

12 WORLD RECORDS ARE MADE IN OVAL

Final Race for 122 Cubic Inch Pistons Marked by 130-mile Speed

The fastest pace ever traveled by human beings on land climaxed the final performance of 122 cubic inch racing cars on the country's speedways at Culver City, Calif., March 21. Twelve world records for the various calculated distances from five to 250 miles were officially broken. Race observers of the American Automobile Association declare it the most remarkable race yet conducted.

"We naturally take particular pride in the fact that Champion spark plugs were in each of the three cars that broke all existing records," says R. A. Stranahan, president of the Champion Spark Plug Co. Though Champions have held practically every world record for the last four years, and now holds them all, their performance in this final event for the 122 cubic inch cars affords us extreme pleasure."

World records were broken by Leon Duray, Dave Lewis and Bennett Hill, each driving Miller Specials. Hill was the eventual winner, averaging the tremendous speed of 131.295 miles an hour, according to re-checks, breaking the previous 250-mile world record of 129.531, established by Peter de Paolo at Miami, Feb. 22.

Hill broke the first record, covering the original five miles at 137.931 miles an hour. Duray, passing him, averaged 136.064 in the first ten miles—another new mark.

Aside from eclipsing every world figure from five to 250 miles, the race's outstanding feature was the performance of Lewis' front drive Miller. It made 40 consecutive miles at an average of 136 miles an hour, another world record. Lewis' car was forced out at the end of the 117th mile with a broken valve spring, after he had driven one of the most masterful races, and the fastest, yet recorded.

The race marked the return to the roaring speedway ovals of Eddie Hearne, former A. A. A. champion, and the first absence of Tommy Milton, another veteran, who recently announced his retirement. Hearne piloted his car into third place.

Other previous and new world records now are:

GREAT CARE NEEDED IN PREPARING STEEL

Microscopic Clearliness Is Used in Automobile Plants In Making Parts

Cleanliness in steel is as necessary to the dependability of a motor car as sterilization is to surgery. To remove microscopic impurities from steel is just as important as to destroy invisible microbes on a surgeon's knife.

The comparison is made by L. A. Danse, metallurgist, of the Cadillac Motor Car company, who cites a number of striking examples of recent progress in the choice and improvement of metals used in highly stressed parts of motor cars. New discoveries have both increased dependability and lowered costs.

By setting up a standard of microscopic purity in steel, Cadillac engineers were able to explode the theory of crystallization and breakage which was used in the earlier years of industry to explain the failure of parts. Laboratory studies with powerful microscopes and with microscopic photography proved that the trouble was not crystallization but "fatigue," usually due to some kind of impurity in the metal. The engineers believed that if the steel was made clean enough these failures would be eliminated. They established entirely new standards for clean steel. Steel men from the mills were invited. Many others came of their own accord and asked for reports and photographs of the Cadillac findings. Metal men followed back to the steel mills where it was first poured into ingots and changes were made in methods there.

Today in the Cadillac laboratories samples of steel for highly stressed parts are most minutely examined under the microscope for inclusions of dirt. It takes at least twenty minutes to examine a sample of the size of a five-cent piece.

Chromium molybdenum steel

To avoid that run-down feeling, cross crossings cautiously.

Gresham—Multnomah county will build \$17,000 fairgrounds pavilion.

25 De Paolo (old)	135
Duray (new)	136.157
50 Harts (old)	135.28
Lewis (new)	135.798
100 Cooper (old)	131.54
Lewis (new)	133.709
150 Devore (old)	131.008
Hill (new)	131.54
200 Devore (old)	131.408
Hill (new)	131.646
250 De Paolo (old)	129.531
Hill (new)	131.295

Because of the advent of the little 91-2 cubic inch cars at Indianapolis, Memorial Day, the records established at Culver City are expected by race drivers to withstand all onslaughts for some time.

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Controllable-Beam Headlights on the Better Buick add pleasure and great security to night driving.

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Room for 100 Passengers Aboard Double-Deck Plane, Lawson's Idea



Alfred W. Lawson, builder of large passenger planes, is applying for patents on a new type of double-deck airplane which he believes will carry 100 passengers safely. The sketch shows the seating arrangement he has worked out.

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SURVEY INDICATES TRACTORS INCREASE

Motive Power on Farms Shows Large Gain, Investigation Indicates

(Automotive Daily News)
NEW YORK, April 17—The superior productivity of the American farm worker is due largely to the greater use of power and machinery, according to a report of the national agricultural situation by the National Industrial Conference Board.

