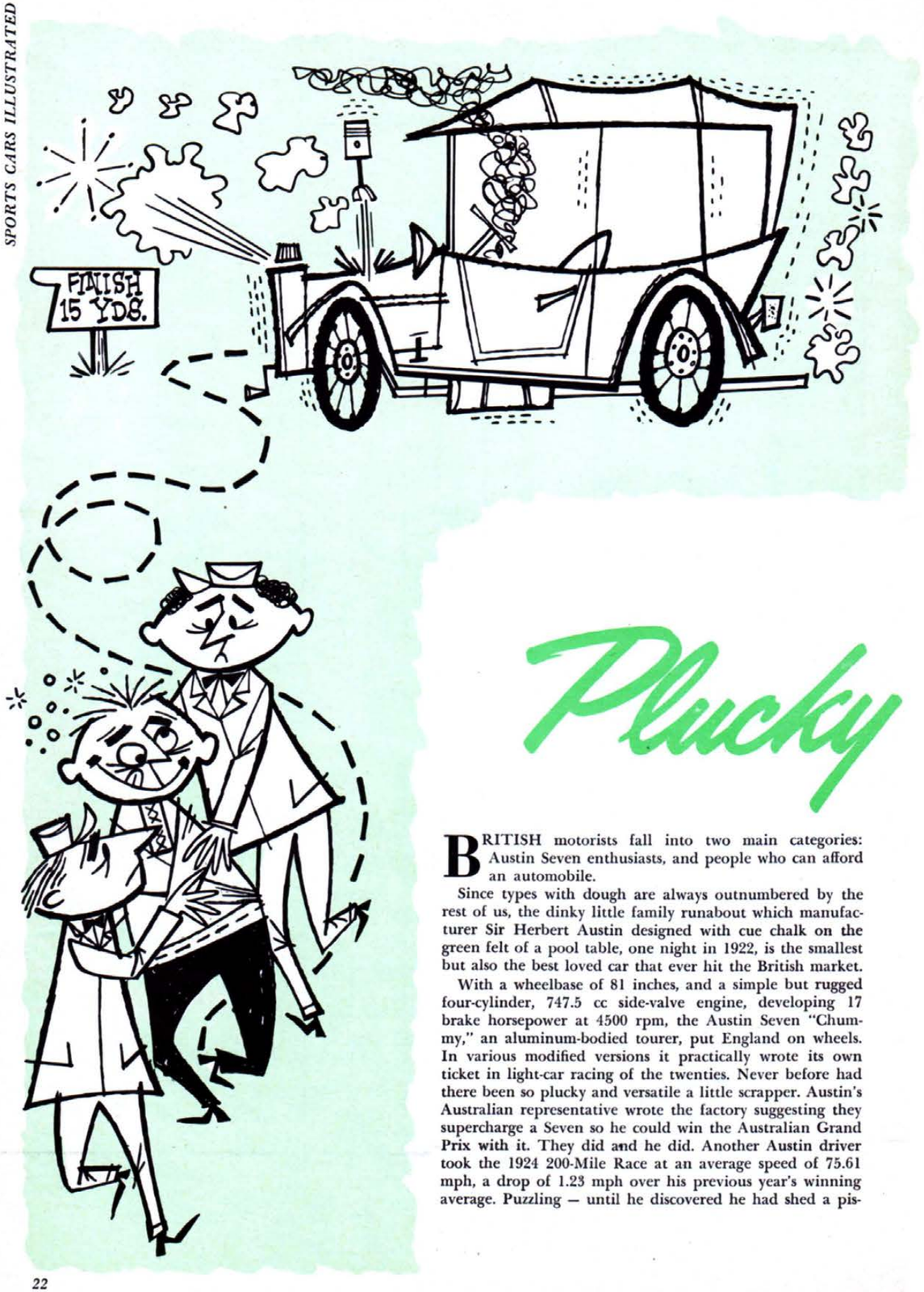


Plucky Seven

The Baby Austin ranks beside Ford's Model T as one of the great designs of history. Owners will concede only that it is the greatest design ever executed on a pool table.

Anything this quaint would stop traffic in the U. S. In England the Austin Seven "Chummy" which changed but little from '22 to '35 rates no stares. Solid, despite flimsy appearance, the Chummy weighs in at 900 lbs.

