Significant Cases Involving Firearms ID

Early Firearms ID

Mid 1800s – Early 1900s: Firearms Identification originated from studies conducted in the mid-1800s through the turn of the century. During this period, the first published research involved firearm wounds, the time lapse from when a gun had last been fired, gun powder residues, and powder patterns. Simple forms of Firearms Identification emerged. These examinations were based on caliber determination and rifling characteristics. Today, firearms examiners do not base identifications solely on these general features.

1863: During the US Civil War, Confederate General Stonewall Jackson was shot and killed in Chancellorsville, Virginia. The projectile removed from his body was a caliber that was not used by the Union Army, but was still in common use by divisions of the Confederate Army. Therefore, it was concluded that he was accidentally fired upon by his own men.
This was an example of a simple elimination based on caliber class.

1879: In the case of Dean v Commonwealth, a man was murdered while working in his garden. The bullet recovered from the man was identified to his neighbor's firearm because it was the only firearm in town of that caliber and bullet weight.
This was an example of a simple identification based on bullet weight and caliber.

Advancements in Firearms ID

Early 1900s – 1930s: Firearms Identification advanced beyond simple caliber and rifling characteristics (general features) and began utilizing individual characteristics (unique features) in order to compare fired bullets and fired cartridge cases to suspected firearms.

1902: In the case of Commonwealth v Best, a court in Massachusetts approved the use of photographs to achieve and demonstrate a firearms identification. The examiner pushed a bullet through the barrel of the suspected gun and compared photographs of this bullet with photographs of the bullet removed from the victim.
This is one of the first cases to allow photographs of Firearms ID evidence. The photographs were used for comparison purposes because the comparison microscope (the tool used by examiners today) had not yet been adapted for use with firearms evidence.

1907: Some soldiers from a nearby regiment were alleged to have been involved in a riot in the small town of Brownsville, Texas. A civilian was killed and several fired cartridges cases were recovered and examined by the staff at Frankfort Arsenal. Several of the recovered cartridge cases were identified to four of the rifles belonging to the soldiers, but the facts surrounding the riot were (and still are) in question.
This is a significant case for Firearms Identification, because it marks the first time a serious attempt was made at examining and identifying cartridge cases to specific firearms. The examiners used individual characteristics on the primer area of the cartridge cases to make their determinations.

1920: On April 15 two workers carrying the factory payroll were shot and killed in Massachusetts. Nicola Sacco and Bartolomeo Vanzetti were accused of the crime. Several experts were involved, but one of the examiners for the state concluded that one of the bullets and one of the cartridge cases recovered from the scene were fired from the pistol carried by Sacco.

This case garnered high public interest because of the defendants' political backgrounds and because the state and defense examiners disagreed in their conclusions. The evidence has been re-examined several times since and has confirmed the original conclusion of the state examiner.

1929: On Valentine's Day, seven men were found gunned down in a garage in Chicago. It was suspected to be gang-related and there was a lot of public interest due to rumors that police were involved. Using a comparison microscope, Calvin Goddard (considered to be the father of modern Firearms ID) examined the evidence which consisted of many cartridge cases, bullets, and buckshot. He concluded that there were two Thompson submachine guns and one shotgun involved. Goddard compared the evidence to the police guns and concluded that they were not the guns used in the crime. Later, a suspect was apprehended, and two Thompson submachine guns were found in his possession. The cartridge cases from the scene were identified to these two guns.
The attention generated by this case led to the opening of the Scientific Crime Detection Lab in Chicago and an interest in the discipline of Firearms Identification in general.
Goddard used general features to determine the type of firearm that the cartridge cases could have been fired from, and he used unique features found on the cartridge cases to conclude which cartridge cases had been fired from which specific gun.

Firearms ID Today
1930s – Today: The science behind Firearms ID has remained relatively constant since the Valentine's Day Massacre. The way in which Goddard conducted his examination by using class characteristics found on the fired components to develop a list of possible firearms, and individual characteristics to determine whether or not the components were fired from a specific firearm, is the same way practitioners would examine evidence today. Firearms ID has been used in other high-profile cases such as the assassinations of civil rights leader Martin Luther King Jr. and president John F. Kennedy.
The Firearms Section at FDLE averages over 4500 cases a year statewide, many of which have a crucial impact on public safety, including cases such as the murder of Florida Lottery winner Abraham Shakespeare, the ZombieCon shooting in Fort Myers, and the serial murders involving Leon Davis in Polk County.