AUTOMOBILE CARRIAGES.

Since the early days of the present century a practical road carriage which should carry its own means of propulsion has engrossed the attention of many inventors. To-day we are treated to a spectacle of an automobile carriage with four passengers which can travel 750 miles at the rate of nearly 16 miles an hour. We have at various times illustrated all of the leading horseless carriages, and we now present views of the prize winners at the recent Paris-Bordeaux race.

This race began in Paris on June 11; the course was from Paris to Bordeaux and return. The distance was about 360 miles from Paris to Bordeaux. Under the conditions of the race only four-seated carriages could compete for the first prize of 40,000 francs, or $8,000. Special prizes were also to be awarded to automatic and petroleum velocipedes. Sixty-six horseless vehicles propelled by petroleum, steam power, or electricity and five or six petroleum bicycles competed. The preliminaries were arranged with great care, checking stations being provided to insure the integrity of the race. Special telegraph wires were laid along the route to transmit news of the progress of the race to Paris. The race was witnessed by many thousand people on the line of march. The first vehicle to arrive at Bordeaux was MM. Panhard and Levassor's petroleum carriage, which reached Bordeaux at 10:32 on Wednesday morning, the start having been made at Versailles at nine minutes past noon the previous day. A stop of only four minutes was made, when the return trip was begun. M. Levassor's time to Bordeaux was 22 hours 28 minutes over a distance of 585 kilometers (363 miles). The speed was 24 kilometers 400 meters an hour, equivalent to about 15 miles. The carriage of MM. Panhard and Levassor met with an accident shortly after leaving Bordeaux, which delayed it over an hour, which makes the run more creditable. This carriage made the entire trip in 2 days and 53 minutes for the round trip of 1,170 kilometers (727 miles), being at the average rate of 14·9 miles an hour. Many of the other vehicles made splendid time.

The contest was arranged by Mr. James Gordon Bennett, Baron de Neufeldt, and others, who it is said paid for the prizes. The Panhard and Levassor's carriages, four in number, were propelled by the well known Daimler motor, which has achieved so much success in both this country and abroad. In the SCIENTIFIC AMERICAN for February 7, 1891, we illustrated the Daimler motor and some of its applications.

The American company will bring out, within a few months, a carriage adapted to our American roads. Their factory is located at Steinway, Long Island City. We illustrate the small carriage of MM. Panhard and Levassor, which took the second prize, and also its arrival at the Porte-Maillot (Fig. 4), Paris, on the return trip.

The carriages were constantly accompanied by bicycle riders who were soon distanced. The roads along the route were filled with enthusiastic spectators.

Though the two-seated carriage (No. 5) of MM. Panhard and Levassor (Fig. 1) arrived first, it received only second prize, the first prize being taken by the four-seated carriage of Les Fils de Peugeot Frères, No. 16; the third was taken by a two-seated vehicle by the same party, No. 15, as was also the fourth, which was for a four-seated vehicle. (See Figs. 2 and 3.)

The Fils de Peugeot Frères carriages, like those of MM. Panhard and Levassor, were driven by petroleum motors. The gas, steam and electric driven carriages did not make a very good showing in the recent race.

The roads in America are not good enough except in certain localities as yet to permit of a very rapid development of the automobile carriage, but their use in great cities is likely to be rapid. An attempt will soon be made in New York to prove to the owners of a large retail dry goods store that mechanical power is cheaper and more efficient in the delivery of packages than wagons drawn by horses, and the Society for the Prevention of Cruelty to Animals is already figuring on the cost of making the change on its ambulances from horses to Daimler motors. For our engravings we are indebted to L'Illustration.

Fig. 1.—PANHARD AND LEVASSOR CARRIAGE (No. 5)—SECOND PRIZE.

Fig. 2.—THE FILS DE PEUGEOT FRERES CARRIAGE (No. 16)—FIRST PRIZE.

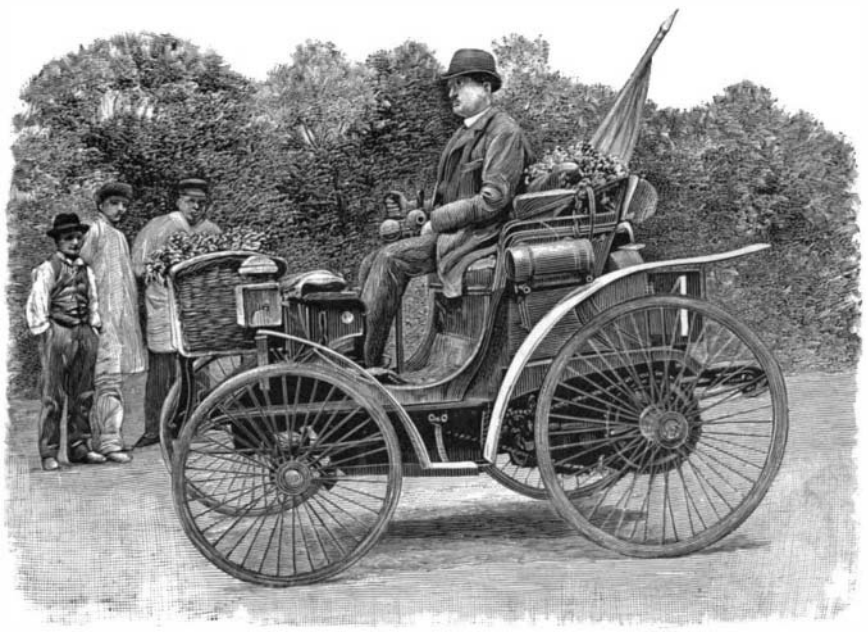

Fig. 3.—CARRIAGE No. 15, WHICH ARRIVED SECOND—THIRD PRIZE.

