## BAGK WOUND MEASUREMENTS:

Tpday I conduoted more experiments with the back wound, once again using my father as a model. The main purpose of these tests was not to determine where the 14 cm . mea urement places the wound on the back for that is well established. I wanted to see where in relation to the underlying structures this wound fell and how it compared in various positions with the anterior neok wound.

My father lajde on his stomach and I took the measurments 14 cm . below right mastoid, 15 from right acromion and 5 from midline, and marked this spot with an X. I took several photos of this suitable for publication. I felt on the back for the notch which indicates the 7 th cervical vertebra and the wound was slightly below that, although its position varied with different positions of the arins. This very much surprised me, knowing that the wound appears so low on the back. This is partiy an illusion oreated by the trapezius muscles which--like the President's-are broad, thus appearing to shorten the neck. This wound was, when the body is in a prone position, above the shoulder blade-as the autopsy report states("Supra-scapular"). I belleve it is possible that if he did not aotually manipulate the body to find out where the 7 th cervicle was, someone observing the body could zayy mistake this wound as being at the level of one of the upper thoracie vertebras.

I then had my father sit in a chair. I attached an arrow pointing outward from the approximate site of the anterior neck wound and one pointing inward at the measured site of the back wound. I ten had iny father assume various sitting postures, photographing each. Sitting perfectly straight up, the back wound is definatsiy lower than the front wound. However, in a more slouched position, especially with the right arm raised as if resting on the top of the car, the back wound becomes higher than the front wound. It is hard to describe this, warich and should be well illistrated by the photos.

I next measured 14 cm below the mastold in a slouched position and a vertical position, each time moving up the arrows and photographing the comparison of the two wound levels. Lastly, I put the rear arrow to the location shown in the sketohes, CE's 385,6 , and 8 . This was entirely too high, resulting in a very steep downward angle.

It was obvious that, even though bones below and including the colloar bone, shoulder blade and ribs might not have been struck, had the bullet entered where measured at the autopsy, it would have gone rlght through the top of the lung.

I reserve further comment until I see the pictures.
HOWARD ROPFMAN

