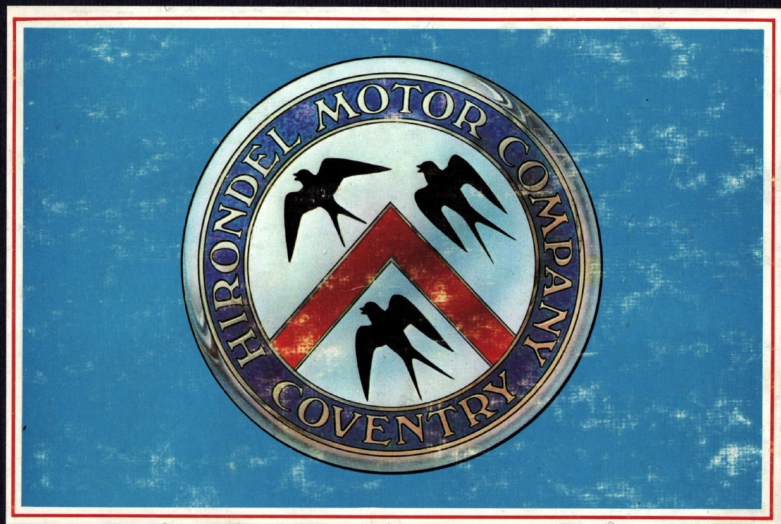


AUTOMOBILE

Quarterly





automobile

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DON'T LET THIS HAPPEN TO YOU



AC

A BRIEF HISTORY

BY
WILLIAM S.

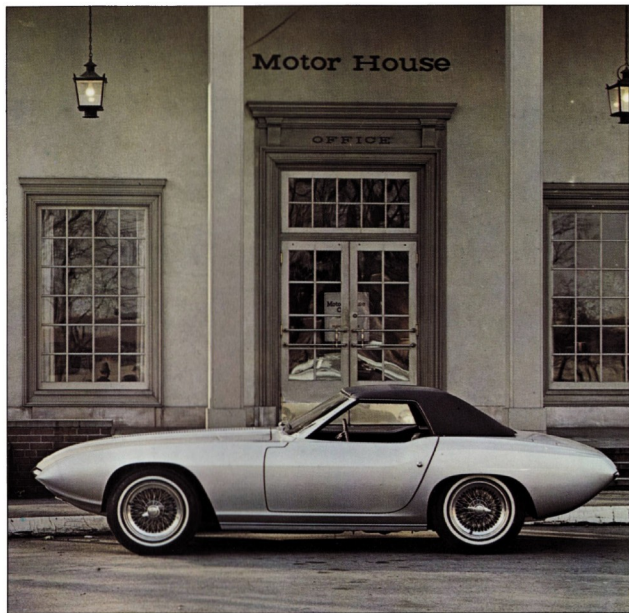
It's a long, long road a-winding bet

C

ISTORY

JACKSON

ween the Sociable and the Cobra.



To talk about a butcher, an engineer, an Australian pig farmer, two brothers and an extraordinary Texan by way of introducing one of England's finest limited production automobiles may seem a bit irreverent. But then A.C. itself has always seemed to be slightly risqué — sort of like an English nanny with black mesh stockings. It's an approach that over the years brought the company fame, if not necessarily fortune, and earned for them ringing titles as "The First Light Six and Still the Finest" and "Thames Ditton, the Saville Row of Motorodom."

However, it was indeed the coming together of a prosperous butcher and an outstanding engineer that got the whole thing started in 1900. John Portwine, Esq. was a successful South London butcher with a chain of shops. He had succeeded to a point where he could contemplate other ways of the world, and decided the machine age was here to stay and he should be in it. A brilliant young engineer named John Weller was brought to his attention and Portwine provided the capital for Weller to put his ideas into action. Portwine was convinced he was associating himself with a man who would leave his mark. He was right.

Weller set up shop in West Norwood outside London and immediately began working on his first automotive project, the Weller car. The prototype, a clean-lined four-cylinder 20 hp chain-drive tourer, was completed in time for the 1903 Crystal Palace Motor Show and impressed *The Autocar* enough to devote six pages to an article describing it. It had an unusual subframe unit which held the engine, gearbox and differential and which was attached to a relatively standard frame at three points. Weller's very clever idea was to eliminate the torsional stresses and misalignments usually transferred to the running gear through conventional mounts.

Suffice to say that the cost of producing this vehicle proved to be quite beyond expectation. This project, along with a contemplated motorcycle, was dropped in 1904 when the company also changed its name to Autocars & Accessories, Ltd. and moved on to what is considered the first A.C.

Portwine, being a merchant, knew well the attendant miseries of having to maintain a fleet of vans and horses for the delivery of goods. In 1904 he presented his engineer associate with the idea of building and selling a reliable and relatively inexpensive delivery van for merchants — of all kinds. The AutoCarrier was the result. It was a 5.6 hp single-cylinder (90 x 102 mm) air cooled tricycle, also with chain drive to a single rear wheel.

The rear hub enclosed a multiple disc wet clutch and an epicyclic gearset which provided two forward speeds. The driver sat on a rear seat over the engine, steered with a tiller and looked out over the large delivery box with front-opening doors mounted ahead of him.

These little vehicles proved quite reliable and were soon in brisk demand. No less firms of the day than London & South Western Railway, Great Western Railway, Goodrich Tyre Co., Associated Newspapers and Carr's Biscuits operated busy fleets of the little AutoCarriers. They were reportedly strong enough to handle the abuse dealt them by the turn-of-the-century version "cowboy" — today associated with the pastel panel truck delivering pizza and diapers — and in fact set up quite a record for endurance.

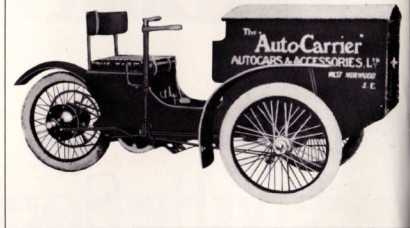
With such success behind them, the company set about the production of a passenger-carrying version of the AutoCarrier in 1907. In November of that year they changed their name from Autocars & Accessories to Autocarriers Ltd. to better reflect their product. It was also at this time that they first began using the initials A.C. The directorship remained in the hands of John Portwine and John Weller.

