



## '60 SPEEDWAY PREVIEW

New ideas are tried every year in an attempt to win the world's richest race. Everything from wings to Detroit V8's will be used this year in the search for more speed.

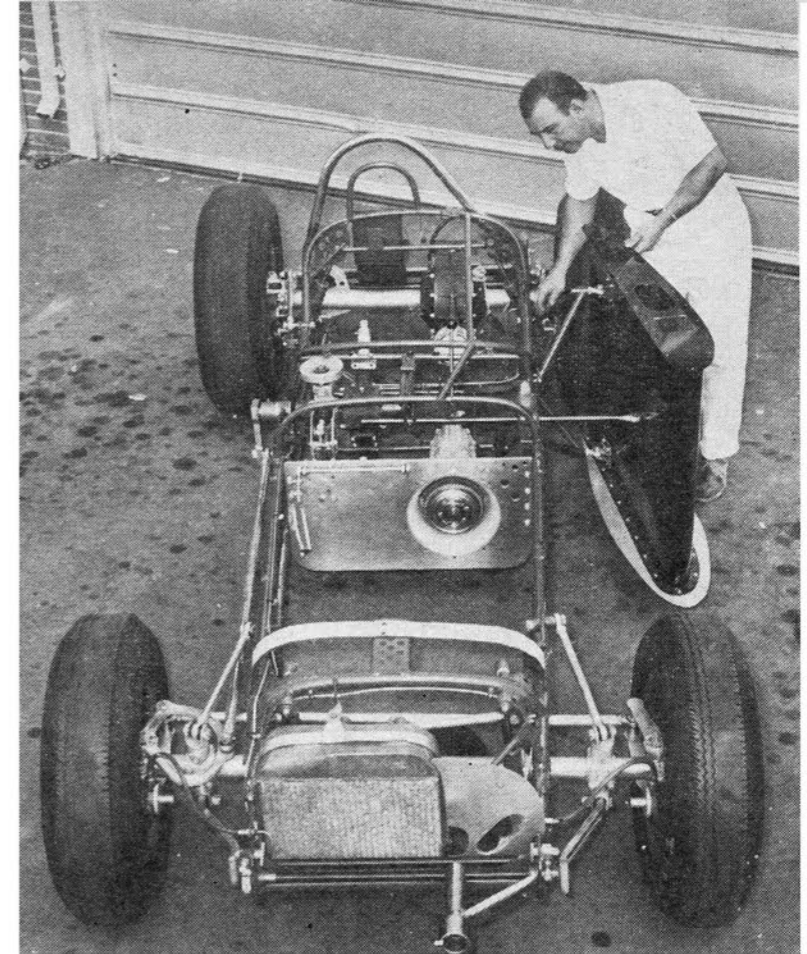
*LEFT—A. J. Foyt guides his Bowes Seal Fast Special out of the garage, ready for the 500-mile race. Dean Jeffries, left, painted and lettered the car for owner George Bignotti, center rear. Car was originally a Kurtis but rebuilt by Epperly.*

The last exhaust note had hardly died away after the 1959 Indianapolis 500-mile race before drivers, mechanics and owners of cars that trailed Roger Ward across the finish line started planning how to correct that situation for 1960. They analyzed not only Ward's car but all other cars that were among the front runners during the race to see just what improvements they should make if they ever hoped to win. Of course, the driver is a large factor in a win at Indy but without a top car, the best of drivers would be also-rans.

