Dr. ROWAN. It is a transformer base, and I would like to mention this fact that we no longer put transformers for lighting in this base. This is strictly a safety feature. Nowadays a transformer is put in the aluminum housing.

Now this is our experimental design of a slip base. It is similar to the sign support except it is in a triangular shape, a round base, but the bolts create a triangular shape.

The deceleration here was negligible, something on the order of 1 mile per hour. Now the reason for this triangular shape is to make the pole multidirectional in behavior. In other words, you can hit this pole from any direction and it will perform essentially the same.

Now, gentlemen, consider this is a 400-pound pole being put into motion by this vehicle with very little penetration of the energy absorbing portions of the automobile, and with virtually no effect on the driver. If you will notice the date, this test was conducted May 10. This was the second of a series of tests. This has not been put into practice yet. We do expect to prepare a researcher's report on the results of this design, and it will be presented to the sponsoring agencies by September 1 of this year. The reason the trunk lid is up is not the result of a crash but we have our instrumentation devices in the trunk, and they were removing them at the time when this picture was made.

This is a film strip obtained from a television station in San Antonio. A lady was reportedly crowded off the road, went into a skid, and hit a steel transformer base, the first crash that you saw, sideways. It is completely locked, as you can see. They are having to pull it off the pole, force it off in order to get her out. She was killed. This is one of several such instances. No more than 2 months ago, two people were killed in Dallas in a similar accident in which they skidded sideways into a pole on a steel transformer base.

I would like to commend the Texas Highway Department in their efforts to improve the safety as related to lighting poles along their highways. They make every effort to influence design, to establish standards, to make this changeover as rapidly as possible. Two weeks ago I was in the Beaumont district down in southeast Texas. I observed that they were cleaning out several hundred poles from a flange mounting base to the cast aluminum transformer base. This was 2 weeks ago. By now they do not have a pole on a state highway which is not a breakaway type.

Also last September the highway district in the Austin-San Antonio area installed these cast aluminum inserts under steel transformer bases, some 300 of them, in the San Marcos area; and on Ranch Road 1 near Johnson City.

Mr. W. MAY. How long did it take to convert the pole into a breakaway type pole?

Dr. ROWAN. Approximately 20 minutes with a crew of five men.

Mr. W. MAY. How much money?

Dr. ROWAN. Within $35. The cost of the insert was $19, I think, and 20 minutes of labor for five men and a lift truck. Now I have some slides on that. I would like to show you their procedure, if I may.

Mr. W. MAY. You were talking about San Marcos?

Dr. ROWAN. San Marcos and Ranch Road 1. Now, this is a remedial design, I would like to point that out. It is considered only as a remedial design where you have existing steel transformer bases. This is