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## Accidental Death with Tear Gas Pen Gun: A Case Report

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National attention has recently been drawn to the increasing use of tear gas pen guns [1]. The Federal Aviation Administration was reported to have seized an estimated 3000 to 5000 of these weapons from persons boarding aircraft. Most of these seized weapons were reported to have been converted to fire regular ammunition. The use of tear gas pen guns as firearms of different caliber has been previously described by Stahl and Davis [2]. A significant hazard potential exists for the carrier of such a weapon as well as for those around him, as will be demonstrated in the case presented in this article.

### Case Report

A 20-year-old white male was preparing to go out with several friends. He was standing in the kitchen three feet away from his common law wife. As he bent over to put on his coat, a tear gas type of pen gun fell from his T-shirt pocket and discharged the .25 caliber round in the chamber. The missile struck the woman in the front of the neck. She immediately collapsed, complaining of inability to breathe.

Emergency evaluation of the patient at the hospital revealed a severed right common carotid artery and a missile lodged at the base of the neck. Despite surgical repair of the blood vessel and artificial ventilation, the patient died 28 days after admission.

Autopsy showed a gunshot wound of entrance of the front of the neck beneath a surgical incision and tracheotomy opening (Fig. 1). Extensive hemorrhage in the neck tissues was noted, and this extended beneath the precervical fascia. A .25 caliber jacketed slug was recovered from the right transverse process of the 7th cervical spine.

Subsequent testing of the weapon was carried out at the Michigan State Police Crime Laboratory. The weapon was identified as a .25 caliber Colt single-shot pen gun holding one .25 automatic caliber Winchester-Western fired cartridge. The pen gun was black gray, 4¾ in. long and ⅝ in. in overall diameter.

Two drop tests were conducted with the pen gun by placing a cartridge case with an unfired primer into the chamber. The pen gun was then dropped on its end from a height of 3½ feet and fired each time.

### Discussion

The inherent dangers of converted tear gas pen guns are reported. Firstly, the average

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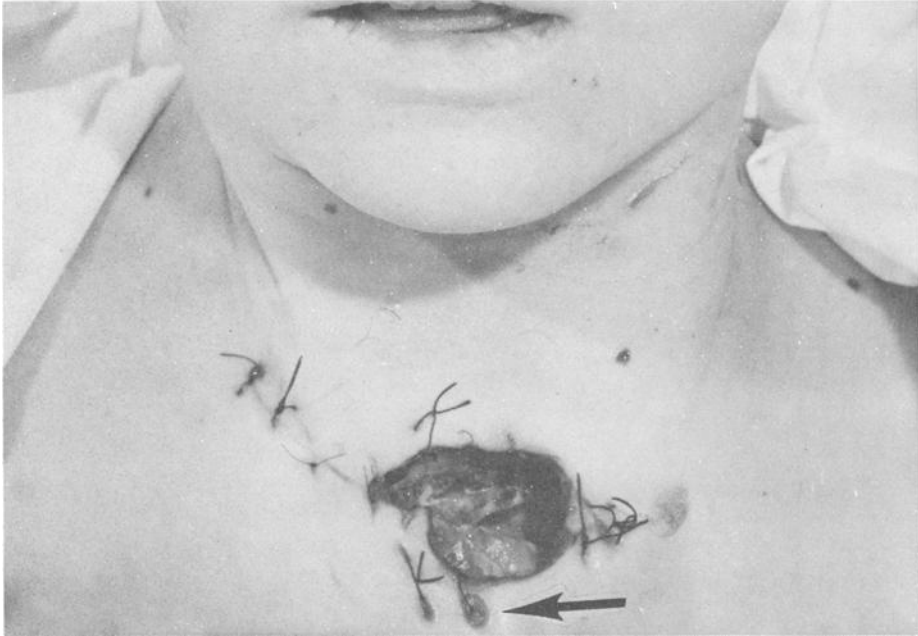


FIG. 1—Entrance wound (arrow) of a .25 caliber slug. Above is the tracheotomy site and the surgical incision used for exploration.

weight of such a weapon is two ounces. The ease with which ordinary pens fall out of pockets serves to emphasize the lack of safety in carrying such a weapon in a shirt pocket. Secondly, accidental discharge of a shell can occur on dropping this device. This is due to the basic spring action resting behind the firing pin, which in turn rests on the base of the shell. In addition, safety notches holding the trigger pin of the weapon vary in their degree of security from moderate to minimal to practically nonexistent. The components of the pen gun used in this reported case are shown in Fig. 2.

Although the pen guns discussed in an earlier article [2] were of foreign make, the pen gun in this case and a selection of other pen guns obtained from the Detroit Police Department (Fig. 3) included models manufactured in the United States. American manufacturers included Colt and Herculite Gas Munitions Corp.

