

# "WHY" OF RACING HOLDS MOTOR WISE

**Big Interrogation Answered by  
Auto Concerns to Quiet Speed  
Skeptics.**

**ASSERT GRINDS TEST CARS**

**Manufacturers Agree That De-  
velopment of Models Comes  
From Tests on Track.**

Indianapolis will see one of the greatest gatherings in the history of any sport on Tuesday morning when 100,000 persons, the idly curious, the motor wise, the racing fan, and representatives of one of the greatest modern industries—the building and the marketing of the motor car—will witness the largest field of American drivers and American and foreign made cars ever brought together in a track race, when they battle more than seven hours for the honor of winning the 500-mile International Sweepstakes race at the Speedway.

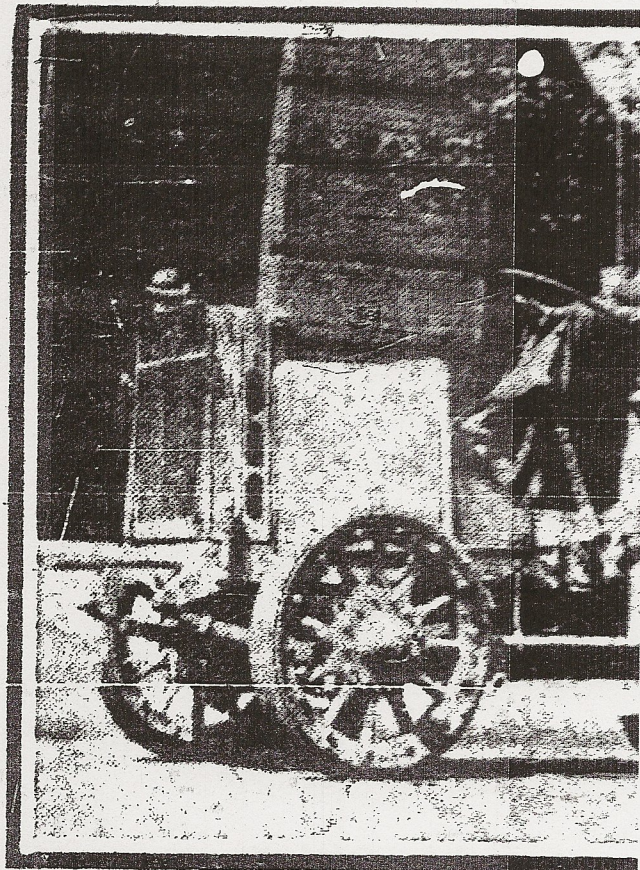
With such a gathering many questions will come to the mind of every one of the spectators and one of the biggest of these interrogations will be—why do they race? Another question that will come to the mind of the analytical fans will be—what benefit does the manufacturer get out of such a race?

Probably the fans never stop to realize the enormous expense connected with the racing game from the standpoint of the entrant. The approximate value of the forty-six cars named for the event, on a conservative basis, judging by the market price of the cars, is \$225,000. In addition to the expense incurred in building the cars and getting them ready to send to the tracks, for every car entered the average manufacturer will spend for the expenses of his racing team, tires used in practice and the race, gasoline, oil, shipping and many other small expenses about \$5,000. On this basis the cost to the makers, without their advertising expenses, will be over \$425,000. When the expenses are so large the layman wonders more than ever. Why do they race?

In answer to this question several of

## AUTOMOBILES

## Big Truck Will Carry



the makers who have entered in the race have given their views on the racing game and its benefit to the manufacturer under existing conditions.

Howard Marmon of Nordyke & Marmon Company, who have entered two of their racing cars in the International Sweepstakes, stated his views as to the benefits of automobile racing in an interview at the Indianapolis factory recently. Mr. Marmon said:

"A more or less erroneous impression prevails as to the object of racing. The average man does not want a car for speed alone, and if the only thing to be achieved by the manufacturer were the trophies offered and the glory of winning them, it would be a doubtful expenditure of time and money.

