

HR- on the 20th in has the spectro oral argument before CA. Unless something unusual comes up we'll go from there to his office, whence I'll go to bus station. Lunch?
I'll have with me something I've just come accross while cleaning up. I suspect it is of Nichols origin and wonder about some of it and how the knowledge was obtained. It represents such things as the location of fragments on the JFK X-rays. I'll put this aside to lend you. Perhaps you will want a copy, perhaps can identify source. I have no recollection of it. Best HW 3/5/79

These appear to be the illustrations and captions used in Wacht's Forensic Medicine piece. I have made a copy for myself.

KRL, 3/20/79

FIGURE 1
THE DEALEY PLAZA AREA IN DALLAS,
SCENE OF PRESIDENT KENNEDY'S ASSASSINATION
(Courtesy, J. Cabluck)

North is to the top of the picture in this view. The Texas School Book Depository, location of a lone assassin according to the Warren Commission, is the building with the Hertz sign on top. The street curving downward and leftward from the building is Elm Street, along which the President's car traveled at the time of the assassination.

The so-called "grassy knoll" is the area near and to the left of the "pergola", the curved structure overlooking Elm Street. The shots were fired while the President's car was on a path corresponding roughly to the portion of Elm Street directly opposite the pergola.

Note that at this location of the car, the Depository building was behind and somewhat to the right of the car. The westerly portions of the building were substantially more to the right of the car than the extreme eastern corner where the Warren Commission placed the assassin.

