

The *Constance* ready for service probably Quebec, circa 1893.
 Photograph courtesy of NAC, PA191938

POLSON IRON WORKS of OWEN SOUND

Part II: The Three Sisters

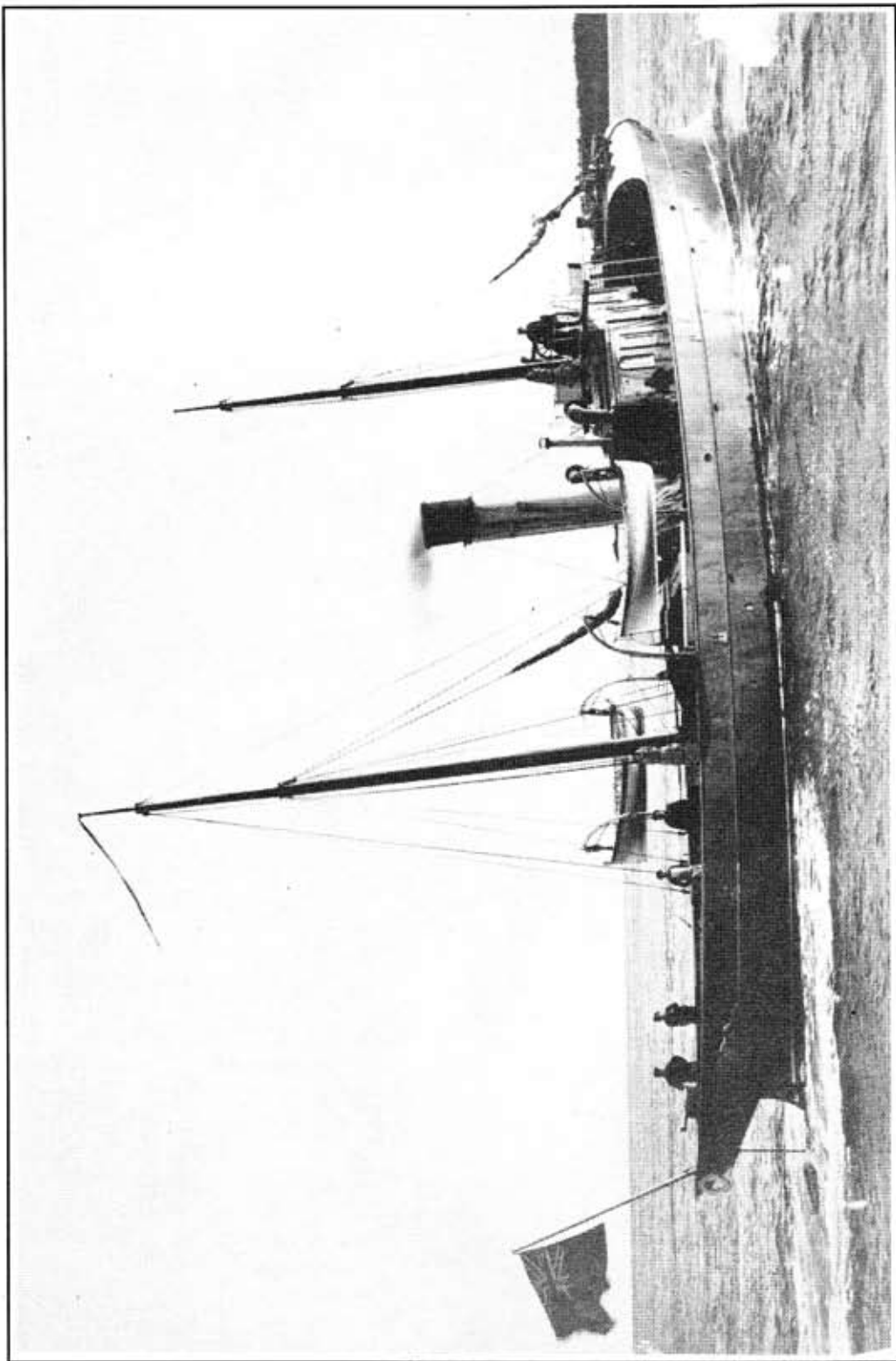
The Polsons next contract at the Owen Sound shipyard would be for the Dominion Government. This was a composite-built cruiser for the Fisheries Protection Service, of the Department of Marine and Fisheries that operated a number of steam vessels for the purpose of protecting fish stocks from poachers, as well as to supervise Customs' Revenue Laws. In 1890 the Minister of Marine and Fisheries, Hon. Charles H. Tupper, reported the inadequacy of the steam yacht *Cruiser*, which was unable to cope with the rough waters and had insufficient speed to cover the vast territory of the Great Lakes to which she was assigned.

