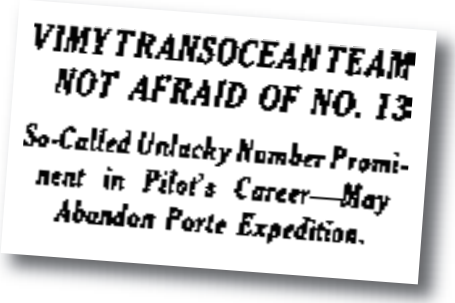
The crash of the Martinsyde Raymor.

Vickers Vimy.

Vickers Crayford and the Building of the Vimy Atlantic

Records show that 12 completed Vimy bombers were made in Crayford for the R.A.F. before a decision was made to transfer manufacture to Weybridge in Surrey. The Crayford factory had the disadvantage that planes made there had to be dismantled and transported by road to Vickers airfield at Joyce Green, Dartford. Vickers historian J.D. Scott believed that the transatlantic Vimy was part of a stock of 40 machines, either complete or part built, that were moved to Weybridge to make space for the production of sewing machines at Crayford.

John Bagley of the Science Museum believes that although the Vickers Vimy Atlantic was assembled and adapted in Weybridge for the flight, it was probable *'that part of it-probably a substantial part-derived from the Crayford production line.'*


VIMY TRANSOCEAN TEAM NOT AFRAID OF NO. 13

So-Called Unlucky Number Prominent in Pilot's Career—May Abandon Porte Expedition.

Alcock deliberately chose the 13th Vimy to come off the production line for the trans-Atlantic flight because 13 was his lucky number.

The Vimy production line at Vickers Crayford.

Dismantled Vimy outside the Bear and Ragged Staff pub, Crayford.

The cotton covering of the Science Museum's Vimy has been cut back to show how Vickers at Weybridge adapted the Vimy for the flight. They added an enormous fuel tank, which ran from the front of the wing, just behind the cockpit, and extended far back towards the tail. The pilot's cockpit was also enlarged to allow Alcock and Brown to sit side-by-side.

The Challenge Begins

It was bitterly cold as the Vickers team struggled to unpack the crates containing their specially adapted Vimy. Lester's field was about as windswept and desolate a place you could find in Newfoundland (now Canada). Try as they might, it was difficult for Alcock and Brown to picture their plane taking off from this rock strewn bumpy field.

It took the Vickers team of 11 mechanics two weeks to get the plane ready to fly.

After Hawker and Grieve's crash mid-Atlantic, Alcock made sure that one of the fuel tanks on the Vimy was made in the shape of a boat. He also had a cupboard built in the plane's tail containing emergency rations as this would be the last part of the plane to sink.

While the Vimy was being assembled, the field was being prepared for take-off. It was very rough, and Brown wasn't sure that their heavily-laden plane would be able to take off. In an attempt to save weight, he asked the mechanics to remove the nose-wheel.

Finally, on June 13th, 1919 the aircraft was ready to go. Alcock was hoping it would once again be lucky 13 for him. However, strong cross winds delayed their attempt by a day.

Alcock and Brown's First Trans-Atlantic Flight

On the morning of June 14th, 1919, Alcock and Brown got into their electrically heated flying suits made especially for them by Burberry of Regent Street. As they posed for pictures shortly before departure, Brown was thrilled to see a black cat walk underneath the plane. It was a good omen.

Alcock and Brown in their Burberry flying suits share a flask of tea before take off.

Twinkletoes was a present to Brown from his fiancee Marguerite Kennedy.

Not that they needed another lucky cat, as the first two passengers, Lucky Jim and Twinkletoes, their toy cat mascots, were already aboard the Vimy! For extra luck, Vickers rigger Harry Couch had also screwed a horseshoe beneath Alcock's seat.

Special mail bags loaded with letters were also aboard. If the two men were successful, these letters would become the first trans-Atlantic airmail.

Alcock and Brown were eager to start before their rivals, but didn't know when they took off at 1.45pm (local time) that the Handley Page team had been forced out of the race with radiator trouble.

As they flew over Lester's field, Brown leaned over the side and waved to the crowds below. He hoped that in 16 hours or more another crowd would be waiting for them in Ireland some 2,000 miles (3,200km) away.

Alcock and Brown's Vimy takes off.

> *"The echo of the roaring motors must have struck quite hard against the hills around St John's. At the last second Alcock gained height. We were only inches above the top of the trees."*
> Whitten Brown

Three hours into the flight Brown noticed that the wind driven propeller operating the generator for their radio had broken free. Without their radio they now had no means of contacting the outside world. As the hours of silence passed fears grew for their safety on both sides of the Atlantic.

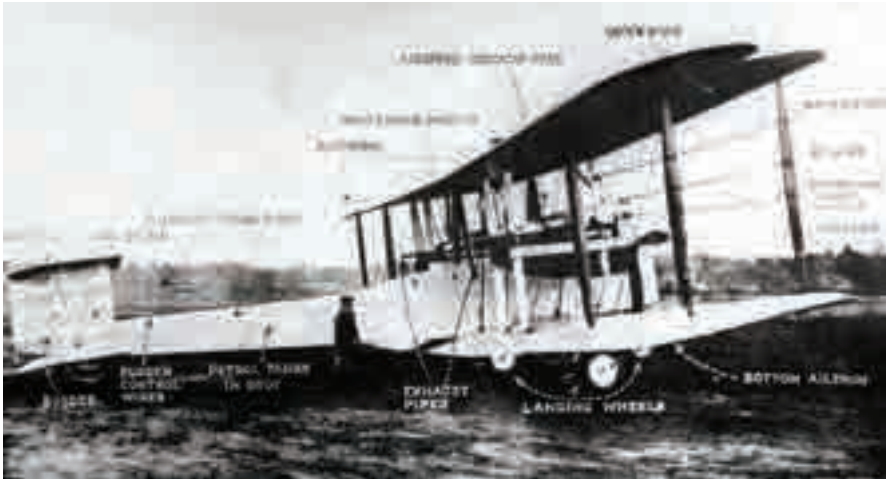
The New York Times.

ALCOCK AND BROWN, IN THEIR VIMY AIRPLANE, START ATLANTIC FLIGHT IN HEAVY WIND; NO WORD FROM THEM AFTER LEAVING ST. JOHN'S

About 300 miles from Newfoundland a pipe on the starboard engine gave way and the exhaust fumes began to flow into the plane's slipstream, just a few feet from the ears of the crew. The noise was so deafening that communication was now only possible by notes. To make matters worse, the heating in the men's leather flying suits stopped working. The batteries had run out. "We froze like young puppies," Alcock said later.

Alcock and Brown's First Trans-Atlantic Flight

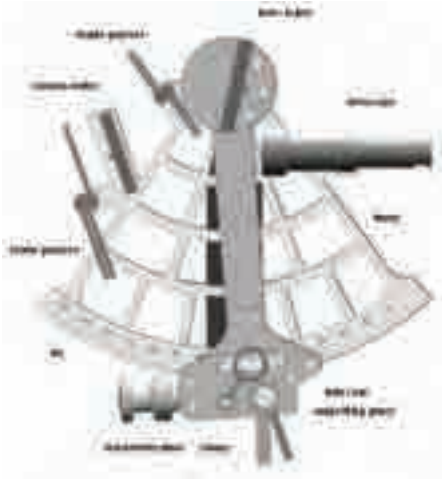
After a few hours, they flew into fog that was so thick that they could barely see their engines. Even their ear-splitting sound had become muffled in the dense blanket of grey. The simple instruments in the cockpit gave poor Alcock no means of telling which way up he was flying. He had to hope he could fly as straight and level as possible, until the fog cleared.



"We looped the loop, I do believe, and did a very steep spiral. We did some very comic "stunts", for I have had no sense of horizon"
Alcock

Alcock was trying to climb above the fog to enable Brown to get a sun-sight, when the plane suddenly spun out of control. It almost spiralled down into the sea before Alcock regained control and was able to climb once more.

They flew on into the night and shortly after midnight Brown was able to get a few star sights, fixing their position with his sextant. They had covered 850 nautical miles, and had just over 1,000 still to go.



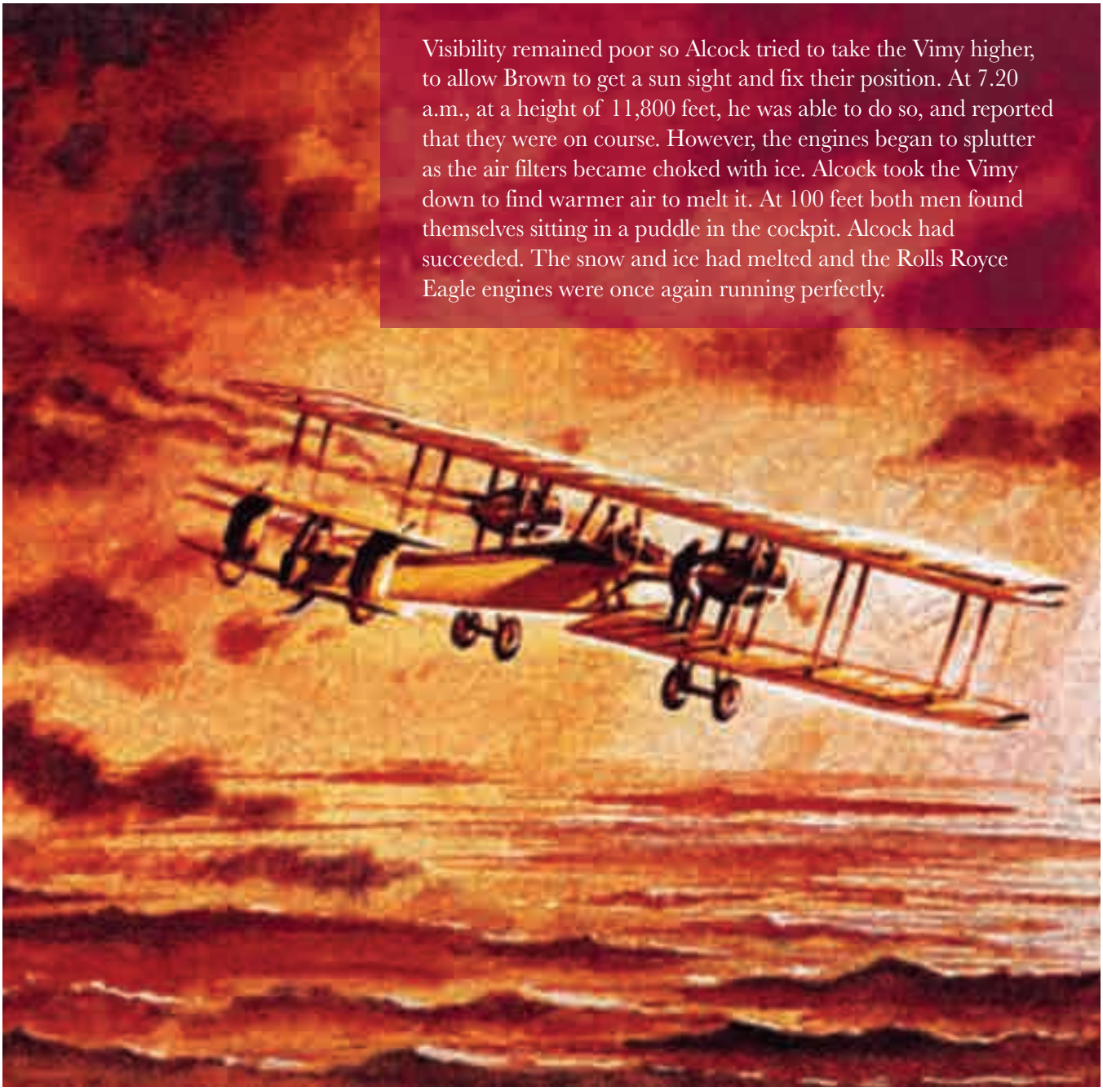
Sextant: *a navigation instrument that is used to establish position by measuring the height of stars or the sun from the horizon.*

At about 3 a.m., having dined on sandwiches washed down with whisky and beer, they flew into a thunder cloud. The turbulence sent the Vimy into a vertical dive, which Alcock managed to pull out of just seconds away from hitting the sea. When they levelled out at just 20 feet, they realised they were now flying in the wrong direction…towards America!

"The salty taste we noted later on our tongues was foam. In any case the altimeter wasn't working at that low height and I think that we were not more than 16 to 20 ft. above the water."
Alcock

Alcock and Brown's First Trans-Atlantic Flight

Snow began to fall and ice began covering the petrol gauge attached to one of the wing spars. This gauge allowed Alcock to keep a steady flow of fuel to the engines. If he couldn't see it, and they stalled the Vimy would crash into the Atlantic. There was only one thing that could be done. Brown left the cockpit and started removing the ice, hoping that Alcock could keep the plane level enough to avoid flinging him 8,000 feet down to an icy grave. He did this four times, despite having a war wound that severely restricted his movement.



Visibility remained poor so Alcock tried to take the Vimy higher, to allow Brown to get a sun sight and fix their position. At 7.20 a.m., at a height of 11,800 feet, he was able to do so, and reported that they were on course. However, the engines began to splutter as the air filters became choked with ice. Alcock took the Vimy down to find warmer air to melt it. At 100 feet both men found themselves sitting in a puddle in the cockpit. Alcock had succeeded. The snow and ice had melted and the Rolls Royce Eagle engines were once again running perfectly.

At about 8 a.m. they sighted Ireland, coming in over the town of Clifden near Connemara. They circled the local radio station, with an inviting green meadow nearby. They saw people waving from the radio station, which they thought was a welcome. In reality the waves were an attempt to warn them that the 'meadow' was not a meadow at all, but Derrygimla Bog, far too soft for them to land: but the fliers could not know this.

Alcock brought the Vimy down on the bog at 8.40 a.m. They had been in the air for 16 hours and 28 minutes and flown 1,960 miles (3,154km). It ran for only a short distance before the front skid dug into the bog and flipped the aircraft onto its nose, breaking the lower wings and damaging the front of the fuselage. Brown reportedly turned to Alcock and asked, "What do you think of that for fancy navigating?" Alcock replied, "Very good!", and the two shook hands.

