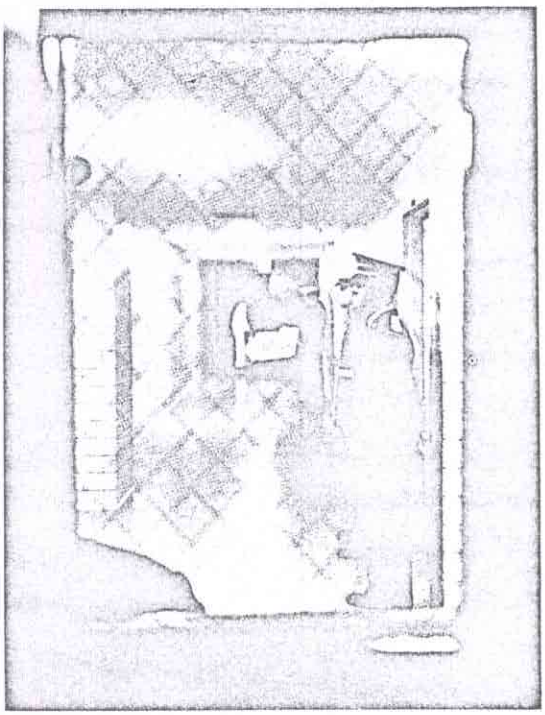
3/7/66

A top medicolegal expert charges:

"President Kennedy's autopsy

By Marshall Houts

The expert is Dr. Milton H. Helpern, who as chief medical examiner of New York City is one of the world's top medical detectives. He himself has either performed or supervised some 60,000 autopsies. The following article gives his eye-opening commentary on the Kennedy autopsy, which remains one of the most tantalizing pieces in the whole jigsaw puzzle of the assassination. The physicians who performed the autopsy, Dr. Helpern believes, weren't qualified for the job and were assigned to it on the false yet widely held assumption that almost any doctor can do an autopsy. Though they did their best under the difficult circumstances, he says, they simply weren't up to shedding light on how many bullets were fired and determining the angle from which those striking the President entered the body. Then, says Dr. Helpern, the Warren Commission failed badly to clarify the medical issues of the President's death and thus cast doubt on its findings.



Medicine's untapped gold mine

The accompanying article by Marshall Houts presents the view of Dr. Milton H. Helpern, chief medical examiner of New York City, that if the autopsy on President Kennedy had been performed by experts, much light might have been shed on the assassination. The fact that the autopsy was bungled, says Dr. Helpern, is but one outstanding example of what can stem from our national neglect of forensic medicine—a specialty in which the ability to perform and interpret an autopsy is of major importance. Most medical schools in the U.S. ignore forensic medicine; only a small fraction of their graduates ever get sufficient exposure to the subject to know even what it covers.

"In communities all over the United States, unqualified doctors are called on to determine whether a bullet wound is a wound of entrance or a wound of exit; whether bruises about a deceased's neck are consistent or inconsistent with some police officer's theory of manual strangulation; whether a burned body was dead or alive at the time of the fire; whether a newborn infant found in a garbage can ever breathed or was stillborn; whether a body found submerged in water drowned or was dead before it was thrown into the water; whether cuts and other marks on a body are consistent or inconsistent with a theory of suicide; whether death from a heart attack occurred before an automobile accident and caused the accident, or whether the accident occurred first and caused the heart attack; whether a stockbroker's anxieties over a falling stock market caused his death so that his widow and children are entitled to payment under workmen's compensation laws; whether a workman's heart attack was caused by carbon monoxide fumes produced by a motor in the room where he worked; or whether any one of a hundred other things took place in this whole great area of death that may control the happiness, liberty, peace, and financial security of the living who are left to deal with the trauma of death."

Not only is medical education neglecting forensic medicine, says Dr. Helpern, but medical research also largely ignores it. "I don't know of a single, solitary, *major* research project under way in the field of forensic medicine. There isn't any money available to research death. I have no quarrel with the billions being spent to explore space and send people to the moon and Mars. I do think we're missing a bet here on earth that's a little closer to home, even though considerably less glamorous.

