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* * *

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AIR FIGHTERS

A CONCISE HISTORY OF WORLD WAR I FIGHTER PILOTS AND THE PLANES THEY FLEW TO GLORY



A French airfield, painted in 1916. The fighter seen at the right is a Nieuport 11.

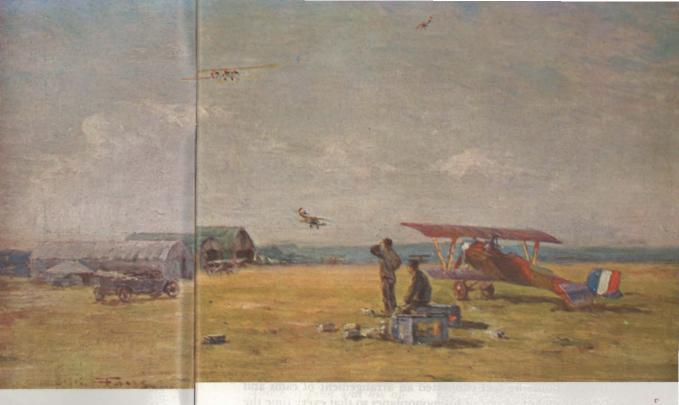
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By today's standards, the fighter planes of World War I were rickety, odd-looking contraptions. An advanced type like the French Spad 13 (shown on the cover, flown by American ace Eddie Rickenbacker) had a top speed of 130 miles per hour, a ceiling of about 20,000 feet, and mounted but two machine guns. It was made mostly of wood and covered with fabric.

Seen from another perspective, however, the picture is quite different. In 1918 the airplane was only fifteen years old. Compared to the Wright brothers' Flyer, the Spad was an amazing machine; it is like viewing today's F-100 next to World War II's Mustang.

The aces who piloted these early fighters were young, highly skilled—and incredibly courageous. It took courage just to fly these



planes, to say nothing of fighting with them. Engines were often unreliable, and sometimes wings snapped off during violent maneuvers. There were no such things as self-sealing gas tanks; a stray bullet could turn a plane into a flaming torch in moments. Until the last weeks of the war there were no parachutes.

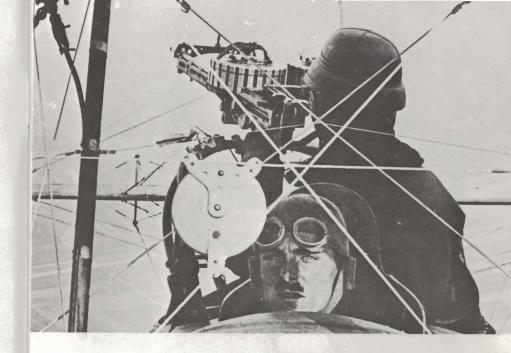
The story of some of these aces, their fighting tactics, and the planes they flew is told on the following pages. Reading the accounts of their combats, you will find them in situations similar to those met by the players of *Dogfight*. Whether you loop or roll or bore in for the kill, the choices you face are the same choices that faced great aces like Richthofen and Bishop and Rickenbacker in that first air war more than forty years ago. One April day in 1915, a small monoplane with French insignia suffered engine failure well behind the German lines. Its pilot managed to glide to a safe landing, and he and his plane were captured. While the Germans were pleased enough to have in their hands Roland Garros, the world-famous stunt flyer of prewar days, they were much more interested in his plane. They hustled the Morane-Saulnier fighter to Berlin and closely examined the device that had made Garros the scourge of the German Air Service.

In the early months of World War I, airplanes were used for little else but observing enemy troop movements and directing artillery fire. If they were to become offensive weapons, a way had to be found to mount a machine gun so that by aiming his plane a pilot also aimed the gun. The trouble was that the propeller was in the way. Roland Garros attacked the problem directly. He fastened a gun to the engine cowling, bolted steel plates on the propeller blades to deflect any bullets that might hit the prop, and proceeded to shoot down five German planes in sixteen days.

