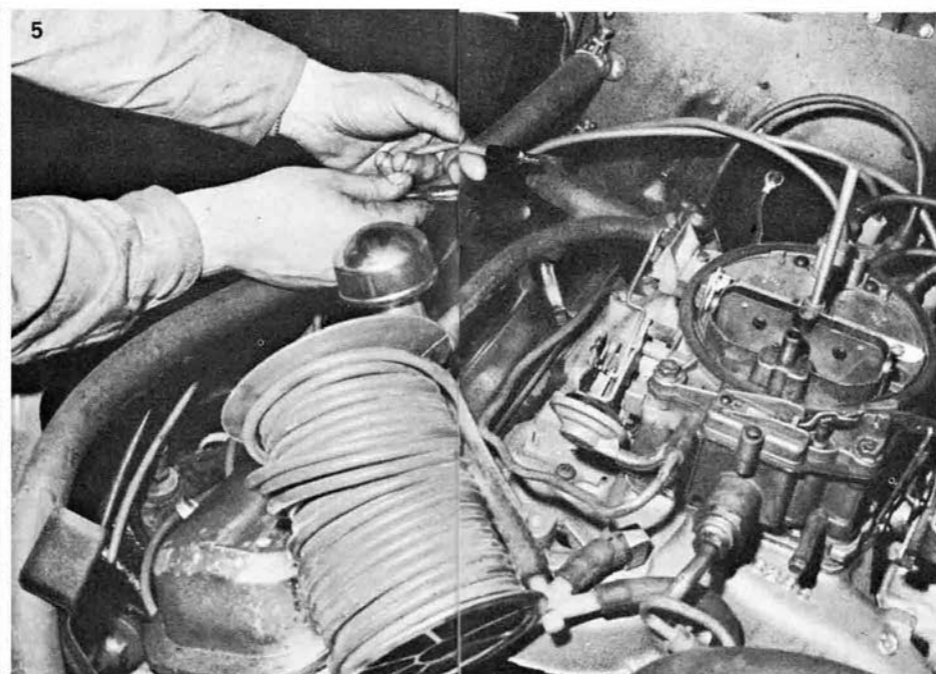
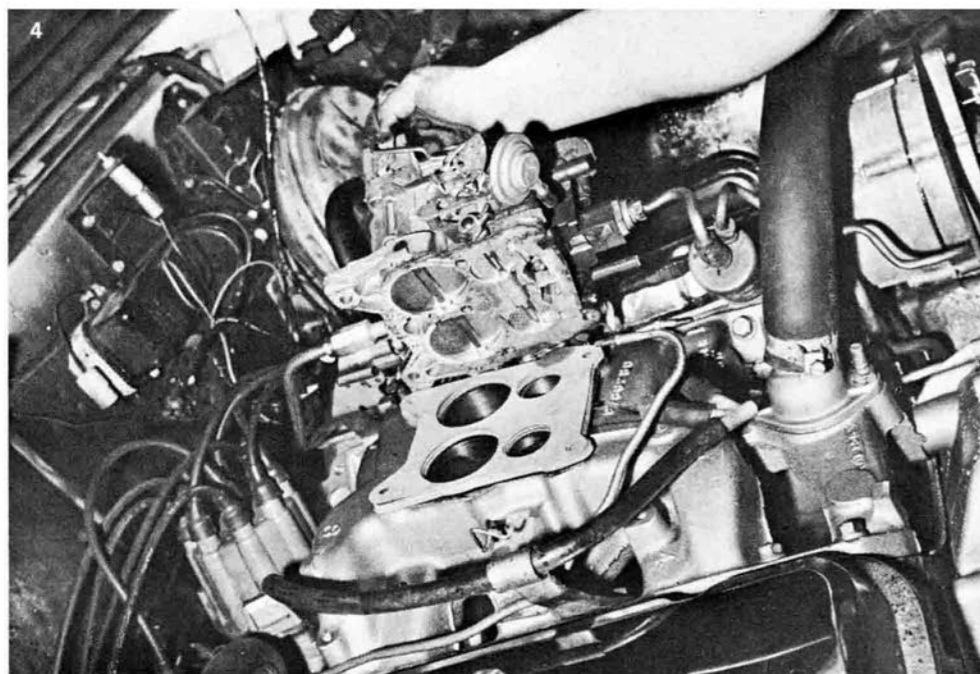
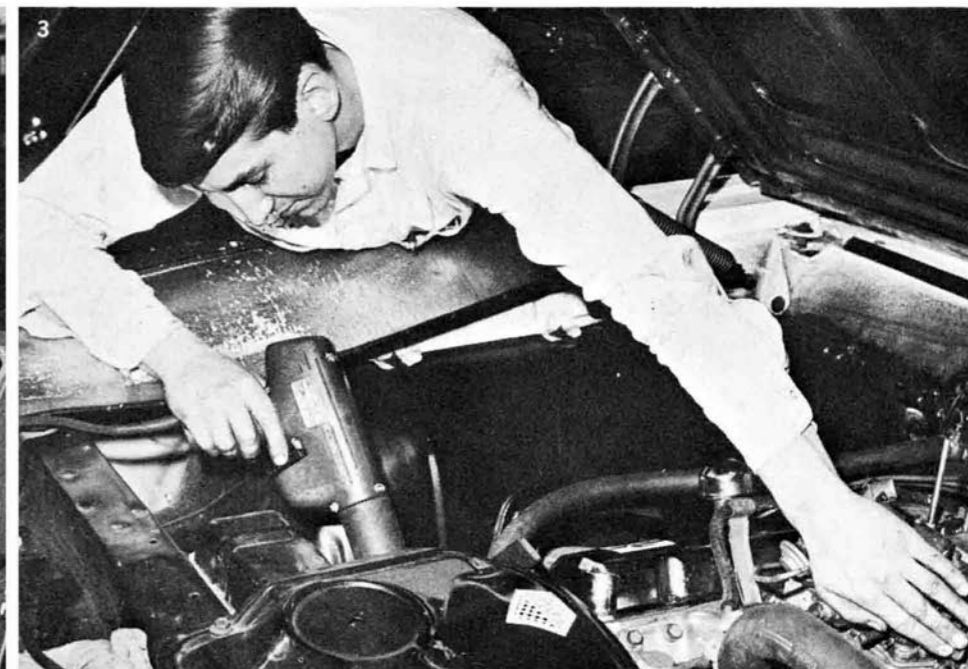




