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New Welland Ship Canal

A Strategic Link in the Greater St. Lawrence Waterways Which Will Provide Ship Navigation Between Lakes Erie and Ontario

One of the most important of the inland waterways in Canada is the Welland Canal. It is one of the principal links in the great St. Lawrence waterways connecting the Atlantic Ocean with the Great Lakes. The Welland Canal connects Lake Erie with Lake Ontario, crossing the Niagara Peninsula about ten miles west of Niagara Falls. It overcomes a difference in level of 326½ feet. The original canal, opened in 1829, extended from Port Dalhousie on Lake Ontario to the town of Port Robinson, where a connection was made with the Welland River. The course was down this river to its junction with the Niagara River and thence to Lake Erie. This was not found satisfactory, so between the years 1831 and 1833 the canal was extended along a route from Port Robinson to Port Colborne. The present canal, 26½ miles in length, was completed in 1887. Several years ago it was found that the canal was entirely inadequate for use by the modern steamships used on the Great Lakes. As is generally known an important part of the business on the Great Lakes is that of grain carrying, and the constantly increasing output of the grain fields of Western Canada has resulted in the development of a peculiar type of "Upper Lake Vessel" built to carry immense cargoes of grain. These vessels of 600-odd feet in length, loading at the upper lake ports, while able easily to navigate Lakes Superior, Huron and Erie, are forced to discharge their cargoes at the foot of Lake Erie, either at Buffalo, N.Y., or Port Colborne, Ont. Because of the restricted dimensions of the Welland Canal the Canadian Government in 1908 provided a million bushel elevator at Port Colborne to facilitate the transshipment of grain from the upper lakes vessels to canal sized vessels bound for Montreal, where it is shipped to Europe. This elevator accommodation was soon found insufficient, and two since, in 1912-13 and again in 1923-24, additions were built, so that the Government has now a 3,000,000 bushel modern concrete elevator the capacity of which is already taxed to the limit.

World's Largest Spock

In order that there may be complete protection to the canal and vessels in it, there is being built in addition to the seven locks, a special lock near the southern end of Lake Erie in the canal. The lock, known as No. 8, is 1,380 feet in length between the inner gates. It is the longest lock in the world and is approximately size only by the two United States locks at Sault Ste. Marie, which are 1,350 feet long.

A very important feature of modern canal construction is the manufacture and erection of the ponderous steel gates. In the case of the Welland ship canal, as may be imagined even by the layman, the supplying and erection of the gates is a matter of no small dimensions in itself. The approximate weight of metal in each lock gate is 451 tons, and the total estimated weight of metal in the lock gates, with their fixed parts and machinery, is 23,000 tons. In addition there is required no inconsiderable amount of machinery to operate the lock valves and valves in regulating metal in these items being 3,800 tons. The total estimated connected motor load for operating the canal and the Port Colborne elevator is 15,300 h.p.

With this very modern equipment being installed for operating the locks, including the working of the valves, opening and closing the gates, etc., great facilities of movement of vessels is expected. The time required to all one of these immense locks is only eight minutes and the estimated time for a vessel to pass through the ship canal from end to end is eight hours.

To Be Completed Next Year

Concurrently with the increased grain production in Western Canada and the development of the large super-lake vessels, the demand for a still larger Welland Canal. In 1912 government surveys demonstrated that a shorter and better route could be had via Tonawanda Creek flowing into Lake Ontario. It was then decided that the time had come to begin the construction of an enlarged Welland Canal.

In 1913 the construction of the ship canal was commenced, and with little interruption has been proceeding with until the present time. It is expected the new canal will be completed sometime next year. The total cost is estimated at about \$115,000,000. The ship canal is being built to modern standards under the most up-to-date meth-

ods and rigid supervision and will, when finished, be a monument to Canadian engineering skill.

To overcome the 326½ feet difference in level of Lakes Erie and Ontario the new canal will have seven locks of uniform lift, each 4½ feet, whereas the present canal has 26 locks of varying lift. The difference between the old and the new becomes very apparent when this comparison is made, the other dimensions of the ship canal making the comparison of further interest. The useable length of the locks is 820 feet as compared with 255 feet in the present canal, the ship canal having locks of 30 feet width, as compared with 4½ feet in the present canal. The width of the canal proper is to be 310 feet at the water line and 200 feet at the bottom. The immense locks are built to take 30 feet of water on the sill; the canal reaches are to have 25 feet depth, which may be increased to 30 feet when the need arises.

Terminal at Prescott, Ont.

