

THE ST. CLAIR TUNNEL.

An international work of great value to the commercial interests of the Dominion, and reflecting no little glory on the technical skill of Canadian engineers, has just been completed in the tunnel which connects Port Edward with the sister town across the St. Clair River. Engineering difficulties of considerable moment have been overcome, and Canada now claims the only tunnel in the world 26 feet in diameter, so constructed as to carry a railway under a river. To Mr. Joseph Hobson, an engineer, who "has never been outside of Canada to profit by advantages and education," as Sir Henry Tyler said—as if the Dominion, with its vast public works, offers no sufficient school of education—is due the credit of bringing this important work to a successful issue, an issue that was finally crowned a few days since with imposing international ceremonies. The total length of the tunnel and its approaches is 11,553 feet, the actual tunnel under the river being 6,025 feet long. It is lined throughout with solid cast-iron plates, bolted together in segments—each segment being five feet long, eighteen inches wide and two inches thick, with flanges five inches deep, the whole lining weighing together 28,000 tons. The bolts and nuts for connecting the segments together weigh 2,000,000 pounds. The permanent way through the tunnel is laid with steel rails weighing one hundred pounds to the lineal yard. The interior diameter of the tunnel is 20 feet, and ample means have been provided for thorough ventilation and for lighting it throughout, when required, by the electric light. The road is practically level under the river, with approaches at each end on gradients of 1 in 50. The greatest depth of water over the top of the tunnel is 4½ feet, and the minimum depth is 15 feet. At the ends of the approaches are junctions with the Grand Trunk Railway on the Canadian side and the Chicago and Grand Trunk Railway on the American side of the river. In connection with these junctions ample ground has been levelled and prepared, and shunting sidings to the extent of ten miles have already been laid on each side of the river. The tunnel was constructed by means of heavy wrought-iron shields, with sharp edges, fifteen feet three inches long, and twenty-one feet six inches in diameter. Each shield was pushed forward by 24 hydraulic rams, the barrel of each ram being eight inches in diameter, with a stroke of a little more than eighteen inches. Each ram exercised a force of 125 tons. From the date when the shields were first lowered in position at the portals to the meeting of the shields in the tunnel—one quarter of an inch astray—the time occupied in constructing the tunnel was twelve months. The cost of the tunnel proper was \$1,460,000. The opening ceremony was somewhat marred by the introduction of political sentiment, unwarranted by the occasion. Mr. Wiman, who represented the commercial interest of the city of New York, exposed himself unadvisedly to severe criticism at the hands of Mr. Harper, who, in voicing the words of the majority of the Canadian people, did so in a manner which drew its greatest force from the aptness of the language in which it was couched.

THE SEALING FLEET—VESSELS IN PORT.

VICTORIA.

