Crawford states on page 2 of his letter, "Now, if the Commission's calculations concerning the position of the car are correct, the angle of fire from the Depository window was approximately 18 degrees."

The Commission's calculations are subject to some doubt, for the reason that the figures which appear in the tabJulation in CE 884 do not correspond exactly with the figures in the corresponding tabulation in CEs 882 and 883. It is true that the tabulation in CEs 882 and 883 cannot be read even with magnifying glass. However, the original tabulation appears on a large photocopy of the plat mat which has been obtained from the Dallas surveyor's office. There are significant discrepancies between several of the frame numbers on the original and the corresponding lines of the tabulation in CE 884.

The discrepancies are not consistent with the "adjustments" made in order to take account of the 10" difference in height between the Presidential limousine and the FBI re-enactment car (5H 148 and 151).

He states further, on page 2, "The autopsy examination found no continuous bullet trail, but it did find bruises...which indicated a course straight through the base of the neck between the back wound and the lower throat."

Posed against that statement is the fact that all four non-medical observers who present throughout the autopsy left believing that the bullet that hit the back had not continued through nor exited from the body but had fallen out of the entrance hole. That is apparent from the testimony of Secret Service agents Roy Kellerman and William Greer, and from the report of FBI agents Sibert and O'Neill (included in Commission Document No. 7, National Archives). Indeed, Fletcher Knebel, an ardent advocate of the Warren Report, in his LOOK article of July 12, 1966 (page 71) gave a version which differs from the Commission's. According to Knebel. it was on Saturday morning and not during the actual autopsy examination that the surgeons "reconstructed and reanalyzed their autopsy work and came to the conclusions that the bullet had passed through Kennedy, exiting at his neck." Knebel, in effect, thus concedes that the autopsy findings were not predicated exclusively on objective examination of the body. The same impression is created by Dr. Humes' question to Dr. Perry by telephone, on Saturday morning (as the Report claims), when he asked if the Parkland doctors had "made any wounds in the back" (6H 16-17).

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He says, again on page 2, "If ... the shoulders are slightly rounded, or the head thrust slightly forward, the back wound is above the throat wound ... "

Crawford appears to refute his own suggestion when he states, on page 8 of his letter, "Observe the position of the President: erect, not slumped."

Crawford, on page 4, discusses the probability of error in "second-hand" "orally transmitted" evidence, as opposed to "evidence which is first hand, precisely measured, and immediately written down."

Granted that the probability of error on the part of the four nonmedical observers (Kellerman, Greer, Sibert and O'Neill) may be high, it is arresting-and must not be ignored-that they all made the <u>same</u> error, in taking away the impression that the bullet had not gone through the body nor exited on the anterior side.

Was the "first-hand" evidence "precisely measured" or "immediately written down"? The written measurements are precise and consistent as to the position of the wound; but the visual representation of the position of the same wound in GE 397 (as Grawford well knows) is much lower than the neck and, by another of those manifold miracles in which partisans of the Commission are able to accept, corresponds closely with the holes in the coat and shirt as well as the eyewitness testimony placing the wound below the neck (as much as 4 to 6 inches).

As for the immediate writing down of the findings, Dr. Humes testified that it was only on Sunday morning that he made a draft of the autopsy report-rather an inexplicable delay of some 24 hours. One might have thought that he would have written the autopsy report no later than his conversations with Dr. Perry on Saturday morning. Were the autopsy findings immaterial to the police investigation of the crime? Apparently, since nothing in the evidence suggests that the findings were ever communicated to the Dallas Police-the agency holding jurisdiction-and, if Fletcher Knebel is correct, the autopsy report did not go immediately to the FBI.