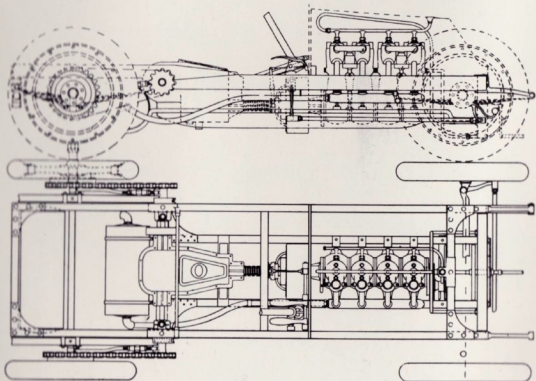
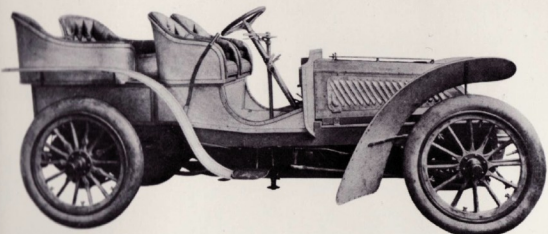
The first A.C. Tricars retained the single rear seat over the engine, as with the AutoCarrier, and substituted a passenger seat in front where the parcel box had been. It cost £85. Later versions were called Sociables and offered two additional seating options — side by side, or driver at rear and a two-passenger seat in front. Technical specifications were relatively the same as the AutoCarrier.

By 1909, Autocarriers Ltd. was running a trials team and the following year their car was adopted as the official vehicle for the 25th County of London Cyclist Regiment, complete with Maxim guns mounted on special bodywork.

In 1911 the Tricar price was 90 pounds when the works were moved from West Norwood to their present location at Thames Ditton, Surrey. This sleepy little town on the Thames was more properly associated with quiet Sunday afternoon boat rides than with the production of something as radical, and unnatural, as the automobile. That same year also brought another name change to Autocarriers (1911) Ltd. for the purpose of raising more capital, with Portwine and Weller still at the helm.

Weller was a brilliant engineer, and not at all satisfied to confine himself to his three-wheeled wonder. In 1912 he began developing another





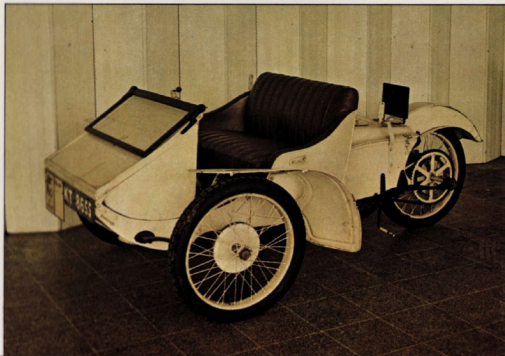
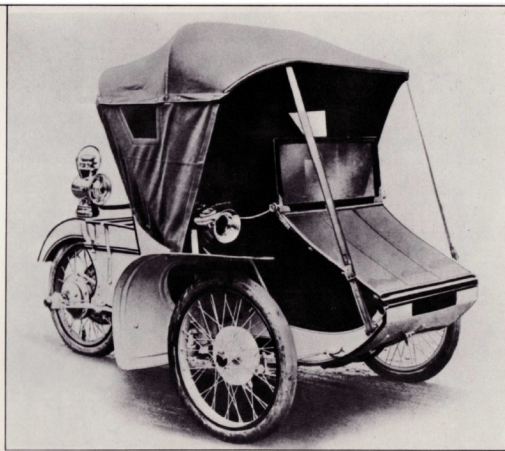
Above left: John Weller (left) and John Portwine, photographed in 1921.

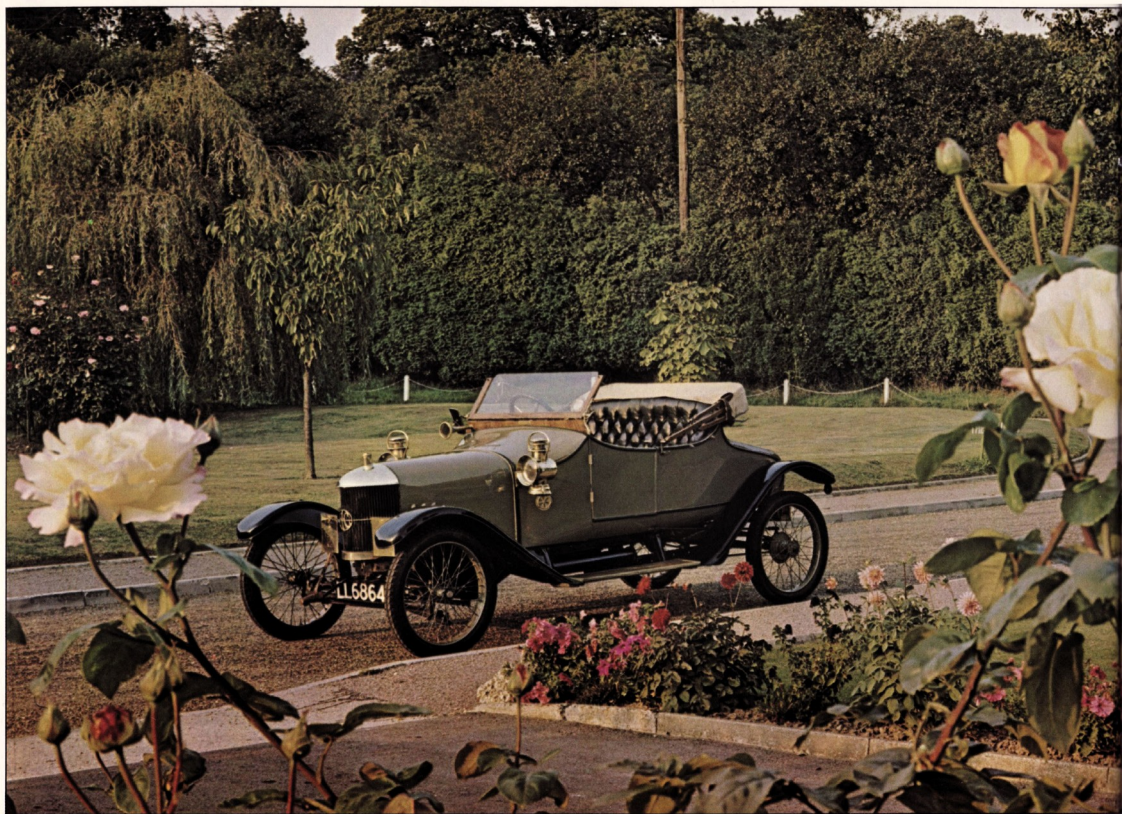
Below left: The first AutoCarrier, 1904.

Above: The 20 hp four-cylinder Weller, in photograph, elevation and plan view, as exhibited at the Crystal Palace in 1903.

Above right: A 1910 Sociable fitted with all-weather equipment.

Below right: The 1910 Sociable owned by A.C. managing director W. D. Hurlock.







