

WAGES, WORK, AND WARTIME DEMANDS IN BRITISH COLUMBIA SHIPBUILDING, 1916-19

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BRITISH COLUMBIA WAS distant from the European and Middle Eastern battlefields of the Great War. After the initial 1914 panic instigated by enemy warships appearing off the Pacific coast, even a direct naval threat disappeared.¹ The province's contribution thereafter was providing personnel and material for the war fronts. Troops were recruited and sent overseas to fight, to supply reinforcements, and to replace losses. On the industrial side, local factories and manufacturing concerns engaged in the production of artillery shells, mostly eighteen-pounder high explosive and 11.5-centimetre howitzer types.² The awarding of this war work to BC firms instead of to those in eastern Canada entailed lobbying by elected politicians at all levels of government and active solicitation from the provincial manufacturing association, boards of trade, and private companies. Influential British Columbians held that Canada's westernmost province deserved a share of war business that would be in keeping with troop recruitment, which, in relation to population, was higher here than in other parts of Canada.

As demand for shells fell off, attention shifted to another major wartime industry – shipbuilding. Table 1 shows that British Columbia was fourth in total value with regard to munitions produced in Canada during the First World War, but it was highest in shipbuilding contracts – ahead of Ontario, Quebec, Nova Scotia, and New Brunswick. The question as to exactly why shipyard jobs went to British Columbia instead of to

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¹ "Enemy Movements on Pacific," September 1914, British Columbia Archives (hereafter BCA), mss 1310 Naval Service of Canada, box 1, f. 82-102; Roger Sarty, "There Will Be Trouble in the North Pacific: The Defence of British Columbia in the Early Twentieth Century," *BC Studies* 61 (1984): 23-24; W.A.B. Douglas, "The Seaward Flank: Defending the Indefensible," *Journal of the West* 32, 4 (1993): 20.

² Joseph Flavelle, "List of Firms Manufacturing and Supplying Component Parts – also Machining and Assembling Shells for the Shell Committee and Imperial Munitions Board (Canada)," 11 May 1916, Library and Archives Canada (hereafter LAC), MG 30 A16, vol. 5, f. 47.

eastern Canada, where labour costs were lower and industrial capacity more developed, remains intriguing. The industry became a primary producer of wooden and steel ships for the war effort and an important employment sector on the home front.

Despite its significance, the full scope of BC shipbuilding during the First World War is obscure. Local writers S.C. Heal and G.W. Taylor situate the wartime effort in the context of the shipbuilding business on Canada's west coast.³ Most existing research and interest still deals predominantly with the Second World War's (larger) shipbuilding effort. There is no in-depth survey of Canada's First World War shipbuilding program that can compare to James Pritchard's academic monograph on shipbuilding in the Second World War.⁴ Hard-to-find official histories prepared and published postwar present basic details on organization.⁵ Wartime shipbuilding took place in connection with Canada's principal allies. Hugh Murphy has begun a preliminary study of British shipbuilding during the First World War at the private company and governmental levels.⁶ William Williams, in a book based on his doctoral dissertation, examines the policy and dynamics behind

³ S.C. Heal, *Conceived in War, Born in Peace* (Vancouver: Cordillera Publishing, 1992); G.W. Taylor, *Shipyards of British Columbia: The Principal Companies* (Victoria: Morriss Publishing, 1986); Chris Madsen, "Technology Adoption and Adaptation in Canada's West Coast Shipyards, 1918-1950," *Northern Mariner/Le marin du nord* 22, 3 (2012): 235-82; David R. Conn, "The War Orders: BC Shipbuilding, 1915-1920," *Canadian West* 8 (1987): 83-87.

⁴ James Pritchard, *A Bridge of Ships: Canadian Shipbuilding during the Second World War* (Montreal and Kingston: McGill-Queen's University Press, 2011); Jan Drent, "Labour and the Unions in a Wartime Essential Industry: Shipyard Workers in BC, 1939-1945," *Northern Mariner/Le marin du nord* 6, 4 (1996): 47-64; Chris Madsen, "Organizing a Wartime Shipyard: The Union Struggle for a Closed Shop at West Coast Shipbuilders Limited, 1941-44," *Labour/Le travail* 65 (2010): 75-108; Chris Madsen, "Continuous Production in British Columbia Shipyards during the Second World War," *Northern Mariner/Le marin du nord* 14, 3 (2004): 1-26. See also, generally, Garth S. Wilson, *A History of Shipbuilding and Naval Architecture in Canada* (Ottawa: National Museum of Science and Technology, 1994).

⁵ David Carnegie, *The History of Munitions Supply in Canada, 1914-1918* (London: Longmans, Green and Company, 1925), chap. 23; Great Britain, *History of Ministry of Munitions*, vol. 2, pt. 4 (London: H.M. Stationary Office, 1922); W.H. Mitchell and L.A. Sawyer, *Wartime Standard Ships of World War I*, vol. 3 (Liverpool: Sea Breezes, 1968), 141-56. Business historian Michael Bliss does mention shipbuilding, mostly in the negative, in his biography of Joseph Flavelle. See Michael Bliss, *A Canadian Millionaire: The Life and Business Times of Sir Joseph Flavelle, Bart. 1858-1939* (Toronto: University of Toronto Press, 1992), 307. York University archivist Michael Moir covers wartime shipbuilding in Toronto on Lake Ontario. See Michael B. Moir, "Toronto's Waterfront at War, 1914-1918," *Archivaria* 28 (1989): 126-40.

⁶ Hugh Murphy, "The British Shipbuilding Industry during the Great War: A Contextual Overview Incorporating Standardization and the National Shipyards, 1916-1920," *International Journal of Maritime History* 24, 2 (2012): 19-68. Murphy is affiliated with the Centre for Business History in Scotland at the University of Glasgow and has authored numerous academic publications on the British shipbuilding industry, both singly and with Lewis Johnman at the University of Westminster, including *British Shipbuilding and the State since 1918: A Political Economy of Decline* (Exeter: University of Exeter Press, 2002).

TABLE 1
Value of wartime contracts in Canada by province during the First World War

	MUNITIONS		SHIPBUILDING		TOTAL	
	FIRMS	DOLLAR VALUE	FIRMS	DOLLAR VALUE	FIRMS	DOLLAR VALUE
Ontario	415	485,742,047.55	9	18,211,980.56	424	503,954,028.11
Quebec	176	307,862,545.76	5	12,711,693.00	181	320,574,238.76
Nova Scotia	26	67,905,333.57	2	1,408,898.47	28	69,314,232.04
British Columbia	27	25,868,401.03	8	32,504,960.00	35	58,373,361.03
New Brunswick	19	5,749,154.46	1	1,100,000.00	20	6,849,154.46
Manitoba	14	4,604,622.52	-	-	14	4,604,622.52
Alberta	14	1,788,063.42	-	-	14	1,788,063.42
Saskatchewan	1	586,168.86	-	-	1	586,168.86
Newfoundland	1	261,321.90	-	-	1	261,321.90

Source: Joseph Flavelle Papers, LAC, MG 30 A16, vol. 9, f. 96.

American wartime shipbuilding under the Emergency Fleet Corporation in 1917.⁷ The part played by Canadian shipbuilding in the First World War, especially in British Columbia, remains relatively underappreciated when compared to those played by other countries.

BC shipyards built twenty-seven wooden ships and a dozen steel cargo steamers on behalf of the Imperial Munitions Board, employing more than eight thousand workers in total. Elizabeth Lees presented conference papers on labour dimensions of First World War shipbuilding in the province, but she died before completing a doctoral dissertation under the supervision of Robert McDonald at the University of British Columbia and never published her work.⁸ James Conley, in a 1987 doctoral

⁷ William J. Williams, *The Wilson Administration and the Shipbuilding Crisis of 1917: Steel Ships and Wooden Steamers* (Lewiston, NY: Edwin Mellen Press, 1992). William John Williams, "Shipbuilding and the Wilson Administration: The Development of Policy, 1914-1917" (PhD diss., University of Washington, 1989). Williams is chief of the Centre for Cryptologic History at the National Security Agency, Fort Meade, Maryland.

⁸ Elizabeth Lees, "War Work and the International Connection: Shipyard Workers' Organizations in British Columbia, 1916-1921," paper presented at Pacific Northwest Labour History Association Conference, 13 June 1987, Seattle, SPAM (Special Collection Pamphlet UBC) 1908; "Hiring, Training and Motivating the Shipyard Worker: Government-Labour Relations in Seattle and Vancouver, 1916-1919," paper presented at BC Studies Conference, November 1988, Burnaby SPAM 5830; "British Columbia's Shipyard Workers' Organization,

dissertation, argues that a “war capitalist boom” influenced class relations, worker militancy and radicalism, and confrontations with employers in Vancouver area shipyards.⁹ The influence of BC shipbuilding on the wartime home front, labour relations, and industrial development still awaits further serious academic study. Even though some basic research questions can be framed, the field remains wide open for any enterprising researchers familiar with the available primary sources.

Wartime shipbuilding involved interaction and conflict between private enterprise, government, and labour, which was increasingly organized into unions or similar associations. The focal point of this relationship was high demand for ships paid for by the government within a compressed period of time and the ability of workers to solicit and receive what they considered to be fair wages. Most shipyard jobs were temporary, and the wages that workers received were all-important.

Shipbuilding was a stimulated industry born from the influx of public monies and extraordinary external demands that were beyond what the province could sustain through its own resource economy. British Columbia possessed the developing capacity, thanks to provincial government encouragement, to meet sudden British requirements for ships from Canadian sources. Through local officials, the Imperial Munitions Board (the main procurement body) distributed contracts for steel and wooden ships in the Victoria and the Vancouver areas. The level of business activity attracted private firms and necessitated the recruitment of large numbers of workers in order to meet the heightened wartime workload.

In relations with employers and procurement officials, workers sought the baseline wage rates and beneficial employment conditions that were offered in American regions and cities that were also constructing wartime ships along the Pacific coast. Lack of constructive dialogue with labour led to strikes delaying BC wartime ship production. The main impediment was not so much the assumed clash between irreconcilable labour and capital interests as it was the inconsistent policy that procurement officials responsible for wartime shipbuilding had towards the core demands relating to wages and work hours. The Dominion government’s intervention and commitment to continue shipbuilding,

1916-1919: A Case Study of War Work and Industrial Unionism,” paper presented to 9th North American Labor History Conference, October 1987, Detroit, SPAM 6002, University of British Columbia Special Collections, Vancouver.

⁹ James Conley, “Class Conflict and Collective Action in the Working Class of Vancouver, British Columbia, 1900-1919” (PhD diss., Carleton University, 1986), 368-407.

until the armistice and afterwards, restored industrial peace on the home front.

ADDING CAPACITY IN AN EMERGING INDUSTRY

Prior to the First World War, shipbuilding in British Columbia was predominately small-scale, its purpose being to meet specific local transportation and economic requirements. Sole proprietors and companies of all sizes either constructed ships and boats themselves or ordered from selected building yards and marine manufacturing concerns specializing in delivery of certain types. Fishing boats, tugs, barges, and river craft were built almost artisan-like from available materials.¹⁰ Wooden construction predominated, though a few coastal steamers and ferries were assembled from steel plates and fittings manufactured, packaged, and shipped from eastern Canada and abroad. Ocean-going ships from elsewhere took lumber, canned salmon, fruit and produce, and bulk minerals to overseas markets and North American customers not served by railways. Scotland and England, where most merchant ships were constructed, were world leaders on the basis of shipyards of scale and expertise as well as competitive prices. Virtually no ships were Canadian-built because shipping firms preferred to buy from established foreign concerns, and the Dominion government gave scant encouragement to domestic shipbuilding, despite active lobbying for support of the fledgling industry, which one pamphlet claimed directly employed upwards of two thousand people in pre-war British Columbia.¹¹ What construction activity occurred catered to carrying goods and people in modest numbers over short distances or meeting essential maritime requirements of industries important to the provincial export commodity resource economy.

A wooden boat-building tradition, thriving in selected locales, found enough business to support numerous small yards servicing specific needs and industries. Entry into more complicated steel construction was gradual and occurred when finances and sales allowed. British Columbia possessed no resident industrial capacity to produce and roll steel – a significant handicap before, during, and after the First World War for

¹⁰ Eric W. Sager, "The Shipping Industry in British Columbia from 1867 to 1914," *Northern Mariner/Le marin du nord* 3, 3 (1993): 65.

¹¹ "Shipbuilding in Canada: A Memorial Presented to the Canadian Government," April 1913, LAC, RG 42 C-1, vol. 433, f. 160-2-9.

local development of shipbuilding on a larger scale.¹² Notwithstanding the general economic downturn associated with depressed business conditions after 1912, ship orders held up for companies that were most astute at seeking out opportunities and positioning themselves to best advantage in a competitive marketplace.