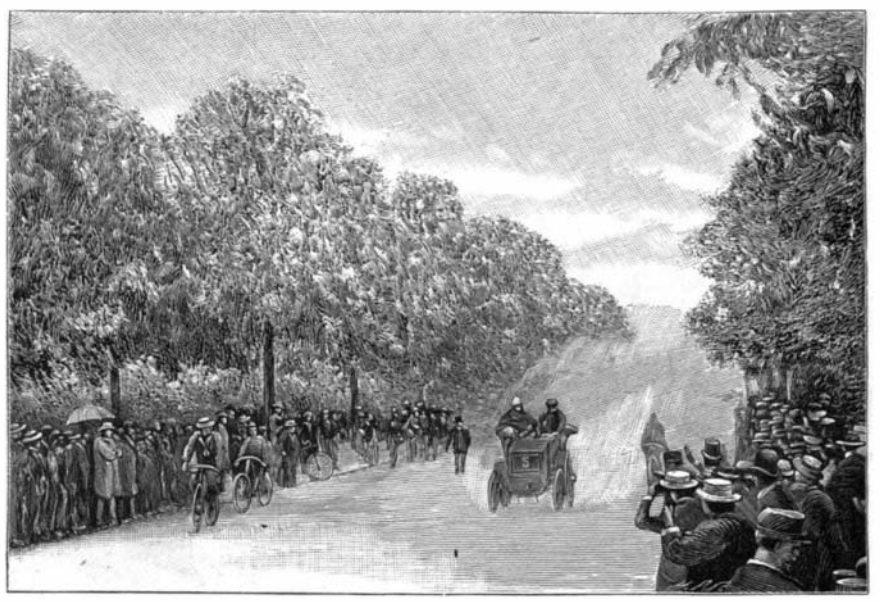

Fig. 4.—CARRIAGE No. 5 ARRIVING FIRST AT THE PORTE-MAILLOT, PARIS.

The Cigar Case Borer.

A comparatively new pest of fruit trees is the insect called the cigar case borer, which last year probably ranked next to the bud moth, in New York, in destructiveness. In a bulletin from the Cornell Experiment Station, Mr. Slingerland says that it has probably been present in limited numbers in the orchards of this State for many years, but public attention was not called to it until 1888, when Mr. Patrick Barry found it boring holes in newly set pear fruits. In 1892 Dr. Lintner received some apples from Oswego, which had apparently been bored by this insect, and in 1894 specimens were received at the experiment station of Ithaca from a great number of places, showing that it was present in alarming numbers. So far the insect is recorded only from New York and Canada, but it will probably be heard from soon over a much wider range of country. Owing to its small size and peculiar habits the insect in any stage will be rarely noticed by the fruit grower, and yet the second one of the curious suits or cases which the little caterpillar wears is conspicuous enough to reveal its presence to the casual observer. The first suit is manufactured in the fall, to be worn all winter, but about the 15th of May the half grown caterpillar finds this too small, and proceeds to make a summer suit which resembles a miniature cigar in shape and color. These cigar-like objects can be seen moving over the leaf of a plant, although scarcely more than one-fifth of an inch in length, and when disturbed the little creatures retreat into them. The first indication of the insects' presence occurs on the swelling buds of apple, pear, or plum trees. Two or three have often been seen on a single bud busily at work eating holes into them no larger than a pin. The work on the expanded foliage is seen in skeletonized dead areas, which have near their centers a clean cut round hole through one skin, usally on the under side of the leaf. The caterpillars also often attack the growing fruit. The bulletin gives the life history of this most interesting insect, from which it appears that it is only practicable to fight it while in the caterpillar stage, and then it is so well protected in its case as to render its destruction impossible unless the work is very thorough. It can probably be kept in check by two or three thorough sprayings with Paris green, if used at the rate of one pound to two hundred gallons of water. The first application, which may be effectively combined with the Bordeaux mixture for the apple scab fungus, should be made as soon as the little cases are seen on the opening buds. A second and perhaps a third application may be necessary at intervals of from four to seven days on badly infested trees. These sprayings will also check the bud moth. It has also been found in Canada that a kerosene emulsion spray applied at the same time as directed for Paris green is a still more effective check upon the case borer, and will probably be so on the bud moth. In pear orchards this insect and the psylla can be checked by a spray of the same emulsion when the leaves are opening. It should be remembered that a fruit tree ought never to be sprayed when in blossom, and that success in any case will depend almost entirely upon the thoroughness with which the work is done.

BAGGAGE is moved from one end to the other of the Victoria station, at Manchester, in basket trucks running along a light electric railroad suspended from the roof of the station. The trucks are lowered by chains to any platform desired.