

The first shot, fired from the book depository, hit President Kennedy in the back. The second, from a building on Houston Street, wounded Governor Connally. Then, as the limousine drove on, the third shot, also fired from the depository, hit the President in the rear of the skull an instant before the fourth shot, coming from the stockade fence behind the knoll, struck him in the right front of the head.

TOTIS BAR

By Josiah Thompson as a preparatory move, most of the book cartons a naked light bulb. Within the next half hour an of warehouse dust, illuminated here and there by the floor. Everything lay under a heavy covering some piled five or six high, others scattered across building. This side was now a jumble of cartons, had been shifted to the front (or south) side of the lunch. The old flooring was to be ripped up and, assassin would make his way through the jumble © 1967 by Josiah Thompson. From the book "Six Seconds in Dallas" to be published by Bernard Geis Associates. of cartons and take up his position at a corner he Hertz sign atop the book depository crew on the sixth story had knocked off for flashed 12 noon. Inside, the floor-laying would be explored by police officers, sheriff's deputhe plaza below, it was empty. flashed noon and the crowds began to gather in ties and reporters. But now, as the Hertz sign window. Within the hour every foot of this floor reflect unusually lax security precautions. But at eign dignitaries in other cities, this may seem to have watched motorcades for Presidents or forbuildings along Houston Street. To those who noon on Houston Street there were no guards on Dallas County offices, and the second furnished the Records or Dal-Tex buildings. The first housed Empty, too, were the roofs of the adjacent

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Just before the firing began, Mrs. Jean Hill (in red coat) has a perfect view of the presidential limousine. Officer Hargis is riding escort on a motorcycle to the left rear.

phus.

Hargis was hit so strongly by a shower of the President's blood that he felt sure that the shot came from the right front. Dismounting, he turns and looks toward the grassy knoll.

quarters for various textile firms. Architecturally these buildings diagonally across the corner from the depository were undistinguished, but from the point of view of a potential assassin they were outstanding. Their roofs were surrounded by low stone parapets that, in addition to shielding a gunman from view, offered a firm gun rest. At noon these roofs were empty. Yet in the next half hour, as one assassin was climbing toward the sixth floor of the depository, an accomplice was making his way to a rooftop lair in one of these buildings. There was no one to stop him at any point along the way.

If the accomplice had reached his rooftop position shortly after noon, he could have looked across the plaza and seen a blue-and-white 1959 Oldsmobile station wagon circling the parking lot behind a grassy knoll. A little later he could have seen a 1957 black Ford doing the same thing, only this time the driver would be talking into what seemed to be a radio mike.

ALSE MARTE

By 12:30 it would have been relatively easy for three assassins to have reached their firing locations: one in the sixth-floor window of the depository, one on the roof of an adjacent building, and one behind the stockade fence near the knoll. Around noon the people who were soon to serve

Around noon the people who were soon to serve as witnesses began their unwitting entrances.

Arnold Rowland and his wife reached Dealey Plaza at 12:05. They moved up and down Houston Street, trying to find a good vantage point, and finally settled on a spot midway between Elm and Main streets. Some minutes later Rowland looked up at the depository and noticed in a southwestcorner window of the sixth floor a young man wearing "a very light-colored shirt . . . open at the collar." He was cradling a rifle.

It was 12:15—Rowland noticed the time on the Hertz clock. At about this time Mrs. R. E. Arnold, a secretary at the depository, saw one of her coworkers standing in a first-floor hallway of the building. Later she was to recall that he looked like Lee Harvey Oswald, and Oswald would claim that he had been eating lunch on that floor when President Kennedy's motorcade passed.

It was nearly 12:30 when Ronald Fischer and Bob Edwards saw the gunman on the sixth-floor of the depository. They were standing near the re-

> it. He may have been trying to catch a glimpse of his confederate behind the stockade fence near the knoll. But trees shielded the fence from the knoll and triple underpass that lay beyond seemed to be looking in the general direction of comfortable for one, and secondly he didn't look his view. like he was watching for the parade." The man about this man that made Edwards point him out Warren Commission, "because he appeared unfor ten or fifteen seconds," Fischer later told the to his friend Fischer. "The man held my attention boxes around him," and there was something pository. In a corner sixth-floor window he saw a Edwards later recalled, "There was a stack of young man dressed in a "light-colored sport shirt." Bob Edwards's eyes drifted upward to the de-Houston streets. As they waited for the motorcade, flecting pool at the southwest corner of Elm and

and must hold his fire until the guns of his two was still on Houston Street. But he was not alone. escape the trap. him), the Lincoln might stop, turn sharply, and fired now (perfect though the shot might be for confederates could bear on the limousine. If he time to shoot; he would have fired while the car he been a lone assassin, this would have been the as the President approached the depository. Had tightened on the rifle. This was the perfect shotpresidential Lincoln. Looking down, he could see of motorcycles followed, and then the dark-blue now was coming straight toward him. A phalanx the President smiling at Mrs. Connally. His grip Ford-the pilot car-had made its right turn and tion back to Houston Street. An unmarked white A rustle in the crowd drew the gunman's atten-

As Bill Greer eased the heavy limousine around the 120-degree turn onto Elm Street, the gunman above shifted into firing position. The victim had entered the trap.

Ahead of him, Greer noticed a number of people on the overpass and wondered how he could veer at the last moment to pass under a vacant section of the viaduct if the need arose. To his right, Secret Service Agent Roy Kellerman was beginning to relax. The crowds were sparse now; only a few people on either side lined the pavement as Elm Street swung under the railroad tracks. In the

> passenger compartment behind Kellerman and Greer, Mrs. Connally pointed out the underpass to Jacqueline Kennedy and said, "We're almost through; it's just beyond that." The President's wife was thinking how nice it would be to get out of the glaring Texas sun.

The gumman on the sixth floor had sighted in on the agreed-upon spot just opposite the Stemmons Freeway sign. Hidden for a moment in the foliage of an oak tree, the limousine slowly emerged at a speed of 11 miles per hour. The gumman saw the President's back and shoulders appear in his scope and carefully aligned the cross hairs. Rifle stock pressed close to his cheek, the barrel braced against a box, he squeezed the trigger. Jacqueline Kennedy heard the first shot as a

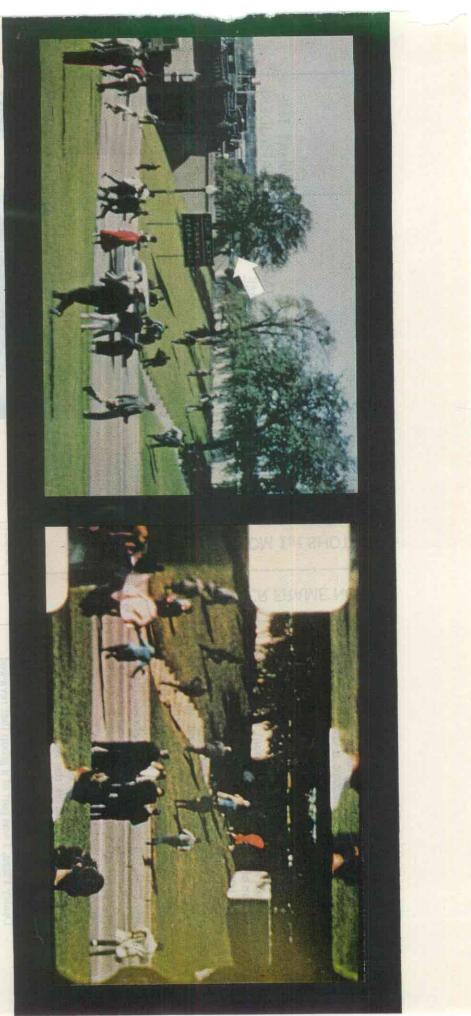
Jacqueline Kennedy heard the first shot as a backfire. Mrs. Connally heard it only as "a frightening noise" that came from the right. Turning, she caught a glimpse of the President raising his hands, and heard Connally yell, "Oh, no, no, no!" just as a second shot crashed into his own back.

The second shot had been fired by the assassin on the roof of a Houston Street building. Following the car in his sights, he had waited until it approached the freeway sign on Elm Street. Then, the sound of the first shot ringing in his ears, he had fired—wounding the governor.

It was now little over a second since the first shot. The President's elbows were splayed upward from shoulder level, his face showing more surprise than pain, and the governor, his right wrist dangling, was falling backward into his wife's arms.

Neither victim had been wounded fatally. The first assassin worked the awkward bolt of the Carcano and carefully sighted the cross hairs again. Squeezing the trigger, he saw the President's head explode in a halo of red.

Behind the stockade fence a third assassin had heard the first two shots and seen that the President was still sitting upright. His backup shot, fired perhaps from a long-barreled pistol at a range of less than 40 yards, would be the conspirators' insurance policy. It did not fail them. The bullet drove into the President's head, snuffing out John Kennedy's life and covering his wife, car and two motorcycle escorts with brain and flesh. As the wall of the follow-up car's siren ab-



Seconds later, Hargis has actually climbed the knoll, looking for the assassin (the arrow shows the officer's white helmet). Other witnesses now scramble after Hargis up the slope.