PART II  
**KING OF THE ROAD**  
HOW TO WIN CLASS AND  
ELIMINATOR TROPHIES AND SET A NEW TRACK  
RECORD WITHOUT REALLY TRYING!

BY MARTYN L. SCHORR



1. Until engine warmed up it was able to handle up to 46 degrees total timing and bend the dyno gauge needle past the 200-hp point.  
 2. Pointless distributor was converted to full centrifugal advance and set up for total advance to come in at 2000-2200 rpm.  
 3. Vacuum takeoff at the Quadrajets carb was blocked and an additional chrome breather was mounted on the right side valve cover.

4. A set of aluminum gasket spacers was installed between the carb and the manifold to isolate the mixture from engine heat.  
 5. Stock TVRS carbon core wire was discarded in favor of Packard 535 silicone burn-proof wires with Rajah positive connectors.  
 6. Unmarked test car waded thru a field of Formula stockers at N.Y. National Speedway only to lose the trophy to a Z-16 Chevelle.

LAST MONTH we told you how the performance honchos at Royal Pontiac set up a street-strip-style Bobcat GTO for our trip to New York. Now we're going to tell you how to super-tune a Bobcat, or for that matter, any 400-inch Pontiac for maximum track or turnpike performance.

Since the car was not prepared for the track because of the long Detroit to New York run, we immediately turned the car over to Motion Per-

formance, Inc., in Baldwin, New York, for the hot setup. Motion's Joel Rosen had some words with the boys from Royal regarding exactly what was done to the engine then he took over.

First the car was put on the Motion chassis dyno and its horsepower curve was graphed for the records. With the road timing, the car would barely break 180 rear wheel horsepower at 4000 rpm. Not bad for a showroom stocker, but not exactly good for a Bobcat GTO.