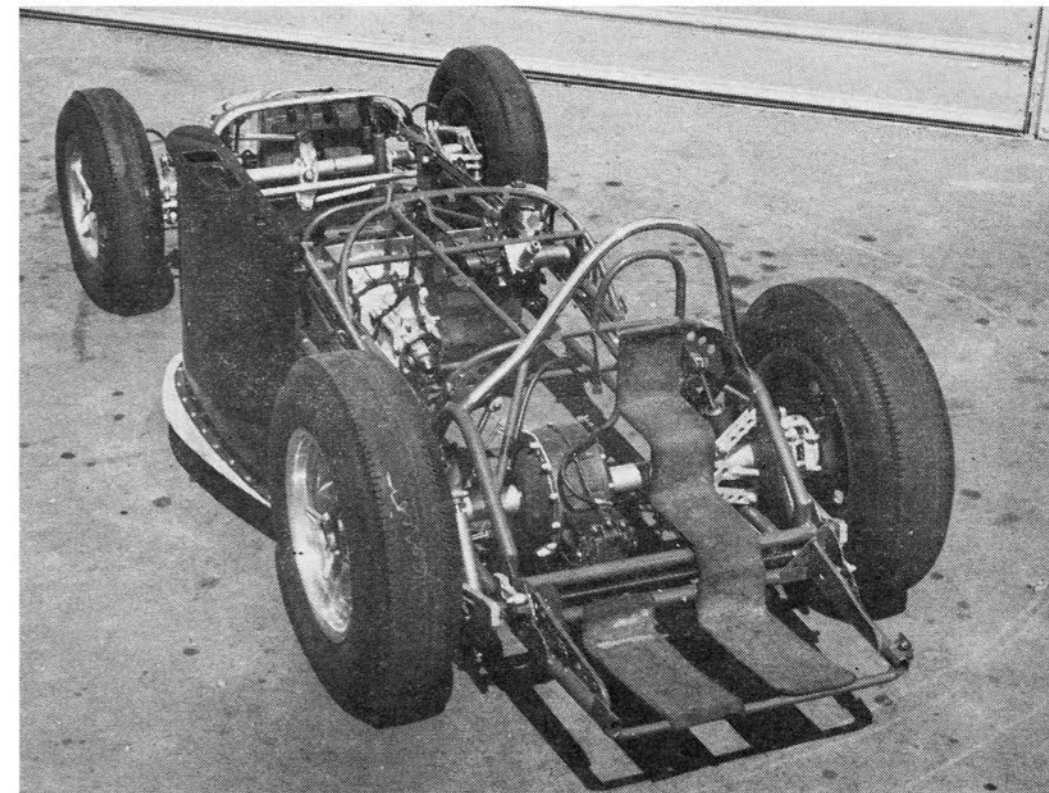
The Indy 500 is such a specialized event that most of the cars vary little in manner of construction. A little advantage under such close conditions by any one car is what separates it from the rest of the pack. In 1959, air jacks proved invaluable as they shaved precious seconds from the time required for pit stops. Several cars were equipped with them last year. Most had jack units fastened to the car with an external connection for an air hose while one car, Fred Gerhardt's Bardahl Special, used an air-operated platform lift beneath the car frame. For 1960's race we feel safe in predicting almost 100% of the 33 starting qualifiers will have air jacks on their cars, or platform types that can be lifted over the pit wall. Where seconds are so valuable, not using the jacks would automatically lessen chances of winning.

Another time-saving device proven somewhat in 1958 but more effectively in 1959, is the quick-connect aircraft-type refueling nozzle. This pressure system makes it possible to add 40-plus gallons of fuel to a car in just six or seven seconds. Many cars used it last year and more will have it for this year's Memorial Day race although perhaps not 100%. Even with the standard open-nozzle method, a tank can be filled in 15 seconds or less and this is faster than tires can be changed.

