New Welland Ship Canal

A Strategic Link in the Greater St. Lawrence Waterways Which Will Provide Ship Navigation Beween 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, 26¾ miles in length, was completed in 1887.

Several years ago it was found 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 particular 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 faciltate the transhipment 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 twice 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 Stock

In order that there may be complete protection to the canal and vessels in it, there is being built in addition to the seven-lift locks, a guard lock near the southern, or Lake Erie end 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 approached in 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 f metal in each lower gate is 454 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 weirs, the total estimated weight of 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 the very modern equipment being installed for operating the locks, including the working of the valves, opening and closing of the gates, etc., great facility of movement of vessels is expected. The time required to fill 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 upper lakes vessels came the demand for a still larger Welland Canal. In 1912 government surveys demonstrated that a shorter and better route could be had via Ten-Mile 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 proceeded with until the present time. It is expected the new canal will be completed sometime next year. The total cost is stimated at about $115,000,000. The ship canal is being built to modern standards under the most up-to-date methods and rigid supervision and will, when finished, be a monument to Canadian engineering skill.

To over come the 326½ feet difference in level of Lakes Erie and Ontario the new canal will have seven locks of uniform lift, each 46½ feet, whereas the present canal has 25 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 80 feet width, as compared with 45 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 sills; 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 freighters 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 trans-shipping grain cargo the smaller vessels navigating the St. Lawrence canals. 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 dockage space and an adequate elevator, by the time the Welland ship canal is completed, probably in the spring of 1930.

The Lighter Side of Europes' Freeze Up

EUROPEAN COLD NOT ENTIRELY UNAPPRECIATED

While many loud complaints are voiced about the recent cold in Europe, enthusiasts such as these skaters on Wimbledon Common, London, don't care how long it continues.

King's Son Heads Church Assembly

Duke of York Named Lord High Commissioner of Scotland

CHOICE IS POPULAR

Announcement is Received With Pleasure and Surprise

London.—The announcement that the Duke of York had been appointed Lord High Commissioned of the 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 long-drawn-out 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, 1600 and 1602.

HELD BY PEER.

Since then the position has been generally held by a member of the Scottish peerage, though when Ramsay MacDonald was in power, James Brown, Ayrshire miners' leader, acted as Lord High Commissioner.

Church leaders in all parts of Scotland express pleasure at the appointment of the Duke, and the Lord Provost of Edinburgh, Sir Alexander Stevenson, says: "It is one of the most popular appointments that have ever been made, especially as this is the last divided meeting of the Assembly. The presence of the Duke of York, coupled with the fact that a union of the Scottish churches will be an accomplished thing, will make even more memorable a memorable event. The Duke is already a freeman of the city, and the corporation will consider what steps should be taken to commemorate his visit."

The appointment of the Duke also shows how the increasing responsibilities of monarchy are being distributed among the King's sons.

General approval is given here to the news that the links between the Motherland and the various dominions will be graced in time by the appointment of members of the Royal House to governor-generalships.

Mental Balance Is Off in Spring

Suicides and Crimes of Passion are Numerous During April and May

Cologne, Germany—That people are apt to be a little crazier in the spring than at other seasons is the conclusion of Dr. R. Hopmann, 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, world-wide in the temperate zone, Dr. Hopmann 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" compounded of various roots and seeds.

For some diseases, Dr. Hopmann 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 concludes, that mental equilibruim 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. Hopmann points out, in which the police departments report the highest number of suicides and of passion.

Dr. Hopmann considers plausible the idea that spring disorders may be due in part to lack of ultra-violet 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.

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 Tokio where he will invest the Emperor of Japan with the insignia of the Order of the Garter.

The Duke will proceed to Marseilles. 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 keep the Duke and his party busy 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 not known whether the badge which the Duke of Gloucester carries to Tokio 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 near the time of Henry VIII.

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

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

A shorthand expert says that Canadian talk much more rapidly than they did twenty years ago. It may be added, they have more to talk about.

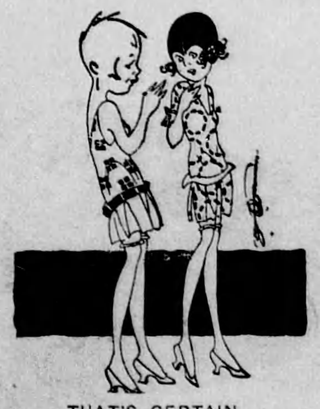
Lloyd George Again Declares He Will Aid Labor

Liberal Leader Scores Triumph in Huge Meeting at the Albert Hall

London.—Mr. Lloyd George had a well-staged triumph, recalling the post-war ovations 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 14 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 be in the position to compel the 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 paying two or three times that amount for 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.



THAT'S CERTAIN

"What are you going to get along with your new Easter hat?"

"One grand big argument from the old man."

Manchus Lose Out in Modern China

Proud Race Bows to Inexorable Elimination of Drones

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

The Manchus are like the famous Jewish colony in Honan province, Dr. Lynn believes, which managed to maintain a distinct existence for 400 years, but eventually was overwhelmed, being absorbed by the Chinese.