Her red coat showing plainly, Mrs. Hill joins the rush, convinced that at least one shot came from the knoll. The last three pictures have never been printed before.

inal use of the evidence, to a new conclusion. sharply. The analysis finds its own way, by origof the Warren Report-although it differs with it commission. This new evidence is combined with THE ZAPRUDER FILM this analysis of the assassination is not a critique the old that I found to be significant. In essence, graphs that were overlooked or ignored by the Commission, I have found and studied photowhere the others leave off. I have found and intermind is filled with doubt. This study takes up and despite the extensive investigations, the public either been overlooked or improperly interpreted; have been published in attempts to explain the mystery of the events in Dallas. Six were lurid viewed eyewitnesses overlooked by the Warren tion of books there is much evidence that has mediately arises, "Why another book?" was a novel. In view of all this, the question imcommission's Report and its 26 volumes of supportand groundless speculations, 27 comprised the Report, four were written in support of it, and one ing documents, eight were outright attacks on the assassination of President Kennedy, 46 books six seconds. wrong; there were four shots from three guns finding of the Warren Commission is patently details remain unclear, the essential outline of the hard fact and educated speculation. Although the on the other side, Clint Hill could be seen poundsilhouetted on the trunk of the Lincoln, and then slid toward the underpass. For a moment Jacquesorbed the echoes of the final shots, the limousine assassination is now apparent—the "one-assassin" the car disappeared under the bridge. As it emerged line Kennedy and her bodyguard, Clint Hill, were ing the trunk in rage and frustration. The search for a new conclusion must begin The answer is simple: In spite of the prolifera-In the four years that have passed since the The scenario sketched above is an amalgam of have. As the President's H

a four-foot pedestal of concrete on a slope overmotorcade approached, Zapruder was standing on piece of evidence we by Abraham Zapruder, the single most important with a study of the film taken of the assassination

> and railroad yard. The President would pass directly in front of him. fence, and over his right shoulder a parking lot incline, at the top of which stood a stockade To his right there was a triple underpass, a grassy stood the Texas School Book Depository building looking Elm Street. To his left, 200 feet away

for once not a home movie but one of the most the film that wound through his camera recorded the shutter release, and for the next 22 seconds As the motorcade approached, Zapruder pressed

The Author

collect everything he could find on the event. At the time of the Kennedy assassination, Josiah Thompson was studying for his Ph.D. struck by the inconsistencies and discrepanin philosophy at Yale. He was immediately cies in the accounts that he read and began to In the early summer of 1966 he started his

down to write Six Seconds in Dallas. over the official documents of the assassination in the National Archives before sitting foot of Dealey Plaza. He spent weeks poring las, tracked down witnesses, studied every intensive research. He made six trips to Dal-

this month. the Navy Reserve. His scholarly examinaman detachment and is a lieutenant (j.g.) in tion of Kierkegaard is also being published interests. He once commanded a Navy frogphy at Haverford College, is a man of many Thompson, 32, who now teaches philoso-

LAS

up as if to guard his face and leaned toward the was nothing unusual until the first sound, which I sign, and when it reappeared something had hapa second the car disappeared behind a highway left, and the motorcade proceeded down the hill." reaction of President Kennedy. He put his hands thought was a firecracker, mainly because of the with Zapruder, described the scene to me: "There pened. Marilyn Sitzman, who had been standing ing and waving to the crowds on their right. For Street, Mr. Kennedy and Governor Connally smil-Smoothly the President's car turned left on Elm macabre scenes in American history. First the the long presidential limousine came into view, lead car, then the motorcycle escort, and finally

screaming, "They killed him! They killed him!" His voice was drowned under a wail of sirens. the camera, and stumbled away from the scene. ward and to the left into his wife's arms. Zapruder cracker noise and were pantomiming, "Oh, he got from shock, Zapruder released his finger, lowered his right toward the stockade fence. Trembling the underpass and then swung it immediately to kept his camera running as the car sped beneath ploded in a burst of pink, snapping his body backme!" But then came the violence of the final shot. were joking-that they too had heard the firethought the President and Governor Connally The right front side of the President's head ex-Both Zapruder and Marilyn Sitzman at first his chest and fell backward into his wife's lap. A split second later Governor Connally grabbed

every night." over the succeeding weeks and months the specter dreams. "I have seen it so many times," Zapruder of what he had seen would return to haunt his "I used to have nightmares. The thing would come told commission assistant counsel Wesley Liebeler. magazine would pay him \$25,000 for his film, and assassination in all its horror. Within hours Life bringing his camera to this spot were staggering that the world would come to know about the tory, and it would be largely through his camera He had unwittingly become a prime source of his-For Abraham Zapruder the consequences of

continuing inquiry into the assassination has been matic, his film's importance to the subsequent and If the consequences for Zapruder were trau-

ZAPRUDER FRAME NO.	TIME FROM 1st SHOT	COMMENT	REENACTMENT FRAME	WHAT THE ZAPRUDER FRAMES SHOW
210	0.0 secs.	FIRST SHOT POSSIBLE		
222	0.660 secs.	CONNALLY TURNING		
225	0.825 secs.	KENNEDY REACTING		
230	1.100 secs.	KENNEDY HIT, CONNALLY UNINJURED		
238	1.540 secs.	CONNALLY HIT		
244	1.870 secs.	CONNALLY OBVIOUSLY HURT		
252	2.310 secs.	SECOND SHOT POSSIBLE		ARE

Thompson's chart shows that Governor Connally was hit so soon after the President received his first wound that an assassin, operating the clumsy bolt of Oswald's rifle, could not possibly have gotten off both shots in the time allowed him.

momentous. Abraham Zapruder's movie served as a major piece of evidence for the Warren Commission, and it has become a crucial historical document for independent researchers ever since.

THE COMMISSION'S CONCLUSIONS

On September 24, 1964, after 10 months of intensive research, the Warren Commission turned in its conclusions about the assassination of President Kennedy: three shots-two hits, one miss.

THIS IS MOT The first hit, according to the commission, wither THE pierced Kennedy's neck and went on to strike Governor Connally. The second hit struck RPT JAID, President Kennedy in the head, and a third ACTHWINT bullet went astray. The bullet that missed IT is THE might have been the first shot (preceding the MEANING, two hits), the second (coming between them), LAGT SAM or the last. TENCE IN THE START OF A THEORY

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THIS WAS

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Before becoming a special consultant to Life, I had spent a good deal of time studying the copy of the Zapruder film in the National Archives while working with the evidence on the assassination that is collected there. Nearly three years to the day after Zapruder stood on the low wall in Dealey Plaza, I was part of a group that reviewed another copy of the film in Life's offices.

I knew each movement in detail-yet this time there was something about the image on the screen that astounded me. I was certain the picture was infinitely brighter and clearer than the one I had seen earlier in the National Archives in Washington.

I knew that neither the lens of the Archives' projector nor its bulb could have accounted for the weaker image because I had checked them both; the film was simply not as good a copy as the one we were watching now at Life. I turned and mentioned this to an editor, who then voiced an opinion that, when I later checked the record, turned out to be the case: While the film we were watching was a copy made directly from Life's original (which was kept in a vault), the FBI's TANATIST working copy was made not from the original but from a copy of it, which made their "official" version a copy of a copy, or a copy once removed. And it was the Washington copy of the Zapruder film, inferior by comparison, that the FBI had used for photoanalysis.

My curiosity aroused, I got up and walked over to a light box to take a look at Life's 4-by-5-inch color enlargements of each frame. I looked at several of them, and again they were unmistakably clearer than the smaller slides that the commission had used, and that I had seen at the Archives. As I inspected the frames, one by one, the new details that I saw brought home to me the full impact of the commission's oversight.

In the early frames of the Zapruder film the

やおいいう WITH WIL face, a movement that becomes even more appar-WITH S F ent in the frames that follow. By frame 230 the AUFER toppul Lovincrowds on his right. This natural waving moveact at frame 224. The commission said that a shot view behind the Stemmons Freeway sign at frame 207, or at what could be labeled Z (for Zapruder) when could it have been fired? might have been fired before this first hit. If so, fists have reached the level of his chin and neck. to emerge from behind the sign at Z224. In this that a bullet has struck until the President begins 207. On the film we see no evidence to suggest has been hit, and that he was just starting to re-His motions at this point leave no doubt that he President's elbows are elevated and his clenched Fresident can be seen smiling and waving to the

THIS IS FELSE, MINIMUM SEXPERT RELOTANCE ME WES 2.3 secondo, THIS IS ONLY REshot was fired from Oswald's rifle as the assassin lay hidden on the sixth floor of the depository. Let us assume with the commission that such a

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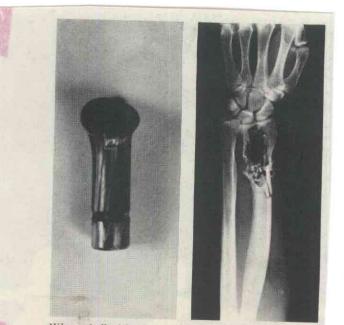
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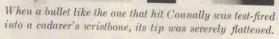
which a previous shot could have been fired. rifle, we can determine the approximate time at If we know the minimum firing time of Oswald's

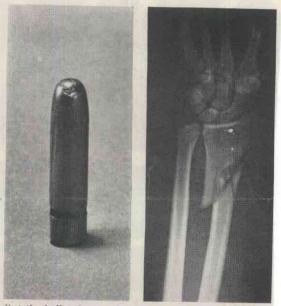
fastest time for getting off three shots was 4.6 seconds. Such a speed, he testified, "is firing this weapon as fast as the bolt can be operated." The quired to work the bolt and pull the trigger. His commission divided this figure in two and arrived wald's rifle to determine the minimum time re-FBI firearms expert Robert Frazier tested Os-

EARLIGA. FILST HIT

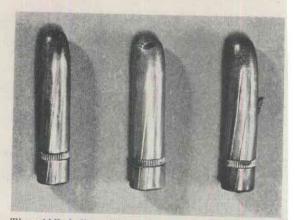
earlier miss could not have been fired later than Z182 (224 minus 42). But we know that at this emerged from behind the sign (Z224), then an man is operating the bolt. In 2.3 seconds Zapaiming the rifle and assumes that an expert rifle-Oswald's rifle-a figure that includes no time for at 2.3 seconds as the minimum firing time for was reacting to a hit he received the instant he frames. Thus, even if we assume that the President ruder's camera would have rolled through 42







But the bullet the commission says wounded the President and the Governor is nearly perfect in contour.