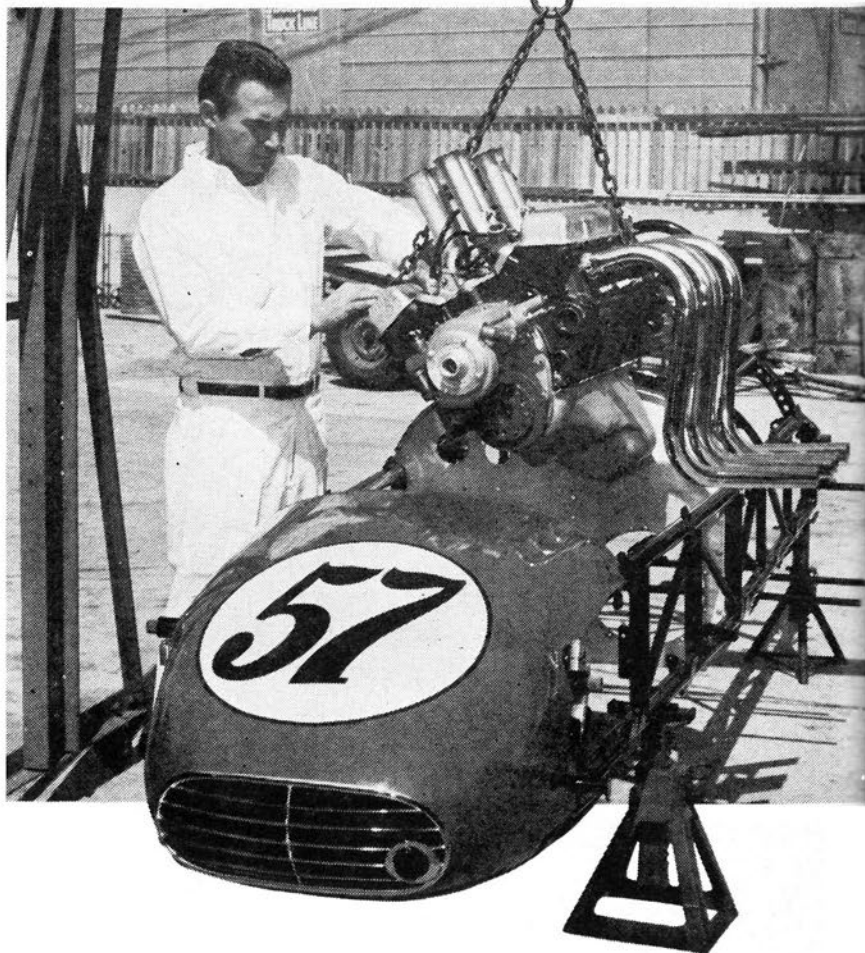
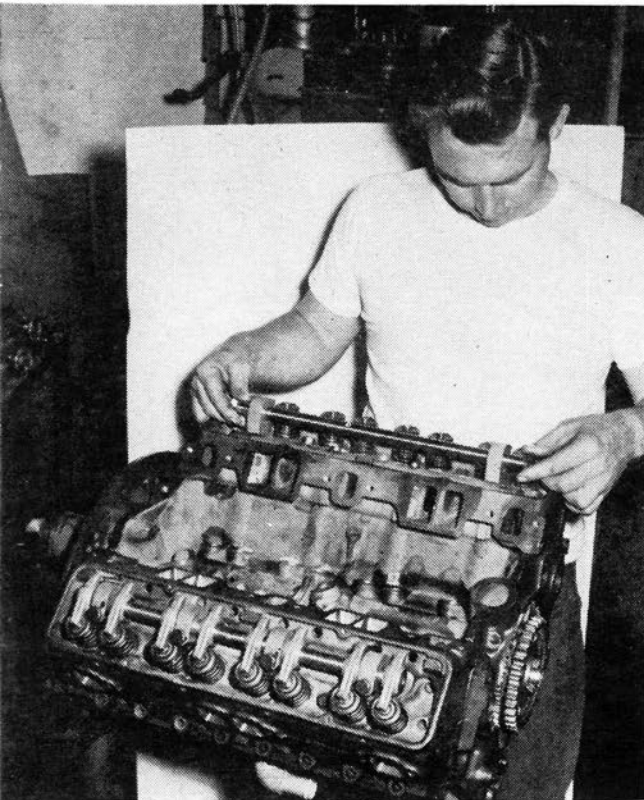
There will be few chassis revolutions for 1960, the performance of cars built by Lesovsky, Epperly, Watson and others proved to be very fast and rugged so most of the new cars being built for this year's race will be along the same lines as those cars. Watson will have at least three copies of the '59 winner ready for the May 1st opening day of practice. Wayne Ewing, one of Watson's assistants, built another similar car during the summer and made the frame for still another car last winter. All told, there will be at least five new cars with the same lines as Ward's winning car. They are:  
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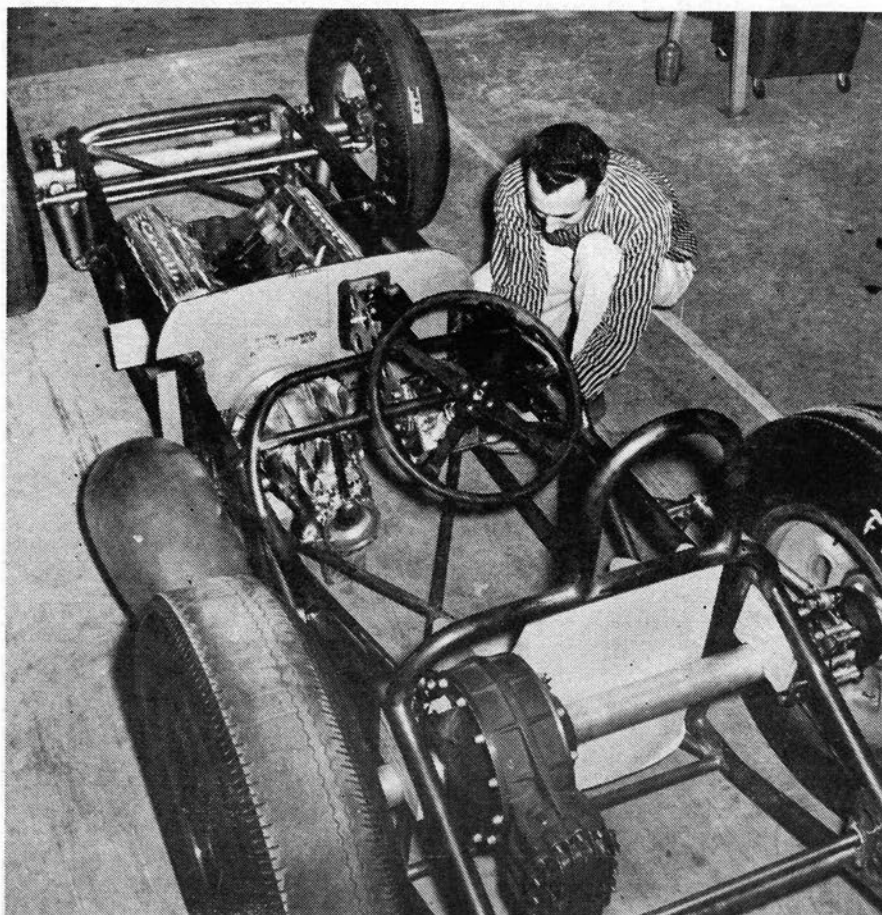
*Fred DeOrion adjusts linkage to the "wing" section which will be tested on Fred Gerhardt's Bardahl Special to be driven by Paul Russo. The air-foil will exert 200 pounds pull to the side of the car when open as shown. Those connected with the car are hopeful that this will assist car through corners.*



