TO DEVELOPE CANADA'S RESOURCES

Government Organizing to Make the Most Out of Our Country's Latent Assets

TO SPEND MORE

Ottawa.—To the end that Canada's Natural Resources may be developed to the fullest possible extent, that Canadian industries may be placed on the most efficient basis, and that the waste products of industry may be utilized, the government has, it is announced, decided upon an important expansion of the activities of the Honorary Advisory Council for Scientific and Industrial Research. As stated by Hon. James Malcolm, Minister of Trade and Commerce, during the closing days of last session, it was the intention of the ministry to submit to Parliament a generous appropriation for the purpose, but it was felt that such an appropriation should not be put through without opportunity for adequate discussion on the part of the members of both Houses.

The sum to be appropriated will be approximately sufficient, it is believed, to place the Dominion on a per capita basis of practical equality with other countries which are at present engaged in intensvie research work. The most important feature of the proposed expansion will be the establishment at Ottawa of National Research Laboratories directly under the control of the National Research Council. The function of these laboratories will be two-fold as follows:

1st—Standardization work of all kinds similar to that being conducted by the Bureau of Standards at Washington, or the National Physical laboratories in England.

2nd—To make provision for the carrying out of research through the laboratories which will be open to private firms who desire to conduct investigations, under the administration of the permanent staff of the National Council: For instance any private corporation will be enabled to endow a researcher to conduct an investigation into any particular problem affecting its business, and will be able to retain the results to itself after paying the cost of the laboratory facilities. In many cases it is pointed out manufacturers cannot afford the cost of laboratories, but can well afford the cost of individual and supervised research. At the Mellon Institute at Pittsburg last year $527,000 was expended on private research alone, while at the Bureau of Standards at Washington, half a million was spent for the same purpose.

The whole amount spent on research last year in Canada, including all agencies, was comparatively small, and was probably not a third of what would have had to be expended if the universities had not given free resistance. In the same year in Great Britain, the sum of £5,000,000 was spent on research, and in the United States $50,000,000. It will therefore be obvious that the proposed expansion of research facilities here is highly necessary.

Under the Act passed on July 19th, 1924, by which the Research Council is incorporated, the functions of the Council may be summarized as follows: To promote the utilization of the Natural Resources of Canada: to undertake researches with the object of improving the technical processes and methods used in the industries of Canada with a view to ultilizing the waste products of the industries: to investigate and determine standards and methods of measurement: to undertake the standardization and certification of scientific and technical apparatus and instruments: to investigate and standardize at the request of an industry, the materials used by, or the products of the industry making the request; to make researches the object of which is to improve conditions of agriculture: and to have supervision over researches which may be undertaken by individual firms or organizations which may desire to avail themselves of the facilities offered.

It is quite obvious that such functions as are laid down in the Act cannot be performed without the creation of national laboratories equipped in an up-to-date fashion. It is the government's intention that such facilities shall be provided.

Up to the present time the National Research Council has in an undemonstrative manner been doing excellent work, in close co-operation with the Interior and other departments, educational institutions and other bodies, but is laboring under considerable handicaps. Under the able presidency of Dr. H. M. Tory, head of the University of Alberta, it has functioned as follows:

1st—By the granting, from its small appropriation, of scholarships or bursaries to graduate students working in universities, this work involves both research and training for research.

2nd—By the making of grants to assist researches being carried on by competent persons in universities where laboratories exist.

3rd—By organized co-operative researches where the work requires a knowledge of more than one branch of science. Examples of this latter branch of activity are to be found:

(a) In the investigations which have for some years been in progress respecting wheat rust, and in connection with which the Dept. of Agriculture and the western universities are co-operating. In this regard it may be pointed out that the average annual loss to the Dominion through wheat rust is approximately 25 millions. Investigations so far have produced splendid results and it is anticipated announcement of important discoveries will be made at an early date.

(b) In the investigation into the causes of tuberculosis, human and bovine, which involve co-operation between the Council, the Dept. of Agriculture, leading bacteriologists of all universities, and two or three specially selected sanataria in the Dominion. Wonderful results it is stated, have already been obtained, particularly among the Indian peoples. Pathologists, bio-chemists, Ex-Ray specialists and clinicians have also co-operted in this work.