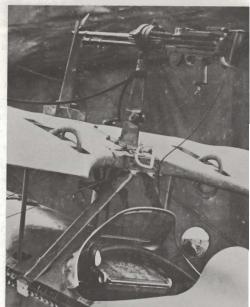
Anthony Fokker, a brilliant Dutch airplane builder working for the Germans, was called in and given the job of duplicating or improving Garros' device. Fokker rejected the steel-plate idea as too crude and dangerous, but it set his fertile mind to work. Within forty-eight hours he had connected an arrangement of cams and rods to the engine of one of his monoplanes so that every time the spinning propeller blades crossed the line of fire the stream of machine-gun bullets was briefly interrupted.

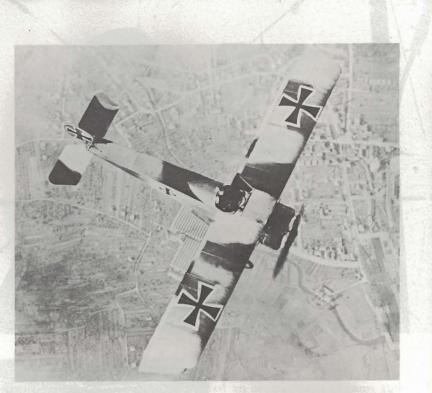
Fokker's synchronization gear revolutionized the war in the air. The warplane now possessed a deadly sting; no longer would enemy planes fly past each other, their pilots and observers waving gaily. Now observation planes—and their fighter escorts—could be driven from the skies, depriving an army of its "eyes."

One of the first German flyers to take advantage of Fokker's genius was a schoolteacher's son named Oswald Boelcke. Boelcke was a fine flyer, a crack shot, and most important, a superb tactician. A warm and generous man, he made a point of visiting his victims in hospital or prison camp, laden with gifts. A certain



Above, a pilot and his observer on patrol over the front. At right, the cockpit of an early Nieuport fighter, showing the machine gun mounted atop the wing so as to fire over the propeller.





A 1916 Fokker biplane, the D-2, with a synchronized machine gun.

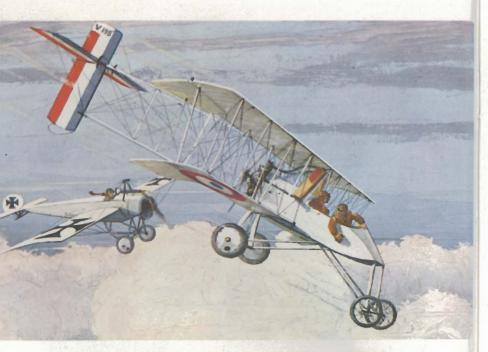
amount of such chivalry among aviators remained throughout the war, in sharp contrast to the ghastly fighting in the trenches. Unfortunately, not all of Boelcke's victims survived. So effective were he and his fellow pilots that a British politician stood up in the House of Commons in March of 1916 and dramatically condemned his nation's current warplanes as nothing more than "Fokker Fodder."

The situation was not quite that serious. The British D.H. 2 and Sopwith and the French Nieuport were the equal of the Fokkers that the Germans were flying. And by the summer of 1916 the Allies had developed their own synchronization gear. But skill and marksmanship were all-important, and Oswald Boelcke was the master. His duel with Captain G. L. Cruikshank, the leader of a British fighter squadron, was one of the most spectacular of the war. For half an hour they swirled through the sky, each countering the other's favorite maneuvers. Finally, as the two planes roared toward each other, Boelcke fired a split-second before Cruikshank. His burst tore a wing-tip off the Britisher's Sopwith. But Cruikshank was game. He gingerly nursed his damaged plane around for another head-on pass. Again Boelcke beat him to the punch, this time with decisive results. His bullets tore through the Sopwith's engine, cockpit, and down the length of the fuselage. Cruikshank's craft broke up and fell in a shower of burning pieces.

Boelcke went on to score forty victories, and the fighter squadron of aces he assembled and trained terrorized the Allied air services. Then, on October 28, 1916, in the heat of combat, a squadron mate brushed Boelcke's wing-tip. The wing broke away, and the great ace fell to his death. At his funeral, British planes flew over and dropped wreaths; one of the messages read, "To the memory of Captain Boelcke, our brave and chivalrous foe."

The Morane-Saulnier "Parasol" was France's first fighter plane.