Photo #1

#1 UPA

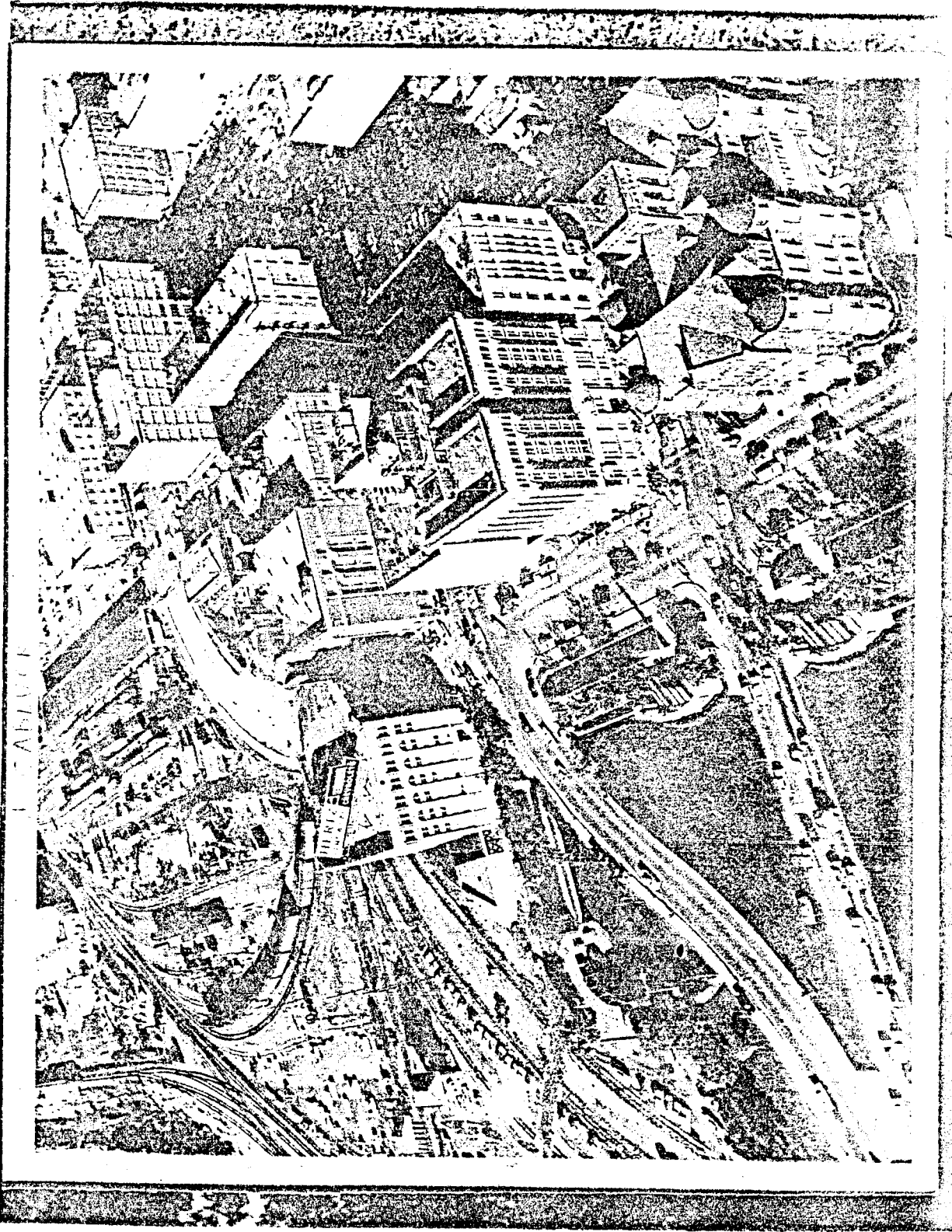


FIGURE 2

PHOTOGRAPH OF THE SOUTH FACE OF THE
TEXAS SCHOOL BOOK DEPOSITORY BUILDING
(Courtesy, Mr. Tom Dillard)

This photograph, according to the man who took it, was taken within a few seconds after the final shot. The window believed by the Warren Commission to have been the location from which the shots were fired is the partly open window on the extreme right of the floor below the top floor.

Note the many other open windows. (Some others off the left edge of the picture are also known to have been open at the time.) Measurements and calculations by the authors indicate that at least two shots were fired from locations substantially further west (leftward in the photograph) of the window specified by the Commission.

