

THE ST. CLAIR TUNNEL

THE ST. CLAIR TUNNEL—"THE LINK THAT BINDS TWO GREAT NATIONS"

1. Interior of Tunnel, near American Portal.
2. Approach to Tunnel, from Port Huron.
3. Portal of the Great Tunnel.
4. Tunnel Interior, 2,100 Feet from Portal.
5. Old Way of Crossing—Train on Transfer Steamers.



CROSSING a navigable stream with a railway train is at best attended with difficulties; and when that stream is a broad artery of inland commerce, rendering a bridge impracticable, a railway ferry is the usual alternative. This, also, has its drawbacks, especially when the stream is choked with ice, either solid or broken. The Grand Trunk System has for many years been wrestling with the difficulties incident to crossing between Sarnia and Port Huron, until the necessities of a better method compelled the construction of the marvel of engineering skill known as the famous St. Clair Tunnel, which is, in some respects, the most remarkable in the world. It is appropriately termed, "the link that binds two great nations," and over it flow all the waters of the

Great Lakes, which later tumble over the cliff at Niagara Falls, and eventually reach the Atlantic as the majestic St. Lawrence River.

A few statistics, only a few, as of special interest, may be given here. The length of the tunnel proper is 6,025 feet, and of the open portals or approaches, 5,603 feet additional, or more than two miles in all—the longest sub-marine tunnel in the world. It is a continuous iron tube, nineteen feet, ten inches in diameter, put together in sections as the work of boring proceeded, and firmly bolted together, the total weight of the iron aggregating 56,000,000 pounds.

The work was commenced in September, 1888, and it was opened for freight traffic in October, 1891; a little more than three years being required for its completion. Passenger trains began running through it December 7, 1891. The work was begun at both sides, and carried on until the two sections met in mid-river, and with such accuracy that they were perfectly in line as they came together. Throughout its entire length, it perforates a bed of blue clay, and with the exception of an occasional



CROSS SECTION VIEW, SHOWING STRATA AND CONSTRUCTION OF TUNNEL.