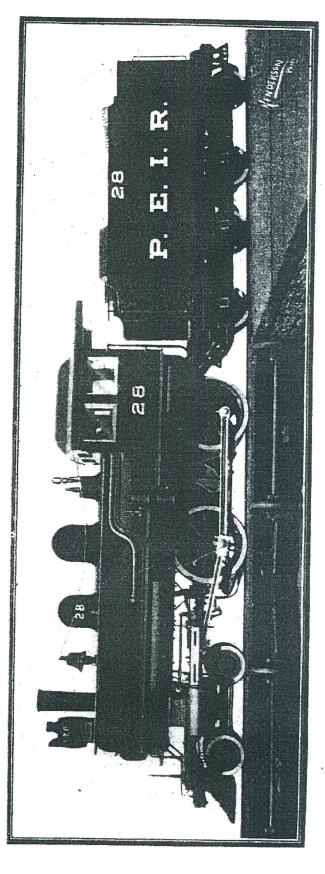
PRINCE EDWARD ISLAND RAILWAY

C. H. RIFF



PRINCE EDWARD ISLAND RY. LOCOMOTIVE RULL BY THE CANADIAN LOCOMOTIVE CO.

he giving of instruction in the operation of s fitted with all the appliances necessary for he Westinghouse air brake. This room has recommodation for 20 students.

The Canadian Locomotive Co., Kingston, Dut., is exhibiting at the St. Louis Exposition me of the narrow gauge locomotives recentscompleted for the Prince Edward Island The general dimensions are: cylinders, urface, 850 sq. ft.; weight in working order, 19,000 lbs.; weight on driving wheels, 45,000 15 m. by 20 m.; diameter of driving wheels, stairs; diameter of boiler, \$3% in.; heating and the state of the second of

L'uniler

An illustration of this locomotive is given on page 231. . (8)

The Baldwin Locomotive Works, Philadelphia, Pa., has just completed six freight locamotives for the G.T.R., marked Defroit and Toledo Shore Line, of which the G.T.R. is part owner. Following are the general dimensions;

wagen topi material, steel In knews of sheets Working pressure Diameter Stay ing Type Luc L - Linke

The Intercolonial Ry.'s eight consolidation locomotives which are being built by the Can-

nn, Omt., have	. Mituromous coal	10, 550 lbs,	S. C. S. E.	- N	(4 10. 0 1 in.	1.0 H Sq. ff.
adian Locomotive Co., Kingston, Ont., have the following dimensions:	Gange Fuel used Weight in working order divises	Wheel base of engine, rigid.		l ength over all, engine and render	Hen in Bre hov	total
100	Compared Transfer	Wheel ha		V. digith of	Hen, hi Heating's	

it to and from Derini.

Prince Edward Island Ry .- During the season the construction of the north abutment for the bridge over the Hillsboro river for the Murray Harbor branch has been completed. This finishes the substructure, and leaves to be completed the earth approaches at each end of the bridge. The work or these approaches could not be gone on wi h until the substructure was finished, owing o the fact that the channel has been contracted fully 50°c. which has greatly increased the strength of the current. The Dominion Bridge Co. has the contract for the erection of the swing portion of the superstructure. H. MacDonald has the contract for the erection of the balance of the superstructure, which will consist of the spans moved from the Miramichi bridges on the Intercolonial Ry., recently reconstructed.

Track was laid on 21 miles of the Murray Harbor branch in 1902 between Montague

January 1904

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Prince Edward Island By. - We are advised that the contractors are completing the ballasting on the section of the Murray Harbor branch between Charlottetown and Murmy River, and are pushing the grading on the section between Murray River and Murray Harbor. It is expected that tracklaying will be commenced on this section early in July. At the bridge over the Hillsborough River the work of erecting the trestlework approachis being proceeded with. These approaches are to be filled with earth, and it is expected that the ballast train will be at work on them at an early date. The contractor for the erection of the superstructure has the matter in head for bringing the spans from the Miramichi river, N.B., to the bridge. The spans will be loaded on scows and will be towed into position across the strait. (June, pg. 189.)

July 1904

Prince Edward Island Ry.—We are advised that when work was suspended for the winter on the Hillsboro River Bridge, at the end of 1904, all the work on pier 5 had been completed, and all the work under Mr. J. Haney's contract had been done, with the exception of rip rapping the approaches, which will be done in the spring. On the superstructure the ironwork of six spans only has been placed on the piers. The material for flooring has been delivered, and the ironwork of the remaining five fixed spans is on the spot. (Jan., pg. 13).

February 1905

Prince Edward Island Ry. - the recon-1 of naissance survey recently made for the prohs' posed branch line between Kensington and me Stanley Bridge, P.E.I., was made by W. B. hv MacKenzie, Chief Engineer of the Governiioit mal ment railways. The branch line between Montague and SE-Cardigan, P.E.I., which is being constructed SE. by W. Kitchen, is expected to be completed nso. early in Oct. Four spans of the superstrucmut ture of the Hillsboro' River bridge have e to been erected from the north end and seven TOT from the south end, and the swing span is in the course of erection. It is hoped to have the nem bridge completed in Sept. Tenders are being and asked for the construction of a telegraph ceed line on the Murray Harbor branch. ean The line in Charlottetown has been excomtended for about half a mile from the yards nt of to the Marine Department's yard. ₹92 Au elevated water tank service is to be resiinstalled at eight stations covering the main Viceline. The tanks will have a capacity of 25,-+ di-000 galls, each. An addition is being built Trutto the wharf at Georgetown. (Aug., pg. 351.) ielph,