The distributor was pulled and mounted in the Sun distributor machine for a cure check. Joel played around with various springs until he came up with a curve that nailed total advance between 2000 and 2200 rpm. All distributor vacuum was blocked and the unit was set up for full centrifugal advance. The original TVRS carbon core wires were removed in favor of more efficient, full metallic leads. Joel chose Packard 535 silicone-covered

wire which is burn-proof (good for cars fitted with tube steel headers) and will under all conditions carry a full spark. Instead of using the production spark plug boots, the silicone wires were fitted with Rajah positive connection bakelite and steel plug connectors. The Champion J-10-Y's were checked, and as expected (because of the capacitive discharge ignition), were as good as new after the long trip.

Since the Quadrajets was already jetted

and modified by Royal as part of the Bobcat deal, it was left as is except for the blocking of the vacuum takeoff and the fitting of a series of aluminum gasket-style spacers. The set of spacers was fitted between the carb and the manifold to help isolate the mixture from manifold heat. It's not a cure-all, but it certainly is a cure-aid for fuel percolation and vapor lock.

After all underhood mods were taken care of, Joel set up the gauges and the

dyno for power tuning. This is one sure method of getting timing right where it belongs as the car is timed with the engine running (under load) and the car in gear. All horsepower increases and decreases can be graphed, and timing locked in at the optimum point. The main problem involved in the power-tuning of our GTO was excessive engine heat. When the engine was cold it would take up to 46 degrees total with the horsepower needle bend-

ing past the 200 rear wheel horsepower marker at just 4000 rpm. As the engine heated, the power would drop off and the engine would take only 40 degrees, then as low as 36 degrees.

The combustion chamber design of the new 400-inch heads makes all the difference in the world in regard to timing. The old engines couldn't handle more than 32-34 degrees total before running into trouble, while the 400-incher can handle to 46 degrees

providing under-hood temperatures are kept to a minimum. Joel finally settled on 44 degrees total at approximately 2000 rpm, and the engine was super-responsive. Joel was so overgrooved at the way the engine responded, that he took it out for a blast to cool the motor down. On the way back, he couldn't resist running a big block Vette. And, would you believe, he blew his doors off, with the trans shifting itself in Drive. The Vette owner couldn't figure

it out, as the tires on the GTO were screeching at each shift and he saw Joel's hands on the wheel. Talk about dial-a-win-transmissions!

To see how well the car would run in off-the-street condition, we decided to do our testing by simply driving out to the track, uncapping the pipes and running. We mounted a set of Goodyear 8.50x14-inch *cheater* 7-inch slicks on the wide, steel wheels and bolted them on the rear. We didn't even want

to bother with tire changing at the track. The front tires were pumped to 40 psi to cut down rolling resistance and the Goodyears set at 32 psi. The engine's break-in oil was drained and the sump refilled with Valvoline 30 weight non-detergent lube. Everything was ready.

Our first outing with the car was to New York National Speedway in Center Moriches, New York. Before lettering the car up, we figured it would be

wise to see if the car would at least be competitive with the local racers. Track chief Ed Eaton was most cooperative and allowed us to run as often as we desired as we were interested in time slips and not trophies. The tech crew at the track refused to buy the Bobcat package as stock and they forced us to run in the Formula Stock ranks. This was later cleared up when they discovered that NHRA had bought the package for B/Stock!

Running in A/Stock Formula 2 (N.Y. National Speedway classification), our GTO was badly outclassed by such formidable competitors as 375-hp 396-cube Camaros and 375-hp Z-16 Chevelles. With friend Joel Kimmelman handling track relations (since promoted from friend to pit crew chief), Joel Rosen twisting the wrenches and yours truly doing the driving, the car did amazingly well on its first outing. Royal's driving instructions were to idle off the line at 1100-1200 rpm because of the 1500-rpm stall speed converter and punch it, shifting out before the hood-mounted tach reached the 5000-rpm marker.

Temperatures at the track ran in the 60's and the Goodyears pumped to approximately 30 psi did a respectable job. The first two runs of the day were made per Royal instructions and the time slips read 14.19-no mph, 13.87-94, and 13.60-107 respectively. All shifts were thrown at 5400 rpm which seemed to be a little too much, as valves started floating at about that point. Two more runs were made with everything left as is, except that the engine was torque-loaded on the line at 1400 rpm and the car driven out real hard with shifts thrown short at 5000-5200 rpm. The final two passes netted us 13.59-no mph and 13.40-108 time slips, which we thought was just unreal for a street stocker running 3.90 gears and a stock hydraulic lifter camshaft. By playing it super sharp on the lights, we managed to put down a whole flock of machines, including a 375-hp Camaro, but eventually fell prey to a 12.80-second-112 mph Z-16 Chevelle.

