

BEAUTIFULLY restored 1916 Marmon Tourer.

WHEN COLONEL Howard Marmon announced that his company would build two race cars for the 1928 Indianapolis 500 Mile Race "... to try out advanced ideas that could be incorporated into regular production cars of the future," he was again confirming the belief of many progressive manufacturers that the Indianapolis Speedway classic offered the world's best test for automotive equipment. Five hundred miles of stresses at full load and merciless racing speed vibration would equal many thousands of highway miles; if a car stood up at the Brickyard it would stand up anywhere on earth.

With three-time National Champion Earl Cooper, an experienced engineer and speed tuner as well as a great race driver, Colonel Marmon readied three front-drive "68 Specials" with a special 2-speed transmission designed by Marmon and Cooper. They stood 42 in. high and had 6-in. ground clearance.

One was numbered 32 in honor of the Marmon Wasp that had won the first 500 mile classic in 1911. Another carried 34 after the noted Model 34, considered the most advanced design of its day when it appeared in 1920.

The design incorporated such innovations as a carburetor feeding directly into the supercharger without a manifold between, and special under-slung springs. Unfortunately, Pete Kries driving 32, Russ Snowberger aboard 34, and former motorcycle racer Johnny Seymour, in an added entry 33, all failed to finish the race. The lessons learned, however, were important.

Throughout the reign of the Nordyke and Marmon company from 1902 to 1933 as an engineering leader of the industry, the Marmon boasted a racing tradition. Its first outstanding car was the Model 32 of 1909, a 4-cyl. that was popular until 1914. It was already famous in stripped stock-chassis races before Ray Harroun carried this number to victory in the 1911 Indianapolis classic.

In 1910-11 the Marmon 32 was an unchallenged symbol of reliability—a status won by power-sliding through many grueling road races non-stop while other makes wheezed to a smoke-belching end, or scattered their shattered insides about the track. And Ray Harroun had a hand in evolving this reputation too.

A big 32 was painted on the Marmon that Ray Harroun drove in the 5-day inaugural meet at the 2-mi. Atlanta, Ga., Speedway, Nov. 9 to 13, 1909, where he won the 120-mile feature with a non-stop run of 109 min. He took the 200-mile Cobe Cup in 163.5 min. without a stop and scored in a 100-mile dirt track event at New Orleans in a record 107 min. Likewise, the 190 miles of the Wheatley Hills Sweepstakes, run with the Van-

derbilt Cup race on Long Island, was a non-stop performance at exactly 60 mph.

On May 5, 1910, Harroun again won at Atlanta—this time the 200-mile Atlanta Trophy race—and then unveiled the now historic Marmon Wasp (which would carry the lucky number 32 from then on) at the 1910 Decoration Day weekend meet at the Indianapolis Speedway.

In the 200-mile Wheeler-Schebler Trophy race, Harroun outdistanced a brilliant field including Oldfield, Burman, Aitken, Dawson, and both Louis and Arthur Chevrolet, on the 27th. The next Monday he received his trophy but the Wasp was not in the ceremony because of an encounter with the retaining wall during morning practice. The undaunted Harroun took another year-old Marmon race car and trounced the field in the Remy Grand Brassard, which paid a weekly salary of \$50 to the winner. Joe Dawson, a young Indianapolis driver, was second in another Marmon.

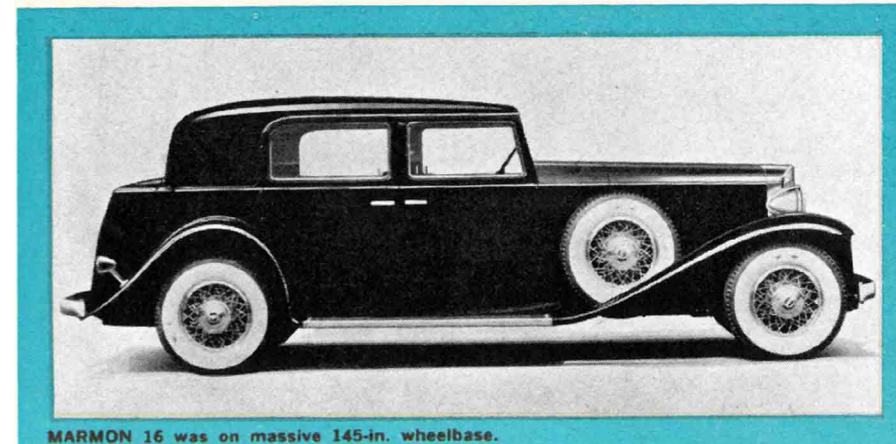
On July 4, Dawson won his spurs by defeating Bob Burman in old 32 in the 200-mile Cobe Trophy at Indianapolis, though Burman had beaten him that morning in the 100-mile Remy Brassard. At the Elgin, Ill., annual road races Aug. 26 and 27, 1910, Dave Buck collected the Kane County Cup for Marmon in the under 300-cu. in. class.

