

SUREFIRE

THE LEWIS AUTOMATIC MACHINE-GUN IN BRITISH SERVICE



Joining forces again for our regular series on the history and technological aspects of Britain's aerial weapons, master technical illustrator **IAN BOTT** and weapons specialist **MARK RUSSELL** take a look at the rugged and reliable Lewis Gun, which provided the lion's share of the firepower for Britain's flying services for more than two decades

THE UBIQUITOUS LEWIS Automatic Machine Gun served in the Royal Flying Corps (RFC) and Royal Air Force (RAF) as the standard observer's gun for some 25 years from its introduction in 1914. Before the start of the First World War the RFC had experimented with mounting machine-guns on its aircraft, the first aerial firing in Britain being at Bisley on November 27, 1913, using an early example of the Lewis Gun from a Grahame-White Type XV Boxkite.

By 1914 the War Office and Admiralty had selected the Lewis for Service use, to be built under licence by the Birmingham Small Arms Co (BSA). Part of this decision was probably because, as part of the Army, the RFC would have required commonality in weapons and ammunition with the wider Army for reasons of training and logistics, as well as economy. The Lewis Gun remained in service until replaced by the Vickers K (aka VGO) in the late 1930s, which had a far shorter service life than its forerunner, and which was itself replaced by the Browning 0-303in machine-gun in the power-operated turrets that became standard in RAF aircraft.

GENESIS OF THE LEWIS GUN

The Lewis Gun was invented by Col Isaac Newton Lewis of the US Army in 1911. The first serious order by the British War Office, for 200 guns, was placed in August 1914. Accordingly, BSA began deliveries at a rate of 25 per week, initially at a price of £175 per aircraft gun (less magazines, tools and spares), although by the end of the war and 100,000 guns later, the price had come down to £24 10s per unit.

In the USA the Lewis Gun was built by the Savage Arms Company, which by December 1918 had delivered some 39,200 examples for use in aircraft. British evaluations of the Lewis Gun's utility as an aircraft weapon in the last quarter of 1914 concluded that it had "proved on the whole very successful as an automatic



ABOVE Isaac Newton Lewis was born in New Salem, Pennsylvania, in October 1858. Commissioned as a US Army officer in 1884, Lewis became a specialist in armament and went to Europe in 1900 to further his studies. In 1911 he refined what would become the Lewis Gun, which went on to become one of the most successful automatic weapons ever produced.

gun for aeroplane work". Another assessor was less enthusiastic, however, seeing the ideal aerial gun as being like a shotgun in producing a "large 'pattern' of bullets", and the Lewis Gun's initially limited magazine of 47 rounds meant it could not do this. The same commentator also remarked that the guns "do not appear to be very reliable".

The standard Lewis Gun Mk I weighed 26lb (11.8kg), but as with the Vickers Mk I machine-gun (see the author's *The Vickers Are Coming!* in *TAH45*), the cooling jacket was not required for use in aircraft, cutting the weapon's weight down to a more acceptable 18.5lb (8.4kg) for the Mk II and an even lighter 17lb (7.7kg) for the Mk III. The weapon was described as "well adapted for use as a mobile gun in an aeroplane", the only disadvantage being "smallness of magazine supply". It was also used in airships.

Initially squadrons used the standard infantry Lewis Gun Mk I, making their own modifications to reduce weight (including removing the cooling fins and shroud). Trials were undertaken by the

OPPOSITE PAGE With its distinctive top-mounted circular magazine, the Lewis Gun proved to be a stalwart piece of armament for British forces both on the ground and in the air for some 25 years. Here an RAF gunner takes aim with his Lewis Gun mounted on a Scarff ring and fitted with a Norman windvane gunsight. PHILIP JARRETT COLLECTION