



THE BOYNTON UNICYCLE AND SINGLE-RAIL TRACK RAILROAD FOR HIGH SPEED TRAFFIC.

for the run was three minutes, but special trips were made in two and three-quarter minutes each, including starting and stopping. The daily consumption of coal in performing this service was but half a ton. The great economy of this method of traction is also evidenced by the smoothness with which the cars run, and the entire absence of side motion and vibration, there being no striking and grinding of the wheel flanges upon the rails, as is common on double-track roads. From a seat in the top part of the tender, where one could observe how the trolley wheels followed the guide rail, it was noticed that frequently, for considerable distances, these wheels did not touch the guide rail at all on either side, and when they did approach and bear upon the guide rail it was with a gently swaying movement, indicating no expenditure of power at this point, and apparently having no effect upon the motion of the car. This was, of course, to be expected, in this system of locomotion, when a high speed is attained, and it is upon this point that the claim is made by the advocates of such systems, that in this way only is it possible to obtain greatly increased speeds on railways with the present styles of motors. — *Scientific American*.

Glass may be cut with a strong pair of scissors if it is held under water.

THE UNDERGROUND SYSTEM OF RAPID TRANSIT FOR CITIES.

The enormous concentration of human energy in the great cities appears to be the characteristic of the present era. The census returns of each successive decade exhibit the prodigious growth of population in the cities, and little or none in the agricultural districts. This expansion of population means corresponding expansion of area for its accommodation, and this, in turn, demands provision of the most approved description for rapid transit. This is the crying demand in all our great cities, and the growth of the cities appears to be directly in proportion to the realization of this requirement. The city that to-day exhibits a lack of appreciation of this essential is the city which, it may safely be predicted, is standing still, while its more enterprising neighbors, though possessed of fewer natural advantages, are forging ahead in the business and commercial rivalry.

The returns of the eleventh census of the United States exhibit no more remarkable example of the truth of the foregoing remarks than the enormous strides made by some of our Western cities, which, if continued in the same proportion in the ensuing decade, will place them far in the lead of many of the older-settled and ultra-conservative cities of the Eastern seaboard.

The question of the desirability of elevated as compared with