"The only thing to upset me was to see the machine at the end get damaged. From above the bog looked like a lovely field."
Alcock

A man named Taylor was the first to reach the fliers and he asked breathlessly: "Anybody hurt?"
"No." was the loud response from the airmen.
"Where are you from?"
"America." Alcock yelled back. "Yesterday we were in America."

Alcock and Brown's First Trans-Atlantic Flight

"HOW I FLEW THE ATLANTIC" BY CAPT. ALCOCK
The Daily Mirror
BRITAIN'S MAGNIFICENT ATLANTIC AIR TRIUMPH

Alcock and Brown became instant heroes on both sides of the Atlantic. They travelled to England (not in their Vimy, which was retrieved from the bog and repaired), and when they reached London, they paraded in an open top Rolls Royce along Portland Street, Oxford Circus and Regent Street. When they reached the Royal Aero Club in Piccadilly, they delivered the letters that had now become the first trans-Atlantic air mail.

At the banquet, which followed at the Savoy Hotel in the Strand, they were greeted with an unforgettable menu. It consisted of:Oeufs Poches Alcock, Supreme de Sole a la Brown, Poulet de Printemps a la Vickers Vimy, Salade Clifden, Surprise Britannia, Gateau Grand Success.

ASSOCIATED NEWSPAPERS LIMITED.
London 30th June 1919
Messrs Coutts & Co.
Pay to Captain
Ten Thousand Pounds
£10,000-0-0

At the Savoy, Alcock and Brown received the £10,000 Daily Mail prize, from the then Secretary of State for War and Air, Winston Churchill. He told them that they would be knighted the following day at Windsor Castle by King George V.

They also received a prize of 2,000 guineas (equal to £2,100) from the Ardath Tobacco Company, and another of £1,000 from Lawrence R. Phillips for being the first British subjects to fly the Atlantic. They gave £2,000 of their prize money to the Vickers and Rolls-Royce mechanics who had helped to prepare the Vimy.

The 'Knights of the Air' Come to Crayford

The 'Knights of the Air' Come to Crayford

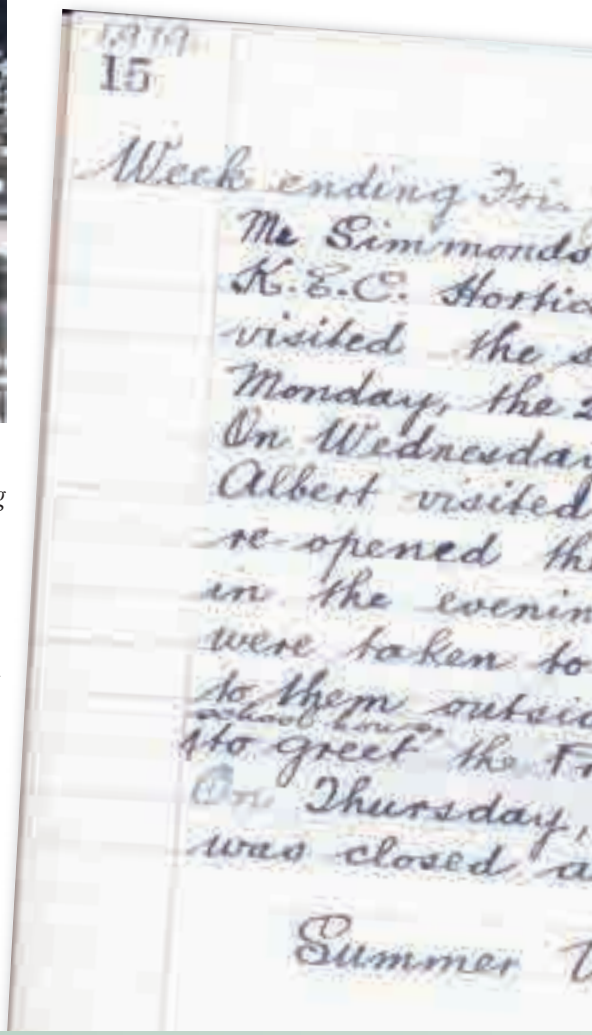
The Mystery Guests

The Princesses' Theatre was looking immaculate in the early evening sunshine. The poster on the wall outside announced that Prince Albert would be the guest of honour at the grand re-opening set for that very evening, July 23rd 1919. Three years before the theatre had been destroyed by fire and the workers at Vickers Crayford had been eagerly awaiting this day. A ballot had been held for tickets as only a thousand people could be squeezed into the theatre. Children from St Paulinus School stood at the front entrance to await the arrival of the Prince and Sir Trevor Dawson, the Chairman of Vickers. They didn't notice two young men slip into the theatre at its rear entrance.

Prince Albert (far left) became King George VI in 1937. He is the father of Queen Elizabeth II. He is standing alongside Lady Dawson and her husband Sir Trevor Dawson, the Chariman of Vickers.

Prince Albert arrives for the re-opening of the Princesses' Theatre July 23rd 1919.

Princesses' Parade 2009.



15

Week ending Fri

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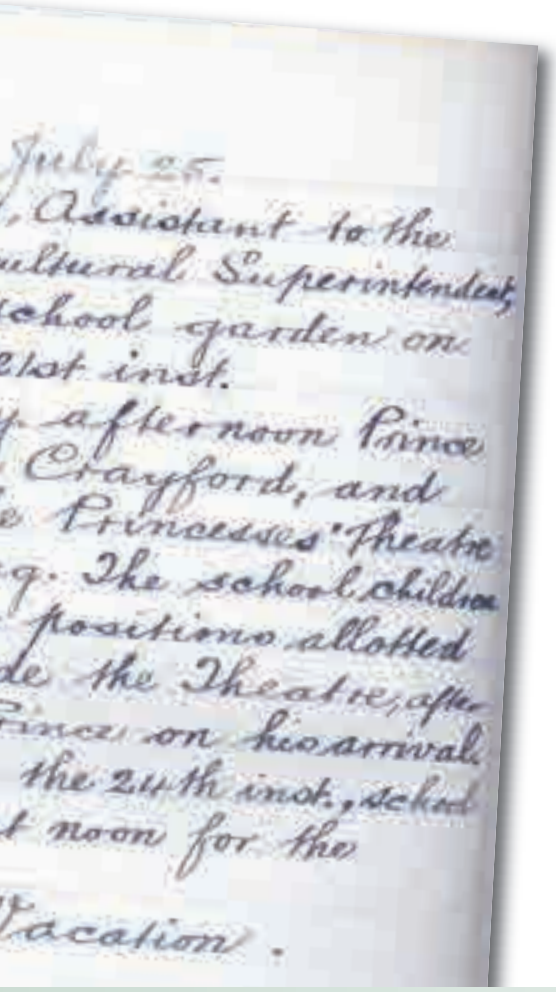
Summer

Saint Paulinus School Log book entry for July 23rd 1919. The Theatre opened just before the summer holidays. The children can be seen lining the streets with Union Jacks in hand awaiting the arrival of Prince Albert. The school was keen to emphasise that this happened after school hours!



July 25.
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Vacation.

Crayford's Atlantic Flight Heroes

Standing behind the stage curtain, the two men were invisible to the crowd gathered in the Princesses' theatre. A nervous smile passed between them. It was taking time getting used to being celebrities. The sound of a gong brought them on tip toes to the side of the curtain. They could just see the back of Prince Albert as he gave the opening speech and introduced the screening of their film. 'Their film,' it still didn't seem right to be treated like Hollywood stars! The noise from the audience as the film was introduced was deafening. Then silence as they settled into watching the flickering images on the big screen. Each time the Vickers Vimy appeared on screen the crowd cheered. For these people this plane was bigger than any Hollywood star. It was their baby, the plane that they had brought to life just yards from where they were all sitting. The two men knew this. They had insisted on coming because they knew how much they owed the people in this audience. Then suddenly as it had started the film came to an end. They could see Sir Trevor Dawson, Chairman of Vickers through a small slit in the curtains. They knew their moment had arrived. The curtain slipped back across the stage as Sir Trevor announced:

"Ladies and Gentlemen, I give you Sir John Alcock and Sir Arthur Whitten Brown."

ATLANTIC FLIGHT HEROES

Sir Arthur Trevor Dawson said he was pleased to present to the audience Sir John Alcock and Sir Arthur Whitten Brown, who had just completed their Trans-Atlantic flight in 15 hours and 57 minutes, non-stop in a Vickers' aeroplane. They had both served from 1914 and continued to serve during the whole of the war. Sir John Alcock had done wonderful things in aerographic work and in bombing expeditions in Constantinople, but unfortunately owing to engine trouble he came down and was taken prisoner by the Turks. Sir Arthur Whitten Brown joined the Manchester Regiment, and early in the war he sustained a broken leg and dislocated thigh and was invalided out of the Regiment but immediately joined the Air Force and did wonderful work in it. While flying over the German lines he was hit and coming down was taken prisoner also. Both had done their job well (prolonged applause). They had now held up the name of Great Britain and secured for the Empire the Blue Riband of the Atlantic. They left St. John's one afternoon and arrived in Ireland for breakfast (laughter). It had been no child's play though. His Majesty the King had honoured them by making them Knights of the Air. They also welcomed Miss Kennedy, who on Tuesday next was going to be married to Sir, A. Brown.

That day was Sir Arthur Brown's birthday and they all extended to him their best wishes (applause), Sir Trevor Dawson then presented on behalf of the Chairman and the Directors a souvenir of their flight for services rendered to the company and to their country.

Both "Knights of the Air" were then presented with beautifully engraved gold watches with wrist straps. Miss Kennedy was also presented with a wedding present of a diamond wings brooch with Vickers embolism in diamonds and rubies, with every good wish for her future happiness.

Although the curtain fell speeches were demanded by the audience and Sir John Alcock made a short but characteristic speech. He said "Your Royal Highness, Sir Trevor Dawson and friends, I thank you for your applause and I thank the Directors for their generous present. You know in this little flight we made we were only passengers. It was the machine built by Vickers' men at Weybridge that did the duty and brought us across." (laughter and applause).

Sir Arthur Whitten Brown said, "Your Royal Highness and Sir Trevor Dawson, I would like to add my thanks for the handsome mementoes, and to say we shall always treasure them and they will remind us of our pleasant associations with Messrs Vickers Ltd. We had been assured that there would be no speeches tonight so I had no set speech ready. No man was entirely independent, the flight would not have been made had it not been for the designer and the firm who made the machine. I also wish to pay a tribute to the workers."

A Tribute to the Workers

Alcock and Brown, were given the title 'Knights of the Air' by the Sidcup Times. Both men received engraved gold wrist watches from the Vickers directors present at the Princesses' Theatre. Marguerite Kennedy, Brown's fiancée, who had sat quietly in the audience to this point, received a diamond studded Vickers aviation brooch to wear at her wedding. The couple married, with Alcock as a witness, a few days later at the Savoy Church in the Strand.

The aviators gave short speeches to thank everyone at Vickers for their success.

" Your Royal Highness, Sir Trevor Dawson and friends. I thank you for your applause and I thank the three directors for their generous present. You know in this little flight we made we were only passengers. It was the machine built by Vickers men at Weybridge that did the duty and brought us across."

Sir John Alcock

"Your Royal Highness and Sir Trevor Dawson, I would like to add my thanks for the handsome mementoes, and to say we shall always treasure them and they will remind us of our pleasant associations with Messrs Vickers Ltd. We had been assured that there would be no speeches tonight so I had no speech ready. No man is entirely independent, the flight would not have been made had it not been for the designer and the firm who made the machine. I also wish to pay tribute to the workers."

Sir Arthur Whitten Brown

Postscript

Postscript

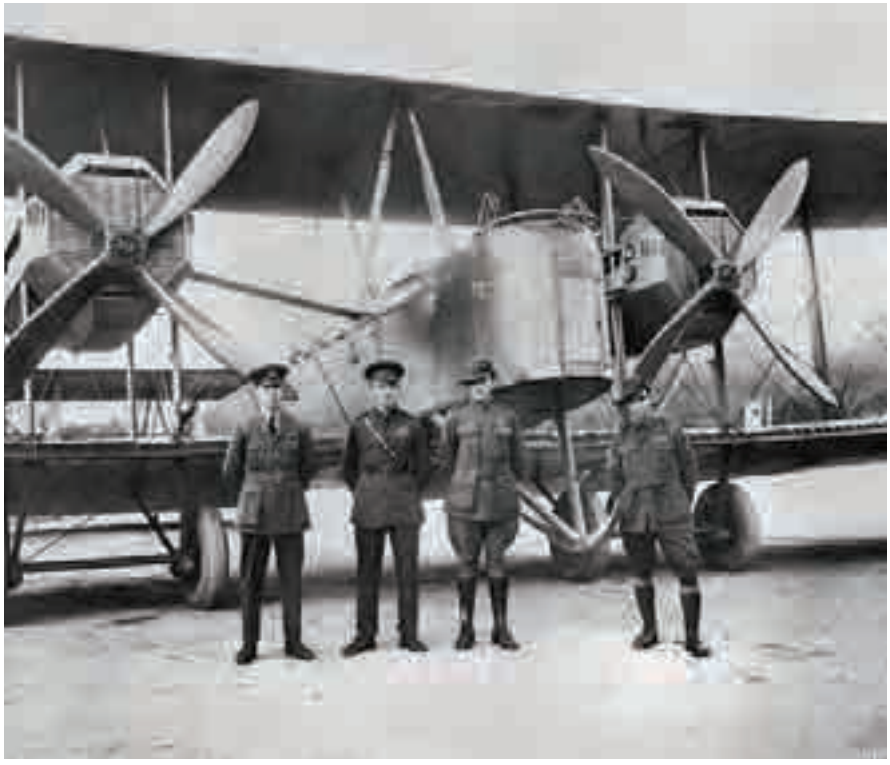
On December 15, 1919 Alcock was present at the Science Museum in London when the Vimy, was presented to the nation. Three days later, he had to deliver a new Vickers plane, the Viking, to Paris for the first aeronautical exhibition there since the war. Flying in dense fog, without a navigator, his plane struck a tree and plunged into fields at Cottevrard, France. A farmer found Alcock unconscious and in 'a terrible mess' but he died before they could get him to hospital. His body was indentified by the engraving on his diamond-studded wristwatch. The same watch, which had been given to him at the Princesses' theatre, Crayford, just a few month before.