"But no amount of care in test and inspection during the course of building, nor even the most severe trying out process to which the factory expert can subject a car, is quite the equivalent of the stresses to which the machine is subjected in long distance racing. Continued high speed for 100 miles or more is for the best that is in a car. Every part must stand up under strains far in excess of what it will be called upon to bear in actual service.

"The motor must develop its greatest power continuously for a long period. The cooling and lubricating systems must be capable of meeting requirements far in excess of the ordinary, and every element of the transmission—every bolt, nut and screw—must demonstrate that it has a factor of safety well beyond the terrific racking that sustained speed in competition brings to bear.

"It is certain proof of a car's capacity for speed and endurance under the most trying conditions that the manufacturer

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# AUTOMOBILES

## DIRECTORY

### Motor Cars ACCESSORIES

**Accessories** Henry Willis Co., 113 117 West Market.

**American** American Motors Co., 420 30 N. Illinois, cor. Henry

**AMERICAN SALES COMPANY** 430-32 N. Capitol Ave

**APLCO LIGHT** Auto Light and Electric Co. 130 North Illinois Street.

**Automobile Tops** Gates Mfg. Co., 540 N. Capitol Av

**AUTO LIVERY CO.** Chas. E. Malott 25 W. St. Oak Street, New 214, Old Main 4173

**AUTO LIVERY** Williams, 111 Kentucky Ave. Phone Main 4276

**Auto Road Map** SCARBOROUGH'S 75 E. New Jersey St.

**Bodies** Robbins & Co., Tenth street and Canal, Industrial Building.

**Buick** BUICK MOTOR COMPANY, 100-100 East New York street.

**Cadillac** Cadillac Automobile Co. of Indiana, 604 N. Capitol Ave.

**Dodge 30 H. P.** J. L. Cox Breeding Machine Co. 241 Kentucky Ave.

**Columbia** United Motor Indianapolis Co. Illinois and Vermont Streets.

**Dodge 30** Factory, 742-750 E. Wash. COLE MOTOR CAR CO.

**DOLBY** 51370 A. L. SHERIDAN, 510 N. Capitol Ave. East End, Main 122, North 3254, 43451, 6446

**Continental "35"** Indiana Motor Sales Co. 322 North Illinois St.

**E-M-F "30"** STUDEBAKER, 300-15 N. Penn. St.

**Empire** Empire Motor Car Co. Factory, 10th St. and Canal

**EMPIRE TIRES** Empire Tire Co. 208 North Delaware, Both Phone.

**Flanders "20"** STUDEBAKER, 300-15 N. Penn. St.

**Finch & Freeman** Asher, DeLamb's, Richmond, 322 N. Del. St.

**Firestone, Paige** Sterling Motor Car Co. 143 W. Market St.

**Gasoline** 68-700 No. Tenth Motor Oil, Fr. Gray Motor Oil Co. Phone Prospect 1834

**Great Western, Jackson** PECK MOTOR CAR CO. 429 North Meridian St.

**Henderson** Motor Sales Co., Capitol Avenue and Vermont st.

**Huomobile** Henry Willis Co., 113 117 West Market street.

**Hoyt-Light** HOYT-LIGHT SALES COMPANY 305 Meridian Life Building.

**Inter-State "40"** 51,750, 427 N. Meridian street.

**Knox** Conduit Automobile Co., 332-334 N. Del. st., 4 Block N. Mass. av.

**MARION** MARION MOTOR CAR CO., Factory, 10th st. and Canal.

**MARMON** Marley & Marson Co., Office and Factory, Kentucky Ave. and Morris St. Both Phone 1

**MARMON** Indiana Salesmen: New York and Meridian Streets. Old Phone 1834, New 3402

**Maxwell** United Motor Indpts. Co. Illinois and Vermont.

**McFarlan Six** McFarlan Six Sales Co. 324-326 N. Delaware St.

**Model Dodge** International "Model Dodge" 5122

terrific racking that sustained speed in competition brings to bear.