Reverting to the "diagram made by the doctors during the examination," Crawford's attention should be invited to the diagram of the skull, on the reverse side of the diagram of the posterior male figure in CE 397 to which he has referred. The diagram of the skull does not include the small round bullet wound of entrance which the atumn autopsy surgeons and the Commission say was there (but which all the non-medical witnesses save Kellerman-whose description is ambiguous-and all the Parkland doctors failed to see or corroborate). Since Crawford argues both the accuracy and the probity of the autopsy doctors, perhaps he would wish to comment on the omission from the diagram of the entrance wound in the head. On pages 4 and 5, Mr. Crawford notes that the Governor gave his testimony (insisting that he was hit by a second bullet after the first bullet hit the President) "not realizing that if he were right, (the Commission) had to be wrong."

I am moved to comment on Mr. Crawford's exquisite sense of irony, which I can only applaud and admire. Here is a real case of "dumb, but honest."

On page 6, Grawford states his conclusion that "Kennedy's hands start toward his wound at or shortly before Frame 22h, and Connally's hands start toward his wound at 229, a delay of slightly over one-fourth of a second."

I visited the Archives on July 22, 1965, and viewed the Zapruder color slides projected on a screen, using a magnifying glass. My contemporaneous notes indicate an abrupt, dramatic turn by Mrs. Kennedy toward the President during frames 20h-206; my notes on frame 206 state, "The President...seems to be clutching or choking. Mrs. Kennedy is looking at him and leaning toward him (her nose and eyes are visible)." I concluded from my study of the Zapruder color slides that the President had been hit somewhat before frame 210-that is, while a tree obscured him from the Depository window. Evidence for an earlier shot is found in the testimony of Abraham Zapruder, who said "I heard the first shot and I saw the President lean over and grab himself like this (holding his left chest area)" (7H 571).

The significance of Zapruder's observations become apparent when one considers that, according to the Commission, the President could not have been shot from the Depository window before frame 210, because of the tree, and that he was shot sometime between frames 210 and 225, while he was obscured from Zapruder's camera by the Stemmons Freeway sign. But if he was shot only when he was behind that sign, how could Zapruder have seen him react to the shot?

Vincent Salandria, who has examined the Zapruder film and color slides and made significant measurements (using two projectors and superimposing one slide on another), in his notes of June 27, 1966, observed that the President was beginning to clutch at himself in frames 200-203.

Ray Marcus, a Los Angeles researcher, independently reached conclusions similar to my own, in his study of the Zapruder frames-that is, that Mrs. Kennedy's turn toward her husband suggests that he was hit at frame 203. Marcus believes that the President's hand is already moving toward his throat in frames 202-207. In support of a bullet hit earlier than frame 200, Marcus notes that:

> "...in 4/5ths second...from (frame) 189 to 204, hand has moved from top of wave-with fingers at height of top of head-downward to chin level. But in the next 1-and-1/5th seconds...from (frame) 204 to 226, there is little additional downward motion of hand."

Turning now to the Connally hit, Crawford claims to see the start of Connally's reaction to a bullet wound at frame 229. My own notes, on the other hand, indicate the first manifestation of pain or other evidence of a bullet hitting the Governor at frame 238. Salandria says of Connally in frame 232 that "there does not appear any abnormality." Of frame 235 Salandria says, "Connally's hand shows no signs of damage." Of 237, he says, "here is when Lifton thinks that shoulder shows, the left shoulder of Connally shows a definite downward motion" but states that he himself does not see that. At frame 238, Salandria notes a pronounced downward thrust of Connally's right shoulder; he then superimposed frame 237 on frame 236, using two projectors, to see whether there is any difference -with the result, as Salandria records it, that "something major appears to have happened." At frame 243, Salandria states, "his mouth is definitely open here ... It seems as if he is shouting."

Ray Marcus, too, believes that Connally was not hit before frame 232; Marcus sees a sharp reaction to pain at frame 214.