The Vimy remains in the Science Museum to this day.

Alcock's grave in Manchester.

Sir Arthur Whitter Brown received the news about Alcock whilst on honeymoon in the USA. Greatly affected by the news, he never flew again. He survived World War II, dying in 1948 in Swansea, Wales.

Ross and Keith Smith with their Vimy.



The Vimy's success did not end with Alcock and Brown. On 12 November 1919, brothers Ross and Keith Smith left England in A Vimy attempting the first flight to Australia. They arrived successfully on 10 December - a journey of 28 days. In 1920, Lieutenant Colonel Pierre van Ryneveld and Major Quintin Brand used a Vimy which narrowly failed to make the first England to South Africa flight.

Alcock and Brown's success against overwhelming odds meant a great deal to people in 1919. Their achievement pointed to a better future for a world weary of death through war and the terrible flu epidemic that followed it.

Although, a memorial statue was erected at Heathrow Airport in 1954 to celebrate their flight, Alcock and Brown are mostly unknown to ordinary people today. Often it is believed that the first non-stop flight was made by Charles Lindbergh in his plane *The Spirit of St Louis* in 1927.

This memorial marks the spot closest to where they landed, near to the old Marconi Wireless Station.

There are two memorials to Alcock and Brown in Clifden, Ireland. The one shaped like a plane's tailfin is about 2km from where they landed. It has an inscription in Gaelic and English which pays tribute to two brave men:

> *'Ta a ngaisce ar chlar na speire. Their heroism adorns the expanses of the sky.'*

Postscript

Thomas Keppel North, the Superintendent of Vickers Crayford, received little recognition for his role in designing the Vimy. He died at the age of 42 on February 10, 1919 – a victim of the world's 'flu pandemic, which claimed an estimated 30 million lives. This was just three months before Alcock and Brown's flight. Thousands of people lined the streets of Crayford to see his coffin leave for Norfolk. He was a popular man who had not only run the factory that most of them worked in but had instigated the building of the Princesses' theatre. He was buried under a headstone bearing the image of a Vickers Vimy.

T. K. North

North's dream that the plane could be turned into an airliner became reality. Boosted by the publicity of Alcock and Brown's flight, the Vickers Vimy Commercial became one of the first successful airliners.

Vickers Vimy Commerical at Joyce Green.

The image of a Vickers Vimy on Keppel's headstone which points to his links to the epic Atlantic flight of 1919.

A large part of Vickers was demolished in 1982. The factory closed in 1985 and the rest of it was demolished in 1998 to make way for the Tower Retail Park, which was opened on 2nd July 1999. In addition to the clock tower, town hall and the former coach station-now owned by Topps Tiles, a number of old Vickers buildings remain as part of the Crayford Industrial Park behind the main area of shops.

Crayford Industrial Park.

Tower Retail Park 2009.

Demolition of Vickers in 1982.

An old street lamp that once stood outside the Princesses' Theatre.

The Princesses' Theatre tried to survive for many years as a cinema but was closed in 1955. An attempt was made to turn it into a swimming pool, but it was demolished in 1960 so that flats and shops could be built on the site. The theatre's foundation stone remains as the only hint on the site to what once stood there. The theatre's ornamental street lamps are now outside the Mazda garage in Bourne Road.

Princesses' Parade 2009.

1916 Foundation stone.

Postscript

T.K. North at the head of 14,500 Vickers Crayford employees on Armistice Day November 11th 1918.

Crayford Clock tower.

Vimy plaque.

Very few local people know the role that Vickers Crayford played in Alcock and Brown's historic flight. A small picture of a Vimy on a plaque on the building next to McDonalds is the only hint to what happened here. Even fewer know about Sir Hiram Maxim, despite there being a road in the town named after him. Crayford's part in aviation history is something that everyone who lives in the town should be proud of. Crayford clock tower is a very visible reminder of this great past, so next time you hear it chime, spare a thought for the great men and women of this town who helped to make history.

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Back to Peace Times.

Sewing Machines Instead of Guns.

The munition works of Vickers, Son, and Maxim at Crayford (Kent) have been converted into a sewing-machine factory.

Activities

The Time Machine

In 1894 when Hiram Maxim tested his Crayford built flying machine at Baldwyn's Park, Bexley, three famous authors were there to witness what happened. One of them was H.G. Wells, who lived nearby in Bromley. Shortly after this, Wells wrote two science fiction books. One is the little known, 'Argonauts of the Air' the other is one of his most famous books, *'The Time Machine'*. Both could be said to have been inspired by Hiram Maxim.

A Hollywood version of H. G. Wells flying machine.

VIP guests at Baldwyn's Park 1894. Inset H.G. Wells.

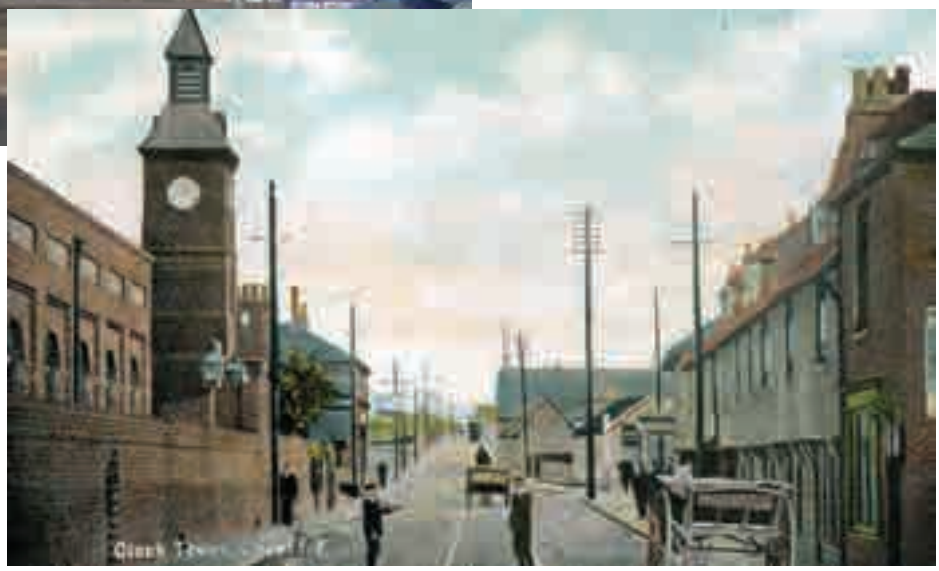
Imagine if Maxim's plane had been a time machine, and at the moment it broke free from the guiding rail. Maxim and Crayford mechanics Tom Jackson and Arthur Guthrie were propelled into the future-to current day Crayford.

Maxim and his wrecked machine after the 1894 crash.

'Presently I am going to press the lever, and off the machine will go. It will vanish, pass into future time and disappear.' H.G.Wells 'The Time Machine,'

Imagine if Maxim and his Crayford mechanics, Tom Jackson and Arthur Guthrie could be transported from 1894 to the present day.

- How would Crayford seem different to them from when they built their plane there? Think of the different sights sounds and smells he would find today compared to the past.



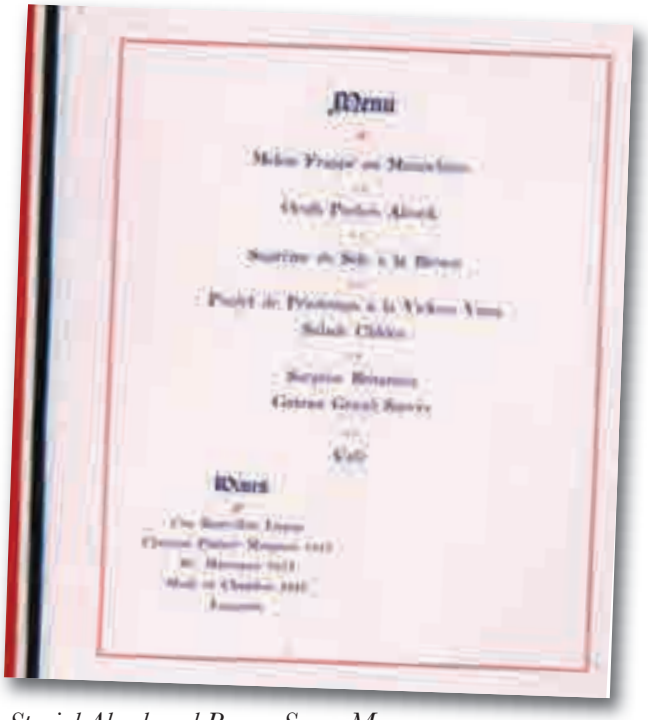
Could you write a story called *'The Time Machine'* with Maxim and Crayford mechanics Tom Jackson and Arthur Guthrie as the key characters? Arthur Guthrie was a real local character as he later became the publican of the Crayford Arms.

- Begin by describing the test flight at Baldwyn's Park. Does Maxim talk about time travel with H.G. Wells?
- Describe what happens when Maxim and his crew find themselves in present day Crayford.
- Do you think they would like what they would see? What has changed for the better? What has changed for the worse?
- How would they get back to 1894? Would they want to go back?

A Menu Fit For Heroes

Alcock and Brown were honoured with a grand lunch at the Savoy Hotel on 23rd, June, 1919. Exactly a month later they were in Crayford to open the Princesses' Theatre. Crayford Town Hall at that time was used as Vickers canteen. Can you design a special menu for the Vickers canteen to welcome the Vimy heroes to Crayford?

Royal Aero Club Banquet to celebrate successful flight, on 23rd June 1919, signed by Alcock and Brown.



Special Alcock and Brown Savoy Menu.

Vickers staff in the (town hall) canteen.

Crayford Town Hall.

A Forgotten Story

Very few people in Crayford know the role Crayford played in aviation history. The only hint that something out of the ordinary might have happened here is the Vickers plaque besides Crayford clock tower. Do you feel people in the town should be more aware of the past? Write a persuasive letter to the Bexley Times arguing that there should be some monument in the town to remember the fantastic achievements of the men and women who worked at Vickers Crayford.

Tower Retail Park (above) and Vickers plaque besides the clock tower.

Crayford Clock Tower.

