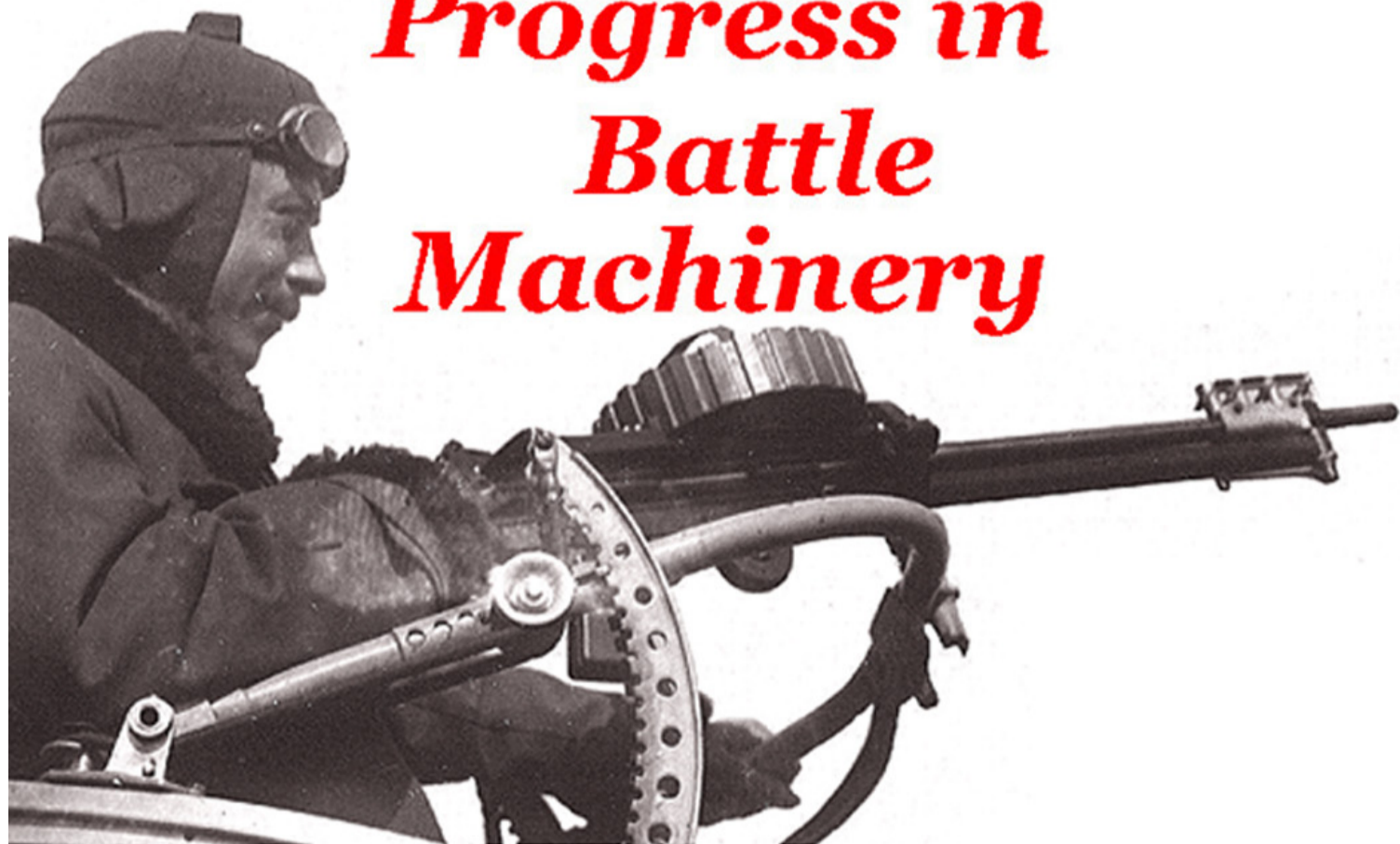


# The Terrible Progress in Battle Machinery



have completely triumphed over enemy pilots had he been able to maintain an intense stream of bullets while manœuvring above, below, and around an enemy. As it was, he often had to swerve away in order to put on a fresh drum. Nevertheless, the Lewis gun was, in the circumstances, a weapon of very considerable value. It helped the British infantry to hold back masses of the enemy in the opening phase of the war, and became one of the most important instruments of attack and defence during the long period of trench warfare.

The German machine-guns were more remarkable by their number than by their quality. During the first three years of the struggle they were, as General von Armin admitted, too heavy and cumbersome, and for some curious reason their traverse was often limited. The ordinary German machine-gunner could not swing his weapon in full circle so as to be able to fire quickly at an enemy behind him. The traverse of his gun was only about fifty degrees. The probability is that, in the case of many machine-guns which were at first an important element in the cross-firing system of German trench defence, the traverse of the gun was limited so that, if captured, it could not be readily swung round to assist in the further development of the attack. For the spring offensives of 1918, however, the Germans produced vast numbers of light machines-guns with an all-round traverse. The French machine-gun was of the air-cooled type, unlike the water-cooled type of the British and German Armies.

**French and German  
machine-guns**

## ~The Lewis Gun~

Meanwhile, a substitute for the Danish weapon was found in the weapon designed by Colonel Lewis, of the United States Army, and vainly submitted by him to the Great Powers of Europe in the days before the war. Fortunately, the Birmingham Small Arms Company took up the Lewis gun, which consisted of a modified rifle barrel, firing cartridges from a revolving drum. The entire mechanism weighed twenty-eight and a half pounds, against the sixty-eight pounds of the Vickers gun, the twenty-eight pounds of the Hotchkiss gun, and the fifteen pounds of the Madsen gun.

**Value of the  
Lewis gun**

The sustained rate of fire of the Lewis gun was not remarkable, owing to the time lost in putting on new drums: but the handiness and lightness of the instrument made it very serviceable, especially during an advance and the organisation of the captured ground against the usual counter-attack.

There were some experienced British infantrymen who still preferred the light type of Vickers gun in all conditions of battle, because of the superior firing power and ease and range of traverse of the tripod-mounted standard British machine-gun.

The light Lewis gun became the favourite weapon of the British airman, against the Parabellum gun of German pilots and fighting observers. From the point of view of the British airman the interruption of his firing power, while replacing a used drum by a full one, was a somewhat serious but an apparently inevitable effect.