*Between corners, the air-foil will fold back next to the body at a few degrees negative angle so that no pull will be exerted. The car was built by Kurtis two years ago and features a horizontal engine placement. Open driveshaft replaces torque tube for '60.*



**'60 SPEEDWAY PREVIEW** continued



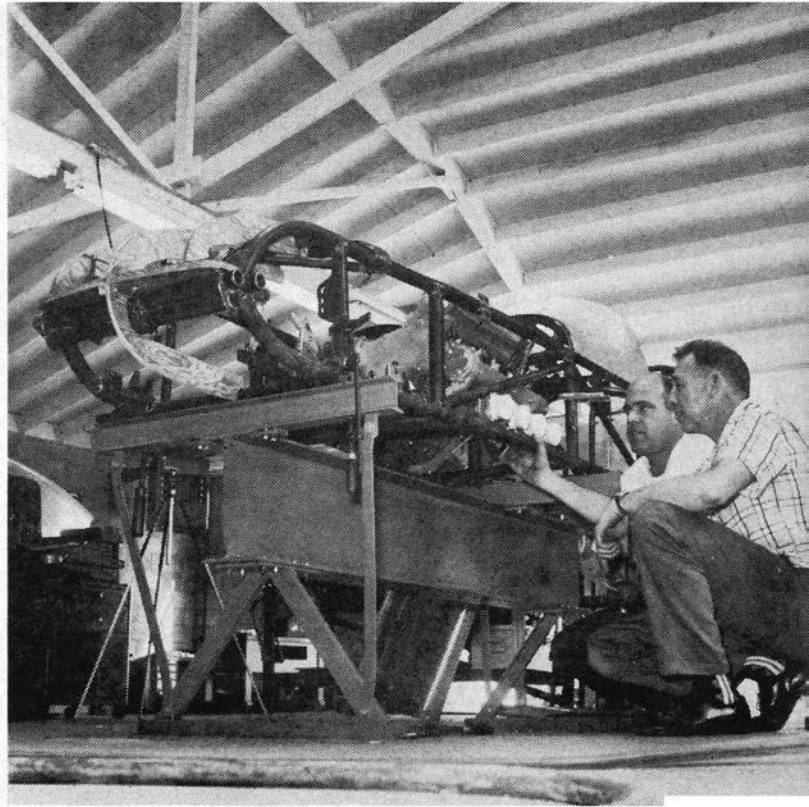
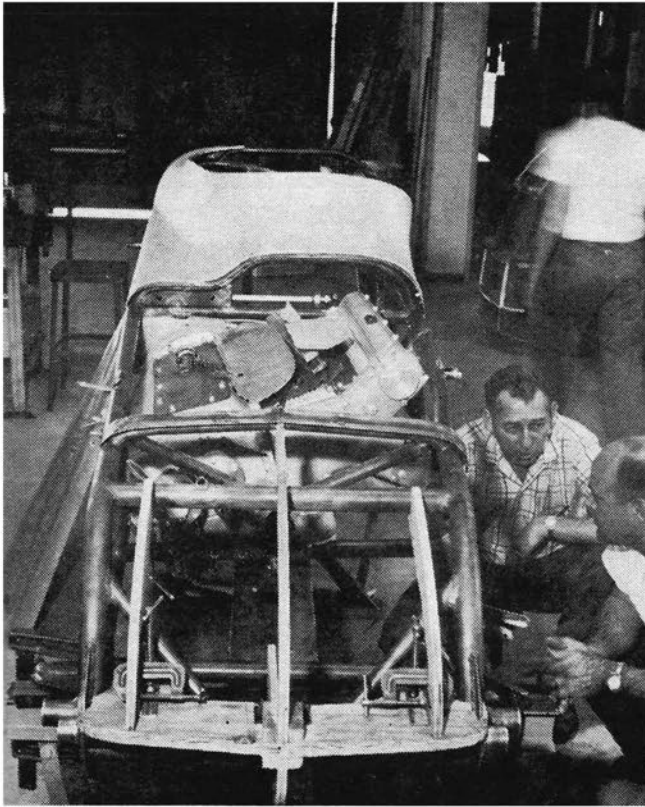
*ABOVE—Mechanic Bruce Crower lowers modified Chevy V8 into the Helse Special for a trial fit. Engine will sit on the left side with a slight tilt to the right. Bruce has modified the engine extensively.*