Owner: B. W. Garrett

four-wheel four-cylinder car, but much lighter in concept than his Crystal Palace design, and by 1913 had a prototype operating. It too had some relatively unusual features. Though the suspension system was common enough (a transverse leaf spring at the front, à la Model T Ford, and quarter elliptics at the rear), where Weller really impressed the industry was in his treatment of the rear axle. It had a beautiful cast aluminum housing which enclosed not only the worm and wormwheel, but the transmission as well, and a large disc brake mounted at the back end of the housing. This arrangement was a typical feature of A.C. cars for years. With their high-mounted bodies, the large aluminum casting and the disc transmission brake spinning away, A.C.'s were immediately identifiable aft. Some comment should be made here regarding unsprung weight, as tests showed the A.C. transaxle unit to be actually lighter than the standard banjo-type rear axle common at the time.

Weller was unhappy with available English proprietary engines and went to France for a little four-cylinder (59 x 100) side valver called the Fivet, which possessed a satisfactory power-to-weight ratio. The original cars were equipped with a cone clutch which proved quite heavy for such a light car. Thus Weller became one of the first, if not *the* first, to use the disc clutch in an automobile. Although prior use has not been demonstrated, no claim is made by A.C.

The little A.C. two-seater was first road tested at Brooklands in June, 1913. It achieved 45 mph on the Railway Straight and did a lap at 35 mph, no mean feat for what was considered a cycle car at the time. With lamps, horn, tools, etc., this very attractive little car sold for £165.

The First World War brought car production to a halt at Thames Ditton, while large quantities of fuses and shells were turned out. But 1919 saw A.C. back on the road with essentially the 1914 car. Fivet had been hard hit by the war and was only able to provide a limited number of engines, reportedly built up from castings which had been buried during the hostilities to keep them from falling into German hands.

Weller started looking again for a good engine and settled on the Gustav Maclure-designed Anzani 1496 cc four-cylinder 11.8 hp side-valve unit which would later become still more famous in Frazer-Nash cars. A.C. was British Anzani's first customer for this engine, with Weller placing an order for 2000 units in 1920. To assure their continued supply of engines, A.C. bought 2000

shares of Anzani common stock in October of 1920, and Portwine and Weller joined their board of directors.

Weller had not been sitting on his hands in Thames Ditton, for in 1919 A.C. produced the first light six engine there, incorporating many advanced features for the day. It developed 40 horsepower from six (65 x 100) cylinders totaling 1991 cc displacement. Using lightweight construction and liberal amounts of aluminum alloy — both the block and sump were cast aluminum — the total engine weight, with starter and generator, was held to 350 pounds, in spite of the cast iron cylinder head and heavy steel flywheel. It also featured a helical gear-driven single overhead camshaft. This latter item proved quite noisy and led Weller to the installation of the industry's longest camshaft drive chain, plus the invention and patenting of the spring plate chain tensioner which still bears his name and is in worldwide use today on most cars having chain-driven overhead camshafts.

The A.C. six-cylinder engine itself holds something of a record, being the engine with the longest production life of any automobile manufacturer. It was in production and use by the company from 1919 until it was phased out in 1963 — a remarkable forty-four-year run which is only approached by Jowett but exceeded by none. Power was increased from the initial 40 to more than double that amount at 105 hp by the time its production ceased.

Meanwhile change was in the wind at Thames Ditton. S. F. Edge, the lion of the early days of English motoring, had served his seven-year, self-imposed exile and was eager to be back in the motorcar world.

To back up a bit, Selwyn Francis Edge had entered the auto business with Montagu Napier in the same year John Portwine and John Weller teamed up. He was even then one of England's most prominent motorists and brought the country fame with his winning of the 1902 Gordon Bennett Trophy Race and later, in 1907, his twenty-four-hour endurance record of 1581 miles (65.9 mph) which stood for eighteen years. In spite of these successes Edge and Napier did not get along. Edge was always a man to say precisely what he felt and Napier reportedly a man loath to the graceful acceptance of criticism. It all ended in 1912 when an agreement was signed between the two in which Edge sold all interest in his firm, S. F. Edge (1907) Ltd., to Napier for something more than 160,000 pounds and an agreement that he would



1921 Empire 4 sports four-seater

Montagu Motor Museum

not in any way take part in the motorcar industry for a period of seven years.

Having thus retired from the motor trade, albeit temporarily, he purchased a large estate in Sussex and took up pig breeding. He very shortly built quite a reputation as a breeder of prize pigs. However, his thoughts were always with the motor trade. During the First World War, he was appointed Director of Agricultural Machinery and in

this post was required to drive down to London frequently. He purchased a small A.C. car for this purpose, because of its low fuel consumption, and was quite taken by it. When the suggestion was made that, after seven years had expired, he might take an active interest in the A.C. car, he jumped at the idea. Edge joined the Autocarriers Ltd. (the "1911" had been dropped in February, 1920) board of directors in February of 1921. His friend

Thomas Gillett assumed a similar position in July.

As seemed to be the case wherever Edge went in the motoring business, friction developed between himself and founders Portwine and Weller. When Edge became chairman and governing director in September of 1922, Portwine and Weller walked out. In November of 1922 the company name changed again, this time to A.C. Cars Ltd.

Edge and Gillett also ascended to the board of

British Anzani as well in the changeover. Edge almost immediately took the A.C. engine contract away from Anzani and awarded it to Cubitts in Aylesbury, another firm in which he was a major stockholder. He then hired Anzani designer Maclure at Cubitts to sort out their version of the Anzani engine (a bare-faced copy) which was then being used in the postwar A.C. This Maclure did with modifications to the carburetor porting, better balancing, a stiffer crankshaft and a chain-driven generator.

By 1924 the Weller-designed six was the major A.C. powerplant, although the four-cylinder was available as late as 1928. However, Edge did not start his regime on a bed of roses. Public acceptance of the traditional A.C. rear axle/transmission unit was on the wane. People just didn't like it. Edge was not new to fighting for public acceptance. He waged a war of letters in the motoring press, used testimonials and promotional gimmicks throughout the years he was in control. His convictions were such that on one occasion when a recent A.C. purchaser called at the factory to complain about his car, Edge insisted the owner accompany him for a drive, during which Edge admonished him, extolling the virtues of his personal A.C. Upon their return the steaming owner exclaimed "we are talking about *my* car, Mr. Edge, not the managing director's!" He traded very shortly thereafter for a 16 hp Sunbeam.

In these tactics history proved Edge to be mistaken. When he took over A.C., he failed to realize that in the seven years he had been absent the general public had developed its own automotive ideas. The populace had learned to drive during the Great War and the name S. F. Edge no longer stood for what it had when he retired in 1912. In the earlier years he could practically dictate to the public what kind of a car was fitting and proper, but 1919 was not 1912 and in the interim people had decided they preferred making such decisions themselves.

