

... a point upon which the critics have seized. Could Oswald have fired three shots in 5.6 seconds? Well, then new evidence made its appearance.

It was at first called to our attention by a distinguished physicist, Dr. Luis Alvarez, of the University of California at Berkeley.

BILL STOUT: What was it that made you interested enough to dip into the Warren Report to begin analyzing the photos of that day?

ALVAREZ: Well, I think it was probably that I had lunch every day with a bunch of my graduate students who were keenly interested in the controversy that was going on at the time. For a while I couldn't get very interested in it. But then when LIFE Magazine republished the frames from the Zapruder movie, I spent an evening looking at them - and I found something that excited my interest.

the Commission's report... to call this is... the slightest attention was paid to what he saw and it was even then not properly compared with his film record.

The middle of the three large road signs on the north side of Elm Street was between Zapruder and the President for about 20 frames, from about 205 to 225. Because of the downward grade to the underpass, at the beginning of the sequence, only part of the President's head is still visible over the top of this sign. The Commission's entire case is predicated upon the assumption that the first shot could not have been fired prior to frame 210, for that is the portion of the film in which, even on a still day, the President first became a clear shot from the sixth-floor window.

Zapruder was explaining how he took his pictures. "I was shooting through a telephoto lens ... and as it (the Presidential car) reached about - I imagine it was around here - I heard the first shot and I saw the President lean over and grab himself ..." (7B571). Lawyers know very well that such words as "here" in testimony relating to a location reflect nothing on the printed page. When they want the testimony clear, they ask the witness to identify the spot meant by "here". Zapruder was not asked to explain where "here" was. But the startling meaning of Zapruder's testimony is this: He saw the first shot hit the President! He described the President's reaction to it. Had the President been obscured by the sign, Zapruder could have seen none of this. Therefore, the President was hit prior to frame 210, prior to frame 205, the last one that shows the top of his head, and the exact point can probably be reconstructed from another unique quality of the Zapruder footage the Commission saw fit to ignore entirely.

The first 80 pages of Volume 18 are devoted to clips from this film, printed two to a page. These suffer from the reduction in clarity due to the printing process. They had a built-in reduction of distinction because they are printed from black-and-white 35-mm. slides made from 8-mm. color film. Zapruder himself pointed out this well known fact to the Commission. Nonetheless, they are almost all pretty clear, although detail has suffered from the extra steps in the processing. Beginning with frame 190, this film suddenly becomes fuzzy. Nothing had changed - the exposure was the same, the sun had not gone behind the clouds and the camera had kept clicking away. As any amateur photographer knows, this clearly means that the change was in Zapruder. He was no longer holding the camera as still. The slight motion imparted to the camera by his emotions at what he saw seems to be the only reasonable explanation for this fuzziness in the film to which the Commission was so