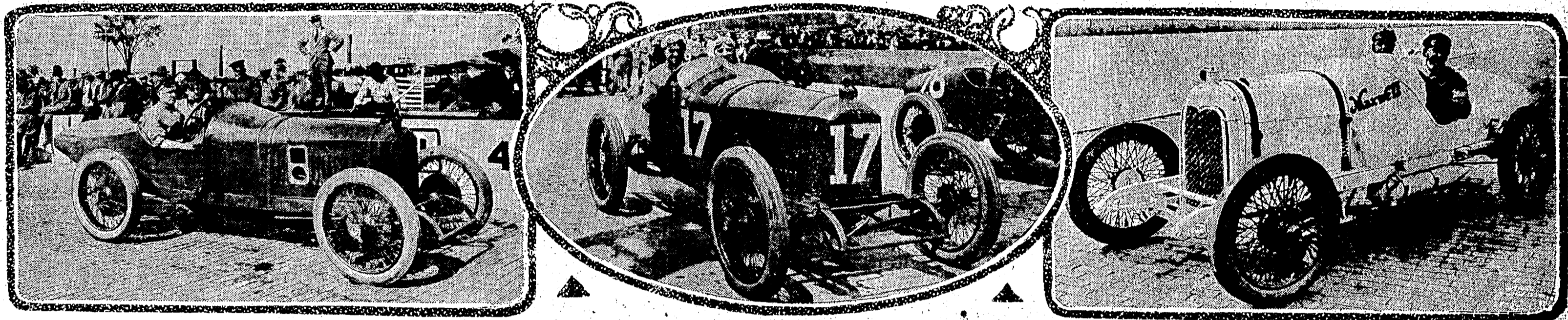


AITKEN, DRIVING FOR WILCOX, IS WINNER



JOHN AITKEN in Peugeot.

DARIO RESTA in Peugeot.

RICKENBACHER in Maxwell.

RELIEF DRIVER PILOTS PEUGEOT TO VICTORY; TIME IS 4:42:47

By EDMUND GRINNON.

SEVENTH GRAND PRIX EVENT DISTANCE 403.248 MILES. Santa Monica course—15 laps, 8.41 miles. Johnny Aitken, Peugeot, first, 4:42:47; average 85.59 miles an hour.

LOS ANGELES, Nov. 18.—Marked by fatalities that will probably spell the death-knell for motor road racing in California, the sixth international Grand Prix classic was brought to a close on the Santa Monica course today when Johnny Aitken, relief driver for Howard (Howdy) Wilcox, romped across the tape with his speedy Peugeot in first place, thereby establishing a new record for the Grand Prix race event of 5:52:77 for the 403.248-mile grind, averaging 85.59-100 miles per hour.

Following closely upon the heels of the speedy Peugeot was Earl Cooper, the clever Oakland lad, who made the remarkable time with his white Stutz car of 4:48:59, averaging 83.74-100. Cooper drove a most consistent race and his victory today in getting second money is a repetition of his record Thursday, when he also won second place.

The third and fourth places went to two of the three speedy Hudson Super Six cars that were entered in the big classic. Eddie Pullen, Stockton, drove his Hudson to third place in 5 hours 9 minutes and 33 seconds, averaging 85.59-100 miles an hour. Patterson, who is the same driver that figured in the recent Pacific coast Hudson Super Six records and also in the Thursday Vanderbilt Cup races, added new laurels to the Hudson car in today's events, having covered the entire course without a single stop. This is a record never before made in the Grand Prix classic.

NO TIRE TROUBLES. Sharing honors with the winning cars were the Goodyear Cord tires, which were the equipment on all of the four winners. It was a clean sweep for the Goodyear Cords today. The tires stood up under the remarkable grind and the day was noted for the entire absence of tire trouble. Aitken started the race with a jinx when his own Peugeot broke a piston in the first lap; but after Wilcox, his companion Peugeot driver, relinquished first place honors to the clever Aitken on the twenty-first lap, Aitken maintained his lead to the very finish, carrying with him a streak of luck that was remarkable. On next to the last lap he ran out of gas on the back stretch, but luckily had an extra gallon reserve supply which enabled him to reach the pits for a fresh supply. Then again, just after getting the checker flag proclaiming him the winner, he picked up a huge spike in one of his rear tires and nearly turned over when the tire blew. Had this occurred a minute earlier in the race it would have cost him the victory and probably his life, as he had

stalled in a Mercer, because of elapsed time was leading Resta, although the latter was leading. His average was 87.4 miles an hour. Resta was second, Cooper third. They were all bunched.