At present, Dr. Lynn estimates, the Manchus in Peping number about 350,000, a full third of the population. As long as their emperors ruled in the Forbidden City, they kept somewhat to themselves, living in separate parts of the city from the Chinese, and not intermarrying so often as they do now. In those days, Peking, like many cities in Europe and America, had its "Chinese Quarter," even though it was the capital of China.

A SHELTERED RACE

But since the Manchu emperors abdicated in 1911, the plight of the Manchus has become steadily worse. They had become somt through centuries of easy and protected life, and were not fitted to meet the competition of hardier Chinese.

Dr. Lynn estimates that the largest single group of Manchus in Peping today earns a living by pulling rickshows, a very severe occupation. Many others are domestic servants, working for Chinese or foreigners. A large group is connected with the theatre, of which the Manchu aristocracy was so fond.

But if the Manchus are treated rather badly by the Chinese today, they are merely reaping the sins sowed by their fathers, Dr. Lynn points out. When the Manchus conquered China in 1644, and set up their emperors o nthe Dragon Throne, Dr. Lynn declares the Manchus became an arrogant race, treating the humble Chinese with undue severity.

VERY ANCIENT RACE.

The Manchu bannermen, or soldiers, were so undisciplined in their attitude toward the Chinese that the Manchu emperors tried to divert their attention by persuading them to train birds and roll walnuts in their hands, diversions still common among the Manchus.

The Manchus are a very ancient race, Dr. Lynn points out. They first appear in Chinese chronicles as early as 2330 B.C. when they sent tribute to the Chinese emperor. They were vassals, but always very independent, becoming stronger as the Chinese weakened, until their conquered Peking in 1644.

Canada and the League

Ottawa Journal Cons.): Canada joined the League of Nations as a separate entity. This, as a Norwegian jurist pointed out, is in the World Court statutes and in the League Covenant. More than that, Canada and Australia and the other Dominions have never recognized the right of British delegates to vote for them or to speak for them. They are to use a homely phrase, on their own. But states like Greece cannot grasp that. To them the British Empire suggests an Empire with all that the term has implied and meant in the story of the past. It is something that will prove difficult to overcome, but which must be. If Canada is going to pay her shot of the expenses of the World Court and the League and be responsible for their decrees, then Canada cannot accept any position of inferiority or leave the decision of matters vital to her to those, English or otherwise, who may not know the circumstances of her case.

Immigration

Chicoutimi Progres du Saguenay (Ind.): Our policy of immigration has not given the results which have been expected of it. Exact statistics show that, for many years, we have been losing by emigration more human capital than is brought to us by ships from Europe. And to this loss must be added the millions which have been spent in the enterprise.

Toronto Growing

An expenditure of $13,000,000 for the carrying out of plans designed to relieve traflc congestion in the city and to develop propsed beauitfication schemes has been recommended to the Toronto City Council by the Advisory City Planning Commission. Toronto, the capital of the province of Ontario, has grown rapidly in recent years. It has a population of about 600,000 and is the second largest city in Canada.

THEY'RE LIKE THAT

Tillie Turtle: How do you find Mr Snake?

Tessie Turtle: Charming.

League of Nations to Have New Home

Agreement Signed at Geneva by Sir Eric Drummond and Swiss Govment

Geneva.—On Friday afternoon Sir Eric Drummond, on behalf of the League of Nations Secretariat and M. Boissonnas 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 Guiseppe 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 can now congratulate 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 endowed by John D. Rockefeller Jr. and to extend the buildings as occasion demands.

Albany River, Ontario

A recent report of the Geographic Board of Canada states that the Albany River, rising in Lake St .Joseph and flowing into James Bay, Ontario, was named by the Hudson's Bay Company in 1683 after James, Duke of York and Albany (1633-1701), later King James II.

Hertzog and the Empire

Leo Maxse in the National Review (London): We have never entertained any illusions concerning General Hertzog's ill-will towards the British Empire or doubted his desire to break it up. But we had hitherto supposed that his Separatism was animated by some perverted form of local patriotism. His latest manoeuvre indicates, however, that he is nothing but a party politician of that debased type which will sacrifice every national interest in order to pick up a few extra votes. Happily such men are rarely good judges of public opinion, and it is permissible to hope that there is sufficient common sense in the electorate to whom he is appealing to realize that to raise the cry of White versus Black is to play the game of the enemies of both, whether in Moscow or elsewhere.

Nobel Prizes

What the Nobel Prizes are? Alfred Bernhard Nobel, a Swedish philanthropist and inventor, who died in 1896 set aside by his will a sum of money to provide five prizes every year for such persons as had done most for the benefit of the world in chemistry, medicine, physics, literature and peace. These are the Nobel prizes, which constitute a very high honor indeed.

Rudyard Kipling for literature, Sir William Ramsay for chemistry, Lord Rayleigh for physics are some distinguished Englishmen who have been awarded Nobel Prizes.

Beauty in the flesh will continue to rule the world, and no better way will ever be found to glorify beauty than the stage.—Florenza Ziegfeld.