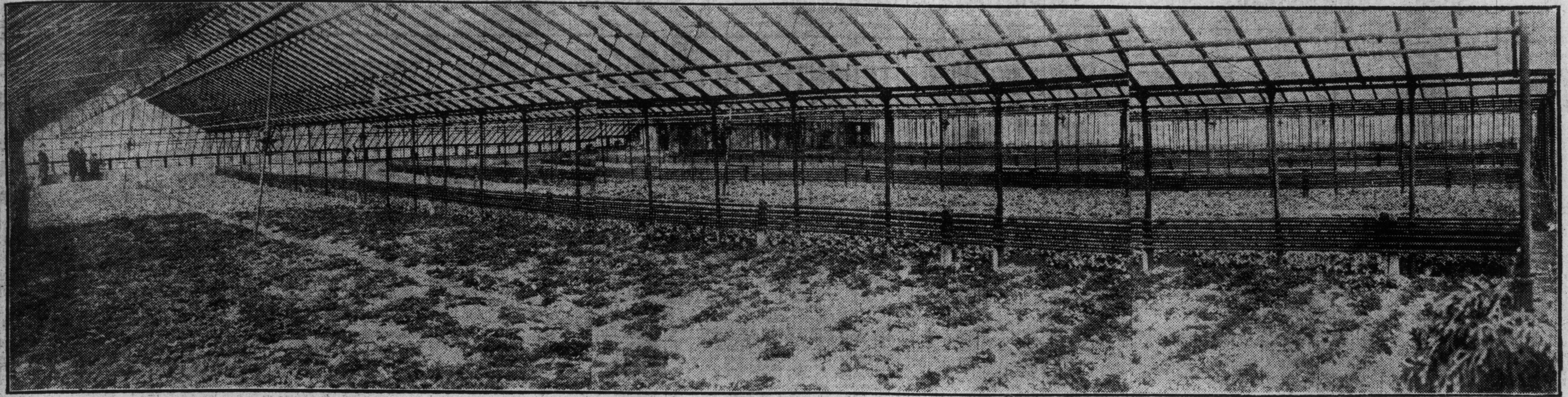


Where Lettuce, Radishes, Strawberries and Summer Vegetables Are Grown in Mid-Winter



Producing Vegetables Under Glass Has Made a Fortune for J. D. Nairn

Crops of Summer Garden Truck in Rotation Are Grown All Winter and Sold at High Prices—Land is Plowed as in Open—Automatic Heating and Watering Systems.

Unique in the history of market gardening in Canada is the plant which is operated by J. D. Nairn of Hamilton, by which he is able to supply the trade with the smaller vegetables all the year around. The plant consists of one acre of ground, at Bartonville, covered with 26,000 feet of glass, built on the plan of a conservatory. The earth is not contained in boxes, as in the average hot-house, but lies in its natural state, and is plowed and cultivated in the same manner as an open field. From this ground Mr. Nairn takes three crops of lettuce, radishes, parsley and other small vegetables, and one crop of tomatoes every winter. In the coldest weather there is not the slightest possibility of the vegetables freezing, as the temperature of the indoor farm is kept at summer heat at all times. On a bright day, when the sun's rays are bright, the place is kept warm by natural heat radiated thru the glass canopy; but on days when the sun is hidden from view the heat is supplied by steam, which circulates thru several rows of pipes, running at regular intervals between the beds.

TWO TONS OF COAL A DAY.

To maintain a constant temperature of 80 degrees, it is necessary to burn one ton of coal every 12 hours in a large boiler furnace, which is situated just outside the house itself. The conservatory is equipped with an irrigation system, consisting of overhead lines of sieve-like pipes, extending the full length of the beds. The entire acre of ground can be watered in a very few minutes by simply turning on a tap in the boiler-room. The water, which is drawn from a stream about 100 yards away, is forced thru all the pipes at the same time, and in a few minutes the beds are as satisfactorily watered as they could be by the use of hose, which would take a great deal more time. The power necessary to draw the water from the ditch is supplied by an electric motor.

A NEW INVENTION.

Mr. Nairn has invented a very simple affair which lets him know when the boiler is in need of water. Just inside of the door of the greenhouse proper there is a well which is connected with the boiler. In this well there is a large float, to which is fastened a long iron rod. When the water falls the float falls with it, and vice versa. When the water in the boiler is low, that in the well is high, and by the time the water in the boiler has reached the danger point, that in the well is so high that the iron rod is touching an electric wire above, making a connection and ringing a large bell that can be heard at all parts of the farm.

As it is necessary for a man to look after the plant during the night, it is equipped with brilliant electric lights; the power for which is taken from the Cataract transformer, a short distance away.

ALL KINDS OF VEGETABLES.