*UPPER LEFT—Stamped steel rocker arms were discarded in favor of specials with needle bearings and hardened shafts. Cam is a Crower-Schneider. Bob Bubenik machined rods from aluminum billets.*

*LEFT—Chuck Chenoweth built his roadster chassis to take a modified Chevy V8. It has an Offy transmission, clutch adapted to the engine and is offset to left side. Running gear is conventional Indy type.*

Agajanian Special with Lloyd Ruby driving; Ken-Paul Special, Jim Rathmann, driver; Wilkie Special, Roger Ward, driver; Dean Van Lines Special, Eddie Sachs, driver; Joe Hunt Magneto Special, Al Herman, driver. With Ward in a new car, his old mount will be taken over by Chuck Stevenson, former Mexican Road Race and AAA National Champ, who hasn't tried his hand at Indy since 1954.

Johnny Thomson will be back in the Lujie Lesovsky-built car which won the pole position last year. A slight chassis failure in '59 possibly kept him from finishing better than third. Lesovsky is



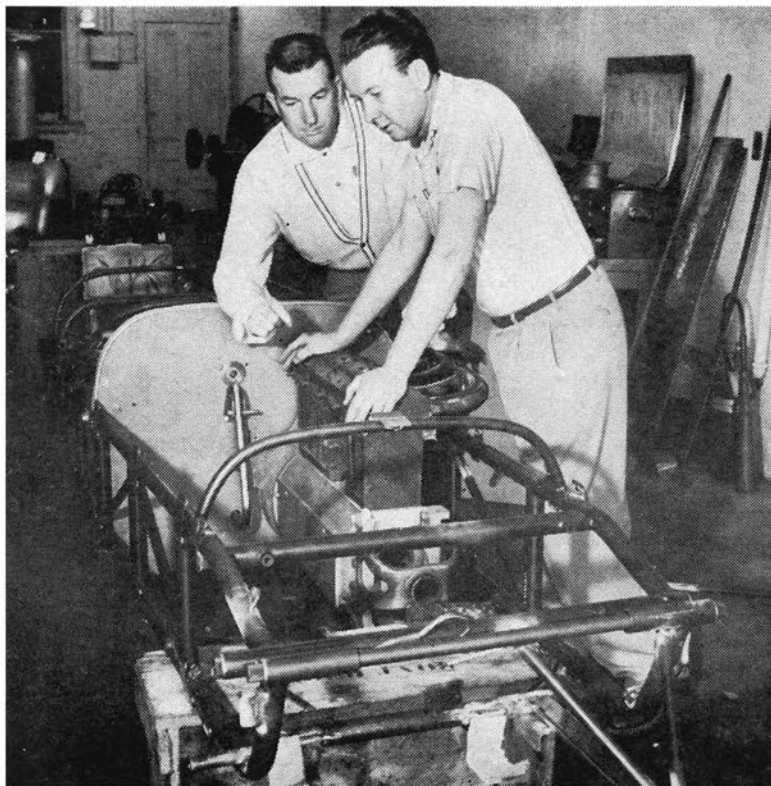
Three-time winning mechanic George Salih's new entry will be shorter and lighter than his previous car. Jimmy Bryan will drive. Offy engine is 18° from horizontal and angled in the frame. Exhaust pipe will go through hood, be routed to driver's right.

Salih explains details to Ray Brock. The Hilborn injectors open low on the left side of the car but will not pick up any track dirt. Sturdy building jig prevents warpage while building. Split front torsion bars will be tried for first time.