RESTA GOES OUT. Dario Resta, the favorite in today's race, went out in the eighteenth lap with a missing cylinder, which he hoped up, and completed another lap before he was finally. The pace set by the leaders in today's event practically eliminated all but five cars that were running at the finish. It was terrific grind and car after car was out of the running. Eddie Pullen, one of the favorites, with his speedy Mercer, looked like a sure winner until his car caught fire in the back stretch, burning up.

Besides setting a record for consistency in driving, Cooper also made a record for taking on gasoline, replenishing his supply in the forty-seventh lap in 12 seconds. A. H. Patterson, whose Hudson finished third, established a new world's record for non-stop driving, having raced 403 miles without a stop. His average speed was 75.13 and elapsed time, 5:09:38. Roads in a Hudson was fourth, and the others were flagged from the track.

The race was marred by Jackson's fearful accident, when he and three spectators were killed. While competing nearly ninety miles an hour along San Vicente road, Jackson's car suddenly skidded, left the road and plunged through a row of trees into the spectators' lining the course.

CAR IS WRECKED. The car was reduced to a heap of debris and Jackson was crushed to death beneath the wreckage. John Gandia, his mechanic, almost miraculously escaped death. He was thrown clear of the car and landed on his feet, sustaining only minor injuries.

Dario Resta, who won the Vanderbilt cup race over the same course Thursday and was the favorite for today's event, took the lead in the first lap. He drove a steady race, but on the eighth lap, engine trouble threw him to the pits. After tinkering with his engine for an hour he quit. So grueling was the pace from the outset and so unfortunate the driver's race that, when thirty-five laps had been completed, only seven of the original twenty-two starters remained in the race. From the first lap when Resta, in a Gandy car, went out with a broken clutch, the drivers fought the wayside rapidly. Eddie Pullen was compelled to retire in the seventh and narrowly escaped death. His companion Peugeot driver, relinquished first place honors to the clever Aitken on the twenty-first lap, Aitken maintained his lead to the very finish, carrying with him a streak of luck that was remarkable.

At the end of the tenth lap, Resta led the field in the first lap, passing into stand 15 seconds ahead of Eddie Pullen. Aitken lost all chance for the championship when it was announced from the pits that he was out with a broken piston. He completed only one lap. A new feature was injected into automobile races when it was announced that pitmen would be allowed to do no work on the cars. They are given a lay out tools for the crews of each car but can by nothing else. This is to conform with the foreign rules for automobile racing.

BRIEF HISTORY OF VANDERBILT CUP RACING CLASSIC

International Classic First Held at Savannah in 1908.

First International Grand Prix race held November 28, 1908, at Savannah, Georgia. Fourteen entries. Distance 403.28 miles. Won by Louis Wagner driving a Fiat. Average speed 65.08 miles an hour.

Second Grand Prix race held at Savannah, Georgia, being transferred from Long Island owing to the accidents which barred the Vanderbilt Cup event. Fifteen entries. Distance 415.2 miles. Won by David Bruce-Brown driving a Benz. Average speed 70.55 miles per hour.

Third Grand Prix race held at Savannah, Georgia, on November 30, 1911, and for the second time in succession Bruce-Brown won this event averaging 74.45 miles an hour. Distance 411.36 miles.

Fourth Grand Prix race held at Milwaukee, Wis., October 5, 1912. Twelve cars started. Distance 409 miles. Won by Caleb Briggs in a Fiat. Average 69.3 miles per hour.

Fifth Grand Prix race held at Santa Monica, February 23, 1914, distance 403 miles. Twenty-five starters. Won by Eddie Pullen driving a Mercer. Average nearly 75 miles an hour.

Sixth Grand Prix race held at Panama-Pacific International Exposition, San Francisco, March 1, 1915. Won by Dario Resta, driving a Peugeot. Average speed nearly 70 miles an hour.

The Vanderbilt Cup race antedates the International Grand Prix four years, the first Vanderbilt classic being held in 1904 and the first Grand Prix race being held in 1908. The trophy for the Vanderbilt classic was donated by William K. Vanderbilt Jr. The Grand Prix trophy was donated by the Automobile Club of America.

CONSISTENCY WINS. Consistency won the day in 1911 and Harvey Herick was the most consistent of them all. He started the idea, which has since won many a race of sitting back and waiting for the speed merchants to drop out. His "Blue Baby" National buzzed around like a regular clock and went fast enough to win.