For about eleven months of every year this plant is continually in working order, yielding crop after crop of vegetables. During the fall, winter and early spring, Mr. Nairn specializes in lettuce, radishes, parsley and the smaller vegetables. In the spring he transplants his tomatoes and cucumbers, which in their infancy are nursed in pots in a raised bed, and about May 24 he reaps his first crop of these vegetables. He is, therefore, able to compete successfully with the California dealers, whose products are shipped to this country while still green, to ripen in the cellars of the dealers here. The flavor of these vegetables is far inferior to that of those grown by Mr. Nairn, owing to the fact that his vegetables are ripe before they are picked, and enjoy the benefits of the sun's rays in the latter stages of their growth.

GIVES THE LAND A REST.

One might think that this constant strain upon the soil would gradually weaken it and lower its productive ability. This, however, is not the case, as one crop of tomatoes and cucumbers restores to the soil all of the vitality which it has lost in the production of the earlier vegetables. During the month of August the soil is thickly covered with manure, which also adds to its fertility. In early September the ground is plowed up and the first crop of the next season is planted.

A great deal of credit is due Mr. Nairn for taking the first step in this, a hitherto unexplored, field of market gardening in Canada. He had been in the business for a few years when he conceived the idea that such a plant as he is now operating would prove a success. Accordingly, in 1910, he consulted several Canadian and American capitalists, in an effort to obtain their co-operation in the execution of his scheme. He presented his proposition to many of them, but it was invariably

PLOWING UNDER GLASS



Mr. Nairn plows his land under glass, just the way any farmer would plow in the spring or fall.

COSTLY WRECK AT WANSTEAD

Mogul Engine Plowed Thru Freight Cars and Passenger Cars Left Rails.

SARNIA, March 2.—(Special.)—Grand Trunk express No. 3, west-bound, crashed into the rear of a freight today at noon, a few miles east of here at Wanstead, and as a result much damage was done, but no loss of life resulted.

The freight, which was to take the siding, did not clear the line before the flyer arrived. The heavy mogul plowed thru the freight cars, while several passenger coaches left the rails and landed against a stock train on the next track. No one was injured, while the loss to rolling stock will amount to several thousands of dollars.

An auxiliary from here cleared up the track and brought the train to Sarnia.

turned down as impracticable. The average young man of 23 years would have been discouraged by this adverse criticism, but not so this young man. He firmly believed in the practicability of his scheme, and he scraped together enough money to put the thing thru. This was a big thing for one so young, and he knew that the outcome of his venture would either make or break him. But still he did not flinch; he went into the thing on his nerve, and he won. The success of the scheme has far exceeded his fondest hopes and expectations. Not only has he been able to meet the expense connected with the innovation in its early stages, but he has added all the modern conveniences for the production and marketing of his vegetables, among other things a fine delivery automobile.

PICKING RADISHES IN MARCH



For these vegetables Mr. Nairn receives high prices, because he produces them all winter under glass.

Natural History Society. The Natural History Society will meet this evening at 8 o'clock at the Canadian Institute, 138 College street, when Dr. J. H. Faull of the botanical department of Toronto University will lecture on "The Evolution of Flower Structures," illustrated. The public are cordially invited.

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THE GERMANY OF TODAY

Comprehensive Lecture Delivered at Trinity College on Saturday Afternoon by Platon Reich, Ph.D., Was Considered the Best of the Series.

The fourth of the series of Lenten lectures was delivered at Trinity College on Saturday afternoon by Mr. Platon Reich, Ph.D. The speaker was introduced by Hon. Justice Hodgins, a graduate of the college. Some phases of modern Germany were treated during the comprehensive address on "The Germany of Today," which was one of the most comprehensive of the course. Education was treated under the headings, what it has done, is doing and will do for Germany. A second division told of the status of the church, and a third dealt with the commercial, industrial and armed forces of the empire. "Lord Haldane," said Mr. Reich, in his book, "Germany of the 19th Century," says: "It is want of knowledge of each other that makes the great nations suspicious." A number of amusing stories from a lately written book on travels in Germany were read to illustrate how little of what is written in books can be relied upon. One quotation was: "I have heard it said that bands were introduced into restaurants—in Germany—to drown the sounds of the Germans eating." Another selection by the same author was: "I cannot conceive a German being happy in heaven without some of the terrible tobacco and the beer which makes their waist like barrels."

Some Ignorance.
The lecturer thought these stories illustrate the ignorance of many people who go to a foreign country for a few days or weeks and then think they know it all. Love of truth consists in the endeavor to find out good every where and appreciate it.

In the educational system of Germany, quality has always been preferred to quantity, and in the matter of free education, the German Empire is in advance of other nations, for before 1718 it possessed free education for country and town. The system divides its schools into the elementary, secondary and universities. All teachers are civil servants and receive pensions. Elementary teachers take a six years' course, secondary teachers must have university training. All educational institutions are under control of the state. There are over 60,000 free elementary schools, with 10,000,000 pupils. Mechanical learning from books is largely discarded. Natural history is conducted in the open air. From six to fourteen is the primary school age; thirty-two hours a week are given to the school, four hours given to religious instruction. Separate classes for boys and girls receive instructions on the mysteries of life, the parents being also present. There are 160,000 teachers, only 29,000 being women. The salaries are from \$200 to \$350 a year. There are also middle, classical and semi-classical schools.