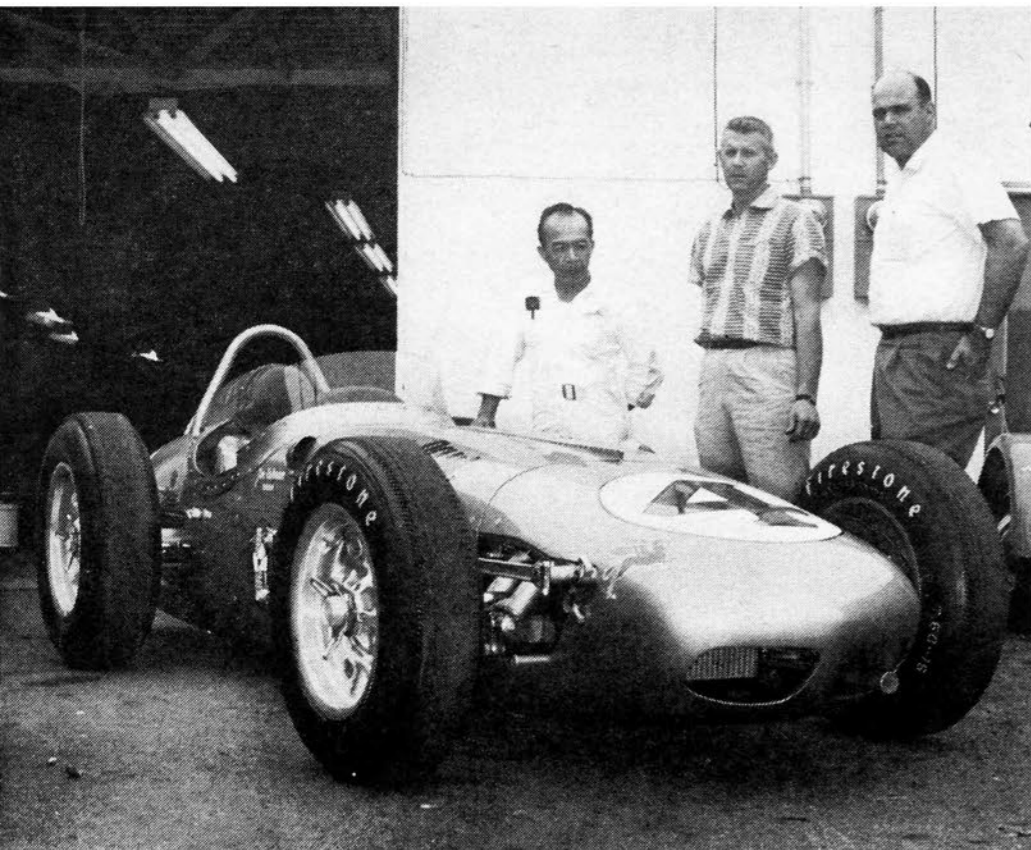
building another similar car for the '60 race. It will be called the Kelso Auto-Dynamics Special and will be driven by Jack Turner. One of the mechanical features tried and proven on cars built by Lujie is an open driveline instead of the more conventional torque tube driveshaft. His new car will have it and so will a few more cars including a new one being built by George Salih.

During the past winter, Salih sold the car that Sam Hanks and Jimmy Bryan drove to wins in '57 and '58 and will have a new car for Bryan in this year's race. The new car will be similar in appearance to the old car but will be shorter and lower. The engine will be almost flat and angled from left to right slightly in the frame so that the engine weight can be placed on the left side of the car and the driver's seat also put on the left. With Howard Gilbert and Quinn Epperly assisting during construction, a number of unusual features were incorporated which might prove very helpful to the car in the big race. Among these are special two-way acting air jacks, split front torsion bars, extra-long rear torsion arms and a very low center of gravity.