The middle bullet, which supposedly wounded both men, looks remarkably like two fired into tubes of cotion.

point a tree hid the President from the sixthfloor sniper's nest. If the missed shot was fired at Z182, the gunman was firing blindly into a tree. In all likelihood, if the first shot missed, it was fired before the President disappeared behind the tree at Z166.

But not one of the several hundred witnesses in Dealey Plaza that day reported hearing a shot that could have come as early as Z166. In fact, the supposition that the first shot hit the Presi-

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dent is corroborated by the eyewitness reports of a host of different observers.

The commission stated the case fairly when it concluded that the President was hit for the first time between Z210 and Z225. Where it failed to state the case fairly was in neglecting the preponderance of evidence indicating that this was also the first shot fired. FABE-

WHAT HAPPENED TO THE BULLET?

If we are persuaded that the first shot fired struck the President between Zapruder frames 210 and 224, then the obvious question arises: What happened to this bullet? Did it transit the President's body, as the Warren Commission claims, exiting through his throat and continuing on to wound the governor, or did it lodge in the President's back? Upon the answer to this question hinges a crucial part of the commission's case: the existence of a lone assassin. For if the governor was hit by a separate bullet, the time factor involved necessitates a second gunman—the governor was hit before the Carcano could have been fired again.

This question should have been answered by the autopsy performed on the President's body at Bethesda Naval Hospital on the evening of November 22. It was to remove any uncertainty as to whether or not the bullet transited that the autopsy was performed in the first place. Ironically, instead of answering the question, the autopsy has made it the focus of sharp controversy.

THE AUTOPSY

In addition to the medical personnel attending the President's body, representatives of the Secret Service and FBI also were present. They were there to observe the autopsy, to receive any bullet that might be recovered, and to report to their respective agencies on the conclusions reached. The two FBI agents, James W. Sibert and Francis X. O'Neill, submitted a five-page, single-spaced report on their evening at Bethesda, observing the work of military doctors led by Cmdr. James J. Humes.

AUTOPSY OF BODY OF PRESIDENT JOHN FITZGERALD KENNEDY

"During the later stages of this autopsy, Dr.

Humes located an opening which appeared to be a bullet hole which was below the shoulders and two inches to the right of the middle line of the spinal column.

"This opening was probed by Dr. Humes with the finger, at which time it was determined that the trajectory of the missile entering at this point had entered at a downward position of 45 to 60 degrees. Further probing determined that the distance traveled by this missile was a short distance inasmuch as the end of the opening could be felt with the finger."

I asked Commander Humes's assistant, Cmdr. J. Thornton Boswell, about Humes's inserting his finger in the President's back wound and feeling its end. Boswell told me that this was correct and that, in fact, three doctors had probed this wound with their fingers up to the first or second knuckle a penetration of one to two inches. Secret Service Agent Kellerman gave this description of the doctors' additional exploration of the wound with a metal probe: "A Colonel Finck [was] probing inside the shoulder with his instrument, and I said, 'Colonel, where did it go?' He said, 'There are no lanes for an outlet of this entry in this man's shoulder,'"

During the autopsy, news reached Bethesda that a 6.5-millimeter bullet had been found on a stretcher in Parkland Hospital.

"Immediately following receipt of this information," the report of Sibert and O'Neill continues, "this was made available to Dr. Humes, who advised that in his opinion this accounted for no

bullet being located which had entered the back region, and that since external cardiac massage had been performed at Parkland Hospital, it was entirely possible that through such movement the bullet had worked its way back out of the point of entry and had fallen on the stretcher."

Commander Humes apparently expressed such confidence in this explanation that Sibert and O'Neill could couch the autopsy conclusions in these words:

"Dr. Humes stated that the pattern was clear, that the one bullet had entered the President's back and worked its way out of the body during external cardiac massage, and that a second high-velocity bullet had entered the rear of the skull and had fragmentized prior to exit through the top of the skull."

The next morning Commander Humes called the doctors at Parkland Hospital to check on a surgical incision he had observed in the President's throat.

"I had the impression from seeing the wound," Commander Humes later told the commission, "that it represented a surgical tracheotomy wound, a wound frequently made by surgeons when people are in respiratory distress to give them a free airway. To ascertain that point, I called on the telephone Dr. Malcom Perry and discussed with him the situation of the President's neck when he first examined the President.'

What Dr. Perry told the Navy pathologist threw all the medical findings into turmoil. Unknown to the Bethesda doctors, Perry had made his tracheotomy incision through an already existing throat wound. Perry told me in Dallas that when Humes heard about the wound he seemed taken aback for a moment, and then exclaimed. "So that's it!"

The "that" was a new conclusion concerning the back wound, based on a rethinking of all the autopsy data. Thus, two days after the assassination, the military doctors submitted an official autopsy report which concluded that the bullet which entered the President's back had transited his neck.

With respect to this back wound the official autopsy report notes that "the missile path through the fascia and musculature cannot be easily probed." The evidence adduced above indicates that this admission is something less than the truth-that in fact the wound could not be probed at all. In discussing this case, Dr. Milton Helpern, the chief medical examiner for the city of New York, remarked, "There is no such thing as a rifle bullet's passing through a neck without leaving a path." He estimated that a 6.5-millimeter bullet would leave a track one fourth inch in diameter. The evidence cited above indicates that no such track was ever found.

The path of the bullet from back to front was inferred, not observed. Four years after the event one fact emerges from the evidence: No single physician ever knowingly examined all of the President's wounds-the Parkland doctors never realized the back wound existed, the Bethesda doctors never saw the throat wound, for it had been obliterated by the tracheotomy. The doctors' inference was drawn out of logical necessity-the SLC7 throat wound existed, and it had to be accounted 7 for

THE THROAT WOUND

The doctors at Parkland Hospital who saw the throat wound before a tracheotomy incision erased its outline all seemed to agree on the size of the hole. It was small-in fact, one doctor believed it was too small to be even the entry hole of a highvelocity bullet. Dr. Perry described it over the phone to Commander Humes as between three and five millimeters in diameter. This is half the diameter of an ordinary pencil, and is actually smaller (continued on page 46) than the wound in

the President's back. Later ballistics tests performed at Edgewood Arsenal show that bullets from Oswald's rifle could be expected to punch out exit holes over twice the size of their corresponding entry holes.

Special Agent Frazier examined the President's shirt at the FBI laboratory. In the upper back he found a small hole, one quarter inch in diameter. The shirt fibers, which were pushed inward around the periphery, bore traces of copper. But on the shirt front, just under the collar button, Frazier found a half-inch vertical slit without any metallic residue whatsoever. Nor could Frazier find any metallic residue on a small nick in the President's tie. Frazier was very guarded in his testimony about this: "I could not actually determine from the characteristics of the nole whether or not it was caused by a bullet. However, I can say that it was caused by a projectile of some type which exited from the shirt at that point." Earlier he had cautioned the commission that the "irregular slit' was not specifically characteristic of a bullet hole; it could have been made by a fragment of something else, such as bone.

Frazier's suggestion that the throat wound might have been caused by a fragment (possibly bone) had already been made by one of the Parkland doctors who helped Perry make his tracheotomy incision. When we consider the testimony of the Parkland doctors, we can understand why such an explanation seems plausible. Fitted into a coherent picture, their testimony describes a vertical channel of contusion (bruise), laceration and hematoma (swelling filled with blood) stretching above and below the tiny exit hole. Such a channel, of course, lies at right angles to the trajectory of a bullet passing horizontally through the neck. It is consistent not with the first shot to Kennedy's back but with the later head shot, as we shall presently see. None of the medical testimony from Parkland Hospital was available to the autopsy surgeons at Bethesda when they decided that the throat wound had been caused by the exit of a whole bullet traveling horizontally. As Dr. Humes told the commission, he "had the impression from seeing the [throat] wound that it represented a surgical tracheotomy wound." Thus the neck area was never fully dissected, and the possibility that the throat wound might have been caused by bone or bullet



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fragment went unconsidered.

