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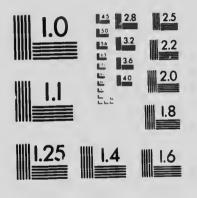


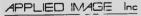
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ANGLICAN CHURCH OF CANADA GENERAL SYNOD, ARCHIVES ADDRESS

BY

MR. J. H. PLUMMER, D. C. L., President Dominion Steel Corporation, Limited,

King's College Encaenia, 14th May, 1914.

When your President asked me to speak to you today 1 did ealize what an audience 1 should be called upon to address, should not have so cheerfully consented.

W have been talking of the prospects for growth and development in the Maritime Provinces, of the men who were going out from King's and of the place which University graduates should fill in the communities in which their lot is cast, and it is of these matters 1 have to speak.

When one thinks of the sources from which material growth may come, one's first thoughts naturally go to the soil, the *terrae frugiferentes*, on which we depend for the maintenance of life. The tillage of the soil is the true basic industry, the fundamental source of our prosperity, but it will not in itself create the growth in population and wealth which we desire for our province in order that the well-being of her people may increase and fuller opportunities be found to improve the conditions under which they live.

No country can grow great or powerful by agriculture alone. One can conceive a people devoted chiefly to the cultivation of the soil, happy, mambitious, content to live quiet laborious days, to enjoy simple pleasures, to be satisfied with little gain. But when this was the prevailing condition in these provinces the sons and daughters sought elsewhere the lives and careers which they could not find at home, to an extent probably unknown in any other colony. It is only of late years th 1 this has been checked by the growth of other industries, but it has not been stopped.

All this, however, is after all only harping on a well known condition, that no agricultural community can absorb its own natural increase in population. There is no room for all of those who grow up in such surroundings; and a portion of them will in any case be unwilling to adopt the life about

them; for such as these, change and town or city lie and occupations have an irresistible attraction, and if they are to find them at home there must be a more general development.

In Nova Scotia we are peculiarly favored by the natural conditions of the Province for a symmetrical and well-balanced development. We have wide lands whence the food requirements of a large population can be won; we have a climate which at its best is perfect, and, at its worst, milder than in any other Province save British Columbia; and we have possibilities and opportunities which should keep our industrial development in advance of the development of agriculture as it is now.

I need not dwell on the latter, although it is of the utmost importance in a well balanced growth, if not indeed, essential to that growth. Much is being done to improve old methods and to put the business of farming on a sound and scientific footing, but much more is required. Scientific education and training will tell as much on the growing of crops, the raising of cattle, dairying and the like as in other industries.

If we consider what it has done in a short generation for Denmark we could measure the possibilities of what it might do Denmark, like Nova Scotia, is set in many seas, she for us. has a winter climate that does not differ greatly from ours, and she had, not so long ago, a comparatively sparse and unprogressive farming population. By a system of co-operation and by the application of scientific principles she has built up a trade in food supplies with our own Motherland that has made Denmark one of the most prosperous countries in Europe. And her growth has this distinctive mark, that it has been greater in her country districts than in her cities and towns; a distinction which is due to the attractive power of the comfort and prosperity found among those who live on her soil. Of the importance of this to the physical well-being of the race I need not speak.

One element which Denmark at the outset lacked, and one which is generally most precarious, is already assured in Nova Scotia: there is an excellent market for everything which can be produced on the land. The industrial towns in the Maritime Provinces take all they can obtain of home-grown produce and bring in besides large supplies of food from other Provinces. Cape Breton has even received part of its butter supply from New Zealand.

When speaking of industrial possibilities I must confine myself chiefly to Nova Scotia; not because her sister Provinces by the sea are less important or less interesting but because of lack of knowledge of their resources. They must, indeed, always be of interest to us. Prince Edward Island is a garden, from which we draw a large part of our food, and her prosperity as an agricultural community is assured.

The great forests and the mineral deposits of New Brunswick "el' known, and she has one special possession which is just ar attracting much attention. I speak without personal E.J. knowledge in the matter but there seems to be no doubt that her deposits of oil bearing shales are immense as to quantity and of very high quality. The question of a continuance of the supply of mineral oil or of some substitute for it is in many respects one of the most important problems in the world. The tremendous and increasing use of mineral oil and its derivatives, for fuel and for power, makes this question almost vital, and if we could develop here, close to our own fortified harbours, a supply of fuel for the Navy, we should be serving a great Imperial interest. It is a curious fact, not without a serious side, that no mineral oil is now produced on any British territory in any great quantity.

