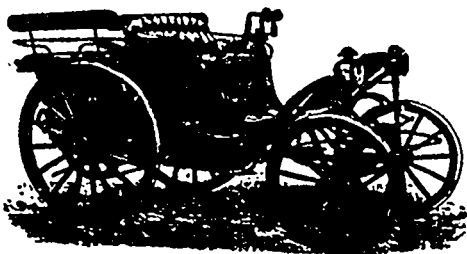


A number of the vehicles entered for the Chicago test are already in daily operation. They are of a light and symmetrical appearance, and are very much admired in contrast with the heavy French designs.

The judges of the moto-cycle contest have had a dynamometer machine introduced for the purpose of testing the power of motors attached to each carriage, and the amount of oil or other fuel used to give an indicated horse-power; they could not fairly award the prizes without knowing the relation between the fuel and the power of each machine.

One vehicle has arrived that is worthy of more than passing notice, inasmuch as with one motor and front wheels, it can be separated from the body of the vehicle in a few minutes, and attached to a pleasure rig, or to a wagon body for merchandise or other purpose, or can be taken from the body part, drawn into a barn or other building and attached to farm machinery.



DELAHAYE'S ELECTRIC CARRIAGE.

In an article on horseless carriages, J. Brisben Walker, in the *Cosmopolita Magazine*, traces the evolution of the means of transport in the history of man in this order: 1st, floating log; 2nd, sledge down hill; 3rd, animal's back; 4th, canoe; 5th, ox cart; 6th, chariot; 7th, oared galley; 8th, sedan chair; 9th, sailing vessel; 10th, horse carriages; 11th, steam carriages; 12th, steamships; 13th, Pullman cars; 14th, bicycles; 15th, cable cars; 16th, electric cars; 17th, horseless carriages. Speculating on the revolution in social life to be wrought by the horseless carriage, Mr. Walker foresees the time when men will again shift back to the country, instead of crowding into the noisy, and more or less unsanitary city. In ancient and medieval days they built cities for protection; and in more recent years, the cities grew because of the bad country roads and the consequent inconvenience and high cost of transporting themselves and their goods. "With the bicycle and horseless carriages," says Mr. Walker, "good roads will jump into the first order of importance, and we may expect to see within the next ten years hundreds of millions of dollars devoted to the levelling and macadamizing of country highways, or, perhaps, even to the construction of asphalt roadways. With these advantages, country life will become quite a different matter, and small communities will multiply rapidly. The day will undoubtedly arrive when great establishments employing many clerks and workmen will ask themselves whether it is worth while to put up with narrow quarters, high rentals, insufficient light and bad air, while the advantages of sunlight, health, and economical conditions are within such easy reach elsewhere." It will even affect our political condition as well as our social, for as the need of concentration behind fortified walls gave Europe its feudal system, so the dispersion of men and industries and the ability to travel long distances on one's own account, will now emancipate the individual as a wage-earner as well as a citizen, and lead up to higher ideals of self-government. The bicycle has

placed it within the power of man to travel 50 to 100 miles a day; but the horseless carriage, with roads properly constructed, will enable him to make a trip of 400 or 500 miles delightfully and inexpensively; while according to Prof. Langley, the aeroplane will accomplish yet greater feats in rapid transit. These things must mean a social, as well as mechanical, revolution in the conditions of life.

In conclusion, THE CANADIAN ENGINEER proposes the inauguration of a public exhibition and test of horseless vehicles for Canada, to be held say in Toronto on the 24th May, 1896, and will be prepared by next issue with proposals as to a committee and other details. If this idea is favorably received, the editor will be glad to receive suggestions from anyone interested. This date will not only insure good weather, but it will give time for foreign exhibitors to compete, and thus the Canadian exhibition of horseless vehicles should be the most comprehensive and interesting yet held, for since the tests in France, England, and this present one in Chicago, more developments will have been made, and their manufacture will have been commenced in Canada.

[Since the above was in type, the Chicago race has been postponed till Nov. 28th, for reasons mentioned elsewhere.]

AMERICAN STREET RAILWAY CONVENTION.

One could not better realize the marvelous development of electric railways on this continent than by attending the Convention of the American Street Railway Association in Montreal last month. The association was named "American," so as to include members in Canada, Mexico or any other country on this continent, but this was the first year in which the convention was held outside the United States. It is pleasing to know from the remarks of the delegates that the choice of Canada has not been regretted, and that almost without exception they were pleased with the hospitalities of Montreal. The attendance was variously estimated at 800 to 1,000, the membership including scientific men interested in electric railway work, and wealthy corporations from all over the United States. The aggregate capital represented at this convention was enormous, and indicated in a striking way the evolution of the electric railway on this continent. It is only eight or ten years ago that papers were read before this association including such subjects as "Horseshoeing"; while now the horse is completely banished, and even the cable car will soon be displaced in favor of the electric. Two monthly journals, the *Street Railway Journal*, of New York, and the *Street Railway Review*, of Chicago, published magnificent special editions of about 150 pages each as souvenirs of the convention, while among other electric papers, the *Street Railway Gazette*, of New York, was represented not only with its regular weekly edition, but had a daily supplement printed in the city during the convention. The Victoria Skating Rink was set apart as an exhibition building, and from 100 to 200 firms were represented in the exhibits of street railway equipment, the large building being crowded. Practically the whole of this interesting collection of appliances refers to street railways operated by electricity; and the variety of the exhibits, and the great capital employed by many of the firms represented, shows what a revolution the electric railway has made in the world in ten short years.