## THE AORTA OF NORTH AMERICAN COMMERGE.

BY CHAUNCEY N. DUTION.

An observing man once remarked that by a wise and beautiful provision of Providence the great rivers are all located conveniently for the big cities. A wise man, truly!

Transportation makes the city: in proportion as transportation is good and cheap, the city becomes great and wealthy. The city is a circumstance of topography. Until the invention of a prime mover, which shall give us power without cost, causes the æroplane to supplant the less soaringly ambitious boat and car, the cities, big and little, must be located where freight can be brought to them the cheapest:—i.e., upon the water courses.

To what extent cheap transportation affects the growth of cities is well illustrated in the following tables, in which a group of six American cities on the upper great lakes is compared with a group of six American cities not sharing the benefits of the cheap lake freights, and with a group of six Canadian cities situated on Lake Ontario and the St. Lawrence River. The comparison covers the population and rate of growth of the cities of the respective groups, as shown in three successive censuses.

GROUP NO. 1-AMERICAN LAKE CITIES.

Population	1870.	1880.	1890.	
Chicago	298,977	503,185	1,099,850	
Buffalo	117,714	155,134	255,664	
Cleveland	92,829	160,146	261,353	
*Pittsburg	86,076	156,389	238,617	
Detroit	79,577	116,340	205,876	
Milwaukee	71,440	115,712	204,468	
Totals	746,613	1,206,906	2,265,828	

GROUP No. 2—American Cities not Benefited by the Lake Transportation.

POPULATION	1870.	1880.	1890.	
St. Louis	310,864	350,518	451,770	
Cincinnati	216,239	255,139	296,908	
New Orleans	191,418	216,090	242,039	
Louisville	100,753	123,758	161,129	
Rochester	62.386	89,366	133,896	
Albany	69,422	90,758	94,923	
Totals	951.082	1,125,629	1,380,665	

GROUP No. 3—CANADIAN CITIES ON LAKE ON-TARIO AND THE ST. LAWRENCE.

Population	1871.	1881.	1891.	
Montreal	107,225	140,747	216,650	
Toronto	56,092	86,415	181,220	
Quebec	59,699	62,446	63,090	
Hamilton	26,716	35,961	48,980	
Kingston		14,091	19,264	
Three Rivers	7,570	8,670	8,334	
Totals	269,709	348,330	537,538	

## INCREASE IN POPULATION.

Decades.	1870 to 1880.		1880 to 1890.		1870 to 1890.	
	Actual.	per ct.	Actual.	per ct.	Actual.	per ct.
GROUP No. 1. 6 American Lake Cities.	460,293	61 2/3	1,058,922	87 3/4	1,519,215	203 1/2
GROUP No. 2. 6 American Cities.	174,547	19 4/10	. 255,036	22 2/3	429,583	45
	1871 to 1881.		1881 to 1891.		1871 to 1891.	
GROUP No. 3. 6 Canadian Cities.	78,621	29	189,208	54 3/10	267,829	99 3/10

<sup>\*</sup> Pittsburg is classed here with the upper lake cities, because its manufactures and growth, especially its iron industry depend almost entirely on the cheap lake freights, without which Pittsburg would be an unprogressive town; Rochester, accessible to Lake Ontario craft, does not so depend on lake transportation for material for her industries.