During the autopsy the President's brain was removed and placed in a Formalin solution for later examination. A detailed study of the brain after the official autopsy had been delivered turned up one rather startling fact. Deep in the brain, at the level of the midbrain and the left cerebral peduncle, were found two rather sizable, communicating lacerations. It is possible to pass a line through these lacerations from a point on the right rear of the skull (the location of the entry hole) that will also pass through and out of the lower throat. If we suppose that a

THE CROSS FIRE THAT KILLED PRESIDENT KENNEDY (continued from page 31)

WAS PRESIDENT

bullet fragment, or more likely a bone fragment, was driven downward on a slight right-to-left trajectory through the midbrain, larynx and windpipe, we have a hypothesis that accords with all the known facts surrounding the throat wound. The absence of copper traces on the shirt fibers would indicate that bone (not metal) fragments did the major work of disruption.

GPABBINGAT

A INDIGATE

The evidence clearly suggests that the first shot struck the President and did not transit his neck. Therefore it could not have continued on to hit the governor. But if this was the case, which bullet did hit Connally? The evidence strongly indicates that it was the *second* shot fired that day in Dealey Plaza. This evidence, much of it either ignored or glossed over by the commission, includes firsthand reports of eyewitnesses, press reports, recently discovered official documents, photographs and statements by Connally and his doctors.

THE GOVERNOR'S WOUND

Not one of the several hundred witnesses that day in Dealey Plaza saw the assassination as the Warren Commission believed it happened; not one believed that a single bullet wounded both the President and the governor, or even that they were hit at the same time by different bullets. Nor did any of these witnesses think the second shot missed.

Jean Hill believed the second shot hit the governor. As shown in the picture on page 28, she was standing with ner Iriend Mary Moorman on the grass to the south of Elm Street and had an unobstructed view of the presidential car as it swept past her. She heard some shots, saw the President move, and then saw Governor Connally fall.

The witnesses' unanimity on this point was expressed both in newspaper accounts and official reports. On November 24 The New York Times reported that after President Kennedy was hit by the first bullet, "the governor turned to see what had happened. when he was struck in the back by another bullet." This remained the orthodox account in the press right up to the time the Warren Report with its controversial "single-bullet theory" made its debut. That the Warren Report and the press should be at variance on this point is not necessarily disturbing, but the Warren Report is also contradicted by key official documents. In the first Secret Service report, mentioned nowhere in the Warren Report or its volumes, we find the following:

"At the foot of Elm Street, at a point approximately 200 feet east of the Houston Street triple underpass, or the approach to the Stemmons Free way, President Kennedy, who was seated on the right rear seat, was shot Immediately thereafter Governor Con nally, seated in the right front seat was shot once. The President was ther shot the second time."

The FBI compiled a five-volume report on the assassination, and turned it over to the commission on December 9, 1963. In this report there is a passage that states: "As the motorcade was traveling through downtown Dallas on Elm Street about 50 yards west of the intersection with Houston Street, three shots rang out. Two bullets struck President Kennedy, and one wounded Governor Connally."

1 EARLIER PUDUATED BOTH JJ + NBI COM-CLUSIONS ON THIS.

Since he has a vividly clear memory of the event, the best witness that Governor Connally was hit by a separate bullet is Governor Connally himself. He gave his opinion in detail to the commission.

Assistant counsel Specter: "In your view, which bullet caused the injury to your chest, Governor Connally?"

Connally: "Well, in my judgment, it just couldn't conceivably have been the first one, because I heard the sound of the shot . . . and when I heard the sound of that first shot, that bullet had already reached where I was . . . and after I heard that shot, I had time to turn to my right, and start to turn to my left before I felt anything. It is not conceivable to me that I could have been hit by the first bullet."

Mrs. Connally, who was sitting beside the governor in the limousine, also has a clear memory of the shooting. "I turned over my right shoulder," she testified, "and looked back and saw the President as he had both hands at his neck . . . I recall John saying, 'Oh, no, no, no.' Then there was a second shot, and it hit John, and as he recoiled to the right, just crumpled like a wounded animal to the right, he said, 'My God, they are going to kill us all.'"

The governor scoffs at the commission's "single-bullet" theory. "They talk about the 'one-bullet' or 'two-bullet theory,' but as far as I'm concerned, there is no 'theory.' There is my absolute knowledge. and my wife's too, that one bullet caused the President's first wound, and that an entirely separate shot struck me."

"No one will ever convince me otherwise," adds Mrs. Connally.

"It's a certainty," concludes the governor. "I'll never change my mind."

Although the governor will never change his mind, the commission chose to disregard his account of the events of November 22. Recognizing that to believe the governor's account meant also to believe in the existence of a second assassin, the commission put forth its "delayed-reaction" theory. "There was conceivably," the *Report* suggests, "a delayed reaction between the time the bullet struck him and the time he realized that he was hit."

On the surface this is a plausible theory; many men are hit in combat and do not realize it until later. The Zapruder film, however, lays this "delayed-reaction" theory to rest.

At frame 230 Kennedy has obviously been hit; his hands and elbows are raised, he grimaces. Connally has now turned left so that he is facing straight ahead, his hand holding his Stetson. According to the commission, he also has been hit. But Connally, looking at the frames, says, "There is no question about it. I haven't been hit yet." At Z235-236 his mouth opens-perhaps in the cry, "Oh, no, no, no!" that he remembers making just before being hit. Finally, in frame 238, we see a very definite change indicating the impact of a bullet: his right shoulder collapses, his cheeks and face puff, and his hair is disarranged.

The governor looks like someone who has just had the wind knocked out of him. Connally did not decide to disarrange his hair, or puff his cheeks, or coulapse his right shoulder, nor were these nervous reflex actions. They were direct effects of the striking bullet.

This indisputable photographic evi-

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dence shatters both the "single-bullet" theory and its offspring, the "delayedreaction" theory. Surprisingly enough, we know from a recently released Archives document that the Secret Service was aware of this fact as early as November 29, 1963. After viewing the Zapruder film, Secret Service Agent J. J. Howlett reported: "It had been ascertained from the movies that President Kennedy was struck with the first and third shots fired by the assassin, while Governor Connally was struck with the second shot."

If we locate the first hit on the President in the interval Z210-224, the governor was hit by the second shot anywhere from three fourths to one and a half seconds later.

One and a half seconds is too short a period for the gunman operating Oswald's Mannlicher-Carcano to get off two shots (*see chart*). Obviously at least two assassins were shooting from the rear at the President's limousine that day.

SUPERBULLET

Deep in the recesses of the National Archives, carefully packed in cotton and enclosed in a small plastic case marked Commission Exhibit Number 399, rests a copper-jacketed 6.5-millimeter bullet. Along its straight sides can be seen the spiral channels of rifling grooves. Although the bullet's tail is somewhat squeezed, its nose and midsection are perfectly preserved. Given such a projectile, experts had no difficulty matching it to Oswald's rifle.

No piece of physical evidence has excited more controversy than C.E. 399. The commission argues that this bullet, after passing through the President, entered the governor's back, making a 1.5-centimeter hole before shattering his fifth rib and blowing out an exit hole five centimeters wide. The bullet continued on to smash Connally's forearm and wrist, splintering the radius bone at its largest point and leaving along its path a trail of bone and metal fragments. This bullet, according to the commission, finally embedded itself in the governor's thigh, leaving behind two small fragments before falling out on the stretcher.

Critics of the *Report* have argued against this conclusion on two grounds. First, they point to the minuscule loss of C.E. 399's substance. Two of the autopsy surgeons were convinced that 399 could not have caused the governor's wounds for the simple reason that more metal was found in his wrist than was missing from 399. Second, critics point to 399's undeformed state as evidence that it could not have caused the damage ascribed to it. The second argument is much stronger than the first.

FBI firearms expert Robert Frazier weighed C.E. 399 on the evening of November 22 and found it to weigh 158.6 grains. He weighed three other 6.5-millimeter bullets chosen at random and found them to weigh 160.85, 161.5, and 161.1 grains.

Subtracting the weight of C.E. 399 (158.6 grains) from the likely weight of an unfired bullet (161 grains) we get 2.4 grains. About 1.5 grains of metal were found in the governor's wounds. Hence, simply from the point of view of total weight, the various fragments in Connally's body *could* have come from C.E. 399.

What does preclude such a possibility is the (continued on page 50)

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(continued from page 46)

lack of "deformation of the bullet" alluded to by Dr. Robert Shaw, the Parkland surgeon who operated on the governor's chest. Although absent from the published record, documents recently discovered in the Archives show that members of the commission staff were aware of this as early as April, 1964. On April 14 a viewing of the Zapruder film was arranged for various staff members together with the autopsy surgeons and two experts from the Army's Wound Ballistics Branch at Edgewood Arsenal. The sense of this meeting was that the bullet was too perfect to have shattered a wrist.