Tear gas pen guns may require little or no adaptation to handle regular ammunition. Furthermore, the type of ammunition accommodated by these devices includes .25, .32, and .38 caliber [3]. The Herculite model could accommodate a .38 caliber, .38 Special, and even a .357 magnum shell. The fact that these guns will fire .25 caliber automatic ammunition, which is invariably jacketed, should be kept in mind by the forensic pathologist. He may find the metal jacket to have separated from the lead slug.

Although one would expect the barrel of such instruments to be smooth, the mechanical ingenuity of some owners should not be underestimated. Rifled barrels of tear gas pens do exist and will result in distinctive markings on a missile.

In addition to the usual tear gas pen guns, other compact devices of similar nature are illustrated for interest's sake since they are commercially available and may be recognized. A pocketknife designed to hold a single .22 caliber slug is fired by closing a blade-shaped trigger (Fig. 4). A compact boxlike weapon (Fig. 5) is designed for double-barreled action using .25 caliber automatic ammunition. Its trademark is appropriate—Big Brother®. It is fired by a trigger pin release device similar to the tear gas pen gun.

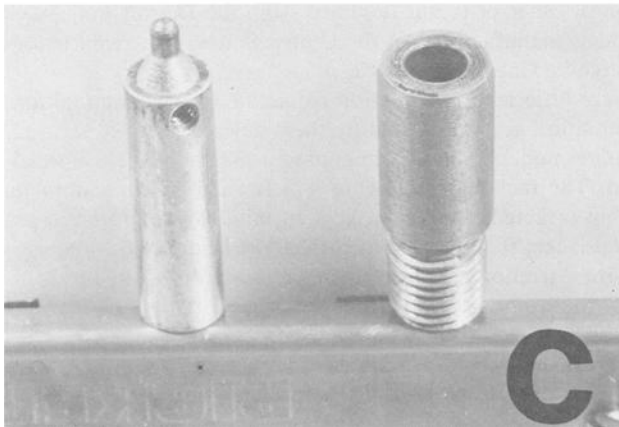
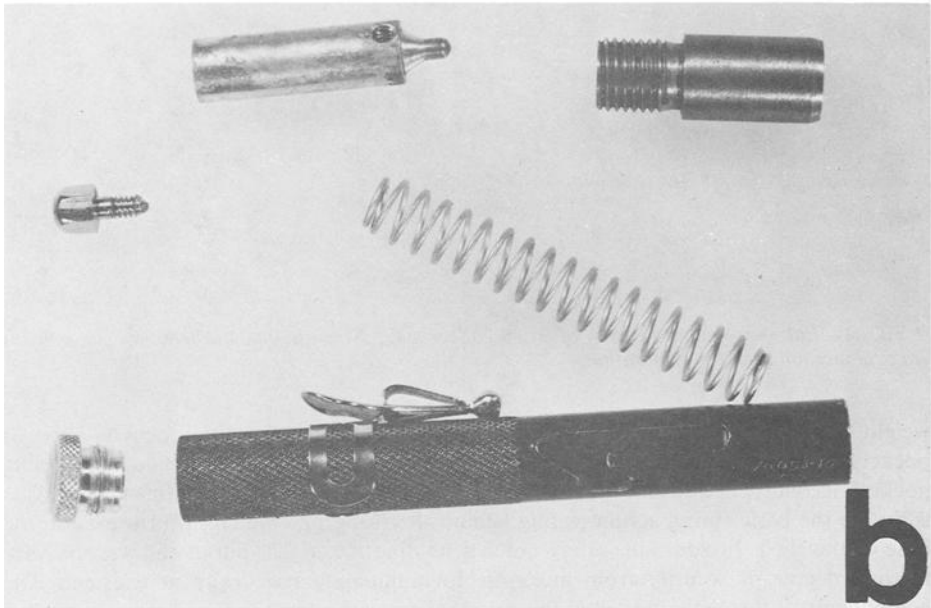
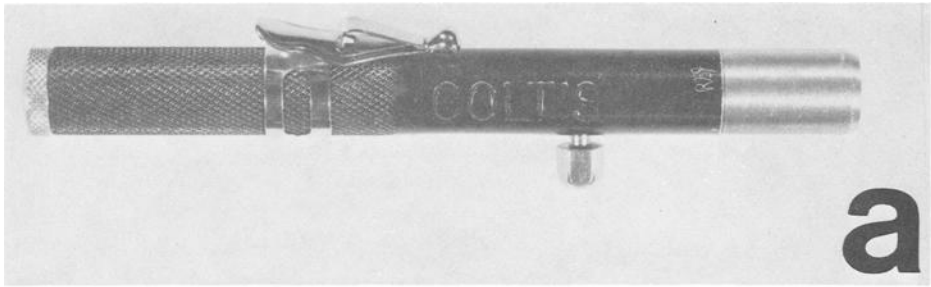


FIG. 2—(a) Colt .25 caliber tear gas pen gun (90% of actual size), (b) components of Colt pen gun (90% of actual size), (c) firing pin (left) and barrel (right) (actual size), and (d) .25 caliber jacketed cartridge (actual size).