But Edge was a hard-headed man, and his previous successes caused him to feel he knew far better than anyone else what his car should be. He tried to educate the public to his way of thinking, fighting an uphill and, ultimately, a losing battle.

However, the S. F. Edge years at A.C. were not all dark. Edge was a man who knew well the value of competition as a sales promoter and he encouraged all efforts in this direction during his years at the helm.

As mentioned previously, A.C. had first entered trials before 1910 with their little Sociable tricars



Owner: Rod Coates

1927 Acca two-seater

and the first A.C. four-cylinder car had performed admirably at Brooklands. Under Edge, an all-out assault was made on the record book. As English racing driver S. C. H. "Sammy" Davis, who was with A.C. during these years, recalls, "every type of A.C. was taken for its class records in turn."

In 1921 the 1.5-liter A.C. broke fifty-seven class records from six to twelve hours at an average speed of 68.52 mph, with records for 400 to 800

miles as well. On May 24th and 25th they captured the light car Double Twelve (hour) record, covering 1079 miles at an average of 71.23 mph.

The best was yet to come though, for on November 24, 1922, J. A. Joyce, driving a special A.C. factory racer, covered 101 miles, 696 yards in one hour, thus becoming the first light car to cover 100 miles in sixty minutes. This run caused much distress among Aston Martin enthusiasts, who were



1928 Royal two-seater

Owner: C. P. Willoughby

then preparing their "Razor Blade" for a similar assault.

One of the longest standing records at this time was S. F. Edge's twenty-four-hour endurance run of 1907. What could be better than to have it broken by a car from his present firm. Thus, in May of 1925, the twenty-four-hour record was attacked in France at Monthl ry with a special two-liter six-cylinder A.C. It was Edge's associate

Thomas Gillett who drove the entire run — as Edge had done at Brooklands in 1907 — and set up a new record at 2000 miles in 24 hours 13 minutes for an average over the twenty-four hours of 82.58 mph. Keep in mind this was 1925 and a two-liter car!

Another man prominent in the competition history of A.C. is the Hon. Victor Bruce. It was he who entered his A.C. in the 1925 Monte Carlo

Rally, the first English car ever entered there. It was also he who won the Monte Carlo the following year and the Monte-des-Mules hill climb which was one of the special stages. And to emphasize the point, his wife, Mrs. Mildred Bruce, entered her A.C. in the 1927 Monte, placing sixth overall and winning the Coupe des Dames.

In December of 1927 the Bruces undertook what was probably their most ambitious effort for A.C. — an attempt to cover 15,000 miles in ten days on the Monthl ry track. In spite of the fact a dozing Mr. Bruce put the little A.C. over an embankment at 80 mph and demolished the bodywork, the little car carried on after a fifteen-plus hour delay. It captured the records for four, five, ten and 15,000 miles, breaking their 15,000-mile record goal by more than forty-eight hours.

The end of another era at A.C. was fast approaching. In spite of their competition and record breaking successes, the cars were not selling. Edge's health was failing, and so were several of his business ventures. The A.C. company was heavily in debt and went into liquidation. Put on the block, Edge bought it back, against all advice. Various changes were made and an expensive showroom taken in Pall Mall, London, in the hope that the company could be saved.

However, the cars still did not sell and the prices A.C. was charging for repairs were driving away what few customers they were able to find. Several of Edge's old friends and associates from the Napier days had rallied round him for well-paid jobs, and the company was badly over-staffed. In the end the bankers applied for a receiving order and a receiver was appointed in 1929. This was the end for Edge and he never recovered. He went into semi-retirement.

Production model A.C.'s of the Edge years were, first, the four-cylinder light car with the Cubitts engine, which was available as either a two-seater with dickey or a four-seat tourer until 1928. The A.C. Light Six was added to the line in 1920 on the same 106-inch chassis at a cost of 750 pounds. In 1925, to commemorate Gillett's twenty-four-hour record run, A.C. brought out a sporty two-liter version with a polished aluminum body known as the 16/40 or Monthl ry A.C. Its performance was outstanding. Each car was delivered with a Brooklands guarantee of 85 mph. Many years were to pass before another A.C. product approached that figure. It was on the engine of this car that the new company designer, Sydney Smith, had added a hotter camshaft, a fifth main bearing and a flywheel damper.



Owner: David L. Van Schaick

1935 Ace sports four-seater

The year 1927 brought a rather undistinguished line of cars and yet another name change to A.C. (Acedes) Cars Ltd. The Monthéry was dropped and a two-seater with dickey and four-seater tourer were offered with a sleeved-down version of the six, giving only 1494 cc. Fortunately, it didn't last. Top of the 1927 line was the S. F. Edge Special Royal A.C. Acedes, with a choice of 56 or 66 hp engine. An Acedes coachbuilt saloon was available,

along with a fabric-covered saloon built on Weymann patents. All models now had quarter-elliptic springs front and rear, Hartford shocks and front wheel brakes.

The 16/56 A.C. Acedes tourer was added to the line in 1928, which was some improvement. However, the cars were continuing to grow in size and decline in popularity. The last car of the Edge regime was the 1929 A.C. Magna. It was even

heavier and the trend seemed to be away from a sleek fun car to something bulbous with an emphasis more on creature comforts than performance and handling.

However, in 1929 it was over and the firm went into voluntary liquidation — a move which ironically helped it weather the economic slump which wiped out many of its competitors. The company and its assets were purchased in 1930 by

two brothers. W. A. E. Hurlock assumed the helm as managing director and his brother Charles became general manager. It is interesting to note their original plans for the premises at High Street, Thames Ditton, had been to acquire and dispose of the large amounts of World War I surplus material available at that time. However, when they took inventory of both the excellent staff and the supply of A.C. spares still in stock, they decided they were truly in the motorcar business. Service facilities were reopened and work begun on reintroducing the A.C. Magna, which was accomplished by 1931. The car was still basically the 1929 version with a little lightening, but numerous former A.C. customers were brought back into the fold with the introduction of this Acedes Magna.

