Big Outlay Made to Make Auto Classic A Great Racing Event

America and the Americans! The Memorial Day race at Indianapolis is as typical of the great country and its great people as anything that can be imagined, writes Walter C. Boynton in MoToR. Here are prodigal outlay of time and money, of genius and energy, of devotion and death-daring—all to make a holiday for a crowd and to show that the American is supreme in his determination to be first in whatever he undertakes. Think of a 420-acre field, cared for the year around by a small army of men; a brick-paved race track that is two and a half miles long, with more than 3,000,000 bricks in it; a throng of 135,000 people, spectators; and 5,000 people more to look after their comfort and safety. All this and much more—months of energetic work of preparation, weeks of effort, days and days of test and trial—have been devoted to a brief space of a little more than five hours, in which the world's best racing cars and the world's best drivers and mechanics race around and around the track, for a gigantic prize in money and the inestimable glory of being first in the world's biggest sporting event.

Tenderfoot Learns Much.

A tenderfoot at the Speedway learns many things, if he is willing to. First of all, he learns that, as one mechanic puts it "Building more r. p. m. into your rear wheels," is the end and aim of everything that is done to the cars before the race. That is the object of all the outlay of every kind that goes before the big show. Getting the extra r. p. m. out of the wheels while the race is on is the job of the driver—and of his indispensable mechanic. That is the object of the five tense hours at the track—the one day in the year when the track is humanly alive.

Speed, speed—more speed! That is the watchword and no trouble is too great to take, no risk too great to run, if by taking it or running it a car may be made to go faster—and to keep on going.

Every visible part of the car is planned and built and watched and tested with the care that its responsibility entitles it to. Two human lives—and possibly more—may be the penalty for overlooking a trifle. The moving parts are brought together with scrupulous care. They must be close enough together to minimize vibration and far enough apart to minimize friction. Vibration and friction are the twin rats that gnaw at speed and safety.

Every part that bears upon another—and there are so many of them—is fitted to an unbelievable nicety. No man can say just what the limits shall be. Men working around a racing car, which is so largely hand-tooled, grow to have a sort of sixth sense that tells them when parts that bear upon one another are properly adjusted. In the words of one expert: "You see, it mustn't be too tight here, and at the same time it can't be too loose. It has to be just right." Clear, crystal clear.

Bearings Hand Scraped.

Camshaft bearings are hand scraped with loving care. It is a sight to see the artistic devotion with which the scraping tool is handled. Repeated and delicate tests are made to see that the bearing surfaces work intimately, yet freely, and the connecting rods receive the same watchful care. Every part of the cylinders and pistons gets the same careful scrutiny. The car is gone over with elaborate care from end to end, side to side and through and through. When the driver and the mechanic unite in saying that a car—to which they are going to trust their lives—if fit, it is fit—as fit as they can make it.

While the grooming of these steel greyhounds is going on, many representatives from the factories of specialized automotive parts are on the ground to provide such parts that need replacing with new ones. Anti-friction bearings of both the ball and roller type are employed in various positions in racing cars, and for example the Bearing Service Company has for a number of years worked closely with racing mechanicians and drivers, so that the bearing equipment of every car is as near perfect as possible.

Racing conditions are very well known to the designers of racing cars, and every part is engineered to the greatest strength that is compatible with lightness and capacity for swift motion. When bearings are properly installed they are not likely to give trouble—witness the 1922 race, during which not one of the twenty-nine cars entered developed any bearing trouble at all.

While the race was on, the Bearings Service men were in their pit flanking the track, ready to furnish any bearing instantly if such replacement were necessary.

At last, the great hour comes. After days of trying and testing, changing and altering, tightening and loosening, the cars that have qualified are really washed and cleaned. Their identification numbers are painted on them—and they are ready to go. It is a tense moment when the big field of racers, lined up rank behind rank, according to the speed they have made in the qualifying runs, stand ready for the word. The big crowd holds its breath in suspense. Another second, and the crowd breathes again. They are off!

You know how you "sort of" put your foot out, quickly, when you are driving along the city street in your own quiet car, and turn a corner a little bit too fast—just to keep the car from turning over—and how your heart comes up in your throat a good deal faster than the outside edge of the car does! And how your heart goes back where it belongs when you straighten away after the turn and realize that you are not going to tip over that time. Well, that's the way you feel when you see one of those racing cars hit the turn a great deal too fast and hang on by the far edge of the tires like flies crawling on a side wall. I worked so hard trying to help keep those cars right side up that after a few laps I was as tired as if I had been driving myself. Before very long the whole track was pretty liberally sprinkled with oil, and fairly slippery at the turns; and I felt that I must do all that I could to keep the cars going, right side up.

Indifferent as Time Goes.