"Take the problem of determining the exact time of death. We haven't made any progress on that since I first got into this business. The body has the answer for us, just waiting to be discovered. But who has the time or money to do it? No one.

"I want to see some well-organized, well-financed research projects in every facet of this subject of death. With proper research we could, for example, devise methods of determining the approximate age of a clot in a coronary artery. We could then determine whether an accident came first and caused the clot, or whether the clot came first and caused the accident. Hundreds of millions of dollars in insurance claims every year hinge on this one simple question; but at present we are operating purely by medical guess.

"There are dozens and dozens of other facets of the subject of death that must be researched. In our office alone, we now have detailed records on almost 1,000,000 deaths. We don't have the personnel or money to make sufficient statistical arrangement of these records for research purposes. They are just filed away by name. A great many medical discoveries in the past have been arrived at through the proper use of medical statistics. For all anyone knows, the answer to cancer or heart disease or a dozen other medical problems may be lying right in our filing system in the medical examiner's office in New York. If we put all this dormant information on tapes and into computers, there's no way of even guessing what discoveries might be made."

was bungled!"

As chief medical examiner of New York City, Dr. Milton H. Helpern has either performed or supervised approximately 60,000 autopsies. About 10,000 of these have involved bullet wounds. No one else comes close to his vast experience in this aspect of forensic medicine. So it's with good reason that he's often asked for his views on President Kennedy's assassination and the Warren Commission's findings.

"The Warren Commission," Dr. Helpern says, "had an opportunity to settle once and for all a great many confusing doubts about the assassination. Yet because none of its members or its legal staff had any training in forensic medicine, that opportunity fell by the wayside."

But even before the commission came into being, Dr. Helpern feels, another opportunity to eliminate doubts and questions about the tragedy had been fumbled—by three physicians. He refers to those in charge of the autopsy on the President's body.

"I am amazed," Dr. Helpern says, "that the examination and evaluation of the President's wounds could have been handled in the inexpert manner the Warren Commission Report describes. For medical information, the F.B.I. relied on the three doctors who had performed the autopsy. The F.B.I. doesn't have its own experts in forensic medicine. It seldom investigates a murder, since murder usually involves a state jurisdiction only. So bullet wounds aren't the F.B.I.'s long suit."

To appreciate fully the gravity of Dr. Helpern's observations on the medical facets of President Kennedy's death, it's necessary to go back to the historic day of Friday, Nov. 22, 1963. Sometime between 12:30 P.M., when the tragedy struck in Dallas, and the arrival of Air Force One at Andrews Air Force Base just outside of Washington at 5:58 P.M., Mrs. Kennedy decided that the autopsy on her husband's body should be performed at the Naval Medical School in Bethesda, Md. She'd been given two choices: either the Army's Walter Reed Hospital or Bethesda. She selected the Naval Medical School because of the President's World War II service in the Navy.

The fact that the choice was left to Mrs. Kennedy, Dr. Helpern says, shows that "We're still under the delusion that an autopsy is a computerized, mathematical type of procedure, one that *any* doctor is capable of performing, especially if he is a pathologist. If he can run a correct urinalysis this automatically qualifies him as an expert on bullet wounds."

There can be no doubt but that this fallacious assumption was largely responsible for the rash of anti-Warren Commission books in the past three years. Their genesis can be traced directly to what was done and not done in an oper-

More on page 252

Condensed from the book "Where Death Delights: the Story of Dr. Milton Helpern and Forensic Medicine" by Marshall Houts. Reprinted by permission of Coward-McCann, Inc. Copyright © 1967 by Marshall Houts. The author, a former F.B.I. agent, has written nine other books on legal matters, including an eight-volume work on trauma.

ating room at the Naval Medical School in the evening hours the day of the assassination.