Long School Hours.
School hours have reach 11 hours a day. The system has advantages and disadvantages, one of the latter being that 75 per cent. are short-sighted, another the singular mania for suicide, accounted for in part by the

premature precocity of the German youth.

In the 26 universities of the empire there is no fixed course of study, no compulsion to attend lectures, no control, everyone is absolutely his own master. The most prominent scientists in every branch are secured for the universities, and by the nature of things students are obliged to specialize. Professors are exchanged by the institutions, cramming is scarcely known. The one exception to liberty is in the matter of politics. Students are in a manner under guard-ship of state, and are considered too immature to be judges on this important matter. Hence the immaturity in politics of the German student. The universities have 66,000 students, including 5000 ladies. Theatres are one of the most potent influences in Germany. Shakespeare is seen on the boards more frequently than in England. Music is another great power, and there are 30,000 books published annually. Hence the people must read.

There are three state churches in Germany, the Protestant, Roman Catholic and Jewish. Two-thirds of the population are Protestant. Clergy men are appointed by the state, they being semi-officials. All are entitled to pensions. The Protestant church is losing ground today, said Mr. Reich. In three years 17,000 secessions were handed in, in Berlin alone. Reasons for this the lecturer thought were that the clergy were inclined to become too academic and lacking in sympathy. The clergy scarcely ever visit. Socialists charge them with being state officials first, teachers of Christianity after. Ever child when fourteen years of age is allowed by the state to choose his own religion.

Referring to the Roman Catholic Church the lecturer said you will be surprised at its power. The storm of 1873-1891 ended with Bismarck's defeat and the triumph of the church. The increase in forty years was from twelve to seventy-three millions. Religious feeling here is far from being on the wane. Reasons for this are that the Catholic church has unity,

THREE SECRETS OF ALL SUCCESS

Bishop Sweeny Says They Are Service, Love and Esteem.

PREACHED AT ST. LUKE'S

Rev. G. F. Doherty Will Assume Charge on Easter Sunday.

"Reciprocal and mutual interests, one with another; reciprocal and mutual prayer, one for the other; and reciprocal and mutual service by love and esteem, are the three secrets of parochial success," declared the Right Rev. James F. Sweeny, Bishop of Toronto, to the congregation of St. Luke's Church last night. His lordship preached the evening sermon, and at the conclusion made special reference to the appointment of the new rector, Rev. G. F. Doherty, who will assume charge of the parish on Easter Sunday.

"I predict that the more you know him the better you will love him," said his lordship, referring to Rev. Mr. Doherty's coming. "The more you know him the more you will respect him, and the more you will discover the sweetness of his disposition, the honesty of his purpose and the true nobility of his life. He comes not as a stranger. He has officiated as assistant curate in St. Mark's, Parkdale, before he went to London. From an exalted position in the cathedral, in the Diocese of Huron, he comes to assume the rectorship here. I can assure you that when he officiates at this altar and he goes out of this building into the homes of the parishioners of this parish you will find abundant proof that he will reciprocate by the interest he takes in you.

If He is Spared.
"If I am spared to be present at a service commemorating a decade of his service among you, and you have observed toward him the three secrets of parochial success I have laid down for you, then you will find that I am right in the secrets of parochial success."

His lordship preached from the text: "For that He in Himself hath suffered being tempted. He is able to succor them that are tempted." Hebrews, 2 ch. 18 ver. By His sacrifice Jesus had shown us how to use the Spirit, by means of which doubts, sophistry and falsehood are banished.

Plight of Humanity.
A view of this had been given by a Chinese to the Christians. He depicted humanity as a man fallen into a deep, miry hole and calling out for help and deliverance. Confucius approaches and sees humanity struggling. Confucius is sorry to see humanity in such a plight, and gives the spirit, by means of which doubts, sophistry and falsehood are banished. He offers to help if humanity will go on and third or one-half way down. That is Buddhism. By and by a stranger comes to the spot and looks down. He sees the plight of humanity in, and taking aside His royal garment, lowers Himself, and with His own right arm grasps mankind, lifts him out and cleanses him. That is Christianity. "God will not suffer you temptation that you cannot resist," said his lordship. "We are all able to resist temptation. Temptation is not sin, but sliding away to temptation is sin."

the priest is the friend of the people, his training is even more severe than that of the Protestant clergy, and the state does not interfere with the discipline of the hierarchy. The Catholic clergy get only half of that received by those of the Protestant Church, but the bishops refused an increase from the state, saying it would lead to the loss of the simple life for the priests. The Jewish church has the same rights as others with regard to levying taxes.

Few nations have made such commercial progress as Germany, and the country has greatly benefited by protection. Mr. Reich also spoke of the army, all mentally, physically and morally fit, made to enter. The navy owes its rise to the present emperor, and it is to assist the commercial and economic forces that it exists. In thanking the speaker Justice Hodgins said he thought an effort should be made to get the manuscript of the lecture and have at least part of it preserved in more permanent form.

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