August 1905

improvements are necessary. Apari, 125, xoo

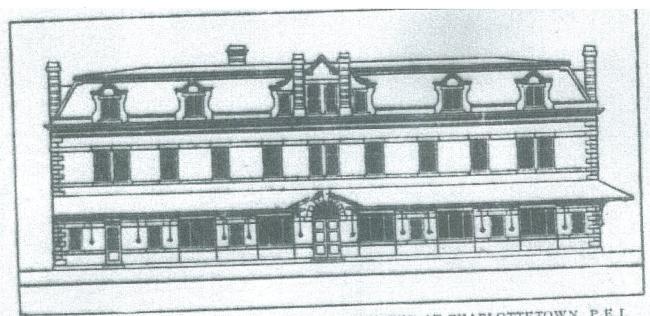
Prince Edward Island Ry .- It is not expected that during the current year there will be anything done in the way of reduction of gradients or laving new rails, except the tracklaying on the extensions between Mount Albion and Vernon River Bridge, on the Murray Harbor Branch under construction, and the Cardigan and Montague branch also under construction. Tracklaying is in progress on this latter branch, and the work is expected to be completed by Oct. 31. The water tanks, of which there will be eight in all, are under construction, and will be completed this fall. These tanks are being erected at Alberton, West Devon, Summerside, Hunter River, Mount Stewart, Georgetown, Dundee and Harmony. They will have a capacity of 25,000 gals, each, and will be worked by steam pumps. tension to the wharf at Georgetown is under construction, and is expected to be com-

September 1905

Ocr., 1905.]

telegraph line is being constructed on this ranch, and is expected to be completed by aleted this fall. The Murray Harbor branch completed, with the exception of a few tations, which are in progress of erection. re end of Oet. (Sept., pg. 407.)

Works is booking into all the data in pos-Prince Edward Island Tunnel. The cmespect to a tunnel under Northumberland Lirait, between New Brunswick and P.E. ession of the Department of Railways



FRONT ELEVATOR, NEW STATION BEING ERECTED AT CHARLOTTETOWN, P.E.I.

Nicola, Kamloops and Similkameen Ry. Tracklaying had been completed and work trains were being run for 15 miles from Spence's Bridge, Mar. 31, the tunnel having been completed some days previously. Work on the bridges is well forward and it is expected that the track will be laid to Coulter, and to the crossing at the forks early in May. It is hoped to put on a regular passenger and freight service in June. (Feb. pg. 63.)

Prince Edward Island Ry.—Work has been started on the construction of the new station at Charlottetown, a description of which has already been published. The contractor is B. A. Wallberg.

Tenders are under consideration for the construction of two cribwork rest piers for the

will be laid with 80 lb. steel, and the specifications will provide for concrete or masons culverts and steel bridges of the higher standard. In connection with the existing line, it has been decided to reconstruct so as to bring it up to the standard of the belines in Canada. (See Quebec, Montreal at Southern Ry., April, pg. 193.)

salisbury and Harvey Ry.—The New Brur wick Legislature at its last session voted subsidy to aid in the construction of toprojected extension from Baltimore to Morton, N.B., about 4 miles, and if a subsidy cobe secured from the Dominion Parliame construction will, it is said, be gone on wat an early date. A proposition has be made for the construction of a steel raily and general traffic bridge over the Petitcod

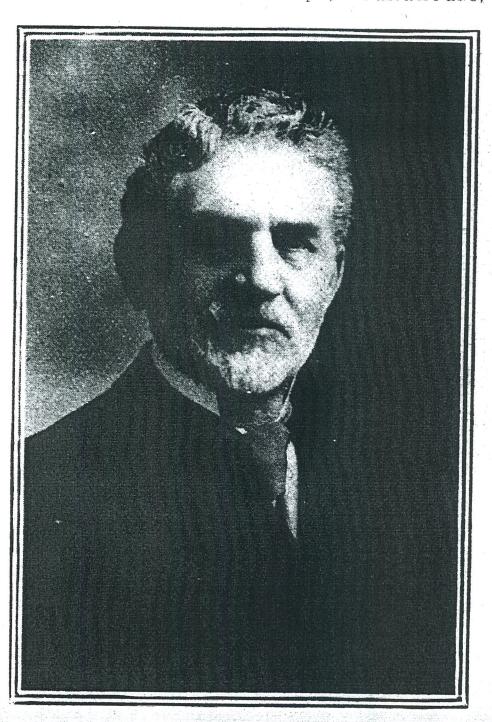
Prince Edward Island Ry.—We are advised that a contract was let to Whitehead Bros., Fredericton, N.B., for the construction of the branch line Harmony to Elmira. The right of way has been cleared, and the culverts, which are of concrete, have been completed. Some little grading has been done, but owing to heavy rains construction has been closed down for the winter. branch will be 10 miles long, mostly through a heavily wooded country. The maximum gradient is 1.2% and the maxmum curvature four degrees. H. F. aurence is engineer in charge of contruction. (Aug., pg. 575.)

December 1909

Prince Edward Island Railway Shops.

Owing to the unusual conditions existing in the P.E.I.R., owing to its narrow gauge and its isolated insular location, it has to have shop facilities for repairing and rebuilding all its locomotives, and the building and repairing of all its passenger and freight cars. The location of the new shops, roundhouse,

JULY 1910





W. S. Poole Mechanical Superintendent Prince Edward Island Railway.

etc., in Charlottetown, is at the extreme end of the yard, running from Prince and Water Sts. They are very nicely and Water Sts. They are very nicely situated, with abundance of light and situated, with abundance of light and every convenience for handling work, every convenience for handling work. The Mechanical Superintendent's office is in the freight building near by.