Of the existing shipyards, only three – located in North Vancouver, Esquimalt, and Prince Rupert – were suitable for larger-scale shipbuilding. Wallace Shipyards Limited, incorporated by English-trained shipbuilder Alfred Wallace in August 1905, had moved from Vancouver's False Creek to Burrard Inlet's North Shore.¹³ Business mostly involved building municipal ferries and tugboats for towing log booms and barges. Although fire wiped out most of the plant in 1911, the sixteen-hundred-ton marine railway was left untouched. Rebuilding on a new layout with modern equipment and another six-hundred-ton marine railway enabled Wallace to secure public contracts and to meet constant orders for ship repair work in Vancouver harbour.¹⁴ Over in Esquimalt, Yarrows Limited also subsisted on ship repair work and any government work that came along due to being in close proximity to the Royal Canadian Navy dockyard and the Dominion graving dock. Alfred Yarrow, an established builder of destroyers and torpedo boats in Scotland, had purchased an existing shipyard from the British Columbia Marine Railway Company after its managing director, W. Fitzherbert Bullen, suffered a stroke on a trip to Ottawa. Yarrow installed his own son, Norman, to run operations after January 1914.¹⁵ Bullen's yard had constructed Dominion government vessels, barges, and wooden and steel passenger steamers for the Canadian Pacific Railway's coastal service. It had also, for fifteen years, performed naval and commercial ship repair and refit work. Alfred Yarrow met personally with Prime Minister Robert Borden in Ottawa and sent letters to the minister of finance and to the minister

¹² R.H. Brand to Minister of Munitions, 30 April 1917, LAC, MG 27 II G6, Robert Henry Brand, reel A-831, f. 9(i).

¹³ Roland H. Webb, "Burrard Dry Dock Co. Ltd.: The Rise and Demise of Vancouver's Biggest Shipyard," *Northern Mariner/Le marin du nord* 6, 3 (1996): 3. Corporate booklet, *Progress: An Illustrative Presentation by Burrard Dry Dock Company Limited of Their War and Peacetime Shipbuilding Facilities in Canada's Largest Pacific Port, Vancouver, British Columbia 1894-1946* (Vancouver: Burrard Dry Dock Company, 1946).

¹⁴ J.S. Marshall, Burrard Dry Dock Company corporate history, 1963, BCA, ms-1230. Losses to buildings, plant, and machinery from the fire amounted to \$26,397.90. "Wallace Shipyards Limited balance sheet as at January 31st, 1912," 4 March 1912, North Vancouver Museum and Archives (hereafter NVMA), fonds 27-Versatile Pacific, box 82.

¹⁵ Yarrows Limited ledger share register, 17 January 1914, NVMA, fonds 27-Versatile Pacific, box 90, f. 34; J.S. Marshall, Yarrows corporate history, April 1964, BCA, f. 34, ms-1241; Fitzherbert Bullen to Louis Davies, 19 June 1899, LAC, RG 42 B-1, vol. 193, f. 31931; Alastair Borthwick, *Yarrow and Company Limited: 1865-1977* (Glasgow: Yarrow and Company Ltd., 1977), 42-43.

of marine and fisheries regarding impediments facing the growth of the shipbuilding industry in Canada and the building of warships for the Royal Canadian Navy.¹⁶ The company, which showed a loss on balance sheets in its first two years of operation, banked on public monies being expended for national defence purposes and the opening of the Panama Canal in 1914, which would shorten travel time to Europe and Great Britain. At Prince Rupert, a well-equipped shipyard grew around a twenty-thousand-ton floating dry dock, then the largest on the whole Pacific coast, completed by the Grand Trunk Pacific Railway in 1915. The speculative venture in a remote northern location anticipated government interest and increased use of the railway terminus as a shipping point to international markets, both of which proved more or less disappointing.¹⁷ Ship repair work was confined to naval auxiliaries and other ships too big for entry into the Esquimalt graving dock. The three shipyards possessed available capacity as well as comparatively new and modern equipment.

Workers employed in shipyards numbered in the hundreds, all male and all differentiated by occupational stratification and levels of skill. They might have worked for the same company for some years, although, when business slackened, they were accustomed to occasional layoffs between contracts. A fair proportion of employees and foremen in the shipyards were emigrants from Great Britain and the United States, where they had apprenticed or gained work experience before arriving in British Columbia.¹⁸ Shipyard owners and managers, in the cases of Wallace and Yarrows, clearly favoured hiring foreign-born skilled workers. Even Canadian-born workers and managers deferred to the experience and skill of old hands in shipbuilding occupations.

Though each shipyard remained free to set its own routine, the usual work schedule was based on a nine-hour, six-day, forty-eight-hour week. Rates of pay differed according to skilled trade and geographical

¹⁶ Alfred Yarrow to Robert Borden, 3 December 1913, LAC, MG 26 H, Robert Laird Borden, reel C-4379, vol. 177; Martin Thornton, *Churchill, Borden, and Anglo-Canadian Naval Relations, 1911-14* (New York: Palgrave Macmillan, 2013).

¹⁷ T.A. Russell to Joseph Flavelle, 25 July 1917, LAC, MG 26 H, Borden, reel C-4403, vol. 220; Frank Leonard, *A Thousand Blunders: The Grand Trunk Pacific Railway Company and Northern British Columbia* (Vancouver: UBC Press, 1996), 260-62. During the war, Bethlehem Union Iron Works of San Francisco considered leasing the Prince Rupert Dry Dock to build twenty five twelve-thousand gross ton steel freighters. Commander R.M. Stephens to Chairman, Imperial Munitions Board, 16 July 1917, LAC, RG 24 D-1-b, vol. 3766, f. 1048-42-2; W.B.M. Hicks, *Hay's Orphan: The Story of the Port of Prince Rupert* (Prince Rupert: Prince Rupert Port Authority, 2003), 31.

¹⁸ Alastair J. Reid, *The Tide of Democracy: Shipyard Workers and Social Relations in Britain, 1870-1950* (Manchester: Manchester University Press, 2010), 37-38.

location: machinists received \$3.50 per day, boilermakers and riveters \$3.75, and carpenters \$5.00.¹⁹ These wages were considered good, particularly during the depressed economic times of the pre-war and early war years. Payment was customarily in cash on a weekly basis, without receipt, at least until better payroll record keeping and ledger accounts were instituted at Wallace Shipyards in 1915.²⁰ Individuals generally negotiated with management directly with regard to fair remuneration and monetary raises for good work performance. Conversely, managers and foremen reserved the prerogative to admonish, discipline, dismiss, or simply deny work to any worker considered unsatisfactory, too old, or who was seen to be slacking off.

Provincial labour legislation and existing collective craft associations provided only rudimentary employment protection. Some workers, such as carpenters in the building and construction trades, challenged employers in the Vancouver area, but unions in the shipyards were less organized.²¹ Owners and managers defended the status quo, which conferred much control on the companies regarding hiring and employment. Shipyard employees, small in number and divided by craft orientation, were frequently known to supervisors by face, name, and skill proficiency. Irrespective of skilled trade, the work dress typically consisted of a cloth cap and overalls or everyday men's clothing. The early war shipyard, little changed from pre-war norms, constituted a remarkably intimate workplace.

The work environment conformed to the production processes that were prevalent in BC shipbuilding. Most techniques had been imported from elsewhere and then adapted to local conditions and available means. Given the strong emphasis on ship repair, a great deal of ship construction was conducted on marine railways, a mechanical apparatus for hauling ships out of the water. One-off ship orders allowed the employment of multi-use equipment, a better investment for companies that were carefully watching profit margins and operating expenses. Since wooden construction still outpaced steel hull forms, carpenters, shipwrights, and caulkers were in highest demand. Boilermakers, machinists, and iron workers typically fabricated and fit propulsion and auxiliary machinery into ships. Inside the shipyard, shops and specialized buildings housed

¹⁹ J.S. Marshall, Yarrows corporate history, April 1964, BCA, f. 33, ms-1241. Strike return BC Marine Railway Co. Ltd., 26 May 1913, LAC, RG 27, reel T-2690, vol. 302, f. 69.

²⁰ "Wallace Shipyards Limited, North Vancouver, BC annual report, 31 January 1914," NVMA, fonds 27-Versatile Pacific, box 82.

²¹ James Conley, "Open Shop' Means Closed to Union Me: Carpenters and the 1911 Vancouver Building Trades General Strike," *BC Studies* 91-92 (1991-92): 142-47.



Figure 1. Workers in the pipe shop at Wallace Shipyards. The skilled shipyard worker in British Columbia was typically male with foreign and Canadian practical experience in the industrial field. *Source:* North Vancouver Museum and Archives, 27-714.

forges, industrial machinery, and larger tools powered by pneumatic or electrical means.²² From the supervising foremen downwards, employees identified with those of similar skill and occupation

By 1916, near collapse of export markets for British Columbia's commodities, in particular lumber, created a sense of crisis among business and manufacturers. The First World War interrupted trade patterns and maritime routes around the globe. Many commercial ships that had previously plied BC waters were converted for naval service, taken up for military transport duties, or redirected elsewhere for the war effort. Customers and shippers were left with little or no means to transport the commodities accumulating in storehouses and on wharves, even if

²² William H. Thiesen, *Industrializing American Shipbuilding: The Transformation of Ship Design and Construction, 1820-1920* (Gainesville: University Press of Florida, 2006), 189-91.

demand suddenly came back.²³ Companies were motivated to secure as much business as possible.

Manufacturers and mill owners increasingly called upon elected provincial and federal political representatives to take positive steps to get the BC economy moving again. Harry Stevens, a prominent member of Parliament for Vancouver Centre and tireless booster of British Columbia's industrial potential, believed that his city and the province were destined to be a major shipbuilding centre.²⁴ The requirement, Stevens and others argued, was clear policy and public monies from government to entice private companies into shipbuilding. The idea gained little traction at the Dominion government level, but provincially, the new premier, William Bowser, became a keen proponent.²⁵ Bowser, in his capacity as the province's attorney general, had led several delegations to Ottawa in connection with gaining war contracts. He had succeeded the uninterested Richard McBride in a climate of declining Conservative popularity and growing allegations of scandal and business improprieties.²⁶ Bowser's bid to retrieve his own political party's fortunes, improve economic conditions, and get elected with a clear mandate included a comprehensive plan for industrial development, which included shipbuilding.

The faith Bowser placed in shipbuilding to achieve an economic turnaround in British Columbia was hardly universal. The Conservative premier, by background and personal connection, was predisposed towards seeking business solutions to the province's ills. When Alfred Wallace set up his North Vancouver shipyard in 1905, the first meeting was held in Bowser's law firm office and he was appointed vice-president with shares in the company.²⁷ Bowser overestimated the appetite for providing public subsidies to shipbuilders, even among business leaders and those most associated with industry. A committee tasked the previous year with looking into prospects for stimulating shipbuilding received replies to a questionnaire sent to interested parties. The responses were split almost evenly between wooden and steel ship construction. One

²³ Kenneth S. Mackenzie, "C.C. Ballantyne and the Canadian Government Merchant Marine, 1917-1921," *Northern Mariner/Le marin du nord* 2, 1 (1992): 2-3.

²⁴ Henry Stevens to J.D. Hazen, 4 July 1916, LAC, MG 27 III B9, Henry Stevens, vol. 180, f. "Marine and Fisheries July-Oct 1916."

²⁵ "The Question of Ship-Building," LAC, RG 13 A-2, vol. 203, f. 1916-985; *British Columbian*, 4 January 1916; George Foster to T. Gibson, 12 April 1916, LAC, MG 27 II D7, George Foster, vol. 20, f. 2764.

²⁶ Patricia E. Roy, *Boundless Optimism: Richard McBride's British Columbia* (Vancouver: UBC Press, 2012), 298.

²⁷ Minutes of meetings digest Burrard Dry Dock, 10 August 1905, NVMA, fonds 27-Versatile Pacific, box 47.



Figure 2. Premier William Bowser encouraged shipbuilding in the province by enacting legislation in 1916 extending subsidies and loans to private companies. *Source:* City of Vancouver Archives, AM 54-S4 Port P1066.

respondent stated: “My advice to the Government is to have nothing to do with the building or operation of ships of any description for mercantile purposes. The present shortage of tonnage is not likely to last for any great length of time, and the probability is that by the time any vessels are built, rates will have dropped to such a large extent that tonnage constructed at present prices would have difficulty in obtaining a fair remuneration for the capital invested.”²⁸ In other words, there was little consensus with regard to what to do in general, and there was a fair argument to wait until the end of hostilities.