A similar meeting a week later ended with wound-ballistics experts F.W. Light Jr. and Joseph Dolce urging even more strongly the same conclusion. The report of the meeting states: SHI PED WITNESS

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"Drs. Light and Dolce expressed themselves very strongly of the opinion that Connally had been hit by two different bullets, principally on the ground that the bullet recovered from Connally's stretcher could not have broken his radius without having suffered more distortion. Dr. Olivier (another wound-ballistics specialist) withheld a conclusion until he has had the opportunity to make tests on animal tissue and bone with the actual rifle."

The results of Dr. Olivier's tests were to validate the conclusions of his two colleagues. Under his direction a slug from Oswald's rifle was fired through a cadaver's wrist to simulate the Connally wrist injury; the nose of the resulting bullet (*see illustration*) was badly smashed. This test bullet looks nothing like C.E. 399. Only the ballistic-comparison rounds (*see illustration*) resemble it, yet these rounds were fired into long tubes of cotton waste to prevent any deformation.

But C.E. 399 *does* exist; I have held it. And it *was* traced to Oswald's rifle. How can it be accounted for?

In answering this question, I think several considerations should be kept in mind:

(1) Bullet 399 is an *atypical projectile*. None of the other bullets fired from Oswald's rifle at *standard muzzle velocity* preserved their pristine state after hitting anything. Even one of the two ballistics-comparison rounds—projectiles fired into long tubes of cotton waste—was twisted along a longitudinal axis.

(2) The wound in the President's back was an *atypical wound*. Dr. Boswell told me that its depth could be probed only up to the first or second knuckle of the little finger—a depth of one to two inches, much shallower than would be expected of a high-powered bullet of this type.

(3) The ammunition used in the rifle found on the sixth floor of the depository was government-surplus ammunition last manufactured in 1944. A spokesman for the company that made the ammunition declared that "the reliability of such ammunition would be questionable today."

(4) At least 52 witnesses, including eight Secret Service agents, reported that the first shot sounded more like a "firecracker" or a "backfire" than a rifle shot.

What they heard as a "firecracker"

might well have been the report of a "short charge"—that is, a cartridge whose explosive power was far less than standard. Such a supposition would explain many things in addition to its odd, firecracker-like sound. It would explain the copper traces on the President's jacket, while the very low muzzle velocity of such a projectile would explain the pristine character of the bullet as well as the otherwise inexplicable short penetration into the President's muscle.

Commander Humes was perhaps correct in suggesting on November 22 that "the one bullet [that] had entered the President's back . . . had worked its way out of the body during external cardiac massage." But even if the bullet did work its way out, how did it get to the stretcher where it was found? To answer this question we must appeal to an old American institution—souvenir hunting.

Penn Jones Jr., a Texas newspaper editor, was at Parkland Hospital shortly after the assassination. He reported that one of the hospital employees—in the general craze for souvenirs then reigning—actually had the nerve to ask Mrs. Kennedy if he might keep the President's undershirt.

In such a chaotic atmosphere, is it beyond the realm of possibility that some hospital employee found bullet 399 on the floor, in the President's clothes, or on his stretcher, and momentarily snatched it as a souvenir, only to recognize its importance and quickly secrete it on a stretcher where it might be

found by someone else no questions asked? It was under Mt asked? THE LEAS IS NO REGOLD THE HEAD SHOTS THINKE PRIMES

In November, 1966, there was an autumn chill in the air as a *Life* editor and I drove our rented car out of Dallas on our way to Irving, Tex., to interview S. M. Holland, signal supervisor for the Union Terminal Railroad and a critically important witness of the assassination.

Holland met us at the door of his home on Lucille Street and ushered us into the living room. He carefully inspected our identification and told us he had done some checking on us with his old friend, Dallas County Sheriff Bill Decker. He knew who we were, but he wanted to know just what our angle was, just what we wanted to prove. We told him that we only wanted to find the truth. At first he did not believe us, and with good reason. For the Government, too, had told him that it wanted to find the truth, and he had talked 20 to 30 times with its investigators. Yet finally the Government had chosen not to believe him and (so Holland told us) had even failed to print his testimony as he had given it. Finally Holland was able to see from our questions that we wished to plead no special case, and he opened up. He told us of the shooting, of the motorcade sweeping toward him as he stood on the railroad overpass, of the sound of shots. Holland had heard *four* shots, not three, and the third and fourth were fired so close together that they sounded almost like a double shot. I asked Holland about the effect of the shots.

Holland: "Well, the third and fourth bullets hit the President."

Thompson: "In the head?"

Holland: "In the head."

Holland's story fitted the last piece into a jigsaw puzzle that long had lain

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incomplete. It was a puzzle whose shape I had first perceived some four months earlier in the July heat of Washington.

I had gone to the National Archives to test the validity of a new way of viewing the Zapruder film. Developed by Philadelphia attorney Vincent Salandria, this technique consisted of using two slide projectors placed side by side and superimposing their images on the screen. By alternately inserting 35-millimeter slides of sequential Zapruder frames in the two projectors, it was possible to isolate the movement of people in the presidential car.

The screen and the two projectors were set up. Frames 313 and 314 were focused on the same screen, and I switched back and forth—the President's head appeared to move slightly to the rear. I tried 313 and 315—the movement became quite apparent. Frames 313 and 316 were fitted into projectors. Now there was a tremendous snap of the head backward and to the left. This was exactly the same movement I had seen earlier on the eight-millimeter movie film—a violent wrench of the head and shoulders backward and to the left.

Since frame 313 was somewhat indistinct. I decided to try 312 as a control frame. I switched between 312 and 313 and found something puzzling: The President's head seemed to move forward, not backward. I tried 312 and 314-hardly any change, but perhaps a slight forward movement. When 312 and 316 were viewed, the head could be seen to move backward quite obviously. Again and again I switched between 312 and 313; it was quite apparent that there was a definite forward movement of several inches between these two frame numbers. And it was just as apparent that there was an immediate sharp backward movement in the frames that followed. What I had discovered was a double movement of the President's head separated by only one-eighteenth of a second.

What could possibly cause such a movement? A nerve/muscle reflex to the first hit from behind? A sudden braking or acceleration of the car? An almost simultaneous impact of two bullets? Before speculating further. I knew I needed a very accurate measure of the magnitude of both movements.

With the help of Bill Hoffman, a bright young physicist, and the use of a dissecting microscope, I was able to measure with great accuracy the movement of the President's head.

Measured parallel to the axis of the car the President's head has been given a forward acceleration of 69.6 feet per second per second between frames 312 and 313. One-eighteenth of a second later this movement has been reversed. and the head has been given an acceleration backward and to the left of 100.3 feet per second per second. These accelerations are quite large (a falling body at the earth's surface, for example, accelerates at a rate of 32 feet per second per second), and what is even more striking is the brevity of the interval in which the movement is reversed. How could this violent double movement be explained?

Several alternatives present themselves:

(1) The car suddenly accelerated or decelerated during this time, thus throwing the President either forward or backward. This possibility can be ruled out by referring both to witness testimony and

HE discovered withing Rty MARCW SID IT EARLIER FRA \$\$55 + 1 from movies THERE'S A JUNIAR FORW FRA MUTION DARNER to measurements of the car's velocity culculated from the Zapruder film.

(2) There was some neuromuscular reaction to the shot from behind that arched the President's body in the opposite direction. The extremely small time factor combined with the relatively large mass of the President's head would tend to rule out such an explanation. The fastest reflex action known to science-the startle response-takes place over an interval of 40 to 200 milliseconds. An eyeblink takes 40 milliseconds. The change in direction of the President's head occurs in 56 milliseconds (one-eighteenth second), and involves not the negligible mass of an eyelid but the considerable mass of a human head moving forward under an acceleration of several g's.

Furthermore, after a violent acceleration at Z313, the velocity of the President's head remains nearly constant. If a neuromuscular reaction were involved, we would expect the muscles of the neck to keep accelerating the head; its velocity would not show the constancy it does after Z314. Finally, since the motor strip (precentral gyrus) was blown out by the entering bullet, the likelihood of any muscular reaction at all is considerably diminished.

(3) There is some physical principle or law of nature that explains the double movement. The physics of impacting bodies is quite clear. As Dr. A.J. Riddle of U.C.L.A. has pointed out in an unpublished study of the Kennedy assassination, the effects of such impacts are governed by Newton's second law of motion—an object hit by a projectile will be given a motion that has the same direction as that of the projectile. "At a shooting gallery, for instance," Dr. Riddle points out, "the ducks fall away from the marksman, not toward him."

Applying Newton's second law to the case in question, and supposing that a bullet fired from the rear struck the President's head, we would expect to see his head and body driven forward. We see the beginning of such a movement at Z312-313. But then it is suddenly interrupted and replaced by a movement in the opposite direction. What we see on the Zapruder film are the effects of a virtually simultaneous double impact on the President's head. One shot was fired from the rear and the other from the right front.

This is just what S. M. Holland saw from his vantage point on the railroad viaduct ("the third and fourth bullets hit the President . . . in the head"). He had seen with his own eyes what I had only deduced with the help of photographs, microscopes and complicated mathematical equations.

The next stage was clear. If what , Holland saw (and my measurements indicated) was really what happened, the President had been caught in a cross fire. The Bethesda doctors had lound a bullet hole in the lower rear of the President's skull that would explain his sudden forward movement. Now I had to find evidence of a second bullet crashing into the President's head a split second later from the right front. I returned to the testimony of the witnesses.

