

WORK IN PITS AIDS WINNER IN BIG RACE

Few Changes in Tires and Skill of
Mechanicians Figure in
Marmon Victory.

FRONT TUBES GO 500 MILES

Relief Drivers Play Part in Stag-
ing the "Motor Race of
the Century."

BY W. D. EDENBURN.

Endurance rubber and team work in the pits returned Ray Harroun, at the wheel of the Marmon "wasp," the winner of the 500-mile International Sweepstakes at the Speedway yesterday. Harroun's time of 6:41:08 was almost actual running time, when it is considered that he made only four tire changes in the 500 miles, riding the race through with his front tires and the left rear intact and changing the right rear tubes four times. Ralph Mulford, driving the Lozier (23), came in second, beating out Bruce-Brown in the Fiat (28) when it seemed that Mulford has lost his chance to finish second. In Mulford's 193d lap he blew a right rear tire and was forced to stop and change tires. In so doing Mulford lost a lap to the Grand Prize winner. When Bruce-Brown came down the stretch in his 199th lap he was forced to stop at his pit, after getting the green flag, to make mechanical repairs. The spark layer on the Fiat had broken at the end of 100 miles, and this had been repaired only to break the second time when Bruce-Brown had a chance to finish close to Harroun. The repair was made and the car came in third.

Spencer Wishart in the Mercedes, who finished fourth, blew a tire coming into the home stretch in his 190th lap and when starter Wagner gave him the signal to keep on going he did not stop at the pits but kept on around the track. Wagner gave him the checkered flag in the next lap, when the car was running on the rim, but Wishart did not see the flag, and not knowing his position, he drove two more laps before Wagner

Escapes When Mechan



ARTHUR GREINE

Arthur Greiner, the former amateur driver, pilot who won fame with a National, was injured when the Amplex (44) threw a tire in the thirteenth lap on the south turn and his mechanic, Dickson, was killed. Greiner had expected to drive a Fiat car in the big race, and when the Chicago cars did not come Greiner took a position with the Amplex. Greiner's car was the same car with which Gaston Morris, the French

at the pits at the end of the sixteenth lap and changed mechanicians, Edward Towers taking the place of Emmet Ward. This marked the first change among the drivers or mechanicians that started the race. "Billy" Knipper, driving the Benz (46), stopped in the forty-sixth mile with a leaky water connection, but the repairs were quickly made, and Knipper was on his way. Lee Frayer's Firestone-Columbus was stopped with clutch trouble about the same time, but the trouble was slight, and "Red Wing," as the car was known, was away in a moment.

After covering fifty miles Spencer Wishart, in his Mercedes, made his first stop with a flat right front, and Louis Disbrow halted with his Pope to remove a broken speedometer shaft. Ralph Lozier, in the Simplex, made his first stop at fifty miles with a flat right front. "Howdy" Wilcox, in a National, and "Farmer Bill" Endicott, in the Cole, stopped for flat right rears, and Louis Strang, in the Case, made his initial stop for a right front tire.

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BURMAN AND KNIPPER SHOW SKILL

Burman and Knipper in the Benz cars showed their skill in handling the cars, as both drivers threw and blew a number of tires. Burman, turning into the south turn on his 129th lap blew his right rear tire, and in a moment the heavy car had torn the crushed tube to shreds and scattered it over the course. The crowd rose to its feet expecting the "Speed King" to crash into the wall and then broke into cheers as Burman pointed the nose of the car down and stayed on the track. To keep from losing time Burman turned the lap in which he blew the tire in 2:05.

When the cars had made the second lap the pungent odor of burning rubber filled the air, and from that time till the last car whizzed across the wire, rubber was always in the air. Charley Basie in a Buick made the first tire change, coming on a flat right rear tire after making fourteen laps, and Arthur Chevrolet, also driving a Buick, was the second to turn in to the pits, having a right rear flat at fifty miles. From fifty miles till the 800 mark was passed and the field had thinned out, the tire changes and mechanical repairs kept the pits busy. The speed with which the pitmen worked would have appealed to the famous P. T. Barnum. The mechanics signaled with their arms while turning into the pits, and by the time the car halted the tire changers were busy jacking the car up and slipping on another "shoe." While the tire changers were working other members of the pit teams would be pouring oil and gasoline into the tanks, and the radiators would be filled with water, and the cars seemed only to pause at the pits for an instant and then they were on their way again.

THROW TIRES IN THE STRETCH:

Taking the south turn and turning into the home stretch yesterday many of the cars threw tires and the rubber circles went rolling ahead of the cars, and in many instances shot over the wall at the south turn.

Amplex (12), driven by Turner, halted

to walk in after stopping his car coming into the home stretch on the twenty-eighth lap, when his car broke a crank shaft. Louis Disbrow, in the Pope, made his second stop in the sixty-fifth mile of the race for a new magneto.