"It is certain proof of a car's capacity for speed and endurance under the most trying conditions that the manufacturer seeks to bring out in facing. In no other way can it be demonstrated so unmistakably. If there be any faults of design or points of weakness in its construction the test of continued racing can not fail to bring them to light, usually at a critical moment when the defection of a comparatively unimportant part spells failure to finish. The giving way of different members under such conditions means that their life, as measured by the stresses of ordinary service, would be comparatively short.

"But not one race or two is sufficient to show these things conclusively.

"The element of luck is a strong factor, and the machine that manages to survive with credit to itself is frequently unfit for further service at the conclusion of a race. A car must be consistently and uniformly victorious to prove itself by the long and arduous tests of the racing field."

### SPEED TESTS PERFECT FIATS.

Give Engineers Chance to Improve Famous Foreign Motor Cars.

"We believe that racing has materially aided the Fiat car to attain the position of unquestioned superiority. It enjoys in every civilized country of the world," says E. R. Hollander, vice president of the Fiat Automobile Company, in discussing the benefits of racing to motor car manufacturers. "The benefits have not been confined solely to increased business following victories—and I am safe in saying Fiats have been more successful in races all over the world than any other cars—but Fiat engineers have improved both the design and material of our cars as the result of lessons learned in races.

"The Fiat company began racing in 1898 and has kept at it ever since. It benefited greatly from the early races, when the only restriction was that the car complete must not exceed a specified weight. This encouraged the Fiat engineers to find light but very strong materials with which to build racing cars, and subsequently these same materials were used in making the stock cars sold to the public.

"One concrete example of the improvement from racing is the increase in horsepower efficiency. In 1904 a 6x6 engine, having 678 cubic inches piston displacement, developed sixty-three-horse power. In 1911 an engine having 5 1/2 inches bore and a stroke a bit smaller than 7 1/2 inches, with 513 cubic inches piston displacement, developed 132-horse power. Both engines were four cylinder ones.

"When race restrictions were amended and limited cylinder volume substituted for maximum weight, Fiat engineers demonstrated their superiority in the first big race of this kind—that for the German Emperor's Cup in 1907. The restriction was eight liters cylinder volume and there were ninety-two starters—the greatest field ever competing in a big race. Fiats were one, two, three in one of the elimination races. Nazzaro won the final, the other Fiat drivers being fifth and sixth.

"In 1907 Fiats won all three of the year's great international road races, taking also the Grand Prix of the Automobile Club of France and the Targa Florio in Italy. The Targa Florio was the first race for stock cars ever held in the

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**HARMON** Indiana Salesmen: New York and Meridian Streets. Old Phone 1834. New 3482