The burden of performing the autopsy on the President's body fell on Comdr. James Joseph Humes of the Navy, a board-certified pathologist who described his qualifications in subsequent testimony before the Warren Commission: "I received my post-graduate training in pathology in various naval hospitals and at the Armed Forces Institute of Pathology at Walter Reed in Washington, D.C. My current title is Director of Laboratories of the Naval Medical School. . . . I am charged with the over-all supervision of all laboratory operations in the Naval Medical Center, two broad areas: in the field of anatomic pathology, which comprises examining surgical specimens and post-mortem examinations, and in the rather large field of clinical pathology, which takes in examination of the blood and various body fluids.

"My type of practice has been more extensive in the field of natural disease than violence. However, on several occasions in various places where I have been employed, I have had to deal with violent death, accidents, suicide, and so forth. Also I have completed a course of forensic pathology as part of my training. . . .

"My first assistant [at the autopsy] was Comdr. J. Thornton Boswell, whose position is Chief of Pathology at the Naval Medical School. My other assistant was Lieut. Col. Pierre Finck, who is in the Wound Ballistics Section of the Armed Forces Institute of Pathology."

Commander Humes and Comman-

More on page 257

der Boswell were hospital pathologists, not forensic pathologists. The distinction is important. The hospital pathologist performs his autopsies on cases where death occurs in a hospital, usually as a result of some natural disease process. The cause of death is *presumed* in the great majority of cases because the patient has been under medical treatment. The autopsy is performed to confirm the diagnosis or for research or other academic purposes.

The forensic or medicolegal autopsy has an entirely different setting. The death is usually not attended by a physician. The exact cause of death is crucial because of the legal implications. There may or may not be a suggestive or presumptive lead to guide the autopsy surgeon. If there is a lead, it's frequently misleading. The hospital pathologist is as much out of his field when he attempts a medicolegal autopsy as would be the chest surgeon who attempted a delicate brain operation.

Colonel Finck stated his professional qualifications this way to the Warren Commission: "I had four years of training in pathology after my internship, including two years of pathology at the University Institute of Pathology in Geneva, Switzerland, and two years at the University of Tennessee. . . . From 1955 to 1958 I performed approximately 200 autopsies, many of them pertaining to trauma including missile wounds, [while] pathologist of the United States Army Hospital in Frankfurt, Germany. . . .

"For the past three years I was chief of the Wound Ballistics Pathology branch of the Armed Forces Institute of Pathology. In that capacity I reviewed personally all the cases forwarded to us by the Armed Forces and some civilian cases from the United States and our forces overseas . . . approximately 400 cases. . . . I was certified in pathology anatomy by the American Board of Pathology in 1956 and by the same American Board of Pathology in the field of forensic pathology in 1961."

Of the 200 autopsies he performed in Frankfurt, Germany, Colonel Finck did not give the number that involved bullet wounds in the body. He used the vague term "many." As to the 400 cases during his tenure at the Armed Forces Institute of Pathology, he says, "I reviewed [them] personally." Colonel Finck's 400 "reviewed" cases clearly were not cases in which he presided at the autopsy table and attempted a personal determination as to whether a bullet wound in the body was a wound of entrance or a wound of exit. His duties at the Institute were administrative and supervisory. They did *not* include the performance of autopsies.

These were the three men charged with the responsibility of evaluating President Kennedy's gunshot wounds. They were all officers and gentlemen and accomplished in their respective fields of general pathology. Regrettably, their field was not bullet wounds. This autopsy was forced on them by circumstances over which they had no control. They dared not refuse it.

The natural discomfort of the three autopsy surgeons working in an unfamiliar area—personally evalu-

More on page 260

ating bullet wounds at the autopsy table—was intensified by a goldfish-bowl atmosphere. The arena was jammed with F.B.I. and Secret Service agents and various other persons.

Later, Commander Humes described four wounds in the President's body—two wounds of entry and two wounds of exit. One of the head wounds was located 2.5 centimeters to the right and slightly above the external occipital protuberance. It measured 6 by 15 millimeters.

The second head wound was massive, measuring approximately 13 centimeters in its greatest diameter. It was difficult to measure accurately because multiple crisscross fractures of the skull radiated from the large defect. It involved the right and frontal portion of the skull, which had been exploded off by the force of the bullet. During the autopsy, Federal agents brought the surgeons three pieces of bone recovered from Elm Street in Dallas and from the Presidential automobile. When put together, these fragments accounted for approximately three-quarters of the missing portion of the skull.