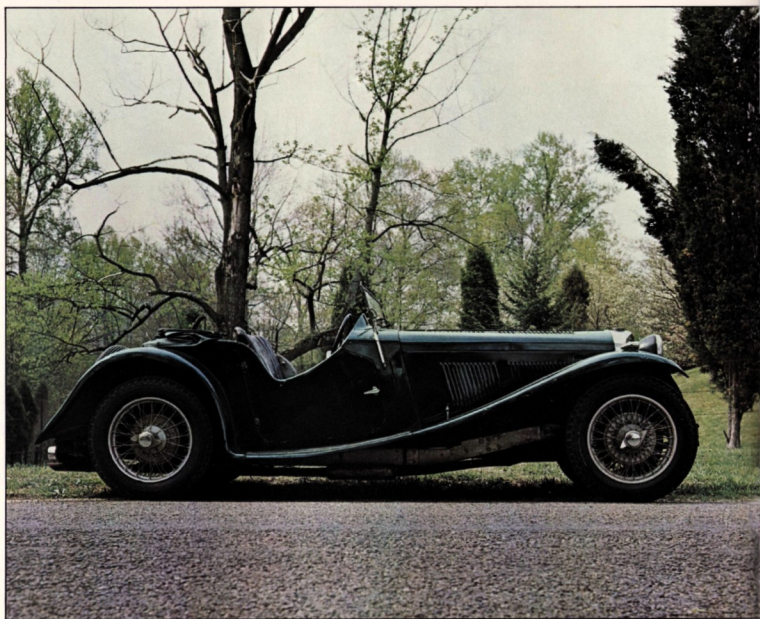
The Hurlock brothers, unlike Edge, did not turn a deaf ear to the criticism of the transaxle unit. An experimental A.C. with a new chassis in which its four-speed gearbox was sensibly attached directly to the engine was completed and entered in the thousand-mile 1932 RAC Rally, where it performed satisfactorily. Thus, A.C. put the new chassis into production for the remainder of 1932, offering a sportsman saloon and two-seater drophead at £400.

In March of 1933, A.C. was back in the headlines again when Miss Kitty Brunell won the RAC Rally outright and the Ladies Prize with an A.C. sports tourer. In addition, C. F. Hurlock placed fourth, W. A. E. Hurlock sixth and Mrs. G. Daniell seventh. Mrs. Daniell's drophead coupé also won the concours d'élegance run in conjunction with this event.

A.C. was obviously doing things right once again, re-establishing their reputation of providing a high quality car in the mid-price range with good-looking coachwork. Their sporting models became the Mustangs, Camaros, Firebirds and Javelins of their day.

In 1934 the standard chassis was known as the Ace and a wide selection of coachwork offered. There were two- and four-seater drophead coupés, a four-seater saloon and a four-seater tourer. There were also the special saloons and tourers known as "March Specials," having been designed by the Earl of March, later the Duke of Richmond and Gordon. The Greyhound saloon was added to the line in January of 1934.

For 1935 the four-speed crash box was replaced with an E.N.V. synchromesh. Three carburetors became standard and a more square radiator shape was introduced, getting away from the rounded radiator that had been an A.C. trademark since the



1936 16/80 sports two-seater

Owner: Rod Coates

beginning. A Wilson Preselector electric gearbox was also an available option.

The introduction of the 1936 models at the 1935 fall Olympia Show brought a surprise from A.C. in the form of their new two-seater Ace on a chassis with the wheelbase shortened to 106 inches from the standard 115. It had a slab gas tank at the rear and two rear-mounted spares. The engine had a slightly warmed camshaft for better performance. The Aero saloon also came into the

line. Chrome slats replaced the wire screen in the radiator grill and the D.W.S. built-in jacking system was fitted to all cars. Three stages of tune were available. The 16/60 hp was standard. For 20 pounds more the 16/70 hp version was available with 6.5:1 compression and on the short chassis 16/80 hp version, 7.5:1 brought an additional ten horsepower.

Nineteen thirty-seven saw Tecalemit automatic chassis lubrication made standard. Development of



Owner: Rod Coates

1937 four-seater drophead coupé

the two-seater resulted in the "Ace Competition" sports model with two engine options available. The A.C. six could be ordered in unblown form with 7:1 or 7.5:1 compression ratio, or fitted with an Armott 3½ psi belt-driven blower. The factory-recommended compression ratio with this option was 5.25:1, although some customers more interested in performance than engine life went to 7.5:1 with the blower.

The A.C. line was relatively unchanged for

1938. Sales were brisk and the sports two-seater one of the best performing cars on the market. The company was planning the introduction of a new model for 1939 with an underslung chassis, softer springs and larger bodywork, but Hitler changed all that. A.C. went over to fulltime war work for the duration.

When the war ended, A.C.'s design department started on a new car. They fortunately dropped the 1939 chassis idea and went back to the tried and

true underslung chassis with beam front axle which had provided their good handling in years gone by. Modifications to the A.C. six were carried out and the first prototype, a four-seater drophead coupé, was completed in 1946. The first body style to be offered was a two-door saloon with the old Weller six now developing 80 hp in cooking form. The first cars rolled out of the factory in October of 1947. Girling hydra-mechanical brakes were fitted (hydraulic at front, mechanical





Owner: Rod Coates

at rear) and a better cooling system incorporated.

Export started in 1948 and by 1950 an average of five cars a week were leaving Thames Ditton. A five-seater sports tourer with body by Buckland Body Works was announced in January, 1952. Prices at the time were £1219 for the tourer and £1180 for the saloon.

It was shortly after the war that A.C. was approached by the Ministry of Works to design and build a motorized invalid's carriage. This they did. They also added some fancier bodywork and, taking advantage of the postwar austerity period and the three-wheel car tax laws as well, introduced the A.C. Petite in 1950. It had a single wheel in the front which steered and two wheels at the rear connected to a 346 cc air cooled two-stroke Villiers engine. It went through a Petite Mk II series and many of these oddities are still on the road today. In 1954 the Buckland Body Works Ltd. of Buntingford, who were producing both a Mk I and Mk II sports tourer body for A.C. (the Mk II had cut down doors), decided to introduce a stripped-down version of the Petite as the "Buckland Runabout," but this project came to naught.

A.C. had introduced a four-door saloon in 1952 on the same chassis and considered a five-seater convertible with roll-up windows. It was listed in their catalogue for that year but never got into production. All versions of the A.C. saloon and sports tourer ceased in 1956, as A.C. had already turned hand and mind to more sporting thoughts.

At the end of the war, a continuation of petrol rationing kept Formula III racing in the forefront for some years, but by the late 1940's sports car racing was back in full swing. Prewar M.G. bits were plentiful and several specials were derived from them, not the least of which was an M.G. TA special built and driven by one John Tojeiro. His dissatisfaction with the suspension of this machine led him to start from scratch on a new chassis.

The basic frame was a large H, made up from three heavy-wall steel tubes. At each end 12-gauge steel boxes carried the suspension, which was independent all round by means of transverse leaf springs and lower A-arms. Morris rack and pinion steering was used along with hydraulic shock absorbers and Turner wheels.