Bexley Times

Dear Sir

I think that

The reason I say this is because

Furthermore

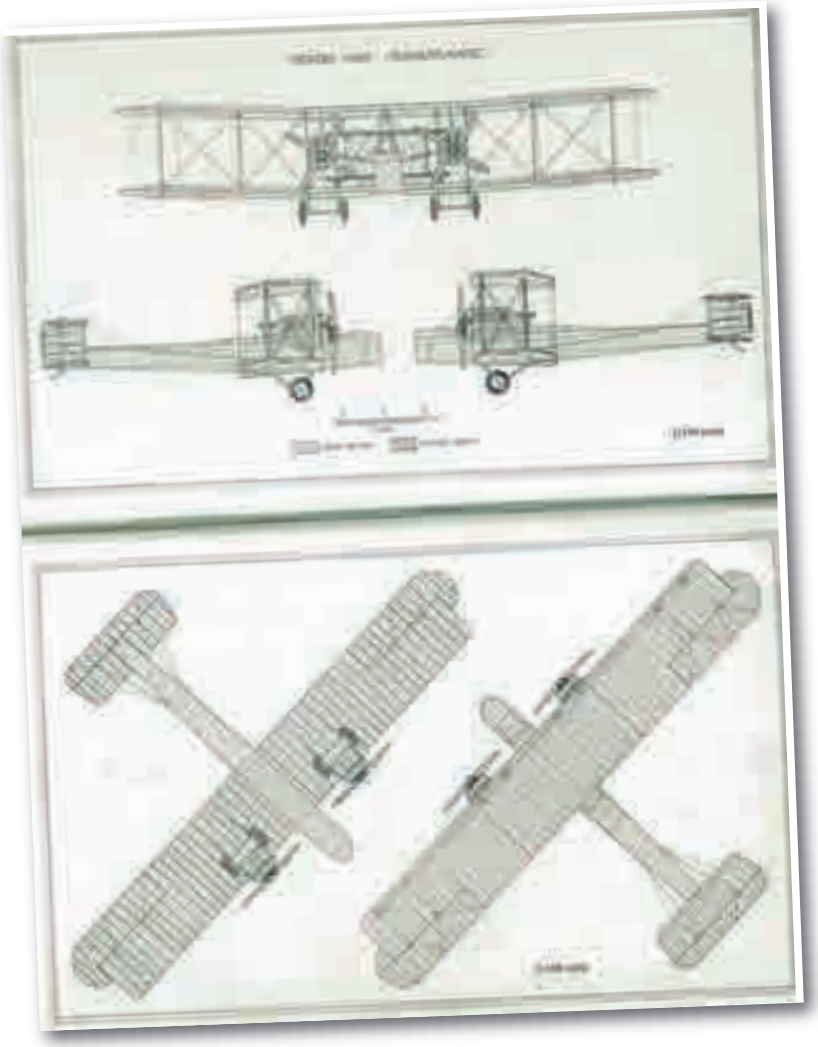
Some people might argue that

However I think

Yours sincerely

A Tribute to the Vimy

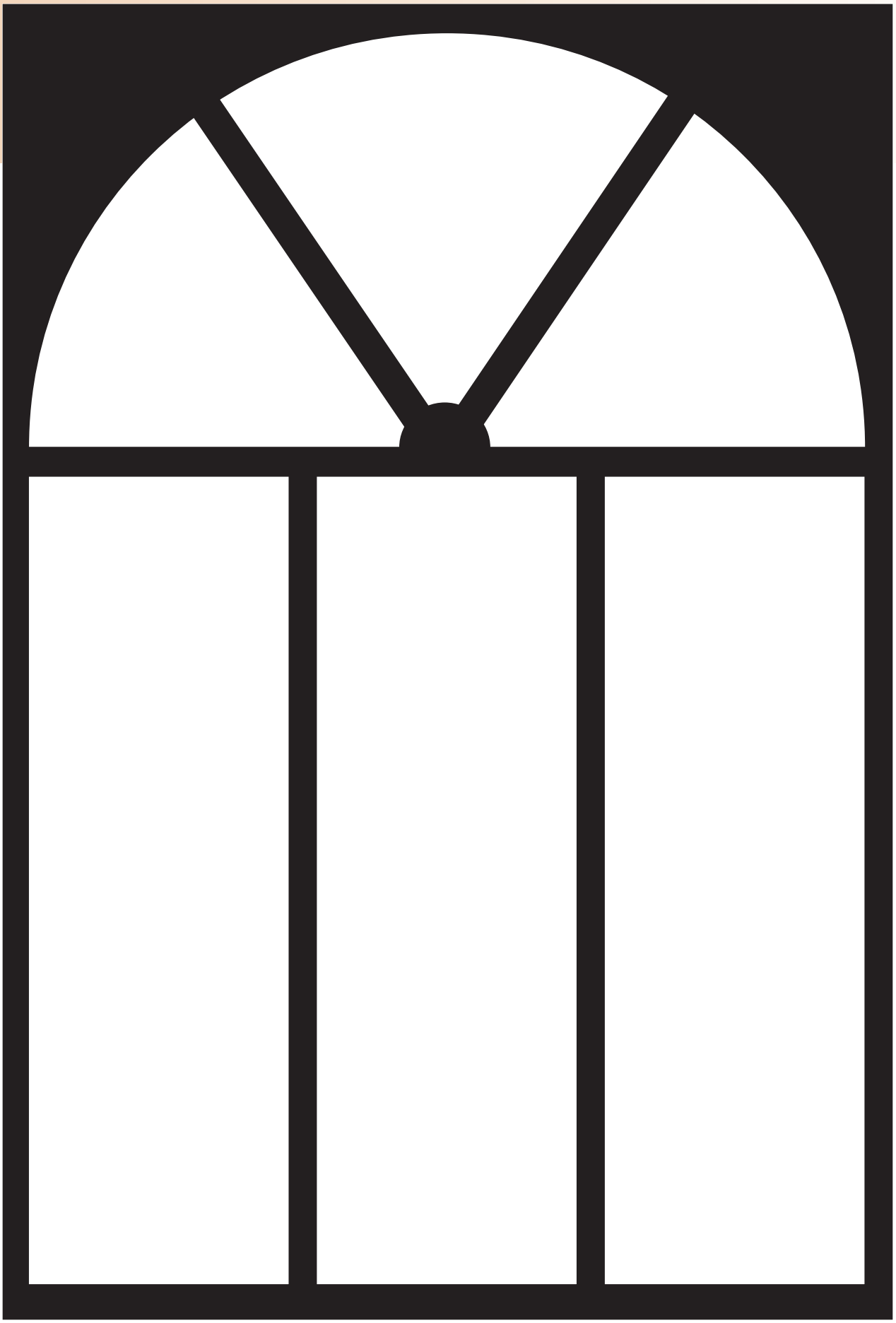
Vickers Crayford c1905.



Vimy plans.

Clock tower Vickers memorial.

Crayford coat of arms 1945.



- Look at the picture of the Vickers factory from 1905.
- Can you design a special stained glass window for the factory as a tribute to the Vickers Vimy and Alcock and Brown's first trans Atlantic flight in 1919?
- Some pictures are provided to help you.

Alcock and Brown at the Re-opening of the Princesses' Theatre

1) Arrival of Prince Albert for the Re-opening of Princesses' Theatre, Crayford July 23rd 1919.

Using your imagination and the pictures provided:

- What do you think happened before this picture was taken?
- What do you think happened after this picture was taken?

2) Prince Albert (left) with officials of Vickers.

3) Princesses' Theatre destroyed by fire 1916.

4) Audience in the Princesses' theatre 1919.

ALCOCK AND BROWN GET LONDON OVATION

LONDON, June 17.—Captain John Alcock and Lieutenant A. W. Brown were carried on soldiers' shoulders from the Euston Railway Station to automobiles. Miss Marguerite Kennedy, Lieutenant Brown's fiancée, and her father met him on his way from Dublin and accompanied him here.

The parade proceeded from the station through great crowds lining Portland and Regent Streets, two of the widest of London's thoroughfares. Flags were flown from the buildings along the line of march and were waved by women and children.

A band led the way playing "See the Conquering Hero Comes" and "Rule Britannia." Officers of the Royal Air Force and members of the Aero Club rode in flag draped automobiles.

A feature of the celebration was an aerial escort which accompanied into London the train bearing the two aviators. At the station a large group of Generals and other officers, in uniform and wearing their decorations, and nu-

Princesses' Parade 2009 and below Princesses' Theatre 1919.

Flight Magazine August 1919

PRINCE ALBERT AT CRAYFORD

On Julv 23 Prince Albert paid a visit to Crayford in order to re-open the Princess' Theatre in connection with Vickers' works. In the reconstruction of the theatre, which was burnt down in 1916, the former design and decoration scheme has been followed.

Mr. Douglas Vickers presided, and among those present were the Countess of Limerick, Miss Shortt, the Hon. Mrs. Douglas Vickers, Sir Trevor Dawson and Lady Dawson, and Sir Vincent Caillard.

Prince Albert, in opening the theatre, said that not many people had realised what a vast amount of labour to win the war had been done by workers of big firms like Vickers, and their thanks went out to them. We had always been the leading industrial nation of the world, but we were going to have to fight, and it was on the workers more than ever that we depended to secure that end. Only by hearty co-operation between employer and employed could we hope to win through.

During the evening Sir Trevor Dawson presented gold watches, on behalf of Messrs. Vickers to Capt. Sir John Alcock and Lieut. Sir Whitten Brown to commemorate their flight across the Atlantic. A diamond and emerald brooch in the form of a Vickers' aviation badge, was also presented to Miss Kennedy, Sir Whitten Brown's fiancee.

For the opening performance there was an augmented orchestra conducted by Mr. Kendall Grimston, and among those who contributed to the programme were Mr. Albert Sammons, Miss Sterling MacKinlay, Miss Dorothy Varick, Mr.George Baker, Miss Ethel Walker, and Mr. F. A. W. Docker.

• Read the reports above and then write down 4 questions you would like to ask Alcock and Brown.

1) _____

2) _____

3) _____

4) _____

Alcock and Brown at the Re-opening of the Princesses' Theatre

- Use role play to help you write a report for the Bexleyheath Observer & District Times.
- Split into groups of three. Take it in turns to play either the reporter, Alcock or Brown. Use the questions you thought up earlier for the interview.
- Draft your report first before writing it up in best on the newspaper template provided.

Headline

Brief introductory paragraph explaining why the Princesses' theatre was being re-opened.

Describe the arrival of Prince Albert and the welcome he received.

Explain who the surprise guests to the Princesses' Theatre were. Why were they in Crayford?

Use the answers you received from your interview questions to finish your article.

Berley Heath Observer & District Times

With which is incorporated

THE NORTH KENT OBSERVER.

27th June 1919

Headline

Draw a picture here

Maxim's Machine Gun

Hiram Maxim at the demonstration of his Maxim Gun at Vickers director Sigmund Loewe's country house in 1896. Despite chopping down a tree in his demonstration the Chinese were concerned at how expensive it was to pay for bullets for a gun that fired 660 a minute. Maxim was concerned himself. He later fired corks in his demonstrations in Bexleyheath.

Characters (left to right)

Decide in your group who is playing which role and then use the image above to try and imagine how your character would have felt and what they would have said.

Albert Vickers – Maxim's business partner and Chairman of Vickers Maxim
He does not get on with Maxim and does not trust him.

Sigmund Loewe – Maxim's friend and Vickers board member
Sigmund's family are long term friends with Maxim. He has just joined the Vickers Maxim board to help them use his contacts to sell more guns as the company is struggling.

Fung Ling – military attaché of the Chinese Embassy
He is keen to purchase the Maxim gun.

His Excellency Li Hung Chang – the Chinese Ambassador
He is impressed with the gun but fears that the Chinese government could not afford to use it as it fires too many expensive bullets.

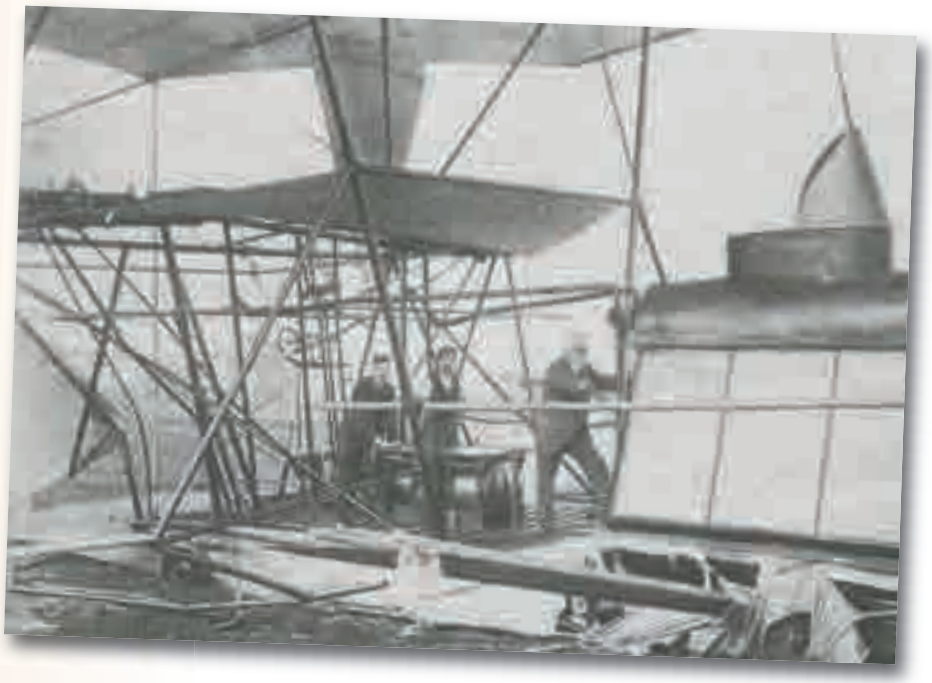
Hiram Maxim – Inventor of the machine gun who lived at Baldwyn's Park, Bexley
He is fed up with interference from Albert Vickers. He is keen to sell his gun to the Chinese to ensure the future of his Crayford works.

"This gun fires altogether too fast for China."

Li Hung Chang. The Chinese Ambassador on discovering the cost of the bullets for the Maxim gun.

Maxim's Flying Machine

Maxim examines the damage to his flying machine after the demonstration in 1894. Maxim and his two Crayford mechanics had been aboard his aeroplane when it had broken free of its restraining rails and flown 281 metres at a height of 1.4 metres. It had been witnessed by the Prince of Wales, H.G.Wells, Sir Arthur Conan Doyle and Rudyard Kipling. However despite impressing his visitors he now had to find money to repair his machine and find a new site to fly it as his home at Baldwyn's Park had been purchased by the London County Council to build Bexley Mental Hospital.



Characters

Decide in your group who is playing which role and then use the image above to try and imagine how your character would have felt and what they would have said.

Hiram Maxim – *Maxim is determined to repair his machine but his business partner Albert Vickers is not prepared to finance anymore experiments.*

Tom Jackson – *Tom is a local man who has become very close to Maxim as his chief mechanic.*

Arthur Guthrie – *Arthur has had enough of working for Maxim. He feared he would be killed in the demonstration. He doesn't want to work for Maxim anymore as he has just taken over the lease of the Crayford Arms pub.*

Out of Shot

H.G.Wells – *he is so impressed by what he has seen that he wants to ask Maxim if he can base his next book on him.*

Albert Vickers – *he is fed up with Maxim. He sees the crash as an expensive disaster.*

"It appears that I had prepared the ground so that all was necessary was to erect the buildings."

Hiram Maxim after discovering that his Baldwyn's Park mansion had been sold to the London County Council to build Bexley Mental Hospital.

Armistice Day 1918

Vickers Crayford workforce had grown from 300 in the months before World War One had started in 1914 to 14,500 by the end of the war on November 11th 1918. This huge increase in staff had been overseen by Crayford Superintendent Thomas Keppel North, who is standing in the middle of the front row. He is very concerned about the future of his workers now the war has ended. He was the force behind the re-building of the Princesses' Theatre and plans to stand as the Labour candidate at the general election to stand up for workers rights. He plans to manufacture sewing machines to keep staff on at the factory but knows many will lose their jobs. He also hopes the new Vickers Vimy bomber can find a future as an airliner.

Characters

Decide in your group who is playing which role and then use the image above to try and imagine how your character would have felt and what they would have said.

Thomas Keppel North – *the Superintendent of the Crayford Works. He is very proud of what his workforce have achieved.*

Steve Wicks – *he builds machine guns at the Crayford factory. He is worried about his future now the war is over as his wife has just had a baby.*

Doris Terry – *Doris is only 18 but has loved working as a munitionette at the factory. Her wages have been good and the social life fantastic. She hopes she can stay on at the factory but knows that many will soon lose their job.*

Stan Bowles – *Stan is a draftsman who helped to work on the design of the Vickers Vimy. He has been told that he will be moving to Weybridge soon so must leave his friends at Crayford.*

Ethel Gray – *she has been told that she has a job in the section making sewing machines. She doesn't know if she should tell her friend Doris.*

The Vimy Takes to the Air

Vickers have been approached by the Royal Flying Corps to produce a twin-engined bomber to bomb Germany. It is 30th November 1917. The day has arrived when the new Vimy bomber will take to the air for the first time. Rex Pierson, the Vimy's designer, and Crayford Superintendent Thomas Keppel North hope that they can impress Brigadier Trenchard, the head of the Royal Flying Corps, that he should buy their plane. They will watch Vickers test pilot Gordon Bell take the Vimy for its first flight at Joyce Green airfield, Dartford. Crayford works superintendent Thomas Keppel North knows the war is coming to an end. He sees huge potential for the Vimy as an airliner in time of peace. This might be a way for him to keep on many of the workers at Crayford once the war is over.