Then on Oct. 1, during the sixth of the Vanderbilt Cup classics on the Long Island course, Dawson nearly joined the immortals of speed when

he was leading the race in the closing laps. He looked a sure winner, when suddenly the crowd pushed out on the course without regard to the hazards. Dawson's car knocked down two spectators. He reported this at the finish line but enough time was lost to permit Harry Grant, in an Alco, to take a lead which Dawson was never able to overcome. Marmon and Dawson, then, were denied the greatest prize in road racing history by irresponsible fans.

Not only was Marmon a pre-eminent speed creation, but also it could climb. This fact was proven by Ray Harroun on June 14 at the Giants Despair Hillclimb, near Wilkes-Barre, Pa., where he won the 300-cu. in. and under class event for the 5700 ft. ascent, which incorporated 22% grades in places. Such performances won Harroun the 1910 National Champion Driver title.

A company that had gone into production in 1904 with the first pressure lubrication system using a drilled crankshaft, a company that produced such engineering triumphs as a V-4 and an air-cooled V-8 prototype (in 1907), used aluminum engines from the World War I period, and built such classics as the V-16 of 1931 and the later V-12—such a company could be expected to build race cars of distinction. One of them was the Marmon Wasp, powered by a 6-cyl. engine formed by adding 2 more cylinders to a standard (4-cyl.) block. It was a radical machine for 1910-11: the first single-seater in regulation race meets,



MARMON 16 was on massive 145-in. wheelbase.

it abolished the ever-present riding mechanic in a revolutionary step for that day. It carried a sloping windshield for driver comfort and the first rear-view mirror ever seen on a race car.

With 48.6 bhp—about that of some modern imported compacts—Harroun outdistanced a stellar field of Fiat, Mercedes, Simplex and Knox racing giants with engines of nearly 600-cu. in. displacement. He led for half the race and won over Ralph Mulford in his famous Lozier (carrying 100 more inches under the hood) though not without a protest from the Lozier camp.

Even in 1911 the original Nordyke and Marmon firm was 60 years old, having been formed in 1851 to manufacture milling machinery. They began

experimental automobile construction in 1902 and went into production in 1904. The name was changed to The Marmon Motor Company in 1926, and still later the present Marmon-Herrington Company, Inc., headed by A. W. Herrington, evolved as manufacturer of trucks, buses and military vehicles.

At the time the Marmon Company won the first Indianapolis classic it was riding the crest of racing popularity. Dawson had won the light car Savannah Trophy of 276.8 miles setting a class record average of 62.92 mph for a world mark. His skillful driving of the 17.3-mile winding Savannah, Ga., road course had won a tremendous ovation on Nov. 27, 1910, but Dawson modestly credited the fine performance of his car, as well as the smooth course with perfect crowd control, as the main factors in his victory.

