

THE PARIS AUTOMOBILE SHOW.

The fifth annual Exhibition of Automobiles, Cycles, and Sports, under the auspices of the Automobile Club of France, was held in Paris from December 10 to 24, and was, as heretofore, a decided success. Machines of Belgian, German, Italian, English, and American make were exhibited, besides a large assortment of standard French cars.

A machine that has met with great success the past year, and that has therefore been very widely copied, is the Mercedes, made by the Daimler Company of Cannstadt, Germany. The "beehive" radiator on this machine, at the front end of its long, coffin-shaped motor bonnet, the mechanically operated inlet valves, and the contact sparking device fed by current from a magneto, as well as the forced air circulation through the radiator by means of a fan in the flywheel of the motor, are the main features that have been adopted on many of the leading 1903 French machines. The magneto is more certain than batteries, but is not well adapted for use with a jump spark coil. Consequently make-and-break igniters are fitted, with their many moving parts outside and inside the cylinders to add to the complications. Mechanically operated inlet valves require an extra set of cams, and, where placed on the opposite side of the cylinders from the exhaust valves, an extra half-speed shaft for carrying the cams must be added. The only advantages claimed for such positively opened valves are that the engine can be run a little slower and is easier to start, there never being any trouble from sticking of the valves. In addition to throttling the mixture with an ordinary butterfly valve, on some machines the inlet valves are made to close early, thus limiting the quantity of charge drawn into their respective cylinders. One of the novelties of the show was the Krebs carbureter fitted on the new Panhard and Levassor three-cylinder motor. This device is so arranged that when the motor is running fast and the suction

is strong, it takes its auxiliary air for the mixture through a special air valve between the carbureter and the motor. As the speed of the motor decreases, this valve closes proportionately, thus keeping the vacuum in the atomizing pipe of the carbureter always the same, and the jet of fuel raised by it constant. The atomizing pipe has a water jacket in which the warm water from the engine circulates, and the carbureter is also fitted with the usual throttle valve.

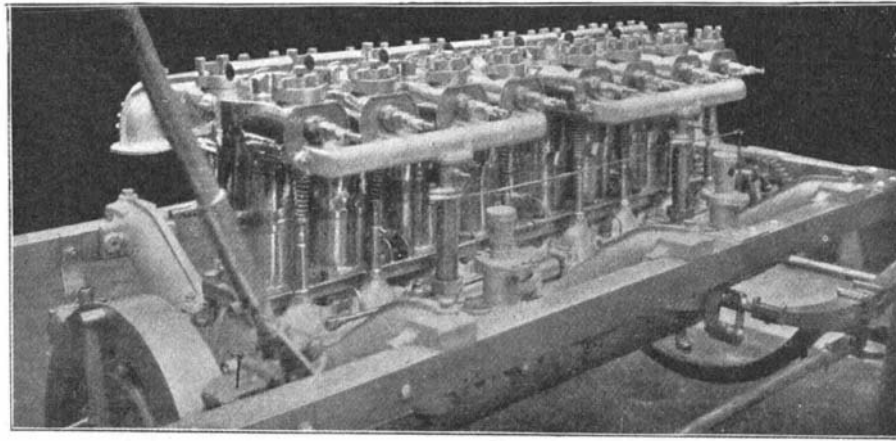
Most of the motors have their cylinders and water-jacketed heads cast in one piece. In some cases, where the cylinder jacket does not form part of the casting, aluminum or corrugated sheet-metal jackets are afterward slipped on the cylinder over the lower end.