Salandria, Marcus, and I have given considerable weight to the position and uninjured state of Connally's right hand and wrist, well into the 230's series of frames. The movements of the seemingly uninjured wrist are a forceful, if not decisive, argument against the Commission's argument that one missile caused all of Connally's wounds. If he was hit by the Kennedy bullet—i.e., before frame 225—he would not have been able to use his right hand normally, as he does, in the 230's frames.

Crawford is aware of the insurmountability of that argument. Since he is quite willing to depart from the Commission's conclusions for the Commission's own good, he brings forward and revives the suggestion (by Drs. Gregory and Light) that the wrist wound could have been caused by a fragment of the bullet that struck the President's head in frame 313. Against that possibility is the fact that, according to my contemporaneous notes on the Mapruder frames, the Governor's right hand droops limply downward as if badly injured at frame 272--a full second before the frame 313 head shot. In short, neither Salandria, Marcus, nor I agree with the observations made by Curtis Crawford as to the onset of the President's reaction, nor the Governor's; we all believe that the President was hit much earlier, and the Governor considerably later, than Crawford postulates---which, of course, means that we all believe that the lapse between the two hits was considerably longer than "slightly over one-fourth of a second" but (so far as Marcus and I are concerned) that the delay was not sufficiently long (2,25 seconds or

h2 frames) for a second shot from the same rifle, Furthermore, even a 1/hthesecond apparent delay in the reactions of the two men, which Cramford does concede, requires an explanation. The Commission suggests a "delayed method" for which it cannot produce an iota of supporting medical opinion. Such opinion was solicited, on page 6, Gramford deals with the structure builtet (CE 399). Here he is on quicksand, and he knows it. It is all well and good for him to give a boxscore: "3 probables, 2 improbables, 1 impossible, 1 improbable on different ground"—how does he equate that, I wonder, with the blandly misleading statement in the Warren Report that "all the cuidence" indicated that the structure builtet could have caused all of the Governor's wounds? (WR 95).

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Yes, Olivier, Dziemian and Light thought that all the Connally wounds were caused by the stretcher bullet; but they proceeded on the basis of a description of the entrance wound in the Governor's back which appears to be unreliable---a large jagged wound (5H 79 and 5H 93). But we are given two differing descriptions of that wound. The Warren Report says that it is small and clean-cut (WE 92) and also that it is large (WE 109); the measurements are given variously as 3 cm. (CE 392) and 1-1/2 cm. (bH 10b). But those differing versions of "first hand, precisely measured, and immediately written down" evidence, by which Mr. Crawford sets such great store (when it comes to disparaging very powerful testimony against Crawford's favorite Commission), were not noticed by any of those concerned, and both versions get into the Report.

Moreover, the Drs. Olivier, Dziemian and Light formed their conclusions partly on the basis of what Epstein (in <u>Inquest</u>, page 121) calls "at best a dubious extrapolation." And Dr. Light added that his opinion in support of the single-missile hypothesis hand was based on "nothing about that (stretcher) bullet" (5H 95) but on "the circumstances...the relative positions...of the President and the Governor" (Ibid.).

I believe, in cidentally, that it was Curtis Crawford who long ago called my attention to Dr. Olivier's disingenuous "diffident" suggestion on May 13, 1964 of the single-missile-hypothesis (one bullet responsible for all wounds except the head shot) which Arlen Specter had been rattling off in March 1964 at the Parkland doctors, with the mechanical perfection of a recorded message coming over the telephone. Olivier seemed predisposed to oblige the Commission and its inventive counsel gSpecter.

The boxsecre submitted by Mr. Crawford suffers also from his connicing In. Olivier enoug the medical experts; he is a veterinaries (house the prediliction for goats?). Dr. Dziemien, ton, seems to lack a degree in medicine (51 91). Only Dr. Light has an M.D. and he is the one who accepts the single-missile-hypothesis in spite of the stretcher bullet and the wound ballistics tests; indeed, he delicately disassociated himself from credit for supervising or co-ordinating the bests (5H 9h). So, if we correct the Grawford boxscore accordingly, we find that Popkin was quite securate in saying "....almost all of the medical experts...held that No. 399 could not have done all the damage to Governor Connally, let alone Kennedy," There were five-not seven-medical experts, since Olivier and Dziemian are disqualified. Hight should be disqualified for the reason that his opinion was based on "nothing about that bullet." Thet leaves only four medical doctors, and in my reading of their testimony they all regarded it as practically impossible that CE 399 was guilty as charged by Specter. Some were more polite than others.

