

Sylvia Keizer

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Memorandum-- JFK Assassination

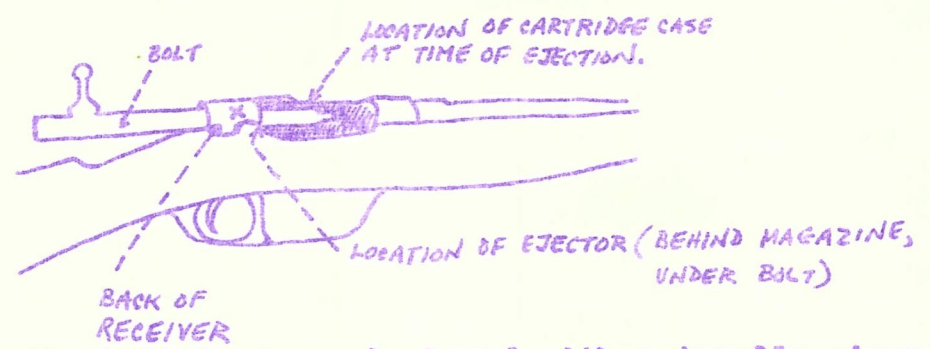
Topic: The cause of the dent on the mouth of cartridge case CE 543. (Note: This memo is written under the assumption that the reader is familiar with the topic discussed in Josiah Thompson, Six Seconds in Dallas, [Geis; 1967], pp. 143-146).

From: R. Bernabei
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Date: 21 May 1969

Physical tests with a Mannlicher-Carcano rifle conclusively establish that the dent on the case mouth of CE 543 occurred in the course of normal ejection of the cartridge case from the rifle.

The following drawing depicts the location of certain parts of the rifle which enter into the discussion of how the dent occurred:



When the bolt is drawn backward with naturally vigorous force, the ejector deals a sharp blow to the base of the cartridge case and thereby casts it more or less directly to the right of the rifle and parallel to the ground. By the same action, the ejector imparts a rapid spin to the cartridge case and whirls it away from the rifle like a tiny propeller. During the first whirl, the case mouth swings around bumps the steel receiver on the right side immediately behind the magazine. The point of contact is marked "X" on the drawing.

Although results may vary from rifle to rifle, the case mouth normally strikes the receiver with sufficient force to cause a dent which in every essential respect resembles the dent on the case mouth of CE 543.

Observation of the rifle before and after case ejection provides confirmation that the dent on CE 543 was caused in the manner described above. When the case is ejected, it leaves a trace of brass at the point where it bumps the receiver.

A dent on the case mouth may be produced by one other means associated with the mechanical operation of the rifle, but the character of the dent produced in this alternative manner differs significantly from the dent on CE 543.

I regret that I have not yet been ~~able~~ able precisely to determine the cause of the dents that occur on the case shoulders of CEs 544, 545, 141, and 557, although I have had partial (but indefinite) success by a certain means.

Physical tests failed to produce ~~such~~ shoulder dents in the course of ejection; for that and other ~~reasons~~ reasons, I am inclined to reject the possibility that the shoulder dents were caused during ejection. I welcome your suggestions, for I greatly desire to resolve this problem.

Dick Bernabei

(For help and encouragement in the resolution of the question concerning the dent on CE 543, I am indebted to Dr. John Nichols and to Harold Weisberg)