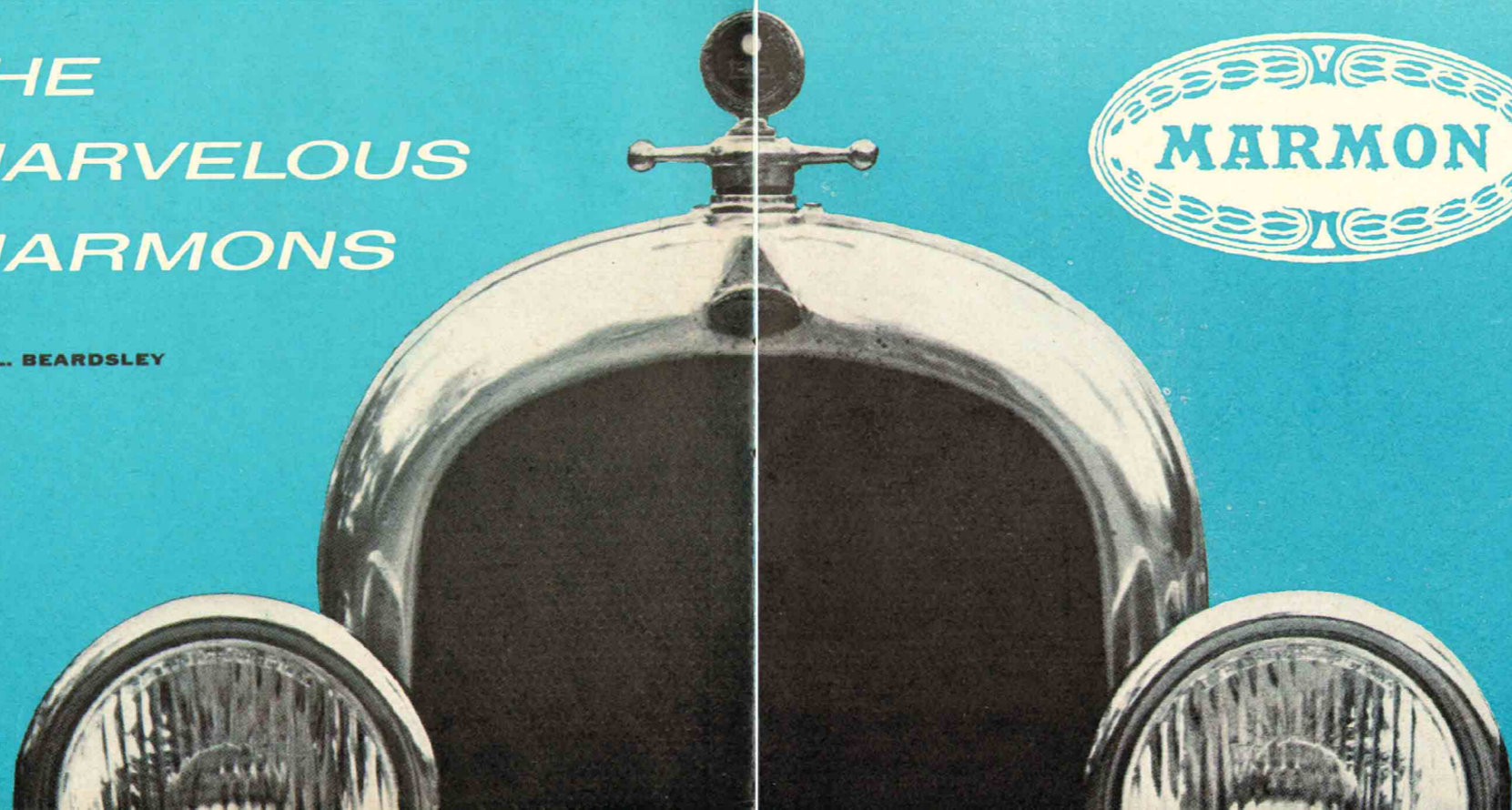
Harroun likewise had been praised for his good showing by placing sixth in the free-for-all 415.2-mi. International Grand Prize, at Savannah, and with the lessons learned there Marmon came back strong for the 1911 Vanderbilt and Grand Prize classics.

In addition to the hard driving twins, star road racer Louis Nikrent was added to the team. He drove the No. 25 Marmon in the 1911 light car Savannah Challenge Trophy, run the morning of the Vanderbilt Cup Race date, Nov. 27, but a car strayed onto the course from a side road. Nikrent side-swiped it and Dawson, acting as his riding mechanic, was thrown out and seriously injured. Fortunately, the popular star Bob Burman could be borrowed from the Buick racing team and he started the Vanderbilt in a car with which he was unfamiliar. Since the crowd knew the Marmons were fast enough to win, and "Wild Bob" had the proven ability, he was a top favorite.

Burman took the Marmon far up front and had moved into second place a minute behind another great combination, Ralph Mulford driving the

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BY J. L. BEARDSLEY



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Lozier. But in the eighth lap a flying stone sheared Burman's fuel line and he lost all gasoline. Mulford went on to win.

But these racing mishaps in no way reflected on the known Marmon quality. The company reputation for engineering initiative and excellence was well established and Marmon was entrenched as one of the fine car trail blazers.

The Marmon Model C touring car which appeared late in 1903 boasted several advanced features; the 24-hhp V-type 4-cyl. engine had overhead valves and pressure lubrication via a drilled crankshaft.