Mr. Crawford juts forward a catechiem on pages 6 and 7 which is more akin to sophistry than to logic. Let me suggest that it should be rephrased so that the shoe will be on the right foot:

Asserting the possibility of the double hit means, in effect, asserting the possibility of <u>all</u> of the following:

1. That although Connally was hit simultaneously with Kennedy but wounded far more severely, he continued to appear uninjured for a considerable time after Kennedy exhibited a marked and unmistakable reaction to his wounds; and Connally continued to use his right hand normally after it was shattered at the wrist.

2. That although the bullet strack Kennedy in the back of the neck, trained observers from the Secret Service and the FBI described the wound as situated below the neck or below the shoulders, one Secret Service agent specifying h inches below the neck and another 6 inches; and witnesses invariably called it a wound in the back or a wound in the shoulder.

3. That although the wound was in the neck, the corresponding holes in the cost and shirt were some inches below the top of the collar; and that the Warren Commission withheld the telltale photographs (published in <u>Inquest</u>) for innocent reasons.

4. That although the coat and shirt were hunched up 2 or 3 inches, the fabric was not doubled up but inflated like a balloon, so that the bullet made a single and not a double hole in each garment.

5. That the autopay surgeon showed the bullet wound in the back when he diagrammed the posterior male figure (CE 397, XVII page 45), leaving the clearly-delineated neck segment blank.

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6. That Kellerman, Greer, Stbert and O'Neill were all mistaken in their impression at the end of the autopsy that the bullet in the back had penetrated only a short distance and had not exited from the anterior of the body.

7. That the FBI was unaware of the autopsy findings when it submitted the Summary Report of December 9, 1963.

8. That the BBI was still uneware of the autopsy findings when it submitted the Supplemental Report of January 13, 1964, although the Treasury Department, Secret Service, states that the autopsy report was sent to the FBI on December 23, 1963, and although internal evidence in the Supplemental Report suggests a flow of information from the Chief Pathologist at Bethesda Naval Hospital to the FBI. 9. That the doctors and at least one murse at Parkland Hospital MAR believed that the wound at the Adam's apple was an entrance wound even though it was an exit wound.

10. That Dr. Perry and his colleagues were misunderstood and misreported in the press, and all the reporters made the identical error in quoting them as saying that there was an entrance wound in the throat. 11. That the "lost" tape recording of Dr. Perry's press conference after the President was pronounced dead would, if it was available, confirm the assertion in the Warren Report that the Parkland Hospital doctors believed that the wound could have been an entrance or exit wound. 12. That the approximately 30 reports of FBI and Secret Service interviews with Parkland Hospital doctors and murses which have been suppressed would, if made available, corroborate the claim that the wound was thought to be either entrance or exit.

13. That although the Secret Service was in possession of the autopsy report published as an appendix to the Warren Report within a week of the assassination, they carried out reenactment experiments on December 5, 1963, to discover how the President was hit in the front from behind as an exercise in pure research.

14. That although the antopsy x-rays and photographs have been suppressed and remain in unknown custody, they show an entrance wound in the neck and not below the neck or shoulders, and another entrance wound in the back of the head, although that is not shown in the autopsy diagram nor correborated by four of five non-medical observers at the autopsy. 15. That Chief Justice Earl Warren, and his colleagues, and his staff on the Commission, are above suspicion, and that the Government never lies to the people. Crewford says on puge 7 "...the difficulty is not to imagine the bullet's striking Connelly, but to imagine it doing mything elmes" I don't know why Crawford has to be holier than FBI expert Presier, who had no such impediments to his imagination and who maid specifically then under certainal circumstances "the bullet may have exited from the sutomobile" (SH 173). Two mitnesses believed that they had seen a bullet hit the present near the Presidential car, Mrs. Baker (78 508-509), and br. Skelton (68 238).

