

Results of examination:

FIREARMS - TOOLMARKS EXAMINATIONS

The serial number on the black rifle box, Q1, was determined to be 474425. This box originally contained a .243 Winchester caliber Browning rifle.

The Q3 cartridge case was identified as having been fired in the Q2 rifle. The only marks found on Q3, other than marks made during manufacturing procedures, were one extractor mark which was identified as having been made by the extractor of the Q2 rifle and the marks left on Q3 by the Q2 rifle when Q3 was fired.

The bullet, Q64, from the victim, is a .30 caliber metal-jacketed "soft-point" sporting type bullet of Remington-Peters manufacture which was fired from a barrel rifled with six lands and grooves, right twist. Based on the physical characteristics of the general rifling impressions, the Q64 bullet could have been fired from the Remington rifle, Q2. The Q64 bullet has been distorted due to mutilation and insufficient marks of value for identification remain on this bullet. Therefore, it was not possible to determine whether or not Q64 was fired from the Q2 rifle.

The Q64 bullet is identical in all remaining observable physical characteristics to the 150 grain bullets in the five loaded .30-06 Springfield caliber Remington-Peters cartridges, Q4 through Q8.

Based on physical characteristics, specimen Q64 and the cartridge case, Q3, could originally have been portions of the same cartridge, which would be the same as the Q4 through Q8 cartridges. No marks are present on Q64 of the type which would permit determining positively whether or not the Q64 bullet was originally a portion of the cartridge represented by Q3.

The five cartridges, Q4 through Q8, conform in description to the type of cartridges packaged by the manufacturer in the Peters cartridge box in which they were submitted. Because of the manner in which cartridges are boxed at the factory, it is not possible to determine whether or not the cartridge represented by Q3 or any of the

Q4 through Q8 cartridges were packaged in the same box by the manufacturer.

The Peters cartridge box in which Q4 through Q8 were submitted also contained four U. S. Military cartridges, containing full-metal jacketed 150 grain bullets, different from Q64. The manufacturer's headstamp on these cartridges is "R A 55." The "R A" indicates that these cartridges were manufactured by Remington Arms Company, Incorporated, Bridgeport, Connecticut. Cartridges bearing "55" are those normally manufactured in 1955.

Examination of the four cartridges, Q9 through Q12, revealed no marks indicating these cartridges had ever been loaded into a weapon. The only marks on these cartridges appear to be marks produced by the manufacturer's machines and marks of the type produced by metal-link ammunition belts of the type used with machine guns. The link belt marks on Q9 through Q12 are suitable for comparison with the metal links from which the cartridges were withdrawn. In metal-link belts, each cartridge serves to hold adjacent links together. As each cartridge is withdrawn, a link (which is expendable) separates from the rest of the belt.

No aluminum, screen-type scratches, paint, wood or other foreign material was found on the muzzle or side of the barrel of the Q2 rifle.

No record was located in the National Stolen Property Index or the National Crime Information Center for a Browning rifle, Serial Number 4744Z5, as originally contained in Q1; for the Q2 rifle; for a Redfield 2X-7X variable telescope sight, Serial Number A17350 (which is mounted on Q2), or for the Bushnell binocular, Q14, Serial Number DQ408664.

No serial number which would facilitate tracing was found on the Weaver telescope sight mount and base on Q2. The screws used to secure the sight tube to the mount were "finger" tight. No tool was required to loosen them and no toolmarks of value for comparison are present.

The magnification setting of the telescope sight tube was "6 $\frac{1}{2}$ x" when the Q2 rifle was received. Therefore, objects viewed would be enlarged to approximately 6 $\frac{1}{2}$  times normal size.