In addition, it had two separate chas-

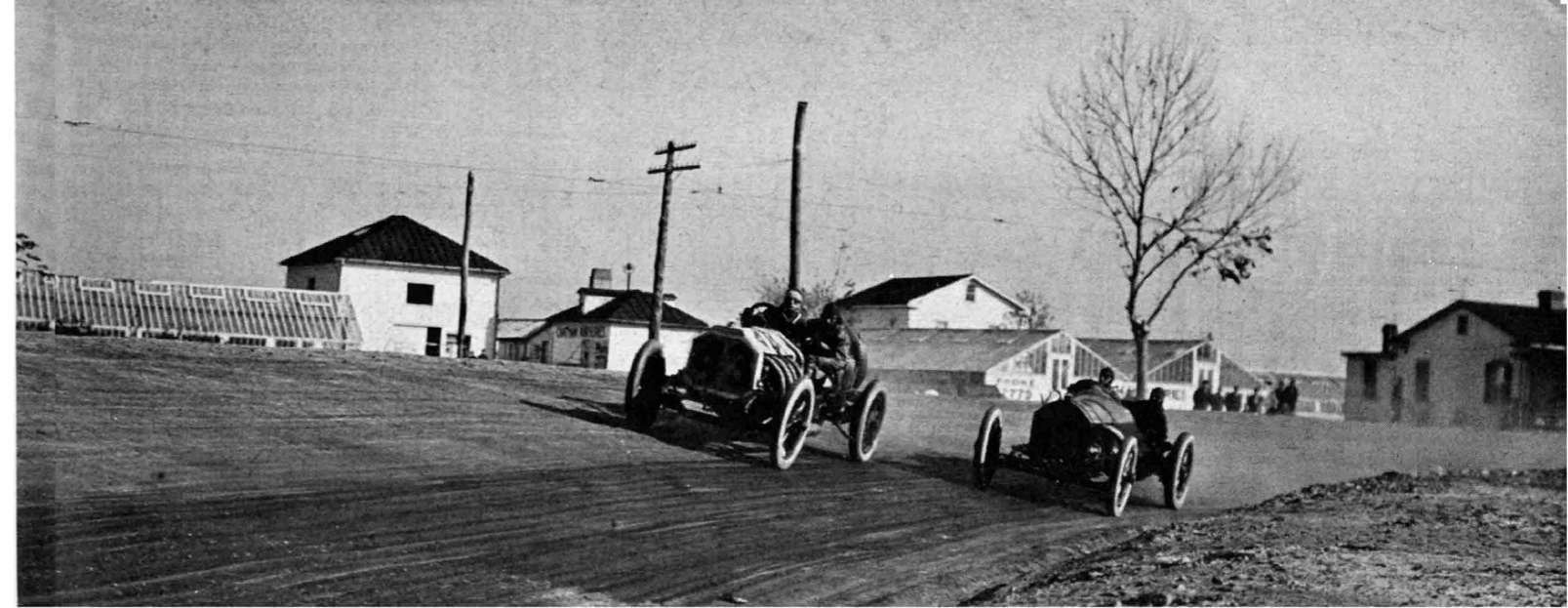
sis frames—one for the body which was hinged to a second inner one that carried the engine and axles. The ability to tilt at a sharp angle was a close approach (in effect) to independent suspension for that far-distant day. That early-day "torsion-level ride" should have registered with the public using the rutted gravel roads of the old days, even if the buyers didn't fully appreciate the advanced engine design.

The second outstanding automobile produced by Colonel Howard Marmon, chief of the engineering staff, was the 6-cyl. Model 34 in 1916, with a 339.63-cu. in. engine that developed 74 bhp at 2450 rpm. While it had a

generous 136-in. wheelbase in the touring model, it remained light and agile with that well-known smooth and comfortable Marmon ride.

Aluminum was first used extensively in the 34 for the body, hood, radiator shell, engine components and many smaller castings, all of which held the weight down to only 3295 lb. The Marmon pressure lubrication system had now been improved to oil all moving valve parts through a hollow rocker arm pivot.