It is planned to erect twenty-one movable bridges of the most modern type across the canal, as in such a populous area there are many highways and a considerable number of railway lines. Each bridge is designed to carry the particular kind and volume of traffic offering at its particular location. In all cases the needs of navigation have been remembered, and the type of bridge and modern machinery provided for their operation have demonstrated in the cases of those bridges that are already in operation that delays are reduced to a negligible quantity.

At both ends of the ship canal large harbor works are located. At Port Weller, the Lake Ontario entrance, a new and artificial harbor has been formed by the construction of two embankments extending into the lake for a distance of nearly one and one-half miles. The entrance is 400 feet wide and widens out to a bottom width of 800 feet in the harbor. The harbor is a little more than a mile long and covers an area of about 150 acres.

With the completion of the Welland ship canal the upper lakes freighter drawing up to 25 feet will be enabled to proceed all the way down to the foot of Lake Ontario. This will mean that there will have to be established a terminal for these vessels for the purpose of transshipping grain cargo to the smaller vessels navigating the St. Lawrence canal. At the last session of the Canadian Federal Parliament the sum of \$1,500,000 was voted for the purpose of commencing the construction of the necessary terminals at Prescott on the St. Lawrence River, between Lake Ontario and Montreal. It is proposed to have these terminals ready, including lock space and an accurate elevator, by the time the Welland ship canal is completed, probably in the spring of 1930.

Lloyd George Again Declares He Will Aid Labor

Liberal Leader Scores Triumph in Huge Meeting at the Albert Hall

London.—Mr. Lloyd George had a well-staged triumph, recalling the post-war orations in his meteoric career, at the Albert Hall on Tuesday night, where he repeated to a crowded Liberal audience (his speech being also relayed to 15 other halls) his much-discussed claim to be able to reduce unemployment to normal in a year without cost to the taxpayer. Fifty thousand people who heard him were also thrilled by his plea for a reduction of armaments, his closing words, "Let's take some risks for peace," being cheered even more energetically than the adroitly arranged presentation of two Liberals who have won seats from the Government in recent by-elections.

Regarding unemployment, Mr. Lloyd George declared emphatically, "Of one thing I have no doubt—we shall bring the position to a point of fulfillment of our pledge." This was in reference to the fact even if the Liberals fail to obtain a majority in the next Parliament, there is now a generally recognized probability of their being in sufficient strength to swing the balance of the other two parties. Another striking point was "Mr. Baldwin is paying £75,000,000 a year and getting nothing in return. We propose for a year or two to do nothing but honest, good, valuable work."

In the audience was Lord Rothermere, the newspaper proprietor, whose usually Conservative organs are now telling their readers, "The way to make a vote tell against Socialism is to give it to the Liberals. Just before the Albert Hall demonstration Mr. Lloyd George strolled into the House of Commons, where he was greeted with ironical cheering from the Conservative benches and cries of "Why weren't you here last night," this having reference to the fact that he did not attend to defend his proposals when they were under debate.

King's Son Heads Church Assembly

Church Assembly of Scotland

CHOICE IS POPULAR

Announcement is Received With Pleasure and Surprise

London.—The announcement that the Duke of York had been appointed to head the Church of Scotland's General Assembly of the Church of Scotland was received with pleasure and surprise throughout Scotland, where it is believed to indicate the King's approval of a union between the Church of Scotland and the United Free Church of Scotland.

The negotiations between the two churches are drawing to a close, and final approval will be given in May to the incorporation of the two churches as a united body.

The appointment of the Duke of York also puts an end to agitation to have the meetings of the general assembly postponed until after the election.

Meanwhile, there appears to be some doubt as to whether the appointment of a member of the Royal Family to such a post creates a precedent. It will be the first occasion, however, that a member of the Royal House has attended in an official capacity since James the Sixth removed the courts to London after the union of the Crowns in 1603. In 1597 James the Sixth occupied a position as Lord High Commissioner and was also present at General Assemblies in 1598, 1599 and 1602.

League of Nations to Have New Home

Agreement Signed at Geneva by Sir Eric Drummond and Swiss Government

Geneva.—On Friday afternoon Sir Eric Drummond, on behalf of the League of Nations Secretariat and M. Boisnans on behalf of the City of Geneva, signed an agreement for the erection of a new palace of nations in the Park Ariana. The occasion was marked by the exchange of compliments in which Giuseppe Motta, chief of the political department of the Federal Government, took part, and declared that the Swiss Government was at all times anxious to extend its sympathetic collaboration to the League of Nations.

The league is now congratulating itself on possessing an admirable site for the new palace, the foundation stone of which will be laid next September when the Assembly meets. The league will have ample scope for the library so generously extended by John D. Rockefeller Jr. and to extend the buildings as occasion demands.