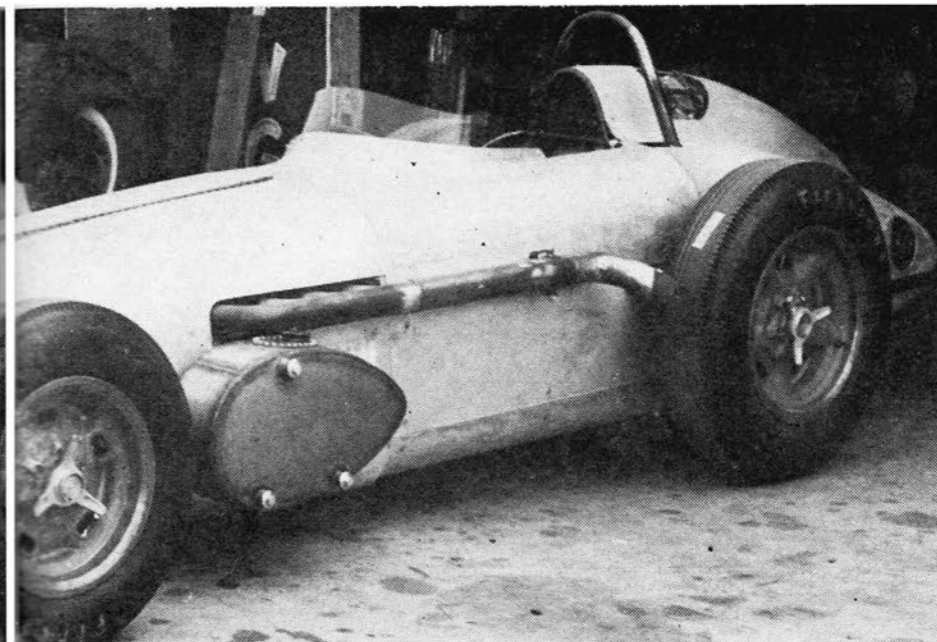
A couple of cars that always attract plenty of attention from the grandstand patrons are the Novi Specials. Last year, injectors were tried for the first time on  
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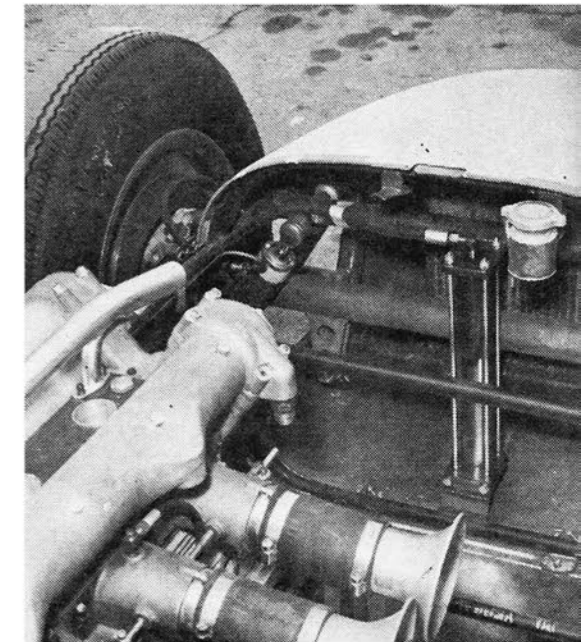
1957 Indy winner Sam Hanks, left, joins magneto specialist Joe Hunt in a discussion of Joe's new car. Much of the work was done in A. J. Watson's shop and fiberglass nose and tail pieces designed by Watson will also be used, so the car will resemble last year's winner when completed. Al Herman will drive.



New car for driver Jim Rathmann is almost identical to car he drove last year. Chick Hirashima, left, will handle the mechanic's chores for Ken-Paul Special built by A. J. Watson, center. Meyer-Drake engine sits upright on the left side of the car and the body is offset slightly to the left of the axles for better weight loading on Indy's four left turns per lap.



New Dean Van Lines roadster was built by Wayne Ewing but has same style and layout as Watson cars. The engine is mounted in an upright position but offset to the left. RIGHT—Lightweight air cylinders will be used on nearly all cars at Indy this year. Instead of using two cylinders at the front, Dean car will have single one in front, two at the rear for three-point jacking.



'60 SPEEDWAY PREVIEW continued



Watson's cars all have molded fiberglass nose and tail sections which can be easily made and are much cheaper than aluminum. Indy cars have a 96-inch wheelbase, 47-inch tread minimum. Most cars in recent years use solid axles at both front and rear.

the supercharged 175-inch V8's and although they performed better than carburetion on the dynamometer, when tried out on the 2½-mile Indy track, would not operate properly. Both Novis missed the race, therefore. This year, mechanic Jean Marcenac has devoted plenty of effort to carburetion and has adapted an aircraft unit to the engines that seems to really work. Jean and driver Dempsey Wilson made a number of trips to El Mirage dry lake in the California desert to test the cars and predict that they will run better than ever now.

Another pair of cars that will command much interest are being put together in San Diego. The cars belong to different owners and have separate crews but they do have the common denominator of

Chevrolet V8 powerplants. The first is the Helse Special with a 1958 Kuzma-built chassis. Bruce Crower, chief mechanic, has spent the last year developing a 254-inch Chevy which he believes can compete on equal terms with the Offys. The engine has been extensively modified and reportedly has slightly more power than the Meyer-Drake Offys in the corners. Low speed torque is the Offy's strong suit so if Bruce's engine can better them in the corners, 1960 might see the first Detroit name in the race in several decades. If the Chevy fails, Bruce will reinstall the Offy and try to get the car qualified.