By MERWIN DEMBLING

BRITISH motorists fall into two main categories: Austin Seven enthusiasts, and people who can afford an automobile.

Since types with dough are always outnumbered by the rest of us, the dinky little family runabout which manufacturer Sir Herbert Austin designed with cue chalk on the green felt of a pool table, one night in 1922, is the smallest but also the best loved car that ever hit the British market.

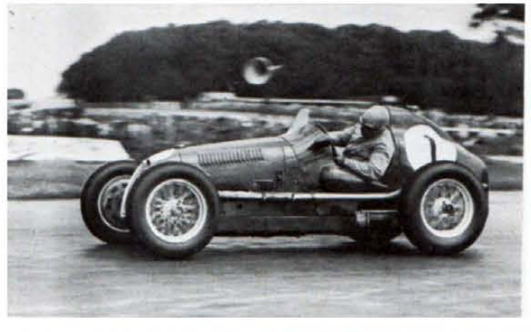
With a wheelbase of 81 inches, and a simple but rugged four-cylinder, 747.5 cc side-valve engine, developing 17 brake horsepower at 4500 rpm, the Austin Seven "Chummy," an aluminum-bodied tourer, put England on wheels. In various modified versions it practically wrote its own ticket in light-car racing of the twenties. Never before had there been so plucky and versatile a little scrapper. Austin's Australian representative wrote the factory suggesting they supercharge a Seven so he could win the Australian Grand Prix with it. They did and he did. Another Austin driver took the 1924 200-Mile Race at an average speed of 75.61 mph, a drop of 1.23 mph over his previous year's winning average. Puzzling — until he discovered he had shed a piston and con rod at some point during the festivities. His car had gamely fought its way home first — on three cylinders.

Speeds kept getting higher and higher. By 1934 an Austin Seven — so much modified that the original "Chummy" sort of receded into the far distance — took the Flying Start Kilometer record at 122.74 mph, but after a hood-to-hood struggle the more intricate and much costlier MG set just too fast a pace.

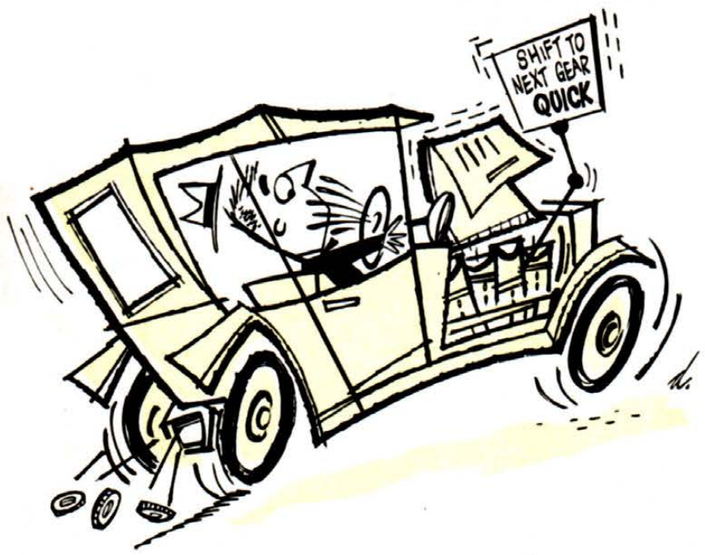
By the time that happened, though, the Baby Austin had kicked the persnickety two-stroke cyclecar into limbo, bounced the financially shaky Austin Motor Company well over to the black side of the ledger, and planted Sir Herbert himself in the House of Lords.