The shops have concrete foundations with brick walls, and consist of carpenter, erecting, machine, and blacksmith shop combined, with a section 80 by 85 ft. partitioned off for the blacksmiths and boiler makers. The machine and erecting shops are 163 ft. 4 in. by 85 ft., with an annex of 20 by 34 ft. for a fan room. A monitor roof extends the whole length of the shop, with a raised monitor 40 by 85 ft. for the 60 ton electric travelling crane. There are three pits running the whole length of the machine shop, and one track running through the machine shop into the blacksmith and hoiler shop. One pit is used chiefly for dissecting locomotives, and the other two for erecting and re-Juny 1910 pairing them.

The machines in the erecting shop consist of 72 in./engine driving wheel lathe, 72 in. tire turning and boring mill, 16 in. slotting machine, standard planing machine of heavy nattern, with a table 12 by 45 ft. with three teeth slots and six rows of holes, cross rails to raise and lower by power with two heads, also two sets of heads om standards; 20 in., 24 in. and 36 in. lathes. gap lathe which will swing 3 ft., four 16 in. lathes, 24 in. and 36 in. drill presses, 300 ton wheel press, radial drill press, boring mill; all made by the John Bertram & Sons Co., Dundas, Ont.; alse a unimilling machine. The blackversal smith shop has eight fires, tube welding machine, power hammer, and 1,100 lbs. steam hammer; all made by the John Bertram & Sons Co. In the boiler shop there are 6 in. and 12 in. sets of rolls, and set punch and shears with 36 in. throats.

The car shop is 252 by 52 ft., with a monitor roof extended its whole length. There are two pits running the length of the shop; one used for repairing, and the other for building cars. The following machines are installed:-Small planer, small rip saw, large band saw with re-sawing attachment, tenoning machine, small cut-off saw, planer and matcher, knife grinding machine, small mortiser, dado machine, circular rip saw, large cut-off saw., large hollow chisel mortiser, and a band saw. The paint shop is a wooden building 132 by 42 ft., with capacity for painting four cars. The brass and copper foundry is of stone, 48 by 40 ft.

The power house is 100 ft, by 50 ft, with concrete foundation and brick walls, with a generator, engine and air compressor. The generator is a continuous current machine capable of continuously supplying 75 kilowatts of electrical energy. There are three boilers

Juny 19/0

boring mill; all made by the John Bertram & Sons Co., Dundas, Ont.; also a universal milling machine. The blacksmith shop has eight fires, tube welding machine, power hammer, and 1,100 lbs. steam hammer; all made by the John Bertram & Sons Co. In the boiler shop there are 6 in. and 12 in. sets of rolls, and set punch and shears with 36 in. throats.

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The power house is 100 ft. by 50 ft., with concrete foundation and brick walls, with a generator, engine and air compressor. The generator is a continuous current machine capable of continuously supplying 75 kilowatts of electrical energy. There are three boilers of 250 h.p. each.

The new round house is 103 ft. in diameter, concrete foundation and brick walls, with 20 stalls.

July

1910

Simmons, H. A. K. Drury, N. Canetion; Electrical Engineer, J. Murphy; one clerk and one stenographer. Total salaries, \$15,750.

RECORD DEPARTMENT.—Record officer, 5 W. McNeill; seven clerks. Total salaries, \$7,750.

SECRETARY'S DEPARTMENT. — Assistant Secretary, E. A. Primeau; Chief Clerk, A. E. Ecclestone; chief clerk and accountant, A. Lapointe; seven clerks and stenographers. Total salaries \$9,900. The salary of the Secretary, A. D. Cartwright, is not included in this, being provided separately.

OPERATING DEPARTMENT.—Chief operating officer, A. J. Nixon; Assistant chief pperating officer, A. F. Dillinger; Inspectors, E. C. Lalonde, Jas. Ogilvie, M. McCaul, W. S. Blyth, Jas. Clark, J. H. Shinnick. One clerk and one stenographer. Total salaries, \$18,350.

Law DEPARTMENT.—Law Clerk, A. G. Blair; stenographer and librarian, Miss arose. Total salaries, \$3,400.

The staff also includes R. Richardson, private secretary to the Chlef Commissioner, \$2,000; four stenographers, whose salaries total \$2,650; three messengers with salaries totalling \$1,950, and a cook for the private car Acadian. During the last fiscal year eight clerks and stenographers were employed temporarily, the total amount paid them being \$770.

P. E. I. Railway Round House.

The Prince Edward Island Rallway shops at Charlottetown were described in our issue of July 1910. The 20-stall round house with turntable, which was completed last year, occupies the whole if the area between Water St., on the the car shops to the south. Prince st., on the west, and the general block of shops on the east, taking in practically the whole area of the old house, with a larger area to the south and east. In order that there might be no interference with the housing and cleaning of locomotives one-third of the south side of the old engine house was removed, so enabling one half of the new building to be put up before the rest of the old building was torn down. The ald turntable was only removed on the completion of the new building and new turntable so far as to enable the northern half to be used. The foundaor the turntable. This is 57 ft. and the engine pits are each 52 ft. long, and 3 t wide inside, and are all provided with trainage pipes, catch basins, piping for not air heating, etc. The walls are ft. high at the outside and 21 ft. high the turntable. The roof is of tar and ravel laid on grooved spruce planks, with 4 by 14 in. joists laid to two, three and four foot centres; standard cast iron inken jacks are fitted over each pit. fice and store room accommodation. d a room for the enginemen are pro-ied. The building is heated with dirsteam heat, and lighted by electric-The installation consists of 63 in-indescent lamps of 16 c.p. each, with extension cords inside and five 32 c.p. andescent lamps outside, with all cessary switches. The building was rected from plans prepared by W. B. Mackanzie, Chief Engineer Government Railways.