Instead, Bowser decided that immediate action was required and drew his own conclusions. A bill introduced to the provincial legislature provided (1) loan guarantees and subsidies to shippers for ocean-going ships carrying loads from the province and (2) financial aid to existing and prospective firms engaged in shipbuilding.²⁹ The proposed legislation gave preference to neither wooden nor steel shipbuilding. The organization representing BC shippers, strident in calls for assistance, expressed its doubts: “While sympathizing with the desire of the Government to encourage Shipbuilding and Shipowning and the Lumber industry in B.C., the Shipowners Association feel that

²⁸ Ernest Beasley to C.E. Tisdall, 18 January 1916, BCA, GR 1508, General Executive, box 2, f. 2.

²⁹ *British Columbian*, 6 May 1916.

the present Bill will not carry out this intention. They believe that the whole matter should be dealt with by the Dominion Government in co-operation with the Imperial Authorities, and not by a thinly populated Province, burdened by a heavy debt.”³⁰ British Columbia simply could not afford to offer extensive public subsidies to private business (and Bowser’s friends) because shipbuilding was more properly a national concern and needed to be seen in the context of the war effort. In London, the British soberly concluded: “The proposals of the British Columbia Govt resolve themselves into the form of a bounty and would most probably fail in time when countervailing duties were imposed by the States affected.”³¹ After the bill passed the legislature and became law, Bowser campaigned on his economic platform in the November 1916 provincial election and lost badly to the Liberals under Harlan Brewster. In the end, not even the electorate was swayed by arguments for economic development through stimulus to shipbuilding and manufacturing.³² Bowser, however, remained opposition leader in the provincial legislature and championed an aggressive economic and industrial policy to hold the Liberals to account.

The British Columbia Shipping Act, 1916, in effect orphaned upon losing its main backer, remained in force. Actual payment of subsidies and loans was limited to twenty-five ships.³³ Business interests considering entry into the industry nevertheless envisioned suitable opportunities to make money fast and to get the provincial government to cover part of any new ventures. The legislation chiefly signalled to the rest of Canada that British Columbia was serious about promoting shipbuilding for commercial purposes. Financiers from eastern Canada toured existing shipyards and new start-ups, eager to place orders for wooden schooners suitable for the lumber trade. Wallace Shipyards bought an adjacent parcel of land for layout of building berths to construct three schooners, later increased to six, under contract from the Canadian West

³⁰ “Minutes of Meeting of Shipowners Association of BC held at 530 Seymour St. Vancouver, May 12th, 1916, at 8 p.m.,” City of Vancouver Archives (hereafter cvA), AM 279, Shipping Federation of British Columbia, 517-G-3, f. 1.

³¹ “Summary Canadian shipbuilding subsidies,” 19 June 1916, United Kingdom National Archives (hereafter UK/NA), MT 23/664/T95471/1916.

³² Adam Coombs, “For the Public Good: The Conflict over Waterfront Property and Economic Development in North Vancouver, 1905-1916,” paper presented at BC Studies Conference, 3 May 2013, New Westminster.

³³ British Columbia Shipping Act, S.B.C. 1916, chap. 57; House of Commons order, 13 March 1916, LAC, RG 42 B-1, vol. 255, f. 37491; Rick James, “Staying Afloat: Saving BC’s Lumber Industry by Shipbuilding,” *BC Historical News* 29, 4 (1996): 20.

Coast Navigation Company.³⁴ Cameron-Genoa Shipbuilders Limited, a new company leasing land on Victoria's Inner Harbour, received orders for three more schooners. The New Westminster Construction and Engineering Company, another newly formed corporate entity, leased First Nations reserve lands on Poplar Island in the Fraser River from the Dominion government to erect a shipyard, on rumour of a two-schooner contract.³⁵ Promise of subsidies from the provincial government created demand for shipbuilding and inaugurated a scramble for creation and expansion of capacity, one shipyard at a time.

Entrants into the shipbuilding field looked forward to growing business and profits by hiring new workers and adding to plant facilities. The Admiralty's wartime powers to requisition any merchant ship of Canadian registry, either in the midst of construction or once completed, represented a significant disincentive to shipbuilding on the part of Canadian shippers and owners because they risked losing the capital invested in ships and any revenue and profit from commercial operation – that is, until, in late 1916, the Canadian government requested and received an eighteen-month grace period.³⁶ Commercial contracts gave way to the wartime procurement activities of the Imperial Munitions Board.

IMPERIAL MUNITIONS BOARD CONTRACTS

From early 1917 onwards, the dominant influence on the shipbuilding scene in British Columbia was the Imperial Munitions Board (IMB). This wartime procurement arm of the British government and British ministries of munitions and shipping operating in Canada was created in the wake of scandal and purported improprieties associated with the handing out of shell contracts by Minister of Militia Sam Hughes and a private committee of business associates, the subject of investigation

³⁴ Contract between Canada West Coast Navigation Company and Wallace Shipyards Limited, 27 July 1916, NVMA, fonds 27-Versatile Pacific, box 48, f. A7-12; Francis Mansbridge, *Launching History: The Saga of Burrard Dry Dock* (Madeira Park, BC: Harbour, 2002), 21-22; R.H. Brand to Secretary Ministry of Shipping, 19 March 1917, LAC, MG 27 II G6, Brand, reel A-831, f. 9(2).

³⁵ *British Columbian*, 29 May 1916; Regular meeting, 19 July 1916, CVA, AM 440, New Westminster Board of Trade, reel M 8-2; *Debates of House of Commons*, 7-8 George V (1 June 1917); "List of Leases of Water Lots in the Harbour of New Westminster," 13 July 1920, LAC, RG 42 B-1, vol. 124, f. 38964.

³⁶ Henry Lambert to Secretary Admiralty, 9 August 1916, UK/NA, MT23/595/T91269/1916. Requisitioned ships were converted into auxiliary merchant cruisers, troop transports, and fleet logistics ships, a few of which (e.g., HMS *Orbita*, HMS *Otranto*, and HMS *Avoca*) operated and refitted in North Pacific waters off the BC coast. See Joseph Maclay to Rosslyn Wemyss, 7 January 1918, UK/NA, MT 25/3/54193/1917.

by a royal commission.³⁷ The IMB's chairman was Joseph Flavelle, a successful Toronto businessman with a personal fortune in meatpacking from the William Davies Company and other business pursuits. Flavelle introduced sound business practices into the board's operations, and he hand-picked persons of enterprise and ability to occupy responsible positions overseeing and executing wartime contracts for munitions, ships, and aircraft manufacturing. "I remember that towards the end of 1916 the Board of Trade actually notified me officially that they did not think it worthwhile to get any ships built in Canada; ultimately after the formation of the Ministry of Shipping we persuaded them to place orders there," Robert Henry Brand, the IMB's London representative and liaison with British government ministries, later told Winston Churchill: "The success achieved is mainly due to the very great organising ability and extraordinary capacity for work of Sir Joseph Flavelle himself, to whom the British Government, in my opinion, owe a very great debt indeed."³⁸ By dollar value and employment numbers, shipbuilding represented a significant part of the IMB's efforts, particularly in the last two years of the war.

Flavelle, at times, exhibited a distinct bias for central Canada that disadvantaged other regions. Senator Stevens, after one meeting, found the IMB chairman's "sweeping and damaging attacks on British Columbia" prejudicial to manufacturers and shipbuilders located in the province, an accusation that Flavelle flatly denied.³⁹ British Columbia's representatives no doubt had to argue and fight for equal consideration, though the province was certainly not overlooked – quite the opposite.

³⁷ Peter Rider, "The Imperial Munitions Board and Its Relationship to Government, Business and Labour, 1914-20" (PhD diss., University of Toronto, 1974), 66-69; C.H. Jenkinson, "History of the Canadian Shell Committee August 1914-November 1915," 11 June 1919, LAC, MG 30 A16, Flavelle, vol. 55, f. 2; *Royal Commission on Shell Contracts Report* (Ottawa: King's Printer, 1916), UK/NA, MUN 4/216.

³⁸ R.H. Brand to Winston Churchill, 14 November 1918, LAC, MG 27 II G6, Brand, reel A-828, f. 4a; Keith Neilson, "R.H. Brand, the Empire and Munitions from Canada," *English Historical Review* 126, 523 (2011): 1430-33; "Construction of Ships in Canadian Yards," 5 December 1916, LAC, MG 30 E70, Alexander Johnston, reel M-61, f. 3.

³⁹ Henry Stevens to Joseph Flavelle, 20 August 1917, LAC, MG 30 A16, Flavelle, vol. 8, f. 91; Joseph Flavelle to Thomas White, LAC, MG 27 II D18, Thomas White, vol. 16, f. 68(3). Flavelle expressed his frustrations in private: "This British Columbia situation is one which is both unfortunate and unworthy. The manner in which advantage is taken of the official position which we have to shipbuilding and the production of spruce is unfortunate to a degree. They are like a hungry pack of wolves, and appear to be without reasonable sense of balance or proportion. The business which the Board has given to British Columbia has changed the Province from being in great anxiety and trouble concerning business, into prosperous activity. Not only do they exact these excessive wages and charges, but all sorts of people seem to delight in representing that there is graft everywhere in the operations of the Board." See Joseph Flavelle to F. Perry, 17 April 1918, LAC, MG 30 A16, Flavelle, vol. 44, f. "Perry"(2).

Shipyard employment was higher in British Columbia than anywhere else in Canada. The minister of finance made a special appropriation of \$10 million to the board for advancing wooden shipbuilding.⁴⁰ Unforeseen wartime demands for large numbers of ships provided the main impetus for more shipbuilding business coming to British Columbia.

The surge of shipbuilding in British Columbia on behalf of the IMB resulted from a constellation of external factors. The Germans started an inshore submarine campaign around Great Britain in an attempt to strangle imports necessary for the prosecution of the war effort.⁴¹ Merchant ship losses mounted. The trend caught the British unprepared because most shipbuilding capacity was devoted to the construction of warships for the Royal Navy.⁴² Redirection of British shipyards to merchant ship construction was disruptive to much needed production, took time, and, of course, entailed reductions in naval building, particularly of destroyers and escorts desperately needed to combat the submarine menace. Imperial officials surveyed industrial and shipbuilding potential available in other parts of the British Empire to fill the gap. The Ministry of Munitions, through the IMB, canvassed existing Canadian firms capable of building merchant ships of fifteen hundred gross tons or above and that could move at better than ten knots.⁴³ Private commercial shipyards in Montreal, Toronto, and Vancouver that were already working on orders for selected foreign customers showed some interest. The preferred solution was to establish a large emergency wartime shipyard with public funds somewhere in Nova Scotia on the Atlantic coast, but limitations of labour, climate, and timelines interfered.

The British reworked, simplified, and standardized the design of merchant ship types to facilitate faster construction by the widest possible number of firms, whether they possessed direct experience in shipbuilding or not. The Ministry of Shipping decided upon several different types of standard ship designated by alphabetical letter and

⁴⁰ Imperial Munitions Board (hereafter IMB) Ottawa, to R.H. Brand, 20 April 1917, B 2913, UK/NA, MUN 4/5474, vol. 1.

⁴¹ "Tonnage and Cargoes 1917," Leo Money, 30 April 1917, UK/NA, CAB 21/35.

⁴² "Merchant Shipbuilding," 10 May 1916, UK/NA, MT 9/1106; "Shipbuilding," Joseph Maclay to M.P.A. Hankey, 3 May 1917, UK/NA, CAB 21/34; Hugh Peebles, *Warshipbuilding on the Clyde: Naval Orders and the Prosperity of the Clyde Shipbuilding Industry, 1889-1939* (Edinburgh: John Donald, 2000), 90.

⁴³ Ministry of Munitions to Imperial Munitions Board, 27 December 1916, M 1401, UK/NA, MUN 4/5475 vol. 1; "Re Ship-building," Joseph Flavell to R.H. Brand, 28 March 1917, LAC, MG 27 II G6, Brand, reel A-829, f. 6b.

based upon the slow cargo tramp steamer.⁴⁴ Canadian shipyards were keen to build these simply designed ships and mostly replied positively to government offers. The IMB proved willing to pay the higher differential in costs between Canadian and British production, to a certain point. Entry of the United States into the war on the side of Canada and Great Britain on 6 April 1917, in part due to Germany's adoption of unrestricted submarine warfare and flagrant disregard for neutrality, tapped into huge industrial and manufacturing resources that were made available and coordinated with Canadian endeavours.⁴⁵ The British looked to North America to deliver ships in quantity for the common war effort. British Columbia benefited directly from the IMB's sudden interest in procuring merchant ships as fast as possible.