(c) In the investigation into the effects of dampness on wheat—in this effort the Dominion wheat laboratories at Winnipeg, the three western universities and an associate committee of the Council are working jointly with highly satisfactory results.

(d) Investigation into the magnesite industry by which it is believed this industry in the Dominion will shortly be put on a firm basis.

(e) Investigation, in co-operation with the Engineering Standards Association, and other bodies into the standardization of electrical fittings and devices, block pavements, bituminous concrete macadam and earth roads, and the foundations thereof, dedefinitions of highway terms: cast iron pipes, traffic signs for highways, etc., etc.

(f) Investigation into house insulation, being carried on in co-operation with the Universities of McGill, Toronto, Saskatchewan and Alberta.

The above are only samples of the sixty odd researches being conducted on the co-operative and other basis.

In the first place the universities, with limited funds at their disposal are at work. In the second place the National Council is doing quite remarkable things with the limited means at its disposal, and in the third place the scientific branches of the departments of the Government are doing excellent work, especially in the various branches of science. But there are in Canada no national laboratories for industrial research, no system of research scholarship worthy of the name excepting those offered by the Council, no graduate schools comprehensive of the sciences in any university comparable with the best in the United States; no national foundations, with the possible exception of the Banting Foundation in Toronto; and no national scientific publication.

While it is realized that pure science must be pretty well left to the universities, it is the aim of the government to co-ordinate all the forces now engaged in industrial and scientific research under one common aim, with a system of laboratories as the national brain for the direction of the entire activity. It is the desire to concentrate present earnest, but more or less haphazard endeavor under one head, to bring about uniform activity and effort, and to eliminate so far as possible wasteful duplication. The men and the brains are available. The Research Council has effected an aggressive co-operative system. It is now proposed that there shall be established a national institution, thoroughly equipped and efficiently manned, whereby all effort shall be focussed on one aim.

A study of the British methods of research is one of the objects of the present visit of Hon. James Malcolm, Minister of Trade and Commerce to England.

The Steel Barn

Houston Post-Dispatch: Three years ago a Michigan farmer devoted thought to the problem of building a large new barn. He wanted a structure that would be rat-proof, windproof, fire-proof and capable of bearing enormous loads of grain and hay without sagging or buckling. After casting about for suitable materials he decided that he would use steel. Contractors in his vicinity refused to figure on the structure, so he went to an eastern fabricating plant. He outlined his plans in the rough and by way of an experiment they fabricated steel to suit his needs. The barn is believed to be the first one of its type in America. Experts say that if it is kept properly painted it will last for generations. It is being hailed as the pioneer in a new extension in the steel maker's art. Enthusiasts in the building trade declare that the country may witness another extension of steel, to the building of homes. This development is not immediately in sight, but the depletion of the nation's forests and the threatened scarcity of lumber make it important as a possible future development.

Seafood for All.

Fluorin does not occur in fruit but is found in all salt-water fish, especially bass, pigs' feet, oxtail, calves' foot, cauliflower, cabbage, cheese, goat's milk, raw egg yoke, cod-liver oil, Brussels sprouts, spinach, tomatoes and water-cress. — Portland (Ore.) paper.

Novel Position

Mother: "I don't see Miss Jones here. Can you see her, Bobby?"

Bobby: "Why, Mother, your back is facing her!"

FLYING MOTORCYCLIST

Taking a hill, 5 feet off ground, at the White Gift Motorcycle meet ot Addington Village, Croydon, England.

ICE-BOX CAKES AND PUDDINGS

BUTTERSCOTCH ICE BOX PUDDING.

Cream 1 cupful of brown sugar with 1-3 of a cupful of butter, then add slowly 3-4 of a cupful of hot milk; the mixture will curdle if this is added too fast. Beat in 3 egg yolks and cook over hot water until the custard is thick. Line a mold with part of 24 lady fingers, rounded side down, and fill with alternate layers of cream and lady fingers. Chill at least 12 hours. Serve unmolded and garnished with sweetened whipped cream.

TAPIOCA ICE BOX PUDDING.