A machine that attracted a great deal of attention was the new 40 horse power Serpollet steam racer. The body of this machine looks like a boat out of its element. The sharp prow and stern should cut through the air with the same ease, however,

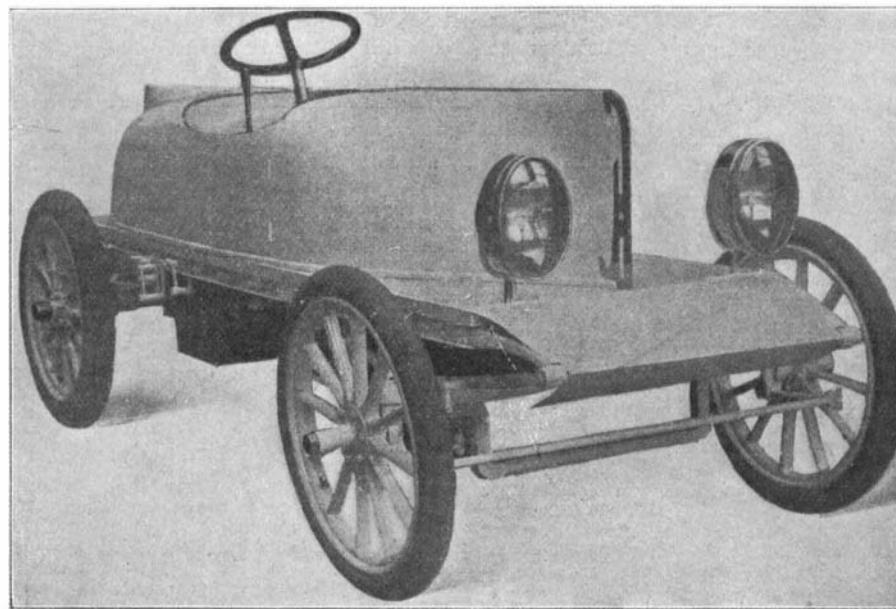
as does a similarly shaped hull through water. In the flash boiler of this car, the tubes, although fewer than usual, are longer, in order that the steam, while passing through them, may be thoroughly superheated. The water and fuel pumps are driven by variable cams,

and a reverse. Very great flexibility by throttling is claimed for it, but whether this outweighs the complication of so many cylinders is a question. The sixteen valves are all mechanically actuated; but jump spark ignition is used, the designer evidently thinking there was enough to look after without complicated make-and-break apparatus.

A notable change in the construction of the frames for holding the machinery is seen in the abandonment of wood for light steel stampings or tubing of rectangular cross-section, with a wood core. The brakes are generally of the expanding and band type, working directly on the rear wheels, and the arrangement of the various levers is made as simple as possible; the small ones for controlling spark and mixture being placed on the steering wheel. Thus along general lines, the cars have been improved, although the additional parts on the engines tend to complicate rather than simplify this already sufficiently intricate piece of mechanism.



The Charron Giradot, and Voigt 40 H. P., 8-Cylinder Gasoline Automobile Motor.



The New Serpollet Steam Racer.