The second Chevy-powered car belongs to Chuck Chenoweth, owner of San Diego Steel Products. Chuck and his crew of hot rodders have modified the Chevy

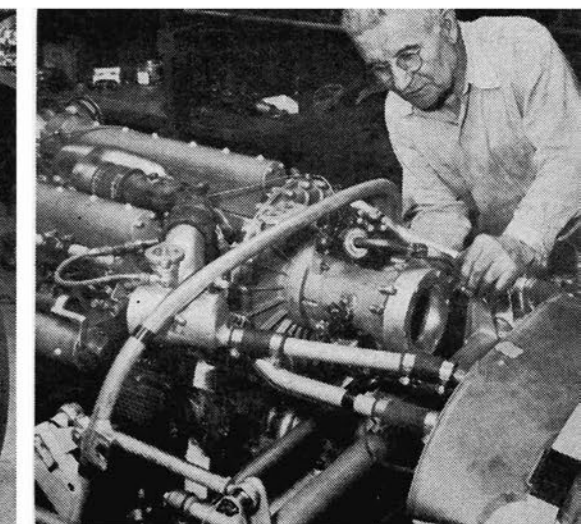
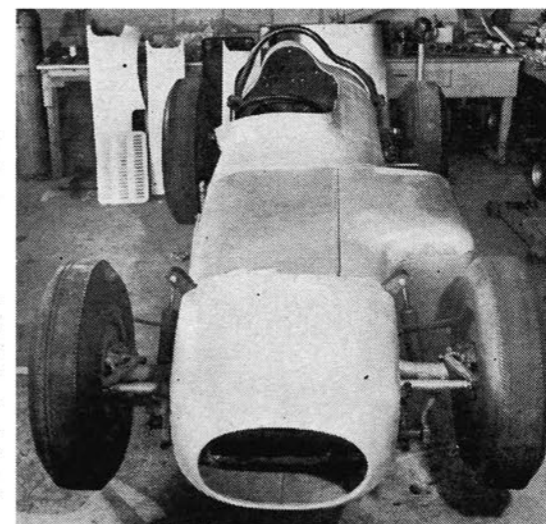
engine and also built the chassis themselves. The aluminum body work was fashioned by Eddie Kuzma. Whether either of the Chevy-engined cars manages to win a starting position or not, a lot of enthusiasm should be generated by their presence on a scene dominated by Meyer-Drakes and a Novi or two.

For the first time a car is also going to try to "fly" around the Indy track and the word fly is used advisedly. Fred Gerhardt, owner of the Bardahl Special and originator of the platform air jack at the Speedway last year, has decided to try another sneaky maneuver this year. This latest idea is the result of a gab session many months ago among Gerhardt, mechanic Fred DeOrian, driver Paul Russo

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RIGHT—Greenman-Casale Kurtis roadster has flat engine position with upper half outside frame. Last year, engine was uncovered for 1960 to keep oil spillage from track in event of leaks or blowup.

FAR RIGHT—Novi wizard Jean Marcenac adjusts linkage on a new aircraft carburetion system which he has adapted to the 175-inch V8 engines. The centrifugal blower gives almost 50 lbs. supercharger boost and the engine develops better than 600 hp on alky fuel.



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and a couple of Air Force pilots. A short wing section is mounted on the left side of the car and hydraulically operated so that the angle of bite into the air flow past the car can be controlled. Entering the corner at 130 mph or so, the driver can press a pedal to move the air foil from a neutral position to a biting angle which will create a 200 pound pull and help the car through the corner. This is the same car that Russo drove last year and if the wing works, it should help raise the cornering speed and consequently the lap speed. If it doesn't prove effective, a few bolts can be quickly removed and the wing discarded. Gerhardt and DeOrlan are also building a second car for the race but it will be of conventional Indy design with a flat engine and the driver on the left side of the car.

To the casual observer, Indianapolis race cars do not appear to undergo many changes from year to year. Radical changes are few but a small improvement can often save fractions of seconds. A number of these seemingly small improvements can add up to a second or more which means two or three miles per hour in lap speeds. It will be interesting to see which of the new ideas, both big and little, will perhaps mean the difference between winning and not winning. The first car to receive the checkered flag will pick up close to \$80,000 and that is quite an incentive so you can be sure that everybody will be all-out in the 500-mile trophy dash.

The past several years in our pre-race story we have picked five drivers who we think are the ones to watch during the race. So far, we have batted a thousand with the winner among the five each time. This year we will pick another five but it is going to be harder because there are about ten cars and drivers we think could win it all. Sticking with the champion is always a good idea and there will be four of them in the race; Ward, Jimmy Bryan, Pat Flaherty and Troy Ruttman. All will have top cars to drive and only Flaherty is a question mark. He was not too strong last year following injuries in a 1957 race and physical stamina is a very important factor for such a long race. If Pat is well, he will be a serious contender but because of uncertainty, we will leave him off the list and put on the other three, Ward, Bryan and Ruttman. The last two spots go to Jim Rathmann and Johnny Thomson, last year's second- and third-place finishers. Jim has been near the top for several years and Thomson showed much improvement last year and has an excellent car to drive. This is our list of five; pick your own favorites and write them down. See if you're a better forecaster than we are.

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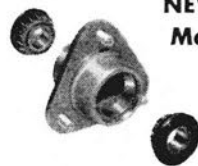
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