Cook for 15 minutes in the double boiler ½ of a cupful of minute tapioca in 2 cupfuls of hot grape juice, stirring often. Beat in 1 cupful of sugar and remove from the fire. Add 1 small bottle of candied cherries, juice and all, the fruit being cut into wafer-thin slices, and ¼ of a cupful of orange juice. When the mixture is cool, pour it into a mold prepared by a slight oiling and strips of sponge cake or split lady fingers arranged on the bottom and sides. Cover with the rest of the cake or lady fingers and leave in the refrigerator at least 12 hours to thicken. Serve unmolded, garnished with whipped cream, and cut in slices at the table. This recipe won for its originator a $500 prize.

CHOCOLATE ICE-BOX CAKE

Line the bottom and sides of an oiled mold with lady fingers, separated, rounded sides down and close together. In the double boiler cook ½ of a cupful of granulated sugar with ¼ of a cupful of hot water and 2 squares (ounces) of chocolate, until melted and smooth. Add gradually the beaten yolks of 4 eggs and cook, stirring constantly, until smooth. Cream well 1 cupful of butter with 2 cupfuls of confectioner's sugar and add to the chocolate mixture when it is cool, then stir in the stiffly whipped whites of the eggs. Pour the cream into the decorated mold and set in the ice box for 24 hours.

Unmold and cover with whipped cream, using 1 cupful of cream sweetened with ¼ cupful of sugar. If liked, this may be garnished with chopped nuts and candied cherries, and a sheet of sponge cake used for the bottom of the pudding when it is unmolded for serving.

A special pan for these new ice box dishes, with a removable rim, is obtainable at kitchen furnishing stores and is a great convenience.

ALMOND ICE-BOX CAKE

Beat to a cream ¾ of a cupful of fresh butter and work in 1¼ cupfuls of sifted confectioner's sugar, ½ teaspoonful of almond extract and the well-beaten yolks of 3 eggs. Whip the whites of the eggs to a stiff froth, then ½ pint of whipping cream. Into the sugar mixture beat the egg-whites, 1 cupful of finely chopped toasted almonds, and the cream.

Line a 3-pint mold with waxed paper and put a layer of macaroons on the bottom, interspersing them, if liked, with toasted almonds to form a design; line the sides of the mold with lady fingers, arranging them vertically. About 12 macaroons will be required and 1½ doben lady fingers. Put half the cream mixture into the mold, and a layer formed by the remaining macaroons, then the rest of the cream. Leave in the refrigerator for 24 hours and serve unmolded with whipped cream.

COCOA ICE-BOX CAKE

Mix together well: ½ cupful of brown sugar, 2 tablespoonfuls of cornstarch, a small pinch of salt and 2 tablespoonfuls of cocoa. Stir in slowly ¼ of a cupful of cold water to form a smooth paste, then turn into the mixture 1 cupful of hot milk. Cook slowly in the double-boiler, stirring frequently, until smooth and thick, then add the well-baeten yolks of 3 eggs and 1 teaspoonful of vanilla. Pour the hot mixture over the stiffly beaten whites of the eggs.

Have ready a mold lined with sponge cake cut into strips or with lady fingers, or previously described, and pour in the custard, alternating with layers of cake untill all is usel. Chill in the ice box at least 8 hours and serve unmolded, with sweetened whipped cream poured over all.

Wanted Them Taken Outside.

Goof (seeing lady of house angry) —"I—I guess you want me to take my gum shoes outside?"

L. O. H.—"Yes—and without removing them, please."

He—"Joan, I'd go through purgatory for you!" She—"You say so, but how can I prove it?" He—"Be my wife."

TRAIN SHEDS AT OLD UNION STATION VANISH

Wrecking outfits armed with high-pressure acetylene torches for cutting steel girders, made a new record in wrecking the train sheds at the old Union Station to make way for new tracks and new platforms for the opening of the new Union Station during the Toronto Exhibition. The above picture shows what is left of sheds three and four, where the girders of the old sheds were cut with torches, the sheds opened like an orange and the old girders piled in cars and taken away.

THE SUMMER SANDWICH

Butter that is creamed before being spread on bread for sandwiches will not tear the slices into unsightly pieces. To cream butter, warm it slightly and work it until creamy with a silver fork, pouring off any liquid that collects in the bottom of the bowl. For ribbon or mosaic sandwiches this butter is the best to use because it holds the slices together well when it is firm and cold.