In Mexico parents are to be allowed to attend school with their children. Which is going to add to the complications of playing hooky.

Mutt and Jeff—By Bud Fisher

MY MECHANICAL ROBOT IS JUST WHAT YOU NEED FOR A CASHIER IN YOUR RESTAURANT—AS ACCURATE AS A HUMAN BEING AND A GREAT DEAL CHEAPER!

I'VE PLACED SOME MONEY ON THE TABLE TO SEE IF I CAN BUY ONE OF THE DIFFERENT DENOMINATIONS. ROBOT, POINT TO THE ONE, DOLLAR BILL!

SEE? I'LL REPLY TO YOU FOR THE BUCKS A DAY. IT NEVER MAKES A MISTAKE!

THAT MAY HAVE BEEN LUCK! I'LL TRY IT AGAIN! POINT TO THE NICKEL, ROBOT!

SEE? I TELL YOU IT'S SMARTER THAN SOME PEOPLE! I NEVER ERRS. IT'S YOURS SEEMS A DAY!

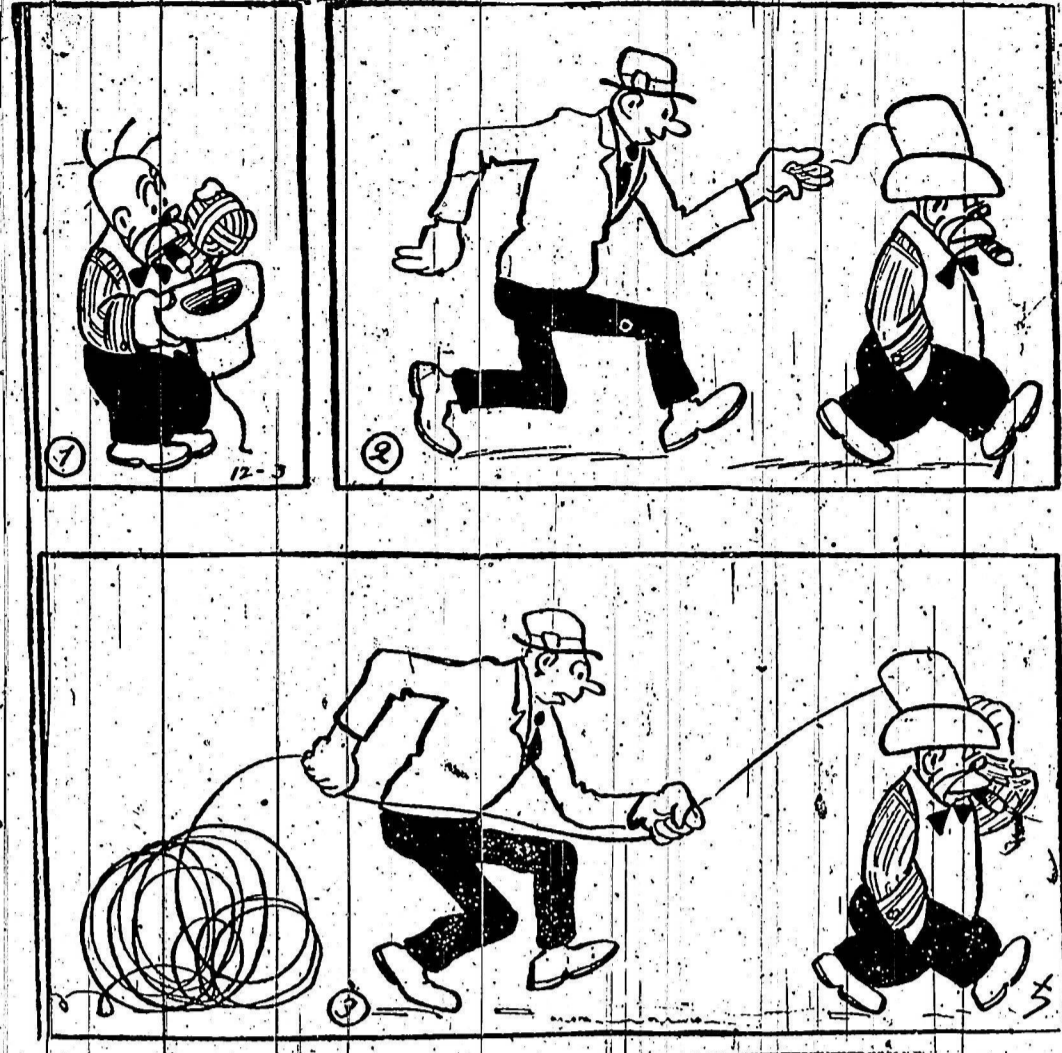
NOT SO EASY, THIS CHUNK OF MACHINERY CAN BE TRICKED. ROBOT, POINT AT NOTHING!