There was another wound near the base of the back of the President's neck, slightly to the right of his spine. It was described as being approximately 14 centimeters from the tip of the acromion and the same distance below the tip of the right mastoid process. This wound measured 7 by 4 millimeters. It had clean edges and was sharply delineated.

The fourth wound was just below the Adam's apple. Commander Humes described it this way: "There was a recent surgical defect in the low anterior neck, which measured some 7 or 8 centimeters in length—or let's say a recent wound was present in this area. This wound was through the skin, through the subcutaneous tissues, and into the larynx. Or rather into the trachea of the President. . . . I had the impression from seeing the wound that it represented a surgical tracheostomy wound."

It was only on the morning following the autopsy, when the President's body was already resting in the White House, that Commander Humes, in a telephone conversation with Dr. Malcolm O. Perry in Dallas, learned that the "surgical" throat wound was actually a bullet wound extended by the tracheostomy Dr. Perry had performed.

The autopsy began well enough; Commander Humes describes it in testimony to the Warren Commission: "The President's body was received at 25 minutes before 8, and the autopsy began at approximately 8 P.M. on that evening. . . . However, before the post-mortem examination was begun, anterior, posterior, and lateral X-rays of the head and of the torso were made, identification-type photographs of the full face of the late President, and a photograph showing the massive head wound with the large defect that was associated with it. To my recollection, all of these were made before the proceedings began. Several others, approximately 15 to 20 in number, were made in total before we finished the proceedings."

The taking of X-rays was a promising beginning. This should be done in any bullet wound case. The wanderings of bullets inside the human body

both before and after death are often so bizarre that the only practical way to locate them is through the use of diagnostic X-rays.

The next routine step in any competent medicolegal autopsy involving bullet wounds, after the external examination and the X-rays, is to probe the track of the bullet. A stainless steel rod of small diameter is gently inserted and carefully guided through the wound track. This permits an exact determination of the course of the bullet through the body, its point and angle of entrance, and its point and angle of exit.

Commander Humes made a fumbling effort to probe with his finger the neck wound track that had an entrance perforation of no greater than one-quarter of an inch in diameter. While it is readily understood that not all bullet wounds can be probed, particularly those that strike bone, the wound tracks of bullets that course directly through the body and strike only soft tissue can usually be probed by an experienced forensic pathologist.

There are complicating factors that confuse the novice. "At times," says Dr. Helpern, "the body seems to defy physical laws as it responds to a bullet projected from a gun. Of course, there's a physical explanation for the bizarre paths that some bullets take, but people who haven't had any substantial experience with bullet wounds can be completely misled. If the bullet encounters only soft tissues, it will follow a relatively straight

More on page 264

line. But if it strikes bone, it's hard to predict just where it will go."

He illustrates his premise by pointing out that probably no more than half the people who attempt suicide by shooting themselves in the heart are successful. The bullet strikes the breastbone and is deflected so that it continues around the rib cage, between the bone and the skin. It may come out at the back of the body after causing nothing more than superficial injury; or it may lodge just under the skin, between the skin and the backbone.

Next to bone, the skin offers the greatest resistance to the penetration of a bullet. There are thousands of reported cases in which a bullet passed all the way through the body, only to come to rest just under the skin on the side opposite the point where it entered. The bullet had spent so much of its force that it could not exit through the thin but tough barrier of the skin.

"In about 20 per cent of bullet wounds in the head," Dr. Helpern continues, "the bullet enters and passes through the cranial cavity, then ricochets off the inner table of the skull in a completely different direction. It may carom around inside the skull like a billiard ball bouncing against the cushions of a billiard table."

Even allowing for the vagaries of individual bullet wounds, it has been possible to formulate some general principles that permit the experienced forensic pathologist to be reasonably accurate in his calculations. Regardless of the number or position of the bullet wounds in a given case, the first step is to determine whether each is a wound of entrance or a wound of exit.