Oswald Boelcke, flying a Fokker monoplane with the newly developed synchronized gun, downs a French Voisin observation plane.

The pace of the air war quickened; planes became faster and sturdier and more maneuverable. No sooner had the Sopwith and Nieuport made the early Fokkers obsolete than the Germans countered with the new Albatros. So it went throughout the war, the balance shifting from one side to the other.

As the planes improved, so did the fighting tactics. Pilots learned to take advantage of cloud cover, to attack with the sun behind them, to decoy rash opponents into ambushes. New pilots had to learn fast, for they seldom lived to regret a mistake. At one point, in the fall of 1916, someone figured out that the average life expectancy of a fighter pilot was three weeks.

In every war the public seems to demand heroes to worship, and

in World War I it found them in these so-called "knights of the sky." While Germans followed the career of Oswald Boelcke, Englishmen were thrilling to the exploits of Albert Ball. A youngster of nineteen who played the violin and grew vegetables when off duty, Ball fell in love with the swift and agile Nieuport. It mounted a machine gun on the upper wing, fired by a cable leading into the cockpit. Ball's favorite tactic was to slip into an opponent's blind spot—below and behind him—then tip up his gun and pour a stream of bullets into the German's belly. Ball also favored the head-on attack, scoring with a quick burst as the enemy broke away.

At dusk on August 22, 1916, flying an escort mission, Ball spotted seven unsuspecting Roland two-seater fighters. Carefully he snaked his Nieuport underneath the German formation. Two long bursts, the second from a range of fifteen yards, sent a Roland kiting earthward. Ball pulled off, changed his ammunition drum, and then shot down a second German. He streaked away and continued his hunt. Soon he spotted five more Rolands plodding along. Again he slipped into their blind spot, and immediately another victim went down, a mass of flames. The four remaining Rolands scissored in on the Nieuport; twisting and turning, Ball snapped off a quick burst that knocked down his fourth German plane in less than half an hour, then sped to safety in the gathering darkness.

The leading ace of World War I, and certainly the most famous one, was Manfred von Richthofen, Germany's "Red Baron." It would be hard to find anyone more different from Albert Ball. Richthofen was a cold and precise killer who awarded himself an engraved trophy cup after each of his kills. He learned his trade under Boelcke, and was soon leader of the crack Richthofen "Flying Circus."

The thirty-eighth of Richthofen's eighty victories was a twoseater Sopwith, shot down in April of 1917. A German wolfpack, led by Richthofen's blood-red Albatros, attacked out of the sun. The Sopwith's pilot, Lt. Heagerty, tells what happened: "My controls had been shot away. They must have gone in the same burst that killed Cantle [the observer]. From a glide, we went into a dive.

8



In the British training poster above, stressing formation flying, Albatros scouts pounce on a laggard S.E. 5. Below, a "hun in the sun" stalks a Bristol fighter. The Albatros at right is a decoy.



All the way down the red machine...kept right at the back of me, ripping burst after burst of machine-gun bullets into the plane from the rear. I remember seeing the windshield in front of my face fly away in small pieces, and then the propeller stopped.... The ground was coming up at a fearful rate....I must have fainted then, because I don't remember the crash...."

Edward Mannock, with seventy-three victories, was the topranking British ace. Like Richthofen, he had the killer instinct; Mannock hated all Germans, and chivalry was something he never indulged in. "When you shoot," he told a new pilot, "don't aim for the plane—aim for the pilot." On several occasions he was seen to strafe German flyers whom he had forced to crash-land.

Mannock scored most of his victories in the fast and rugged S.E. 5. This British fighter had a versatile armament, with one machine gun on the cowling aimed straight ahead, and another one mounted on the upper wing, firing up as well as forward. With either he was a dead shot in spite of being nearly blind in one eye.

On May 21, 1918, Mannock gave a dazzling exhibition of skill and marksmanship. He pitched into a formation of six Pfalz fighters flying at 12,000 feet. Pouncing on the tail of one, he shot it to pieces, then turned into another and sent it earthward after a perfectly aimed burst from the side. His third victim was not so easy.