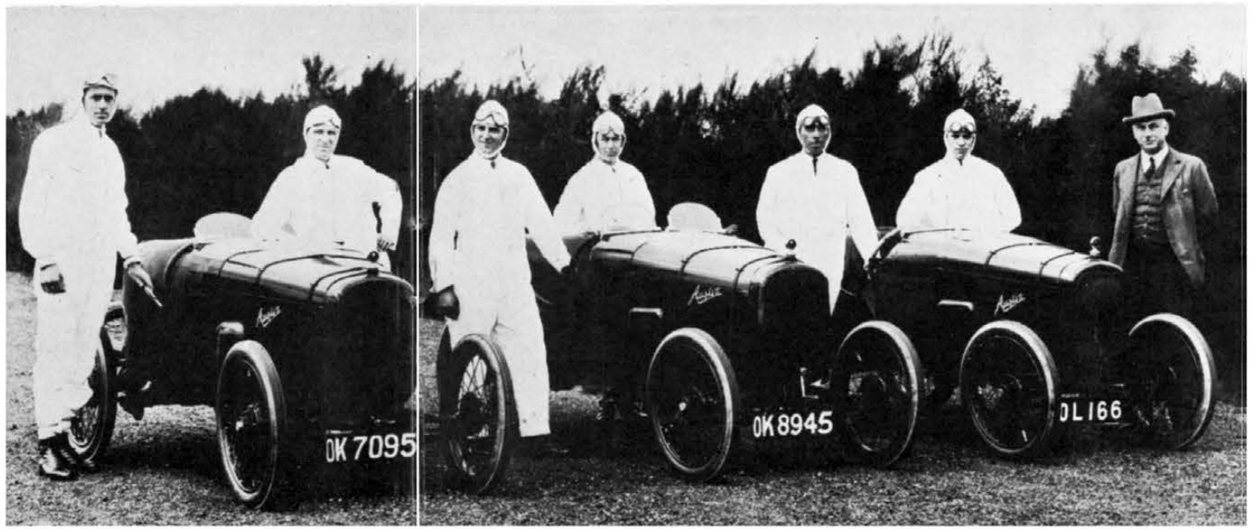
This would all be ancient history, except that the Austin Seven is still very much in evidence all over England, and the same goes for Scotland, Ireland and Wales. Close to half a million rolled off the Birmingham assembly lines in a production run that lasted from 1922 to 1938. The essentials of the design remained unchanged.

All the blueprints originated in Sir Herbert's billiard



They may not have been big, but the OHC Austin race cars developed one bhp for every 2¼ lbs., enough to trample much larger equipment. Main relationship to the Seven was the name and the 744 cc displacement.





Photos courtesy the LIGHT CAR, England

The first Austin Seven racing team, 1923. These cars were essentially stock Chummies — except for higher gear ratios, twin carbs, high-lift camshafts and fabric bodies instead of aluminum. Two of the cars retired with burnt-out bearings, and the remaining car crashed.

room during the entire run but small factory modifications brought big name changes. The Chummy, the Brooklands, the Sport Seven, the Ulster, the Nippy, the Speedy, the "65," the "75," the Ruby, and the Big Seven are all virtually the same Baby Austin.

Fiddled with by private firms of hop-up experts and coachbuilders, the Gordon England Cup, the B.C., the K.C., the A.E.W., the Taylor, the Lotus (not the Chapman version), the Swallow, the Arrow, the Stadium, the Burghley, and dozens of others now forgotten, are also virtually the same car. Take away the flashy bodies, the superchargers, the balanced crankshafts, the enlarged valve ports and fancy suspensions — and you're back with the classic Baby Austin.

Thousands are still providing transportation for Mom, Dad and the kids, at a remarkable 40 miles to the U. S. gallon and an unremarkable 35-40 mph.

Thousands of others have been stripped down, worked over, and juiced up by private enthusiasts. Blessed with an unusual A-shaped chassis frame, rigid enough to stand the stresses of competition driving with even the scantiest of backyard bodies, and an engine with lots of room — and metal — for improvement, the Austin Seven forms the basis for more sports specials than any other car in Europe. Though the car itself has been extinct for the past 18 years, there are so many warming-up outfits still being made — including high-compression heads, overhead valve conversions, twin-carb kits, four-branch exhaust layouts, lowered front axles, flattened rear springs, and split-axle IFS — that the Seven is sometimes referred to as "the grown-up's Meccano" — British counterpart of the Erector set. The Seven-Fifty Motor Club, devoted principally to competition featuring Austin-Seven-based sports cars, has close to 2000 members, making it one of the largest motor sports organizations in Europe.

It is an exaggeration to say that driving a Baby Austin these days is always a symptom of anemia of the bank account. "Sevenosis," like measles, is a childhood disease almost everybody goes through. If caught in time, it can be cured by small but regular doses of income, but the recovery rate is not quite 100 percent. Some people never get over the Seven's peculiar charm. They remain hypnotized by the fact that, though this least possible motorcar is undergeared and underpowered, it can still be relied upon to transport four people from A to B in relative comfort and at a moderate speed.