For the first half hour or so, while the boys are warming up the first fifty miles, everybody was intent on the track, following the cars with turning heads and craned necks. But after that, until it began to come time for the finish, people were almost indifferent. The cars were all well bunched, most of the time, so that there would be a perceptible lull for a little while, then a drumming noise, steadily growing louder and louder. Then there was a concentrated roar as the cars swept by the press pagoda and the drumming died away for a few seconds—to begin again. And so it went, lap after lap, hour after hour, with Jimmy Murphy out in front and the electrical timing device clicking off the record of the world's most remarkable automobile race.

When it comes to the matter of rendering service at the pits, every man is a dynamo. Perhaps you have seen a skillful surgeon or two performing a very delicate operation, like grafting a new part on a patient. They work fast, you know, and the assistants and nurses stand at their elbows, keeping the sweat out of their eyes and handing them just what they need at the very instant they need it. If you can imagine a moving picture of an operation, speeded up to the limit of the camera, you will get some idea of what happens when service is being given while a race is in progress. Every man concerned in the job knows exactly what to do and how to do it. While you are getting ready to see what they are doing, and how, it is done and the car is on its rushing way again.

But It's Not Monotonous.

Don't let any man tell you that an automobile race is monotonous when no one is hurt or killed. Some men will tell you so, but they are wrong. The cars keep going round and round, but there is something different every minute for every man in the race. You never know when a car is going to shed a tire, blow up, leap in the air, skid off the track or turn turtle. Once in a while you feel guilty for taking your mind off the cars at the turn, for you feel that if you don't work hard, they are going to turn over and someone is going to be hurt. If you take your eyes off the track to rest them for a minute—just a little minute—the cars have gone more than a mile, and so many things can happen in that distance.

You could see the strain on the men—and on some things about the cars. Before a tire let go it would be worn to a knife-edge and the punishment showed clearly on all of the discarded casings. But it was dreadful to think of the strain on the parts of the car that were standing their share of the brunt of it all—the frame and the moving parts, the engine and the bearings. The terrific speed made you ache for the engine, though the mechanic was pumping the oil constantly to relieve the friction. And the bearings! Every time a car went into the turn, you could feel the thrust of that heavy mass of metal, multiplied by centrifugal force so that the average car was pushing with a weight of eight tons or more right against the bearings. It was as if the cars themselves felt a strong urge to get away from the track and the dust and the shouting and the strain, and the drivers and the bearings would not let them go.

Is Just Like Play.

No one but a fool would trust his own life and risk those of his fellow creatures with any mechanism actually known to be weak or imperfect in any part. No driver or mechanic deliberately takes fatal chances; everything about their cars that can be humanly foreseen is made safe and as strong as can be—always remembering that the crowd is there to see speed—and some of them (most of them, if the truth is to be told) to see spills. Some of the crowd coming away from the speedway that wonderful May day yawned and remarked that it had been a dull race—nobody hurt. So might the crowd have come from the amphitheater centuries ago, disappointed that there were so few deaths!

The crowd, the big crowd, saw the spectacle as a finished production—as a play that was put on with scenery, costumes, properties, all complete. And the actors in the swiftly moving drama—the men and the machines—were so carefully prepared, so letter-perfect in their parts. They had all been coached and taught, groomed, refined, trained—nothing had been left undone to make them play their parts.

It is anybody's race until that checkered flag drops. The best men and the best cars may "blow up," any time. The human equation enters so strongly into the race that it is hard to say who will win, all other things being equal. Daredevils all are the drivers, each bound to push his car through ahead of the rest if it is humanly possible—and sometimes when it quite evidently is not. All that human ingenuity can do to build an engine that will make a car go fast and keep it going fast has been done weeks before the race. A hundred generations have been born and have died, to produce the racing driver who combines rare skill with a rarer cool head, an apparent contempt for death, an almost divine sense of direction and distance.

During the school season 140,000 children are transported by motor bus every day in North Carolina. Ninety-three per cent of the children carried to school at State expense are carried in motor vehicles

MAIN TERMINAL OF WASHINGTON RAPID TRANSIT

The main offices of Washington's popular bus line are shown here with the headquarters staff. Reading from left to right: William P. Killeen, vice president and general manager; Vaughn Derby, auditor; Harry Johnson, starter; C. S. Watts, cashier; W. D. Trowbridge, secretary; Miss Wurtzman, office; Frank Dowling, cashier, and H. H. England, traffic manager.

Care of Inner Tubes.

A good way to prevent hardening of inner tubes while they are stored away is to place them in hot water once a month or six weeks. After a few minutes' immersion, they should be dried thoroughly and inflated slightly before being hung up. This will keep the rubber soft and pliable.

An automobile school for chauffeurs has been opened in Constantinople. The school, which is the first of its kind in the Near East, is operated by the Near East Relief.

Cleverness in Parking.

To successfully "make" a small parking space in which the car is to placed. First steer the car slightly into it and then out again before backing in. This brings the rear wheels nearer the curb in preparation for the backing process, and makes the work of parking easier.

A new 5 per cent stamp luxury tax is imposed on motor vehicles in Belgium. Automobiles used exclusively for professional or commercial purposes are excluded.