Flavelle and the IMB acted quickly to set up adequate administrative machinery and to place definite orders in British Columbia. Peter Butchart, a Vancouver Island cement magnate renowned for his wife's gardens, was recruited to organize British Columbia's wooden shipbuilding program:

With regard to the administration of the [Imperial Munitions] Board in British Columbia, Mr. Butchart, who is the business head of it and who is giving his services to the Board without remuneration, is a very well known successful Canadian manufacturer who had practically retired from business. British Columbia has not many important industrial undertakings and there are not many first class business men in it. Mr. Butchart is one of the few and probably the only one who would have had the leisure to give his whole time to the work.⁴⁶

In a short period of time, Butchart and his staff distributed IMB contracts to private companies eager to get into wooden ship construction. Those firms, typically associated with sawmills or general engineering

⁴⁴ "Standardisation of Merchant Ships," 24 March 1916, UK/NA, MT 9/1106; "Extract from Letter from Shipping Controller to Prime Minister of 31st July, 1917," UK/NA, MT 25/44/45600/1920. Murphy, "British Shipbuilding," 38-39; Ministry of Shipping to High Commissioner for Canada, 17 January 1918, LAC, RG 25 B-1-b, vol. 242, f. ME 5/36.

⁴⁵ "Report on Shipbuilding Situation," Controller's Department Admiralty, 6 July 1917, UK/NA, CAB 21/147.

⁴⁶ F. Perry to James Esplen, 22 August 1917, UK/NA, MUN 4/5474, vol. 1. Butchart was managing director of the Vancouver Portland Cement Company, though he originally came from Owen Sound, Ontario, where he was involved in several undertakings with business partners, who highly recommended him: "from my close acquaintance with Mr. Butchart and my intimate knowledge of his success in the cement manufacturing business, I would have every confidence in the ability of himself and his friends to successfully carry out their undertaking." See E.R. Wood to Joseph Flavelle, 18 January 1916, LAC, MG 30 A16, Flavelle, vol. 50, f. "Wood." See also list of IMB officials recommended for honours and awards, F. Perry, 26 March 1918, UK/NA, MUN 4/5387.

enterprises, were newly formed, possessed lots of enthusiasm (if little shipbuilding know-how), and required financial assistance for facilities owned outright by the IMB. Relations between the private companies and procurement officials also included close guidance and advice on following standardized designs agreed upon by British and American authorities.⁴⁷ Colonel William Gear, a partner in the Montreal-based Robert Reford Company, became the IMB's director of steel construction and had an office and staff in distant Ottawa.⁴⁸

The selection of prospective shipyards to build steel merchant ships involved much more deliberation and consultation with British authorities than did the selection of shipyards to build wooden ships. Of the three existing shipyards suitable for such work, only one was chosen: Wallace Shipyards in North Vancouver.⁴⁹ Indeed, all BC wartime steel shipbuilding was eventually concentrated in the Vancouver area. A bridge builder and structural steel fabricator, John Coughlan and Sons Limited, established a large plant well-equipped with building ways, cranes, and gantries on the foreshore of False Creek, all designed and laid out for volume production. Inspection services were provided by consulting engineers and Lloyd's Corporation agents.⁵⁰ Once so designated, the stable of shipyards under the IMB's direction added to facilities and hired workers to meet stipulated schedules in signed contracts.

For the IMB and its local representatives, the wooden shipbuilding program posed a formidable challenge. From a standing start, it was contracted to deliver nearly thirty ships, of a type and size never before built in British Columbia, in less than a year.⁵¹ The shipyards that were expected to achieve this feat were brand new, possessed almost no first-hand experience in shipbuilding, and were confined largely to building hulls instead of the complete outfitting of engines and other

⁴⁷ "Memorandum of Understanding between United States Shipping Board and Imperial Munitions Board of Canada in relation to Construction of Wooden Vessels on Pacific Coast," F. Perry to R.H. Brand, 26 April 1917, IMB 706, UK/NA, MUN 4/5474, vol. 1.

⁴⁸ "Summary History of IMB Shipbuilding, 22 June 1923, LAC, MG 30 A9, Gear, vol. 12; IMB Ottawa to Ministry of Munitions, 12 May 1917, B 3128 UK/NA, MUN 4/5475, vol. 2.

⁴⁹ Yarrows was invited to bid on merchant shipbuilding, but would not accept the fixed cost per ton offered by the British through the IMB. See IMB Ottawa to Ministry of Munitions, 7 June 1917, SB 27, UK/NA, MUN 4/5475, vol. 2. Prince Rupert Dry Dock was entirely left out due to shortages of steel plates and means to transport them as well as there being an insufficient skilled labour supply in the vicinity. See IMB Ottawa to R.H. Brand, 12 July 1917, SB 58, LAC, MG 30 A9, Gear, vol. 1 pt. 1.

⁵⁰ James Esplen to John Esplen, 22 June 1917, UK/NA, MUN 4/5474, vol. 2. Captain Henry Mowatt, a marine engineer connected with the Canadian Pacific Railway's maritime service, performed inspection on the shipbuilding in the Vancouver and Victoria areas on behalf of the IMB. See Inspection returns, September 1918, CVA, AM 135, Henry Mowatt, 512-C-8, f. 3.

⁵¹ IMB Ottawa to R.H. Brand, 5 June 1917, SB 23, LAC, MG 30 A9, Gear, vol. 3, pt. 1.

necessary equipment. The six selected companies were certainly a mixed lot: the Foundation Company near Victoria was the affiliate of an American parent company engaged in wartime shipbuilding; nearby Cameron-Genoa Shipbuilders Limited was associated with lumber manufacturing and a sawmill; William Lyall Shipbuilding Company, taking its name from a Montreal owner, leased Wallace's new North Vancouver yard where the wooden schooners had been built; Western Canada Shipyards Limited (later taken over by Northern Construction Company Limited) was located on Vancouver's False Creek on land leased from the Columbia Estate Company for eighteen months at five hundred dollars per month and payment of city taxes; New Westminster Construction and Engineering Company was the creation of local shipping, harbour, and boat-building interests; and Pacific Construction Company, up the Fraser River at Coquitlam, was a complete unknown.⁵² The IMB's policy was first to contract up to four standardized twenty-eight-hundred gross ton ships at each of the shipyards, and then the best performing companies would receive follow-on contracts for more construction.

The recruitment and hiring of workers to build wooden ships was left to the individual companies. Anywhere from two hundred to five hundred men were required, depending upon the stages of construction. Only a small number could be found who had any experience building ships or boats, and then they were in high demand for supervisory functions. John Hastie, president of New Westminster Construction and Engineering, observed that house carpenters with previous experience in the building and construction trades could transition, given some extra training, into wooden shipbuilding in six weeks (more or less). J.W. Troup, Butchart's assistant director for wooden shipbuilding, wrote to officials in Ottawa: "The labor costs are high, and will be high throughout the work, partly on account of inefficiency, and partly on account of the fact that it is looked upon as a Government job, and unfortunately it seems impossible to create any enthusiasm in the work."⁵³ Carpenters may have enjoyed the reputation as the aristocrats of skilled labour, but caulkers were in shorter supply and attracted higher wage rates. Caulkers sealed the seams

⁵² IMB Ottawa to R.H. Brand, 4 July 1917, SB 47, LAC, MG 30 A9, Gear, vol. 3, pt. 1; J.W. Nicholls to Joseph Flavelle, 5 October 1917, LAC, MG 30 A16, Flavelle, vol. 42, f. "Nicholls."; J.W. Nicholls to Joseph Flavelle, "Wooden Shipbuilding," 5 November 1917, LAC, RG 42 B-1, vol. 272, f. 39656, pt. 1. Foundation and the Lyall organization, familiar to procurement officials in other munitions work, had wanted to set up shipyards in eastern Canada but "transferred their activities to British Columbia at request of the [Imperial Munitions] Board." See James Esplen to R.H. Brand, 13 July 1917, SB 57, UK/NA, MUN 4/5475, vol. 2.

⁵³ J.W. Troup to J.W. Nicholls, 3 April 1918, UK/NA, MUN 4/5474, vol. 2.



Figure 3. Western Canada Shipyards, located on Vancouver's False Creek, was one of six shipyards engaged in wartime wooden shipbuilding in British Columbia. Facilities were financed and owned by the Imperial Munitions Board. *Source:* City of Vancouver Archives, 27-17.

between planks of wood to make the hull watertight. A good caulker could be paid a dollar or more a day than carpenters.

Good management, orchestration of labour functions, efficiency of yard layout, and timely delivery of wood supplies from sawmills dictated progress on individual ships. Given the makeshift nature of the entire wartime wooden shipbuilding program, it is perhaps remarkable that delivery of hulls to reasonable quality occurred at all. After a tour of the Pacific coast, James Esplen, the British Ministry of Shipping technical expert who handled overseas procurement in North America, criticized the engine installations in particular.⁵⁴ This type of wooden ship was an expedient not meant to last beyond wartime duties. Steel ships were a different order of magnitude.

Steel ships built in British Columbia to standardized wartime designs necessitated wide-ranging approaches to production, inventory control, and workforce management for the principal shipyards involved. Wallace Shipyards, once it decided on a full transition from wooden to steel shipbuilding, held a May 1916 commercial contract to construct a 3,046 gross ton steamer for a Japanese owner.⁵⁵ During building, British imperial authorities requisitioned the hull and allocated it to James Chambers and Company of Liverpool. This vessel, launched in May 1917 as the *War Dog*, was the first IMB ocean-going steel cargo ship delivered in British Columbia. This job gave Wallace a head start in getting the shipyard

⁵⁴ James Esplen to Joseph Flavelle, 3 April 1918, LAC, MG 30 A16, Flavelle, vol. 13, f. 137; James Esplen to John Esplen, 3 April 1918, UK/NA, MUN 4/5474, vol. 2; "Additional 12 Wooden Vessels," IMB Ottawa to R.H. Brand, 10 June 1918, SB 516, LAC, MG 30 A9, Gear, vol. 3, pt. 4; "Overseas Ship Purchase Department - Organisation Abroad," UK/NA, 13 June 1917, MT 25/56/30645/1921; Joseph Flavelle to R.H. Brand, 11 April 1918, LAC, MG 27 II G6, Brand, reel A-828, f. 4b.

⁵⁵ Contract between Kishimoto Kisen Kabushiki Kaisha Company and Wallace Shipyards Limited, May 1916, NVMA, fonds 27-Versatile Pacific, box 48, f. A2-12; James Esplen to Ministry of Munitions, 24 April 1917, B 2945, UK/NA, MUN 4/5475, vol. 1; R.H. Brand to Joseph Flavelle, 13 February 1917, LAC, MG 27 II G6, Brand, reel A-829, f. 6c.

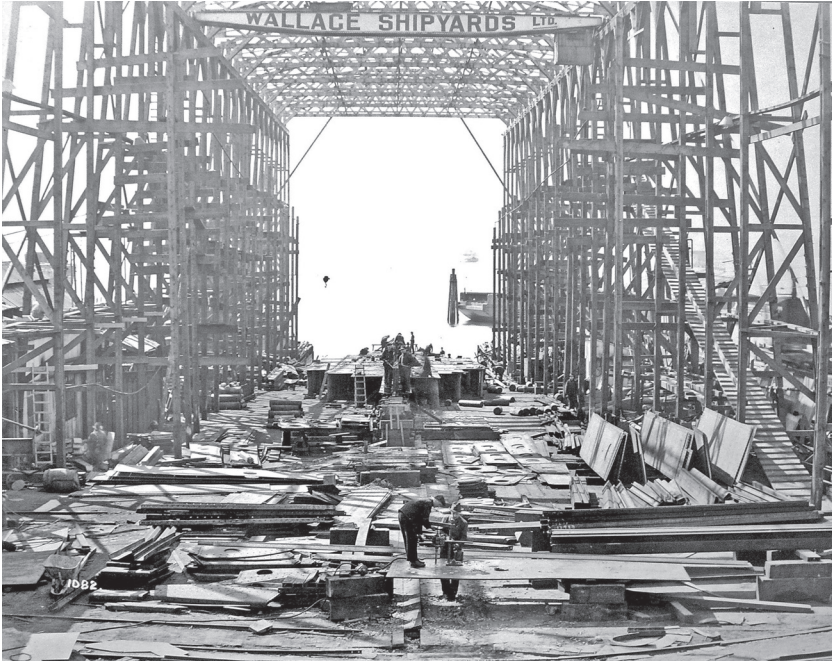


Figure 4. The marine way at Wallace Shipyards on the north shore of Burrard Inlet, where construction begins on the forty-six-hundred gross ton *War Storm*. Source: North Vancouver Museum and Archives, AM 54-S4-3 PAN N248B.

facilities ready for expanded production. A marine way with scaffolding was erected, and additional fabrication and storage buildings were put on the property served by railway spurs.⁵⁶ The number of shipyard workers grew from a few hundred to over a thousand. Prevailing wage rates were paid and had to stay competitive to retain workers. Foremen earned from \$200 to \$300 per month; Elwood Ellis, the yard superintendent, received \$450 monthly, as of April 1917.⁵⁷ Geography and the North Vancouver location constrained Wallace's ambitions. In spite of land purchases, the shipyard's footprint remained smallish, and unless living on the North

⁵⁶ Ledger entries, Wallace Shipyards Plant No. 1 Yard, 1917, NVMA, fonds 27-Versatile Pacific, box 52; "Wallace Offer of Two Steel Ships," 27 December 1917, SB 271, LAC, MG 30 A9, Gear, vol. 3, pt. 1.