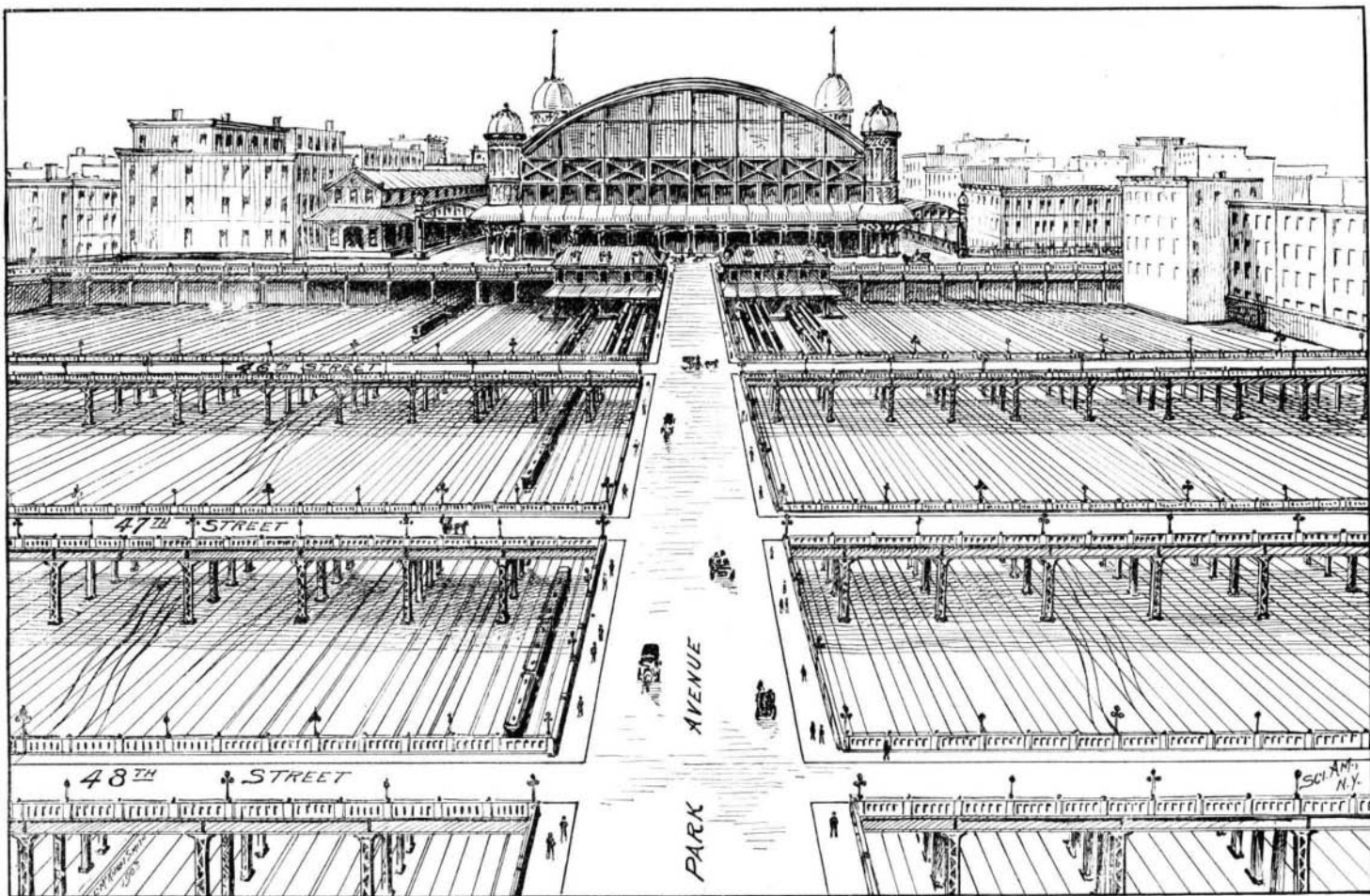
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which may be changed at will by the driver, thus increasing or decreasing the quantity of water and fuel sent to the boiler and burner. Long side levers within easy reach of the driver serve to vary the eccentrics when necessary. Another decided novelty was the 40 horse power, eight cylinder, gasoline motor exhibited at the Charron, Giradot, and Voigt stand. This motor is to be used on a car fitted with but two forward speeds

startling announcement that the charter by which it secured the use of Park Avenue, contained a clause restricting the Railroad Company to the use of steam traction therein. The necessary authority to enable the company to use electrical traction is now being sought at Albany.

The plan of improvement suggested by the Railroad Company, and modified by the city government,

is on a most extensive scale, and will add enormously to the storage and general yard facilities of the terminal, besides greatly increasing the convenience of the terminal trainshed itself. At Fifty-sixth Street the Park Avenue cut, through which the present tracks run, will be widened so as to admit of three extra tracks on each side of the present four tracks, the ten tracks extending to Forty-ninth Street, where they will branch out into the present terminal yard. The switches for these tracks will be laid at Fifty-seventh Street, and here also the



View Looking South Along the Proposed Park Avenue Viaduct, Showing the New Cross-Street Viaducts, the Station Yard Below, and the North Face of the Grand Central Station.

RECONSTRUCTION OF THE GRAND CENTRAL STATION AND YARD.