The two planes tore around in tight circles. Then the German dove steeply and looped; Mannock stuck with him like glue. In desperation the Pfalz pilot tried to shake off his tormentor by falling more than a mile in a tail spin. The maneuver failed; when he came out of the spin, Mannock was right on his tail to pour in a killing burst. To cap off his day, Mannock then sent an enemy observation plane flaming into a tree.

Mannock, like many pilots, feared one thing above all else: burning to death in the air. It was to be his fate. He was returning from a patrol in July of 1918 when a stray burst of antiaircraft fire hit his gas tank, and he fell in no-man's land between the lines. His body was never found.

While aces like Mannock and Richthofen never took unnecessary

risks, others fought just for the sake of fighting. Such a brawler was a Canadian named Billy Bishop. Bishop attacked with reckless abandon, using the head-on approach whenever possible. One spring morning in 1917 he rose at 3 A.M., and as dawn tinted the sky he was airborne to see what he could catch before breakfast.

He was in luck. At a German airfield the morning patrol was just preparing to take off; Bishop strafed the field and sat back to see what would happen. Furious German pilots rushed to their planes. He shot one apart as it started to take off, then sent a second careening into a tree. A German flyer finally managed to get off and climb above the Canadian. Bishop spotted him, stood his Nieuport on its tail, and slammed a long burst into the German's belly. As the Albatros disintegrated, Bishop raced for home-and his breakfast.

Bishop's score stood at fortyseven when the high command ordered him home to train new pilots. He was to leave in twelve days. In those twelve days Billy Bishop put on one of the greatest one-man shows of World War I.

Hardly stopping to sleep, he



Billy Bishop, the aggressive Canadian ace, shoots an Albatros to pieces from point-blank range. Bishop's plane is a Nieuport 17.



René Fonck

Edward Mannock

flew like a madman. At the end of twelve days his score was seventytwo—he had shot down twenty-five German planes, five of them on his last day of combat.

After the Germans adopted the Albatros, Anthony Fokker found himself nearly forgotten. He set to work, and the result was the unusual Fokker triplane. The British navy already had a Sopwith triplane in combat; Fokker took the idea and improved it. He reasoned that three short wings would give more lift and maneuverability than two long wings. So it proved: Fokker's triplane, while relatively slow, could twist and turn like a whirling dervish.

German pilots at first distrusted the strange craft. Oddly enough, it took the death of a great ace to prove the triplane's worth. On Sepember 23, 1917, Werner Voss, who had forty-eight Allied planes to his credit, boldly attacked seven S.E. 5s of a crack British squadron. For thirty minutes the S.E. 5s swarmed around Voss's wildly twisting Fokker. He finally died fighting, but any doubts about the triplane were ended. When Richthofen adopted it for his Flying Circus, Anthony Fokker was famous again.

By the fall of 1917 improved Allied designs were also going into combat. In addition to the S.E. 5, the British had the Sopwith Camel, a plane hard to fly but deadly in the hands of expert pilots. The French began to replace the Nieuport with the Spad 13. This was a strong, fast, heavy fighter, able to dive like a bullet.

French aces took to the Spad like ducks take to water. Twice



Charles Nungesser

Oswald Boelcke

René Fonck shot down five Germans in a single day. Fonck was probably the finest shot of the air war; a number of his seventy-five victims were dispatched with as few as a half-dozen bullets. He even fitted a 37mm cannon to his Spad, firing the shells through the hollow propeller shaft. Sixteen Germans went down, blown to pieces, under the fire of this cannon.

Charles Nungesser was as foolhardy as Fonck was calculating. He scored forty-five victories and was wounded seventeen times. He finally met his death in 1927, trying to fly the Atlantic.

The flyer the French people worshipped more than any other was a frail, sickly youngster named Georges Guynemer. He lived only to fly, and he fought with a vicious intensity. Before a mission, a friend wrote, "The look on his face was appalling; the glances of his eyes were like blows." Guynemer scored at a phenomenal rate. On one patrol he shot down a German observation plane that had been acting as a decoy, the two fighters waiting in ambush in the clouds, and, for good measure, two more enemy planes on his way home. Seven times he was shot down; each time he was back in the air as soon as he could wangle a new plane.