That the United States leads the world in the development of agricultural machinery is demonstrated by the increasing use of American agricultural machinery of all kinds all over the globe, the report continues.

In this country more than thirteen times as much farm machinery was in use in 1925 as in 1870. The value of the machinery used

amounted to \$26 per worker in 1870 as compared with \$176 per worker in 1925, both estimates based on the purchasing value of the dollar in 1913. Accordingly the average farm worker today is using about five times as much machinery as the average farm workers of fifty years ago.

Of all the power used in 1924 about 17 per cent was represented by tractors; motor trucks, 4 per cent; stationary engines, 12.5 per cent; electrical installations, 5.5 per cent; wind mills, 1 per cent, and animal power, 60 per cent, the report shows.

While electrical energy is used in only a limited amount on the farms up to the present time, the automobile, however, has already become a great factor in farm life, partly for the purpose of hauling produce, but principally as a time-saver in moving about.

The 1920 census reports 2,146,362 automobiles on 1,979,564 farms. On 1,371 farms surveyed in 1923 there were 923 farmers reporting ownership of 1,000 cars and trucks. From two-thirds to nine-tenths of their use was stated to be for farm business.

Through this increased use in power, the board's study indicates,

agricultural production from 1880 to 1920 increased 130 per cent while the number of farm workers increased only 56 per cent. It is estimated that nearly 18,000,000 less people are required for agricultural production in the United States today than would be needed without this great increase in the use of power.

While an artificial eye may be so good that you have to look twice at it to recognize it as an imitation, it never deceives the wearer, observes Lewis A. De Blois, vice president of the National Safety Council, who is an ardent advocate of men wearing goggles while engaged in certain occupations.

---Facts you should know about Studebaker Cars

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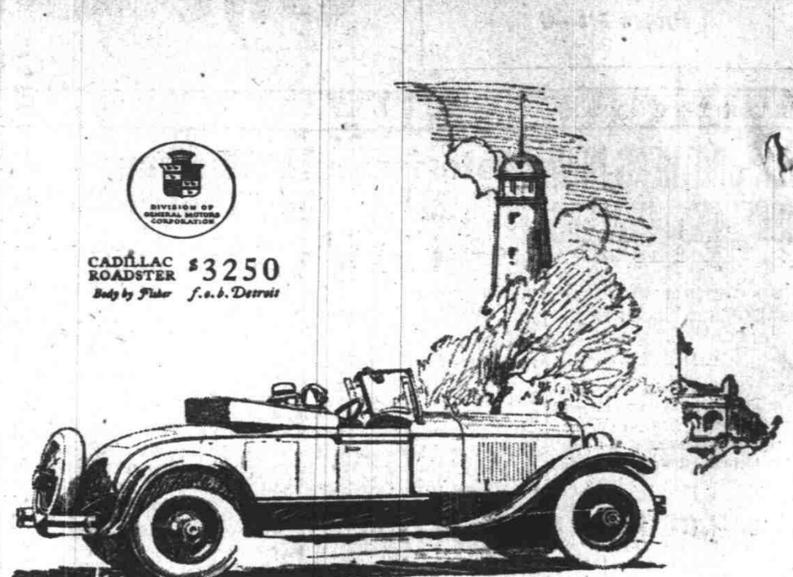
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NO MATTER WHETHER FROM AN OLD OR NEW CUSTOMER, EACH ORDER IS ACTUALLY A TEST ORDER. ONLY BY SERVING EACH CUSTOMER TO THE BEST OF OUR ABILITY CAN WE HOPE TO DESERVE FUTURE BUSINESS. NOT BY AGGRESSIVE SALES TACTICS BUT BY SUPERLATIVE SERVICE—BY EARNING AND DESERVING DO WE ATTRACT THE RE-ORDERS WHICH CONSTITUTE SUCH A LARGE PERCENTAGE OF OUR BUSINESS. EACH CUSTOMER MEANS AN OPPORTUNITY TO SERVE IN SUCH A WAY THAT WE MAY DESERVE AND BE WORTHY OF HIS FUTURE BUSINESS.

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Public faith in Cadillac is as old as Cadillac, and as new as the new 90-degree, eight-cylinder Cadillac itself.

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Today's unexampled demand for the new 90-degree, eight-cylinder Cadillac is making motor car history all over again. It is doubling Cadillac sales, which already exceeded that of any other car in its field.

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