Constance, Curlew and Petrel

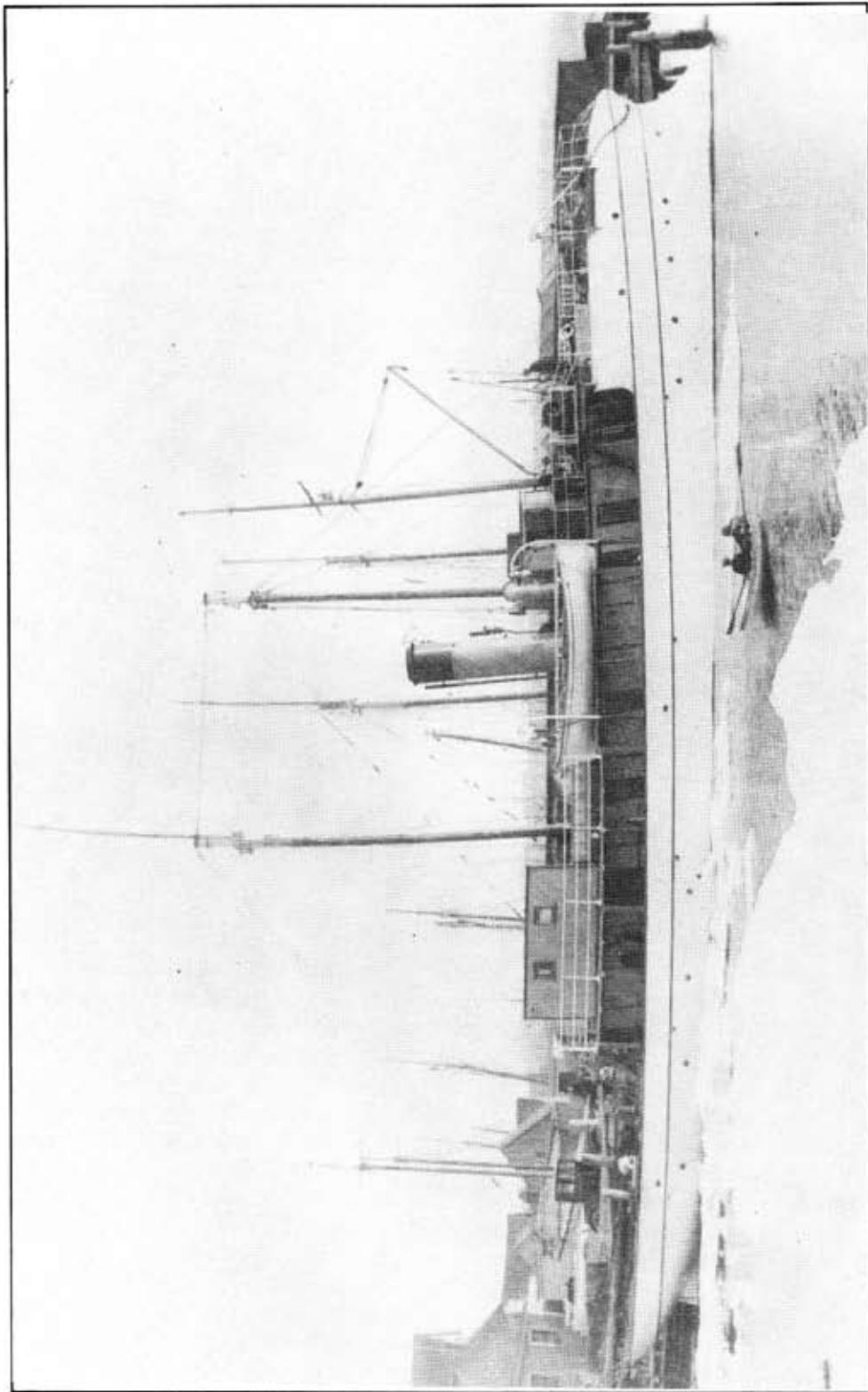
The Polson Iron Works was awarded the contract to build a composite steamer for the sum of \$40,000, Polson's agreeing to accept in part payment the steam yacht *Cruiser*, valued at \$9,000. The expenditure was approved by

Privy Council in February 1891. The delivery date was set 21 August 1891. Specifications were set by several authorities including Lieut. Andrew Gordon (Commander of the Fisheries Protection Service), Capt. Thomas Harbottle (Inspector of Hulls of Steam Boats) and Capt. McElhinney (Nautical Advisor of the Dept. of Marine and Fisheries). Robert Logan would act as the inspector.¹