Prince Edward Island Ry.—The Minister of Railways stated in the House of Commons. Dec 4, that a contract had been let to T. Campbell, Charlottetown. P.E.I. for building a branch line from VLeary's station to West Point, at an anoriximate cost on schedule price of 172, 795. The Government directed the stoppage of work in order that the Minister might enquire into the matter (Oct., 1511, pg. 537.)

> January 1912

THE STREET STATE

edure upon the enquiry and give direclons with reference thereto,

Car Ferry and Standard Gauge Railway for Prince Edward Island.

The Frince Edward Island Ry is 24 gauss' stat is owned and operated by the Dominion Government. Competition with the maintained is maintained by Dominion Government tembreaking steamings during the winter, and by privately owned steamships, subsidized by the Toward during the open season of invigation. It has always been claimed by the province that one of the terms upon which it entered Confederation was that adequate pravision should be made by the Dominion for continuous subsection with the maintaind and there has been a constant agitation going on or improved facilities. About 20 years use a project was under consideration or the construction of a tunnel, and rom 1896 summed the project was dismassed in and out of parliament. The site government declared itself in favor of the building of a tunnel, but took a active steps toward carrying out the report. Some years ago an alternative croject for the operation of a car ferry was put forward but nothing was done further it. This company proposed a transfer standard gauge turn to the stand for leading and unloading, thus aving at least one handling of the reight.

reight.

An Oliawa dispatch, Dec. 23, stated has an announcement had been made in the Preciser that the Government and determined to undertake the establishment of a carferry service between he Island and the mainland, and that he proposal of the Gavernment would avolve the change of the narrow gauge in the Island rullway to standard. We have since received confirmation of this com the Frime Minister.

on the island railway to standard. We nove since received confirmation of this room the Frime Minister.

At a meeting held in Charlettetown, an, 5, a resolution was passed endorant the project and the standardizing of the gauge of the railway on the island. W. B. Mackenzie, Chief Engineer of Government railways, who speke, and that a car ferry was feasible, but I would require to be more powerful han any now in existence. The points atwent which the ferry would operate sere buing considered. As to the sugsetted tunnel its cost would be enormous; the fotal length, including, land annels, would be about 12 mins, and I the point where the tunnel would ome under the water of the strait here would be 150 ft. of water between he top of the tunnel and the surface. The main estimates hald before the loose of Commons, Jun. 11, contain an ppropriation of \$100.000 to provide a ar ferry, and make the necessary alerations incidental thereto, including hauge from parrow to standard gauge.

February 1912

ton, Alfa.: W. Johnston, Ottawa. (Oct., 1911, pg. 937.)

Prince Edward Island Ry.—The Minister of Hallways recently stated in the House of Commons that surveys will be made to determine the points on P.E.I. and the maintand between which the proposed carferries will ply, and also as to the other works required, and that as soon as the necessary information is obtained, and the specifications prepared, tenders will be invited and the work gone on with without delay. It is expected to have the work completed within two years. It is intended to widon the P.E.I. Ry to standard gauge, and this work will be carried on as soon as practicable. (Feb., pg. 88.)

Prince Edward Island Ry.—We are

Prince Edward Island Ry.—We are officially advised that no tender has yet been accepted for the building of the proposed branch lines from Clifton Bridge to Stanley Bridge, and from Cleary to West Point.

A press dispatch from Otiawa states that the estimated cost of the car ferry and the changing of the gauge of the time is \$1,340,000. The cost of the car ferry is put at \$450,000, the changing of the gauge at \$450,000, and the cost of a third rail at \$400,000. This would imply that it is proposed to operate the line as a standard and narrow gauge time, the existing rolling stock being used for local traffic, and the standard gauge rolling stock of the Intercolonial Ry, being used only for through traffic from and to the island. (Feb., pg. 83 and pg.

MARCH 1912

ferry had been let to Sir W. G. Armstrong Whitworth and Co. for \$138,000; that for the pier at Cape Tormentine to A. P. Mackie for \$571,590; and that at Carleton Point to the Halifax Dredging Co. for \$199,493. These amounts it was estimated would complete the piers and ferry ready for service. It is not intended to do anything on the way of altering the gauge of the railway this year, and nothing has been decided as to how this is to be done. Engineers have been working on the matter, and the question of laying down a third The Halifax being considered. Dredging Co. has twice thrown up the contract for the Carleton Point terminals, and new tenders have been invited. pg. 169.)

The Halifax Dredging Co. has abandoned the contract for the building of the car ferry slip at Carleton Point, P.E.I. The company desired to use P.E.I. sandstone in the work, but as its durability is questioned the Government refused to sanction it. The estimated cost of the work is \$700,000. New tenders have been invited, to be

submitted by July 2.

Daid Wamfoundland Co -Press reports

July 1913

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Prince Edward Island Ry.—The Dominion Parliament has voted the following sums on account of this line, in addition to those already mentioned in these columns:-To increase accommodation and facilities along the line, \$5,000; to provide car ferry and make necessary alterations incidental thereto, including change from narrow gauge to standard gauge, \$1,000,-The Minister of Railways stated recently that the contract for the car ferry had been let to Sir W. G. Armstrong Whitworth and Co. for \$138,000; that for the pier at Cape Tormentine to A. Mackie for \$571,590; and that at Carleton Point to the Halifax Dredging Co. for These amounts it was estimated would complete the piers and ferry ready for service. It is not intended to do anything on the way of altering the gauge of the railway this year, and nothing has been decided as to how this is to be done. Engineers have been working on the matter, and the question of laying down a third rail is being considered. The Halifax Dredging Co. has twice thrown up the contract for the Carleton Point terminals, and new tenders have been invited. pg. 169.)

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July 1913

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Prince Edward Island Ry.—A contract has been let by the Department of Railways, to the Roger Miller and Sons, Toronto, for the erection of the cary ferry terminals at arleton Point, P.E.I., at an estimated cost of \$950,000. The works included in the contract were described in our July issue, pg. 232. (July, pg. 332.)

CI ILL

September 1913

Prince Edward Island Ry.—Work in been started on the car ferry terminals; Carleton Point, P.E.I., and at Cape To mentine, N.E. — Fripp is engineer in the Dominion Government (Sept., pg. 433.)

October 1913

Prince Edward Island Ry.—Press report state that construction of a spur line to Carleton Point, where the car ferry terminal will be situated, has been practically completed. The line is about 2.5 miles lone and runs on a tangent from the Cape Traverse branch. The cuttings and fills have been built for standard gauge. As soon accompleted the line will be used for taking in material for the construction of the terminals. Roger Miller, representing the contractors for terminals, and — Downing engineer in charge of construction of the spur line, inspected the work, Nov. 14 (Oct., pg. 475.)

December 19/3

River, about 57 miles. Pringle, Thompson, burgess & Cote, Ottawa, solicitors for applicants. (Oct., pg. 468.)

Prince Edward Island Ry.-We are offici ally advised that the spur line connecting the existing line with the car ferry terminal under construction at Carleton Point, P.E.I., will be three miles long. The general charac ter of the grading is light, cuttings, of rea soil, requiring ploughing and picking 18 ins below surface. The culverts are of corrugated from pipe with concrete walls, and one having a 6 ft. concrete arch. Track is being laid with 80 lb steel, and is to be completed to Carleton, 2.5 miles, this year. The cutting to the terminal will not be completed until the approach to the landing has been advanced sufficiently to remove the plant now in the way of railway grading. The plans of the layout of the railway ir. mina.s at the car ferry landing have not yet been completed. (Nov., pg. 501.)

St. John and Quebec Ry.—F. P Gutelius, General Manager, Canadian Government Railways, made a trin of inspection over the

Prince Edward Island Ry.—Press reports state that owing to the Armstrong, Whitworth plant at Elswick-on-Tyne, England, having been taken over by the British Government for war purposes, it is doubtful whether the car ferry under construction for the Carleton Point-Cape Tormentine route will be completed according to contract. The terminals on the island and in New Brunswick are approaching completion. In connection with the ferry it is proposed to standardize the gauge of the railway on the island, on work which it is expected to put in hand this year. No decision will be rendered on this matter until the railway estimates are prepared for Parliament. (Dec., 1914, pg. 544.)

JANUARY 1915

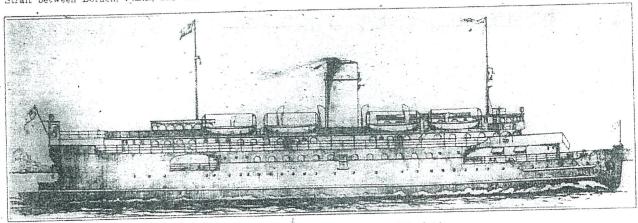
Marine Department

Car Ferry Steamship for Service Between Prince Edward Island and New Brunswick.

The ice breaking car ferry steamship, which was ordered by the Railways and Canals Department, under authority of Deminion order in council passed March 8, 1930, to be built at Lauzon, Levis. Que., for operation by the Canadian National -Rys., across Northumberland Strait between Borden, P.E.I., and Tor-

new ship is heavier and more powerful, with greater capacity for railway cars, and with an entirely new provision for the transportation of automobiles without their having to be placed on railway flat cars as at present. While the ship is built in accordance with requirements of the Board of Steamship Inspection and

amidships, and crew's accommodation, store rooms, etc., at the ends. The machinery arrangement is an unusual one, there being an engine room at the forward end, containing one propulsion engine to operate the bow propeller, the principal duty of which will be to create a suction under the ice and assist in its



Car Ferry Steamship Charlottetown, from an artist's sketch.

mentine, N.B., is rapidly approaching completion, and will be launched on or about May 25, and named Chariottetown. The principal particulars of the ship are as follows:—

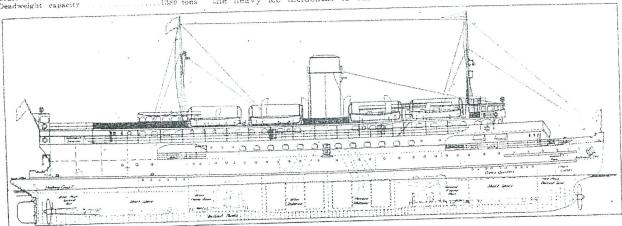
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with Lloyd's Registry of Shipping rules, the principal construction of both the machinery and the hull is greatly in excess of those requirements, owing to the exigencies of the service intended, which are probably as severe as in any part of the world.

of the world.

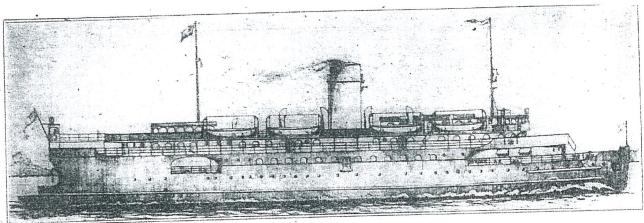
The hull is of extra heavy construction, to enable the ship to operate in the heavy ice incidental to the service

displacement; it will also be of great assistance in manoeuvring the ship at the terminals. There is another engine room at the after end, containing two propulsion engines, operating twin screws at the stern. The three engines are of the same size, and inter-changeable as to parts. Amidships are the two main boiler rooms, each containing four single ended Scotch boilers, and each



Profile of Car Ferry Steamship Charlottetown.

in mintar, The main donk will be util- boiler room comprising a separate entity



Car Ferry Steamship Charlottetown, from an artist's sketch.

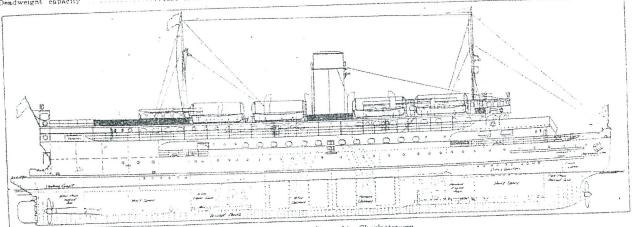
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Prodic of Car Ferry Steamship Charlettetown.

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A study of the design plans and specifications reveals several features of interest. Although the existing terminals are to be used, so as to facilitate the continuation in service of the car ferry s.s. Prince Edward Island and other ships which have been used there, the

in winter. The main deck will be utilized for the carriage of railway cars on three tracks. The forward end is closed by the normal bow ship construction, the after end being open, except for a vertical sliding shutter, and recessed to form a seat for the apron, which is lowered in suspension from the respective terminals. The sides of the main deck are protected by store rooms, funnel uptakes, staircases, crew's mess rooms, galleys, etc. The hull structure below the main deck contains the machinery

boiler room comprising a separate entity with its own fan engines, fuel pumps, etc., the rooms being interconnected by watertight sliding doors of a quick closing type, and operated from the main deck.

The location of the oil fuel storage tanks, which are distributed along the center line of the ship and between each pair of boilers, is somewhat novel, the normal arrangement being to place the tanks in the sides of the holds, or in the double bottom. The advantage of the

arrangement determined upon is said to be twofold. The bulkheads bounding the tanks will provide an excellent center support for the excessive weights of railway locomotives and loaded arra which will be carried on the main deck, while the tanks being in a sense "islands" inside the boiler rooms, the temperature of the oil will be maintained in winter to a satisfactory degree without abnormal use of steam for special heating.

The mezzanine deck, above the main deck, extends at the sides of the ship only, owing to the unusual depth clearances required amidships for locomotives, railways cars, wrecking cranes, etc. The travelling public will board the ship at the mezzanine-deck level, and proceed to the automobile and accommodation deck above, by several staircases of ample

proceed in single file around the boundary of the deck. In no case will any backing or special manoeuvring be required, and the first car on will be the first car off. On the inside of the cars an adequate sidewalk is provided, with double doors in four locations giving entrance to the main saloon. Special insulation is provided to eliminate the possibility of an automobile catching fire and endangering the safety of the ship or the lives of passengers, and fire extinguishing apparatus of a most modern type is installed.

The public rooms provide inside seating accommodation for about 250 passengers, and emergency sleeping accommodation for about 100 passengers, in folding cots, is arranged for in the event of the ship being held in ice for un-

One of the three main engines, Car Ferry Stemaship Charlottetown,

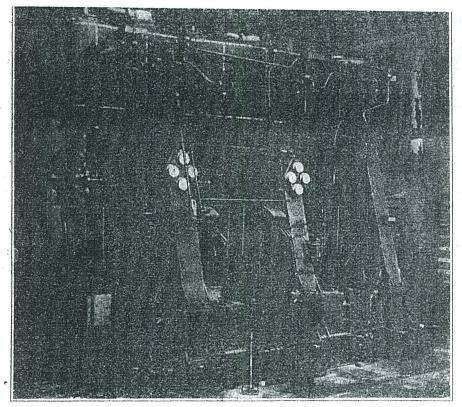
width which will all lead to the main entrance saloon amidships, which is a handsomely furnished public room 72 ft. how he 27 ft wide From the entrance usual periods. These cots will be stored away out of sight except on the very infrequent occasions when they will be required for use. There are two gatare covered principally with linotile, carpets being used in the lounge, ladies' lounge and observation room.

On the boat deck above there are eight large lifeboats, which will be operated by the latest type of mechanical davits, ensuring quick and easy lowering in an emergency. There are also two principal steel houses, each to be entered by staircases from the deck below. forward house contains an excellently appointed smoking saloon, the captain's accommodation, and, at the extreme for-ward end, the chart room and wheel house, which are quipped with naviga-ting instruments of the most modern type, including extra powerful search-lights, range finder, gyro compass and radio-telephone. The navigating bridge is enclosed entirely with large glass windows all around, as also is the docking bridge at the extreme after end of the boat deck, which will be used when the ship will be backing up to the terminals. The after house on the boat deck contains an observation saloon, specially placed to give a clear view all around, and im-mediately abaft it is a staircase leading down to the automobile deck, so that automobile passengers may proceed direct to the boat deck if they wish without going through the public rooms on the deck below.

There are two main generators, one driven by steam and the other by a Diesel engine; the latter will be used when the ship is in dock undergoing repairs, with the boiler out of action.

The ship was designed by Lambert & German, naval architects, Montreal, the contract for building it being given to Canada Steamship Lines, Ltd., subsidiary, Davie Ship Building and Repairing Co., Lauzon, Levis, Que., the price being \$2,112,000. The contract is stated to have been the largest for a single ship ever given to a Canadian shipyard. A sub-contract for the construction of the 8,000 h.p. engines was given to Canadian Vickers, Ltd., Montreal, which also fabricated and fitted the fine joiner work in the principal public rooms. We are advised that all material and equipment were obtained in Canada as far as possible, and it is stated that this was to a greater extent than in the case of any other ship ever built in a Canadian ship-yard.

Dominion Marine Department Ship Name Changes.—Marine order 9 of 1031, passed under authority of the Canada Shipping Act, sec. 26, has changed the names of a number of tugs, dredges, barges, hopper barges, rock breaker, dumping scows, etc., operated by the Dominion Marine Department, by re-



One of the three main engines, Car Forry Steamship Charlottetown,

width which will all lead to the main entrance saloon amidships, which is a handsomely furnished public room 72 ft. long by 27 ft. wide. From the entrance saloon access is provided by two sets of double doors to the lounge forward, which is 58 ft. long by 35 ft. wide; to a well appointed women's lounge; to a modernly equipped dining saloon and lunch counter at the after end, and by a double staircase to an entrance hall on the boat deck above. A news stand is installed at the forward end of the entrance saloon.

The outside of the public rooms on the automobile and accommodation deck will be reserved for automobiles, and considerable pains have been taken to provide travelling motorists with safe, easy and convenient accommodation for their cars. At the terminals specially arranged approaches have been constructed to lead immediately on to the automobile deck, from which the cars will

usual periods. These cots will be stored away out of sight except on the very infrequent occasions when they will be required for use. There are two galleys, one on the main deck for the officers and crew, and another on the automobile deck for the passengers, with electric refrigeration and cold storage space. The cooking range in the passengers' galley will be operated by electricity, and all are equipped to provide first class restaurant service for 100 persons an hour. The public rooms are furnished in accordance with specially approved decorative schemes and all design and workmanship is of the highest standard. Furniture is of polished hardwood throughout, except in the observation room, where it is of art wicker. The smoking room is upholstered in leather; the observation room and ladies' lounge in tapestry; the main entrance saloon in leather and the lounge in ta-peatry. The floors of the public rooms

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l Railways' Branch Lines Construction, Etc.

\$13,282,718.96; during 1931, \$4,878,050.14; total to Dec. 31, 1981, \$17,610,769.10. The estimated expenditures for 1921 are \$648,000, plus \$102,000, a general amount to cover expenditures made in 1931 on 1931 programme, but not charged up until 1932, a total of \$750,000. Following are summaries of the statements in regard to the various lines authorized in 1929, arranged as far as possible in geographical order from east to west.

Island Division, Atlantic Region .-From or near Lake Verde, or Hermitage, on Murray Harbor Branch, to or near Pisquid, or Birts, on Georgetown Division, P.E.I.; authorized by chap. 27; estimated mileage, 10; estimated expenditure, \$370,000; average per mile, \$37,000. The line is completed and in operation. Up to Dec. 31, 1931, \$364,801.82 had been expended. It is not expected that any expenditure will be made during 1932.

Sunny Brae to Guyaborough, N.S .-

It is \$360,602.84 had been expended. estimated that \$312,000 will be expended

during 1932.

Garson Branch.-From about half a mile from end of Garson branch to Falconbridge Mine, Ont.; authorized by chap. 22; estimated mileage, 4; estimated expenditure, \$185,000; average per mile, \$46,250. Up to Dec. 31, 1930, \$115,-387.65 had been expended; none was expended during 1931. The line is com-

pleted and in operation.

From Sudbury Branch to Fairbank Tp., Ont.-From about the middle of Sudbury Branch to Fairbank Tp.; authorized by chap. 33; estimated mileage, 25; estimated expenditure, \$1,850,000; average per mile, \$74,000. No work was done on the line up to Dec. 31, 1931, except some surveys. The expenditure to Dec. 31, 1930, was \$17,586.47 for engineering. There was no expenditure during 1931, and it is not expected that there will be any during 1932.

JULY 1932

Island Division, Atlantic Region.—From or near Lake Verde, or Hermitage, on Murray Harbor Branch, to or near Pisquid, or Birts, on Georgetown Division, P.E.I.; authorized by chap. 27; estimated mileage, 10; estimated expenditure, \$370,000; average per mile, \$37,000. The line is completed and in operation. Up to Aug. 31, 1932, when authority for expenditure under the act expired, \$366,607,03 had been expended, of which \$1,805,21 was expended during 1932.

Sunny Brae to Guysborough, N.S.—Authorized by chap. 34; estimated mileage, 67; estimated expenditure, \$3,500,000; average per mile, \$52,238. At Dec.

April 1933

Canadian Nationa

Atlantic Region Betterments.— The only new railway construction during 1925 was the Lockeport spur, 4.19 miles. from Lockeport Jct. to the Town of Lockeport, N.S., which was opened for traffic. Oct. 19.

Fifty miles of track were relaid with new 85 lb. steel rails; 30 miles were relaid with relay rail and 70 miles were ballasted; 970,000 ties were used for renewals, including 88,000 creosoted hardwood, and 260,000 tie plates were placed in the track.

On the Island Division (Prince Edward Island Ry.) the gauge was originally 31/2 ft. Some years ago a commencement was made on the standardization of gauge to obviate the necessity of transferring loads from narrow gauge to standard gauge cars for shipment by car ferry to the mainland. Standardization of gauge between Royalty Jct. and Tignish, and from Emerald Jct. to Port Bornish. den, was completed a few years ago, and the track between Royalty Jct. and Charlottetown was made multiple gauge to permit handling of both narrow and standard gauge trains. During 1924 work was started under a 3 year programme for the standardization of gauge on the Sours, Georgetown and Montague Subdivisions, totalling 85.41 miles. work during 1925 consisted of grading. ditching, extension or replacement of culverts, some 50,000 cu. yd. of ballasting, and the replacement of the fol-lowing bridges: Souris Subdivision. lowing bridges: — Souris Subdivision, mile 27.4, Morell River, new steel 241½ ft. d.p.g. spans and one 90 ft. d.p.g. swing span, concrete pivot pier, creosoted timber abutments. Mile 312, Midgell River, new steel two 35 ft. dp.g. new concrete pier, granite faced and concrete abutments. Mile 35.3, subway, new steel 35 ft. I beam span on existing masonry abutments, with new bridge seats. Georgetown Subdivision, mile 0.4, replacement of 102 ft. span with fill and two culverts. Montague Subdivision, mile 2.8. Brudnell River, new steel 80 ft. d.p.g. new concrete abutments. At Souris, replacement of old c.t. turntable by a 70 ft turntable on concrete pivot pier. In Charlottetown yard, conversion of nine tracks from narrow gauge to multiple gauge, 90% completed, balance to be done in 1926.

The following bridge work was done in New Brunswick: — Miramichi River at Doaktown, N.B., 165 ft. through truss spans, renewal of west abutment and 2 river piers, abutment completed and first pier under way, second pier to be completed during winter. Missiquash River, one 105 ft. deck plate girder span, renewal of both abutments. Memramcook River, Calhouns, N.B., one 63 ft. deck plate girder, renewal of both abutments. Buctouche River, Buctouche, N.B., timber bridge, spans with trestle approaches 1,250 ft. long, replacement with two 208 ft. through spans and one 50 ft. deck plate girder span and approach fills, work ready for steel, which will be placed when ice forms.

Buildings, Etc.—Terminal facilities at North Sydney, N.S., for handling passenger, freight and mail service to and from Newfoundland including passenger landing stage 175 x 30 ft., built of creosoted timber cribs, stone filled, native pine

January 1926

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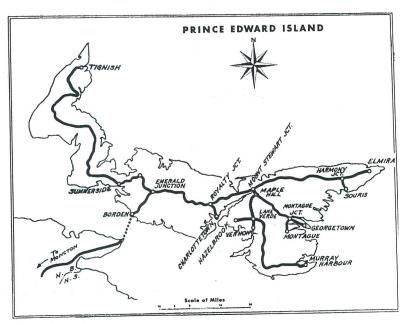
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In Prince Edward Island, the mixed train services formerly operated six days weekly from Charlottetown to Souris, Georgetown, and Murray Harbour will operate three times weekly this year from Dec.16

Each to April 25. train will leave Charlottetown in the morning and return in the afternoon. The Murray Harbour train will run via Mt.Stewart Jct. to Lake Verde, thence to Hazelbrook, return to then to Lake Verde. Vernon (the famous loop) return to Lake Verde, thence to Murray Harbour, repeating the process on the return trip. Lake Verde thus has six trains a The tri-weekly day! Summerside - Tignish mixed train will not operate this season.



Other trains discontinued include Railiners 609-610 between Halifax and Moncton; 631-632 between Charny and Mont Joli; 197-198 twice weekly between Senneterre and Chibougamau; 211-212 weekly mixed between Armstrong and Sioux Lookout; 215-216 weekly mixed between Redditt and Winnipeg; 215-216 weekly mixed between South Parry and Capreol.

In Saskatchewan, tri-weekly Saskatoon-Hudson Bay Trains 31-32 were replaced by Railiners, quickening their schedules and adding the usual 600 to their numbers.

Canadian Pacific Trains 427-428 Sudbury-Sault Ste.Marie, Ont., were deprived of their sleeping car and buffet-coach and are now straight coach trains.

A FEW NOTES.

Some of the service changes this year were not made at the change of time, but earlier, or, in one case, later. The withdrawa of CN Trains 9 and 10 was made in May, of CN 5 and 6 in June, and of CP Trains 211 and 212 in July. CP Trains 123 and 124 are scheduled to make their last trips between McAdam and Edmundston, N.B., Saturday, November 15.

The new fares are not universal as yet, but it is simpler t state where they do NOT apply than where they do. These areas ar as follows: Pool Service zones - Montreal-Quebec via Trois Riviere (CP) and via Richmond (CN) - Montreal-Toronto and Ottawa-Toront (except via Ottawa-new fares apply Montreal-Ottawa); Quebec & Mont real - Lac St. Jean area - Chicoutimi, Dolbeau (CN); Quebec & Mont real - Abitibi area - Senneterre - Rouyn - Cochrane (CN); Medicin Hat - Lethbridge - Nelson - Penticton - Spences Bridge (CP); Inter national routes - Montreal - Boston and New York; Toronto - Chicago Winnipeg-St.Paul and Vancouver-Seattle.

On "RED" days, it is cheaper to travel Montreal-Toronto vi North Bay than over the direct route!

PRINCE EDWARD ISLAND RAILWAY