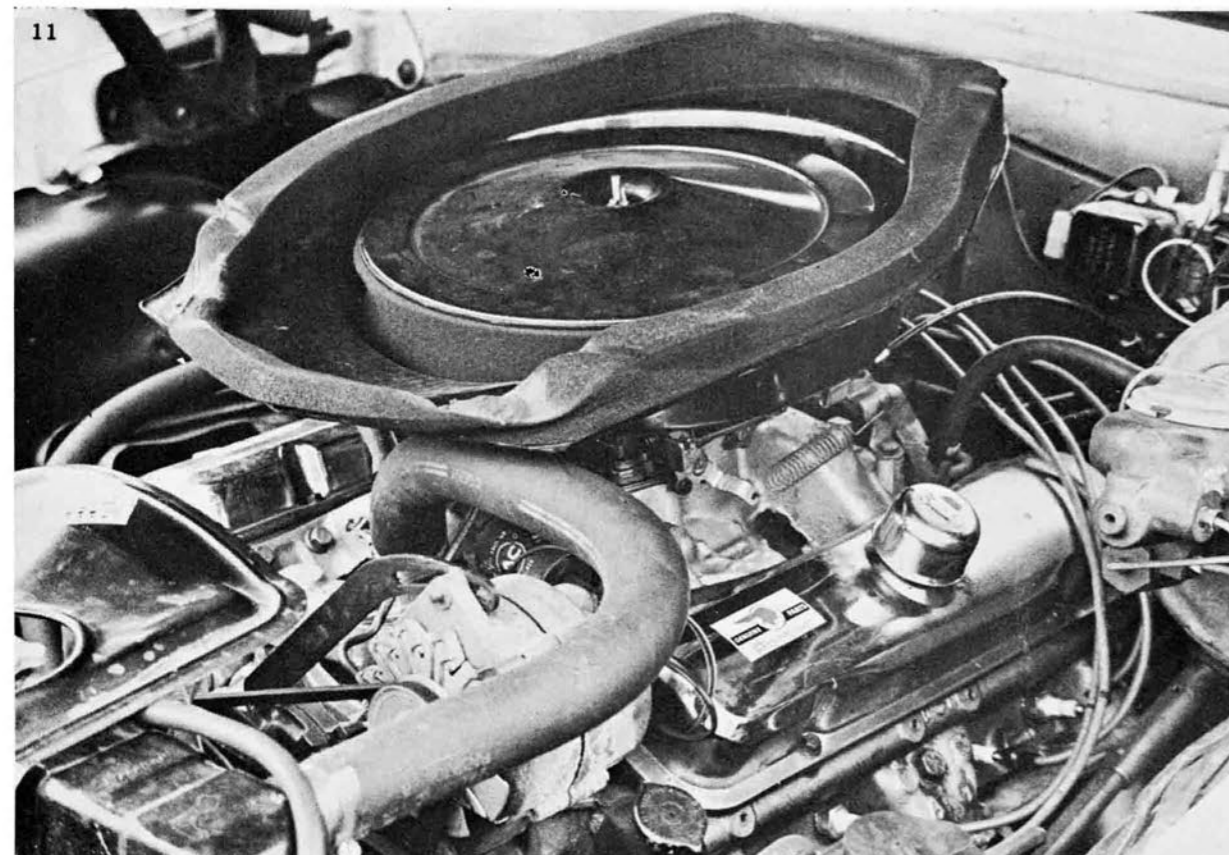
We made a few more passes after the trophy runs but were not able to better the 13.40-108 time slip. The roughest part of the day was convincing the crowds that the car was an auto trans model and not a manual. The Royal reworked Turbo-Hydro bangs off power shifts like a manual box because of a reworked valve body, increased line pressures and some super-secret replacement parts. It's available from Royal Pontiac on special order.

