

THE UNIVERSITY OF KANSAS MEDICAL CENTER RAINBOW BOULEVARD AT 39TH STREET KANSAS CITY, KANSAS 66103 • AREA CODE 913 • 236-5252

SCHOOL OF MEDICINE DEPARTMENT OF PATHOLOGY AND ONCOLOGY

December 22, 1971

Mrs. Sylvia Meagher 302 West 12th Street New York City 10014

PRIVILIGED COMMUNICATION

Dear Sylvia:

I detect unrest in your letter of November 23 relating to my ballistic findings as reported by Mr. Bogdon in his article in the Kansas City Star Sunday Magazine for November 21, 1971. In this letter I am confiding in you some results I want to remain secret between us and not divulged outside.

Yes, Doctor Oliver shot simulated necks composed of variously gelatin, horse meat, goat meat, etc., covered and not covered by goat skin. These are standard things persons do when thay do not have appropriate anatomical specimens on hand. I have such appropriate specimens. Doctor Oliver's experiments are valid and I have no serious quarrel with them.

His bullets struck these simulated necks with a speed of 1,904 feet per second [having 1,292 foot - pounds of kinetic energy]. These same bullets emerged with a speed of 1,873 feet per second and 1,114 foot - pounds of energy. In other words the bullet in traversing President Kennedy's neck lost only 7% of its velocity and only 14% of its kinetic energy!!! These facts seem to have been overlooked by the world!!!

With actual human necks I found my bullets to enter at a speed of 1,960 feet per second [from my gun] and to emerge, in the mid-line without striking bone, at a speed of 1,890 feet per second. In other words my bullets lost only 4% of their velocity and only 7% of their kinetic energy. This is close enough to Doctor Oliver's findings and I have no serious disagreement with him.

Of course I have shot single ribs, single wrists, and in all possible combinations with necks. When the three are aligned, as the neck of the President, the rib of the Governor, and the wrist of the Governor the bullets usualy are deflected and do not make square hits. However, in the instances when all three are hit the bullets emerge with a velocity of 1,585 feet per second and not the 1,150 feet per second reported by Mr. Bogdon [he erred]. In other words my bullets in actual specimens lost only 19% of their speed and only 35% of their kinetic energy in traversing both the President and the Governor. This is why I was so interested in learning the composition of the partition between the passenger and the driver compartments and which was not even "scratched". Does this not put a new light on the problem? I have known this for the last five years.

Please do not divulge this because it will still be considerable time before I have a manuscript ready. However, I should like to have your reaction.

Sincerely,

- 1. A common 0.22 bullet weighing 30 grains travelling at the usual speed of about 1,100 feet per second has 80 foot pounds of energy.
- 2. Foot Pounds of kinetic energy = = $\frac{(\text{weight of bullet}) \times (\text{speed of bullet})^2}{(32.16) \times (7,000)}$

1. mar

where: Weight of bullet is 161 grains
Speed of bullet as determined by chronograph
32.16 is a physical constant related to the accelleration of a free falling body
7,000 grains in a pound, Avoirdupois.

Nichols to Meagher, December 23, 1971. Last of two pages