When a bullet strikes the skin, it first produces a simple indentation because the skin is both tough and elastic and the tissues underneath aren't rigid and resistant. This stretches the skin immediately under the nose of the bullet. The bullet, which is rotating as well as moving forward, is definitely slowed up at the point of first contact, but it then more or less bores its way through the skin and the tissues underneath and courses on into the body. The skin is stretched by the bullet at the point of entry, then returns to its former condition. Thus the size of the wound of entrance appears smaller than the diameter of the bullet that made it. Usually there is only a small amount of bleeding from wounds of entrance, since tissue destruction at this point isn't great. However, this applies only to wounds from bullets fired at distances in excess of 15 to 18 inches.

Wounds of exit are usually larger than the bullet, since the bullet tends to pack tissues in front of it. These wounds are ragged, torn, and sometimes have shreds of fat or other internal tissues extruding out of them. So wounds of exit may bleed far more extensively than wounds of entrance. However, this is not invariably the case.

"The medical examiner," Dr. Helpern says, "must be on guard for the bizarre, the one-in-a-million case. Such a case is no job for the beginner or the man whose knowledge is limited to what he's learned from a few lectures and textbooks."

Another complicating factor for

the autopsist, Dr. Helpern points out, is that the bullet expends considerable energy as it moves from side to side through the body, so that the initial track is larger than the bullet itself. In most areas of the body, the wound track then collapses, although its original dimension is more or less fixed if it passes through brain tissue. Because the structures of the neck area are of varying densities, a single wound track here may have a different "feel" as the probe is advanced from the point of entry to the point of exit.

Finally, the direction of the wound track may make an apparent change when the body moves. If, as Dr. Helpern believes, President Kennedy received his neck wound while his right hand and arm were raised in a wave to the crowd, the apparent wound track may have been altered slightly when his body was rotated on the autopsy table.

All three of the autopsy surgeons were unanimous in their opinions that the wound through the President's body and neck area did not strike any bony structures. Their lack of experience, compounded by the pressures of this particular autopsy situation, prevented them from ever successfully probing the President's wound. Their later conclusions, therefore, as to the exact route of the bullet through the body are mathematical projections based upon measurements of the position of the two external wounds, one at each end of the track. Because of the tracheostomy that *extended* the wound in the front of the neck, just below the Adam's apple, they had to estimate

More on page 272

. . . Kennedy's autopsy

the exact location of the exit wound made by the bullet. (They did this, of course, only after they'd learned following the autopsy that the throat wound wasn't purely surgical.)

The autopsy on the President's body continued until 11 P.M. Then the body was released to those who would prepare it for burial and take it to the White House, where it arrived at 4 o'clock Saturday morning, Nov. 23.

The weeks following the President's death flowed into months as the F.B.I. and Secret Service painstakingly assembled the evidence, item by item, for formal presentation to the Warren Commission. The world waited expectantly for clarification of the bullet wounds.

An aura of confusion clouded the picture—due primarily to statements made by some of the doctors at Parkland Memorial Hospital in Dallas at a press conference a short time after the Presidential party left for the return trip to Washington. These doctors, who had worked skillfully at the impossible task of restoring life to the dead President, had observed the wound in the President's throat. Dr. Perry, the Dallas surgeon, described it as approximately 5 millimeters in diameter. It was exuding blood, which partially hid edges that were "neither clear-cut, that is, punched out, nor very ragged."

At no time during the interval that the President's body was in Parkland Memorial Hospital did any of the doctors turn it so that the back portion of the body could be viewed or examined. They therefore interpreted the wound in the front part of the neck as being a wound of entrance.

No legitimate criticism can be directed against the doctors in Dallas. They performed their futile tasks creditably. None of them had any great experience with bullet wounds, and they couldn't be expected to make a definitive interpretation of whether the neck wound was a wound of entrance or a wound of exit.

