



Short Case Study

Country made handgun with Removable feeding device-Misleading the Investigation: An unusual case

Deshpande Hemantini

Directorate of Forensic Science Laboratories, Kalina, Santacruz (E), Mumbai-400098, India
hemantini_deshpande@yahoo.co.in

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Abstract

A country made firearms are illegally used in various types of crimes are very common in India. Most of the crime cases like murder, armed robbery and attempt to murder etc variety of country made firearms are use. These are used by criminals as their cost is low and they are easily available. Many times it is seen that, removable device/ attachment to these country made firearms can be done to mislead the investigation. Such type of case we received in our laboratory in which country made handgun with adaptor was used in crime. A case of country made handgun is illustrated which may mislead the investigation. This data on such type of adaptor would be useful for Ballistic experts and investigating officers to solve the cases in future.

Keywords: Country made handgun, feeding device, Forensic Science.

Introduction

According to national crime record bureau (NCRB) report, about 3428 crime cases involving country made firearm and this percentage increases gradually^{1,2}. Our laboratory receives about 900 cases in which firearm are used to commit crime. Out of these cases, around 90% cases which involving country made firearms like pistols, revolvers and handguns. In many parts of India, these country made firearms are manufactured in commercial scale. The criminals prefer to buy country made firearms in illegal way because these firearms are cheap and easily available. Further, these types of country made weapons are easily disposed of just after committed of crime to escape detection. The country made firearms are designed to fire rimmed and rimless cartridges which are easily available in market.

The country made firearms are made by easily and cheaply available steel material like screw, pipes, nails metallic plates etc. Due to their low cost, they are easily affordable to criminals for crimes. A temporary removable attachment to country made firearms is very common, which can be done by inserting rod or nails in the appropriate positions of firearms.

Often firing from such firearms with removable attachments may mislead the investigation of criminal case. Such type of case is illustrated here. Literature review indicates that very limited information regarding such type of country made firearm with such type of removable device and mechanism and features of country made weapons³⁻⁷.

Recently, our laboratory received, one country made handgun along with 12- bore shotgun cartridges and 7.65mm pistol cartridges in the possession of accused. One metallic shaft/ device with long hole at the centre (generally used as mechanical part) was also received. Generally the firearm and ammunition seized in possession cases are examined for whether it's working condition or not. Another issue is to examine the remaining articles such as metallic shaft in this case and establish its correlation with the firearm.

Results and discussion

The country made hand gun received in this case consists of short barrel having length about 7.8cm made from steel pipe, sturdy metallic grip, trigger and firing pin and all other internal action parts². Figure-1 indicates the country made handgun and physical parameters of this firearm are shown in the Table-1. From this table, it is revealed that trigger pull of this handgun is about 5Kg. The weight of gun is 440gms. The inner diameters of muzzle and breech ends are 2.11cms. This diameter of barrel is consistent with the diameter of 12 bore shotgun cartridges; hence, this handgun was capable of chambering 12-bore shotgun cartridges. Further examination of handgun, it was observed that firing pin was incorporated with hammer and hammer was working with single action.

The metallic shaft is shown in Figure-2 and the physical parameters of this metallic shaft are shown in the Table-2. The diameters of both ends are 2.02 and 2.08cm. These values are lower than that of inner diameter of muzzle and breech ends of country made handgun.

Table-1: Physical parameters of country made handgun.

Physical Parameters	Parameter values
Weight of Hand gun	440 gm
Length of barrel	7.8 cm
Inner Diameter of Muzzle end	2.11cm
Inner Diameter of Muzzle end	2.11cm
Trigger pull	About 5.0 kg

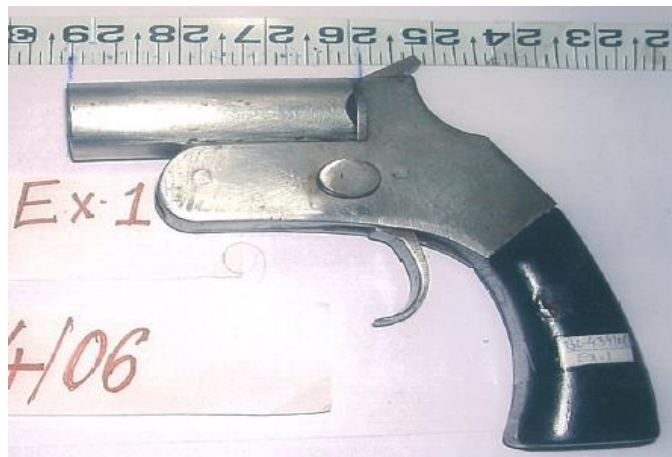


Figure-1: Country made handgun.