**Maxwell** United Motor Indpls. Co. Illinois and Vermont.

**McFarlan Six** McFarlan Six Sales Co. 824-56 N. Delaware St.

**Petal Polish** International "The Whist" 2112 North Castle Ave. Since Everything.

**Mitchell** Hensley-Willis Co., 115-117 West Market Street.

**MOLINE** Morton Place Garage, 1839 North New Jersey street.

**NATIONAL** Indpls. Sales Branch, 425 E. Canal Ave. Phone, Main 4758; New 4758.

**NATIONAL** National Motor Vehicle Co. Fac. 233 St. & L. E. & W.

**OAKLAND** National Motor Car Co., Phone N 1007 235 N. Pennsylvania St.

**OILS** Greases and White Rose Gasoline National Refining Co. Phone 10.

**Overland** Oliver Avenue and Dwyer Motor Dent. 15th and Big 4

**Overland** Supply Station 30 E. Market St. Phones New 4025 Old Main 2411

**PACKARD** Meridian Auto Co. 724-790 N. Meridian St.

**PARRY** THE MOTOR CAR MFG. CO. Standard and Division 234

**PATTERSON "30" & "40"** Frickbocker Auto Co. 572 North Castle Ave.

**Pierce-Arrow** ARCOPY ATTING CO. 125 North Meridian E.

**Premier** Premier Motor Car Co., Fac tory, 721-825 S. Shelby street.

**PREMIER** PREMIER SALES CO. 812-818 N. Delaware St.

**Pope-Hartford** Frank P. Fox & Co. 516-18 N. Cap. Ave.

**Rauch & Lang** Electric, Frank P. Fox & Co. 516-18 N. Capital Ave.

**RED & MOON** State Auto Co., 328 North Delaware St.

**REGAL** AUTO AGENCY 18 N. Delaware St.

**Samson** Indianapolis Motor Car Company 419-423 East Market Street

**SPEEDWELL** CAPITOL GARAGE, 330 N. Illinois Street.

**STARTER** General At. Both-Murphy Co. 679 Concord Bldg. Both Phones

**Studebaker** Indpls. Co., Frank B. Willis Gen. Mgr. 809-15 N. Penn.

**Tires** Gunsmoke Tire & Rubber Co., 200-14-15 South Illinois St.

**Vulcanizing** Hensley-Willis Co., 115-117 W. Market street.

**Waverley** Electric-The Waverley Co., 155 South East Street.

**Westcott** Western Sales Co. General

**WHITE TUBES TRUCK** Indiana Salesmen: New York and Meridian Streets. Old Phone 1834. New 3482

**WINTON** International Motor Sales Co., 473 N. Meridian street.

greatest need ever competing in a big race. Flats were one, two, three in one of the elimination races. Nazzaro won the final, the other Flat drivers being fifth and sixth.

"In 1907 Flats won all three of the year's great international road races, taking also the Grand Prix of the Automobile Club of France and the Targa Florio in Italy. The Targa Florio was the first race for stock cars ever held in the world, there being forty-five starters over a rough, hilly circuit. Nazzaro won with a stock forty-horse-power Flat, the other Flat drivers finishing second and fifth.

"Nazzaro made a new world's record that year when his Flat won the French Grand Prix, covering the 482 miles at an average speed of seventy-one miles an hour. There were thirty-three starters, including practically all the world's best cars. The same year a Flat stock chassis won a twenty-four-hour race at Morris Park, New York, against twenty well-known American and imported cars.

"Races that year furnished convincing evidence of the unexampled skill of Flat engineers. In May Nazzaro won the difficult Targa Florio with a forty-horse-power stock chassis; in June he won the Emperor's Cup, with its maximum cylinder displacement restriction, with a sixty-horse-power stock chassis, and on July 3 he was victorious in the French Grand Prix with a 120-horse-power Flat. Here were three totally dissimilar races very near together, yet Flat engineers produced the winners of each.

"In 1908 Nazzaro's Flat won the Florio Cup race of 327 miles at the world's record speed of 74 1/2 miles an hour. This has never been equaled, even in shorter races over better roads. A few months later Wauve won the Grand Prize Gold Cup of the Automobile Club of America at Savannah, making a new American record average of 65 3-10 miles an hour for 402 miles, the other two Flats finishing third and ninth.

"Flats have won many other races in different countries, but the ones mentioned were the biggest events of the years. Flat engineers have profited so greatly from racing lessons that Flat cars are the leaders in every civilized country. The great plant at Turin turns out 4,000 of the highest grade cars every year, and today Flats hold the lead of the imported cars in every country. In Germany, France, England and all other countries, more Flat cars are sold annually than any other car imported into those countries, this being true of every civilized country in the world."

**RACING GIVES EFFICIENCY.**

**Teaches Discerning Maker to Perfect Car, Says Case Manager.**

"Why automobile manufacturers spend thousands of dollars every year in racing events is a question propounded in one form or another every day, and not infrequently some manufacturer, whose

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More interest is being manifested in the 500-mile Speedway race by the newspapers over the country than in almost any other event of its nature ever known. At present there are special correspondents from more than fifty papers "on the job" and a special train today will bring a small army of writers from the East, Boston and New York mainly.

Everything possible has been done by the Speedway management to accommodate these visitors. Press cars are being furnished by Will H. Brown. These will be large trucks with cushioned seats which will carry the men together and with dispatch and certainty to the grounds. They leave the Claypool Hotel Tuesday morning at 7:30 o'clock. Upon arriving at the grounds a school will be held for the correspondents. Telephones, telegraph instruments, score cards, time tables, lists of records and other data have been prepared for these men. Ordinarily the life of the newspaper man at a race is one of hardship. Paul P. Willis is chairman of the press committee. A car will be furnished by him to carry a limited number of newspaper men to accidents.

own car attained its present efficiency as a result of long speed tests, will announce that the automobile race has fulfilled its purpose." Thus quotes M. C. Meigs, advertising manager of the J. I. Case company.