This car became the basis for a whole family of specials in the early 1950's, the most famous of which was Cliff Davis' Bristol-engined car which appeared in 1953. In all fairness, it should also be mentioned that Davis had helped another special builder, Lionel Leonard, build his outstanding Cooper-M.G. the year before, with a suspension design that owed more than its name to that of the Formula III Cooper. In fact, Davis built a second M.G.-engined car similar to Leonard's from which his Bristol-engined car was derived.

The Bristol-engined car had the Tojeiro-designed chassis, the two-liter Bristol version of the prewar B.M.W. 328 engine and an aluminum body that was unashamedly almost an exact copy of the Superleggera Touring "Barchetta" as used on the Tipo 166 Mille Miglia Ferrari. It went and it won, but the big surprise came at that fall's Earls Court Motor Show.

There, on the A.C. stand, was a near-replica of the Davis car, with an A.C. engine installed and billed as the new A.C. Ace. It was the hit of the show. Until then, only Lagonda had been offering all-round independent suspension for highway motoring around the British countryside.

The beautiful Accca coupé was added the following year and in 1956, at the urging of tuner Ken Rudd, the Bristol two-liter engine was offered as an option. Suddenly the A.C. Bristol roadster was the hottest two-liter production car in the world. Off the floor it developed 125 hp and, with a Stage Four tune by Rudd and such goodies as his carburetor air-straighteners, it could be coaxed up to nearly 150 hp output.

A.C. got back into competition officially in 1957 with an entry at Le Mans. Ken Rudd and Peter Bolton ran second to a Ferrari in the two-liter class, while finishing tenth overall. In 1958, A.C. was back at Le Mans with two cars — a relatively stock one in the hands of Swiss drivers Pathney and Berger and a new experimental Tojeiro-designed space frame car piloted by Bolton and Dickie Stoop. The experimental car won the two-liter class, placing eighth overall and the Swiss car was right behind in ninth. The new car had developed rear axle problems and did not perform to its full potential.

The experimental car was raced one more time at the 1958 Goodwood version of the Tourist



1956 Ace roadster

Owner: Jacob Snyder, Jr.

Trophy with Anthony and Whiteaway up, and placed a dismal nineteenth out of twenty-one cars, with the rear end of the car developing a noticeable sag toward the end. It is also interesting to note a Texan by the name of Carroll Shelby drove a DBR1/300 Aston Martin into third place that day.

In 1956 a blood-red A.C. Ace crossed the Atlantic and was campaigned in the East by one Joe Boljad. Everyone thought it was a two-liter Ferrari

the way it sounded and went, and many American enthusiasts got their first introduction to A.C. when they headed to the pits for a closer look. Importers Hap Dressel, Bill Woodbury and Frank Pohanka placed a lone entry third in the two-liter class at Sebring in 1956 against factory teams from Ferrari and Arnolt-Bristol.

It didn't take long for the Bristol-engined version to arrive after that and by October a black A.C. Bristol roadster with white wire wheels was

the scourge of the Sports Car Club of America's Class E Production, first in the hands of Les Cizak and later Frank Pohanka. At Sebring the following year it was a different story, as Jack Fernandez and Ramon Droulers — A.C. importers for Venezuela — won the two-liter GT class.

The A.C. was not a cheap car by any means. Prices in the U.S. started at \$4500 for the A.C.-engined Ace. The Bristol engine was \$700 more and the Acca coupé another \$900. However, the



Tuner: David Maskery

1952 Two-Litre saloon

Bristol-engined A.C. was king of the two-liter production class in the U.S. until the early 1960's.

In the fall of 1960, A.C. reintroduced the Greyhound into the 1961 line in the form of a four-seater coupé to complement the roadster and two-seater GT Aceca. This was a genuine grand touring car with a totally new chassis-frame of steel tube construction with two rectangular main members. Front suspension was double wishbone and coil spring and the rear, diagonal pivot and

coil springs, giving four-wheel independent suspension. The Bristol D2 engine was retained, but the big shock came in the fall of 1961 when the Bristol Aeroplane Company Ltd. quietly announced they were ceasing production of their two-liter engine.

For 1962 A.C. dropped the Aceca from the line and put their heads together with tuner Ken Rudd, who was already experimenting with and getting some very interesting results with Ford of

Dagenham's 2.6-liter Zephyr engine. The decision was made to go with the Ford unit in 1962 when Rudd's tuning came up with an engine that gave better performance than the Bristol and was cheaper. The only outward difference was a redesigned grille treatment, giving an elongated snout with a smaller air intake. The A.C. continued to sell.

Someone else on the other side of the Atlantic got the word the Bristol Aeroplane Company had ceased production of their two-liter engine. However, he greeted the news with a somewhat different outlook. This was Texan Carroll Shelby, who was just then hanging up his helmet, goggles (and coveralls) and about to make a long-time dream come true.

Shelby had been around the European race scene for some years and had gained considerable experience working for a relatively small company specializing in an expensive racing-type sports car. These were his years with Aston Martin. He had also gained a healthy respect for the small British special car builder and the integrity of his product. When Shelby heard Bristol had called it quits, he was looking for to test his idea, which was essentially to take a good, well-tried European sports car chassis and install a comparatively big-bore, high-revving American passenger-car-based V-8 and get the best of both worlds. Shelby had seen a couple of A.C. cars running other than A.C. or Bristol engines in the U.S. Notable among them was sprint car driver Charlie Sarle's Jaguar-engined A.C. which was competing in SCCA events out of Arlington, Virginia.

Shelby was discussing the subject with associate Dean Moon one day and Moon commented Ford's new 221-cubic-inch V-8 might be just the thing. Shelby contacted Ford's Performance Evaluation Section and got the green light for a trial project in the form of a promise of two engines.

Thus, in early 1961, Shelby wrote A.C., proposing a combination of their chassis with the new Ford engine. The Hurlock brothers said "yes" — so Shelby, with the two Ford V-8 engines, arrived from America in October of 1961 to begin work on a prototype. The Ace's rear axle was completely remade to handle the Ford engine's torque, and subsequent testing brought redesign of the front spindles and bearings also. The car was completed in early February, 1962, and shipped to the States, sans engine, on February 16th.

The engineless A.C. Ace arrived by air freight and was taken immediately to Dean Moon's little

Santa Fe Springs shop, where an early Ford 260-cubic-inch V-8 was quickly installed. In fact, the car was operational eight hours after arrival, with the unpainted aluminum body polished to a dazzling silver. It carried the number CSX-0001—Carroll Shelby Experimental No. 1.

Initial testing took place at Riverside Raceway, but the car soon went to Dearborn for an technical analysis by Ford's engineering staff. Ford liked it and Shelby soon had another green light to produce 100 units and make the car eligible for SCCA production class competition. Between the arrival of the prototype and the order for 100 cars to A.C., it had been dubbed the Cobra — not by chance but through Shelby's hardnosed insistence it be called that. He had been carrying the name around, along with the idea, since 1956.