ARRIVED.	NAME.	TONNAGE.	AGENT OR OWNERS.
July 14.....	Maggie Mac	71	R. P. Hithet & Co. (Limited).....
July 27.....	Zinoko	75	Capt. Grant.....
July 27.....	E. H. Marvin	114	E. H. Marvin & Co.....
July 27.....	Walter L. Rich	79	C. N. Cameron.....
July 28.....	Annie E. Paint	82	Robert Irving.....
July 29.....	Mary Ellen	69	Capt. Victor Jacobson.....
August 1.....	Thistle, (steamer)	147	M. Manson.....
August 1.....	Sea Lion	50	Geo. Collins.....
August 3.....	Minnie	46	Capt. Victor Jacobson.....
August 5.....	Triumph	98	E. H. Marvin & Co.....
August 11.....	Winnifred	13	C. Spring.....
August 11.....	Aurora	46	Thos. Harold.....
August 13.....	C. H. Tupper	59	Capt. C. J. Kelly.....
August 14.....	Henrietta	31	C. Spring.....
August 21.....	May Bell	58	Capt. Douglas.....
August 22.....	W. P. Sayward	60	Morris Moss.....
August 24.....	Laura	19	J. H. Jones.....
August 28.....	Labrador	30	— Stevenson.....
August 29.....	Mary Taylor	43	Carno & Munsie.....
August 29.....	Mountain Chief	16	Nawassan.....
August 29.....	Rosie Olsen	39	Andrew Gray.....
August 30.....	Claretta G. Cox	76	E. H. Marvin & Co.....
August 30.....	Annie C. Moore	113	C. Hackett.....
August 30.....	Genova	92	Hall, Goepel & Co.....
August 31.....	Borealis	37	Thos. Hendry.....
September 2.....	Walter A. Earle	68	Thos. Earle.....
September 2.....	Sapphire	124	E. H. Marvin & Co.....
September 2.....	Carrollite	91	J. W. Peppett.....
September 7.....	Ariel	91	J. C. Provost.....
September 9.....	Umbrina	46	J. W. Peppett.....
September 14.....	City of San Diego	48	Carno & Munsie.....
September 15.....	Viva	93	Carno & Munsie.....
September 17.....	Pioneer	66	Carno & Munsie.....
September 17.....	Wanderer	25	Harry Paxton.....
September 17.....	Venture	48	Morris Moss.....
September 18.....	Favorite	80	Chas. Spring.....
September 22.....	Oscar and Hattie	81	J. L. Penny.....
September 23.....	Ocean Belle	83	Hall, Goepel & Co.....
September 24.....	Katherine	81	J. L. Penny.....
September 26.....	Maud S.	97	Brown Bros.....
September 27.....	Beatrice	66	Capt. Wm. Grant.....
September 27.....	Terisa	63	P. A. Babbington.....
September 27.....	Otto	87	Walter Barnes.....
September 28.....	Kate	58	C. Spring.....
October 3.....	Penelope	69	Morris Moss.....

VANCOUVER.

.....	Eliza Edwards.....	37	Pacific Trading and Navigation Co.....
.....	Vancouver Belle.....	75	Vancouver Shipbuilding, S. & T. Co.....
.....	C. D. Rand.....	52	B. I. Sealing and Trading Co.....
August 29.....	Beatrice.....	49	C. G. Doering.....

COMMERCIAL SUMMARY.

Wild animals have killed several head of cattle along the Gananoque river.

The elections in Chili have resulted in an overwhelming defeat of the clerical party.

W. J. Somerville & Co., dry goods merchants, Toronto, have assigned. Assets nominally \$25,000.

A. M. Burgess is back in the Department of the Interior, performing the duties of Deputy Minister.

The North German Lloyd Steamship Company have opened an experimental steamship line from New York to Genoa, Italy.

The work on the addition to the Legislative Assembly building in this city, has been commenced and will be completed as soon as possible.

Mr. J. B. Preston, an old Cariboolite, and who lived in Victoria from 1883 to 1886, died on the 18th instant at Santa Clara, California.

The Federal Bank has redeemed its circulation and paid its depositors, amounting in round numbers to about \$5,000,000. A further dividend has also been declared to the shareholders. This is equal to a return of 50 per cent. on their capital, so far. Whatever loss there may be will fall on the shareholders, and that is not so bad as at one time seemed probable.

A rich deposit of fire-clay has been discovered near Toronto across the Don. Fire-clay has not, so far, been discovered in Canada or to any extent in America.

Patrick McDermott, the McCarthyite candidate, was elected to the seat in the House of Commons for North Kilkenny, rendered vacant by the death of Sir John Pope Hennessy. Michael Davitt declined the nomination.

The merchants in the Chilian trade, so a despatch says, are moving every influence at their command to bring about British interference in behalf of Chili in the present misunderstanding between Chili and the United States.

The British papers to hand are lugubrious over the September trade returns, but the free traders hasten to say that in comparing the figures with those for September, 1890, it is only fair to remember that the trade in that month was swollen unduly by the approaching enforcement of the McKinley law, which caused an unusual rush of goods to America. Even allowing them this crumb of comfort, the facts are somewhat disheartening. For the first nine months of 1891, British exports have fallen off over \$60,000,000 as compared with last year, and the imports over \$20,000,000. In imports, the chief decline is in raw material, showing that the manufactures of the country are less active. In exports, the decline is noticeable in nearly every leading line of manufactured goods.