"As a matter of fact, the racing car of today is the touring car of tomorrow, and so long as there is any room for improvement the best manufacturers, as a class, will not be satisfied to rest on past performances. High speed tests, while developing little of interest to the general public beyond the spectacular feature, are certain to teach the maker and designer things that they could learn in no other way.

"Such are the fundamental facts as recognized by the J. I. Case Threshing Machine Company of Racine, Wis., when it entered three cars in the Indianapolis Speedway event. Standing for speed on the harness race track, and in the trotting and pacing horse world for nearly two decades the name of "Jay-Eye-See" survives in the age of the automobile. It provides the stimulus for more strenuous effort on the part of the J. I. Case company to achieve speed conquests on track and road. The day of the race horse is scarcely more than a memory, and the old-time followers of trotting and pacing are hard to find, but as the old order changes, so the Case policy has been to keep abreast of and a little ahead of the times, and for this reason it has been represented in the greatest automobile events in the country.

"The engagement of Lewis Strang, one of the best-known racing pilots in the world, as chief of the Case racing team, was but the logical outcome of this campaign. And such a trio as Strang, Eversberger and Jones is certain that both the mechanical and reliable reputation of the Case company will be strengthened.

The eagerness of the automobile engineers of the Case company to develop a machine that will represent the last word in speed, efficiency, economy and durability has led them to look to each racing campaign for new lessons in automobile building, and the improvements in

only human. Do it on a race track, a place specially designed for such work, eliminating dangers to persons who use the highway."

## ENDURING PERFORMANCES COUNT.

C. A. Emise Says Public Wants Durable Car—Races Show Worth.

"Automobile racing benefits the manufacturer who submits his cars to the tests of long-distance contests directly in proportion to the extent to which he is willing to put to practical use the lessons which he learns," says C. A. Emise of the Lozier company. "If he merely uses his knowledge in order to build special racing cars, both he and the public gain no real benefit, but if he is honest in his desire to improve the quality and character of his stock cars, there is no form of experimenting or no amount of usual routing of road testing that will so quickly determine the weak points of a car and so quickly determine their correction, as participating in long-distance races on road or track.

"There is a marked difference, however, in the manner in which different builders conduct their racing campaigns. Certain builders design racing cars—freak machines, pure and simple—having no direct relation and bearing very little resemblance to the cars which they offer for sale to the public. They are built for speed and speed alone. The motor has valves of the overhead rocker arm type—totally different from the system used on motors sold to the public. Their stock cars are shaft driven—yet on their racing cars, they use chain driven rear systems. Their stock cars have long wheel base for big, comfortable bodies, yet their racing cars are short, stumpy models, simply designed to run races.

"The manufacturer conducting racing in this way learns only one thing, speed, speed and more speed. The knowledge he gains can not be applied to his regular cars for the public's benefit because freak construction is being developed.

"Every race shows some signs of incipient weakness which is strengthened. Every minor trouble which causes a delay in the race is a subject for thought and study on the part of the factory engineer and that part is made trouble-proof.

"With the builder who races stock cars, speed is only one of the factors sought. Durability, endurance, steadiness and ease of control are the results he seeks. Consistent, enduring performances count with the public.

"Automobile history shows that the cars which are known to be giving the best and most satisfactory service in the hands of users are cars which have been developed through consistent racing campaigns. It is a practice among builders to charge a big proportion of the racing expense to the engineering department and not to advertising expense, as is commonly supposed."

## SAFETY MARGIN IS REQUISITE.

National Manager Says Racing Game Is In Refinement Stage.

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a machine that will represent the last word in speed, efficiency, economy and durability has led them to look to each racing campaign for new lessons in automobile building, and the improvements in their car attest the value of their method. Almost any motor car picked up at random from the streets could have won the Vanderbilt Cup race six years ago. The touring car of today is both stronger and more reliable than was the special racing automobile representing the sum of mechanical engineering and skill in 1904.