The new steamer was to be called the *Constance* and would have an overall length of 125 ft., a beam of 19.6 ft. and the depth of the hold at 11.2 ft. and the gross tonnage was 184.6.² The specifications called for a rock elm keel complete with an iron shoe, with an integrated iron stem. One piece steel frames from the keel to the gunwale would be of 2 3/4 angles at 18" centres. The floor would be made of steel plates 12" by 5/16" thick. The keel plate, centre keelson and bilge keelson would all be of steel. The hull incorporated three steel watertight bulkheads stiffened with angles. Fifty-ton coal bunkers were installed, also made of steel with 6 coal chutes accessed from the deck. Deck houses included the wheel house, chart room and galley, all built of iron plate. A steel turtle back was



Petrel, Note the cannon at the stern.
Photograph NAC, PA 136650



The *Curlew* in Sydney Harbour, Nova Scotia, circa 1920.
Photograph courtesy of the Beaton Institute, Eachdraidh Archives, University College
of Cape Breton, MG 12.50 D1, 79-535-3515

SOME of our Yankee friends have been worrying themselves sick over the imagined fact that Canada is building a fleet of gun-boats and war vessels at Owen Sound, which are intended for warlike demonstrations against their country. The true facts, which have never been concealed, are: that three small vessels have been built and no others are in contemplation. The dimensions of the first one built—the *Constance*—are: length, 125 feet; beam, 22 feet; draft of water, when ready for service, 8 feet. She has a compound vertical engine driving a single screw 7½ feet in diameter. She is a beautiful specimen of naval architecture, and several photographic views of her adorn our office. She is employed in the Customs service in the suppression of smuggling in the Lower St. Lawrence, and when she encountered a piratical craft there a few months ago she was unable to make a capture at the time because she was not armed. The other vessels built for the Government at Owen Sound are almost identical in all respects. The *Curlow* is now doing duty as a Revenue cutter in the Bay of Fundy and along the coast of the Maritime Provinces; and the *Petrel*, the one launched in November, and not yet finished, is intended for protection of Canadian fishing interests on Lake Huron and Georgian Bay. Some of our badly frightened and excited American friends are talking of making double turreted monitors of the two railroad transport steamers recently built at Toledo, Ohio, which should be equipped with six-inch rifles, and which, it was hoped, might be able to defend their lake cities against this imaginary flotilla of Canadian war vessels. The transports alluded to are each 267 feet long and 52 feet beam, with three sets of compound engines operating three screws. Either of these vessels could comfortably stow away in their holds the whole three Canadian terrors. Let us have peace.

Although it is believed that these cruisers were armed, an interesting article written by an unidentified author appeared in THE CANADIAN MANUFACTURER a trade publication dated 17 March 1893. The author plays down the aggressive role these cruisers played in the defense of Canadian fisheries and customs enforcement.

used complete with a steam capstan. Deck planking was 3" x 3" pine fastened with 1/2" diameter galvanized bolts bedded in white lead.

The hull planking was 5" rock elm on the bottom and 4" at top side fastened with 10-16" nut and screw bolts driven in with oakum and white lead. The frames and planking in the bilge area was covered with portland cement. Caulking was oakum and the seams payed with white lead. The outside planking on the bottom received a coating of tallow. Shear stakes made of metal plate were used.

A 20-foot forecastle gave accommodation for 6 men. Aft of the forecastle on the lower deck was a store room and accommodation for the steward, carpenter and cook. Aft of the engine room on the lower deck were quarters for mates and engineers consisting of a mess in the centre, an engineers' state room on the starboard side

and mates' on the port side with two berths in each. At the after end of the ship was a saloon extending the breadth of the ship through which entrance to two staterooms was gained. Water closets were fitted under the turtle back and in the officers quarters. Fresh water tanks were provided in the bottom of the ship forward. Hand pumps were used to bring water to the galley and stewards' pantry. Steam heating was provided in the main saloon, officers mess, forecabin and petty officers quarters.

The engine was an inverted fore-and-aft compound condensing type, with 18" and 36" diameter cylinders and a 24" stroke. Some 50 N.H.P. was delivered giving her a top speed of 11.67 knots over the measured mile. The *Constance* was not launched until Nov. 1891 and was delivered in May 1892. She was transferred to the control of the Department of Customs in



The crew of the *Constance*, Capt. George May (?)
Photograph courtesy of the Maritime Museum of the Atlantic, MP28.46.3

March of 1892 to help cope with the problem of smuggling in the lower St. Lawrence and Gulf area. She was based in Quebec for an extended period of time and was under the command of Capt. George M. May.⁴

Curlew

By August 1891 the Department of Marine and Fisheries was appealing for yet another steamship this time for the Bay of Fundy to replace the *S.S. Dream*, a small open vessel made entirely of wood. This time tenders had been received from several shipbuilding concerns,

including John Doty of Toronto, Matheson of New Glasgow N.S., The Dry Dock & Wrecking Co. of Collingwood Ont. and Polson. Polson was awarded the contract because of their low bid of \$37,900. Approval was given for the new steamship in that month and construction began at Owen Sound.

