

AVIATION CARNIVAL INTERESTS NATIONAL

Races at Local Speedway of
Aeroplanes Attracts Eyes of
Entire Country.

IMPROVEMENTS COME FAST

Every Month Brings Out a New
Point in Perfection of Fly-
ing Cars.

The scheduled aviation carnival, to be held at the Indianapolis Motor Speedway Oct. 14, 15 and 16, causes the eyes of the world to turn from the recent Rheims meet to the Hoosier state.

The interests of science were greatly advanced at the races in France. The same interests will be held in view during the events in this city. A glance at the results of the Rheims meet in concise form aids in forming an opinion as to the importance of the coming Indiana events, and acts as a guide on what may be expected.

The entire week at Rheims was so replete with record-breaking achievements and thrilling flights that in keeping pace with the daily occurrences one almost forgot that only a year ago flights of a few minutes were heralded with even more acclaim than is now given to those of one to two hours. As the opening days of September, 1908, made a new era in the aviation history of the world, for it was then that Orville Wright first showed the possibility of remaining in the air one hour and over at Ft. Myer, so the Rheims

Dirigible Balloon



G. L. Bumbaugh of this city will begin making two flights every day during the S

Paulhan is rated at fifty-horse power and weighs between 150 and 165 pounds.

The Voisin aeroplane presents some decided differences from the Wright and Curtiss types. It differs in the first place from the Wright in having a single elevating plane, but in this respect is similar to the Curtiss. It differs from both the American types in having box ends on the main planes, with movable verti-

September, 1908, made a new era in the aviation history of the world, for it was then that Orville Wright first showed the possibility of remaining in the air one hour and over at Ft. Myer, so the Rheims race week will doubtless stand as a pivotal point in 1909 toward illustrating the brilliant advance in aviation.

At this time one year ago even the Wrights had not demonstrated conclusively to the world that they had mastered the secret of flight. It is true they had done so in 1905 by their secret flights at Dayton, their best flight being slightly over thirty-eight minutes. This has since been accepted as correct, but all that the world knew one year ago of acknowledged flying was that Delagrange, by his flight of fifteen minutes and twenty-five seconds at Rome on May 30, held the record for the longest time in the air. Wilbur Wright arrived in France in August, and on Aug. 18, 1908, made a flight of eight minutes and thirteen and two-fifths seconds, simply a forerunner of what he was about to do a month later. Bleriot had made a few small flights with his monoplane; Farman had won the Archdeacon prize and had succeeded in remaining in the air a few minutes, and in this country Glenn I. Curtiss, who has succeeded in making himself one of the most-talked-of aviators in the world, was barely beginning his experiments. It is well to bear some of these things in mind as one surveys the rapid progress of aviation during one year.

New Machines Appear.

Apart from this exhibition of rapid progress the Rheims race week brought prominently to the front the fact that new aviators are coming so swiftly to the fore that the leaders of a year ago are in danger of being forgotten; that new machines and new motors have been so perfected that no one type can be said to have a decided supremacy, and that the time is close at hand, if indeed it has not already arrived, when one's personal taste may dictate the style of machine the ambitious operator wishes to use. In other words he is no longer restricted to one or two makes, and judging from the general demand that has sprung up in many parts of Europe for flying machines, it is not so much a particular make that future students of air flying want as the opportunity to purchase any one of several good types that can be obtained.

The commercial future of flying machines has received a decided stimulus from the Rheims week. What a few makers and inventors knew all along the world now recognizes, while the fact that such skillful pilots as Paulhan, Latham, Lefebvre, Somner and others have been developed within a few weeks, reveals what the future has in store as soon as the large number of individuals who are eager to learn how to fly have an opportunity to purchase reliable machines.