For other sandwiches, however, a butter superior in taste may be made by creaming in a bowl ½ of a coupful of butter, then adding, little by little, 2 tablespoonfuls of cream that has been whipped stiff. Season to taste with salt and mustard and leave in a cold place until needed. Kept in the refrigerator, this butter will be good for at least two weeks. It spreads better than plain butter, is more convenient to use, and tastes better in the sandwiches.

Savory sandwich butters are made by creaming sweet butter and mixing with it any of the following ingredients: curry paste or powder, grated horseradish, prepared mustard, chopped parsley, celery or onion, anchovy paste or paprika. The proportion to be observed is one teaspoonful of the savory to each six tablespoonfuls of the butter. These are decidedly good for sandwiches, and especially desirable when they are to accompany salads.

Cutting and Spreading.

When crusts are to be removed from the sandwiches, cut them from the loaf before slicing the bread in order to make all the sandwiches uniform in size and shape. By this method, too, the surplus bread may be used in any way desired and the butter and filling will spread a large number of sandwiches. It also expedites the work to spread the butter and filling on as many slices as possible before cutting them from the loaf. Of course, care must be taken to match the slices as one goes along so both will be even in each sandwich.

Most fillings will not soak the bread if both slices are completely covered with butter before the filling is spread on them. If mayonnaise is used, spread it over the butter. Lay on the lettuce or slice of tomato or whatever filling is wanted, then put on the other slice of bread, butter side down, and press firmly together. Made in this way, such sandwiches may be put together an hour or two before serving time and if they are kept under a light weight in a cold place they will be as delicious, and even more attractive in appearance than if freshly made.

In using lettuce for sandwiches, try cutting the large outer leaves into shreds with the scissors and using them instead of the whole inner leaves of the head. These are much easier to manage in a sandwich and have a much more distinctive flavor.

Except for rolled sandwiches, fine-grained day-old bread is preferable to fresher bread because it slices more neatly in thin layers. Two slices of bread, each of them more than an eighth of an inch in thickness, put together with enough filling to give the sandwich a distinctive taste, is too thick to be eaten comfortably in company with civilized people. The old-fashioned thick sandwiches with slabs of meat that had to be wrestled with, have given way to those of more genteel appearance and a chopped interior as a little tribute of respect for the feelings of guests.

Rolled Sandwiches.

For rolled sandwiches, home-made bread not over six hours from the oven is best. Older bread may be used if the loaf is first wrapped in a cloth wrung out of hot water, covered closely with dry cloths and left to stand several hours or heated through in the oven so it is like fresh bread. Remove the crusts and cut in very thin slices after spreading. Begin at one end of each slice and roll as for jelly roll. Secure with a toothpick used as a skewer if the sandwich shows a tendency to unroll, or roll in oiled paper and twist the ends. Lay side by side on a damp towel or a napkin until all are completed, then pin closely, being careful not to crush, and leave in a cold place until ready to serve. Remove the skewers and arrange on the serving plate.

A delicious filling for rolled sandwiches is lettuce hearts cut into pieces about half the size of the little finger. Sprinkle well with salt and roll as the centre of a sandwich spread lightly with butter.

When flat sandwiches are to stand awhile before being served, stack them neatly in piles, lay oiled paper over each stack and wrap each pile in a napkin wrung as dry as possible out of hot water. Put a light weight on top and leave in the refrigerator until needed. Sandwiches intended for lunch boxes, automobile trips, picnics or train lunches should be wrapped in twos and threes in oiled paper as soon as made. If more than one kind of filling is used cut all the sandwiches of the same shape and put one of each kind in each paper-wrapped package.

Various Shapes.

For home serving, each kind of sandwich should be cut in a shape different from the others so one can tell what kind each is without examining the inside. Sandwiches may be cut into strips, squares, oblongs, triangles and diamond shapes by using a sharp knife. For shaping circles, baking powder cans or cookie cutters are useful. Stars or hearts require cake cutters. A cutter for the latter, however, may easily be made at home by removing the top and bottom from a tin and pressing in at the seam and pinching at the opposite line.