Characters

Decide in your group who is playing which role and then use the image above to try and imagine how your character would have felt and what they would have said.

Thomas Keppel North – *The Superintendent of the Crayford Works. He has worked closely with Rex Pierson on the design and hopes that the first flight will go well as it will help to secure the future of the Crayford factory.*

Rex Pierson – *Is the main designer of the Vickers Vimy and has spent a lot of time at Crayford overseeing its development from his plans into the finished plane. He is worried about the plane taking off at Joyce Green as the land is very marshy and might not be suitable for such a large plane.*

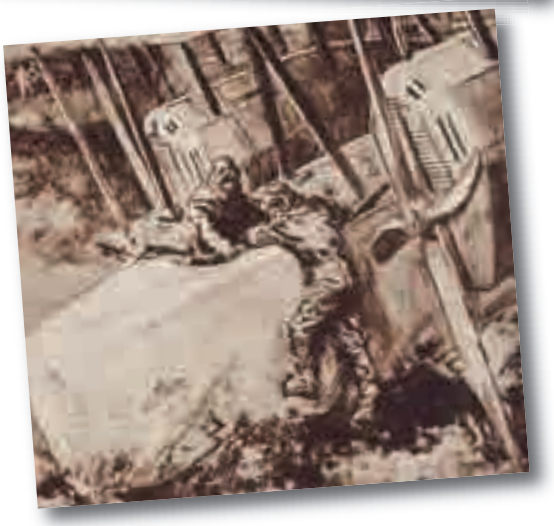
Gordon Bell – *Is Vickers test pilot. He has flown many planes from Joyce Green but shares Rex Pierson's worries about the plane.*

Brigadier General Hugh Trenchard – *Is the commander of the Royal Flying Corps. He is eager to see the Vimy flight succeed as he needs a bomber capable of reaching Germany and gaining revenge for German Gotha bomber attacks on London.*

Ruby Daniel – *Is a pupil of St Paulinius School; her father is a friend of Rex Pierson and she has taken the day off school to see the first flight of the Vimy. She hopes her teacher at school doesn't find out.*

Alcock and Brown Fly the Atlantic

It is 8.40am on Sunday 15th June 1919. Captain John Alcock and Lieutenant Arthur Whitten Brown have just landed their Vickers Vimy plane in the Derrygimla bog besides the Marconi Wireless Station at Clifden in Ireland. Although shaken by their crash landing they are unhurt and climb from their wrecked plane to see a group of men from the wireless station running towards them. Although overjoyed at completing his magnificent journey, Alcock is disappointed that their plane has been damaged and he is worried about what will happen to it once crowds of sightseers start to gather around it. He is reassured when a group of soldiers are assigned to guard the plane from souvenir hunters.



Characters

Decide in your group who is playing which role and then use the image above to try and imagine how your character would have felt and what they would have said.

Captain John Alcock – *is overjoyed that his flight has been successful but upset that his plane has been damaged.*

Lieutenant Arthur Whitten Brown – *is shattered after the ordeals of his flight. However he is overjoyed that he has landed in one piece and can now look forward to his wedding to Marguerite Kennedy. He can't wait to send her a telegram to tell her that he's safe.*

Thomas Taylor – *he is a wireless operator at the Marconi station and has listened to speculation over the airwaves as to where the pilots would land. He can't believe they have landed on his doorstep.*

Corporal Michael Fillery – *he has been sent to guard the plane. He knows that soldiers are unpopular in Ireland and fears having to hold back a big crowd.*

Private Glenn Roeder – *is glad that he's been sent to guard the plane. He has heard all about the plane and is desperate to get autographs of the fliers.*

Mary O'Reilly – *wants to get a souvenir from the plane and won't take no for an answer.*

"Yesterday we were in America."

John Alcock on arriving in Clifden Ireland following the dramatic flight across the Atlantic.

Alcock and Brown at the Princesses' theatre Crayford

It is the 23rd July 1919. Children from Saint Paulinus School and workers from the Vickers factory line the banks of the River Cray and the pavements outside the Princesses' Theatre, Crayford. The theatre is being reopened having burnt down three years previously. The crowds have come to see the guests of honour: Prince Albert, the future King George VI, and Sir Trevor Dawson. They have just arrived in a Rolls Royce to open the theatre. The crowds fail to notice two men in uniform slip into the back door of the theatre. The two men are Alcock and Brown who have come to receive engraved gold watches to recognize their tremendous achievement in being the first men to fly the Atlantic non stop.

Characters

Decide in your group who is playing which role and then use the image above to try and imagine how your character would have felt and what they would have said.

Prince Albert – *is eager to enter the theatre. He is a very shy man and knows that he has to give a speech once the audience arrives in the theatre. He has heard about the surprise guests and is eager to meet the famous fliers.*

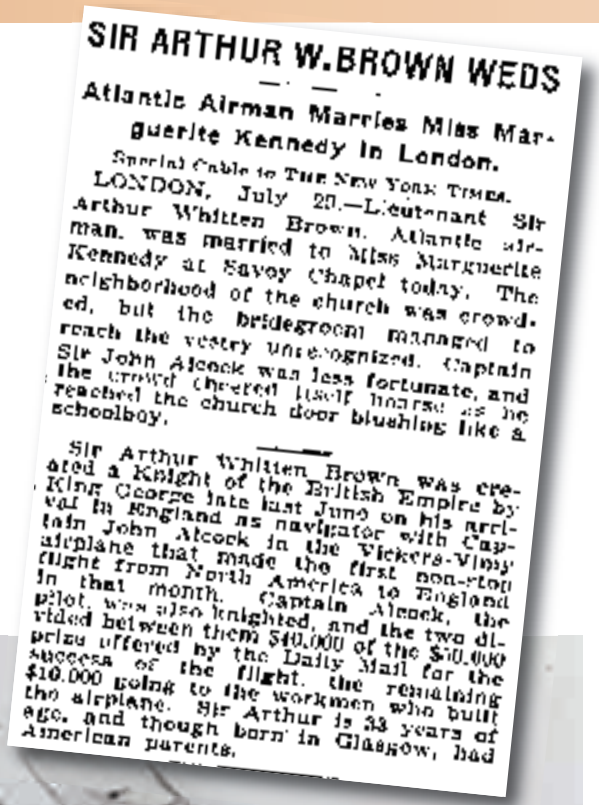
Captain John Alcock – *is enjoying the publicity and fame that his record breaking flight has brought him. He wants to thank the workers from Vickers for the role they played in creating the Vickers Vimy.*

Lieutenant Arthur Whitten Brown – *is very shy. He hates the fuss that celebrity has brought him. He knows however that he will want to put on a brave face as his fiancée Marguerite Kennedy will be in the audience tonight.*

Marguerite Kennedy – *she is incredibly proud of her husband to be Arthur Whitten Brown and can't believe that her wedding is now just 6 days away.*

Mrs Waddock – *is a teacher at St. Paulinus School. She let the children in her class out of school early to see the opening and hopes that her head teacher will not find out.*

A Telegram for the Bride



SIR ARTHUR W. BROWN WEDS

Atlantic Airman Marries Miss Marguerite Kennedy in London.

Special Cable to THE NEW YORK TIMES.

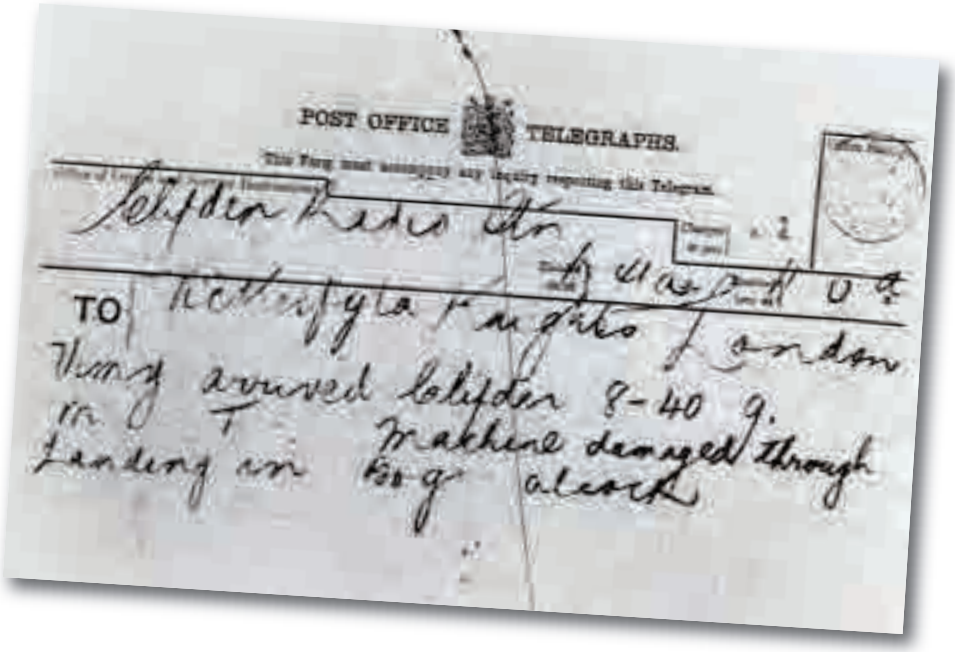
LONDON, July 29.—Lieutenant Sir Arthur Whitten Brown, Atlantic airman, was married to Miss Marguerite Kennedy at Savoy Chapel today. The neighborhood of the church was crowded, but the bridegroom managed to reach the vestry unrecognized. Captain Sir John Alcock was less fortunate, and the crowd cheered itself hoarse as he reached the church door blushing like a schoolboy.

Sir Arthur Whitten Brown was created a Knight of the British Empire by King George late last June on his arrival in England as navigator with Captain John Alcock in the Vickers-Vimy airplane that made the first non-stop flight from North America to England in that month. Captain Alcock, the pilot, was also knighted, and the two divided between them $40,000 of the $50,000 prize offered by the Daily Mail for the success of the flight, the remaining $10,000 going to the workmen who built the airplane. Sir Arthur is 33 years of age, and though born in Glasgow, had American parents.

Arthur Whitten-Brown and Marguerite Kennedy met each other shortly after Brown was released from a prisoner of war camp in 1917. She worked in the office Brown was sent to whilst he recovered. They became engaged but their wedding date had to be postponed so that Brown could make his bid to win the Daily Mail prize.

Many people believed that what Alcock and Brown were attempting was suicidal. The months Brown spent preparing for the flight must have been very difficult for Marguerite.

In particular, she must have suffered agony during the long night of the Vimy flight. There was no news of their whereabouts until they landed in Clifden because the Vimy's radio packed up just a few hours into their flight. She must have been overjoyed with the news knowing that they would finally be married. The wedding was at the Savoy Chapel on the Strand on July 29th 1919.



POST OFFICE TELEGRAPHS.

TO

Vimy arrived Clifden 8-40 p.m. Landing on bog Machine damaged through

READ THE POEM *A Telegram for the Bride*

Imagine you are Arthur Whitten Brown's fiancée, Marguerite Kennedy. Write three diary entries, one for June 14th 1919, when you receive news that the Vimy has taken off from Newfoundland, one a day later, when they arrive safely in Clifden, Ireland. Finally, an entry for when you receive a diamond Vickers brooch at the Princesses' theatre, Crayford. Read the poem *'A Telegram for the Bride'* to help you write in role.

June 14th 1919

- Write about how you first met Arthur Whitten-Brown.
- Record how you feel about the news that the Vimy has set off on it journey.
- Describe what your feelings are when you don't hear anything.

June 15th 1919

You have just received news that the Vimy has crash landed in a bog near Clifden, Ireland.

- Record how you feel when you receive the telegram that they are safe.
- What are your plans now that you know that Arthur is well?
- How will you celebrate the news?

July 23rd 1919

- Describe sitting in the Princesses' theatre waiting for your husband to be to be introduced to the crowd.
- How do you feel watching a film about what happened?
- Write about your feelings on receiving a diamond Vickers brooch from Sir Trevor Dawson and Prince Albert.

Could you draw a picture to go with one of your diary pages?

Could yoy write your own poem?

- Who do you think Marguerite Kennedy is talking to in this poem?
- What are her hopes in the poem?
- What is she concerned about?
- How does her mood change from one day to the next? And why?
- How do you think Arthur Whitten-Brown would respond to this? You could write a verse back from him as a response.

A Telegram for the Bride

June 14th 1919

Oh darling, I'm waiting to hear some news
About this dreaded flight.
Will you be setting off today?
There are some who think you might.

It's a perilous journey you undertake,
I'm waiting to hear from you.
I hope that you make this journey long
So that our dreams may come true.

I love you so, Arthur my dearest one,
And can't wait for us to wed.
Oh what if you don't make this flight?
I will be lost and grieving instead.

June 15th 1919

News at last! You are safe and sound.
I've been worried oh so much.
You've landed in an Irish bog!
A rather comical and funny touch.

July 23rd 1919

So now my dear, you can settle down,
We can wed and be one at last.
You've achieved what you set out to do
Now we can put adventure in the past.

How wonderful are the people of Crayford
Come to celebrate with us this day
At the Princess Theatre, Waterside,
By the side of the River Cray.

I will always hold dear a lovely present
That Vickers presented to me,
A Vickers aviation diamond brooch
For our wedding day to be.

So three cheers for the good news
And your trans- Atlantic flight.
A roaring success for you and John
And our wedding now in sight.