It should be pointed out that the initial plan had been to purchase only the chassis, but between the arrival of the car and the OK from Ford to go ahead, the decision was also made to keep the attractive A.C. roadster body as well.

The Cobra, of course, was a thundering success. Before the first 100 cars were completed by A.C., a second hundred was ordered. With the start of a racing program in the States by Shelby American, flaws in the original design came to light and numerous changes were incorporated as the cars moved down A.C.'s assembly line. The major one was a redesigned rear hub, following failures during its initial outings. Next came a change from worm and sector to rack and pinion steering, again as a result of racing experience.

Halfway through 1963, Ford released their 289-cubic-inch engine, which Shelby immediately began to install in the Cobras. A newly designed McCord radiator also solved the Cobra's earlier cooling problems. This was the result of more work by Ford's engineering evaluation people, who also recommended an American-built electrical system (Ford) and Stewart-Warner instruments. By January of 1964, more than 400 Cobras had been built and production at the Thames Ditton factory was running to three or four cars a day.

As might be expected in combining Ford, the industrial giant, a self-minded Texan and a stiff-upper British firm, the name to be carried on the Cobra's snout caused no small problem. Cars were initially shipped from England with A.C.'s traditional chrome-plated circular badge installation. Shelby at first removed these badges and replaced them with one reading "Shelby Cobra" with the A.C. initials in the center. The problem was solved



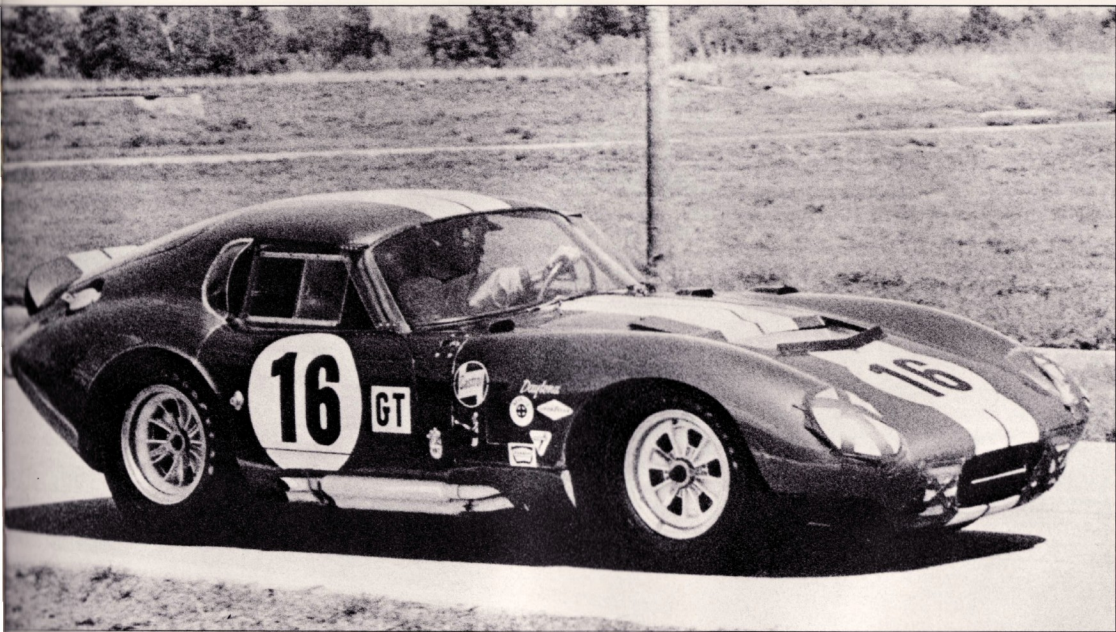
1965 289 Cobra

Owner: Carroll Shelby

when A.C. started shipping the cars sans emblems and Shelby evolved the now-standard Cobra emblem. Ford was satisfied with small "Ford Powered" emblems on each flank.

The liaison with Shelby had been a fortunate one for A.C. Their old Bristol-engined cars, nice as they had come to be, were really nowhere in the international league. The replacement of the venerable—but essentially prewar—six with

Ford's lightweight V-8 made for a formidable contender in the Manufacturers' Championship. It was only a matter of time—spent mainly, as we've seen, in refining and debugging the car. Meanwhile the 260- and subsequently 289-inch Cobras set about pulling the rug from under the Corvettes, which were then dominating SCCA production car racing. The first races in late '62 and into '63 didn't go too well. Things broke all



1965 289 Cobra Daytona coupé

over the cars, but while they ran they were fantastically fast. For the record, the first big victory was at Lake Garnett in Kansas. The three cars Shelby took there finished one-two-three in the production race. Then Ken Miles won the modified race in one of the same cars rendered "modified" by the addition of an oil cooler! The Cobra was now virtually king of the SCCA. Next stop, the FIA Manufacturers' Championship. This time

Ferrari was the target . . .

In 1964 the Cobras might have won the Championship. Shelby is convinced that they could have, but for a bit of dirty pool played by the FIA and Enzo Ferrari. The fact remains that in 1965 Cobras positively clobbered all opposition, Ferrari included, absolutely dominating the Manufacturers' Championship series, running in nine events, winning seven and finishing second on the

remaining two. Recently only the 917 Porsches have put up such a performance.

By early 1964 both Shelby and Ford engineers had realized if they were to keep the Cobra competitive, they needed a more sophisticated chassis. Suspension designer Klaus Arning of Ford Engineering put together a new "four-link" suspension with the aid of a computer to locate frame attachment points. At the same time the





A.C. Cars Ltd.

frame tubing size was increased from three to four inches with greater wall thickness. The parallel main tubes were retained, but chassis stiffness was just about tripled.

A prototype was assembled in the A.C. Thames Ditton shops and the then-new Ford 427-cubic-inch V-8 engine installed. It was completed by October of 1964 and underwent testing at Silverstone before being shipped to the States.

By May of 1965 the Tojeiro-designed transverse leaf spring chassis had been dropped and replaced on the production line with the one featuring unequal wishbones and coil spring/shock absorber units. Although it came from Ford Engineering, the new suspension was, in fact, quite similar to the front suspension layout of the ill-fated A.C. Greyhound of 1961.

At this point Shelby American started supplying the new-chassis Cobras with the also new 427-cubic-inch engine, and an agreement was reached with A.C. whereby they would make and sell only the 289-cubic-inch cars, which they immediately renamed the A.C. 289. Shelby American would build and supply the 427-cubic-inch-engined cars from their Venice, California, plant. This latter car was known as the Shelby American Cobra.