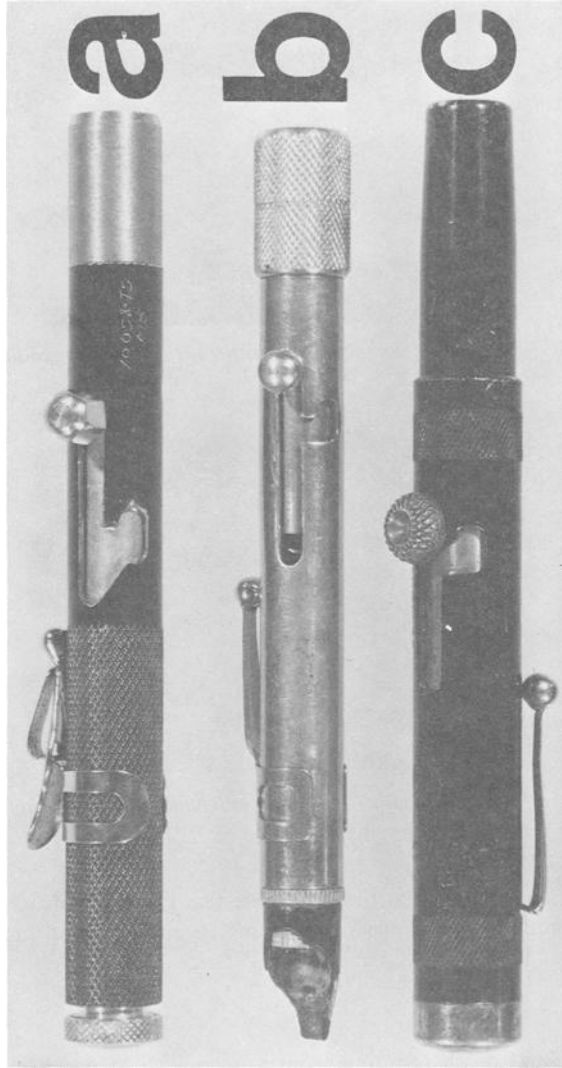


FIG. 3—Types of tear gas pen guns (actual size): (a) Colt .25 caliber, (b) Herculite .38 caliber, and (c) .32 caliber (brand unknown).

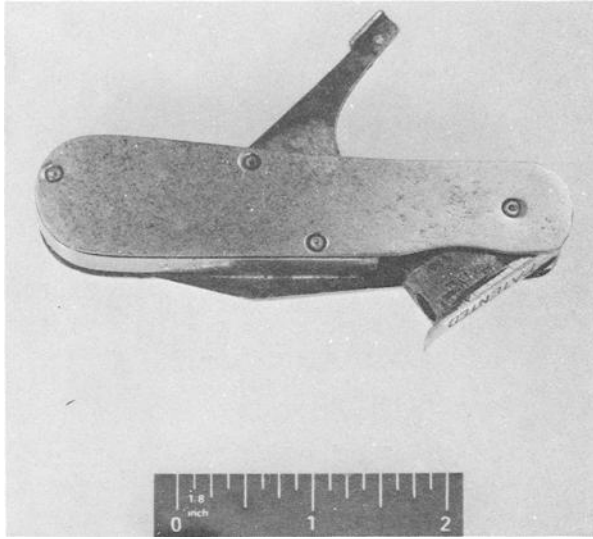


FIG. 4—Penknife also capable of firing .22 caliber ammunition.

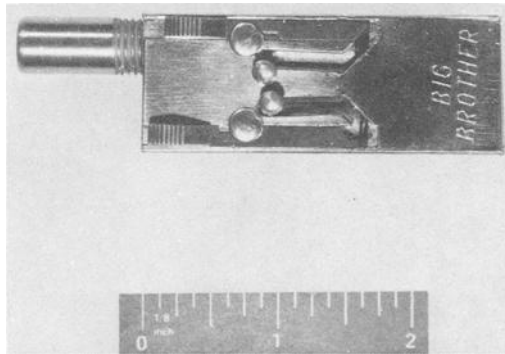


FIG. 5—Big Brother® using .25 caliber automatic ammunition, designed to fire two shots. Only one barrel is shown.

The recent decision to classify as firearms those tear gas pen guns which can be altered to fire regular ammunition is a necessary means to control these increasingly popular weapons.

### Summary

A case of accidental death resulting from a dropped tear gas pen gun is described. Tear gas pen guns can be easily altered to fire regular ammunition and can accommodate a variety of ammunition. Other similar pocket-sized weapons are mentioned.

### Acknowledgments

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**References**

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