In Neva Scotia we have coal in abundance and ore readily accessible, although not developed to any extent within the Province, and in common with the other Maritime Provinces we have that most important element, cheap water transportation. The extensive sea-boards of these provinces, their commodious and ice-free harbours, and their geographical position as the natural Eastern outlet on the open sea for our half of the continent mark them out as the tuture scene of great commercial and shipping activities, and much development may be looked for upon the completion of the new transcontinental lines of railway and of the harbour facilities at Halifax and St. John.

Then we have in Nova Scotia a population which takes kindly to industrial pursuits, and possesses great aptitude for such work. We could not indeed depend wholly on our own people, as their numbers are insufficient for any rapid growth; this is one of the disadvantages which we suffer in comparison with Ontario and Quebec, but it will cure itself in time. What one would like, and indeed y and expect to see, is our own people doing the skilled work and newcomers supplying the less important class of labour. I have often spoken of the

superior character of our native-born workmen; as a rule they make a good name for themselves wherever they go. In a discussion some time ago with the head of a New England manufacturing house I was struck by his partiality for Nova Scotians as workmen and especially as foremen. In other and higher spheres of service we hear the same thing; most of our people who find opportunities elsewhere rapidly make for themselves a position and reputation of which their friends at home may well be proud. They seem to be awakened by the stimulus of new surroundings; at home they are apparently indifferent to the opportunities that surround them.

This point seems to be worth further consideration. There is a very general feeling in other parts of Canada that an important difference in character is discernible in those who live by the sea or to be more precise, in Nova Scotians. They are supposed to take life more easily, to be less given to the nervous and persistent cnores in business which is characteristic of those living further west mare it is indeed carried to excess. Use has perhaps blunted my powers of observation on this point, but when 1 first came to the Province it seemed to me that the people on the Atlantic coast like those on the Pacific had a habit, very wholesome in itself, of facing issues quietly and placidly, and of living as men to whom the accomplishment of material results is not the whole end of existence. I have since observed here a certain amount of inertness but on the other hand have found some of the hardest working men 1 have known, and one has only to look around this gathering to see that the observation cannot be very generally applied. One would expect from our graduates a conscientious devotion to duty which would cure any lack of energy due to constitutional or climatic influences. We certainly should guard against any tendency to become slack; in these strenuous days we need a different spirit if we are not to fall behind in the race.

If, however, there is any slackness in business, that cannot be said of other matters, such as politics and polenics; in these, to tell the trut¹⁵ one would gladly welcome something of the quietness an acidity which is complained of in other affairs. But let me admit, which 1 do gladly, that if the people in these Provinces do fall short of the best in respect to the matters of which 1 have been speaking it is due to defects of good qualities, qualities in themselves more lovable than those that lead to the other extreme.

Speaking again of our material advantages. I would not have you think that I regard the Province as endowed with exceptional natural resources. Beyond our great possession, our Coal fields, and our position on the sca-board we have little advantage in this way over other Provinces. The first is, however, in itself, a signal endowment. The great prosperity of the Motherland was the direct outcome of her great possession of coal and ore, and while much of the ore she now uses comes from abroad, it is still through these possessions that she is able to retain her foreign trade. We had, of rs., and still has, the thing essential for their proper utiliz. In, that is, a large supply of skilled labour. Comparing on position with hers, we have coal, as she has, we can obtain plenty of ore at fair rates, as she can; we can reach the markets of the world by sea as readily. We lac however, the supply of skilled labor, and we have to begin te solid up, attaost from the foundation, the great structure of business relations, with their connections and credits which she holds by right of centuries of commerce, as well as the reputation for honest workmanship which makes her products acceptable everywhere. But, as you will see, we have the things that cannot be created where they do not exist, while the things we need are things which time can bring us.

Let me add that of everything that goes to make up a successful industry, the personal element is the most important factor. To secure good management, skilled and trained labor and a sound organization is a harder thisk than to secure capital.

Our Canad: industries have all originated in the demands of the Lou market, but there are many indications that a large foreign trade is likely to be open to us, and that it will become an increasingly important part of our work. When the time comes there can be no question as to the position of Nova Scotia and New Brunswick in relation to such business.

There was a map published in 'lalifax some years ago in which a Nova Scotia port, whose name I need not mention, was shown as a center or "Hub" from thich any place in the world could be reached in the shortest possible time. There may seem to be a large element of humour in this, but it is not by any means visionary. Sydney compares favourably in the matter of transportation to foreign markets with any of the European or American shipping points. The distances by sea are in the main no greater than from New York or

Antwerp. Distances are, of course, not the only factor, but they are the dominant factor in the development of trade routes. For ordinary traffic, other than the supply of heavy materials which are carried in unbroken cargoes, the advantages are greatly in favour of the established lines of steamers, running to the chief commercial ports, and carrying miscellaneous cargo made up of many shipments, but when the trade comes the traffic facilities will soon follow.