I love you Arthur x

Poem by Julie Daniel

An Incredible Journey

The letter below was written by Alcock to his sister Elsie in Manchester. He carried it in the mail bag on that first successful flight and realised its significance as he wrote it…"This letter will travel with me in the official mail bag, the first mail to be carried over the Atlantic…"

Daily Mail Monday, June 16th 1919

"DAILY MAIL" £10,000 ATLANTIC PRIZE WON.
W I WON IT.
ALCOCK'S STORY.
ENGLAND TO IRELAND.
HOURS

THE PILOT'S STORY

By CAPTAIN J. ALCOCK, D.S.C.

We have had a terrible journey.

"The wonder is we are here at all. We scarcely saw the sun or the moon or the stars. For hours we saw none of them. The fog was very dense, and at times we had to descend to within 300 feet of the sea.

For four hours the machine was covered in a sheet of ice caused by frozen sleet; at another time the sleet was so dense that my speed indicator did not work, and for a few seconds it was very alarming.

We looped the loop, I do believe, and did a very steep spiral. We did some very comic "stunts", for I have had no sense of horizon.

The winds were favourable all the way: north-west and at times south-west. We said in Newfoundland we would do the trip in 16 hours, but we never thought we should. An hour and a half before we saw land we had no certain idea where we were, but we believed we were at Galway or thereabouts. Our delight in seeing Eashal Island and Turbot Island (5 miles west of Clifden) was great. People did not know who we were when we landed, and thought we were scouts on the look-out for the "Vimy".

We encountered no unforeseen conditions. We did not suffer from cold or exhaustion except when looking over the side; then the sleet chewed bits out of our faces. We drank coffee and ale and ate sandwiches and chocolate.

The flight has shown that the Atlantic flight is practicable, but I think it should be done not with an aeroplane or seaplane, but with a flying boat. We had plenty of reserve fuel left, using only two-thirds of our supply.

The only thing that upset me was to see the machine at the end get damaged. From above, the bog looked like a lovely field, but the machine sank into it up to the axle and fell over on to her nose.

8 SANDWICHES BETWEEN THEM

We ate meat sandwiches. I ate three and Brown five. I drank four cups of coffee and so did Brown. We fed spasmodically - 3 or 4 times - just when we felt we wanted to. We ate chocolates too. I was not hungry, but frightfully thirsty. We shared the last cup of coffee. We did not suffer from cold. Our suits kept us warm.

The cockpit was very cosy indeed, but when we peered over the side sleet and ice chewed bits out of our faces.

For a time we spoke to one another by means of communication telephones, but they broke down and we had to discard them after 4 hours. After that we had to shout.

Lieut. Brown said: "Most of our conversation consisted of tapping one another on the shoulder and going through the motion of drinking. We knew our own jobs."

Asked for the lessons of the flight Capt. Alcock replied, "It has shown that flying the Atlantic is a practicable job, but I think it should be done with a flying-boat, not a seaplane or an aeroplane."

"We know now," said Lieut. Brown, "exactly the type of machine that manufacturers must make for commercial purposes."

From our own correspondent.

CLIFDEN, Sunday.

On landing Lieut. Brown said to Capt. Alcock: "What do you think of that for fancy navigating?"

"Very good," was the reply, and they both shook hands.

An Incredible Journey

Imagine you are the pilot John Alcock. Can you write a postcard to your sister Elsie telling her about your incredible journey and that you have landed successfully in Ireland.

Use the Daily Mail article to help you describe the journey to her. It was written by a journalist who got the first interview with Alcock after he landed.

Vickers Verse

Alcock and Brown were 'musically honoured' when they came to the Princesses' Theatre Crayford on 23rd July 1919. We also know that a special song was written for the Munition's workers when the theatre was first opened in 1919. Writing song lyrics is a lot like writing poetry. Could you write a poem to celebrate Alcock and Brown's achievement in their Vickers Vimy?

A metaphor is a direct comparison between two things. Unlike a simile when you say something **is like** another a metaphor says that a thing is another e.g.

The huge beast took off from the runway could be used to describe a jumbo jet.

Metaphors are a very powerful tool for a writer as they tap into the reader's senses.

- Use the grid below to help you develop some metaphors about Alcock and Brown's flight on their Vickers Vimy.

Object/Noun	Sight	Sound	Touch	Taste	Smell
Vickers Vimy					
Alcock and Brown					
Lester's Field (Newfoundland)					
The Atlantic					

- Use the poetry machine below to write a poem about the Vickers Vimy.

Prompt	Example	Your Poem
• Write a noun	The Vickers Vimy,	
• Write 3 adjectives to describe the noun (all the better if they alliterate)	Mighty, magnificent and memorable.	
• Write a fact about the noun	Lies motionless on Lester's field.	
• Write a simile to describe the noun	Like a bird of prey,	
• Describe a sight sound or smell associated with the noun	It screams with menace as its engines burst into life.	
• Write how you feel about it	The crowd watch awestruck as it takes to the air, praying that	
• Use a metaphor in place of the noun	This graceful bird will swoop across the waves to its distant home.	

- You might want to write a HAIKU. This is a 3 line poem with 5 syllables in the first line, 7 in the second line, and 5 in the third line. A haiku doesn't have to rhyme.

  Let Alcock and Brown
  Tell us all their great story
  They deserve glory

Vickers Verse

You might want to write an ACROSTIC

A _____
L _____
C _____
O _____
C _____
K _____

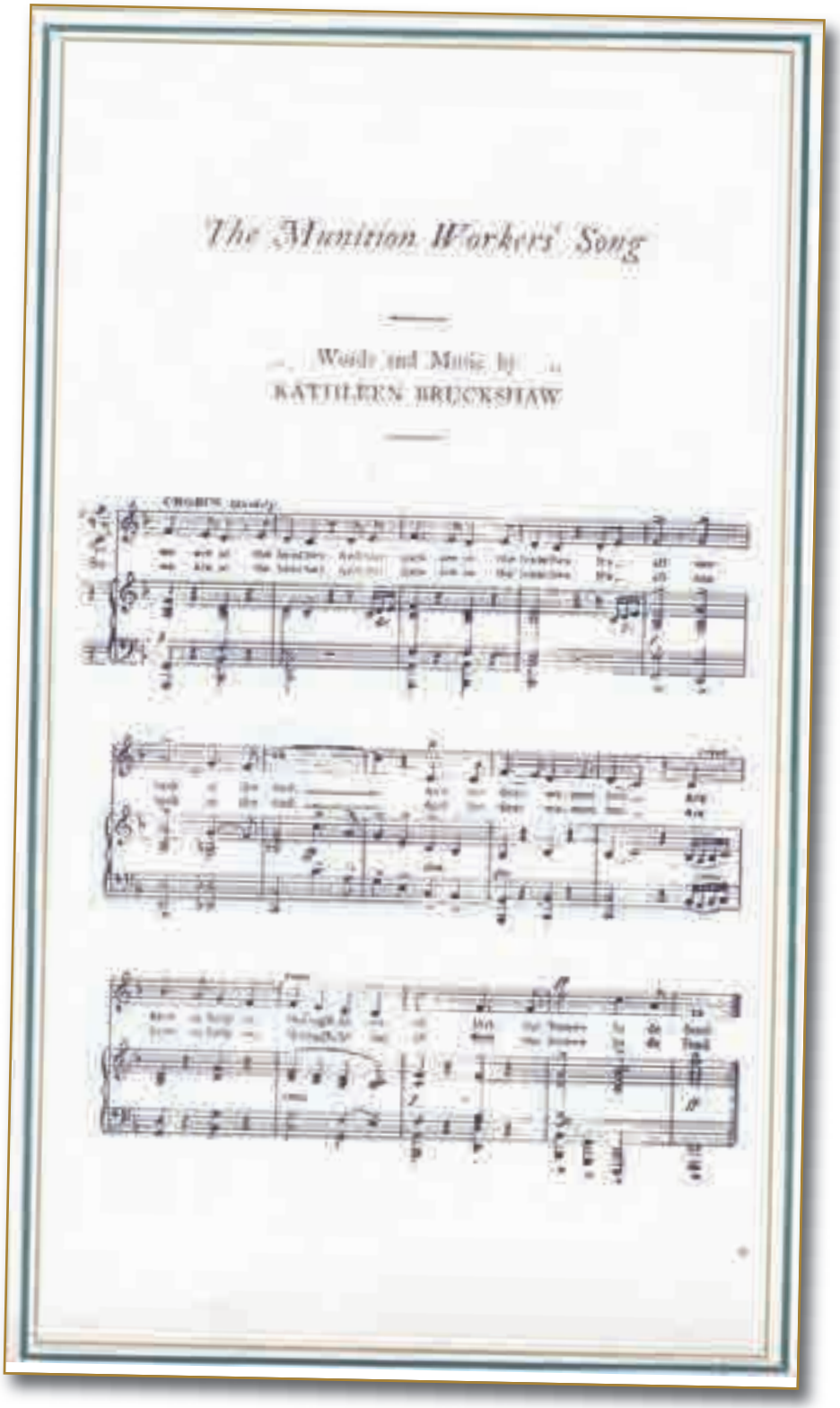
A _____
N _____
D _____

_____
B _____
R _____
O _____
W _____
N _____

V _____
I _____
C _____
K _____
E _____
R _____
S _____

V _____
I _____
M _____
Y _____

- You might want to write about the people from Crayford who built the Vimy. Many of them were women. Women who worked at Crayford made planes and guns and were known as 'Munitionettes.' This song was written specially for them for the opening night of the Princesses' Theatre.



The Munition Workers' Song

Words and Music by
KATHLEEN BRUCKSHAW

- You might want to write a poem that RHYMES. Jot down all your ideas in rough first. Then begin to draft your poem. The poem below is written in rhyming couplets, as the end of each pair of lines rhyme with each other.

Conquerors of the Air

A Pilot and navigator, two brave men of old,
Who no doubt were crazy, but certainly bold.

John William Alcock and Arthur Whitten-Brown,
Flew a Vickers Vimy that was built in this town.

Cobbled together, behind Crayford clock tower,
Local folk helped to bring about their finest hour.

A generation before nineteen nineteen (1919),
They'd helped build Maxim's flying machine.

Back then you would sure have had to be psychic,
To imagine a plane that could cross the Atlantic.

Now through sixteen hours of thick fog and ice,
These daring young fliers had discarded advice.

Brown - on the wing - scraped the air filters clean,
As Alcock flew their fog-bound machine.

They flew in June from a Newfoundland field,
and landed in Clifden their victory sealed.

And who would have thought, how would you know?
That after they'd cracked it, they'd come to a show.

At the Princesses' theatre near Crayford Way,
And share their victory with the people that day.

A film was shown of these men of renown,
To men and women who lived in this town.

Then Prince Albert, a future King with a crown,
Presented gold watches to Alcock and Brown.*

So remember these heroes, these wonderful guys,
And show pride in your town that conquered the skies.

Poem by Peter Daniel

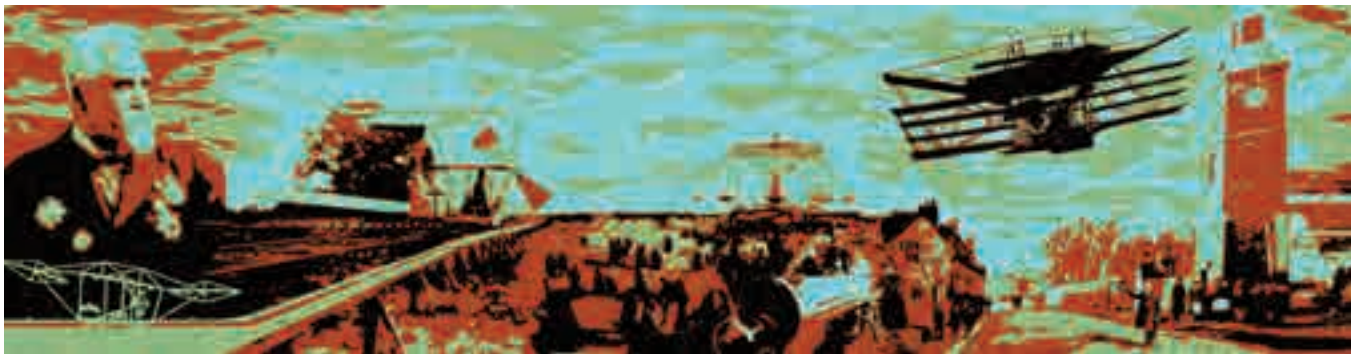
Crayford Bridge looking towards the Princesses' Theatre.

Alcock and Brown.

The Princesses' Theatre.

* Sadly the gold watch presented at the Princesses' theatre was the same watch that was used by a French farmer to identify Alcock after his tragic death whilst taking a Vickers Viking to the Paris air show on December 18th 1919. This was just three days after he had been guest of honour at the presentation of his Vimy to the Science museum. The watch was amongst his possessions returned to his mother in Manchester for his funeral just after Christmas 1919.

- Could you write a poem called the 'Gold Watch' as a tribute to Sir John Alcock?



Jonathan Boast (info@jonathanboast.com)

History Unit 18

What was is like to live here in the past?

Teachers Notes

Photocopy

Unit 18 What was it like to live here in the past? A Magnificent Town and its Flying Machines

History Years 5-6

ABOUT THE UNIT

In this unit, children are introduced to an enquiry-based approach to a local study. It allows local children in Crayford an opportunity of discovering the major impact Vickers aircraft and armament factories had on the development of their town. In particular it covers the story of Hiram Maxim's alleged first heavier than air flight and the building of Alcock and Brown's Vickers Vimy that conquered the Atlantic for the first time. It gives opportunity for direct access to historical sources and is an excellent chance to develop fieldwork and research skills. The unit also provides an opportunity to consider citizenship issues such as civic pride and local identity.

WHERE THE UNIT FITS IN

This local study can provide links with the geographical local study, Unit 6 'Investigating our local area"; Unit 12 'How did life change in our locality in Victorian times?'; Unit 13 'How has life in Britain changed since 1948?'; and in this way provide a local dimension to a study of national events.

PRIOR LEARNING

It is helpful if the children have:

- worked with sources from the past such as artefacts, pictures and buildings
- started to develop observation and recording skills
- asked and answered questions about sources to find information about people's lives.