⁵⁷ Entries, 1917, Item 1023 Wallace Shipyards Payroll Ledgers, NVMA. By way of comparison, Clarence Wallace, Alfred Wallace's son, made \$150 per month in the non-supervisory role of purchasing agent after returning from war service at the front. See "Interview with David Wallace at his apartment 605-54th Vine St., March 17, 2000," NVMA, fonds 138 Francis Mansbridge, box 1, ser. 1-1, f. 13.

Shore, workers had to travel to and from the shipyard by ferry across the harbour.

Coughlan and Sons, at least in terms of size and accessibility, was much better advantaged than Wallace Shipyards. The False Creek lands were large and expansive enough to fit four building berths side by side. Travelling cranes and overhead conveyers transferred steel plates and components from racks alongside to the berths. Coughlan's wartime shipyard, once finished, was the largest and newest in Canada for the building of steel ships. Like Wallace, Coughlan and Sons first started with a contract from the Norwegians (for commercial construction of steel cargo vessels) that was taken over by the British Shipping Controller and completed through the IMB.⁵⁸ The production process incorporated considerable prefabrication of forms and sequenced assembly. The twenty-eight hundred men eventually recruited into the shipyard came with all skill levels.⁵⁹ Women were not extensively employed in BC shipyards during the First World War. Coughlan only employed females (with previous experience) in the drafting department: they did not work in the yard.⁶⁰ Tasks were broken down and gangs formed under the direction of experienced lead men or supervisors. During the day and night the company ran three continuous shifts.⁶¹ Pay was generally low; however, as their skills improved through repetitive experience, workers came to want wages comparable to those paid at Wallace and other established shipyards working in steel. They were not content for long to be cheap labour.

Shipbuilding in British Columbia never truly achieved quantity production during the First World War. The IMB backed the philosophy by placing contracts for larger numbers of steel merchant ships with Coughlan rather than with Wallace, whose shipyard still operated under certain disadvantages.⁶² Whatever pretence it had to standard wartime

⁵⁸ "Construction of Ships in Canadian Yards for Norwegian Account," 1 December 1916, LAC, RG 42 B-1, vol. 260, f. 37869; Long to Governor General, 20 March 1917, LAC, MG 30 E70, Johnston, reel M-61, f. 3; Joseph Flavelle to F. Perry, 25 October 1917, LAC, MG 27 II G6, Brand, reel A-831, f. 9(2).

⁵⁹ Marine Retirees Association, Marine and Boilermakers Industrial Union No. 1, *A History of Shipbuilding in British Columbia* (Vancouver: College Printers, 1977), 15.

⁶⁰ J. Coughlan and Sons to Deputy Minister of Marine, 4 April 1918, LAC, RG 42 B-1, vol. 282, f. 45304.

⁶¹ "Re Coughlan Shipbuilding Company," IMB Ottawa to R.H. Brand, 3 May 1918, SB 458, LAC, MG 30 A9, Gear, vol. 3, pt. 3; Edward Fitzgerald to Joseph Flavelle, 3 May 1918, LAC, MG 30 A16, Flavelle, vol. 32, f. "Fitzgerald"(2).

⁶² Imperial Munitions Board Shipbuilding Department, contract with J. Coughlan and Sons "Order No. S.B. 767 for 4 - Only Steel Steamships. Yards Nos. 7, 8, 9 and 10," LAC, MG 30 A9, Gear, vol. 9, pts. 1 and 2; Daryl Logan, "The Influence of World War I Shipbuilding in Vancouver," unpublished graduate essay, 1953, 8, UBC.

TABLE 2

Comparative cost per ton for steel merchant shipbuilding during the First World War

SHIP AND LOCATION OF PRODUCTION	COST PER DEADWEIGHT TON
8,800 GT standard type built in Seattle	\$183.63 US
8,000 GT standard type built in Great Britain	£ 33.50 GB
7,000 GT built Canadian Vickers, Montreal	\$ 195.00
3,500 GT built Polson Iron Works, Toronto	\$ 157.00 and \$ 182.00
3,500 GT built General Electric Canadian, Toronto	\$ 205.00
3,500 GT built Welland Shipbuilding Co., Welland	\$ 185.00
3,400 GT built Midland Dry Dock Co., Midland	\$ 165.00
1,800 GT built Nova Scotia Steel and Coal Co., Glasgow	\$ 322.00
Wallace Shipyards, North Vancouver (4,500 GT and 4,600 GT)	
<i>War Dog</i>	\$ 200.00
<i>War Power</i>	\$ 160.00
<i>War Storm</i>	\$ 205.00
John Coughlan and Sons, Vancouver (8,800 GT standard type)	
<i>War Camp</i>	\$ 162.50
<i>War Charger</i>	\$ 162.50
<i>War Chariot</i>	\$ 152.50
<i>War Chief</i>	\$ 167.50
<i>War Noble</i>	\$ 167.50
<i>War Cavalry</i>	\$ 200.00
<i>War Convoy</i>	\$ 200.00
<i>War Column</i>	\$ 200.00
<i>War Company</i>	\$ 200.00

Source: LAC, RG 42 B-1, vol. 289, f. 47526; UK/NA, MUN 517343.

ship designs, each Canadian shipyard basically built to its own strengths and capacity. The number of ships was actually quite modest. Wallace Shipyards delivered two more forty-six-hundred gross ton steel merchant ships in 1918.⁶³ Coughlan and Sons constructed nine eighty-eight-hundred gross ton steel ships, essentially modified from a standard American wartime design, by tonnage the largest merchant ships built in Canada during the First World War and the most by number in a single shipyard. As Table 2 indicates, the cost per ton for BC-built merchant ships was

⁶³ Aitken Tweedale, ed., *Shipbuilding and Shipbuilders of British Columbia with Allied Industries* (Vancouver: Tower Publishing, 1918), 3-4.

competitive with those built in eastern Canada, though significantly more than those built in Great Britain, where, on average, labour costs were 25 percent lower. The upward trend in cost of later ships was attributable to higher labour, material, and transportation costs on the Pacific coast.

Shortages in materials and changing priorities affected wartime shipbuilding in British Columbia. Supply of steel plates and other key components from the United States restricted the pace of construction and the overall number of ships that could be ordered and built. Steel, always in high demand during wartime, was a major constraining factor in the IMB's program. The Dominion government informed the Shipping Controller that no more wooden ships would be produced in Canada and that steel shipbuilding would be taken over and financed directly.⁶⁴ By 1918, the submarine threat was passing and output from British shipyards was steadily increasing. The British shipbuilding industry looked towards return to pre-eminence in the postwar period after the end of abnormal war conditions.⁶⁵ As Canada vainly pressed the British for decisions about follow-on orders in 1919, shipbuilding activities in North America gradually began to wind down, months before the end of the war.

AMERICAN COMPARISONS

The situation facing shipyards in British Columbia mirrored wartime shipbuilding developments in the United States. Even though the US Navy was relatively large and modern, American authorities instituted a crash program of emergency shipbuilding in 1917 and 1918 to provide small warships, escorts, and merchant ships for near- and medium-term requirements.⁶⁶ In Canada, the largest naval craft built for the Royal Canadian Navy during the First World War were trawlers and drifters, not destroyers or convoy escort sloops.⁶⁷ Excellent facilities for warship

⁶⁴ F. Perry to Joseph Flavelle, 31 January 1918, UK/NA, MUN 4/5474, vol. 2; "Memorandum Regarding the Construction of Ships in Canada submitted by the Minister of Marine and Fisheries for the Consideration of Council," 30 June 1917, LAC, MG 26 H, Borden, reel C-4379, vol. 177.

⁶⁵ "Shipbuilding One Year after the War," UK/NA, MUN 4/5385.

⁶⁶ William J. Williams, "Joseph Daniels and the US Navy's Shipbuilding Program during World War I," *Journal of Military History* 60, 1 (1996): 19-24; Michael Lindberg and Daniel Todd, *Anglo-American Shipbuilding in World War II: A Geographical Perspective* (Westport: Praeger, 2004), 58-62.

⁶⁷ R.H. Brand to Edward Carson, 25 January 1917, LAC, MG 27 II G6, Brand, reel A-83, f. 9(i); "Rough Description of Steam Drifter," C.B. Gordon to G.J. Desbarats, 31 January 1917, LAC, RG 24 D-1-a, vol. 5601, f. NSS 29-1-21, pt. 1. The destroyer was a high-speed warship suitable for fleet work, scouting and patrol, escort of merchant ships and troop transports, and close tactical actions against submarines. The First World War convoy sloop was a higher endurance warship constructed to resemble a merchant ship. See "Records of Warship Construction during the

construction at Canadian Vickers in Montreal and Yarrows in Esquimalt were underutilized. With provincial funds, Richard McBride had clandestinely bought two submarines from a builder in Seattle for coastal defence earlier in the war; and a private company assembled American-sourced submarines for export on the shore of Vancouver's Burrard Inlet when the United States was still technically neutral.⁶⁸

To the south, American destroyer, minesweeper, and submarine construction occurred in navy yards and selected private shipyards along the Pacific coast, under the direction and supervision of naval authorities. For merchant ships, the American government created the Emergency Fleet Corporation (EFC) of the United States Shipping Board, performing much the same functions as did the IMB with regard to shipbuilding – only on a much bigger scale.⁶⁹ This organization and its administrative staffs oversaw procurement of ships in the United States on behalf of the Americans, British, and other foreign governments participating in the war effort. Officials selected and encouraged private shipyards in Seattle, Portland, San Francisco, and Los Angeles that were suitable for the construction of merchant ships to standardized designs. US wartime shipbuilding on the Pacific coast was, by order of magnitude, much bigger, wider (encompassing both naval and merchant construction), and, in execution, arguably better coordinated than was its Canadian equivalent in British Columbia.

Wooden, steel, and even concrete ship construction pursued through the EFC were generally kept separate by designating yards to build in one medium or the other. In this the EFC was similar to the IMB. Shipyards in the US Pacific Northwest that constructed wooden vessels were typically associated with lumber mills or construction engineering firms and hired their own workforces, as was the case in British Columbia.⁷⁰ The private concerns were many in number and they were limited by size, under-

War, 1914-1918," Director of Naval Construction Department Admiralty, 31 December 1918, chaps. 13 and 15, UK/NA, ADM 1/8547/340; William Johnston, "The Royal Canadian Navy and the First World War," in Richard Gimblett, ed., *The Naval Service of Canada, 1910-2010* (Toronto: Dundurn, 2009), 30-37.

⁶⁸ Margaret Ormsby, *British Columbia: A History* (Toronto: Macmillan, 1976), 379-82; W. Kaye Lambe, "Building Submarines for Russia in Burrard Inlet," *BC Studies* 71 (1986): 8-9; Bill Lightfoot, *Beneath the Surface: Submarines Built in Seattle and Vancouver, 1909-1918* (Vancouver: Cordillera Publishing, 2005).

⁶⁹ William C. Mattox, *Building the Emergency Fleet: A Historical Narrative of the Problems and Achievements of the United States Shipping Board Emergency Fleet Corporation* (Cleveland: Penton Publishing, 1920).

