June 25, 1969

Dear Gary,

I got your envelope today, just as I was about to write a letter figuring that you had forgotten to send it or that our drunken mailman had dropped it in a gutter somewhere. But no, he had merely crammed it in the box so that it was invisible from the inside of the house.

Before I forget, I found a film at the Library of Congress (no great feat) which shows President McKinley giving his last speech and probably shows Czolgosz in the crowd, working his way toward the President. It's in what is called the "paper print" collection (for early films), and I don't know quite how things would work to get copies and identify the assassin. I may try, just for the historical sense.

I did get the stuff from the CTIA, long ago while I was still at MSU.

Regarding Senator Cooper, I have a lot of respect for him, based on about a half hour of conversation -- which I thought was rather generous of him, considering his efforts on the AEM at the time. I think that his questioning was among the best of the Commission; e.g. see how carefully he examined the fine points of Worrell's testimony. By the way, he denied again rather strongly to me that Warren had ever really pushed him into getting the Report out at an early date, as Epstein stressed so much in "Inquest." I suspect the pressure may have been more on the Commission staff members.

It was very interesting to read the Alvarez correspondence all at one time. It is a rather tragicomic experience, all in all. Alvarez' tone of writing is certainly a strange one. Of course, he knows his physics quite well. I suppose that I will get to know him a bit at Berkeley, although he may toss me out of his office if I mention the blurred film frames.

I could comment on various things about that correspondence, but I will just mention what I consider three particularly relevant points of fact. Referring to Alvarez' frame-jiggle graph, it is hard not to think that the first shot is happening somewhere in the first row (170-210). Of course, everyone agrees on a shot at 313. However, I disagree completely with his interpretation of column two as implying a shot at 217. My disagreement is not one just of opinion, but follows from analysis of flaws in his method, I believe. There is no jiggle at all where he marks one at 221 and 222. The best things to watch in this respect are the legs of the two men standing back on Houston, right above the corner of the stone wall, axxwellxxx and the shape of and size of the pairs of holes along the xwarked shady side of the concrete wall. Examining all other Zapruder frames, you will find only a few others approaching the clarity of 221 in these two details - in many frames, you can barely make out the two men. Thus the blurring at the bottom of 221, which fooled Alvarez, is caused by improper camera alignment. In 222, the top is very bad, while the hood ornament, windshield highlights, Connally's face,

etc. are not bad at all, relative to other frames. Quite clearly, all that has happened here is that the movie film did not sit perfectly in the focal plane. Frame 227, another Alvarez jiggle, is an even better example of my hypothesis. Here again, the holes in the wall, legs, and tree foliage at the top are almost perfectly clear, unlike the bottom of the frame (suffering only from an unfortunate comparison with 228, which is the second clearest frame after 221). Moreover, when the bottom of 227 bent forward from the focal plane, this caused the line of "apperent" view to change somewhat discontinuously, and led to what seemed an abnormal sudden widening of the street. You may remember that Harold Weisberg noticed this and mentioned in Ch. 18 of WWII that some frames must be missing between 226 and 227. This is one case where both Alvarez and Harold are wrong. The continuous latitude can meteon the missing frames.

Isn't it interesting though — Alvarez cites frame 227 itself on CBS-TV as the very best example of his blurring effect (White, p.226), and Harold says of 226 and 227 that they are "perhaps the two clearest frames up to this point." I really think that there is some humor in there somewhere.

With the benefit of my hindsight, I can say one thing rather definitely!: the "jiggle" evidence for the CBS shot is entirely nonexistent. Of course, there is not way to rule out a shot anywhere at all, but there is no positive evidence at all for the shot in the period 210-224 -- crucial to the CBS resurrection of the single-bullet theory and the easy shot clear of the tree branches.

Alvarez and some others may consider these minor points, but I find them indeed more than just quibbling over a frame or two difference in timing (which doesn't bother me much either).

Reading back a bit, I find that my writing style has degenerated to nearoblivion. This comes from lateness of night, hopefully; at the risk of oversimplification, this is what I meant in 227:film

focal plane

film advance

The bottom of a frame becomes the top in the camera, of course; misalignment often can occur if the film does not quite seat down on the sprockets.

Now: if you really don't know which White I was referring to above, it is: Should We Now Believe the Warren Report?, Stephen White, Macmillan Company, New York, 1968, \$7.95. If you haven't guessed by now, White's answer is a vigorous yes". Since I don't believe I saw this title on your bibliography, this book may not have reached Minneapolis. That is no great loss. The photo section is especially offensive. The model of Dealey Plaza makes it seem that only a complete fool would fire from the picket fence, if there were any police on the Triple Underpass—only five cars "fill" the lot back there. A view from behind the picket fence shows a target car at about frame 190, which is one heck of a pistol shot, indeed; no view of the short distance to 313, of course.

A so-called picture of the "gap in the foliage" (another key to the CBS analysis) actually has a Mannlicher-Carcano completely blocking the 186

gap, with a target car coming out of a small V on the far side (about 214). The bad taste of the cover photo is exceeded only by the incredible cropping job on Mrs. Walther. As you may have guessed also by now, I didn't care much for this book. Of all the pro-Commission books that I have read, only the text of this one made me angry at the deception given to the general public. It is somewhat odd that White himself is a very nice guy, and undoubtedly believes all that he sayd. No ulterior motive for him.

I will change a few things in my paper; thought the blurred-frame section, for example. I will also fit in a few more references to establish that virtually everybody felt that the first shot hit the President and not the street. Did you see the tricks Bishop used to fool his readers?

Before I end my incoherence for the evening, thanks very much for the copies of the Weaver photo. I am a bit puzzled, but there is something misleading about Thompson's photos. Do you have the full Murray photo? I believe we ram could tell conclusively from it that it was taken from nowhere near the Hughes position. For example, check Hughes and Weaver to see that the white-colored capitals between the pairs of windows line up well below the window-sill line. In Murray, however, the capitals line up oven slightly above the sill line (I mean the top of the capitals here). Clearly Murray was both much closer (and to the left) of Hughes' position relative to the TSED. I would guess that Murray was just south of the small tree and just west of the concrete wall. At the maximum, Murray was half the distance of Hughes. -- t Thus, the "man" may very well be the second row of book cartons away from the window - invisible to Murray, although he could see the first row, of course, right up against the window. Look again at the police crime scene search photos. You will see a tall stack about 8 feet back from the window in question - I believe this is the Weaver "man". I just thought of this at the moment, and I have never seen the Hughes film or all the frames, which may cast doubt on my guess. If I am wrong, then it has to be a man. It is something (not glare, apparently), and there are no tall stacks in the first row by the window.

Although Corvair back seats are not my favorite (I have one, too), I certainly don't mind a little cramping. I haven't looked up route 35 or really considered how I would get over to meet you, but this should be no great trouble. Let me know more when you know yourself. Where do you stay, and how do expenses run in Dallas? It has to beat Toledo in the summertime. Let me know if my ideas sound too far-out.

Sincerely.

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