Like S. M. Holland, a number of other onlookers reported hearing nearly simultaneous shots. Jean Hill, who was standing on the grass along the south curb of Elm Street, recalled two distinct flurries of shots as the car ap-

> proached. The first shots, she said, "were fired as though one person were firing . . . they were rather rapidly fired, but there was some small interval between them." Then there was "a distinct pause" followed by more shots. These later shots, Mrs. Hill remembered, "were different—I thought the sequence was different . . . quicker, more automatic." Her immediate impression was that more than one person was firing on the motorcade.

> A number of the Secret Service agents, among them both agents riding in the presidential limousine, agreed that the last two shots sounded extremely close together. "It was like a double bang—like a plane breaking the sound barrier, bang—bang," testified Agent Roy Kellerman.

> At one point in his testimony Kellerman described the finely shredded material blown into the front seat at the time of the head shot. Both Governor and Mrs. Connally likewise testified that they were covered with small particles of brain tissue. These reports describe a first umbrella of impact debris dispersed forward over the occupants of the limousine in a pattern that would be the natural outcome of a shot fired from the rear. But there is another pattern of debris, greater in magnitude, that distributed itself over the left *rear* of the car.

The main thrust of the impact debris was toward the two motorcyclists riding in convoy behind and to the left of the presidential limousine. Officer B. J. Martin, riding the outboard cycle some five feet to the left and six to eight feet to the rear of the presidential car, later noticed "blood stains on the side of my helmet . . . [and] other material that looked like pieces of flesh." Officer Martin's partner, riding the inboard cycle, was even more splattered. "It seemed like his head exploded." testified officer Bobby W. Hargis, "and I was splattered with blood and brain, and a kind of bloody water." The splash of this debris so established in his mind the idea that the shot came from the right front that he got off his cycle and led the chase onto the knoll (see pictures on pages 28 and 29).

Later that afternoon Deputy Sheriff Seymour Weitzman found a sizable piece of skull some 8 to 12 inches from the south curb of Elm Street—a location some 10 to 15 feet to the *left* of the car's path.

In addition, in February of this year I discovered documents in the Archives that show an additional piece of bone, previously undisclosed, had been found in Dealey Plaza. Late in the afternoon of November 23, Billy Harper, a student at Texas Christian University, was taking photographs of the assassination site when he found a piece of bone in the grass on the south side of Elm Street. Harper took the bone to his uncle, Dr. Jack Harper, who identified it as human skull bone and then took it to Methodist Hospital, where it was photographed and examined by the chief pathologist. On November 26 it was turned over to the FBI, and the following day was delivered to the presidential physician at the White House.

The crucial fact may be found in the report of the pathologist who examined the fragment. Dr. A. B. Cairns, chief pathologist at Methodist Hospital, told the FBI his examination disclosed that "the bone specimen looked like it ca ne from the occipital [rear] region of the

skull." It is difficult to understand how a shot from the rear could drive a piece of the occipital bone 25 feet to the left of the vehicle's path. It is not so difficult to understand how a shot from the right front exploding through the rear of the skull could produce precisely that effect.

The nature of the head wound itself should give some indication of the direction of the shot. Our most detailed description of the Kennedy head wound appears in the testimony of Parkland physician Dr. Robert N. McClelland:

"As I took the position at the head of the table . . . I was in such a position that I could very closely examine the head wound, and I noted that the right posterior portion of the skull had been extremely blasted. It had been shattered, apparently, by the force of the shot so that the parietal bone [in the rear of the skull] was protruded up through the scalp and seemed to be fractured almost along its right posterior half, as well as some of the occipital bone being fractured in its lateral half, and this sprung open the bones that I mentioned in such a way that you could actually look down into the skull cavity itself and see that probably a third or so, at least, of the brain tissue, posterior cerebral tissue and some of the cerebellar tissue had been blasted out."

Dr. McClelland is quite clearly describing the effect of a bullet that *exited* through the rear of the President's head

ASSASSINATION

and that therefore had entered through the front. Given such a wound, how could the Bethesda autopsy fail to reveal its true character?

First of all, the Bethesda doctors could have overlooked the entry hole, a common happening in such cases, according to Dr. Milton Helpern. "Often, very often, wounds of entrance in the head are completely overlooked because they are covered naturally by the hair," says Dr. Helpern. "The wound may barely bleed at all. If you don't take a comb and go over the entire scalp inch by inch, separating the hair carefully and meticulously, it's easy to miss a head wound entirely. There is no evidence that this type of examination was made."

Nor should the possibility be ruled out that the explosive impact of two bullets on the President's skull blew out all traces of the right-front entry. What the Bethesda doctors found was an enormous wound in the President's head (Commander Boswell told me that the President's brain was quite easily removed without recourse to surgery) with a small entry hole in the right occiput. On the basis of this information the Bethesda doctors concluded, incorrectly, that the bullet that entered the back of the President's skull blew out the right top of his head.

The bullet that entered the rear of the President's head obviously was fired from behind the limousine. But what about the bullet that blew out the back of the President's head? Where exactly did it come from?

THE STOCKADE FENCE

A wooden stockade fence five feet high at the top of a grassy slope partially bounds the north side of Elm Street and then angles sharply back from the street. The evenly cropped branches of a hedgerow in front of the fence leave a gap some 18 inches high between the serrated fence top and their spreading foliage. Behind the fence a small parking lot for railroad employees gives way to the railroad yards beyond. Dominating the yards and controlling their maze of switches, tracks, and signal lights is the north tower of the Union Terminal Railroad

On November 22, 1963, Lee Bowers worked the 7 A.M. to 3 P.M. shift as "tower man" in the north tower. From his perch 14 feet above the ground Bowers had a grandstand seat for observing some unusual happenings in the area of the stockade fence and the parking lot behind.

"At about 11:55 A.M.," he testified, "I saw a dirty 1959 Oldsmobile station wagon come down the street toward my building. This car had out-of-state license plates with white background and black numbers, no letters. It also had a GOLDWATER FOR '64 sticker in the rear window. This car just drove around slowly and left the area. It was occupied by a middle-aged white man with partly gray hair. At about 12:15 P.M. another car came in the area with a white man about 25 to 35 years old driving. This car was a 1957 Ford. black, 2 doors, with Texas license. This man appeared to have a mike or telephone in the car. Just a few minutes after this car left at 12:20 P.M., another car pulled in. This car was a 1961 Chevrolet Impala, 4 door, color white. and dirty up to the windows. This car

also had a GOLDWATER FOR '64 sticker. This car was driven by a white male about 25 to 35 years old with long blond hair. He stayed in the area longer than the others. This car also had the same type license plates as the 1959 Oldsmobile. He left the area about 12:25 P.M. About 8 or 10 minutes after he left, I heard at least three shots very close together. Just after the shots the area became crowded with people coming from Elm Street."

(Apparently Lee Bowers was not the only person watching the parking lot and stockade fence to the north of Elm Street. About half a minute before the motorcade passed the corner of Elm and Houston streets. Ronald Fischer noticed a young man standing at a sixth-floor, southeast-corner window of the depository, staring transfixed in the same direction.)

Bowers had worked in the north tower for over 10 years, and hence knew by sight the railroad employees who worked in the yards. On that Friday morning he noticed two men he had never seen before standing behind the stockade fence. "They were standing within ten or fifteen feet of each other, Bowers told the commission, "and gave no appearance of being together, as far as I knew. They were facing and looking toward Main and Houston, and following the caravan as it came down." Just as the shots rang out, Bowers noted some "commotion" near the stockade fence. "I just am unable to describe [other] than it was something out of the ordinary, a sort of milling around," he testified.

S. M. Holland, who observed the scene from the overpass, told me how he had spotted a puff of smoke on the grassy knoll at the time of the shooting. "Right under these trees here," he said, pointing to a picture of the knoll, "right at that exact spot—just like somebody had thrown a hrecracker and left a httle puff of smoke there. It was white smoke."

In all, at least seven people standing on the overpass saw smoke in the area of the parking lot and the stockade fence. Holland and two witnesses were so sure a shot had come from the corner of the fence that (as soon as the President's car disappeared beneath them) they ran to their left off the overpass and into the parking lot adjoining the fence. Jumping over bumpers and crawling over hoods, they arrived near the corner of the fence a minute or two later. They recalled that "there were tracks and cigarette butts laying where someone had been standing on the bumper looking over the fence." Deputy Sheriff Weitzman joined the railroad workers at about this time and later reported noticing "numerous kinds of footprints that did not make sense because they were going different directions." Holland gave a similar description of these strange footprints: "They didn't extend further than from one end of the bumper to the other. That's as far as they would go It looked like a lion pacing a cage."

If we suppose that someone was standing here (some 10 to 15 feet down from the fence corner) at the time of the shooting, then what happened to this individual? How did he disappear?

Holland himself has provided a plausible suggestion: "Just to the west of the station wagon." Holland told us, "there were two sets of footprints that

left.... They could've got in the trunk compartment of this car and pulled the lid down, which would have been very, very easy." Since the trunk compartments of cars in the lot were not searched, a confederate may have returned to the area sometime later and driven the car away.