The specifications of the *Curlew* were almost identical to those of the *Constance*, except that of her gross tonnage was 158. A few differences in her construction included an extra bulkhead and coal bunker capacity increased to 60 tons from 50 tons. The engine configuration is the same as *Constance*, being an inverted fore-and-aft compound surface condensing engine of 18 and 36 inch diameter cylinders with a 24" stroke. The *Curlew* used one cylindrical boiler 10 feet 9" diameter and 10 feet 6" in length. Two Fox corrugated furnaces with separate combustion chambers were used. The grate area was 30 square feet, 140 tubes with 3 1/4 inch outside diameter were used giving a total tube area was 860 square feet. The working pressure of the boiler was 110 pounds per square inch.⁵

The horsepower is registered at 50 N.H.P. (same as *Constance*) however, the *Monetary Times* reports that the *Curlew* was indeed a faster vessel. She was launched at Owen Sound on 24 May 1892 but was based at St. John N.B., patrolling the Bay of Fundy Area. She had been under the Command of Capt. Pratt 1897. In 1907 we find her commanded by Paul C. Robinson, acting Captain.⁶

Petrel

The third and final cruiser that the Polsons built was the *Petrel*. In February 1892 the Minister of Marine and Fisheries, the Hon. Charles Tupper requested another cruiser for use in Lake Huron, Georgian Bay and Lake Superior. This was to replace the *Constance* which had been transferred to the Department of Customs and was now patrolling the lower St. Lawrence River area.

Tenders had been requested and received from The Dry Dock & Wrecking Co., Collingwood; J.G. Matheson & Co., New Glasgow,

N.S. and Polson. Once again Polson was the low bidder at \$41,900 and so was awarded the contract. It is assumed from the cost⁷ that the build of the *Petrel* was of composite construction, that is, steel substructure with wooden planking, however, no record of her specification has been found. There may have been some minor differences in her construction, for example, the beam was 22 ft. instead of 19.6 ft. as on the *Constance* and the depth in hold amidships was 10.3 ft. instead of 11.2 ft. as on the *Constance*. The gross tonnage had increased for the *Petrel* to 206.51. She had more horsepower than her sisters at 54 N.H.P.⁸ The *Monetary Times* reports that the keel was laid in August and that she was launched in November 1892 but did not receive her trial run until May 1893 when she easily achieved 11 3/4 knots.

The *Petrel* was stationed at Owen Sound for many years under the command of Capt. Edwin Dunn. She was later transferred to Souris P.E.I. and was then under the command of Capt. William Kent⁹. Although it is believed that the these cruisers were armed, an interesting article written by an unidentified author appeared in *The Canadian Manufacturer* a trade publication dated 17 March 1893. The author plays down the aggressive role these cruisers played in the defense of Canadian fisheries and customs enforcement.

Notes

1. NA, RG 2, vol. 3185, file 1890, #176,6 Feb. 1891.
2. It is interesting to note that Wm. Polson's daughter, Annie, had her first child named Constance in April 1891. Was the cruiser named after the new born or the new born after the cruiser!?
3. NA, RG 2, vol. 572 file, 176c 12 Feb. 1891 appendix #1.
4. Marine Service of Canada, *Hydrographic Survey of Canada & St. Lawrence Ship Channel*, 1 Jan. 1907.
5. NA, RG 2, vol. 3192, 25 August 1891.
6. Marine Service of Canada, 1 January 1907.
7. NA, RG 2, vol. 3203, 22 February 1892
8. NA, RG 2, vol. 594, 25 Feb. 1892.
9. Marine Service of Canada, 1 January 1907.