The arrangement worked well for both firms. Shelby was beginning to turn his interest more toward GT cars, a trend which had begun with the development of the Cobra Daytona coupé in 1963 — an attractive, wind-cheating design by Peter Brock on a stock Cobra chassis. Ford itself was also starting to make noises like a world racing power and was beckoning in Shelby's direction. The arrangement also gave A.C. the opportunity to exploit the home market, as all Cobras were labeled "export" until 1964.

The 427 Shelby American Cobra and the A.C. 289 roadster were produced with little additional change through 1968. A.C. continued to supply the chassis/body units to Shelby American for assembly with the 427-cubic-inch Ford engine in California until 1967. The last A.C. 289 rolled down the Thames Ditton assembly line in November, 1968. This just about concluded the A.C.-Shelby American activity. Total production for the Cobra years ran to approximately 800 leaf-spring and 600 coil-spring units.

However, A.C. hadn't been standing around waiting for the other shoe to fall. In October of 1965 they introduced the all-new A.C. 427 convertible at the Earls Court show. The chassis was based on the big Cobra, but the 90-inch wheelbase was extended six inches to provide more interior

room. Engine was the latest Ford 427-cubic-inch V-8 from which the car derived its name. Suspension had the co-axial coil spring and shock absorber units operating on the lower wishbones both front and rear. Steering was rack and pinion and Cobra-type disc brakes were fitted all round. A four-speed manual or Ford automatic transmission was offered.

The A.C. 427 body was a masterpiece by the firm of Pietro Frua in the tradition of the Maserati Mistral and the Swiss Monteverdi. As expected for a luxury convertible operating in this rare atmosphere, it wasn't cheap — \$9845, base price.

The A.C. 428 convertible became available to the public by mid-1966 as the new Frua-bodied cars were worked into the Thames Ditton line. Chassis were constructed, then sent to Italy, where the body shell was welded on, then returned to Thames Ditton. The name change from 427 to 428 actually reflected a complete engine change from Ford's wedge-head unit to the milder 428 Police Interceptor version.

At Earls Court in 1967, A.C. added the 428 fastback to the line and performance in the 150 mph category was promised. Prices had risen to \$9720 for the convertible and \$10,188 for the fastback by 1968.

Which brings us to the present. Although a public concern, A.C. is still under the management of the Hurlock family, Chairman and managing director William A. E. Hurlock died February 27, 1964, Charles Hurlock died April 15, 1969. Management is now carried on by Derek (W.D.) Hurlock, son of the late W.A.E. Hurlock.

The factory, now turning out roughly two A.C. 428 convertible and fastback models a week, is still pretty much a family operation. Owners of not only new but vintage model A.C. cars as well still drop by the factory garage for repairs and enthusiast-type conversation. This is reflected in the fact that W. D. Hurlock serves as president of the A.C. Owners Club and has a 1910 A.C. Sociable in the garage along with a new A.C.

The enthusiast visitor to the plant is like-as-not to get a rolled-up-shirtsleeves tour of the premises by the managing director himself and to this day they note with pride the quote from John Ruskin which has guided them through the years, appeared in their early sales literature and is quoted in the official company history:

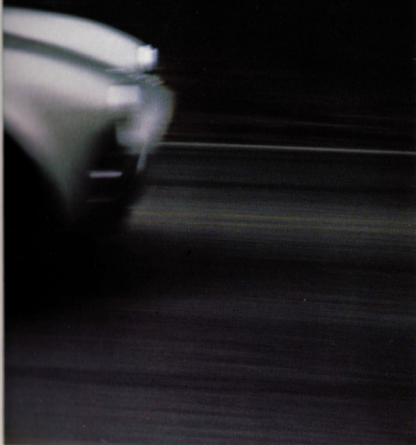
"There is hardly anything in the world that some man cannot make a little worse, and so a little cheaper, and the people who consider price only, are this man's lawful prey." ♦



THE ULTIMAT



THE A.C.:



427 COBRA



It is quite impossible to survey A.C.'s interesting history without singling out the 427 Cobra for special mention.

This is not merely the fastest A.C. ever built: It also happens to be the most violent, explosive road car *ever* manufactured for sale to the public. We did our number with one of these brutes out at Bridgehampton some four years ago (AUTOMOBILE Quarterly, Volume V, Number 4 and Volume VI, Number 1) when we recorded the fastest 0-100 acceleration time we had ever personally seen out there—one run at 8.6 seconds. We did it over and over and were consistently under nine seconds, and we still found it hard to believe.

It wasn't all that easy to do. One erg too much power released can send a 427 into eleven directions, all at once, and you can then but hope that the spinning, smoke, thunder and lightning will subside before you bump into something. Become familiar with the car though, and you are in for an automotive experience of a lifetime. Sure, the suspension is stiff, the rain gets in and there's only room for you, a small friend and a roll of \$5 bills.

But so what? As you drive, the bankroll will get rapidly smaller as you travel from one Sunoco station to the next, leaving you more and more room to be uncomfortable in. But the point is you won't even be aware of the fact that you're uncomfortable. A 427 Cobra demands your entire attention at all times, but rewards it with about as many sensations—and warnings—per minute as an automobile is ever likely to give you. Be careful with the accelerator: Just one unnecessary inch will instantly blast the car out of wherever it was into what could be decidedly unwelcome surround-

ings. Be careful with the clutch: The car is so light, and that engine so big, that after a gear change any mismatch between engine and road speed will produce a forward or backward jerk that can leave you stiff-necked after a day's drive. Be careful with the brake: People behind you with lesser anchors may wind up in the car with you. And, most important, be careful of the steering: At speed if you listen to it carefully you will be advised of any and all undesirable occurrences which may be about to befall you, and the car will respond instantly to your corrections. But listen hard. It will only warn you once.

It becomes mighty obvious then that a 427 Cobra is no car for a novice. If there was ever a case for limiting the sale of a car to qualified drivers only, it's got to be this one. Somehow, though, genuine 427's seem to end up with pretty competent owners nowadays. It is, we suspect, a thoroughly frightening machine for the ordinary driver, as well as the chopped and channeled drive-in set, so we seem to have a reassuring example here of a car actually seeking out and finding its own proper level, socio-economic pressures all be damned. He who drives a 427 Cobra must of necessity drive well.

So if you think you're reasonably free of neuroses, if you don't become a lunatic when you get behind the wheel—and if you can come up with the necessary \$6000 to \$7000—you might like to buy yourself a 427 Cobra. If only to experience what the ultimate road car is all about. Or even to find out just how good you really are. A 427 Cobra can tell you, bluntly, within the first mile. ☘