Then, in 1913 Earl Cooper came into power. Just rising into fame, Cooper sat at the wheel of the justly-famous Stutz and battled all the old-time champions to a standstill. He won the last Santa Monica race. After him came the Vanderbilt and Grand Prix affairs.

ADVANCE IN AUTO SHOWN BY DEALER

Four Years Difference in Motor Design Shows Rapid Progress.

A piston weighing six pounds and fourteen ounces in 1912 and a piston weighing nine ounces in 1916. That tells the story of the marvelous development of automobile motors in the last four years. Says Harrison E. Wood, Oldsmobile car dealer in Oakland:

Comparison of the six-cylinder motor used in the famous Oldsmobile "Lim-Lim" which were built in 1911 and 1912 and the eight-cylinder motor now in use limited by diameter contrast. For instance, the cast iron pistons used in five "Lim-Lim" pistons are five inches long and five inches in diameter. While the present one-inch pistons are five inches long and one and seven-eighths inches in diameter.

The "Lim-Lim" motor weighed 1200 pounds without the transmission or any other apparatus. The present eight-cylinder power plant, with transmission and starting, lighting and ignition systems weighs only 707 cubic inches. This great difference in weight is due to the use of special alloys. The average for the "Lim-Lim" while the present cylinder motor averages 400 revolutions per minute, while the eight-cylinder motor is at its best at 2400 revolutions per minute.

Of course, other parts of the automobile have been developed with great rapidity, especially body lines, but nothing shows the advance so graphically as a comparison of motors. The "Lim-Lim" and the model 44 motors are separated by only four years in time, but the present motor is 1000 times more efficient.

The wonderful growth of the mechanical goods department of the Goodyear Tire & Rubber Co., Akron, Ohio, has demanded the erection of a new factory for the manufacture of mechanical goods alone. This factory, when completed, will be as large as the entire Goodyear factory was only three years ago. Equipment is being installed that will permit the manufacture of 25,000,000 Neolite-soles in 1917.

Auto Registrations Reach 268,831 Mark. Receipts of Motor Vehicle Department up to and including November 15, 1916:

Table with 2 columns: Vehicle Type and Registrations. Totals: 268,831

SUMMER SCHEDULE MARTINEZ-BENICIA FERRY. Leave Benicia 7 A. M. each hour to 7 P. M. Registrations. Amount.

Richmond-San Rafael Ferry Buffet and Grill on Board. TIME TABLE. Lv. Richmond. Lv. Pt. San Quentin.

IMPORTANT WORK OF CARBON TEST

How Laboratory Experts Make Minute Examination of Steel and Iron.

The test for the determination of carbon in steel or iron, while common to all large industries having to do with these products, always remains a most interesting and important subject. The Dodge Brothers Laboratories give particular close attention to this test.

There are two circular furnaces which are electrically heated to 1850 or 1900 degrees Fahrenheit, the exact temperature being recorded by a platinum-rhodium thermocouple. The steel to be tested is mixed with aluminum and placed in a small aluminum boat. The boat is inserted in the furnace and burned 30 of 25 minutes. A stream of oxygen pouring over it constantly.

The oxygen is purified by first passing through a train of tubes, and containing iron filings and calcium chloride. Each of these is chemically pure, including a dry, untaunted gas at the outlet where the oxygen passes over the hot iron or steel chips and burns them. The result is a deposit of carbon dioxide from the carbon in the sample.

Other gases are given off during the burning and are absorbed by passing through granulated zinc, calcium chloride and phosphorus pentoxide. The carbon dioxide gas is now absorbed in a tube of chemically pure soda lime. The increase in weight of this soda lime is determined by balances which are sensitive to one-fourth-millionth of a gram and thirty-thousandths of one per cent. Since the hardening process is dependent largely on the amount of carbon present, this determination method enables Dodge Brothers to classify all parts according to the strength required.

Free Inspection of any battery at any time. Willard STORAGE BATTERY.

RAIN PROOF THE ONLY DEVICE THAT WILL MAKE A TWO-PIECE SHIELD BOTH RAIN AND WIND-PROOF.

STARTING and LIGHTING SYSTEM FOR FORD CARS. The Grey & Davis Two Units System Leads Them All. For sale by the Pacific KiselKar.

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BATTERY "Exide" SERVICE TIRES VULCANIZING C. A. Muller. "THE TIRE SHOP" (Trade Mark) 2215-16 Broadway, Oakland.

25 miles per gallon guaranteed on FORD CARS WITH THE NEW FORD Stromberg Carburetors. Most drivers average 35 miles to the gallon—you can do it. Chanslor & Lyon Co. 2587 Broadway, Oakland.

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