Part III

The Polson Iron Works of Owen Sound

By February 1893 the company was in trouble once again. The Polson Iron Works had again been placed in the hands of E.R.C. Clarkson Liquidator. Clarkson reported that the high cost of running the shipyard at Owen Sound was due to the interest charges and management expenses. Clarkson's report went on to say, that few vessels that had been built and due to competition the prices of these had been low. The losses of the Owen Sound branch had absorbed the earnings of the Toronto branch. Interest on mortgages¹ and accommodation given to Polson by the banks was the cause of the present crisis. It appears that the company was always in need of capital and what it could not get through the banks it would raise through other means. This had been the case in June of 1892 when a syndicate of directors had been formed called "The Polson Lenders" who agreed to make advances to the company to the extent of \$60,000. As security the lenders received a chattel mortgage.²

Clarkson placed a value of \$ 199,700 on the assets of the companys' building, lands and equipment. Clarkson recommended that tenders be invited and that the assets be sold as soon as possible.³ As such, the assets were purchased by none other than Franklin Bates Polson and John Bellamy Miller.⁴ Miller was not new to the Polson establishment as previously noted. Miller had begun to purchase large amounts of shares as far back as 1888.⁵

John Bellamy Miller was born 26 July 1862 in Athens, Ontario and came to Toronto at the age of 6 to attend the model school and Upper Canada College. In 1881 he joined his father, J.C. Miller who was the owner of the Parry Sound Lumber Company. Incorporated in 1872, it was a large operation with a mill capacity of 15 million board feet of lumber.⁶ In 1884, with the death of his father, J.B. Miller became the president of the Parry Sound Lumber Company.

It may be true that this time period was not an easy one for the shipbuilding industry. Polsons' competitor, John Doty Engine Company, was also under the control of E.R.C. Clarkson in order to complete existing contracts. Doty, although a smaller concern, still had nominal

assets of \$136,491 and total liabilities of \$79,335.⁷ The John Doty Engine Company would later be reorganized to become Bertram Engine Works Company. John and George Bertram, owners of Bertram & Co. (the large hardware concern), were the principle creditors and as such purchased the company for the amount of the claim, \$52,536.00 plus advances by the liquidator and all liens and court costs. The new management was able to attract James Fletcher who had not only worked with the Polsons since their beginning but was also a Polson Iron Works shareholder!⁸

There is no doubt that the entire Owen Sound affair was a very ambitious project. The Polsons, a father and son company, was financed by their own savings as well as whatever the banks would lend them. This period in Polsons history seems mainly to have been driven by the son F.B. Polson, who at the time was about 30 years of age. The idea of entering into a contract (time penalties attached) with a large company like the C.P.R. to build Canada's first steel steam ship in a shipyard that did not yet exist, smacks of over ambition. If the young F.B. Polson was hoping to finance his new shipyard on contracts from the C.P.R., he was in for a rude awakening. Both Van Horne and Shaughnessy were shrewd businessmen and constantly got the lowest price from the Polsons. It was not necessarily the intention of the C.P.R. to cripple the Polsons. On the contrary, Van Horne had treated them leniently with regard to the time penalty on both contracts. There is little doubt that the assignment of Polson Iron Works in November 1889 did little to inspire the confidence of Van Horne and Shaughnessy. The Polsons had gambled at Owen Sound and lost. In 1893 the Polson Iron Works at Owen Sound would close forever. The Polsons retreated to Toronto taking their heavy machinery with them.⁹ There they would make a strong comeback.

Notes

1. Mortgages were held by; Ontario Bank (\$105,000), The Bank of British North America (\$37,200), Rice Lewis & Son (\$12,000), Confederation Life (\$33,000), Currie Mortgage (\$12,500).

2. This Chattel mortgage consisted of the stock in trade of the company, the company's book debts and the amounts due by shareholders on their stocks.

3. Ernst & Young Archives, 1893 Report of E.R.C. Clarkson.
4. Toronto Harbour Commission Archives, Central Registry File, RG 3/3, box 181, folder 8, Bradstreet report on Polson Iron Works, 29 January 1914
5. Archives of Ontario, RG 8, I-D-8, file 432, 1892, box 461.
6. *Board of Trade Souvenir, Toronto), An Historical Sketch*, J. Castell Hopkins, 1893
7. *The Monetary Times*, 26 August 1892.
8. *The Canadian Engineer*, January 1894, volume 9.

9. *The Canadian Engineer*, 1 July 1893, Pg. 71 #1.

There are many individuals who have contributed toward this work. To all of them I can only extend my sincere appreciation. Three were pivotal in moving my account of Polsons forward: Mr. Larry McNally and M. Stephen Salmon both with the National Archives of Canada and Jo-Anne Colby with the Canadian Pacific Archives.

The author Mr. Bruce K.S. Rudolph held a degree in Physics from McMaster University. He is interested in Canadian Industrial Archaeology. Mr. Rudolph would appreciate any information on the Polson Iron Works forwarded to him at 150 Divadale Drive, Leaside, Ontario. M4E 2H5.