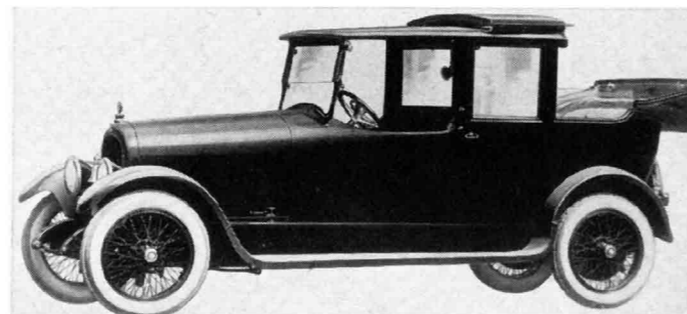
This machine was so advanced that it remained basically unchanged until 1924. Prestige of the postwar Marmon 34 was such that it was chosen as the pace car for the 1920 Indianapolis



MARMON RACER prepares to pass Buick on inside in 1911 Grand Prize race.

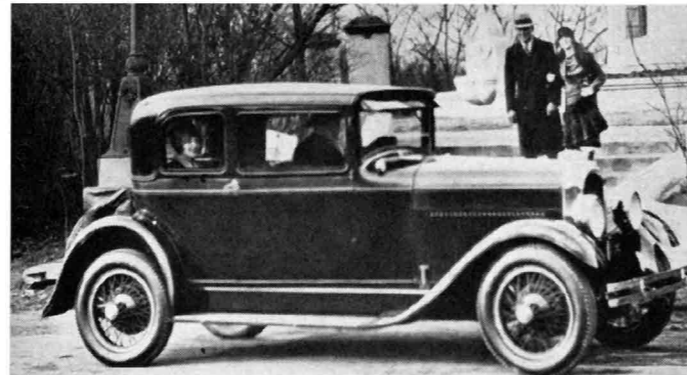
**THE MARMON**  
"A Mechanical Masterpiece"

Model "F" .....\$3,500  
Model "C-7" .....\$2,500  
Eight-Cylinder .....\$5,000  
The Easiest Riding Car in the World

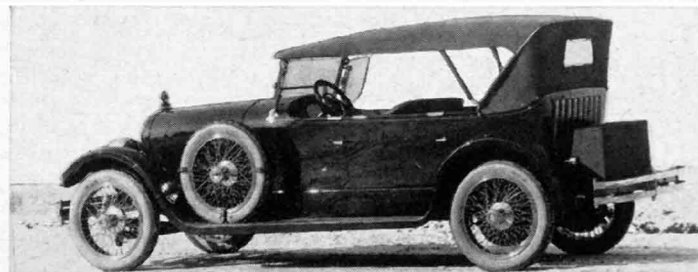


MODEL 34 Landulet (above) is 1919 design.

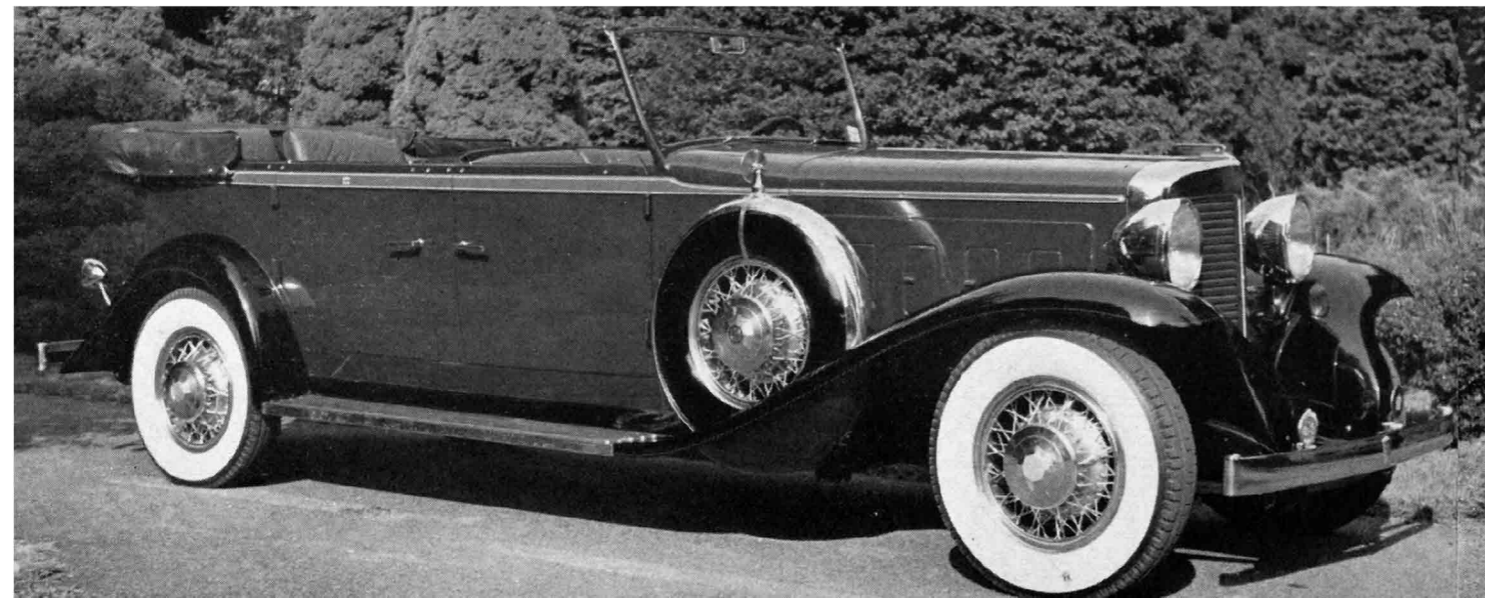
CUSTOM VICTORIA of 1927 was yesterday's compact.