If the person did not secrete himself in a car trunk, then, since crowds were soon entering the lot from east and south, he must have made good his escape to the northwest. It is possible J.C. Price saw such a person escaping the area. Price was watching the motorcade from the roof of the Terminal Annex Building across Dealey Plaza from the knoll.

"I saw one man run toward the passenger cars on the railroad siding after the volley of shots," Price said. "This man had a white dress shirt, no tie, and khaki-colored trousers. His hair appeared to be long and dark and, his agility running, could be about 25 years of age."

There is one final possible solution to the mystery of what happened to

the man behind the fence. He could have stayed right where he was, perhaps mingling with the crowd as it filled the parking lot. The strange adventure of Dallas patrolman Joe Marshall Smith lends credence to such an idea. Smith was directing traffic at the corner of Elm and Houston streets when the shooting occurred. Immediately afterward, a woman rushed up to Smith and yelled, "They are shooting the President from the bushes!" Smith ran down Elm Street and entered the parking lot behind the stockade fence. An FBI report from December 9 tells part of the story of what he found there: "He stated that he did smell what he thought was gunpowder in the parking lot near the T.S.B.D [the book depository]."

Smith also testified about his meeting a man at the scene. "I pulled my pistol from my holster, and I thought. this is silly. I don't know who I am looking for, and I put it back. Just as I did. he showed me that he was a Secret Service Agent." By checking the individual reports of the Secret Service agents who accompanied the motorcade we know that *none* of them remained at Dealey Plaza, but that *all* went with the motorcade to Parkland Hospital. Who was the man? To this day no one knows.

RECORDS BUILDING

Quite clearly the fourth bullet—the one that exploded the President's head—came from the stockade fence. But where did the other three come from?

We know a good deal about the path of the second shot, the one that hit Governor Connally. From the Zapruder film we can determine the position of the governor's body at the instant of impact. The trajectory of the bullet through the governor's body had a declination of 27 degrees-an angle too steep to permit a trajectory from the sixth-floor window of the depository at the time the governor was shot. This angle, however, would match the roofline of the buildings along Houston Street. And Governor Connally had his back to these buildings at the time he was shot.

Is there any independent evidence that a shot came from any of these buildings? F. Lee Mudd later reported that he thought one or more of the shots came from the direction of the Dal-Tex Building. Standing at the north curb of Elm Street, he dropped to the ground when the shots were fired and looked toward the Elm/Houston corner.

Within minutes of the assassination a young man was arrested by police in the Dal-Tex Building. The police report states only that the suspect "had been up in the building across the street from the book depository without a

good excuse," and that he had been taken to the sheriff's office. Curiously enough the sheriff's office interrogation report shows no record of this man or what alibi he gave. He apparently arrived at the sheriff's office and then disappeared in the confusion of the moment.

Eyewitness Charles Brehm told the FBI that "it seemed quite apparent to him that the shots came from one of two buildings back at the corner of Elm and Houston streets." Assistant District Attorney Sam Paternostro

told the same agency that he recalled hearing a shot that "came from the depository or the Criminal Courts Building or the triple overpass." Other witnesses pointed more directly to the Records and Criminal Courts buildings.

Elsie Dorman watched the motorcade from an open fourth-floor window of the depository. Two days after the assassination she told the FBI she "felt that these shots were coming from the area of the Records Building."

Otis N. Williams watched the motor-

the Criminal Courts Building would lie between Williams and the "courthouse."

Putting all the available data together, it is possible to infer the trajectory of the bullet that struck the governor. As the photograph that opens this article indicates, the most probable point of origin for such a bullet would be the roof of the Dallas County Records Building.

THE DEPOSITORY

We still have to trace two bullets to their origins: the shot that hit the President in the upper back, and the one that struck him in the lower part of his skull, driving his head forward.

The paucity of information concerning the Kennedy back wound makes it impossible for us to establish the trajectory of the first shot from medical evidence alone. However, other evidence can establish the location of the gunman who fired the first shot. Two photographers, Robert Jackson and Malcolm Couch, riding in an open press car on Houston Street, looked up at the depository just after the final shot and saw a rifle barrel being withdrawn from the corner window of the sixth floor. At least four other witnesses declared in sworn affidavit or testimony that they also saw a rifle being fired from the depository. Of these witnesses Howard L. Brennan gave the most detailed description of the shots. Sitting on a retaining wall at the corner of Elm and Houston streets. Brennan had an unobstructed view of the motorcade and the depository towering behind it:

"After the President had passed my position . . . I heard this crack that I positively thought was a backfire. . . Well, then something, just right after this explosion, made me think that it was a firecracker being thrown from the Texas book store. And I glanced up. And this man that I saw previous was aiming for his last shot. . ."

DID OSWALD DO IT?

We are left with one obvious ques-

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ASSASSINATION_

cade from the steps of the depository. Just after the presidential limousine had passed the building and dipped out of sight down Elm Street, Williams "heard three loud blasts." The FBI report goes on to say that Williams "thought these blasts came from the location of the courthouse." Both the Dallas County Records Building and tion. If there were at least three assassins, was one of them Lee Harvey Oswald?

The chief objections to the commission's case against Oswald have been known for a long time. The lack of fingerprints on the rifle, the extremely small time interval between the last shot and Oswald's encounter with Superintendent Roy Truly and police officer Marrion Baker on the second floor of the depository, the difficulties in accounting for when and how he brought the rifle into the building, his relatively poor skill as a marksmanall these points had long led assassination researchers to look with skepticism on the presumption of Oswald's guilt.

For an equally long time I was skeptical of the skeptics. For if Oswald was not the gunman in the depository, then who was? Not a trace of another gun-

man or his means of escape had turned up. And Oswald *was* in the building, and his gun *was* used. Surely, even in spite of the objections raised, it seemed more reasonable to believe in Oswald's guilt than in the existence of some shadowy "other assassin."

Over the last year I have been forced to revise this earlier judgment. My researches in the National Archives together with discoveries in Dallas suggest that Oswald may not have been the gunman in the sixth-floor window, that during the shooting he was quite likely where he said he was (on the first floor), that two conspirators other than Oswald may well have been on the sixth floor of the depository during the shooting, and finally, that both of them could have made their escape in a lightcolored Rambler station wagon.

Where was Oswald during the shooting? Charles Givens, an employee of the depository, testified that he saw Oswald at 11:55 A.M. on the sixth floor with a clipboard in his hands. Five minutes later Eddie Piper saw him on the first floor. Carolyn Arnold also thought she saw Oswald on the first floor "a few minutes before 12:15 P.M."

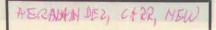
The time factor is critical, for at exactly 12:15 Arnold Rowland, standing on Houston Street. was already observing a gunman at a sixth-floor window.

The gunman was standing at the far southwest window; he had dark hair in a close cut, was of undetermined height and slender build, and had on dark pants and "a very light-colored shirt, white or a light blue or a color such as that . . . open at the collar." Rowland was able to pinpoint the time exactly as he had just noticed the Hertz clock atop the depository—it was 12:15 P.M.

Clearly if Oswald was on the first

floor at 12:15—as he later said he was he could not be the gunman Rowland saw on the sixth floor. Moreover, there is other evidence that suggests that two other men were on the sixth floor at the time of the shooting.

A clue that two men may have been involved is first provided by a meeting some days before the shooting that was witnessed by Frances Hernandez, a seamstress in the Dal-Tex Building.



An F.B.I. report recently discovered tells her story:

"Frances Hernandez, 1917 Annex, advised she, Josephine Salinas and Henrietta Vargas, all employees of McKell Sportswear Company, second floor, 501 Elm Street, Dallas, while on their way home about 5:10 P.M. on November 19, 1963, and after leaving the parking lot near the Texas School Book Depository, observed two men with an automobile, about a 1956 Buick, color light blue. The older of the two men was observed to hand a rifle to the younger of the two men, who then walked from the Buick toward a white car which was a compact, but she did not know the make of it. She stated the younger man might have been Lee Harvey Oswald, but she is not able to say definitely it was Oswald."

In addition to the resemblance of the younger man to Oswald, two items in this account stand out: (1) Two men were involved, one older than the other, (2) the younger man took the rifle and walked toward "a white car which was a compact."

On the day of the assassination, Carolyn Walther watched the motorcade from the east curb of Houston Street. 50 to 60 feet south of the Elm/Houston corner. Shortly after the shooting she talked to the F.B.I., whose report states:

"She looked back toward the |depository] building and saw a man standing on either the fourth or fifth floor in the southeast-corner window. This man had the window open and was standing up, leaning out the window with both his hands extended outside the window ledge. In his hands this man was holding a rifle with the barrel pointed downward, and the man was looking south on Houston Street. The man was wearing a white shirt and had blond or light-brown hair. . . . In the same window, to the left of this man, she could see a portion of another man standing by the side of this man with a rifle. This other man was standing erect, and

his head was above the opened portion of the window. As the window was very dirty, she could not see the head of this second man. She is positive this window is not as high as the sixth floor. This second man was apparently wearing a brown suit coat, and the only thing she could see was the right side of the man, from about the waist to the shoulders."