The diameters of holes at both ends of shaft are 0.84cm and 0.90cm. It was seen that, these holes are found to be capable of chambering 7.65mm pistol cartridges as well as .32” revolver cartridges. On further examination, this shaft was found to be very typical-such that it was perfectly seating in the barrel of country made hand gun. Even its direction can be interchanged so that 7.65mm pistol cartridges can be chambered from one end while 0.32” revolver cartridges can be chambered from other end.



Figure-2: Metallic device (adaptor).

Table-2: Physical parameters of metallic device (adaptor).

Parameters of metallic Shaft	Parameter values
Weight of metallic shaft	137.95 gm
Length of shaft	7.83 cm
Diameters of both ends	2.23 and 2.08 cm
Inner Diameter of holes at both ends	0.84 and 0.90 cm

The barrel of the country made firearm was washed with warm distilled water and washing was collected for chemical analysis. This washing was tested for nitrite using reagents sulphanilic acid and alpha naphthyl-amine. A pink coloration indicated the presence of nitrite in the barrel. Similarly washing from the inner side of hole of metallic shaft was collected for chemical testing. This was also tested for nitrite and nitrite was detected in it also. Along with nitrite, the metallic lead and copper were present in barrel as well as shaft washing. The presence of nitrite in both the washings indicated that both country made handgun and metallic shaft were used for firing prior to their receipt in the laboratory.

To check the working condition of firearm, one 12 bore shotgun cartridge was successfully test fired from this country made handgun indicating that 12 bore shotgun cartridge was the found to be live. The 7.65mm pistol cartridge seized in this case cannot be fired from country made handgun as it was not chambering in it but it was chambered in the hole of metallic shaft. Table-1 and 2 revealed that length and inner diameter of barrel are consistent with those of shaft. Therefore this shaft was easily fitting inside the barrel of handgun; hence firing of 7.65mm pistol cartridge was carried out by fitting this removable shaft inside the barrel of country made handgun. The firing of 0.32” revolver cartridges from this hand gun was also carried out in the same manner. If only this country made handgun is found with 7.65mm pistol or 0.32” revolver cartridge cases in absence of the shaft, then we could assume that these are not fired from this handgun. But after comparing firing pin impression on these cartridge cases with fired 12 bore cartridge case from this handgun, it indicates that these are fired from same handgun using some removable attachment.

Conclusion

The working condition of country made handgun can be decided by firing the cartridges which are easily chambered in the barrel. The firearms can fire the cartridges which are not chambering in the barrel with use of appropriate removable attachments. Such type of case is described in this report. The examination of country made handgun and metallic shaft reveals that metallic shaft was used for firing 7.65mm pistol and 0.32” revolver cartridges. A firearm with its improper cartridges or cartridges cases (i.e. which are not chambering it) and in the absence of such removable attachment found in any crime case may mislead the investigation.

References

1. Crime in India 2011 Statistics (2011). NCRB. Ministry of Home Affairs, Chapter 3, Violent Crimes, 340.
2. Thejaswi, H, T. and Kumar A, J. (2013). Desi-Kutta (country made Firearm) and Wound Ballistics A Review. *J. Indian. Acad. Forensic Med.*, 35, 165-9.
3. Waghmare, N. P., Suresh, R., Puri, P., Varshney, K. C. and Anand V. (2012). Modern Trend of Country Made Improvised Pistols Used in the Capital of India. *J. Forensic Res.*, S1, 1-7.
4. Warlow, T. A. (2007). The Criminal use of improvised and re-activated firearms in Great Britain Northern Ireland. *Sci. Justice*, 47, 111-119.
5. Bulent Uner, H., Gokdagan, M. R. and Cakan, H. (2003). Some samples of weapons and instruments used as weapon in criminal offences in Turkey. *Forensic Sci. Int.*, 132, 113-116.
6. Mendis, M. (1997). Sri Lankan shot pistols and Ballistics. *Sri Lankan Sci. Justice*, 37, 259-263.
7. Pal, A and Pratihari, H. K. (2014). Examination of some Indian homemade/improvised firearms and their ammunition. *AFTE Journal*, 46, 234-237.