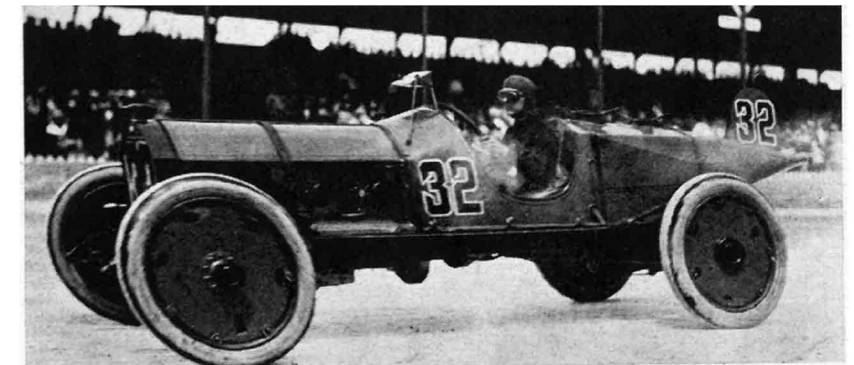
MODEL 34 Marmon of 1922 in 4-passenger speedster form.



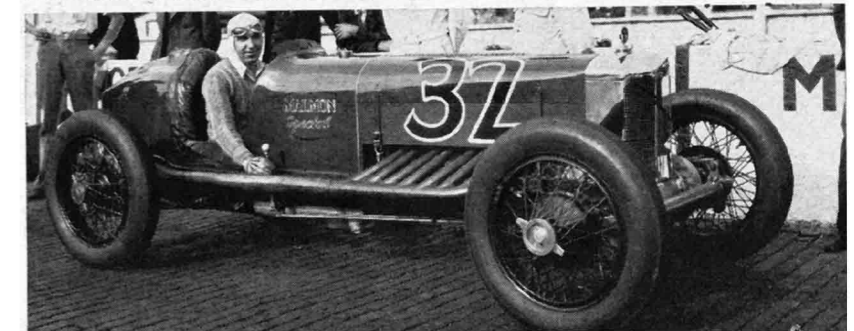
DUAL COWL phaeton (below) is concourse example of 1932 Marmon.



SPEEDING toward Savannah disaster.



RAY HARROUN drives Wasp to victory in 1911 500.



MARMON ENTRY in 1928 Indianapolis race went 72 laps.

500-mile race, driven for that duty by Barney Oldfield. He was so impressed that he later bought a speedster model for his personal car.

The speedster bought by America's daredevil king was lower than the standard models, being only 70.75 in. high on a 136-in. wheelbase. With the body lowered between the springs and Marmon's double transverse rear suspension, it held the road beautifully at any speed up to its top of 80 (honest) mph.

Smooth body lines, wire wheels, and a good choice of colors made the Model 34 one of the smartest cars on the road.

In the improved 1920 models alumi-

num was used for the crankcase assembly, cylinder head covers, and timing gear cover plate. But a cast-iron spherical-head cylinder was introduced, and a 2-piece piston of Marmon design was new. The latter consisted of an aluminum upper half which carried the rings and a lower skirt of iron. A recess between the two halves acted as an oil ring and fed oil to the connecting rod bearings and the piston pin bushings through ducts. The valves were 2-in. diameter and the crankshaft was a sturdy 2.75 in.

