

## **ZEROING PROBLEMS WITH THE M1 CARBINE ADJUSTABLE REAR SIGHT**

Casual carbine shooters are frequently perplexed by the fact that the yardage graduations on the adjustable rear sight usually don't work properly. With the aperture set at a known distance, the carbine will shoot either high or low. This is a frustrating characteristic of most M1 Carbines.

With the exception of late production Inland and Winchester carbines, the vast majority of M1 Carbines were initially assembled with the two-position "leaf" (or "flip") rear sight. The front sight blade was intentionally made too tall, and was then filed down to the proper height during targeting at the factory. (The Irwin-Pedersen Company was the exception, using an assortment of front sights with blades of different height; hence the numbers found stamped on the side.)

The Ordnance Department's Modification Work Order for installation of the adjustable rear sight on already-issued carbines, dated 11 September 1944, states: "Carbines should be targeted if facilities exist and time permits. If facilities do not exist for targeting, the organization should be instructed to zero the carbine and target it on the range. The weapon will generally shoot low after installation of the new rear sight, in which case the front sight should be filed for zero at 100 yards with the rear sight set at the 100 yards setting. The top of the front sight may then be blackened by painting with lusterless black synthetic enamel. If the weapon shoots high with rear sight at 100 yard setting, weapon should be sent to base shop for replacement of front sight."

Overseas "field replacement" of the "flip" rear sight with the adjustable rear sight began during the winter of 1944-1945, but the majority of carbines did not have this modification done until post-war rebuilding. In addition to the adjustable rear sight being added, the original front sight was pulled off to allow the bayonet lug barrel band to be installed. A random new or used front sight was reinstalled, but unfortunately for today's shooters, there was no requirement for the carbine to then be re-targeted.

Thus, the vast majority of carbines available have a front sight that is either too tall (shoots low) or too short (shoots high), and the necessary adjustments must be made by the shooter to find the proper rear sight setting. Finding another front sight, or filing or adding metal – as necessary - to the front sight blade can alleviate this problem. Changing the front sight height by .006" (six thousandths of an inch) will change the bullet impact by 1/2" at 50 yards or 1" at 100 yards. Be careful! - A little goes a long way!

Contributed to CMP by the Carbine Club.