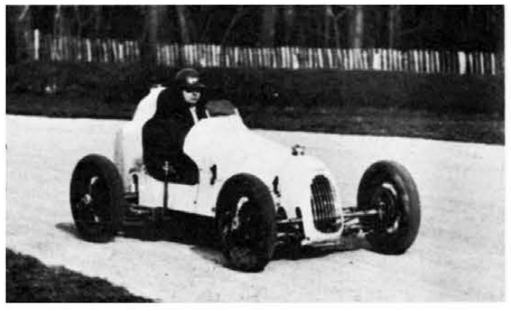
With a few reservations. Provided the road between A and B is fairly level. Provided the weight of the four people doesn't go much above 750 lbs. And provided the two who are sentenced to the back seat have retractable knees or don't measure over four feet from head to heels in the first place.

Overloading produces alarming sags in the suspension system Sir Herbert skillfully lifted from Bugatti's designs for the Bebe Peugeot. An upgrade makes the speed of the Seven so moderate as to verge on the depressing. And a downgrade is apt to make the trip from A to B hair-raising. Genuine Austin Seven brakes are such that it's even money the car shoots right by B, and after some frantic struggling on the part of the driver, only squeaks to a stop somewhere around W.

These are major shortcomings; how come the Austin Seven was — and is — so popular?

Price is, naturally, one factor. Fifty bucks gets you a good one, which makes the Seven the cheapest thing on four wheels in Britain's steep-used-car market. After that comes reliability. While the Austin Seven in stock form never did much, it does it all the time. The brakes are not so hot, but they stop the car eventually. A top speed of 40 isn't thrilling, but it's better than a spurt of 80, followed by weeks of walking while various disgruntled moving parts are regruntled.

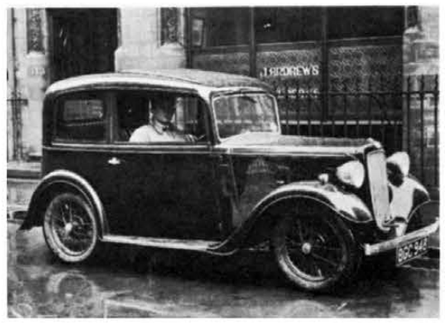
(Continued on page 61)

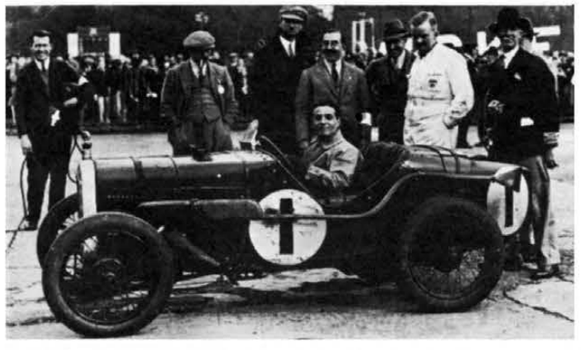


This is the last Austin Seven racing model built in 1939. Development of this model was cut short by the war, but in its short-lived career piled up an impressive list of wins.

During the years before World War II, Austin Sevens formed the basis for more specials than any other car in Europe. All were successful.

Few changes were made in Sir Herbert's original billiard table design. Sedans such as this one are still family transportation in England.





Small but potent scrappers like this accounted for Austin's racing successes in Australia and on the Continent.

Plucky Seven

(Continued from page 25)

This is far from saying that the Seven is a perfect little mechanical angel, complete with harp and halo. Though savants place it beside the Rolls Royce Silver Ghost, the Brescia Bugatti, and the Model T Ford, as one of the great designs in automotive history, actual Austin Seven drivers will only concede that it's probably the greatest car ever designed on a pool table. Its failings, peculiarities, and perversities; its gift for doing all the right things in all the wrong ways, add up to what people who are comfortably rolling along in something else describe indulgently as "character," and people in Austin Sevens call by other names — few of them printable.

For instance, the study of Austin Seven noises is a science in itself. There is the bloodcurdling wail of the "ham-slicer" starter, which item aficionados will tell you proudly the Seven has in common with the early Bentley. It is the only thing an Austin Seven has in common with a Bentley of any description.

There is the constant jingle of the crank, which in most models was fixed, but not very. There is the steady, unstoppable murmer of the radiator leak, and the clank of the fan pulley, which generally hangs beltless. Normally overcooled, the car runs better that way. Perhaps it's less confusing for the overworked little engine, since when all is connected according to the book, the fan whirls backwards. It's supposed to!

