Mr. Beaton. We had two cables. We had problems with the lower cable tending to raise the car and give it an initial impetus upward. So we removed this cable and found by testing that the barrier system

is more efficient with it off.

Mr. Constandy. It raises some concern inasmuch as last week we had pictures from the nine States and two of them were using the original design chain link fence median barrier you developed. Apparently both of them used your original design, because as I recollect in both instances, they do have a turnbuckle of the type you initially had

which, as you found, presents a severe hazard.

And they also both used the low cable which you have since abandoned. Since they are on brand new projects, it would seem to suggest both the States that adopted your idea have adopted the early design in which you found some defects. It is hoped that both of those States become aware of it and perhaps make the necessary modifications before they have to learn, as you people did, that there are improvements to be made in the original design.

There were a couple of other items there. I think we should mention your film suggested the necessity of coordination between the design of the automobile and the design of the highway. The design of automotive devices such as the slope of the bumper permitted the car to raise up above the guardrail and in effect defeated its purpose.

Mr. Beaton. We agree with this 100 percent. We feel that there needs to be a correlation between the vehicle and the road. This is a very significant area and very fruitful area in which to do a great

deal of work.

Mr. Constandy. It would be a shame to have people in the highway field developing a facility for safety at considerable public investment which thereafter would be diminished in its value, if not negated, as a result of changes in automobile design.
Mr. Beaton. This is right.

Mr. Constandy. Did you have something that you care to state relative to smaller vehicles, sports car type machines, and as your

protective devices relate to them?

- Mr. Beaton. Well we found, especially with the cable barrier, that the low profile sports car gave us many problems of penetration, gave other safety problems that are very difficult to take care of, especially with a flexible system.
- Mr. Constandy. Without diminishing values as relates to the standard size car?

Mr. Beaton. This is right. They are a majority of the cars that are on the roadway.

Mr. Constandy. In your opinion, do roadside protective devices then leave the operator of a small sports type car less protected than he would be in a standard car?

Mr. Beaton. Yes; I think this is true. Of course, I think that any-

body in a sports car is less protected from almost anything. Mr. Constandy. Perhaps they need to do what they did with cigarettes; have an imprint on the side that the use of this machine may be injurious to your health.

Mr. Beaton. It would be well to be cautious.

Mr. Constandy. If you would not mind standing by, we may be able to show the other film in the event we do not conclude. We would