STUTZ MAKES FIRST STOP.

At the eighty-mile post the Stutz made its first stop for a right rear tire, oil and gasoline. The Knox, driven by Fred Belcher, halted a moment later for a right front tire and oil and gasoline. Arthur Chevrolet, driving a Buick, was the next driver to leave the race, going out in his thirty-fifth lap with a broken crank shaft. Teddy Tetzlaff, in a Lozier, made his first stop at ninety miles for a right front and rear tires and a supply of oil and gasoline. A moment later Ralph Mulford, his teammate, turned in at the pits with a right rear tire flat. Fred Ellis's Jackson stopped at the pits at the end of the ninety-fifth mile of the race with carburetor trouble. At the same time Teddy Tetzlaff, in his Lozier, again slowed up at the pits, having stretched a wheel band. A new wheel was placed on the car and Tetzlaff was off in a moment.

At the 100-mile post Delaney, in a Cutting, stopped at the pits to adjust the carburetor and changed a right rear tire.

Harry Endicott, in the Interstate, made his first stop in the 110th mile, changing a left and a right rear tire. From the 100-mile mark the tire changes came thick and fast, and sometimes five or six cars would be laid up at the pits for a moment until a new tire was put on. Fred Ellis continued to have carburetor trouble with the Jackson "twenty-four."

"Farmer Bill" Endicott was the first driver to relinquish the wheel to a relief pilot, Johnny K. Jenkins taking the Cole at 120 miles. Joe Dawson, in the Marmon "thirty-one," made his first stop at the 125-mile mark, replacing a right rear tire. Bob Burman and Billy Knipper both changed tires in the same mile. Harry Grant's Alco burnt out a bearing and was out of the race at 140th mile mark, Grant having made

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BASLE'S BUICK GOES OUT.
Charley Basle's Buick went out in his fifty-second lap with loosened cylinders. Disbrow and Teddy Tetzlaff figured in a wreck at the head of the home stretch at the 160th mile mark, and both cars were out. Disbrow crashed into the rear of the Lozier, and after the two cars were dragged a short distance down the stretch Tetzlaff pulled Disbrow's and his own car off the track and the Lozier rolled over. Disbrow's radiator was damaged and the front axle bent. The damage to Tetzlaff's car could not be ascertained, as the Lozier crew directed their efforts to aiding Mul-

tical troubles. in the race.
Fred Bine Jackson was out of the race, as it was impossible to get the carburetor working right.
Ray Harroun made his first stop at 160 miles with a flat right rear tire, and then surrendered his wheel to Cyrus Patschke, the famous twenty-four-hour race driver. Harry Endicott, in the Interstate, threw a tire on leaving the home stretch and came around on a rim at 170 miles. Joe Dawson put on another right rear tire a moment later. Billy Knipper, in the Benz, stopped for a new spark plug.
Merceer (37), Sherwood driving, came in for oil and gas and F. P. Frey took the wheel.

Ralph Beardsley relinquished the wheel of the Simplex during the 180th mile to Goetz, after replacing right front and rear tires. Howard Wilcox, in a National, also put on a right rear, and "Wild Bill" Turner turned over the Amplex (12) to Walter Jones. Eddie Hearne, in the Fiat (18), stopped for oil and gasoline, and Eddie Parker took the wheel of the Fiat.
Billy Knipper stopped the Benz in the 190th mile to remedy ignition trouble, and Will Jones, in a Case, also had ignition trouble. Joe Jaggersberger halted his Case for oil, gasoline and right rear tire. Mulford again stopped at his pit for fuel and a right rear, and Ralph De Palma, in the Simplex, rolled into the pits with a right rear flat. "Happy Johnny" Aitken, who had been driving a brilliant race in a National, stopped at the 200-mile mark with ignition trouble and a flat right front tire.

Harry Endicott, driving the Interstate, rolled in with a flat left rear and after the tire had been replaced and the car was ready to start the mechanician, Ed Madden, in his haste to get in the car, fell backward and the left wheel passed over his shoulder. The injury was slight and the crowd rose to its feet and cheered when Madden climbed back into the seat and Endicott whirled the car on toward the south turn.
From 210 to 220 miles several cars were down with flat tires, and minor repairs were made, and the cars were back in the race. Bob Burman electrified the crowd shortly after the 220-mile mark was

FIAT THE SHOT

passed, throwing a tire in the end of the home stretch, and the rubber circle rolled over the wall. Burman held the car steady and drove around on the rim.