⁷⁰ Fred Hopkins, "Emergency Fleet Corporation Ship Construction in World War I in the Pacific Northwest," *Northern Mariner/Le marin du nord* 4, 4 (1994): 17; Louis Hough, *A Fleet to Be Forgotten: The Wooden Freighters of World War One* (San Francisco: San Francisco Maritime Press, 2009).

taking what was essentially temporary wartime work for fixed profits. The EFC struggled with performance among the wooden shipbuilders and progressively shifted emphasis towards steel shipbuilding, where established and start-up shipyards could be engaged and expanded.⁷¹ Bethlehem Steel Corporation's Union Iron Works plant in San Francisco undertook both naval and merchant ship construction, in part by adding capacity in subsidiary yards at nearby Alameda and Hunter's Point.⁷² Los Angeles Shipbuilding and Dry Dock Company outperformed the requisitioned Craig Shipbuilding Company at Long Beach and a Western Pipe and Steel-affiliated yard, thereby gaining confidence with regard to the financing of additional building ways and further orders. San Francisco's Moore Dry Dock Company, a private shipyard with financial and management troubles, failed to meet expectations and was constrained by a tight geographic location that inhibited its ability to achieve efficiencies in production.⁷³ The Seattle Construction and Dry Dock Company in that city's main harbour likewise proved a chronic laggard due to management deficiencies, labour difficulties, and poor physical layout. The IMB, by comparison, benefited from two reasonably good shipyards devoted to steel shipbuilding in Vancouver, both of which were well-run and adequately financed. Wallace's financials, sometimes a concern for procurement officials, improved and its profit tripled from \$71,795.65 in 1917 to \$214,005.88 in 1919.⁷⁴ The best American shipyards, assessed according to progress and scale, were technically and managerially more proficient at producing ships in quantity at reasonable quality than were their Canadian counterparts, but they also consistently pushed ahead of their American peers elsewhere on the Pacific coast, the Atlantic seaboard, and the Gulf coast. Near the top was Skinner and Eddy Corporation in Seattle.

Skinner and Eddy turned conventional thinking about shipbuilding upside-down by adopting a different approach to labour relations. The

⁷¹ F. Perry to R.H. Brand, 1 June 1917, SB 19, LAC, MG 30 A9, Gear, vol. 3, pt. 1; C.B. Gordon to Joseph Flavelle, 7 May 1917, M 2239, UK/NA, MUN 4/5475, vol. 2.

⁷² Corporate booklet, *Bethlehem Shipbuilding Corporation Ltd., 1919*, 96-118. *A Century of Progress, 1849-1949* (San Francisco: Bethlehem Steel Company Shipbuilding Division, 1949), 16-17, Bancroft Library, University of California Berkeley, Berkeley.

⁷³ Miles Dawson to Charles Schwab, 30 July 1918, National Archives and Records Administration (hereafter NARA), RG 32, entry 164, box 7, f. 49(2); James R. Moore, *The Story of Moore Dry Dock* (Sausalito, CA: Windgate Press, 1994), 9-11.

⁷⁴ Wallace Shipyards Limited financial statements 1917 and 1919, NVMA, fonds 27-Versatile Pacific, box 82. Nicholls, during a visit to Vancouver from Ottawa, was "dubious about Wallace's financial condition. They are more capably managed than in the past but their old troubles are still hampering them." See J.W. Nicholls to Joseph Flavelle, 14 October 1917, UK/NA, MUN 4/5474, vol. 2.

company, incorporated in January 1916, was started by David Skinner and John Eddy, two local mill owners who dabbled in shipping. Through a combination of leased and purchased land and some financial assistance from the EFC, they constructed standard eighty-eight-hundred gross ton steel cargo ships on five building berths, seven of which were directly on British account. The initial workforce of eighty, of whom no more than twenty or twenty-five were skilled, expanded a hundredfold in little more than a year.⁷⁵ This one shipyard, at the height of production, employed roughly the same number of workers as did all BC shipyards combined. The foremen and supervisory staff were led by David Rodgers, among the most knowledgeable shipbuilding experts in the United States. Skinner, Eddy, and Rodgers set themselves a simple task: to build one type of ship as expeditiously as possible using innovative methods. Pre-ordering materials alleviated shortages, plant and equipment additions were integrated, and the whole production process was made more efficient. A remarkable rise in productivity from labour, however, was perhaps the greatest achievement. Skinner and Eddy workers drove more rivets and completed allotted tasks faster, on a collective and individual basis, than did workers at any other American shipyard. Although wage rates were supposed to be pegged at industrial scales in navy yards, Skinner justified paying 20 percent higher on the basis of consistently good work and intense competition for labour from nearby shipyards.⁷⁶ Boilermakers and machinists earned six dollars for an eight-hour day. The company, in turn, signed agreements with the American Federation of Labor and Seattle Metal Trades Council regularizing those higher wage scales and making the shipyard a closed shop, wherein only union members would be hired and employed. Management actively consulted and engaged workers in the production process and solved problems as they arose.

As procurement officials and inspectors observed, employees at Skinner and Eddy were well motivated, involved, and less prone to strikes and other work disruptions. The EFC, which initially condemned “giving in” to organized labour, came to be impressed by the results. Charles Schwab, the Bethlehem Steel baron appointed director general of shipbuilding, acknowledged that the approach appeared to promote industrial harmony in relation to war work and that it led to better

⁷⁵ Miles Dawson to Charles Schwab, 11 July 1918, NARA, RG 32, entry 164, box 7, f. 49(3).

⁷⁶ “Statement of Commander Fisher in Reference to Labor Conditions in the Puget Sound Navy Yard,” NARA, RG 32, entry 59, box 1, f. “Piece Rates on the Pacific”; William J. Williams, “Accommodating American Shipyard Workers, 1917-1918: The Pacific Coast and the Federal Government’s First Public Housing and Transit Programs,” *Pacific Northwest Quarterly* 84, 2 (1993): 52-53.

production.⁷⁷ Workers in other shipyards and related industrial concerns on the Pacific coast favoured the Skinner and Eddy model and wanted the same terms.

Workers in BC shipyards, through newspapers and their own craft union representatives, closely followed the jockeying for higher wage rates and union recognition in Seattle and San Francisco. The Vancouver Metal Trades Council, dormant for many years, re-established connections with counterpart American trades councils and united member union locals behind demands for wage increases. The first signs of unrest came in the form of requests for higher pay from carpenters in Victoria's wooden shipyards. Workers were getting organized and pushing for improvements along American lines. When Wallace Shipyards was struck for the better part of a week in May 1917, Butchart cabled Ottawa asking for the main agitators, who were of military age, to be conscripted, but Minister of Labour Thomas Crothers thought the suggestion "impracticable, and [that] the only other one [was] for the employer to make the best terms he [could] with his men and keep them at work."⁷⁸ The company offered a general 5 percent increase, which the metal trades council refused, and the two sides eventually agreed on a higher wage scale. Managements in six other Vancouver shipyards and marine manufacturing firms signed similar agreements to get their workers back to work.

The exception was Coughlan and Sons, where unionized workers walked off the job on 21 May 1917 requesting higher pay at American scales as well as a closed shop. The company, which sought advice from the IMB through its lawyer (who was on retainer in Ottawa), questioned granting either concession, though it worried about the effect of a prolonged labour disruption on progress in ship production. The steam and operating engineers, one of the metal trades unions, reported: "men are out at Coughlans also non-union men working in that yard [are] joining their union."⁷⁹ The striking workers, in other words, were growing in strength and number. Pickets were in place at the shipyard gates from

⁷⁷ Charles Schwab to Edward Hurley, 1 August 1918, NARA, RG 32, entry 164, box 8, f. 52; Kenneth Warren, *Industrial Genius: The Working Life of Charles Michael Schwab* (Pittsburgh: University of Pittsburgh Press, 2007).

⁷⁸ Thomas Crothers to Joseph Flavelle, 25 May 1917, LAC, MG 30 A16, vol. 28, f. "Crothers"; Strike return Wallace Shipyards, 25 May 1917, LAC, RG 27, reel T-2693, vol. 306, f. 92; *British Columbia Federationist*, 11 May 1917. That same month, the IMB had approached the government to exempt from military call-up workers "engaged on Shipbuilding Contracts for the British Government or sub-contracts for the same." See IMB Ottawa to R.H. Brand, 12 May 1917, BC 348, UK/NA, MUN 4/5475, vol. 2.

⁷⁹ Meeting, 23 May 1917, CVA, AM 558, Vancouver Metal Trades Council 566-B-3; *British Columbia Federationist*, 29 May 1917.

5:30 AM every morning, and work on the ships was at a standstill. After two weeks, the company settled with the metal trades council unions by concluding an agreement giving the same wage scale as Wallace on an open shop basis. Throughout the summer, shipyard workers in Seattle and San Francisco threatened strike action if the EFC and individual companies did not meet wage demands.

The situation in the United States merely provided a context that enabled workers and their unions to negotiate better arrangements at Coughlan and Sons. In September 1917, the boilermakers and other metal trades brought San Francisco-area shipyards and related manufacturing firms to a standstill with a major walkout.⁸⁰ Emboldened, Seattle metal trades workers not receiving six dollars a day went out on strike. The boilermakers in Vancouver set a 15 September strike deadline but postponed after Coughlan appealed to the metal trades council to consider sending a joint delegation to Ottawa: the company was paying 11 percent above the original signed contracts for labour, and any more would either have to be borne by the IMB or risk pushing the company “out of business.”⁸¹ At this point, the Coughlans decided to cooperate with, instead of fighting against, the unions. In the midst of continuing talks and constant news from Seattle and San Francisco, John Coughlan asked his Ottawa lawyer to ascertain whether the IMB intended to revise BC wage rates upward and what Washington’s latest decision was with regard to settling shipyard strikes.⁸² Company representatives and three metal trades council delegates met with Flavelle in Ottawa, but they came away empty-handed. No decisions on wages were possible, officials declared, until the Americans broke the impasse on the Pacific coast. A labour adjustment board arrived in Seattle and, thence, travelled to Portland and San Francisco to investigate the situation and, over several weeks of hearings, to consider the demands being made.⁸³ The Vancouver Metal Trades Council, disappointed with the response from Ottawa and tired of waiting, sanctioned a “strike of all crafts in Coughlans Shipyard ... if [the] Conference [was] unsatisfactory and [an] agreement [was] not signed.”⁸⁴ After the Ottawa delegation arrived back in Vancouver on 4

⁸⁰ Ackerson Pillsbury to Edward Hurley, 26 September 1917, NARA, RG 32, entry 59, box 2, f. “Capp’s Letter.”

⁸¹ “Report of Conference at Coughlans,” CVA, AM 558, Vancouver Metal Trades Council 566-B-3.

⁸² J.F. Smellie to Edward Fitzgerald, 27 September 1917, LAC, MG 30 A16, Flavelle, vol. 28, f. “Coughlan and Sons”; *British Columbia Federationist*, 21 September 1917.

⁸³ “Statement of the Employers to the United States Wage Adjustment Board,” 22 October 1917, NARA, RG 32, entry 59, box 1, f. “Employers Case before US Wage Adjustment Board.”

⁸⁴ Special meeting, 2 October 1917, CVA, AM 558, Vancouver Metal Trades Council 566-B-3; *British Columbia Federationist*, 5 October 1917.

October 1917, nearly eight hundred workers stayed off the job at Coughlan and Sons.

The resulting strike, lasting almost a month, brought the wartime steel shipyard virtually to a halt. During one mass meeting in the third week, striking workers voted 315 to 159 against returning to work unless the company accepted a Seattle scale of wages and the closed shop. Coughlan acquiesced without seeking approval from Ottawa. An agreement between the company and metal trades unions was signed on 27 October, and, when ratified two days later, workers went back into the shipyard.⁸⁵ Coughlan and Sons was now formally a closed union shop paying American-scale wages for a forty-four-hour week. On 4 November 1917, the EFC's labour adjustment board issued a decision (the so-called Macy award, named after its chairman Valentine Everit Macy) setting wage rates at 1916 levels with appropriate cost-of-living increases.⁸⁶ Jurisdictions paying higher wage rates, most particularly Puget Sound, were allowed to keep doing so. Union delegates travelled to Washington and proved more successful than their Canadian counterparts in obtaining an added 10 percent war bonus, which was rolled into wage scales as of 1 February 1918.⁸⁷ The Macy award and adjustments nonetheless deferred rather than solved the main problem because uniform wage rates were still not in place from shipyard to shipyard and city to city. The agreement at Coughlan and Sons, which preceded the Macy award, set the stage for spring 1918, when even bigger fights over wages came to BC shipyards.

SHIPYARD WORKERS SEEK A BETTER DEAL

By early 1918, BC shipyard workers, belonging to unions and metal trades councils in increasing numbers, were frustrated and growing impatient with the IMB's handling of labour relations and the wage issue. First, they had been told that the contractors running the private shipyards should negotiate directly. However, behind the scenes, Butchart and his assistant Captain J.W. Troup (loaned from Canadian Pacific Railway) stiffened

⁸⁵ Strike return Coughlan and Sons, 8 November 1917, LAC, RG 27, reel T-2694, vol. 307, f. 97; *British Columbia Federationist*, 26 October 1917.

⁸⁶ US Department of Labor, *History of the Shipbuilding Labor Adjustment Board, 1917-1919* (Washington: Government Printing Office, 1921), 21-23.