But the strain on the high-strung Guynemer was beginning to tell. At a party the much-decorated ace was asked what decoration

OVERLEAF: The pilot and observer plunge from a German two-seater set ablaze by Guynemer's Spad 13.





was left for him to earn. "The wooden cross," he answered. Five days after he had scored his fifty-fourth victory he disappeared forever. Like Mannock, his body was never found.

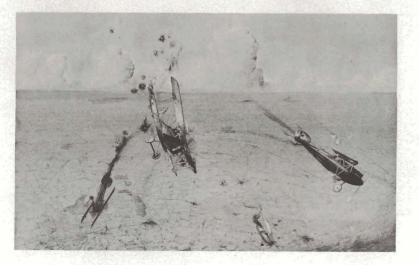
The death of many of the great aces is shrouded in mystery or controversy. Albert Ball's score stood at forty-four when he disappeared. According to one story, Ball had a habit of flying over a village inside German lines to check the time on a clock in a church tower. The German garrison noticed the

Albert Ball

British plane that appeared so regularly, and planted a machine gun in the tower. On May 7, 1917, Ball flew his S.E. 5 (he had finally given up his beloved Nieuport) past the church, and the quiet, violin-playing ace fell to an anonymous German gunner.

Manfred von Richthofen's death was witnessed by many, both

This picture represents Albert Ball's last flight. He is shown hammering away at an Albatros with the wing gun of his S.E. 5.



in the air and on the ground, but who killed him is still a matter of controversy. The credit usually goes to British Captain Roy Brown.

On April 21, 1918, Brown, flying a Sopwith Camel, was involved in a dogfight over the front lines. He managed to get on the tail of Richthofen's scarlet triplane and poured bullets into it. At the same time, British antiaircraft fire was aimed at the low-flying triplane. The red Fokker plunged sharply into the ground. The British gave Richthofen a



Manfred von Richthofen

military funeral with the full honors of war. All of Germany mourned, for the Red Baron had seemed invincible.

A number of ingenious uses were found for warplanes. Early in the war much was expected of giant bomb-carrying airships The Germans made numerous raids on England with their zeppelins,

Capt. Roy Brown's Sopwith Camel pursues Richthofen's red Fokker triplane. Moments later the German ace crashed to his death.



but being filled with explosive hydrogen, they were vulnerable to fighters using incendiary bullets. In an attempt to counter this threat, both sides experimented with fighter-carrying airships; in case of attack, the plane would be dropped free to fight off the enemy, and then make a normal landing. Technical problems, however, prevented this novel idea from being tried out in combat.

The British Royal Navy had considerably more success. Before the war was over, aircraft carriers were in regular service, and naval squadrons of land-based aircraft performed effectively. In fact, the third-ranking British ace, Raymond Collishaw, was a naval flyer. While the Royal Air Force was suspicious of the Sopwith triplane, the navy flyers were delighted to have it. Collishaw and four fellow Canadians teamed up to form the "Black Flight," so-called because of the names they gave their triplanes: Black Maria, Black Death, Black Roger, Black Prince, and Black Sheep.

They were soon transferred to the front to help fight Richthofen's Flying Circus. One of the Circus flyers, Lt. Karl Allmenroder, made a Black Flight member his thirtieth victory. Collishaw took off the next day with blood in his eye, and in the midst of a dogfight, spotted Allmenroder's green-striped Albatros. In a short, sharp fight, he sent it blazing to the ground. By the time of the Armistice, Collishaw had sixty Germans to his credit.





Shown above is a British experiment at fitting an airship with a defensive fighter. The plane is a Sopwith Camel. At left, a Sopwith Pup lands aboard the British aircraft carrier Furious in 1917.



The Germans had their own naval hero, Friedrich Christiansen. His twenty-one victories included seaplanes, balloons, an airship, and even a British submarine, which he caught on the surface and riddled with machine-gun bullets. The water-logged sub was towed into port, "leaking like a sieve."