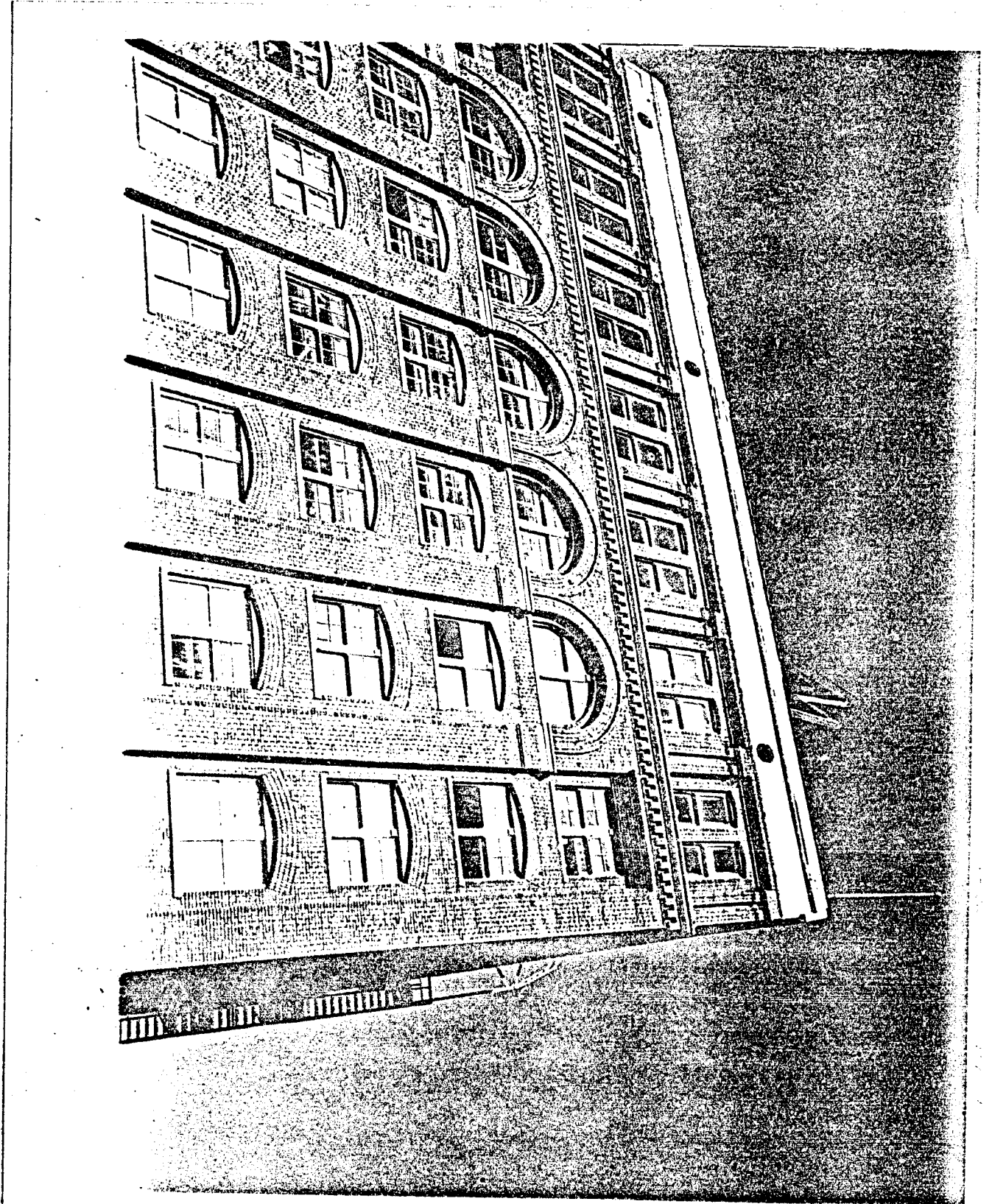


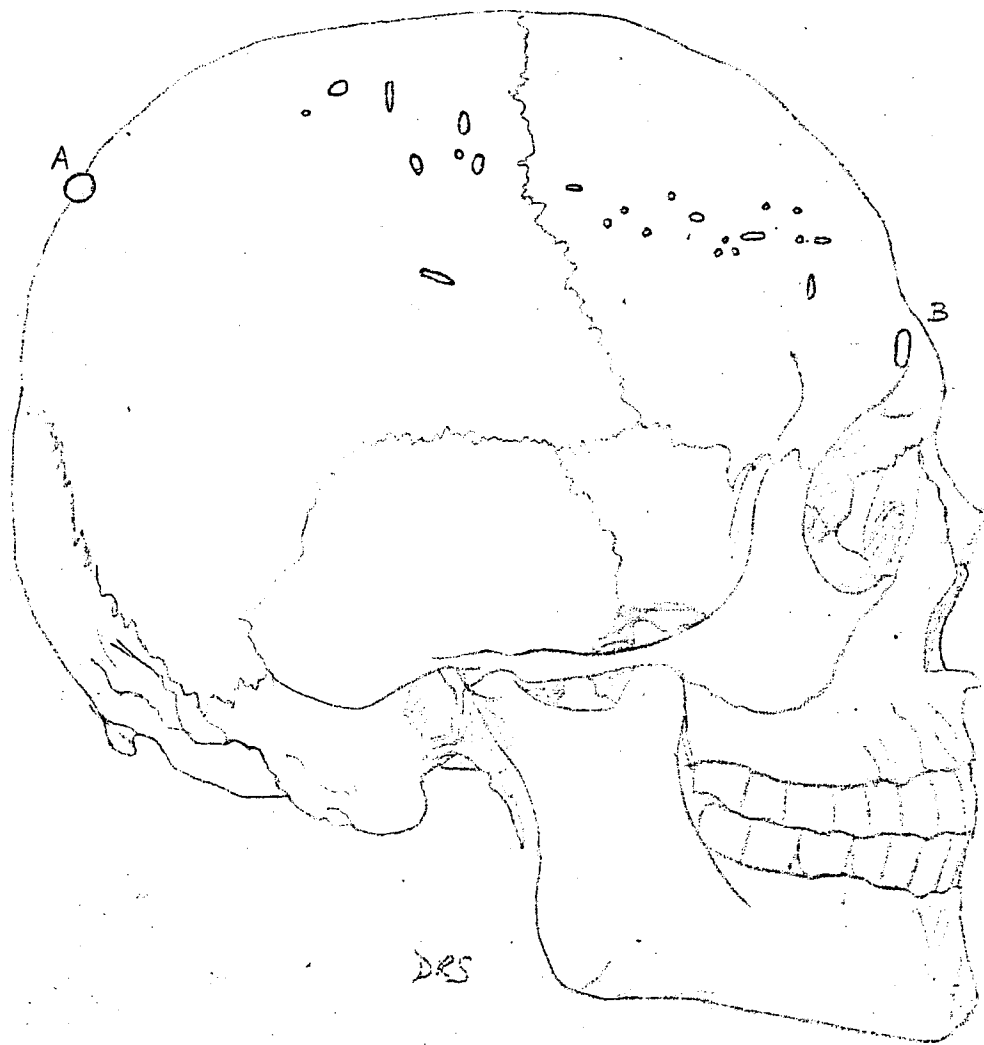
FIGURE 3
APPROXIMATE LOCATIONS OF METALLIC FRAGMENTS
SEEN IN LATERAL X-RAY OF PRESIDENT'S HEAD
(Skull Damage Not Depicted)

Note the sizable fragment at the rear of the skull (A). The location is at the lower margin of the hole of presumed bullet entry. Another sizable fragment is seen in the supraorbital region (B). A fragment from this location is reported to have been removed surgically and later subjected to spectrographic analysis.

Smaller particles are very numerous and appear, from this view, to lie along a track in the parietal and frontal regions. This "track" may be somewhat illusory (see sketch of A-P view).

At the time of bullet impact, the President's head was tilted distinctly forward and leftward. Moreover, the exit point of the bullet or its larger fragments cannot be determined because of the large loss of skull bone in the right parietal and frontal regions. The bullet trajectory therefore cannot be determined, although it is clear that the bullet entered from the rear of the President.

175.