All runs were made with the air cleaner assembly in place and with a fresh set of Champion J-10-Y plugs. No oil was consumed during the day's running. The pipes were bolted up to the Doug headers and we drove 50 miles back home. No trophy, but satisfaction plus! We were able to take a road test car used for daily transporta-

(Continued on Page 68)

7. Pit chief Joel Kimmelman looks on as N.Y. National's John Alcott classifies our GTO. Mixup caused car to run in A/S/2.  
 8. NHRA's Certification Team goes over test car at Madison Raceway Park record runs. They wouldn't buy the carb spacers!  
 9. "But Dad, it's toughness-plus. And all we need is an advance on next year's allowance to get the kit from Royal Pontiac!"  
 10. Goodyear slicks proved to be durable enough for 100-mile jaunts to and from drag strips. Stock steel wheels were used.

11. Bobcat kit, Doug headers, cc'd 11.40-to-1 heads, and dyno tuning get credit for the car's super performance. Car did run 1 mph faster without the air cleaner element.  
 12. Who says you can't successfully race a street car? GTO was used for daily transportation and still managed to cut 13.40, 109 at N.Y. National Speedway.



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**DRAG GTO** continued

tion and run the first time out 6/10ths of a second, 4 miles per hour off the National record.

The following week, after using the car for shopping and commuting, we had it lettered up and made the trek to Madison Raceway Park in Englishtown, New Jersey. That proved to be a mistake, as NHRA had taken it over for the first record run meet of the season and suddenly everyone at the track took racing seriously! We played the game and went through the rigid tech line run by the NHRA Certification Team only to be caught on a small technicality.

"Too many spacers under the carb. Take 'em out or you can't run for a record," barked the tech chief. We finally convinced him that we had no intention of running for the record and if we won it, we wouldn't know what to do with it. He finally got the message!

Before the Christmas tree broke, which halted the meet, we managed to get one run in. That was after we convinced NHRA's Darwin Doll that we would not run for the record and that we really didn't care what he did with that highly-rated piece of paper. We made our one pass which was nothing to write home about. Joel Kimmelman capped up the pipes, and we drove back to N.Y. National Speedway for some good old-fashioned drag racing!

Our next outing to Ed Eaton's National Speedway netted us with a very profitable collection of time slips. This time we were classified as a stock automobile (after they checked with NHRA on the Bobcat package) and put into Super Stock Showdown/3, better known as SSS/3. This time we decided to try and make the car even more competitive, as there were many entries in the SSS classes that were towed in. These guys usually pose a threat in the stock ranks.

We pumped the front rubber to 50 psi, deflated the Goodyear slicks to 10 psi (not recommended for stick cars unless tires are pinned to the rim as the tubes will slip), removed the air cleaner element and tried a set of Champion J-61-Y plugs which are colder than the 10-Y's. The car was that much harder to get off the line with 10 pounds of air in the Goodyears and we really had to torque load and bomb out of the chute. The slicks wrinkled just the right amount and caused no ill effects on the car's handling going through the

traps. We also disconnected the power steering unit.

Temperatures were running in the high 80's and it was quite a job keeping engine temperature down. We kept a pressurized exterminator's can filled with cold water in the car and before making a run we would whip it out and spray the engine and radiator with cool water. We caught some laughs on it, but it did do the job.

All it took was four class runs to win the trophy. Running against 390 Mustangs, 442 Olds, 360 Chevells and GTO's, and even a 426 Plymouth Street Hemi (track has facilities to run four stockers at a time), our road test blew the doors off them all. Times were as follows: 13.77-109; 13.73-105.14; 13.59-103.50; 13.49-104.

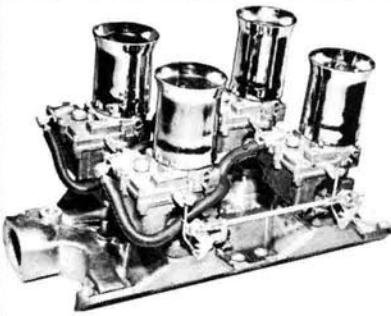
After collecting our gold, we moved up to Super/Stock Eliminations. Running the handicap system we really put on a show, romping to the winner's circle in three quick blasts to pick up our \$20 S/S Eliminator cash. Times were as follows: 13.44-101; 13.40-100; 13.40-109.

We packed our goodies in the car, capped up the exhausts, put 30 psi in the slicks, deflated the Wide Ovals to 30 psi and hit the road. Still zero oil consumption, no strange noises and a sure-shifting dial-a-win automatic transmission that withstood more abuse in four weeks than the average stock automatic gets in four years!