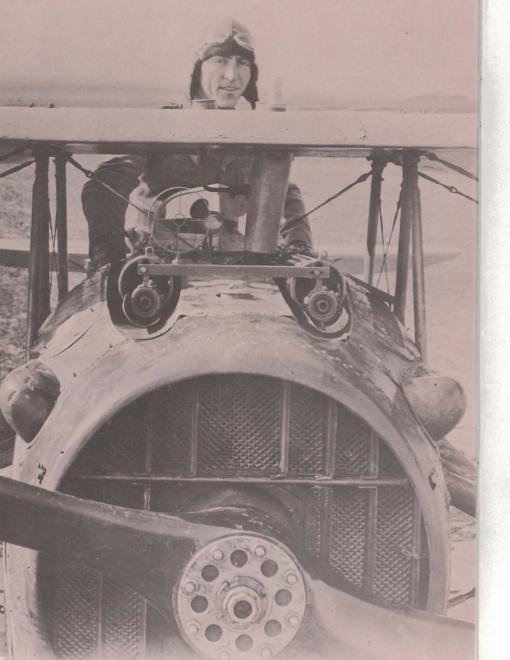
Due to the swift pace of aviation development, Fokker's triplane was soon outclassed by the Sopwith Camel, the S.E. 5, and the French Spad; it simply was not fast enough. Fokker returned to the biplane design, and his new D-7, which reached the front in May of 1918, was the best German fighter of the war. While still slower than leading Allied types, the D-7 was easy to fly and very maneuverable, particularly at high altitudes.

When the United States declared war on Germany on April 6, 1917, its air service—a branch of the army's signal corps—had about 250 aircraft, and every one of them was obsolete. For the nation that had invented the airplane fourteen years before, it was a sad awakening. Millions of dollars were appropriated for planes and



Above, American-manned Sopwith Camels prepare for take-off. Below is German ace Ernst Udet (62 victories) and his Fokker D-7.





engines and the training of pilots, and grandiose schemes were announced. Money and plans, however, could not make up for lost time. Not a single American-designed combat plane saw service in World War I.

If the United States could not provide planes, it could and did provide first-class fighting men. Long before the declaration of war, American volunteers in the Lafayette Escadrille were flying for France. This unit's leading ace was Raoul Lufbery. Lufbery's experience was invaluable to the swarms of new pilots arriving from the United States. He had seventeen victories when, in September, 1918, he took off to attack a prowling German observation plane. A bullet blew up his gas tank, and Lufbery leaped from the blazing Nieuport. By the time his squadron mates found him, French peasants had covered his body with flowers.

It was not until nearly a year after the United States entered the war that an American squadron went into combat. It was a routine

and uneventful patrol led by Lufbery, with Lieutenants Eddie Rickenbacker and Douglas Campbell as wingmen. On April 14, 1918, the 94th "Hat in the Ring" squadron scored the first American kill. The honor went to Douglas Campbell—by seconds. He and Alan Winslow pounced on a pair of Germans and sent them spinning into the ground.

The Americans were at first equipped with Nieuports, which

Two of the "Hat in the Ring" aces: Eddie Rickenbacker (left) in his potent Spad 13; and Douglas Campbell with his Nieuport 28.



many of them cordially disliked. The Nieuport could be a very useful plane if it was treated right, but the impetuous Americans tried to throw it all over the sky. They soon discovered that in a hard dive the fabric on the upper wing sometimes peeled off. They were much happier when they were re-equipped with the rugged Spad.

The first of the new American flyers to make a name for himself was Frank Luke, often called the "Arizona Balloon Buster." Luke's meteoric career consisted of but ten combat patrols; in that brief span he shot down six German planes and destroyed fifteen observation balloons. These balloons were the most dangerous targets a fighter pilot could attack. They were ringed by antiaircraft guns, could be pulled down quickly, and were usually defended by special flights of fighters. Most pilots steered clear of them. Brash, aggressive Frank Luke found them just his meat.

Luke detested rules of any kind, particularly those involving flying in formation. His idea of fighting was just to wade in with



The Nieuport 16 above carried Le Prieur rockets for use against observation balloons. At right, a rocket-firing Nieuport is bracketed by "Archie" (antiaircraft bursts) as it burns a balloon.



guns blazing until he or his opponent went down. Teamed up with Lt. Joseph Wehner, he demolished balloons at a phenomenal rate. One evening he promised he would destroy three particular balloons within twenty minutes. Before an amazed group of highranking officers he did just thatalthough he complained that it had taken him twenty-six minutes.