Considerable waste of bread may be avoided when sandwiches are to be cut in fancy shapes by slicing the bread lengthwise of the loaf instead of crosswise. Bread that is made at home may be baked in baking powder cans slightly larger in diameter than the completed sandwiches are to be. Except for afternoon receptions, sandwiches are considered quite all right with their crusts on. Nut bread and brown bread sandwiches are especially attractive in such sizes.

These circles of bread are very good for kindergarten sandwiches, too. Cut white, graham or brown bread into thin slices. From half the slices cut a piece in the middle shaped with small animal or flower cutters. Refill the cuts so made with similar shapes cut from bread of contrasting color. Put together in pairs, a plain slice with a fancy one on top.

A good filling for ribbon sandwiches is made of 3 tablespoonfuls of guava jelly with 1 package of dry cottage cheese. Spread alternately on slices of brown bread and white, cut lengthwise of the loaves and about an inch thick, after the crusts have been removed. Press the layers together, one on top of another, to form a loaf, and set aside in a cold place under a light weight until serving time. To make the sandwiches, slice the loaf crosswise.

CANADA FOR BOYS

Besides the increased efforts to bring in more British settlers which are being made by the Dominion Government migration and colonization authorities, some of the provincial governments are planning increased activities to attract the much-needed population to their own areas. This is particularly notable in the case of Alberta, which is considering the reappointment of an Agent-General or special immigration bureau in Britain, where it has not been directly officially represented since the war. Alberta's publicity organizations, including those associated with the Canadian Pacific Railway—such as the Colonization Association, which has its main headquarters in Winnipeg and is represented at the C.P.R. offices in Europe—are making a feature of the fact that of the present population of Alberta some 70 per cent. either own their own farms or have a definite interest in the land upon which they live or work. The increasing importance of its coal output, the amount of timber it possesses and the extent of the water power which can be harnessed to encourage manufacture as well as making farm work easier and transportation cheaper, these are all factors which are being used to impress those who, though they may have made up their minds to make a fresh start somewhere in Canada, remain in doubt as to which particular section of the big Dominion they shall plant themselves. Indeed, Canadians realize more than does the average Britisher how difficult it must be for a decision to be made: the study of a really big map is essential to make it clear that the Province of Alberta alone contains twice as many square miles as England, Scotland and Wales combined, and as wide as the distance between London and Manchester, and as long as that Between London and Orkney Islands. Then the map shows that the province of Saskatchewan, which adjoins Alberta on its eastern side, is almost as big and quite as anxious to get in more people of British birth. The same is true of Manitoba, which separates Ontario from Saskatchewan. The fact that Ontario has been for so many years getting such a large proportion of the newcomers from Britain is, it is thought by many, to be a considerable extent due to the fact that Ontario has had for the last 20 years a very active organization at work in the United Kingdom which has been unremitting in its efforts to bring Ontario's attractions into the limelight, both on the platform and in the Press.

Though Alberta is one of the newest of the nine provinces which make up the Dominion of Canada: as a matter of fact, the history of the area of Western Canada, now called Alberta, really dates back some 200 years, for this was the area in which the wonderful Hudsons Bay Company of "Adventurers" so actively prosecuted its fur trapping and trading enterprise; in fact, it was only in 1870 thta the "Adventurers" handed over their rights to Canada. Not until the Canadian Pacific ran its main line through this territory six years later was the value of Alberta-grown wheat widely known, with its own Legislature, Lieutenant-Governor, and magnificent Parliament buildings in its growing capital city—Edmonton.

British boys do well in Canada, and Canada is eager to have them. Those who arrive in Canada ready to train for Canadian farms are especially welcome, and there are splendid opportunities for them. Enthusiasm for boys and their welfare in Canada, at first a hobby, now something like a second life-work, inspires Mr. G. B. Woods, president of the Continental Life Assurance Company of Company, and hon. treasurer of the Social Service Council, of the Anglican Church. Mr. Woods has just arrived in England on the Canadian Pacific liner Montcalm, and is now in London. . . "Canada is destined to be the greatest of the British Dominions, and one of the greatest countries in the world," says Mr. Woods. "That is why I believe in Canada for boys."