Right lateral view

FIGURE 4

APPROXIMATE LOCATIONS OF METALLIC FRAGMENTS
SEEN IN A-P X-RAY OF THE PRESIDENT'S HEAD
(Skull Damage Not Depicted)

The sizable fragments (A' and B') seen above the right orbit appear to correspond to those noted in the lateral X-ray at the rear and front of the skull.

In this view, the smaller particles appear widely dispersed laterally, suggesting that the "track" seen in the lateral X-ray may be somewhat of an illusion caused by lack of depth perception. This shows the need for sectioning of the brain. Note that a few very small particles are visible even on the left side of the President's head.

There is the appearance of a very small particle on the right side of the mandible near the midline. No density corresponding to this location is seen on the lateral X-ray. Its location could be in the region of the spinal column and thus relate to the President's back wound.

FIG. 4

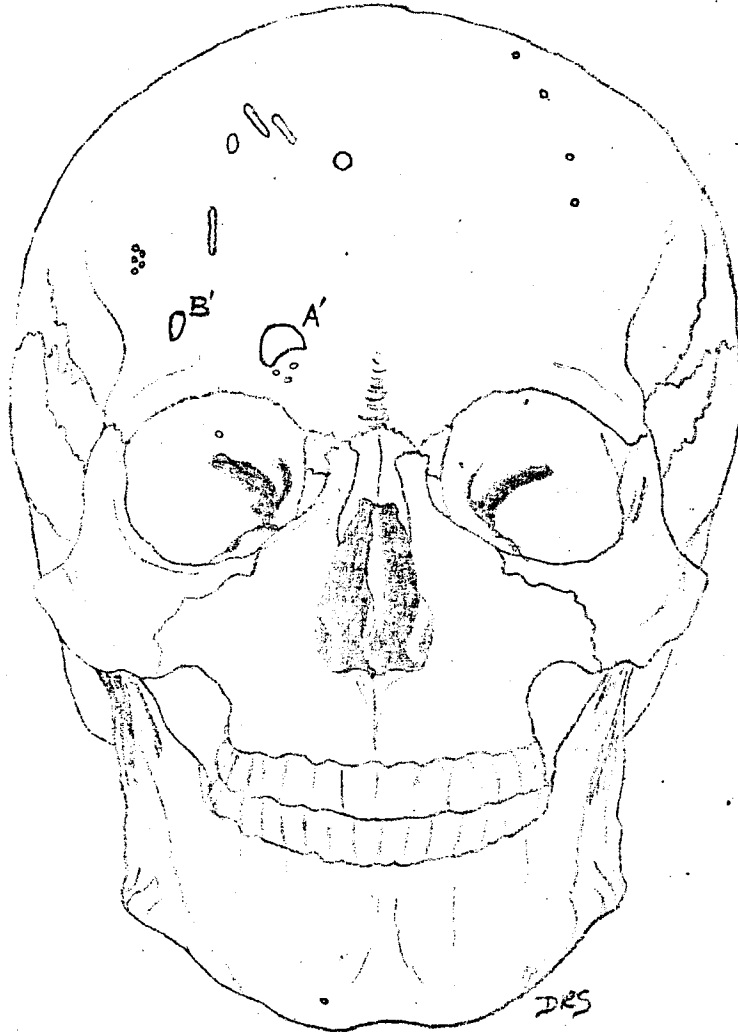


FIGURE 5

APPROXIMATE LOCATION OF THE WOUND IN THE
PRESIDENT'S BACK

The insert shows an enlarged view of the wound with its approximate dimensions. The border of the wound shows a darkened, abraded rim, varying from 0 to 2 mm wide, most noticeably along the lateral margin. This abraded rim is typical of a bullet striking at an appreciable angle off the perpendicular at the point of entry. In this case, the implied direction is primarily from right to left. This direction is also consistent with the reported location of the exit wound at the midline of the anterior throat and the fact that the knot of the President's tie was apparently grazed along the left side as the bullet emerged.

X-rays of this region of the President's body disclose metallic particles to the right of the sixth and seventh cervical vertebrae.