Then there is the rear main bearing rumble. This is probably the oldest design bug in automobile history. Austin Sevens, and the rumble, have been around for 33 years and nobody has figured it out yet.

Fifty miles after an Austin Seven leaves the factory, a low growl starts emanating from the rear main bearing, a disturbing grumble that seldom gets worse, but never gets better. Nobody is quite sure why this bearing should mutter to itself, or, if it is in distress, why it doesn't go further and seize up altogether. The likeliest guess connects the condition with the fact that the skinny, two-bearing 1⅛-inch crankshaft develops a pronounced whip at speed. (On competition specials with shaved heads and thin gaskets, there's no need to shift gears by the rev counter. The driver merely waits until

he hears the characteristic clonk of the pistons hitting the underside of the head as the shaft bows. Then he knows he's in top revs for that gear, and must change up one!)

In the cause of quiet motoring, the Austin company fitted a new and improved rear main, so stiff that it could scarcely be turned by hand. This kept the grumble at bay for 100 miles, but when it arrived, it stayed. In a further desperate effort, the manufacturers put a center bearing on the crankshaft. This nifty device supplied not only growl in various keys, but the exciting stereophonic sound of a fracturing shaft and a jolly tinkle as various innards burst outwards. The Seven-Fifty Motor Club casts their car badges from alloy crankcases that have taken this route to the Happy Hunting Ground. The Club has 2000 members, most of them have car badges, and there's no shortage of metal in sight. As a memorial to a lesser evil, the Goodacre Trophy, Club award for the highest score of the season in the 750 cc formula, is a polished and chromed two-bearing crankshaft — possibly on the theory that anyone who has taken an Austin Seven through a season of racing could probably use one.

When the slide-rule boys decided that the Baby Austin was a miracle of engineering, they had various straightforward features in mind, such as its unconventional chassis, its muscular little engine, and its utter reliability. However, one of the most miraculous bits of mechanical foolishness on the car involves its thoroughly mediocre steering layout. The parts are absolutely standard: steering wheel on top, steering column, and, on the bottom, a worm and gear in the steering box. Now, by some process Sir Isaac Newton must have overlooked when he was figuring out his law of gravity, oil manages to leave the steering box, drip *up* the steering column, and land on the driver's trousers. Nobody has figured out anything to do about this either, except to wear oil-colored pants.

After dripping up, it's a cinch for the highly talented oil used in Austin Sevens to sneak out of the gearbox, crawl forward along a revolving driveshaft — which ought to throw it sideways, if centrifugal force hasn't been repealed — and soak the clutch lining. Austin Seven drivers are continually pulling up at the nearest drug store for Fuller's Earth, an absorbent powder which is dumped into the clutch housing via the inspection plate, to sop up the oil and cure clutch slip.

This clutch is the secret of the Seven's "pep without power." Since it has a travel of only an eighth of an inch, smooth starting is next to impossible. Letting in the clutch generally results in a convulsion that racks the little car

ACTION IN ARIZONA

HOT on the heels of Daytona's Speed Week the public, still reeling from the knowledge that "production" Chevy Bel Airs can do 121 mph, Dodge D-500's 130, and Corvettes 145, was confronted with the results of another festival of speed, this one devoted to products of the Ford Motor Company.

The occasion was the public dedication of Ford's magnificent new 3840-acre proving ground in the desert near Kingman, Arizona. The specific site was one of the proving grounds many facilities — a five-mile asphaltic concrete track with 2500-ft. radius curves banked as steeply as 60 degrees. The timing and certifying body was NASCAR and the first performer was a '56 Ford Sunliner convertible powered by optionally-available Thunderbird Special engine with 312 cubic inches displacement and an output of 225 bhp. This car was clocked at 110.337 mph for the standing-start ten miles and at 118.197 for the flying-start five miles. In all, it surpassed 18 national records, all by broad margins.

Next, 20 existing stock car records were blown to bits by Mercuries driven by Walt Faulkner, Johnny Mantz and Von Thompson. Among the new "records" set by Mercury were 115.207 for the standing five miles, 130.700 for the flying five, and 117.214 for a solid hour.