⁸⁷ "War Bonus to Workers Engaged on Ships Contracted for or Requisitioned by United States Shipping Board, Emergency Fleet Corporation," 10 December 1917, NARA, RG 32, entry 59, box 2, f. "Bethlehem Shipbuilding Co. Labor - Wage Scale." The Americans inserted a clause into the standard shipbuilding contracts making allowance for increased costs from labour, a step the Canadians only considered. See Lloyd Harris to Joseph Flavelle, 25 May 1918, LAC, MG 30 A16, Flavelle, vol. 20, f. 198.

the resolve of managements to resist labour entreaties and interfered with the conclusion of any agreements they deemed objectionable. Time and again, unions close to deals with individual companies found themselves stymied and threatening strike action, only to be calmed down by vague promises, appeals to patriotism (regarding the war effort), and dire predictions that higher wages would “kill” the shipbuilding industry in the province. “You are aware that British Columbia is almost always a storm centre in matters of labour,” William Gear wrote Minister of Marine and Fisheries Charles Ballantyne: “The Labour Organizations are not only powerful, but I fear are sometimes arbitrary. My understanding of the position there at the moment is that a further advance in wages is only held in check by a common agreement that the men will continue working until the Board established by the United States authorities makes its report concerning labour troubles in the shipbuilding plants, both wood and steel, on the Pacific coast on the American side of the Line.”⁸⁸

Workers and their unions were led to believe that the American Macy award would be adopted in British Columbia and pay increases made retroactively to the revised wage scales. IMB officials decided otherwise. In January 1918, Flavelle dismissed outright the idea of paying a 10 percent war bonus similar to that paid to American shipyard workers on the Pacific coast.⁸⁹ The British had been guaranteed fixed prices for ships and paying higher for labour would drive up costs. Butchart reneged on the informal understanding by falling in line behind Flavelle.⁹⁰ The metal trades councils, on the other hand, were equally adamant that shipyard

⁸⁸ William Gear to Charles Ballantyne, 6 November 1917, LAC, MG 30 A16, Flavelle, vol. 10, f. 98. For general background, see A. Ross McCormack, *Rebels, Reformers, and Revolutionaries: The Western Canadian Radical Movement, 1899-1919* (Toronto: University of Toronto Press, 1977); David J. Bercuson, “Labour Radicalism and the Western Industrial Frontier, 1897-1919,” *Canadian Historical Review* 58, 2 (1977), 154-75; Jeremy Mouat, “The Genesis of Western Exceptionalism: British Columbia’s Hard-Rock Miners, 1895-1903,” *Canadian Historical Review* 71, 3 (1990): 317-45; H. Clare Pentland, “The Western Canadian Labour Movement, 1897-1919,” *Canadian Journal of Political and Social Theory* 3, 2 (1979): 53-78; Mark Leier, “Ethnicity, Urbanism, and Labour Aristocracy: Rethinking Vancouver Trade Unionism, 1899-1909,” *Canadian Historical Review* 74, 4 (1993): 510-34.

⁸⁹ Joseph Flavelle to R.P. Butchart, 21 January 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 99. This stand was consistent with Flavelle’s opposition to wage increases on munitions contracts and his general attitude towards labour and unions engaged in war work. See H.T. Syrett to Minister of Munitions, 14 January 1916, UK/NA, MUN 7/91; “Fair Wage Clause – Canada,” 13 March 1916, UK/NA, MUN 4/2105; Joseph Flavelle to Robert Borden, 7 June 1917, LAC, MG 30 A16, Flavelle, vol. 6, f. 64; “Memorandum re Munitions Contracts, Fair Wages Clause, etc.,” 11 June 1917, LAC, MG 26 H, Borden, reel C-4403, vol. 219; David J. Bercuson, “Organized Labour and the Imperial Munitions Board,” *Industrial Relations/Relations industrielles* 28, 3 (1973): 608. Bliss, *Canadian Millionaire*, 322-25.

⁹⁰ R.P. Butchart to Joseph Flavelle, 21 January 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 99.

workers had been promised and were owed wages according to the Macy award, which now incorporated the 10 percent bonus. Even though talks continued, strike votes in Victoria and Vancouver fixed 1 March as the date for carpenters, shipwrights, and caulkers in the wooden shipyards to leave work.⁹¹ That date also coincided with the expiry of the existing agreement at Wallace Shipyards, whose union workers also wanted the Macy award terms and the extra 10 percent respected.

All wooden shipyards and one of two steel shipyards in British Columbia engaged on war contracts threatened a major strike. Neither side appeared ready to give in, so potential disruption to ship production was likely to be long. Meanwhile, the Metal Trades Employers Association sent a letter to Borden suggesting that the Dominion government take over the steel shipyards and keep them running without paying the bonus, in effect supplanting the IMB. To avoid unwelcome outcomes one way or the other, Flavelle appealed to the minister of labour to appoint a royal commission to examine the differences and to make recommendations. On the same day as being appointed the commission's chair, Justice Denis Murphy of the Supreme Court of British Columbia met with workers in Vancouver and then accompanied them to Victoria for further consultations.⁹² The unions agreed to postpone striking, pending thorough investigation and the report of the Royal Commission's findings.

The Royal Commission, while giving the IMB a couple of months for continued production, merely delayed the impending confrontation. Crothers, who, like Borden, personally opposed giving shipyard workers a wage advance, was sanguine about putting off a full-blown strike. Besides Murphy, commission members included Gordon Kelly from the Vancouver Trades and Labour Council (representing the unions) and John Tonkin, a Victoria mining engineer (working gratis for the IMB). The three commissioners started hearings in Victoria on 14 March 1918 and then travelled to Vancouver on 25 March to solicit views from interested parties.⁹³ The focus was predominantly on wages and the likely impact on the BC shipbuilding industry and individual companies of giving various classes of labour the demanded increases.

⁹¹ London was told: "Labour conditions generally have been difficult particularly on the Pacific Coast and while at the moment no steel shipbuilding is being held up by strikes the future does not look at all secure while the shortage of skilled labour is a permanent feature." See "Position as Regards Delivery of Steel Ships," IMB Ottawa to R.H. Brand, 20 February 1918, SB 344, LAC, MG 30 A9, Gear, vol. 3, pt. 3.

⁹² Meeting, 27 February 1918, CVA, AM 558, Vancouver Metal Trades Council 566-B-4; *British Columbian*, 1 March 1918.

⁹³ *Vancouver Sun*, 3 April 1918.

Witnesses, including Butchart, shipyard owners, managers, and workers, testified under oath as to their views on the issue and on how matters stood by March 1918. Near the end of formal hearings, one union representative optimistically reported: "Our men had put up a good case and if we get a square deal we will get a favourable decision[;] our case has been well received and some of the shipbuilders have given good evidence on our behalf[;] everyone recognized that [the Metal Trades Council] is a responsible body and have done their duty in settling strikes."⁹⁴ A summary final report, released to the press on 23 April (and a copy passed to Butchart), decided on a 10 percent increase for workers in the wooden shipyards back to 1 February 1918 on the basis of a forty-eight-hour week, a "moral obligation" on the part of the IMB to consider comparable increases in steel shipyards, and abolishment of pay differentials between house carpenters and shipwrights. It also recommended that the Dominion government establish a wage adjustment board covering BC shipyards. In support of these findings, a longer report made direct reference to specific testimony and documents introduced into evidence.⁹⁵ Tonkin dissented on certain parts of the report and called for conscription to compel men between eighteen and sixty years of age to work in the shipyards at lower pay rates fixed by the government. This drastic suggestion, however, was never realistic and was almost certain to cause further industrial discord and likelihood of strikes, which Murphy and Kelly had so diligently tried to avert.

The IMB, from Butchart to Flavelle, felt obliged to follow the Royal Commission's (hereafter the Murphy Report) decisions, but it was in no hurry to implement those that were of a less concrete nature and that came under the rubric of "moral obligation." The obvious winners were the wooden shipbuilding workers and trades. Machinists and boilermakers, feeling most aggrieved about the widening wage disparity, decided action was finally necessary.

The May 1918 strike, in scale and numbers the biggest event in BC shipbuilding during the First World War, arose from the IMB's rigid interpretation of the Murphy Report's decisions. This interpretation succeeded in disaffecting metal trades workers as it ignored their consistent demand for wages and work hours comparable to those being offered on the rest of the Pacific coast. In Victoria, the metal trades council endorsed machinists and coppersmiths who refused work at

⁹⁴ Meeting, 27 March 1918, CVA, AM 558, Vancouver Metal Trades Council 566-B-4.

⁹⁵ "Report of Royal Commission re Labor Differences in the Shipbuilding Industry and Allied Trades," 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 98; "Labour Situation in British Columbia," IMB Ottawa to R.H. Brand, 24 April 1918, SB 437, LAC, MG 30 A9, Gear, vol. 3, pt. 3.

the IMB's outfitting yard for wooden ship hulls, seeking immediate pay increases and a forty-four-hour work week, the same as the Americans. In keeping with the Murphy Report, Butchart insisted on forty-eight hours: "Labor has reached a stage when their demands are not based on cost of living, but purely on what they think they can get by taking advantage of the urgent need of the Empire to press the construction of ships to an early conclusion and their own economic strength."⁹⁶ The metal trades unions certainly wanted more than what they were receiving from employers and the IMB.

Disenchanted workers at Wallace Shipyards were next to make similar demands. In solidarity with the Victoria machinists, the Vancouver Metal Trades Council backed an ultimatum to cease work on 23 May 1918, unless demands were met.⁹⁷ Support in union ranks was overwhelming. The shipwrights voted 469 to 5 in favour of striking, while the steam and operating engineers were unanimous in supporting a forty-four-hour week instead of a forty-eight-hour week. Workers at the wooden shipyards in New Westminster, Coquitlam, Vancouver, and North Vancouver joined in the job action.

Only the Coughlan shipyard, which suffered a destructive fire days prior, and was covered by an agreement that was in force until 1 August 1918 regarding the payment of higher rates, remained out of the fray when thousands of workers went on strike. Every other shipyard engaged in IMB contracts, both steel and wood, was affected.⁹⁸ Pickets appeared outside gates, and anyone entering the shipyards was pushed and shouted at. IMB officials distributed paper flyers with a direct appeal to workers:

Notice to our Employees

WORKERS:

You are Industrial Soldiers of the British Empire.

Your bit is creating and putting together of implements for warring against a common enemy. Without these implements, disaster will overtake your Empire and your Empire's Allies.

⁹⁶ R.P. Butchart to Joseph Flavelle, 3 May 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 99. Flavelle responded: "endeavor to establish with the representatives of the men an increased sense of responsibility for the speedy completion of the work of finishing and equipping these vessels." See Joseph Flavelle to R.P. Butchart, 9 May 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 99.

⁹⁷ Meeting, 22 May 1918, CVA, AM 558, Vancouver Metal Trades Council 566-B-4.

⁹⁸ *Vancouver Sun*, 23 May 1918.

You are, morally, under the same obligation to fight with your hands, your minds, and your highest spirit as every enlisted soldier whose geographical objective is the Front Line in Flanders or wherever sent.

Building ships under the officers of the Imperial Munitions Board is not a commercial proposition but principally to supply food to our own men at the Front.

Disagreement between Labour and Capital cannot affect it, for the reason that there is neither Labour nor Capital, in the generally accepted sense, to be considered.

War shipbuilding must go on whether you, individually, do the work or not.

If you make yourself a Casualty or worse still, become a Deserter, another Industrial Soldier will step in your place and carry on to completion.

There will be no scabs, as this is Imperial war work.

An increase of 10% all round is an impossibility. An increase for Labour from \$3.25 to \$3.60 per day will be made. That is all. Here are some unalterable reasons:

The Coughlan and Wallace Companies have contracted to place ships at the disposal of the Imperial Munitions Board for War use of the British Empire at a certain sum. If a 10% increase in wages were granted to you, these Shipbuilding Industries would go out of business, financially ruined, and further contracts would not be entered into owing to the unstable condition of labour.

Foundries, Machine Shops and Industries where parts are made, would suffer the same fate.

Morally, patriotically and financially, your demand cannot be granted. This is all there is to say.

In War time there is neither entreaty, condolence, nor compromise. What is to be done IS to be done, and that speedily.⁹⁹

The striking workers and unions were accused of selfishly putting their own interests before patriotic and wholehearted support for the war

⁹⁹ IMB flyer, CVA, AM 136, Henry Mowatt 512-C-8, f. 3.

effort. Butchart enflamed the situation by trying to bring in returned soldiers to work as strikebreakers. Intervention from Ottawa was necessary to get the two sides talking again.