UNCANNY!

MY NAME IS JEFF. I GUESS YOU'LL BE THE BEANS, DON'T YOU?

NAH! I'M BRAVING. THAT CASHIER'S JOB IS YOURS IF YOU WANT IT. TEE HEE!

ADAMSON'S ADVENTURE—By O. Jacobsson.



King's Son Heads Church Assembly

Duke of York Named Lord High Commissioner of Scotland

CHOICE IS POPULAR

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Prince Henry Off on Trip to Japan

Duke of Gloucester to Invest Emperor With Order of Garter

London.—The Duke of Gloucester left recently for Tokyo, where he will invest the Emperor of Japan with the insignia of the Order of the Garter.

The Duke will proceed to Marseilles, where he will embark there on the SS. Morea of the P. & O. Line for Yokohama, where he is scheduled to arrive May 2.

It was said that the sole purpose of the trip was the investing of Emperor Hirohito with the insignia which was awarded him at the time of his coronation at Kyoto last November. The trip will serve, however, as a return of Prince Chichibu's recent visit to England.

Numerous official ceremonies and receptions have been arranged in Japan to honor the Duke and his party, for two or three weeks. The trip will mark the third time the Order of the Garter has been awarded to an Emperor of Japan. On the two previous occasions Prince Arthur of Connaught officiated.

In accordance with custom, the insignia is returned to England upon the death of its recipient, but it is upon them whether the badge which the Duke of Gloucester carries to Tokyo is the same as that worn by the present Emperor's father. No record is kept of the individual badges, most of which date back to the time of Henry VIII.

The trip was planned for early this year but delayed because of King George's illness.

Khan Forbids Slave Trade

Ruler Publishes Decree Abolishing Evil Throughout His Territory

Bombay.—During the year under review the most important event in Baluchistan was the carrying into effect of the Khan's decree abolishing slavery throughout his dominion, writes Lieut.-Col. H. R. St. John, agent to the Gov.-Gen. General in Baluchistan, in his annual report of the agency. The turning of agricultural slaves into tenants and the liberation of their wives and families proceeded without difficulty, but the freeing of domestic slaves was not so easily achieved. On the whole, the liberation of slaves of every description has been both successful and complete.

Both the Marri and Bugti chieftains followed the example of Kala and agreed to the abolition of slavery within their tribal territories. The majority of these slaves were descendants of captives taken in warfare and their social condition had sunk very low.

With the exception of some damage done on one or two occasions to the Indo-European telegraph line by transbordered men, the condition of affairs on the Persian border, he adds, was generally satisfactory. The emigration of a number of Rindis into Persia as a protest against the Khan of Baluch's order abolishing slavery was met by prompt action on the part of the political agent and the British Cavalry Corps with the result that the majority of emigrants returned to their homes before the end of the year.

In Zhab the border was exceptionally free from disturbances. This immunity to the recent introduction of opium was wholly due to the fact that to enter Zhab without a permit issued by a political officer. The gradual extension of the Hindustani-Ford Sandeman Railway which is now open as far as Killa Saifullah, supplied employment for a large number of tribesmen.

Manchus Lose Out in Modern China

Proud Race Bows to Inevitable Elimination of Drones

Peking.—The proud race of Manchus, who ruled the Chinese Empire for more than two centuries, are vanishing race, and are likely to appear almost altogether within the next two or three decades, in the opinion of Dr. Jernyns Lynn, Chinese professor of law at Chaoyang University here, who has made a study of Manchus for years.

The Manchus are like the famous Jewish colony in Honan province, Lynn believes, which managed to maintain a distinct existence for years, but eventually was overwhelmed, being absorbed by the Chinese.

At present, Dr. Lynn estimates, Manchus in Peking number about 350,000, a full third of the population. As long as their emperors ruled in Forbidden City, they kept some to themselves, living in separate parts of the city from the Chinese, and intermarrying so often as they grew, in those days Peking, like cities in Europe and America, had a "Chinese Quarter," even though it was the capital of China.

A SHELTERED RACE

But since the Manchu emperor abdicated in 1911, the plight of Manchus has become steadily worse. They had become somewhat notorious for easy and protected lives, were not fitted to meet the competition of the Chinese.