POPE-HARTFORD CAR HANDICAPPED

Jap Clemens, taking Frank Fox's place at the wheel of the Pope-Hartford, started to go out on the track and twisted the universal joint, and the car was out of the race for more than an hour. Mulford came in with two flat tires and was away in a moment, the pitmen's work getting him off with a rush. Lewis Strang surrendered the Case wheel to Elmer Ray at 220 miles. Eddie Parker made his first stop for mechanical repairs to the Fiat (18) at 220 miles, and a stud in the rear cylinder was replaced. In Parker's eighty-first lap and the 230th mile of the race a steering knuckle on the Fiat broke in front of grand stand C. Parker held the car, and it came back on the track and was guided into the roadway at the end of the pits to have repairs made. Ralph Beardsley stopped with a loose dashboard on the Simplex.

While the Fiat crew were repairing (18) and in the 240th mile of the race an accident occurred in front of the grand stand in which the Wescott and the Apperson were wrecked. The pitmen working on the car were saved only by the heavy post in the center of the roadway, which stopped the Wescott. Harry Knight and his mechanician were thrown over their heads. Fred Belcher turned the wheel of the Knox over to John Coffey, his relief driver, in the 260th mile of the race. Coffey

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drove well and showed skill in handling the heavy car.

Howard Frey, driving the Mercer (27), by quick work prevented another accident in front of the pits in the 290th mile, when the Mercer skidded, but Frey held it and the car stopped in front of the pits after several quick turns. The Velle (40) stopped with several loose studs in the oil pan, which were repaired.

David Bruce-Brown stopped in the 320th mile for new spark plugs and the McFarlan (23) had carburetor trouble. Wishart relinquished the wheel of the Mercedes to Dave Murphy. Joe Dawson stopped for another right front tire. Bob Burman stopped for new spark plugs in the 360th mile and Lewis Strang's Case was out of the race with a broken steering arm in the 380th mile, after making 108 laps. Patsche took the wheel of the Marmion (31) from Dawson in the 390th mile, and Austin replaced Keene as mechanic. Harroun took the wheel of the Wasp in the 163d lap and held it till the end of the race. Spencer Wishart again took the wheel of the Mercedes in the 410th mile, relieving Dave Murphy, who came in on a flat left and right rear. Shortly afterward Ralph Beardsley slowed up at the pits, having broken the clutch pedal of the Simplex.

Frank Fox caused more excitement for the grand stands in the 450th mile when he threw a tire on the south turn, which went bounding over the wall, and Fox held the car, coming in on the rim. Bill Endicott again took the wheel of the Cole in the 460th mile and Turner gave the Simplex over to Walter Jones in his 190th lap. Turner's hands were blistered and he was unable to hold the wheel longer. Turner took the wheel again in the 196th lap and finished the race. Hearne's Fiat again stopped for repairs to the gas line in the 270th mile and the car's 147 lap. Bob Burman, passing the grand stand in the 486th mile, threw a tire and the rubber circle, speeding ahead of the car, hit Eddie Hearne, who was working on his car in front of the pits and knocked the Fiat pilot under the car, but did not injure him. That was the last thing that was anything like an accident the remainder of the race.

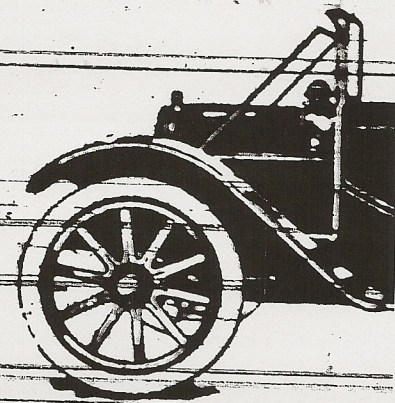
STEEL TRAIN IN DITCH

Engine Crew Killed, White F

Escape Serious Injur

SEATTLE, Wash., May 30.—A message from Malden, Wash. to the Seattle office of the Chicago & Puget Sound railroad, says passengers were seriously injured in the wreck of the "Columbian," all of which was derailed today. The train and fireman were instantly killed. "Columbian" is the second passenger train to leave Seattle for Milwaukee line since the collision on the road. The train was not heavily equipped.

CHARLOTTE, N. C., May 30.—A man having been buried under the wreckage of seventeen cars and the wreckage of the cars for thirty-seven hours.



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There are
of Safe

These are the frame, brakes. Examine all cars. Chalmers frames are stronger and heavier than total weight. These are weight which they are call cars. The double drop in and makes it hang well to Chalmers wheels are

VETERANS IN CASUALTY ROLL

Memorial Day Results In Three Deaths
Near Pittsburgh.

PITTSBURG, Pa., May 30.—Six veterans of the civil war were victims of violence, accidental or self-inflicted, today, in and about Pittsburgh. At Kittanning, James Summerville, 78 years old, marching at the rear of the Memorial day pro-