On September 18, 1918, Luke pulled out all the stops. With Wehner flying cover, he plunged through vicious ground fire to destroy two balloons with incendiary bullets. As he zoomed upward An American recruiting poster.



he saw Wehner trying to hold off

seven Fokker D-7s. He barreled into the middle of the fight, shot a Fokker apart in a head-on attack, and then whipped around to knock down a second one. But Wehner had disappeared. Returning to his field, Luke spotted a two-seater being chased by several French Spads. He horned in and shot down the German for a total bag of two balloons and three planes in ten minutes.

When he learned that Wehner had been killed, Luke was plunged into brooding grief. A furlough failed to shake his black mood, and two unauthorized flights brought the order to ground him until further notice. Luke heard the order, dashed out to his plane, and took off again. His commanding officer was furious. "I'm recommending him for the Distinguished Service Cross," he snapped, "and then, by God, I'm going to court-martial him!"

Frank Luke got neither, for he was on his last patrol. He demolished two fighters and burned three balloons, was wounded, and crash-landed his Spad behind the German lines; he died in a church graveyard, blazing away at German soldiers with a .45 automatic.

Some of the American flyers served their apprenticeship with French or British squadrons. Lt. David Putnam, for instance, fought with the famous French "Storks." On June 5, 1918, his Spad was bounced by ten German Albatros scouts. Within minutes he shot down five of them and escaped with his life. He had brought his score to an even dozen by September 12, when he again dared overwhelming odds by tangling with eight Fokker D-7s. His charmed life ended under a hail of bullets.

David Ingalls managed to attach himself to a British naval squadron, where he was assigned to strafing and escort missions. One day, his Sopwith Camel laden with twenty-pound bombs and extra ammunition, he joined a raid on a German airfield. Back and forth through the curtain of ground fire he went, strafing hangers and gun pits. Intent on finding a good spot to dump his twentypounders, he was nearly pulverized by a stick of bombs dropped by high-flying Allied planes. Ingalls was all alone by the time he spotted the airfield's machine shop and wrecked it. On his way home he popped out of a cloud and downed a German observation plane with his few remaining bullets.

Eddie Rickenbacker, who had flown with the Hat in the Ring squadron's first combat patrol, ended the war as America's leading ace. At twenty-seven, Rickenbacker was older than most fighter pilots, but his prewar experience as an automobile racer (he drove in the Indianapolis "500" three times) had given him lightning reflexes and a calculating coolness in the face of danger. His driving fame, however, almost kept him out of the air war. He had to serve for several months as chauffeur to General "Black Jack" Pershing, supreme commander of the American army in France, before he could wangle a transfer to the air service.

Rickenbacker spent hours practicing combat maneuvers, studying tactics, and analyzing his own plane and those of his enemy. His first five victories were scored in a Nieuport which, he discovered, could be as dangerous as a German plane-during a fight it once shed half of the upper-wing covering, and he barely reached his field. The 94th Squadron had no sooner been given Spads than

Rickenbacker was knocked out of the war for two months with a serious ear infection.

He returned to action in September, 1918, when the Allies were badly in need of experienced pilots. The German Fokker D-7s were on a rampage. Ernst Udet was piling up a score that eventually reached sixty-two, and a slim daredevil named Hermann Goering (twentytwo victories) led the Richthofen Flying Circus. Twenty-odd years later this same Hermann Goering, now fat and pompous, would lead Adolf Hitler's Luftwaffe in World War II.

Rickenbacker resumed his steady scoring. On September 15 he spotted two German Halberstadt observation planes escorted by five Fokkers, got the sun at his back, and plummeted downward. He nailed one Fokker as he roared through the formation, then blasted one of the Halberstadts. He was soon named commander of the Hat in the Ring squadron.

In October Rickenbacker scored fourteen victories, and at the time of the Armistice, on November 11, 1918, his total stood at twenty-six. He was America's ace of aces.

In four years of war the airplane came of age. What had been a toy was now a weapon. This is one legacy of this first air war; another is the heritage of skill and courage of the air fighters—both victors and vanquished. Theirs is a page of history that shines brightly out of the grim, dark ledger of World War I.

> A Nieuport with the Indian head of the American Lafayette Escadrille strafes an enemy-1.21d town.