But this, says Dr. Helpern, should have been determined at the autopsy. "The major problem in any gunshot case, of course, is to determine which is the wound of entry, and the wound of exit. This is basic. All the critics of the Warren Commission Report would be left dangling in mid-air unless they could suggest that the hole in the front of the President's throat was a wound of entrance. Deprive them of this opportunity for speculation and you pull the rug right out from under them. Give it to them—and they now have it—and they can bring in all kinds of unreliable eyewitness reports of shots coming from the bridge across the underpass or from behind the screen of trees in Dealey Plaza, and puffs of blue smoke that remained suspended in the air. Smoke from gunshots, by the way, just doesn't behave like that!"

Specifically, how could a positive determination have been made at the autopsy that the throat wound was a wound of exit or a wound of entrance? Wasn't the throat wound gone at the time of the autopsy? In one place, the Warren Commission Report states: "At that time they [the autopsy surgeons] did not know that there had been a bullet hole in the front of the President's neck when he arrived at Parkland Hospital [in Dallas] because the tracheostomy incision had completely eliminated that evidence." At another point the report says: ". . . since the exit wound was obliterated by the tracheostomy."

Says Dr. Helpern: "The staff members who wrote that portion of the report simply did not know enough to seek medical guidance. Here's what the autopsy protocol says about this throat wound: 'It was extended as a tracheostomy incision, and thus its character is distorted at the time of autopsy.' The key word here is *extended.* That bullet wound was not 'eliminated' or 'obliterated' at all. What Dr. Perry did at Dallas was to take his scalpel and cut a clean slit away from the wound. He didn't excise it, or cut away any huge amount of tissue, as the report writer would have you believe."

What about the statement that the character of the throat wound had been "distorted"? "Certainly," says Dr. Helpern, "its character was distorted in the sense that the original wound was extended but this throat wound could still have been evaluated. Its edges should have been carefully put back together and restored to their original relationships as nearly as possible. It should have then been studied and finally photographed. By comparing this throat wound with the wound in the back of the neck, there should have been no room for doubt as to which wound was of entry and which of exit. This would automatically establish the course of the bullet, whether from front to back, or back to front."

Why wasn't this the procedure followed?

"I can only speculate. In the first place, it was the autopsy doctors' lack

of experience. Secondly, at the time they finished their autopsy and closed the body so that it could be prepared for burial, they still labored under the illusion that the bullet had entered the back of the neck, had somehow been stopped in its path, and had then fallen out. So they believed that the hole in the back of the neck was *both* a wound of entrance and a wound of exit. They thought the throat wound was nothing more than a surgical wound, so they felt there was no need to pay it any special attention."

Why did the Warren Commission, as distinguished from the autopsy surgeons, fail to clarify the medical issues of the President's death?

"It failed," Dr. Helpern says, "because it did not have sufficient knowledge in the field of forensic medicine even to appreciate the need to call in an expert with experience in bullet wounds. This lack is evident in the official report itself. For example, it includes all sorts of meaningless pictures of Marina Oswald, Oswald's mother, Oswald as a young boy, Jack Ruby's employes or girl friends in varying states of attire, and nine X-rays of Governor Connally's body. But the X-rays of President Kennedy's body weren't considered significant enough to the investigation to be filed as exhibits to the report. The same holds true of the black and white and the color pictures of the bullet wounds. These were never seen by the commission members, its staff, or even the autopsy surgeons before the report was finalized. The commission said that it would not 'press' for the X-rays and photographs

More on page 278

because these would merely 'corroborate' the findings of the doctors who had conducted the autopsy and that considerations of 'good taste' precluded their publication."

But what about the *drawings* of the President's wounds published in the Warren report? Commander Humes had this to say to the commission: "When appraised of the necessity of our appearance before this commission, we did not know whether the photographs we had made would be available to the commission. So to assist in making our testimony more understandable, we decided to have schematic drawings made of the situation as we saw it. These drawings were made under my supervision and that of Dr. Boswell by Mr. Rydberg. He is a hospital corpsman, second class, and a medical illustrator in our command at Naval Medical School. . . . We had made certain physical measurements of the wounds and of their position on the body, and we provided these and supervised directly Mr. Rydberg in making these drawings. . . . I must state these drawings are in part schematic. The artist had but a brief period of some two days to prepare these. He had no photographs from which to work and had to work under our verbal description of what we had observed."