But if the Kennedy bullst did proceed to strike Connally, causing all his wounds (Crawford cannot cop out on the wrist wound, for the reasons already stated, and because really it is hard to ascribe the wrist entrance wound of $1^{n}\times1/5^{n}$ to a fragment of the 313 head bullet), how could it possible caunge undeformed, essentially intest (Frazier said that bullet, 158.6 grains, had not necessarily suffered any loss in original weight (34 h30), and <u>clean</u>—it had no discernible blood or tissue on it, while the bullet fragments found in the car did have a film of blood or similar material which had to be removed before laboratory examination.

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> Crawford invites us, on page 8, to forget the autopsy report and related evidence and to "observe in the Zapruder film the position of the governor when he is hit..." Let me point out that Grawford himself postulates that the Governor was hit (simultaneously with the President) while the Governor was behind the Stemmons Freeway sign and concealed from Zapruder's camera. We do not know what his position was for some 15 frames. If one compares the Governor's posture in frame 225 with frame 210, it is readily apparent that position can change markedly in a span of 15 frames.

Crawford's whole exercise is predicated on a specious moment of bullet impact on the Governor; that moment of impact was not discernible to the Commission when it viewed the Zapruder film; and others who have studied the Zapruder film and color slides intensively disagree completely with Grawford's interpretation of the onset of reaction, both of the President and the Governor. Fimily; I cone to Gramford's assumption that "the syldence, though possibly mistaken, is honest."

I an emotionally moved by his proparations, at long last, for an ultimate retreat from the single-missile, single-assassin theory, on the grounds that it is, after all, "mistaken." And the Commission, with its lawyers, no doubt will be quite moved by Granford's assumption that the mistake was "homest." One is arrested by such faith, hope, and chariness.

Now I am all for the benefit of doubt and the presumption of innocence, just like Christians and Unitarians. But in the first instance it was ion Hervey Osmald who was accused, who maintained that he was immocent, and who died at the hands of a murderer, while in the arms of the police, before he was even represented by an attorney, much leas brought to a trial whose outcome must always remain unknowable since it would depend in part on the case presented by the defense. While Mr. Crawford is pleading with us not to be hasty in declaring "impossibles," I hope that he will agree that it is not impossible that Oswald might have been able to exponente bingelf completely.

That being so, it seems to no that Oswald--not his accusers--hand first call on our benefit of doubt and our presumption of innocence. Is Oswald nore incriminated by the "evidence" against him, than the Warren Consission is by the evidence against it, and its Report? As Anthony Howard wrote in the <u>London Observer</u> of August 7, 1966, "Today...it is the majestic Warren Commission itself that is in the dock, rather than the lonely Oswald." And its Report is, as Eric Norden has said, "an incredible melange of lies, belf-truths, omissions, evasions and distortions...."

Crawford, and his several fellow-advocates of the Warren Report who take a position similar to his (Dwight Macdonald, Murray Kempton, Jacob Cohen) concede, whether in public or in private, that the Report is choked with defects and staggering under its deformities—but that nevertheless it has managed to stumble upon the solution, veritably like the Marx Brothers, triumphing despite of themselves, in the last reel of Horse--(feathers?).

Contiemen, how can something grotesque with error, ambiguity, and misrepresentation, be the ultimate answer? How can something so malodorous be pure? We will nover get a signed confession from Chief Warren (as Ruby so quaintly called him, peering, no doubt, over spectacles borrowed from the Chief himself)...but do we really need one?

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Sylvia Meagher 10 March 1966