High-speed trials are the supreme test of strength of materials and the perfection of design in motor car construction. The maker of an automobile may be reasonably sure that his engineers have turned out a car that will stand the strains of constant vibration, but the race is the thing that will tell. Bearings that were faulty are burned out. There is no mistaking that point of weakness. The race may be lost through a fault of the oiling mechanism, a fault that only the grueling grind of a speed test will bring out. In a race the troubles incident to jarring, such as loose bolts and parts, are augmented. They tell a story to the maker and designer that could not be learned in any other way.

In short, to carry the analogy further, the "breed" of the automobile is improved by racing work, just as was that of the race horse. A glance at the development of the turf in four decades proves sufficient, even to the novice at figures. Another instant of inspection will show how much of the development of the automobile is due to its baptism in the fire of racing. And it is only natural that the love of the harness horse bearing the name "Jay-Eye-See" should be the guiding factor in the motor car race for speed.

### COLE PRESENTS REASONS.

Thinks Race Track Is Severest Test Upon Car's Durability.

"The strongest test should be given to every automobile, and I know of no place where this can be more effectively done than on the race track," says J. J. Cole, president of the Cole Motor Car Company.

Mr. Cole is of the firm opinion that the racing game has done more for the advancement of automobile construction than science or study. But he makes it plain that he is partial to long-distance events.

"It is in events like 500-mile contests or twenty-four-hour races," he says, "the manufacturer gets the best lessons. While an automobile may do well and show up to a great advantage in a five or ten-mile contest, its actions in a long grind are entirely different.

"Not only is automobile racing a good incentive for the manufacturer and factory officials, but every employe is benefited. In this connection I speak especially where stock-car events are concerned. Automobile factory employes, when they have racing events continually brought before them, give every car, or its infinitesimal part, close scrutiny. They do not know but what the car they are working on is to be one that will on completion be sent to a race track to uphold the honors of the factory.

"This has been our experience at the Cole factory and I do not doubt but what it prevails at all other automobile plants that make a specialty of racing.

### SAFETY MARGIN IS REQUISITE.

National Manager Says Racing Game Is In Refinement Stage.

"Automobile racing has done more than develop the motor car's speed," says George M. Dickson of the National Motor Vehicle Company. "Every National owner today benefits from the experience gained in race competition. Theory may approve design and select materials, but only actual usage will finally stamp this choice as being best. Many refinements found on stock Nationals today, at one time were innovations on race cars.

"Here, in the potent desire to win, the driver subjects his car to strain, such as ordinary usage might never occasion. Racing demands a large margin of safety.

"The ability of a car to stand up in daily service depends largely upon this margin. It is almost uniformly true that cars which fall down through faulty design or defective materials in racing contests, also fail to give satisfactory service year after year, in the hands of owners.

"You need only compare the motor car today and its predecessor to see what racing has accomplished. In the early days a run of eighteen or twenty miles would heat up the rudimentary cooling system so that long trips were impossible. Contrast with this the performance of two National stock cars which, without a stop, finished 100 miles for the Remy Trophy and Brassard at the rate of 72.2 miles per hour.

"The expert mechanic can point out a hundred details developed by the demands of high speed. Fewer parts and better materials are due to the experience gained in racing. Every kind of steel that goes into the National forty has time after time demonstrated its fitness in the field laboratory of sustained high speed.

"In the past racing has made many basic changes in motor car construction. From now on the changes will be more in the nature of refinements."

### WILL STAND ON RACE TESTS.

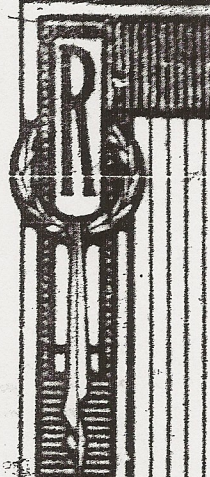
Cutting President Believes Speed Events Show Car's Real Value.