These Mercs, too, are cars that the public can buy. Their high speeds were achieved by means of 3.15 rear axle gears and a power kit consisting of a high-lift cam, dual four-throat carbs and manifold, and a set of ten-to-one cylinder heads. The kit has a suggested list price of $465. The record cars were equipped with Firestone Super Sports racing tires; there is not a kit for souping up the brakes.

I made ten flat-out laps of the course with Mantz and was able to discuss the cars' performance with the three drivers. The acceleration of these machines surpasses anything in familiar U. S. touring car practice and their road stability at all speeds is exceptionally good. Faulkner's runs were made while strong, gusty winds were blowing across the desert but he reported that they hadn't the least effect on the car's handling.

The one-hour record run was made by Mantz with an engine that had only 75 break-in miles on it at the start. Mantz reported that in over 100 flat-out miles the new engine never missed a beat and that the longer it ran the faster it ran. At the beginning of the run it would not wind beyond 4800 rpm but toward the end was turning 5200. It was Mantz' opinion that the car felt just as solid at 130 as at 30 mph and he proved this to my satisfaction while I was in the car.

On the same day the Mercury speeds were established, the Lincoln Division demonstrated that it is not resting on the laurels won in three Mexican Road Races. The instrument used in this demonstration was a '56 Lincoln Premiere sedan, drastically modified for purely experimental purposes, and *not* with power kit sales in mind. The car's engine was bored and stroked, had solid tappets, special manifolds, camshaft, crankshaft and distributor, and a centrifugal supercharger.

Chuck Stevenson, big silent two-time winner in Mexico drove this car through the NASCAR clocks at 146.599 mph; it was a fantastic sight to see so much machine hurtling at such speed. But that was only the *official* time. During preparatory runs, when only hand-held stopwatch times were being taken, Stevenson got in front of a tailwind and thundered (two straight exhaust pipes) through the traps at just over 157 mph. He told me after the runs that the car could be steered with the fingertips of one hand at its top speed.

Obviously, the most competitive sales era in the auto industry's history is forcing Detroit to return to auto racing, an activity which it carefully shunned for about 15 years. The public show of strength at Ford's Arizona proving ground made it clear to the world that another of the Big Three is firmly entered in the contention to come. — *griff borgeson.*

and snaps back the passengers' heads. The uninitiated take this for real sports-car pickup. It's nothing of the sort, because you don't go anywhere. You just sit there shuddering until the engine manages to scare up enough revs to overcome inertia and get the wheels to turn.

Inside the engine, oil is tossed around in what is known inelegantly but accurately as the "spit-and-hope" lubrication system. Spat out of two jets at the top of the crankcase, the oil flies through space to land in or near two small holes in the crankshaft webs — provided everything is in proper alignment, which is where the hope comes in. The speed of the crankshaft's travel shoots the oil to where it will do the most good, on the same principle as the one that gives you a bellyful of water if you dive off a high board with your mouth open. Like the other Rube Goldbergs that go to make up the Baby Austin, the lubrication system is peculiar, but completely reliable.

Admirers quote a handy legend to the effect that while the Seven's brakes won't necessarily stop the car where you want it to, they will stop it just short of an accident. This is rank superstition. The accepted technique for stopping or even slowing down is to grab the emergency brake and pull as hard as you can, meanwhile putting all possible weight on the footbrake. Austin Seven addicts getting behind the wheel of a car with less character are apt to toss themselves right through the windshield at the first traffic light.

The root of the trouble lies in the undernourished brake drums. Neither the six-inch nor the seven-inch model presents enough braking surface to do the job. When the car left the factory there was an adjustment designed to exert more pressure on the harassed linings, but this was used up the first time the brakes were tightened, which in the case of most of the Sevens now on the road, took place in the days of Rudolf Valentino, knee-length skirts, and "Yes, We Have No Bananas." Nowadays the only way to do something toward improving stopping power is to take up the slack as the brake cables stretch — and stretch — and stretch.

This futile gesture is carried out with clips, and on a really seasoned car the clips are lined up on the cables like sparrows on a telegraph wire.

Do they help? Not much. They must be tightened only with the wheels on full right or left lock, otherwise at the first turn the brakes grab solidly and the car howls to a stop with linings smouldering. Of course, adjusting the brakes on lock and then straightening the wheels again means that most of the adjustment effect disappears. But — well, the Austin Seven has pretty terrible brakes. #