VOCABULARY

In this unit, children will have opportunities to use:

- words associated with historical sources, eg oral history, documents
- words associated with historical research, eg decade, century, generation, ancestor
- words associated with aircraft eg fuselage,struts, propellars, cockpit etc.

RESOURCES

- local history books and booklets
- a range of old maps, including large-scale Ordnance Survey maps
- copies of old photographs, postcards
- modern photographs of buildings and features in the area
- help is available from Bexley Local Studies and Archives
- Parents and older residents may give information from different perspectives
- English Heritage produce many valuable teachers' guides. The Teachers' Guide to Local Studies will be very useful in this context.

EXPECTATIONS

at the end of this unit

most children will:	recognise buildings and features in their local area and know that the locality has changed over time; demonstrate factual knowledge and understanding about the history of the locality or about some of the main events and people linked to the area in particular Hiram Maxim and the role of the Vickers company in building the Vimy that conquered the Atlantic; ask and answer questions and make deductions about the area by using historical sources in a variety of ways.
some children will not have made so much progress and will:	understand that their area was different in the past; make some comparisons between their area in the past and today; begin to ask and answer questions about the local area.
some children will have progressed further and will:	describe and compare features of the local area and identify changes within and across the periods; select and combine information from several sources to find out about aspects of the past in the locality.

Unit 18 What was it like to live here in the past?

Activity	Learning Objectives	Learning Outcomes
What is our area like today? • Use the story book p (12) to show an aerial view of Crayford in 1938. Ask the children to name what they can see in the picture. Ask them to look at a modern OS map of Crayford. *What buildings have appeared or disappeared? How has the type of building changed over the period?* • Use the pictures as a basis for an introductory discussion about how the buildings are used and who uses them. Ask the children to sort the buildings into 'old' or 'new', giving reasons for their choice. Use this as an opportunity to discuss what is meant by 'old'.	• to recognise some features in the local area, and to locate them • that an area may contain a mixture of old and new buildings.	• identify features in their area • use features of buildings to infer their use and who owned them • categorise buildings as 'old' or 'new'.
How can we use maps to explore how our area has changed? • Using the story book (p11) show two maps of Crayford – one from 1897 prior to WW1 and one from 1933 showing the growth of Vickers due to World War I • Ask the children to look for and record changes by comparing details shown on the maps, such as roads, railways, housing, open spaces and amenities • Using the storybook (p 6) show picture of Crayford clock tower at the time it stood at the gates of Vickers and from today when it stands besides McDonalds (p5) • Ask children to describe what can be seen, heard or even smelt today. Ask them to describe what might have been seen, heard, smelt on the same 'walk' at in the past.	• that the area has changed at different times in the past • to sequence maps in chronological order • to use maps to help describe some of the characteristic features of the past.	• record changes shown on maps in table form • contribute to making a visual time line • produce a description of the area that contains appropriate historical detail.
1. The Time Machine • Talk about the famous author H.G. Wells who came to see Maxim's flying machine in 1894 • Tell them about his novel 'The Time Machine.' And how Maxim inspired it • Ask the children to take the role of Maxim or one of his Crayford mechanics and, using the photos provided, write a composition based on them travelling into the future so that they can see modern day Crayford • Get children to write about how things have changed i.e. sights sounds smells from Maxim's time. Use the old and modern views of Crayford clock tower to help them to think of how things would be different.	• that there are different sources of information for their area in the past • to develop skills of accurate observation and recording • to make deductions from physical evidence • to recognise that some questions can be answered by looking at buildings and others cannot.	• identify some features of a building through observation and asking and answering questions • record their observations by completing a prepared outline • write a short, accurate description of the place suggesting who might have used it.

A Magnificent Town and its Flying Machines

Literacy	Additional Notes and links to Foundation Subjects
	Geography at Key stages 1 and 2 **Unit 6**: Investigating our local area Vickers opened their gun Crayford gun factory in partnership with Hiram Maxim in 1888. Little of the factory remained after the Tower Retail Park was built in 1999. However, the Crayford clock tower, which now stands alongside McDonalds, once used to stand at the factory gates, the town hall was its canteen and the building now occupied by Tops Tiles was once the bus station that helped bring here some of the 14,500 workers the company employed to build guns and aircraft during the First World War. There are also a few of the original factory buildings which form part of the Crayford Industrial estate behind the Tower Retail Park.
	Geography at Key stages 1 and 2 **Unit 6**: Investigating our local area This **1897 map** covers most of the town, and shows the Vickers Maxim factory as the 'Crayford Works.' However there are still fields and several large houses in ample grounds scattered around the outskirts. The Dartford Loop railway line crosses the SE corner of the map. The Dover Road or Watling Street crosses the map east-west, running through the town and with a tramway. Industrial features include a tannery, and two silk and calico printing works. The **1933 map** shows the expansion of the Vickers 'Crayford Works' due to WW1. The building of the Barnes Cray estate, or Crayford Garden Suburb, to the east of the town to house the armaments workers in WW1are very visible. The map activity can be followed up using the Time machine worksheet. (See below).
Year 5 Narrative Unit 1 – Novels and stories by significant children's authors • Develop particular aspects of written narrative: experiment with story openings; write new scenes or characters into a familiar story in the style of the author; organise scenes using paragraphs effectively.	**Geography at Key stages 1 and 2** **Unit 6**: Investigating our local area H.G. Wells lived in Bromley and was a friend of Maxim. He attended the first flight in 1894 and was so inspired that he immediately wrote 'Argonauts of the Air' in 1895 specifically about Maxim. The original 'The War of the World's illustrations included Martian spaceships shaped in the likeness of Maxim's flying machine. 'The Time Machine' was published in 1895. Wells was inspired by the look into the future provided by Maxim's first attempts at flight.

Unit 18 What was it like to live here in the past?

Activity	Learning Objectives	Learning Outcomes
What can local buildings or sites tell us about the past? • Get children to look at pictures of Crayford town hall on the worksheet 'A Menu Fit for Heroes.' This shows it as the canteen for the Vickers factory. (They will immediately notice the number of women in the photograph.) • Ask the children to observe and record information to help answer questions such as: What does it look like? How big is it? What is it made of? What is it used for now? What was it used for in the past? Has it always been used for this? Is there anything unusual about it? What are the surroundings like? Why do you think it was built here? **2. A Menu Fit for Heroes?** • Review the menu created at the Savoy hotel for Alcock and Brown • Discuss conventions for the lay out of a menu • Design a celebratory menu for the Vickers canteen (Crayford Town Hall) to mark Alcock and Brown's visit to Crayford.	• to use historical sources in the locality to find out information • how to record their findings so they can demonstrate to other people what they have learnt • to ask and answer relevant questions from the past.	• identify some features of a building through observation and asking and answering questions • record their observations by annotating drawings or by labelling and completing a prepared outline • write a short, accurate description of the place suggesting who might have used it.
What can local buildings or sites tell us about the past? • Discuss what remains of Vickers Crayford. How do people new to the area find out about the town's past? • Look at the Crayford coat of arms and small memorial plaque next to Crayford clock tower. Are these sufficient to make people aware of Crayford's amazing contribution to aviation history? • What could we do to rectify this? What kind of memorial would help people realise what once happened here? **3. Should we have a memorial in Crayford to mark its role in aviation history?** • Write a persuasive letter to the Bexley Times asking for a permanent memorial to be established on the site at the Tower Retail Park.	• to use historical sources in the locality to find out information • how to record their findings so they can demonstrate to other people what they have learnt • to ask and answer relevant questions from the past • to synthesise what they have found out about the local area • to organise information and communicate it in a variety of ways appropriate to the audience.	• identify some features of a building through observation and asking and answering questions • make a presentation showing the knowledge and understanding of the history of the local area developed through the unit • present information in a way that is appropriate to the intended audience.

A Magnificent Town and its Flying Machines

Literacy	Additional Notes and links to Foundation Subjects
Year 6 Non-fiction Unit 4 – Formal/impersonal writing • Read examples of official language such as on menus, and identify characteristic features of layout. • In writing information texts, select the appropriate style and form to suit a specific purpose and audience, drawing on knowledge of different non-fiction text types.	**Art and design at key stages 1 and 2 (Year 5/6)** **Unit 6C:** A sense of place **Geography at Key stages 1 and 2** **Unit 6**: Investigating our local area Crayford Town Hall was built in 1915 as a canteen for workers from Vickers armaments factory. It has been a public building since 1929 when it became the town hall for Crayford Urban District Council. It has been used as a venue for parties, dances and shows ever since. Recently planning permission has been sought to turn it into a restaurant.
Year 6 Non-fiction Unit 3 – Argument **(Also relevatn for 1 Year 5/6 Transition unit – Persuasion)** • Through reading, identify the language, grammar, organisational and stylistic features of balanced written discussions which: summarise different sides of an argument; clarify the strengths and weaknesses of different positions; signal personal opinion clearly; draw reasoned conclusions based on available evidence • Recognise and understand the distinction between the persuasive presentation of a particular view and the discursive presentation of a balanced argument • First explore orally and then write a balanced report of a controversial issue, summarising fairly the competing views, analysing strengths and weaknesses of different positions, drawing reasoned conclusions where appropriate, using formal language and presentation as appropriate • Use reading to investigate conditionals, for example using if, then, might, could, would, and their persuasive uses, for example in deduction, speculation, supposition. Build a bank of useful terms and phrases for persuasive argument, for example similarly... whereas... • Overall, help to build the ability to select the appropriate style and form to suit a specific purpose and audience, drawing on knowledge of different non-fictional text types and adapting, conflating and combining these where appropriate.	**Geography at Key stages 1 and 2** **Unit 6**: Investigating our local area There is a Maxim Road in the middle of Crayford and a small plaque featuring a Vimy (albeit with no description) on the building besides Crayford Clock tower. The old foundation stone for the Princesses' theatre is tucked away on one of the shops on the site. New artwork at Waterside has symbolic representations of both plane and machine gun manufacture at Vickers. However you would have to already know what went on at Vickers to realise the significance of these. The planes built at Vickers Crayford helped to make World aviation history but because there is no museum in Crayford and no display at the Tower Retail Park most people in the town are unaware of this. However, there is also an argument that it is not morally correct to celebrate the achievements of an armaments factory.

Unit 18 What was it like to live here in the past?

Activity	Learning Objectives	Learning Outcomes
What do pictures and photographs tell us about past life in our area? (Alcock and Brown) • Look at an archive photograph of the windows in the Vickers factory buildings alongside Crayford clock tower • Look at plan views of the Vimy designed at Vickers Crayford. **4. A Tribute to the Vimy** • Design a stained glass window for the Vickers factory celebrating Alcock and Brown's flight in the Vimy • Alternatively ask children to look at the Crayford coat of arms and design a window celebrating Hiram Maxim's first heavier than air flight.	• that there are different sources of information for their area in the past • to develop skills of accurate observation and recording • to make deductions from physical evidence • to recognise that some questions can be answered by looking at buildings and others cannot.	• identify some features of a building through observation and asking and answering questions • record their observations by annotating drawings or by labelling and completing a prepared outline • write a short, accurate description of the place suggesting who might have used it.
What do pictures and photographs tell us about past life in our area? (Alcock and Brown) • Show picture of Vickers 14,500 strong work force in 1918 • What sort of people worked at Vickers? Would they have all been skilled workers? Were they all men? • Show Flight Magazine article about Alcock and Brown's visit to the Princesses' Theatre. How would Vickers employees have reacted to their visit? • Look at picture of the theatre opening. What happened before and after it was taken? **5. Alcock and Brown at the Reopening of the Princesses' theatre** • Role-play a journalist interviewing Alcock and Brown • Write a newspaper article for the Bexleyheath Observer.	• to find information about the area from studying pictures • to question pictures as interpretations of the past.	• identify features of the area from pictures • record their ideas in a table using the categories as headings • suggest how, why and for whom a picture was made • demonstrate what they have learnt about the area through role play.
What do pictures and photographs tell us about past life in our area? (Alcock and Brown) • Read the story through • Answer key questions about the text to identify what the story is about and who the key characters are. • Discuss conventions of play script writing. **6. A Magnificent Town and its Flying Machines** • Draft a script for one of the six scenes based on the pictures provided	• to find information about the area from studying pictures • to question pictures as interpretations of the past	• identify features of the area from pictures • record their ideas in a table using the categories as headings • suggest how, why and for whom a picture was made • demonstrate what they have learnt about the area through role play
How can primary sources help us to find out about how people lived?) • Look at the telegram sent by Alcock and Brown to announce their landing in Ireland. **7. A Telegram for the Bride** • Read poem 'The Telegram' to enable children to take on the role of Marguerite Kennedy, Arthur Whitten Brown's fiancée • Write diary entries in role, for three key dates in the story. 14 June 1919 take off and no news 15 June 1919 Alcock and Brown's arrival in Ireland 23 July 1919 the opening of the Princesses' theatre	• to differentiate between fact and opinion • that historical accounts are often influenced by personal opinion.	• collect information about the area from available evidence • summarise the information collected • identify facts and opinions.

