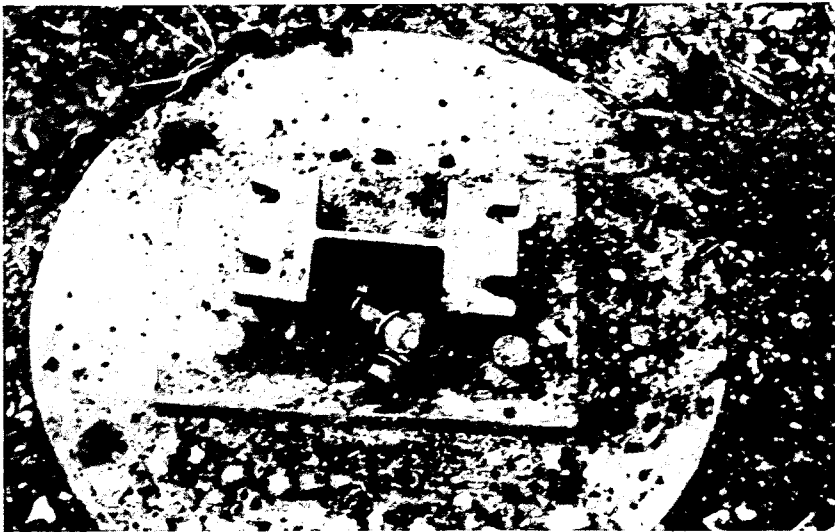


Mr. MAY. Have there been cases of people backing into these?

Dr. KEESE. They have hit them at every angle you can think of. They have sideswiped them, backed into them, front quarter, back quarter, every other way. In one instance, a woman with two children in the car sideswiped, knocked both supports out from under it, and there was no injury. Minor damage to the vehicle.

This is a typical base of the breakaway type of sign. I put it in here to show and emphasize 52 percent, over half the accidents in the 69 cases we have documented, have not been reported as accidents. The maintenance people go out and find these signs and supports in this condition, pull the sign back into place, rebolt it, and the sign is back in business.



Mr. MAY. Do you find you have more hits in the gore areas than at other locations?

Dr. KEESE. The gore area exit signs have been hit in slightly less than half the cases, 31 out of 69 cases; the exit ramp areas, I would say by and large, are the scenes of the majority of cases. However, there have been some 18 typical roadside signs away from any intersection or anything like that, and several others such as speed signs, warning signs, city limit signs, and things like that not associated with a decision point at all.

Mr. BLATNIK. May I ask one question? I notice your circular concrete base is flush with the ground level. For years a similar type of support in concrete bases in many instances was quite a bit above the ground, 2 feet above the ground. Is there any conceivable reason for raising a concrete structure or base like that any distance at all above the ground? Does it improve the strength or what does it do?

Dr. KEESE. The reason for it, I think, sir, was to prevent corrosion of the metal, to prevent the soil and so forth from coming into con-