FIG. 5

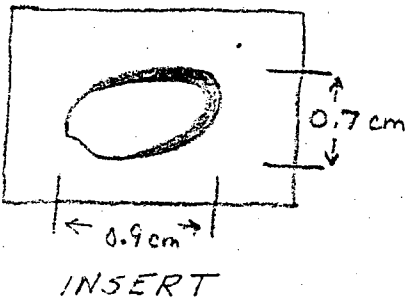
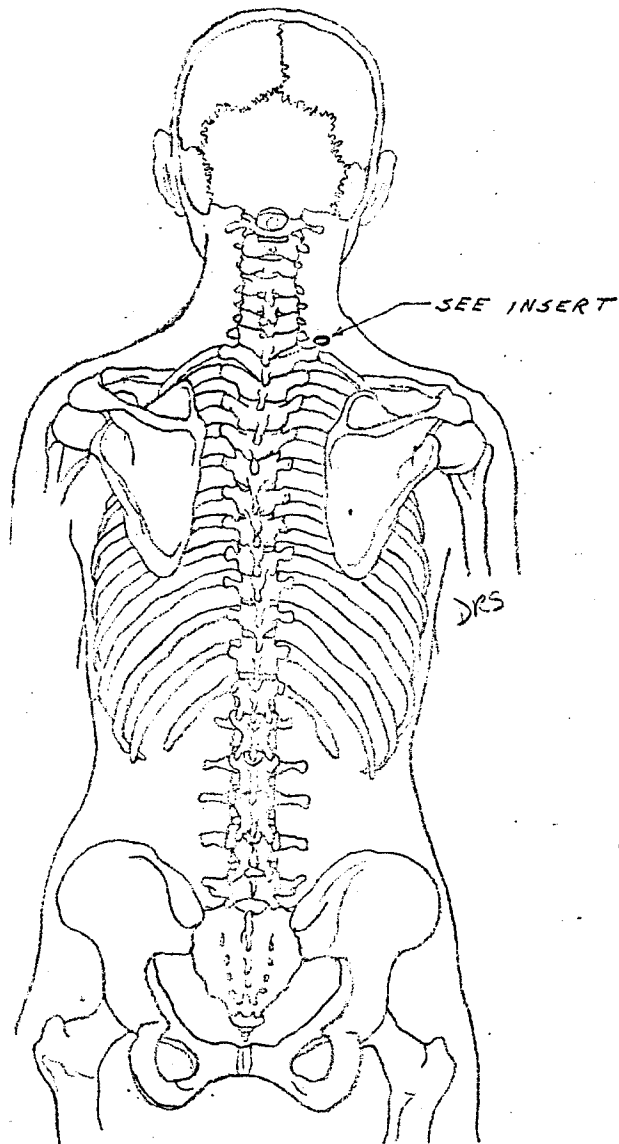


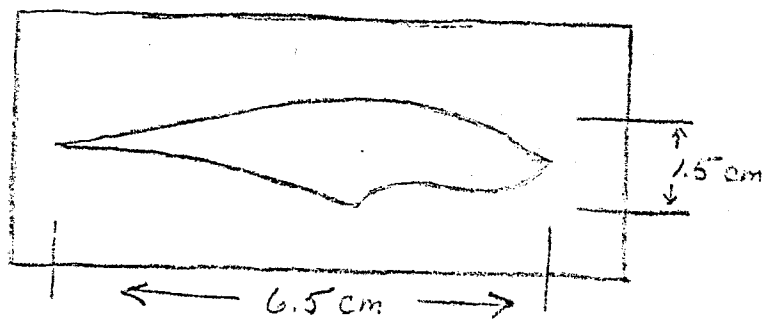
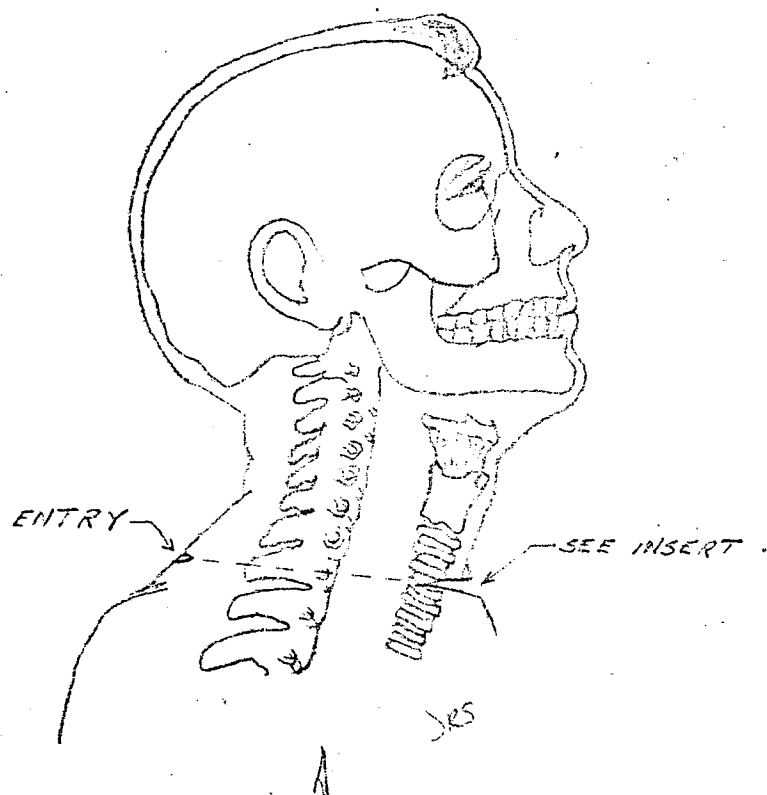
FIGURE 6

SCHEMATIC REPRESENTATION OF THE LOCATIONS
OF THE WOUNDS IN THE PRESIDENT'S BACK AND THROAT

The presumed entry wound is about 6 cm below the lowest crease in the back of the neck. The tracheotomy incision (see insert) is at about the level of the third and fourth tracheal rings (the thyroid gland is not shown in the sketch).

