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EXPORTS OF MANUFACTURES

The following table shows the total value of exports of domestic manufactures from Canada, and the value of such exports to Great Britain and the United States by years, from 1868 to 1890.

	TOTAL EXPORT.	TO GREAT BRITAIN.	TO UNITED STATES.
1868	\$15,675,272	\$6,442,004	\$7,493,348
1869	17,456,059	8,092,541	7,382,783
1870	18,327,191	7,197,771	8,778,562
1871	18,473,242	7,121,020	8,830,564
1872	19,469,457	7,362,105	9,310,852
1873	24,460,673	9,128,103	11,899,246
1874	22,916,431	10,932,460	9,100,326
1875	20,025,925	11,284,634	6,090,060
1876	19,542,107	12,013,209	4,945,829
1877	18,955,036	11,787,548	4,540,716
1878	17,780,766	10,822,876	4,440,673
1879	13,087,205	7,619,974	4,172,634
1880	16,197,348	7,696,506	6,372,689
1881	20,366,131	10,044,048	7,953,129
1882	21,247,393	9,043,985	9,256,393
1883	21,970,375	9,458,573	9,452,112
1884	22,400,981	10,067,796	9,312,498
1885	19,276,270	7,470,011	9,075,394
1886	18,959,271	8,517,960	8,276,684
1887	19,999,296	8,507,033	9,319,884
1888	20,382,594	8,225,313	10,118,179
1889	22,394,516	8,732,300	10,819,538
1890	25,541,844	11,672,049	10,960,002

These exports consisted of books, bread and biscuits, candles and soap, carriages, cottons, clothing, hats and caps, cordage, junk and oakum, furs, glass and earthenware, gypsum, lime and cement, scrap iron, iron and hardware, leather and manu-

factures of boots and shoes, machinery, musical instruments, oil cake, rags, sewing machines, wrought stone and marble, salt, tobacco, snuff and cigars, woollens, wood and manufactures of, ale and beer, whisky, sundries, n.e.s. and ships are sold to other countries.

NICKEL STEEL.

THE recent armor tests made at Indian Head, Maryland, by the United States Government, possess considerable interest to Canada, in that it was decided that the nickel steel plates which were experimented upon were undoubtedly the best armor plates ever subjected to such tests. These tests were applied to six plates, three of which were furnished by the Bethlehem Iron Company and three by Carnegie, Phipps & Co. The Board of Armor Tests, appointed by the Secretary of the Navy, under whose supervision the tests were made, after careful consideration of the results upon the firing upon the six plates, decided that they be placed in the following order of merit, viz:—

1. The high-carbon nickel steel Harvey plate, furnished by the Bethlehem Iron Company.
2. The high-carbon nickel steel plate, furnished by the Bethlehem Iron Company.
3. The high-carbon nickel steel plate, furnished by Carnegie, Phipps & Co.
4. The low carbon nickel steel Harvey plate, furnished by Carnegie, Phipps & Co.
5. The low-carbon nickel steel plate, furnished by Carnegie, Phipps & Co.
6. The low-carbon steel Harvey plate, furnished by the Bethlehem Iron Company.

It will be observed that of these six plates, five of them were composed in part of nickel, and that the one which stands lowest on the list contained no nickel.

The right side of plate No. 1 showed very remarkable qualification. The two projectiles which struck that side penetrated not more than 7 inches, the head remaining in the plate, completely filling the hole, and with the appearance of having been welded to the surrounding metal, while the body was shattered into many fragments. No cracks were made on that side of the plate, while the back of the plate showed no disturbance, except a hardly noticeable swelling on the surface. All of the armor plates were more or less cracked through, but only two. Nos. 3 and 6 badly, and these two plates alone showed cracking before the fifth shot. Plates Nos. 1, 2 and 3 kept out all the projectiles, No. 4 was perforated by one, and Nos. 5 and 6 by two projectiles each.

Comparing the plates of this trial with the Creusot steel and the Creusot nickel steel plates of the Annapolis trials of September, 1890, the board in their report were of the unanimous opinion that:

No. 1, the high-carbon nickel steel Harvey plate furnished by the Bethlehem Iron Company, and No. 2, the high-carbon nickel steel plate furnished by the same company, are superior to the Creusot steel and nickel steel plates of last year.

The Secretary of the Navy has given a written opinion of these tests, and those portions of it which are of the most interest to Canada we summarize as follows: