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HO IS FRANK OLIVER?

(Calgary Albertan). is Frank Oliver? asks the Star, a newspaper which has sympathy with the statement of the minister of interior made condition of Japanese labor, Columbia. It may be stated that Oliver is the minister of interior and represents western Canada Dominion cabinet. He is a man and it is not surprising is out of sympathy with the list forces controlling the Monopoly. The first cabinet minister who any attempt to protect British Columbia from the intrusions of Japan. Without sensation, trouble, without danger he is to successfully accomplish this. That is the man Frank

is the Montreal Star, that it have a say in the affairs of Columbia, that it should direct the government upon a question affects western Canada and eastern Canada not only. The Montreal Star objects because it have a say in the affairs of Columbia, that it should direct the government upon a question affects western Canada and eastern Canada not only. The Montreal Star objects because it have a say in the affairs of Columbia, that it should direct the government upon a question affects western Canada and eastern Canada not only.

Frank Oliver has been a member of the Dominion cabinet for a few years. He is a man of high ability and his strength will increase.

ONTARIO MUST BE GREAT CENTRE.

Atkinson, managing editor of Toronto Star, the most enterprising of Toronto's evening papers, is in Ontario. He is accompanied by Mrs. Atkinson and a party of four. The Toronto Star, which is one of the prominent newspapers of the east. He took hold of the Toronto Star when it was struggling and by the injection of his own money succeeded in developing it into the present position in the front rank of Canadian newspapers.

Mr. Atkinson's first visit to the west was in 1898, when he came to see the country and to see the physical features of the west. He is now in the west to see the physical features of the west. He is now in the west to see the physical features of the west.

Advertisement in The Bulletin

INTRODUCTORY OFFER OF CHARD & GARDEN FRUITVALE

of the Southwestern Warmest Valley in Southern British Columbia, West Kootenay. FOR \$10 CASH. \$10 per month without interest. Only by acting at once that you can secure one of our Orchard on these terms. A beautiful climate, land level, rich soil, yielding an average profit of \$400 to \$700 per acre. Fruits and garden truck. Rain-fall. Planted in 18-acre fronting on roads. No fence than half a mile from main railroad and all within two miles. Daily trains; close markets; unlimited demand for fruit. First and second subdivisions in six weeks. Third and fourth divisions now on sale. Large number of purchasers building and cultivating their land. Neighbors, fine fishing and boating. Write copy for prospectus, matter, maps and all information. We also have for sale best prices, best fruit, best bank and other references furnished on application. Orchard Association, Nelson, B.C.

INTRICACIES OF STANDARD TIME

Daily Transmission of Time, Signals Over the C.P.R., by W.J. Camp, Electrical Engineer.

A vital necessity in the safe and efficient handling of trains is that all clocks and watches must indicate uniform time. Many serious accidents have resulted from a difference between the timepieces of two employees, and during the past few years most of the railway companies on this continent have spent a great deal of money toward securing uniformity throughout their systems.

The C. P. R. management, recognizing the great importance of a uniform time system, has established a Time Service Department under the supervision of Mr. J. F. Houghton, to whom I am indebted for a large part of the matter contained in this paper. The daily transmission of time signals is looked after by the telegraph department, and the following description of the method may be of interest. It is a very long circuit worked, it has been found best to transmit the signals by hand, at 11:55.50 the preliminary caution "BK time" is given by Montreal on all duplex and half quads over which it is desired to send the signals, as a warning to the various repeater offices to cut in their combinations. The single wires are then cut in at Montreal and other points are switched on, the second warning of "time" is given, then single beats are made corresponding to the wiring of the main clock pendulum, by alternately closing and opening the circuit each second; the beats are therefore one second in length. These are continued until 11:56.50, when the circuit is left open for ten seconds. At exactly 11:56.50 a long double beat is given and continued each alternate second until 11:55.50, when another pause of 10 seconds is made at 11:56.00 a double beat completes the transmission.

The repeater arrangements at Montreal consist of five relays of 75 ohms, each connected in series with an ordinary Morse key in a pony circuit. The lead from the local dynamo to the desired duplex and quad tables passes through the contact points of one relay. By means of the loop switch any duplex or half quad can be thrown into the combination. The positive and negative 100 and 200-volt dynamo leads pass through the contact points of the other four relays to the various single wires—a by-path is provided so that any leased or other wires over which "time" is not to be sent can be switched out of the combination.

The sparking at the relay contact points is almost nil, but should it become too great by adding more circuits a small condenser would reduce it. A similar arrangement is used at all repeater offices where storage or dynamo current is employed, the pony circuit being worked by the relay on one of the incoming circuits. At points where the repeater office is equipped with gravity battery, there is seldom more than two or three side lines in service, and in these cases an ordinary relay is employed for each of such lines.

The combinations at the various repeater offices are made up at 11:50 or even earlier. The pony circuits held closed by a button switch until the warning signal is received from Montreal, when the circuit is thrown to turn the switch and throw into the "time" circuit all wires on which it is desired that the signals be sent. The C. P. R. time regularly forwarded to Fanning and other islands in the Pacific ocean, and to Bermuda, Jamaica, and the Azores Islands in the Atlantic. Officers on vessels of the British navy frequently check their chronometers with this time at Vancouver, B.C., and Halifax, N.S., and of the German navy at the Azores.

A few words as to the accuracy of the time may be mentioned. Some years ago a long series of observations were carried on by astronomers of Canada and Great Britain, and signals exchanged over the C. P. R. wire between the Montreal and London. An astronomer was located at Montreal, one at Canada, one at Waterville, Ireland, and one at Greenwich, England. Each astronomer was stationed at each of the points named in turn, in order to terminate the personal error. Signals were exchanged in each direction, giving the transit of various stars over the meridian. Finally land line and cables were connected through repeaters and signals exchanged both ways direct between McGill observatory, Montreal and Greenwich, as a check of the precision of the time. From these observations was obtained the true longitude of Montreal. I believe that afterwards Washington, D.C., and various other points on this continent checked up their longitude with Montreal. McGill observatory sends its signals over a circuit connected with an ordinary sponder in our main office. This clock is closely regulated by a sidereal clock at the observatory, which in turn is frequently checked up by observations of the stars. We have on several occasions noticed that the "time" given over the U. S. railway line has been as much as three seconds in error. We are satisfied that our own standard was right from the fact that the reports from the various comparison clocks on the system showed a uniform variation while the signals coming in over the New York Central Railroad were jumped two or three seconds in one day coming practically into unison with McGill. Comparison clocks (No. 17 or 18 regulator) are located at all divisional points. At all comparison stations a daily record is kept of the clock variations and a report sent to the chief inspector at the end of each month. This report shows the seconds fast or slow when the clock is wound, set or regulated. Each month these reports are checked up and the average weekly rating ascertained, from which a statement is compiled and a copy sent to each master mechanic, superintendent, general superintendent, the vice-president and general manager. The time inspector visits every station from one to three times per year and checks up the handling of records. All way stations are supplied with a standard telegraph clock; variations are recorded daily in same manner as comparison clocks.

Watch Inspectors

are located at all divisional points. They are practical watchmakers doing a regular business with the general public. It is their duty to see that all trainmasters road foremen of locomotives, locomotive foremen, roadmasters, bridge and building masters, engineers, firemen, conductors, train baggagemen, brakemen, yardmasters and yard foremen carry a watch up to the required standard. For this purpose the inspectors are advised by the proper officials of the railway of the changes in the staff of the employees mentioned. The minimum standard of excellence adopted is a grade known among American movements as 17-jeweled, double-roller escapement, Breguet hairspring patent regulator, adjusted to temperature, isochronism and at least five positions, and corresponding to Waltham, Appleton-Tracy and Co., "nickel" pressure; Ball, "official standard" 16 and 18 size; Elgin; "B. W. Raymond," "nickel"; Hampden "New Railway"; "Illinois"; Hamilton "988," and all grades equal or above, also Swiss movements complying with these specifications. The watches which must not exceed 30 seconds per week. Watches which are in service prior to the reorganization of the time service, October, 1899, may remain in use subject to the approval of the chief inspector as based on the record of their performance, or on actual test in his office of their reliability. At most every one of these watches has been removed from the service. Employees required to carry standard watches submit them for half-yearly inspection to the time inspector of their divisions, and receive a Certificate that they are satisfactory, a copy of which is forwarded to his superior officer as duplicate to the chief time inspector. In addition to the half-yearly inspection employees must submit their watches to the inspectors for comparison with standard time watches the first and third weeks each month, and the inspectors keep a record of the rating. Failing to make such comparison the employee is not eligible for duty without order from his superintendent. No charge is made for these comparisons. Cards recording the results of these ratings must be carried on the person subject to inspection on demand of a superior officer. Employees must not set or regulate their own watches unless a watch stops through neglect to wind it. Watches must be cleaned at least once in 15 months. The rate card must be filled in in the presence of the employee, who is required to initial the corresponding entry in the inspector's rating book. When a watch is repaired and cleaned by other than an inspector, it must be submitted to the inspector for approval before being used in service. Watches left with an inspector for cleaning or repair, a standard watch will be loaned to the employee free of charge until his own is returned to him. Inspectors are required to have a thoroughly accurate seconds pendulum clock and must ascertain the error of each watch by comparison with the standard time sent over the company's telegraph wires. A local circuit is extended from the contact points of a telegraph relay in the station to the place of business of each inspector, for this purpose. A similar circuit is provided for round-houses, etc. There are a number of rules and instructions to the inspectors regarding cleaning, etc., which it is not necessary to mention here.

Receive a Certificate

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Failure Waits on Reform Plans

Arrangements to Run Big Hotel at Neepawa on Temperance System Fall Through.

Neepawa, Man., Sept. 14.—Rev. Messrs. Hall and McCormick brought two enterprises and suitable money from Winnipeg and run on temperance lines the King Edward hotel. A guarantee of \$75 per month was made by the citizens' committee and the proposal considered of offering the King Edward hotel owners \$20 per month for one year, half cash. The parties intending to rent, however, declared that the temperance people were not united in support of the King Edward, being apparently divided into sectional and political factions.

Government of the Province of Alberta

NOTICE TO ENGINEERS.

NOTICE IS HEREBY GIVEN that an examination will be held by Mr. David Fraser at duly appointed inspectors of Steam for the Province of Alberta at Houston Hall, Jasper Avenue, Edmonton, October 14, at 9 o'clock, a.m. The duties of giving engineers and apprentices an opportunity of qualifying for certificates under the provisions of the Steam Act, 1889, and the application for examination should be made to the above named Inspector of Steam.

JOHN STOCKS, Deputy Minister, Department of Public Works, Edmonton, Alberta.

Correspondence

THE ANTI-ASIATIC QUESTION.

Sir,—In your issue of September 9 it is reported that the Edmonton Trades and Labor Council have adopted a resolution protesting against the admission of Japanese and Chinese laborers into British Columbia, and copies of this resolution will be forwarded to Victoria and Ottawa. One might imagine from hearing these axe-to-grind unions talk of "the Chinese invasion," that Canada was about to be converted into a dependency of the Chinese Empire. They quite overlook the fact that this immigration of Asiatics into the British Colonies was at the express request and urgency of the British Government, and that in the case of the Chinese it was a superior treaty of nations and policy of their Empire and against the wishes of their government.

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THE OLD YUKON GAMBLING HELLS

C.H.E. Asquith, in Victoria Colonist Describes These Places as They Were Years Ago.

No more is the dance hall and the gambling house a part of life in Alaska and Yukon! Official edicts passed from Ottawa and Washington have abolished what were once the principal amusement places of the seeker after wealth in the northland. An era that began in the days of '49, that has filled the pages of literature with its doings, the life that Bret Harte immortalized in the "Optic" and "Poker Flat," and other tales, has been abolished. The unnumbered and unusing a few weeks ago. It was pure coincidence that both an American and Canadian government could almost on the same day issue orders that dance halls, gambling, drinking in boxes, and various other evils, but hitherto considered necessary elements of the northland must forthwith be abolished. From the issuance of that order, the ideal of the northland has been to make the north as safe, as sane, and as moral as Ottawa or Washington.

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"I had a bottle of Kendall's Spavin Cure for my horse. It is a hint as to how to keep horses free from blemishes and lameness."
Dr. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT, U.S.A.



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