The indicated pathway of the bullet is downward (about 3 cm over a distance of 15 cm), yielding an angle of 11 or 12 degrees, whereas the Warren Commission, without actual measurement of the wound itself, postulated a flight angle of about 18 degrees (after correcting for a 3-degree slope of the street).

FIG. 6



INSERT

FIGURE 7

THREE VIEWS OF COMMISSION EXHIBIT 399
(Courtesy, National Archives)

The Warren Commission postulated that this bullet penetrated the President's upper back and lower neck, traversed Governor Connally's chest (shattering a rib), then pierced his right arm near the wrist (shattering the radius), and finally entered his left thigh, depositing a metal particle in the femur.

Metal particles have been seen in X-rays of all these wound sites, one in the Governor's wrist having been removed and found to be lead weighing half a grain.

Yet the bullet is undeformed except for the flattening of the base, and its weight is at most only 2-1/2 grains less than that of undamaged test bullets fired from the same gun.

Aside from artifacts (inscription of initials by FBI agents and the removal of a specimen for spectrographic analysis), the surface of the bullet is unmarked. Its copper jacket is still intact, showing that the only place where lead could have been lost is from the base of the bullet.

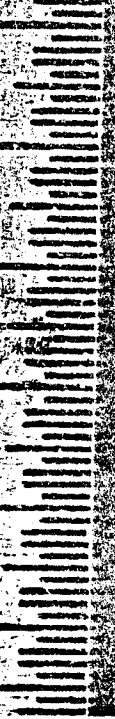
The authors reject the Commission's theory as to the wounds caused by this bullet.