A Magnificent Town and its Flying Machines

Literacy	Additional Notes and links to Foundation Subjects
Year 6 Non-fiction Unit 4 – Formal/impersonal writing • Read examples of official language such as on menus, and identify characteristic features of layout • In writing information texts, select the appropriate style and form to suit a specific purpose and audience, drawing on knowledge of different non-fiction text types.	**Art and design at key stages 1 and 2 (Year 5/6)** **Unit 6C:** A sense of place **Geography at Key stages 1 and 2** **Unit 6**: Investigating our local area The prototype Vickers Vimy aircraft FB27 was built at Bexleyheath and first flew at Joyce Green, Dartford on 30th November 1917. The first 12 production models were made at Crayford until production switched to Weybridge in February 1919. This was mainly because the Vimy had to be dismantled and taken to Joyce Green by lorry for test flying. Weybridge had its own airfield outside the factory called Brooklands.
Year 6 Non-fiction Unit 2 – Journalistic writing • Develop a journalistic style through considering: balanced and ethical reporting, what is of public interest in events, the interest of the reader, selection and presentation of information. • Use the styles and conventions of journalism to report on, for example real or imagined events	The Princesses' Theatre, opened in July 1916 at Waterside, was built specifically to entertain Vickers workers but unfortunately burnt down six months later. Its reopening coincided with Alcock and Brown's trans Atlantic flight. On the 23rd July 1916 Prince Albert, the future King George VI, was the guest of honour. Alcock and Brown hid behind the stage curtain as a film was shown about their journey. When it ended Sir Trevor Dawson presented them with gold watches, on behalf of Vickers to commemorate their flight. A diamond and emerald brooch in the form of a Vickers' aviation badge, was also presented to Miss Kennedy, Sir Whitten Brown's fiancée, who up to this point had remained anonymous in the audience.
Year 5 Narrative Unit 6 – Dramatic conventions • understand dramatic conventions including: the conventions of scripting; how character can be communicated in words and gesture; how tension can be built up through pace, silences and delivery. • write own play script, applying conventions learned from reading; including production notes; annotate a section of play script as a preparation for performance • evaluate the script and the performance for their dramatic interest and impact.	**1 Maxim's Machine Gun** was demonstrated to a Chinese delegation in 1888. The gun fired 660 bullets a minute-far too fast for us-was the response from the Chinese who were worried about the cost of paying for all the ammunition. **2 Maxim's Flying machine** flew 281 m at a height of 1.4m on its trial in 1894 before it crashed. **3 Armistice Day 1918** Thomas Keppel North, Superintendent of the Crayford works stands in front of his 14,500 workers on the day WW1 ended. What will the future hold for his employees? **4 The Vimy Takes to the Air** The Vimy awaits its first test flight at Joyce Green. Will it be good enough for the RAF to order the plane? **5 Alcock and Brown Fly the Atlantic** crash in an Irish bog at Clifden at the end of their triumphant flight. **6 Alcock and Brown at the Princesses' Theatre Crayford** The VIP guests arrive for the reopening of the theatre and presentation of engraved gold watches to Alcock and Brown.
Year 5 Non-fiction Unit 2 – Recount • identify the features of recounted texts such as sports reports, diaries, police reports, including introduction to set the scene, chronological sequence, supporting illustrations, degree of formality adopted, use of connectives; write recounts based on subject, topic or personal experiences.	Arthur Whitten Brown met Marguerite Kathleen Kennedy at the aircraft production department of the Ministry of Munitions in 1917. Brown worked here following repatriation from a German P.O.W. camp because of the wounds he'd received having been shot down in November 1915. The couple's plans to get married were postponed so that Brown could attempt his trans Atlantic flight. Most people saw the attempt as almost suicidal with death a high probability. What Marguerite thought of this is unknown. However, after Brown's successful return, the couple were married 6 days after visiting Crayford at the Savoy Chapel in the Strand on 29th July 1919. Marguerite wore her diamond Vickers brooch given to her in Crayford at the wedding. They used Brown's share in the prize money to honeymoon in America.

Unit 18 What was it like to live here in the past?

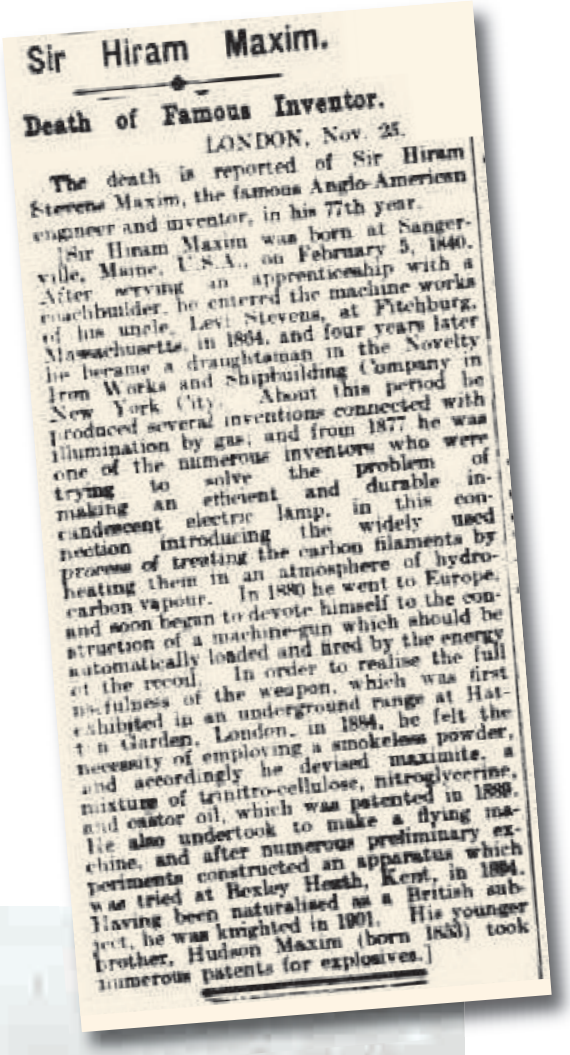
Activity	Learning Objectives	Learning Outcomes
How can primary sources help us to find out about how people lived in the past? • Look at Alcock's letter to his sister Elsie,which he carried amongst the letters which were to become the first trans Atlantic airmail • Read Alcock's Daily Mail recount of his journey • Make notes from this article identifying key facts and opinions. **8. An Incredible Journey** • Write a postcard in the role of Alcock to his sister Elsie from Clifden Ireland telling her that you have arrived safely and recounting some of the dramatic event of your flight.	• to develop note-taking skills • to differentiate between fact and opinion • that historical accounts are often influenced by personal opinion.	• summarise the information collected • identify facts and opinions.
How can oral and archive film sources help us to find out about how people lived? • If possible watch 'A Day in the Life of a Munitionette' or liisten to the oral histories of former Vickers workers before attempting poetry • Encourage children to answer questions such as *What was their journey to work like?* • Show children the image of women working at Crayford making Vimy wings. *How would women's experience of working at Vickers Crayford be different to that shown in the film? What would be the same? Would it be better?* **9. Vickers Verse** • Listen to the Munition Workers song sung at the opening of the Princesses' Theatre • Ask the children to write their own verse about the Munitionettes who helped to build the Vickers Vimy • Alternatively write a poem about the Vimy itself. This can be using the poetry machine or as an acrostic or haiku • Another option is to write a poem about the gold watch presented to John Alcock at the Princesses' theatre which was tragically used to identify him when he was killed flying to the Paris air show • This option allows scope to use powerful language to describe the significance of the Crayford watch.	• to initiate and pursue specific lines of questioning • to develop listening and note-taking skills • to differentiate between fact and opinion • that historical accounts are often influenced by personal opinion.	• collect information about the area from oral evidence • summarise the information collected • identify facts and opinions.

A Magnificent Town and its Flying Machines

Literacy	Additional Notes and links to Foundation Subjects
Year 5 Non-fiction Unit 2 – Recount • identify the features of recounted texts such as sports reports, diaries, police reports, including introduction to set the scene, chronological sequence, supporting illustrations, degree of formality adopted, use of connectives; write recounts based on subject, topic or personal experiences..	**Geography at key stage 1 and 2 (Year 1-6)** **Unit 24: Passport to the world** Alcock and Brown carried a small linen bag on the Vimy containing 197 letters that Dr. Robinson, Postmaster in Newfoundland, had entrusted to the fliers. They delivered these letters to the Royal Aero Club in Piccadilly on their triumphant arrival in London. These were the first long distance air mail letters.
Year 5 Poetry Unit 1 - Poetic style • read poems and identify what is distinctive about the style or content of their poems; analyse and compare poetic style, use forms and themes of poets; to respond to shades of meaning; to explain and justify personal tastes; • convey feelings, reflections or moods in a poem through the careful choice of words and phrases. **Year 6 Poetry Unit 1 – The power of imagery** • Building from Year 5, children further explore the use of use of powerful images in poetry. During this process a way of working, involving playing with language and then forming and shaping ideas, is modeled and practised. ICT may be used to provide a visual or aural stimulus and/or to develop and present the poems • The same learning processes are once more repeated and varied, this time focusing on the use of surreal, surprising and amusing images in poetry • Outcomes from the whole unit are shared and evaluated against pre-agreed criteria for the use of strong images, and then performed and/or published in some oral, paper or electronic form • The subject matter of the poems selected and created for this unit could well relate to foundation subjects or to a cross-curricular theme or themes.	**Music at key stages 1 and 2 (Year 5/6)** **Unit 19: Songwriter - Exploring lyrics and melody** Local composer Kathleen Bruckshaw wrote the Munition workers song for the original opening of the Princesses' theatre in Crayford in July 1916. It made special mention of the women at Vickers. Female munitions workers were nick named Munitionettes. John Alcock was wearing his gold watch presented to him at the Princesses' theatre Crayford when he was tragically killed taking a Vickers Viking flying boat to the Paris air Show on 18th December 1919. It was used to identify him before his body was returned to England to be buried that Christmas.

Appendix – Obituaries

Sir Hiram Maxim died on 24th November 1916.



Sir Hiram Maxim.

Death of Famous Inventor.

LONDON, Nov. 25.

The death is reported of Sir Hiram Stevens Maxim, the famous Anglo-American engineer and inventor, in his 77th year.

[Sir Hiram Maxim was born at Sangerville, Maine, U.S.A., on February 5, 1840. After serving an apprenticeship with a coachbuilder, he entered the machine works of his uncle, Levi Stevens, at Fitchburg, Massachusetts, in 1864, and four years later he became a draughtsman in the Novelty Iron Works and Shipbuilding Company in New York City. About this period he produced several inventions connected with illumination by gas; and from 1877 he was one of the numerous inventors who were trying to solve the problem of making an efficient and durable incandescent electric lamp. In this connection introducing the widely used process of treating the carbon filaments by heating them in an atmosphere of hydrocarbon vapour. In 1880 he went to Europe, and soon began to devote himself to the construction of a machine-gun which should be automatically loaded and fired by the energy of the recoil. In order to realise the full usefulness of the weapon, which was first exhibited in an underground range at Hatton Garden, London, in 1884, he felt the necessity of employing a smokeless powder, and accordingly he devised maximite, a mixture of trinitro-cellulose, nitroglycerine, and castor oil, which was patented in 1889. He also undertook to make a flying machine, and after numerous preliminary experiments constructed an apparatus which was tried at Bexley Heath, Kent, in 1894. Having been naturalised as a British subject, he was knighted in 1901. His younger brother, Hudson Maxim (born 1853) took numerous patents for explosives.]

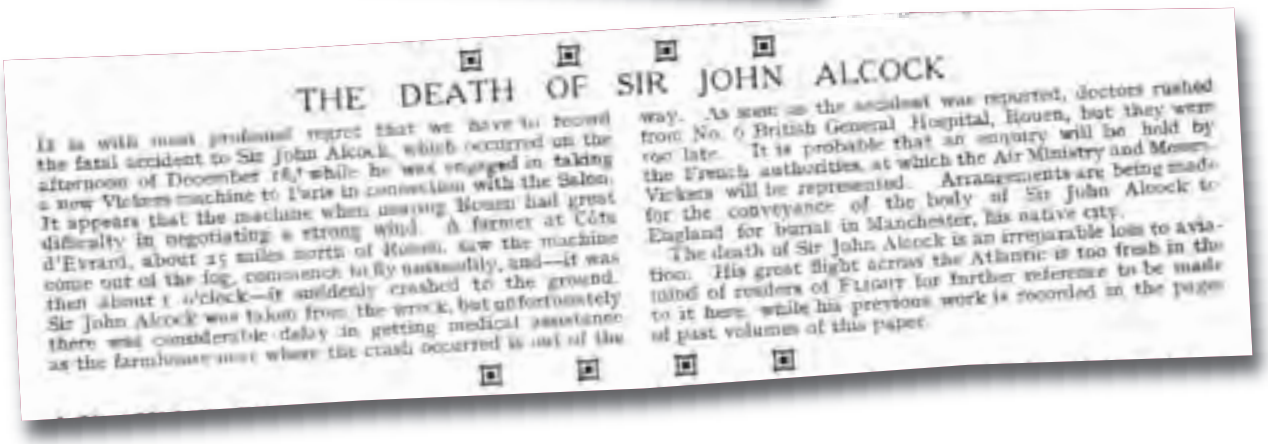
Maxim's 1910 biplane in its hangar facing Crayford Road. The failure of this plane ended his link with Crayford.

CRASH OF SEAPLANE FATAL TO ALCOCK

Fog Hid Land from Him While Flying Low in Normandy.

PINNED UNDER WRECKAGE

Sir John Alcock was killed on 19th December 1919 taking a Vickers Viking sea plane (left) to the Paris air show.



THE DEATH OF SIR JOHN ALCOCK

It is with most profound regret that we have to record the fatal accident to Sir John Alcock, which occurred on the afternoon of December 18, while he was engaged in taking a new Vickers machine to Paris in connection with the Salon. It appears that the machine when nearing Rouen had great difficulty in negotiating a strong wind. A farmer at Côte d'Evrard, about 25 miles north of Rouen, saw the machine come out of the fog, commence to fly unsteadily, and—it was then about 1 o'clock—it suddenly crashed to the ground. Sir John Alcock was taken from the wreck, but unfortunately there was considerable delay in getting medical assistance as the farmhouse near where the crash occurred is out of the way. As soon as the accident was reported, doctors rushed from No. 6 British General Hospital, Rouen, but they were too late. It is probable that an enquiry will be held by the French authorities, at which the Air Ministry and Messrs. Vickers will be represented. Arrangements are being made for the conveyance of the body of Sir John Alcock to England for burial in Manchester, his native city.

The death of Sir John Alcock is an irreparable loss to aviation. His great flight across the Atlantic is too fresh in the mind of readers of FLIGHT for further reference to be made to it here, while his previous work is recorded in the pages of past volumes of this paper.

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Aircraft production at Vickers, Crayford c.1918.

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