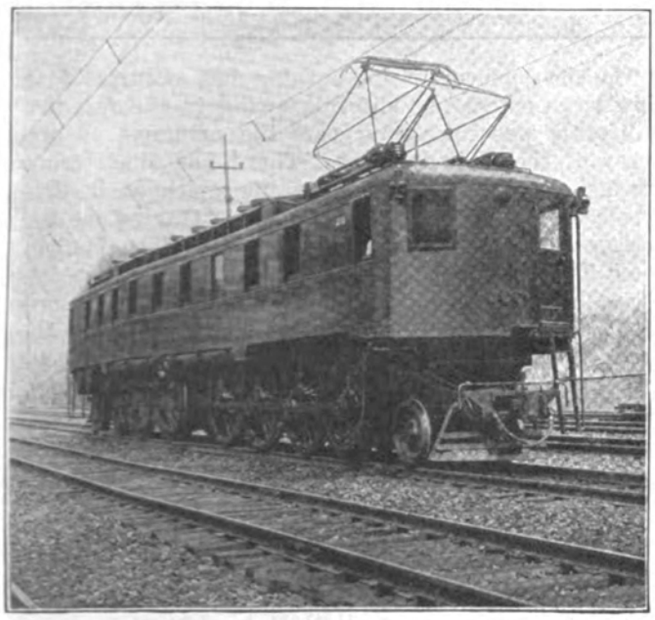
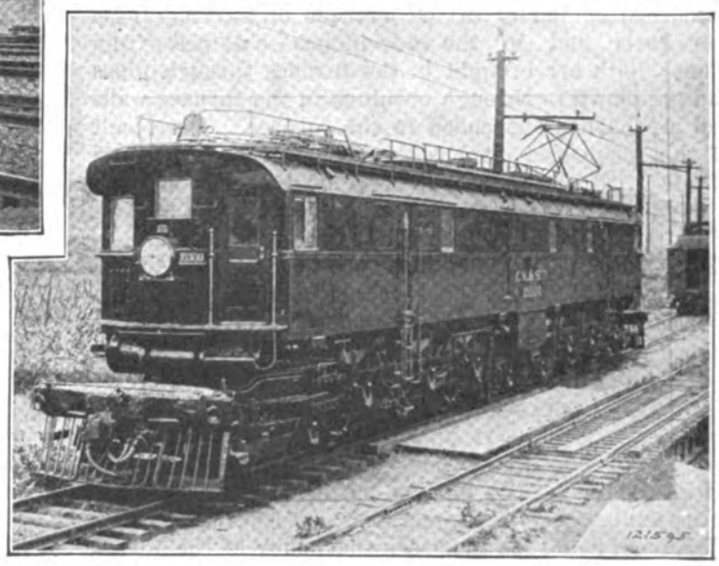
Steam Railroad Electrification —the Spirit of the Times

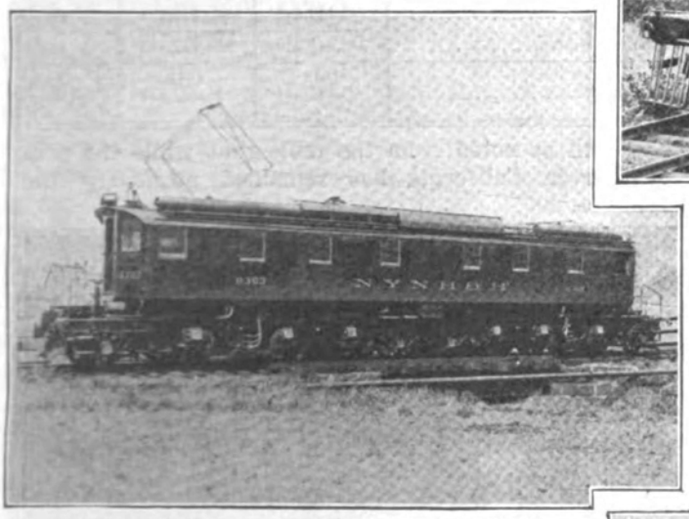
Advantage of only a few of the opportunities to electrify railroads has been taken, and the country may expect to see this field of development grow not only between densely populated cities in the East but, especially, in the mountainous territories of the West, where electric traction shows its greatest advantages over steam. Both direct and alternating current are employed, the highest collector voltages used in the United States being 3,000 and 11,000 respectively.



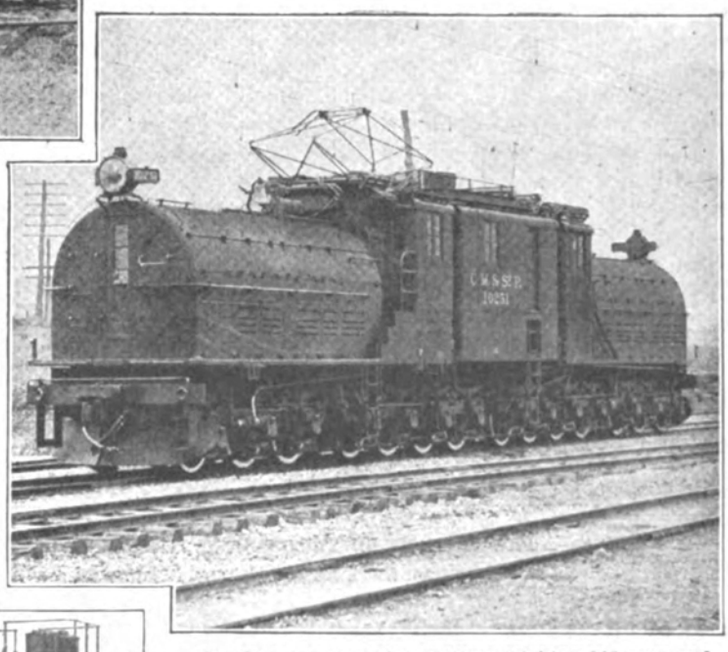
Direct-current side-rod-drive locomotive used by the Pennsylvania Railroad between New York and Manhattan Transfer, N. J. This railroad also operates an alternating-current locomotive which is the fastest electric locomotive built so far.



Twin motors are gear-connected to each driver of this 3,000-volt direct-current locomotive, a type which the Chicago, Milwaukee & St. Paul Railway is adding to its system.



Single-phase electric locomotive being used by the New York, New Haven & Hartford Railroad, one of the first companies to electrify a steam railroad in this country.



Gearless passenger locomotive weighing 265 tons and operating at 3,000 volts, direct current, that typifies one class of locomotive being used by the Chicago, Milwaukee & St. Paul Railway.

One of the latest types of gearless-drive locomotives, which have been found very satisfactory during the past ten years by the New York Central Railroad on its New York-Harmon division.