STAINLESS

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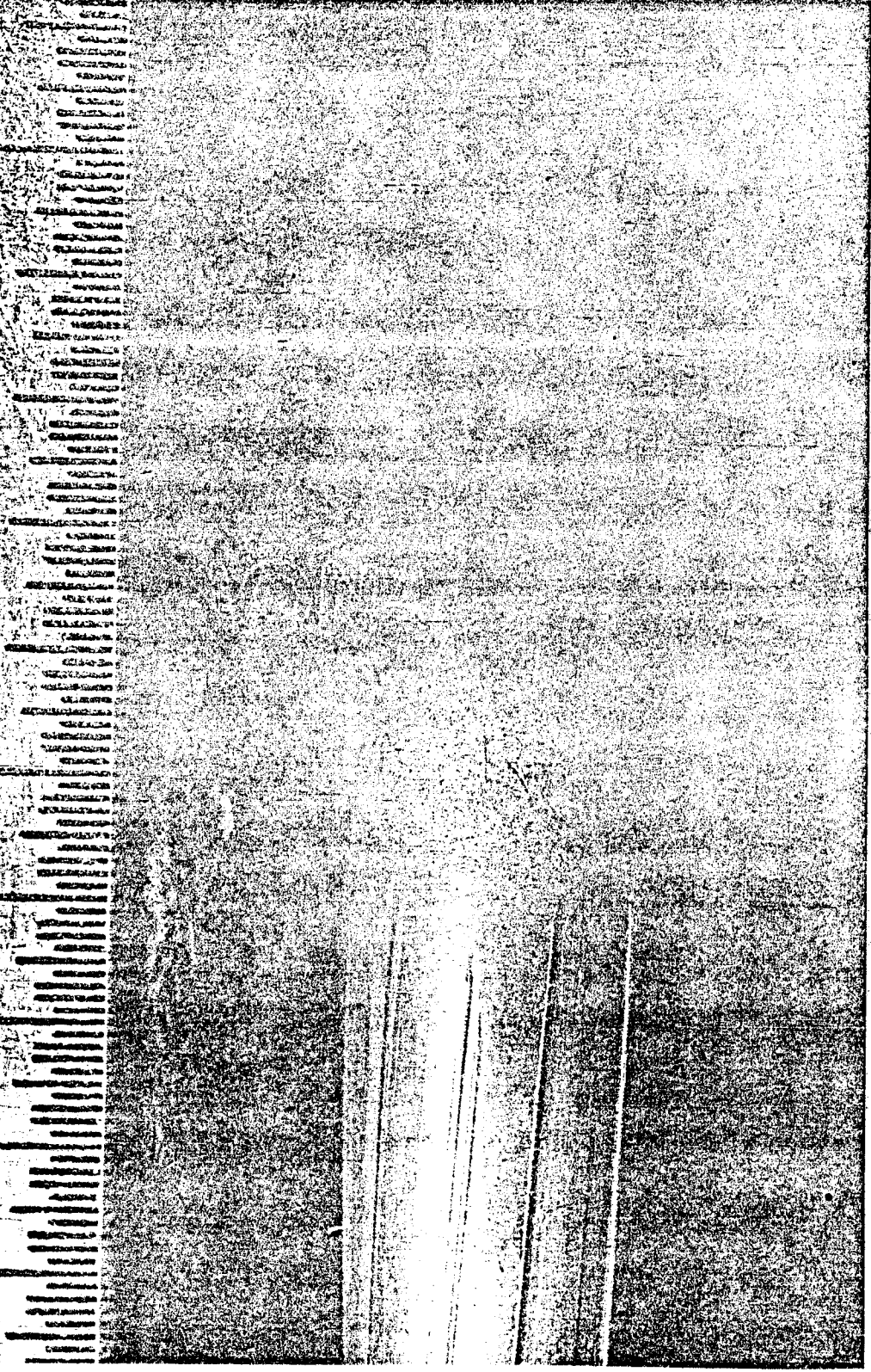
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