The efforts of Senator Gideon Robertson, sent by the prime minister to act as mediator in the dispute, ensured that a major shipyard strike that could have lasted months was over in less than two weeks. Robertson was a Conservative from Ontario with ties to labour. Borden had appointed him to the Senate the previous year and he had been invited into Cabinet. He was already on his way west by train when the strike broke out, and he arrived in Vancouver on 27 May. Robertson wired Crothers after meeting with employers and representatives of the striking workers: "Anticipate definite decision to-morrow which will either form basis of adjustment or cause the only remaining yard [Coughlan] to be involved in dispute. Results are uncertain but hopeful."¹⁰⁰ Over the next several days, Robertson brought the parties closer together and resolved differences over details. Butchart, still in Victoria, was dismissive: "We are confident that a solution would have been immediately forthcoming without the effort of Senator Robertson and I am of the opinion his presence in British Columbia is retarding settlement as the labour men as long as he remains here hold hope of obtaining their full demand."¹⁰¹ Flavelle had to remind him that the senator was a Cabinet member sent personally by the prime minister, and he chided Butchart for not immediately going to see Robertson in Vancouver. In fact, with regard to reaching a practical settlement, Robertson achieved far more within the week than dogged procurement officials had in months. By 1 June 1918, the employers and eleven out of thirteen unions were reconciled to an agreement that brought into effect revised wage rates for the war's duration.¹⁰² Butchart dallied over one last point put forth by Robertson (regarding the form of payment for retroactive pay) until Flavelle diplomatically ordered his local representatives to get behind the settlement. The strike's end was a crowning success for Robertson, who was on his way to being appointed minister of labour later in November 1918.¹⁰³

The agreement on wages and conditions of work reached through Robertson's careful mediation injected much needed stability into BC shipbuilding, where little had existed before. Robertson oversaw the

¹⁰⁰ Gideon Robertson to Thomas Crothers, 28 May 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 99; *Vancouver Sun*, 26 May 1918.

¹⁰¹ R.P. Butchart to Joseph Flavelle, 30 May 1918, LAC, MG 30 A16, Flavelle, vol. 10, f. 99.

¹⁰² *Vancouver Sun*, 1 June 1918. "Settlement of Wages Difficulties in BC Shipyards," *Labour Gazette* 18, 6 (1918): 409-13.

¹⁰³ Gideon Robertson to Joseph Flavelle, 14 November 1918, LAC, MG 30 A16, Flavelle, vol. 46, f. "Robertson"; "The New Minister of Labour," *Labour Gazette* 18, 12 (1918): 1040.



Figure 5. Senator Gideon Robertson, sent from Ottawa by Prime Minister Robert Borden, mediated an end to the major shipyard strike afflicting BC shipyards in May 1918. *Source:* LAC, PA-033996.

signing of the formal agreement between representatives from forty employers and eleven unions at 12:30 AM on 4 June 1918.¹⁰⁴ Most workers returned to the shipyards the same morning. Wallace Shipyards reported that hold-out boilermakers and electrical workers agreed only to 1 August instead of the duration of the war. In details, the agreement provided for an eight-hour day in a forty-four-hour week, pay rates for individual trades based around a six-dollar-per-day basic mechanics wage, double pay for overtime and extra shifts over three days, formation of shop committees with worker representatives, a grievance procedure, revision of wage rates every three months according to cost of living for the duration of the war, and the appointment of an adjuster to consider grievances and disputes.¹⁰⁵ In supplementary agreements, certain shipyards also accepted the presence of a closed shop. New Westminster Construction and Engineering recognized the carpenters union as the main bargaining agent allowed in the shipyard.¹⁰⁶ The Robertson agreement was a workable BC solution to labour relations in the shipyards; it made no reference to the Macy award and its terms were better than those mentioned in the Murphy Report. Most parties were genuinely satisfied with the agreed wage scales and conditions of work, which allowed them to get back to the business of building ships.

¹⁰⁴ *Vancouver Sun*, 4 June 1918.

¹⁰⁵ *Working Rules and Rates of Pay Governing the Operations of Shipbuilding and Allied Manufacturing Plants in the Province of British Columbia as from June 1st, 1918* (Vancouver: Pacific Printers, 1918); "Explanation re Delay in Advising Names and Deliveries of Wooden Ships," 1MB Ottawa to R.H. Brand, 8 June 1918, SB 513, LAC, MG 30 A9, Gear, vol. 3, pt. 4.

¹⁰⁶ Strike report New Westminster Construction Shipbuilding Company, 4 June 1918, LAC, RG 27, reel T-2695, vol. 309, f. 122. North Vancouver's Lyall Shipbuilding had run a closed shop since starting operations.

With BC shipbuilding returned to near full production, interruptions in the shipyards became sporadic, no thanks to the continuing negative attitude of local IMB officials towards the new labour arrangements. Butchart resented the imposition of the agreement and disliked Robertson personally: "I have no confidence in the man, as he has shown himself to be decidedly unfair, unjust and dishonorable."¹⁰⁷ In July 1918, eighty caulkers in Victoria left work protesting the IMB's use of carpenters who had been retrained for caulking work in its assembly yard. Butchart defended the practice and condemned the investigative hearings and conclusions of a Robertson-appointed labour adjuster, whose adjudication was binding under the 4 June agreement.¹⁰⁸ The issue only indirectly concerned wages and was mostly jurisdictional. Other confrontations were ostensibly demonstrations and sympathetic actions. In December 1918, twenty-five hundred workers at Coughlan and Sons stopped work for a week after the company dismissed (for fighting) a returned soldier who had been employed as a blacksmith.¹⁰⁹ At the request of the Great War Veterans Association, the employee was reinstated, though the lingering power of unions to mobilize numbers in the shadow of the 1918 strike was amply demonstrated.

The shift from a wartime footing back to peacetime conditions after the armistice signalled major readjustments for shipbuilding employment. Wooden shipyards, already advised of no further IMB contracts, either shut down or secured further commercial contracts from European and other buyers for a short time longer.¹¹⁰ The IMB-owned shipyards were put up for sale, including Western Canada Shipyards, which fetched \$110,000. Disagreements over the New Westminster shipyard's assessed value of \$97,000 invited legal opinions when the purchasers refused arbitration.¹¹¹ As contracts ceased, workers faced widespread layoffs. In Victoria, labour groups and politicians sought further ship orders to alleviate unemployment.¹¹² Steel shipbuilding continued and the work was more or less constant. One by one, the ships on IMB order were launched,

¹⁰⁷ R.P. Butchart to Joseph Flavelle, 8 August 1918, LAC, MG 30 A16, Flavelle, vol. 14, f. 151.

¹⁰⁸ "Investigation Held by W.L. MacDonald in Connection with Caulkers' Dispute, Victoria," 15 August 1918, LAC, MG 30 A16, Flavelle, vol. 14, f. 151; "Industrial Disputes during July, 1918," *Labour Gazette* 18, 8 (1918): 612.

¹⁰⁹ Strike return Coughlan and Sons, 27 December 1918, LAC, RG 27, reel T-2696, vol. 309, f. 128.

¹¹⁰ R.H. Brand to Joseph Flavelle, 31 July 1918, LAC, MG 27 II G6, Brand, reel A-829, f. 6c; R.H. Brand to John Esplen, 28 August 1918, LAC, MG 27 II G6, Brand, reel A-828, f. 4a; IMB Ottawa to R.H. Brand, 25 November 1918, SB 9046, LAC, MG 30 A9, Gear, vol. 4, pt. 1.

¹¹¹ E.C. Mayers to Minister of Justice, 31 March 1919, LAC, RG 13 A-2, vol. 2161, f. 1919-822.

¹¹² Henry Drayton to Charles Ballantyne, "Why Shipbuilding Should Be Continued in Victoria," 7 November 1919, LAC, RG 42 B-1, vol. 272, f. 39656, pt. 2; S.F. Tolmie to Robert Borden, 6 December 1919, LAC, MG 26 H, Borden, reel C-4415, vol. 242; Benjamin Isitt, "Searching

outfitted, and loaded with cargo for destinations in distant parts of the globe.¹¹³ Coughlan and Sons completed the last wartime merchant ships in late summer and fall 1919. "As far as any ships built on this side of the water are concerned," Edward Fitzgerald, Flavelle's assistant, wrote: "the production of [the] Coughlan Yard will not be behind any others irrespective of the fact they are so new to the business."¹¹⁴ Ballantyne's previously announced plans for a Canadian government merchant marine that would require merchant ships of a newer design created an opportunity to test Fitzgerald's assertion. Wallace and Coughlan received new contracts, while business was also given to Prince Rupert Dry Dock and Victoria Machinery Depot. Wallace eventually took over shipbuilding in Prince Rupert because the company running the shipyard went into receivership.¹¹⁵ For a few years more, workers in BC steel shipbuilding enjoyed good wages based on Robertson's wartime accommodation. Prospects for private companies and continued employment, however, turned negative once the monies for public contracts ran out.

CONCLUSION

Shipbuilding in British Columbia during the First World War involved demands: demand for business in a new industry deemed important to the province; demand for war-purpose, ocean-going ships; demand for timely production at reasonable cost; demand for higher pay rates and shorter working hours; demand for union recognition and the closed shop; and demand for unqualified support for the war effort. The time of active interest in wartime shipbuilding lasted from early 1917 to late 1918, a remarkably short and intense period of activity. British requirements and public contracts for ships created hyper-inflated conditions for relations between procurement officials, private employers, and unionized

for Workers' Solidarity: The One Big Union and the Victoria General Strike of 1919," *Labour/Le travail* 60 (2007): 33.

¹¹³ "Imperial Munitions Board Launchings to February 3rd, 1919," 10 February 1919, LAC, MG 30 A16, Flavelle, vol. 20, f. 195.

¹¹⁴ Edward Fitzgerald to Joseph Flavelle, LAC, MG 30 A16, Flavelle, vol. 32, f. "Fitzgerald"(3); "Interim Report of Royal Commission Inquiring into the Differences between the Firm of J. Coughlan & Sons, Vancouver, and Its Employees," *Labour Gazette* 19, 4 (1919): 430-32. Coughlan and Sons was affected by another strike that started 3 June 1919 and lasted the better part of a month, which delayed progress on the final ships. See "Labour Trouble," 1MB Toronto to R.H. Brand, 9 June 1919, SB 1066, LAC, MG 30 A9, Gear, vol. 4, pt. 4; "Strike Vancouver," William Gear to Joseph Flavelle, 7 July 1919, LAC, MG 30 A16, Flavelle, vol. 33, f. "Gear"(1); "Award of Wages Adjuster for British Columbia Shipyards," *Labour Gazette* 19, 7 (1919): 783-84.

¹¹⁵ "Prince Rupert Dry Dock & Engineering Co. Ltd. a Bankrupt, W.E. Hodges Trustee, Summary of Cash Receipts and Disbursements for the Period December 7th, 1920, to September 4th, 1926," LAC, RG 42 C-1, vol. 433, f. 140-3-9, pt. 1.

workers. Wages, above all, was the central point of contention that beset this relationship in BC shipyards. Workers wanted pay scales and working conditions comparable to those in American shipyards in Seattle and San Francisco (also engaged in war work), and IMB officials resisted this demand.

Although Skinner and Eddy in the United States and Coughlan and Sons in British Columbia showed the potential benefits that constructively engaging labour could have for industrial harmony and production, the businessmen running the wartime shipbuilding effort dismissed the idea of making any more concessions than were absolutely necessary. The Macy award and the Murphy Report left matters unsettled and, in fact, created disparities that pushed workers and their union bodies into action. Strike and the threat of strike were weapons of last resort when it came to obtaining higher wages and a shorter work week. A series of strikes culminated in May 1918, when a major walkout shut down all wooden shipyards and one steel shipyard in the province. Workers faced off against the IMB and its decisions regarding the wage issue.

Only Senator Robertson, an intermediary sent from Ottawa to mediate the dispute, salvaged the situation and laid the groundwork for an agreement that fulfilled the wishes of workers and finally established a workable framework for guiding labour relations in BC shipyards until the end of the war and beyond. Butchart, by contrast, was petty, obstructive, and unfriendly, believing too much had been given up by acquiescing to labour. The price of not awarding BC shipyard workers six dollars per day and a forty-four-hour work week in the first place – two entirely reasonable demands in a temporary wartime industry – was significant labour unrest and interrupted ship production in the last year of the war. By comparison, such wage rates and work hours became standard on the rest of the Pacific coast, from Prince Rupert down to Los Angeles, though wages and labour costs remained marginally lower in eastern Canada. In the end, British Columbians were just lucky that shipbuilding jobs stayed in the province instead of going to Quebec and Nova Scotia.