18 April 69

Harold:

Included are the first 8 pages of my article on the cartridge cases. Certain parts were written in anticipation of test results and are subject to verification-- I have noted them on pp. 6,7, and 8. I am pretty sure that tests will bear me out; if not, I can revise.

I can also revise for publication, and I'll write a succinct, non-technical, version to accompany this. I intend that this version be armor plated and safe from any assault, so I have included a lot of technical explanation and cover all possibilities that I can think of. I want no slip-up, and I prefer that it be dull rather than inadequate.

There will be plenty more, for I have not yet gone into the government's (Frazier's, really) examination of the cases. Sit tight.

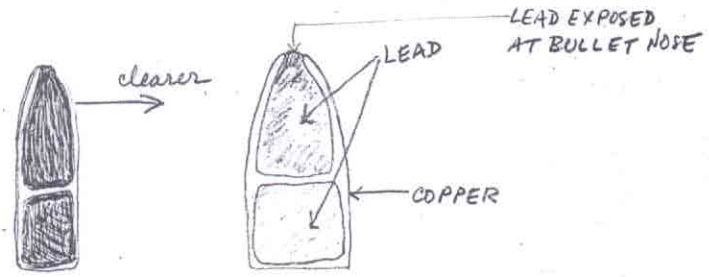
If you are getting photographs from the Archives, get color, if possible. Quality and detail are important.

Also photograph the two test cases (CE 557) as carefully as you photograph the evidence cases. These are important for putting frazier where he belongs-- also for other reasons.

Also get good detailed photos of the bolt face of the rifle. Frazier introduced a photo of the bolt face as CE 558, but it is slightly out of focus on the part that I would like to see. The banana-shaped structure on the left of the picture is the extractor; I would like a good photo of the markings on the face of that. I think that that is what put the unidentifiable markings on the rim of CE 543.

I checked further and found that "stretch" need not occur in exactly the form I described. It may occur over a larger portion of the case, farther forward than the area near the base. In any case, it leaved a polished surface on the brass.

I read the court transcript of the Ray case (God!) and have more to say. The description of the wound is better than any I had seen before, and now makes it appear that the 30/06 could have done it. Apparently the bullet struck the jaw-bone first. That makes it very likely that it fragmented on contact and caused the wound in the throat. The structure of the bullet could easily account for this. It is not solid lead surrounded by a copper jacked, but rather is a special design. It is like two "rooms" of soft lead separated by copper "walls". Like this:



Once the bullet strikes bone, the two "rooms" can go in two different directions. I suspect that this is what happened.

There is another factor which may or may not be important, depending on what they say caused it. The rifle barrel of the Remington left a mark on the window sill. If they want to say that it was left there when the barrel simply bumped the sill, ~~xxxxx~~ (that is, merely in the act of moving the rifle around), then there is nothing that we can do. If they say that the sill was damaged by the barrel as a result of recoil (I.E. that the rifle barrel was resting on the sill when the gun was fired), the we may ~~put them over a barrel for this.~~ convict them of trickery over this.

When a rifle is fired, the barrel vibrates rather like a fishing rod that is held in the hand and jiggled. The vibration in the barrel is microscopic, but is highly significant, for if those vibrations are disrupted, the accuracy of the rifle is affected in a very detrimental fashion. Such a disruption is caused when the rifle barrel (or any part of the rifle) is touching a hard surface when the rifle is fired. The effect of the disruption is normally more pronounced as the power of the bullet increases.

I don't know accurate figures that relate to this, but I do know that if you sight a rifle by resting it on something soft (like a blanket, sandbag, etc.) and later fire it while resting on something hard (or even touching something hard) then you cannot expect the rifle to shoot where it is aimed. If it hits the aiming point under those circumstances, then it hits by chance, for it could easily hit elsewhere.

I suggest that, if possible, you learn what they say about the damaged window sill. If they say that the rifle was resting on the sill when fired, then I will try to dig up exact figures and citations for you. Otherwise it is not worth the bother.

The reason why the accuracy is affected by resting the rifle on a hard surface is that the vibrations in the barrel are changed.

When the business of the cartridge cases is complete, I plan to seek endorsement of NRA experts, and any other gun experts that I can get to read my article. Enclosed is a letter ~~that~~ I plan to send to the NRA when I have completed work, or perhaps before. NRA would run verification tests of their own, and that suits me completely. a letter

I don't know whether they will go along, even after they are convinced that I am right, but I feel I must try. Although I would not make special note of it, I would not deny that I take pride in my NRA membership. Nichols is a member, too, and I believe he feels as I do. In fact, it was Nichols who suggested that I try to get the thing published in the NRA's publication, The American Rifleman. That is not my immediate plan, but I would like to subject it to the scrutiny of NRA experts-- they are the best, and if it can withstand them it can withstand anybody (except Walter Cronkite!).

I am already thinking of disclosure at a press conference, and if it takes place there, I want top experts on the spot, for the press will not accept my authority or that of Nichols. I would even like to have Frazier there.

This will be in the future, of course, when there is no possibility of error and no danger that the evidence will be altered.

I sometimes wonder what I would think if the cases, after all, showed some definite signs that they had fired bullets (there are several positive signs). The prospect leaves my mind blank, except for the notion of deliberate doctoring.

Dick

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