At this point Arlen Specter, the commission's assistant counsel, inquired: "Would it be helpful to the artist, in redefining the drawings if that should become necessary, to have available to him either the photographs or the X-rays of the President?"

"If it were necessary to have them absolutely true to scale," Commander Humes replied, "I think it would be virtually impossible for him to do this without the photographs. . . . It is most difficult to transmit into physical measurements by word the exact situation as it was seen to the naked eye. . . . I cannot transmit completely to the illustrator where [the wounds] were situated."

Most medical illustrations in articles and textbooks that relate to anatomy are schematic or diagrammatic in nature. In medicolegal situations, however, where the ultimate in accuracy as to the path of a bullet is the goal, the better procedure is certainly to work from the photographs themselves rather than from a schematic medical illustration prepared from a secondhand, hearsay description that is related to the artist orally. In the case of the assassination the security regulations im-

posed were so stringent that the real investigative purpose of taking the photographs and the X-rays was completely obscured.

What might the X-rays show to an experienced observer that could have been completely overlooked by the nonexpert?

"My first interest," says Dr. Helpern, "would be to see whether there could be another bullet or fragment of bullet in the body that has not been accounted for. The commission concluded that the evidence indicated that three shots altogether were fired. Only one relatively intact bullet and the fragments of a second bullet were found. This leaves a missing third bullet. I definitely do not agree with the commission's conclusion that only two bullets caused all the wounds suffered by both President Kennedy and Governor Connally. . . .

"Since the X-rays of the President's body were not filed as exhibits, we must rely entirely upon the observations of the Navy doctors that they skillfully eliminated the possibility that a third bullet, or a fragment of some bullet, did not enter the body and somehow meander down to come to rest in some illogical, remote spot. Apparently the doctors did not feel confident enough to rely on the X-rays during the autopsy when they tried to go probing for the bullet that was found on the stretcher in Parkland Hospital.

"I would also look for trace flecks of metal that might indicate another head wound. This possibility is extremely remote; but it still exists. Quite often, wounds of entrance in the head are completely overlooked

More on page 282

because they are covered naturally by the hair. The wound may barely bleed at all. If you don't take a comb and go over the entire scalp inch by inch, it's easy to miss a head wound entirely. There is no evidence that this type of examination was made."

Would the X-rays help establish whether the two wounds in the neck area were wounds of entrance or of exit?

"No. An X-ray film is nothing more than a photographic record of the different densities of tissues through which the X-ray beam has passed. It will not record defects in the skin and soft tissue that have been caused by a bullet passing through."

What about the black and white and the color photographs?

"These could be of considerable interest and value. A lot would depend on their quality and how they were exposed. Hopefully, they could shed considerable light on the neck wounds. I would, of course, be interested in what the pictures of the rear neck wound would show; but I would be particularly interested in seeing whether the pictures of the throat wound are good enough to permit it to be evaluated and possibly reconstructed."

Where else can the Warren Commission be faulted for what it did or failed to do?

"Their failure to call in someone who knew something about bullet wounds led them into the final trap of buying Assistant Counsel Arlen Specter's theory that the same bullet that passed through the President's neck was the bullet that also wounded Governor Connally, shattering his fifth rib, fracturing a bone

in his wrist, and finally going on to slash his thigh. Now, this bizarre path is perfectly possible. When you are working with bullet wounds, you must begin with the premise that *anything* is possible; but Mr. Specter and the commission overlooked two important things.

"In the first place, the original, pristine weight of this bullet before it was fired was approximately 160-161 grains. The weight of the bullet recovered on the stretcher in Parkland Hospital (Commission Exhibit 399) was reported by the commission as 158.6 grains. This bullet wasn't distorted in any way. I cannot accept the premise that it thrashed around in all that bony tissue and lost only 1.4 to 2.4 grains of its original weight. I cannot believe either that this bullet is going to emerge miraculously unscathed, without any deformity, and with its lands and grooves intact.