It's interesting to note that the car could have run even closer to the National record if it had been fitted with 4.10 gears (4.33's are too much as the valves float going over the line unless you can get away with 15-inch wheels to cut the R's), weight transfer front shocks and 50/50 rear shocks, and a blueprinted lower end.

We found the car a pure pleasure to drive around, as the automatic shifted with the ease of an auto and the efficiency of a stick, and the power steering and power disc brakes were unbeatable. The hood-mounted tach proved to be a blessing, as it allowed full instrument visibility without having to remove our eyes from the road. We were also able to run the colder plugs on the street as the capacitive discharge ignition kept them as clean as hotter stockers.

We hated to return the car, but after a while you get tired of driving a multi-colored circus car around town. People mistake you for a taxi and then you have to stop and explain. It's too much of a hassle! (Continued on Page 70)



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**TORQUE WEST** continued

engineered today. More than that, he would know that the present "name game" is a direct *outgrowth* of the kid's language. Eliminating the jazzy names and ad copy will not fundamentally alter their speech patterns.

We sympathize with Mr. O'Connell's zeal to reduce the number of highway fatalities if it is, indeed, not another attempt to reap the profits of the safety blowup a year ago. Mr. O'Connell is on the bookshelves with a new offering and all this publicity will certainly not handicap the book's potential. If he is sincere, then he might consider some additional material on the subject. For instance, there are a lot more young drivers today than there were ten years ago, or even last year for that matter. The under-25 segment of our national population has increased spectacularly since 1960, and now represents half of everybody around! Also, those grim statistics that the National Safety Council shoots at us before every holiday kill-off are a little slanted themselves. The comparison figures for any particular weekend are taken from 1941 when there were only a small fraction of cars on the road that there are today. They also overlook the fact that individual vehicle mileage bears hardly any resemblance to those pre-war days. Actually, in relation to the total contemporary figures, the accident rate has *plummeted*, not the other way around.

And while the subject of safety is up, why doesn't Mr. O'Connell take a short ride at a ride and handling course in any one of a number of shuffleboard sedans we can think of and then jump into a wide-ovaled, disc-braked, stiff-suspended Olds 4-4-2 and see which one "feels" the best getting through the corners and getting stopped. No one with a public voice has ever taken the trouble to look into the other side of the question—namely, did the guy who got hit cause the accident? He may be in the right according to the law, but we've seen so many dumb moves by slow-witted drivers who think

they're still handling a Model "T," that we wonder why no one has seen fit to investigate.

And this brings us to another point, probably the most significant as far as the auto enthusiast is concerned, of O'Connell's treatment. In a speech delivered to the annual meeting of the American Psychiatric Association in Detroit recently, he alluded to a suit in the United States District Court for the Southern District of Indiana where someone was bringing a one million dollar action against General Motors for building a car capable of exceeding 100 mph! The case developed when the plaintiff's car was struck by a Chevy Impala going 115 mph, and the resulting injuries caused temporary paralysis from the neck down.

This sounds like suing the Ohio Match Company because one of their products was used to start a forest fire. While the judge threw the case out of court, Mr. O'Connell noted that the decision was being appealed and offered a remarkable insight into the whole thing. "Quite apart from whether lawyers can prove that wild names and advertising were a legal cause of the resulting accident in this or any other cases, surely the effect on a jury of the reading of such names and advertisements may vitally undercut the car maker's defense in this or other cases, that in manufacturing its product, the car maker was sufficiently concerned about the safety of that product. Such ads could have a particularly devastating effect when the car makers defend, as they continually do in cases alleging faulty design, that it was driver error—which the ads try so hard to encourage—that was the legal cause of the accident."

So now you know why Mr. O'Connell is dangerous, and when you consider the fact that he has just been appointed to the National Highway Safety Committee by President Johnson, it comes to mind that our sport has a dagger at its throat. As you can see, Mr. O'Connell doesn't need due process of law—guilt by inference is sufficient. All it would take is a few cases to go the wrong way and the automobile manufacturers, not to mention enthusiast publications like CARS, are suddenly tied in legal knots. This done, Professor O'Connell's compatriot, Mr. Hadden, can clamp his pet 80 mph top speed limit on everything made or sold in this country. The fact that most accidents occur at under 45 mph has apparently caused no one to take stock in the situation. The funny part of it all is that very few, if any,

(Continued on Page 72)