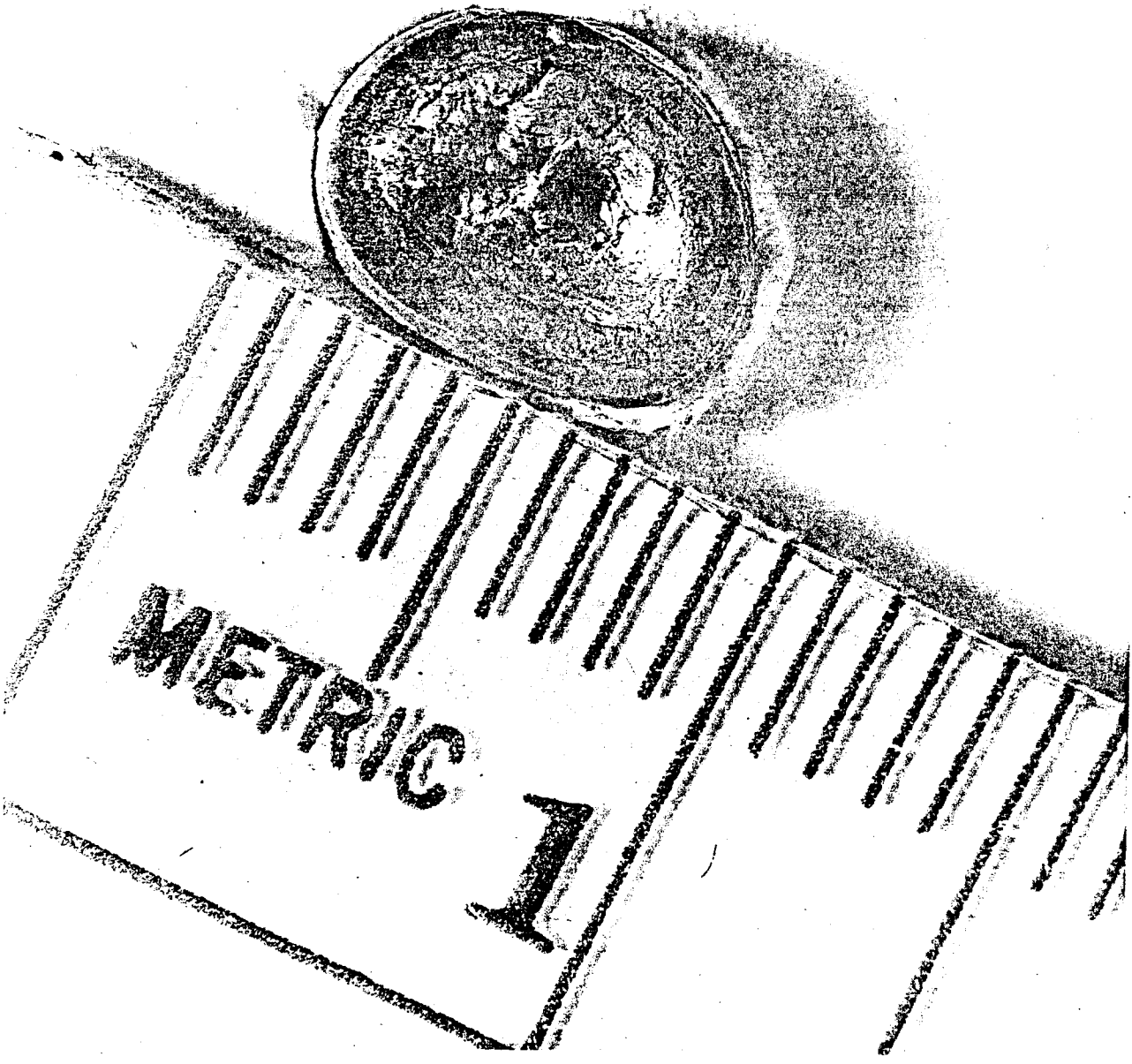
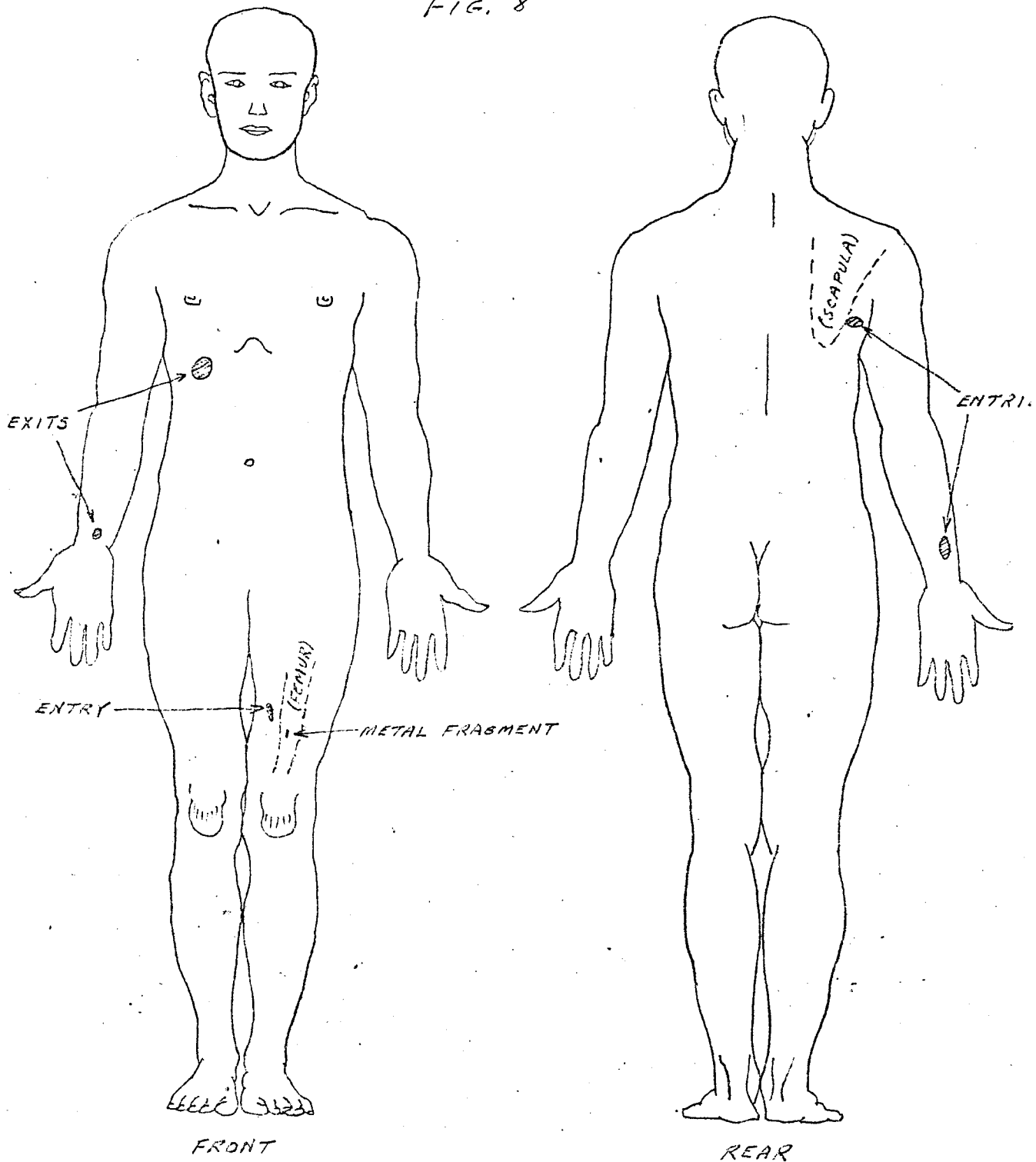


FIG. 8



LOCATIONS OF GOVERNOR
CONNALLY'S WOUNDS