It is not disturbing that Mrs. Walther is mistaken about the floor. Others have also been confused about which floor they were looking at. In point of fact, the southeast-corner window on the fifth floor was occupied at that time by three Negroes. But whatever happened to the brown-coated man seen by Mrs. Walther?

James Worrell, who was walking along Houston Street, saw a man run out the back of the depository shortly after the shooting. In later testimony, Worrell said the man was wearing a sport or suit jacket, possibly brown.

The last time Worrell saw his man, he was moving quickly south along Houston Street. Trying to trace this man's movements. I discovered in the Archives the testimony of a steelworker named Richard Randolph Carr. Around noon on November 22 he was climbing

a steel stairway of the new courthouse building, then under construction at the corner of Houston and Commerce streets. Looking over toward the depository, he saw a man at a window on the top floor, who, he said, "was wearing a tan sport coat and horn-rimmed glasses." Was this the same man Worrell saw leaving the depository a few minutes after the assassination? We cannot be sure—a coat that appeared to be brown to Worrell might have looked tan to Carr-but we do know that shortly after the shooting Carr saw the man he had seen earlier in the book depository

He told the FBI: "This man, walking very fast, proceeded on Houston Street south to Commerce Street, then east on Commerce Street to Record Street, which is one block from Houston Street. This man got into a 1961 or 1962 gray Rambler station wagon which was parked just north of Commerce on Record Street. The station wagon, which had [a] Texas license and was driven by a young Negro man, drove off in a northerly direction."

This is our last glimpse of the tancoated man. It is not our last glimpse of a light-colored Rambler station wagon, with a Texas license plate and driven by a dark-skinned man.

On November 23 Sheriff's Deputy

"About this time I heard a shrill whistle, and I turned around and saw a white male running down the hill from the direction of the Texas School Book Depository Building, and I saw what I think was a light-colored Rambler station wagon with luggage rack on top pull over to the curb, and this subject who had come running down the hill got into this car. The man driving this station wagon was a darkcomplected white male. I tried to get across Elm Street to stop the car and talk with subjects, but the traffic was so heavy I could not make it. I reported this incident at once to a Secret Service officer, whose name I do not know, then I left this area and went at once to the building and assisted in the search of the building.

"Later that afternoon I heard that the city had a suspect in custody, and I called and reported the information about the suspect running down the hill and getting into a car to Captain Fritz, and was requested to come at once to city hall. I went to the city hall and identified the subject they had in custody [Oswald] as being the same person I saw running down this hill and get into the station wagon and leave the scene."

Later, Craig amplified his report before the commission. The man running down the incline was "a white male in his 20's, 5'9", 5'8"... about 140 or 150... blue trousers... and a light-tan shirt." The man driving the station wagon "was very dark complected, had real dark short hair, and was wearing a thin white-looking jacket ... my first glance at him he struck me as a Negro. The station wagon was a light-colored Nash Rambler with a luggage rack and a Texas license."

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We know Oswald could not have been the man Craig saw running down the incline—at that very moment he was riding in William Whaley's taxicab to his Beckley Street apartment.

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With this in mind, Government investigators have scoffed at Craig's testimony and his claim that Oswald made his getaway in a Rambler station wagon.

But in the spring of this year I discovered corroboration for Craig in an FBI report, dated November 23. "Marvin C. Robinson advised that between 12:30 and 1 P.M. on the afternoon of November 22, 1963, he crossed the intersection of Elm and Houston streets shortly after the assassination of President Kennedy. Robinson stated that after he crossed Houston Street and was in front of the Texas School Book Depository building a light-colored Nash station wagon suddenly appeared before him. He stated this vehicle stopped and a white male came down

the grass-covered incline between the building and the street and entered the station wagon, after which it drove away in the direction of the Oak Cliff section of Dallas."

Who was this individual who looked so much like Oswald that Craig mistook his identity? It has been suggested that he may have been the "second Oswald" who figured so prominently in preassassination activities.

What is intriguing about this pattern of evidence is the way in which the details interlock. None of these witnesses could have known of the others' reports. Yet Carolyn Walther described the two men in the window in such a way that the gunman could have been the "second Oswald" Craig and Robinson saw entering the station wagon, while his accomplice could have been the figure seen by Worrell and Carr. Worrell, moreover, described the man fleeing from the back entrance of the depository as moving in a direction that would bring him into contact with Carr. Finally, Carr's description of the station wagon and its driver dovetails perfectly with the descriptions that were furnished by Craig and Robinson. And this vehicle, we recall. Carr saw headed in a northerly direction on Record Street-two blocks north, a left turn, and it would be headed down Elm Street in front of the depository.

What does this collection of new evidence prove? It does not *prove* that the assassination was a conspiracy, and that two men were together on the sixth floor of the depository at the time the shots were fired. Nor does it *prove* Oswald's innocence. What it does suggest is that there are threads in this case that should have been unraveled long ago instead of being swept under the Archives' rug. It also shows that the question of Oswald's guilt must remain—four years after the event still unanswered.

With few exceptions, all the evidence discussed in this study was available to the Warren Commission. But the commission, in its haste, its uncritical evaluation of the facts, and its predisposition to prove Lee Harvey Oswald the lone assassin, overlooked much of it.

Who did kill President Kennedy? This question also remains unanswered. It is beyond the scope of this examination. The purpose of this study was to perform a task of archaeology, to lay bare a whole level of contradictory evidence (much of it never published) that lay buried beneath the facile conclusions of the Warren *Report*. Now it has been brought to light. If its introduction makes necessary the emergence of new conclusions, then so be it. \Box

Editorial

The Kennedy assassination: Something rotten...



Almost a year ago we published an article by Richard J. Whalen that raised some major questions about the assassination of President Kennedy and demonstrated fairly conclusively that the Warren Commission was wrong. At that time we urged an official reopening of the investigation not a spectacular public "trial" but a quietly meticulous reexamination of the disputed evidence. We were not alone in this proposal. *Life* magazine, for one, expressed a similar view and, indeed, any number of independent observers who have studied the case have come to the same conclusion.

The results have been virtually nil. It is astonishing, really, that charges of such gravity should produce so little effect. It is charged, to begin with, that a national commission, headed by the Chief Justice of the United States, did a sloppy job, overlooked or distorted important evidence and came to the wrong conclusion. It is charged that Lee Harvey Oswald could not possibly have fired the single bullet 399 through both the President and Governor Connally. It is charged that there may have been other assassins, and the implication is that there was a conspiracy to kill the President, a conspiracy that succeeded not only in committing the murder but in disguising itself so that most of the conspirators went free-and are free to this day. The official answer to all this is that there is no answer. The case is closed.

It is also astonishing that the only official to take any action should be a local district attorney in New Orleans, James Garrison, who claims that he has solved the case and expects to get several convictions based on his solution. Garrison's solution is that there were a half-dozen conspirators, some of them Cuban exiles embittered by Kennedy's failure to overthrow Fidel Castro, some of them simply pathological malcontents. Several skilled reporters, including James Phelan of the Post, have looked into Garrison's charges and found them unconvincing, and indeed Garrison's "conspirators" include so many odd and confused characters that it seems hard to believe they could ever carry off a plot of such skill and audacity. On the other hand, Garrison's defenders, among whom the most vociferous is Garrison himself, argue that he is proceeding with a perfectly straightforward prosecution, that the indictments he asked have been

voted by a grand jury, and that he expects to prove his case in court. Perhaps, but we are unable to judge Garrison's case from a distance.

What is clear, however, is that Garrison has received little or no help from officials outside his jurisdiction, and that any suspected conspirator who can avoid the grasp of the New Orleans authorities remains as free as before. In this issue of the *Post* we bring the whole question up again. By publishing a major excerpt from Josiah Thompson's new book, *Six Seconds in Dallas*, we declare once again that we believe the Kennedy mystery has not been solved, that the case is not closed.

It is painful, and even disgusting, to read the clinical details of the President's wounds. It is difficult, and sometimes tedious, to study such technicalities as the Zapruder film and the firing speed of a Mannlicher-Carcano rifle. Many readers—and perhaps many officials, too—react to the whole subject by turning away and trying to avoid it. It is easier to fall back on the knowledge that the Warren Commission consisted of honorable men, and that they would not have done less than the best that could be done. Similarly, if J. Edgar Hoover and the Justice Department treat the case as closed, if the Kennedy family treats the case as closed, what is the point of amateurs and outsiders poking around in the ashes?

One returns, inevitably, to those clinical details, those bits of evidence that seem to have been systematically misread or misinterpreted. For as Thompson analyzes and arrays them, they cry out for the truth to be told and for the murderers to be punished. It has been said too often that Americans cannot face the truth about themselves, about their secret fears and hatreds, about the violence that afflicts their whole society. The reactions to the Kennedy assassination have always illustrated that self-evasion. From the first moment, when we couldn't believe it had happened, to that bizarre moment of Lee Oswald's death in front of the television cameras, when we were in a sense relieved to be rid of him, to the present moment, when every suspicion is shushed up as a violation of the President's memory, we have struggled to avoid the unavoidable question of what actually happened and why. Is the question really too ugly to be raised, or are we just too childish to face reality?