An excursion into the low-priced field in 1926-27—a "Little Marmon" Eight of 190 cu. in. and 116-in. wheelbase which sold for under \$2000—

proved a failure. Marmon quickly switched to a trio of more substantial Eights, but the Big Eight had a smaller engine than the earlier 34 (315.2-cu. in. displacement).

In the 1926 Model 74 line, it had a saleable product with an overhead valve 6-cyl. engine comparable to the old 34, but at a lower price—just \$3295 for the 2-passenger speedster.

The eights finally developed into the Model 78 of 1928, a car that was again picked as the pace car for the 500-mile Memorial Day classic at Indianapolis. This time former Marmon racing great Joe Dawson did the driving.

With three cars entered in that race

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for experimental purposes, Marmon was riding the crest of popularity. The firm already was actively developing one of the great classics of all time, the fabulous Marmon V-16 that appeared in 1931.

While it can't claim to have been the first 16-cyl. car, there is no argument about the merit of the Marmon V-16. It was a development of the pattern originated in the justly famous Model 34 of the early 1920s, but in the V-16 the company went all-out for quality regardless of cost. Like the Model 34, it handled easily, rode well and performed beautifully—but it wasn't economical. This would not be expected of a masterpiece of fine car engineering and luxury, however.

No lightweight with its 5300-lb. curb weight, the V-16's aluminum overhead-valve 490.8-cu. in. engine developed 200 bhp at 4300 rpm, and was good for 0-60 in 14 sec. using 1st and 2nd gears. Its honest 105 mph could be topped by only a few cars of its day (all but one built in Europe) and none could match its smoothness and flexibility.

The V-16 was not designed to be merely fast; it was a luxury automobile and true thoroughbred of the highways, with built-in performance from its noiseless 3-speed transmission to its cast aluminum engine (which won the Society of Automotive Engineers annual award as the outstanding design of the year).

Only the Duesenberg's 265-bhp powerplant exceeded the V-16 in size,

but size alone had nothing to do with the Marmon performance. Set in a 45° V, the multiple cylinders had wet liners sealed to the block with rubber. Compression was 6:1, and it weighed 930 lb. Cast aluminum formed the Y block, cylinder heads, valve covers, oil pan, bell housing, oil pump, crankcase breather and the dual water pump housing. It carried dual exhausts, pipes and mufflers.

The car's weight plus its 145-in. wheelbase and huge semi-elliptic springs—with ball-bearing shackles at the rear and rubber bushed mountings at front—gave an easy ride even without independent suspension. For a large car, all the controls were unusually light. Hills were never a problem; a Tapley reading of 260 lb./ton in 3rd gear showed that it could take a 13% grade at 45 mph.

This beauty had stamina, too. Built in Indianapolis, it was natural that it would be sent out to the Speedway for a test, and a stock, close-coupled sedan ran up over 1800 miles in 24 hours—a record that stood unchallenged for 22 years.

The V-16 could go fast, and far. With big Bendix duo-servo brakes and power boosters, the V-16 could stop, too—not quite on a dime, for such small change isn't mentioned around a Marmon V-16, but quicker than you could say Dun & Bradstreet.

The trouble with the V-16 glamor chariot was that it came five years too late. The \$5500 price tag was too much in the Big Depression, and even

with its dignified and elegant bodies, designed by Walter Dorwin Teague and built by LeBaron, the market had shrunk. People who could afford it were down to their last yacht.

Prices of the V-16 in 1933 went below \$5000 but sales still lagged. A final effort to meet competition was made in 1933 with an experimental V-12 machine. It was an advanced design and the one prototype which was completed removed the 4 center cylinders from a V-16 block. In body styling it was a Car of Tomorrow, and was destined to be a one-of-a-kind model which never reached production.

Time was running out for the firm which had been 60 years old when Ray Harroun won the first Indianapolis 500 in 1911. In the ensuing years Marmon had pioneered many advances in American motor cars. Then it shared the fate that was to befall scores of companies that built cars of quality, originality and prestige, but discovered that this wasn't profitable in an era of mass production, assembly-line competition.

The general business depression forced Marmon into receivership in 1931 and the present-day Marmon-Herrington Company, Inc., emerged from this reorganization. Unlike dozens of other auto companies which went under at this time, however, the company has continued to operate on a wide scale in the manufacture of buses, trucks and military vehicles right down to the present day. ■

PLAN VIEW shows Model 34 4-passenger "club" roadster.