"Outside of the publicity gained from the winning of warmly contested races, the greatest benefit that our company has derived from participation in racing contests has been what might well be termed the 'strain test' the car is subjected to," says H. E. Carter, president of the Clarke-Carter Automobile Company of Jackson, Mich., builders of the popular Cutting models, which were notably successful during the last racing season.

"Our entrants have," continued Mr. Carter, "been closely watched by our factory experts, and any sign of weakness has been quickly remedied, thus making these contests of direct and practical value in the development of quality and efficiency of Cutting cars.

"In this way automobile racing and the men who have spent their time and money in developing it into a legitimate and clean sport have done much for the automobile industry as a whole, and their work can not be too highly commended. With horse racing reduced to a betting proposition pure and simple, it opens a field for sport which appeals to every true

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C. R. Culver,  
company, says.





## Thinks Race Track Is Severest Test Upon Car's Durability.

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Mr. Cole is of the firm opinion that the racing game has done more for the advancement of automobile construction than science or study. But he makes it plain that he is partial to long-distance events.

"It is in events like 500-mile contests or twenty-four-hour races," he says, "the manufacturer gets the best lessons. While an automobile may do well and show up to a great advantage in a five or ten-mile contest, its actions in a long grind are entirely different.

"Not only is automobile racing a good incentive for the manufacturer and factory officials, but every employee is benefited. In this connection I speak especially where stock-car events are concerned. Automobile factory employees, when they have racing events continually brought before them, give every car, or its infinitesimal part, close scrutiny. They do not know but what the car they are working on is to be one that will on completion be sent to a race track to uphold the honors of the factory.

"This has been our experience at the Cole factory and I do not doubt but what it prevails at all other automobile plants that make a specialty of racing.

"In this connection the workmen often discover little matters. Their suggestions are worth considerable toward automobile perfection.

"We attribute a great deal of our success to the race track. For with the drivers taking out of the car every ounce of energy in hard, grueling contests, we are able to make a minute inspection of the mechanism after the race to see if improvements for durability construction can be made.

"Much is said today of automobile perfection. But in America manufacturers do not stop when perfection standards are reached. The American people demand more than perfection. The automobile business is now past the experimental stage, and the perfecting period, and is lapsing fast into the advanced stage of construction. The race track is the place to ascertain whether or not theories are to become practicable.

"I am of the opinion that in every city where there are automobile factories a race course or speedway should be maintained. If this is not done by a commercial concern, it would not be a bad plan to take the matter up in State Legislatures. Test the automobile before it goes into the hands of the consumer.

in the field laboratory of sustained high speed.

"In the past racing has made many basic changes in motor car construction. From now on the changes will be more in the nature of refinements."

## WILL STAND ON RACE TESTS.

### Cutting President Believes Speed Events Show Car's Real Value.

"Outside of the publicity gained from the winning of warmly contested races, the greatest benefit that our company has derived from participation in racing contests has been what might well be termed the 'strain test' the car is subjected to," says H. E. Carter, president of the Clarke-Carter Automobile Company of Jackson, Mich., builders of the popular Cutting models, which were notably successful during the last racing season.

"Our entrants have," continued Mr. Carter, "been closely watched by our factory experts, and any sign of weakness has been quickly remedied, thus making these contests of direct and practical value in the development of quality and efficiency of Cutting cars.