"Secondly, Mr. Specter and the commission have asked too much from this bullet. The energy of the bullet is sometimes so spent that it can't quite get out through the final layer of skin, and it comes to rest just beneath the outside layer of skin. If it does get through the skin, it may not have enough energy to penetrate even an undershirt or a light cotton blouse. It has exhausted itself and just more or less plops to a stop.

"This single-bullet theory requires us to believe that this bullet went through seven layers of skin. It passed through the back of the President's neck, then out through his throat; it entered the Governor's back and out through his chest; it next entered the skin on the back of his wrist; it came out through the layer of skin on the inside of his wrist; and it apparently penetrated the layer of skin on his left thigh. In addition to these seven layers of tough human skin, this bullet supposedly passed through other layers of soft tissue; and then these shattered bones!

"I just can't believe that this bullet had the force to do what Mr. Specter and the commission have demanded of it; and I don't think they have really stopped to think out carefully what they have asked of this bullet for the simple reason that they still do not understand the resistant nature of human skin to bullets."

Do these conclusions shed any light on the order of the shots?

"In my opinion, this beautifully preserved bullet that was found in the hospital was the first bullet that was fired. It passed through the President's neck, exited from the throat wound, and was stopped by his clothing, or just plopped out of his neck into his clothing. I've seen hundreds of such cases."

What about the commission's conclusion that this bullet was found on Governor Connally's stretcher in Parkland Hospital?

"It's based on tortured evidence, or inconclusive evidence, to say the

More on page 286

least. No one will ever know for sure which stretcher this bullet came from. In my opinion, the probabilities are that it fell out of the President's clothing while the doctors were administering to him in the hospital. For the sake of argument, however, let's assume that it was found on the Governor's stretcher. This still does not rule out the premise that it was the first bullet that passed through the President's neck. That spent bullet could just as easily have taken an erratic jump out of the President's clothing and lodged in Governor Connally's clothing. These things happen with bullets."

Do you agree with Governor Connally that he was struck by the *second* bullet?

"Yes, I definitely do. His testimony is most persuasive. In my opinion, the second bullet that wounded Governor Connally is the bullet that is missing."

Shouldn't this bullet have been found during the careful search of the limousine in which the two men were riding?

"Not necessarily. It is not unusual at all for spent bullets that have passed through a human body to get lost. If I had to venture a guess as to what happened to the bullet that wounded Governor Connally, I would suggest that it fell out of his pants leg while he was being removed from the car and placed on the stretcher; or it could just as well have fallen out at any stage of his hospital experience."

And the third bullet?

"The third bullet quite obviously is the one that caused the President's massive head wound and his death. Also, either a fragment from this bullet, or a piece of skull, caused the cracking of the windshield and the dent in the windshield chrome on the interior of the limousine, provided these marks on the car were not already present at the time the shooting began."

Is there anything in the over-all pic-

ture that can be considered to cast serious doubt on the principal conclusions that were reached by the Warren Commission?

"I haven't seen the pictures and the X-rays of the President, but on the basis of the evidence that has been made public, the commission reached the correct opinion that all three bullets were fired by one rifleman from the sixth-floor window of the Texas School Book Depository Building. But the unfortunate autopsy and other procedures have opened the door and invited in the doubt and suspicion that have enveloped their work."

Is there anything specifically that Dr. Helpern would like to see done at this point?

"It may well be too late to do anything, since the primary evidence is gone. There is a possibility, however, that the X-rays and photographs of the President's wounds might contain some clarifying information. I would certainly feel more comfortable about the commission's findings if a group of experienced men, who have had a great deal of practical work in bullet wound cases, could take a look at these X-rays and pictures. I have in mind men like Dr. LeMoyne Snyder, author of 'Homicide Investigation,' Dr. Russell Fisher, the chief medical examiner for the State of Maryland, Dr. Frank Cleveland in Cincinnati, and Dr. Richard Myers in Los Angeles. These men are all members of the American Academy of Forensic Sciences. [Giving such men a chance to examine] these pictures and X-rays, *might*, and I emphasize *might*, settle the questions raised by the critics once and for all." END