Dr. Lynn estimates that the single group of Manchus in Peking today earns a living by pulling rickshaws, a very severe occupation. Many others are domestic servants, working for Chinese or foreign employers. A large group is connected with the trade, of which the Manchus are so fond.

But if the Manchus are to rather badly by the Chinese, they are merely reaping the seed sown by their fathers, Dr. Lynn says. When the Manchus ruled China in 1644, and laid up their perors, the Dragon Throne, Lynn declares the Manchus became arrogant race, treating the Chinese with undue severity.

VERY AN ANCIENT RACE

The Manchus, however, were so undisciplined in their attitude toward the Chinese that the emperors tried to divert their attention by persuading them to trade and sell walnuts in their markets, still common among the Chinese.

The Manchus are a very race, Dr. Lynn points out. They appear in Chinese chronicles as early as 200 B.C., when they sent to the Chinese emperor, the vassals, but always very, indeed becoming stronger as the centuries passed, until their conquest of the empire in 1644.

Dairy Products Main Industry in Palestine

Production of Cattle From Europe and Syria Results in Big Increase

Palestine is on the verge of becoming once more, and in the sense of the word, the land of milk and honey flow.

The production has developed to an extent that it has become the backbone and almost the entire factory of practically all Jewish colonies established since war and of some pre-war times. Statistics compiled by the Zionist Executive show that the sale of dairy products has doubled within the last year, so that an anomalous increase in production may be assumed. The sale of milk is estimated at about 23 per cent. of the gross income of the colonies, its share in the income being considerably higher, about 50 per cent.

This branch of agriculture, which, in Palestine, had spread the fame of the land, has been steadily declining. The very little pasture land and what is left of it can only be used for a while, because the sun scorches the grass and the ground is impoverished and neglected.

The natives do not yet realize the importance of fertilizing. They show little interest in the improvement of the soil, and experiments in sowing with native cattle were successful. Today the yield per cow has risen to 2,500 liters annually, in the instances the 3,000 liter mark has been reached.

Whereas milk in former times was regarded as a sort of luxury, to which was to a great extent substituted, a population has now grown used to milk consumption, approaching the European standard. Moreover, the improved production has created a thriving butter industry.

No more is the immigrant from eastern countries forced to eat inferior butter many years old. He can now fresh, locally produced butter for breakfast. Gradually, however, it is being made to the full. It only needs a greater variety in kind.

Mental Balance Is Off in Spring

Suicides and Cases of Passion are Numerous During April and May

Cologne, Germany.—That people are to be a little more nervous in the spring than at other seasons is the conclusion of Dr. R. Hoffmann, of the University of Cologne, who has collected statistics of the fluctuations of many kinds of human disease during the months of the year.

There is a popular belief, well substantiated in the temperate zone, the human reports, that spring is a season of special danger to health. This is why our grandparents swallowed such "spring cleaning" mixtures as sulphur and molasses and used so many "spring tonics" composed of various roots and seeds.

For some diseases, Dr. Hoffmann finds, the statistics do not support this idea that springtime is unhealthy. They do support it notably, however, for diseases of the nervous system. There is evidence, he declares, that mental equilibrium is less stable in the spring than at other seasons. Persons apt to lose their mental balance anyway are more likely to succumb in April or May.

Those also are the months, Dr. Hoffmann points out, in which the police departments report the highest number of suicides and of passion.

Dr. Hoffmann's conclusions, however, are based on the fact that the spring is due in part to lack of ultraviolet rays during the long winter, but he feels that other weather changes may be of importance also, and advocates further studies of disease statistics both by physicians and by weather experts.

Sugar Syrup for Bees

Winnipeg.—In order to encourage the beekeeping industry in Canada the Canadian postal regulations are being amended to permit of packages of honey bees being sent by mail when, on sugar, syrup as allowed by the United States Post Office. This is the post office regulations in Canada demanded the use of a certain candy compound as food supply for bees, which it is in fact as not as a candy factory for bees a sugar syrup.

The action of the Canadian Post Office Department in changing the regulations came as a result of representations made by the Manitoba Beekeepers' Association. Beekeeping is becoming an important industry in Manitoba. Of the 12,000,000 pounds of honey produced in Canada in 1928 the province of Manitoba accounted for 5,774,998 pounds. It is the second largest producer among the provinces of the Dominion, being exceeded only by Ontario, with 8,500,000 pounds. Quebec in this place with 3,000,000 pounds. In 1929 the total honey production in Manitoba was only about 120,000 pounds.

Thousands of packages of bees are annually imported into Western Canada every spring, principally from Alabama and other Southern States.

It's about this time of year that the college student begins rummaging about his room in a frantic search for the list of studies he is taking.

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