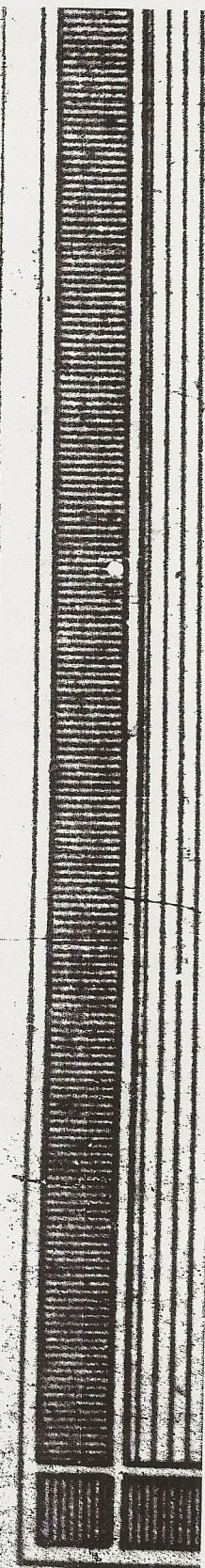
"In this way automobile racing and the men who have spent their time and money in developing it into a legitimate and clean sport have done much for the automobile industry as a whole, and their work can not be too highly commended. With horse racing reduced to a betting proposition pure and simple, it opens a field for sport which appeals to every true sportsman, and the growth of interest has been such as to encourage still greater efforts.

"We have entered a Cutting in the Indianapolis 500-mile race, and we are confident of making a creditable showing; while the Cutting is probably the lowest priced car on the market we are well content to stand on the showing it will make."

## LONG EVENTS BENEFIT.

### Supreme Mechanical Test of 500 Miles Will Aid Manufacturers.

"To race cars every day and any day, anywhere and everywhere, is not business, proves nothing and is not a requirement of the buying public, but to participate in a 500-mile race, witnessed by 100,000 people, is an event that any confident and brave builder should want to take part in, not only on account of the publicity gained but to prove the metal he is made of," says W. C. Leslie, sales manager of the Columbus Buggy Company, makers of Firestone-Columbus cars. "It is such events that give the engineer opportunity to develop his skill and





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the manufacturer to improve his product, so will right here admit that sane racing, given in homeopathic doses, helps to develop the industry.

"Cars, to endure throughout this race, must be mechanically correct, the engine must run perfectly, the oiling system perform its functions well and the construction strong enough to resist the terrible vibration, twist, wrench and strain which is constant from start to finish; anything short of this reads disaster.

"Speed, power, durability and careful construction added together give efficiency. This is what every buyer of an automobile is looking for and what he should receive, and the Speedway proves what you have; it points out the weak parts and gives you a chance to improve these parts."

## RACING HELD NOT DANGEROUS.

Knox Manager Says Even Bicycles and Trains Have Drawbacks.

C. R. Culver, sales manager of the Knox company, says: "The benefits that the

Knox company has received from racing are many and varied. In fact, racing has been a great benefit to all users of automobiles, besides, too, the manufacturers of automobile tires, and every user of an automobile today owes a great deal to racing as regards safety, comfort and economy. Of course racing has cost a number of lives, but this is true of all modes of locomotion, such as railroads, bicycles, automobiles and the flying machine of today. From an advertising standpoint we think the publicity the Knox company has gained through racing is absolutely the best it has ever received from any source."

## POINTS OUT WEAKNESSES.

Jackson Man Says Continuous Drives Help Perfect Construction.

The Jackson Automobile Company of Jackson, Mich., regards racing as a try-out by which motor and chassis construction may be submitted to severe test, and weak points eliminated. "Our racing experience," says Treasurer H. A. Mat-

thews, "has taught us many things which have enabled us to refine and strengthen our cars. Any construction that will stand a continuous drive of 500 miles at eighty miles an hour, without ease or adjustment, will give many thousand miles of reliable service under ordinary touring conditions. The extreme speed gives us a test in a day that puts more strain on a car than the average driver will give it in a season."

## STUTZ SEEKS RACE FAME.

Publicity Repays Concern for Expense of Preparing for Grind.

H. R. Campbell of the Stutz Auto Parts Company says: "This is our first experience in the racing game and we feel that the work and trouble incident to getting the car in shape has fully repaid us in the publicity obtained. We believe we will accomplish our aim in the entry of this 500-mile race and are getting our name before the motor public in a manner we could not have hoped to attain in any other way."

**CITIZEN CAR**

**THE CAR**

**THE DRIVER** **THE MAGNETOM**

**The Records**

Kilometer, 15.88	seconds—144.78
miles per hour.	
One mile, 25.40	seconds—141.75
miles per hour.	
Two miles, 51.26	seconds—140.40
miles per hour.	