Curtiss types. It differs in the first place from the Wright in having a single elevating plane, but in this respect is similar to the Curtiss. It differs from both the American types in having box ends on the main planes, with movable vertical planes inside, while the rudder is of the box shape, with a single vertical fin rudder inside. As in the Wright machine, the tail is connected with the forward plane by light framework, while the motor is coupled direct to the single propeller, and not through a chain drive, as on the Wright machine. The advantage of these box-ends, as they have been called, cellular-ends enables the machine to maintain stability in the air without the aid of warping tips as in the Wright, or movable planes at the ends as in the Curtiss.

HUPMOBILE WINS AT BRIGHTON

Detroit Car Entered and Driven by Owner Cleans Up.

Fred Woltmann, an amateur and owner of a Hupmobile, won the six-hour race on the Brighton Beach track Aug. 20, against professional drivers of two foreign and two domestic cars. The distance covered in the specified time of the race was 226 miles—an average speed of close to thirty-eight miles an hour.

Competing against the Hupmobile in the small car class were two S. P. O. (French) cars, an Allen-Kingston and a Mitchell. One of the S. P. O. cars was ruled from the track during the race for crowding the Hupmobile at the turns. In spite of the crowding and the further handicap of driving against professionals, Woltmann won his race in a manner that won the crowd to his work and his car.

National Officer To Modern Automobile

The National "Forty" made its first appearance in Indianapolis at the Motor Speedway races. The first two of the "Forty" cars turned out by the factory for 1910 were driven by Merz and Kincaid, under whose skillful handling they won a number of races and showed better than a mile a minute.

One of the National officers gives a review of victories of National stock cars in the racing season of 1909, and in his introductory remarks gives a strong hint to the A. A. A. on what may properly constitute a stock car—a much-discussed

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The five types of machines that stood out prominently in the Rheims events were the three biplanes, Wright, Curtiss and Voisin, and the two monoplanes, Bleriot and Antoinette. The Voisin has shown that it is a worthy rival of the two American makes, and the one used by Paulhan, when he remained in the air two hours and forty-three minutes twenty-four and one-fifth seconds, possessed the additional novelty, of being fitted with the Gnome seven-cylinder rotary motor. As this motor contains several distinct features not found in any other aeroplane motor it has naturally been studied with deep interest, as it is admitted that the future practicability of the flying machine lies chiefly upon the reliability of the motor.

Adopts Rotary Principle.

The motor is the invention of M. Laurent-Seguin and the rotary principle was adopted with a view to reducing weight. Being rotary, the cylinders are naturally air-cooled, for the rate at which they travel through the air gives all the cooling they require. The crank case is a circular one, with the cylinders radiating from it at equal intervals. The base of each cylinder fits into a hole bored for it on the circumference of the crank case and is secured by a locking ring placed within the case on the base of the cylinder. The cylinders are machined out of a solid bar of nickel steel, with their radiating fins integral. The exhaust valves are in the cylinder head, while the inlet valves are in an unusual position in the head of the piston. The reason for using seven instead of six cylinders is because only with an odd number of cylinders can the explosions be made equidistant. The Gnome engine used by

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Reviews Racing Game.

"In announcing the 1910 line, we have thought fit to give the records made by National cars in the racing season just closing. The National does not build racing cars. In no case has it entered a car that was not for sale at the list price of the particular model entered. The National does not maintain a racing team. In every one of the records shown both driver and mechanic were men employed regularly as testers or mechanics in the National factory.

"Why enter races at all? Every automobile engineer, every manufacturer, every man who has studied automobile construction knows that the car that will stand up under the terrific strain of top speed for mile after mile in the hot competition of a race must be correctly designed; must be built of the finest materials obtainable and must have the most accurate and skillful workmanship. No other demonstration of motor car value will or can serve the same purpose.

"There is a certain element of luck in racing, of course, but in the long run it may be assumed that a factory whose stock cars win time after time in not only short dashes but in long races is putting up a good car and a fast car.

"The National has entered its stock cars in a few of the leading events of the season just closing, and has scored a number of notable victories, involving the smashing of not a few records. We do not recall another concern that has scored

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