We all know the importance to Canada of the great work just completed by our neighbors to the South, the Panama Canal. It is of special importance to the Provinces which border on the Atlantic and the Pacific. It will bring the Maritime Provinces as near to the Pacific Coast of North and South America as any of their competitors, in some cases nearer. It will be chiefly valuable to Nova Scotia at first by bringing us closer to our own Pacific Province, and by making possible a speedier, cheaper and more regular exchange of commodities.

In the future therefore Nova Scotia will offer great advantages in cheapness of raw material and in low cost of transportation to foreign markets. For exports of manufactured goods that are chiefly made of iron and steel, such as agriculture implements, automobiles, etc., Nova Scotia will have special advantages.

To pay our foreign debts by commodities created by our own labour and out of our own resources is a double benefit. So that foreign is greatly to be desired from a national point of view. In England the trade returns are watched with anxious eyes, and Germany and the United States are both striving for trade abroad. But there can be no question that the home market is the most important outlet and our main efforts must be directed to its retention. I will not enter on the question of free trade and protection as affecting this, although the subject occupies a neutral ground politically; on both sides there are to be found ardent supporters of protection. The question is, however, one which should interest you, as it is one on which, in the time to come, you will have to take a stand. I will only say briefly, as to the manufacture of iron and steel, that this basic manufacturing industry, which stands next in importance to agriculture, was never established anywhere in the world without protection and that we in Canada cannot hope to do better than others in this respect.

There were duties on these materials in England for a hundred years, and in addition the natural protection afforded by cheap and abundant raw material and a large population accustomed to mechanical work, all of which gave her a practical monopoly. Added to these advantages England was the first to press forward the industry and she had for a long time no competitors. The position thus gained enabled her in time to open her markets free to the world with perfect safety. you hear of her prosperity in this regard under free trade you may remember that when it was adopted no country in the world was able to compete with her. You will, I fear, in the years to come have to admit that the policy is not so safe now that other countries, following her early example and freed from some of her disadvantages, have overtaken her in this industry, and have, in addition, largely excluded her from their markets.

In the United States everything was sacrificed to establish the making of iron and steel. Early in the last century duties were imposed and as the years passed became increasingly heavy; it is only today that it has been found possible to lower or remove these duties. Even now a change of feeling in the United States on this subject, and a return to moderate duties is not impossible.

The condition in Germany is highly interesting. In addition to protective duties, training schools are maintained which provide a steady supply of intelligent and skilled labour, and technical colleges in which the branches of applied science which bear on iron and steel manufactures are taught with German thoroughness. As a result the industry is on a very sound and scientific basis. On its commercial side there are arrangements which here one could not imagine as possible. recently saw in Dusseldorf an important and handsome building which was the public home of what may be called the "combine," whose existence here would bring down a storm of public disapproval and an immediate clamour for the revision of the tariff. In Germany special allowances are made by the subsidiary industries involved in the production of raw materials at their various stages and by the Railways, for the promotion of foreign trade in the finished articles. There is thus protection in the home market and a bounty on goods exported. Under these conditions German iron masters have built up a large production, and their technical success should encourage us, since their raw materials resemble those which we have to use in Nova Scotia.

As to the position in Canada, it might be supposed that since the art has been fully developed elsewhere on the Continent, it could be transplanted to our soil in such a way that we could start here on precisely the same level as exists elsewhere. That view would, however, be wrong. Every district has its own problems; the coal, the ore, the limestone, even the climate, all differ in ways that affect the successful making of steel, while the question of labor is a most serious one. You cannot really establish the industry until native-born labour in more or less sufficient supply has been trained, and that is a work of years.

There are many other things to be considered, the long East and West haul which affects the transportation of our finished products, the comparatively limited market, which prevents specialization and other things; but without going further into the subject I will only repeat, that if we are to make our own iron and steel possession of the home market is vital and that we must have reasonable protection, at least until by development and specialization we have approached in our industry the level attained by our neighbors.

Now as to our part as a University in this future. It is the boast of Oxford that she does not teach men how to make a living but how to make a life. The intellectual training and the formation of character which I take to be the primary consideration in these halls, should give us men who while they will not let the need of making a living submerge their ideas of life, will nevertheless be well-equipped for its sober work. In this nothing ultimately tells more than the trained mind, the sharpened mental powers and more particularly the conscience which sets devotion to duty above any mere personal gain.

I have said "ultimately." There has been a very general belief, which is becoming gradually modified, that one becomes a better business man if the formative years are spent in dealing with active business affairs rather than in college. My experience has been that one who has gone into business as a boy will at the end of 6 or 7 years work be much better qualified than one who has started after graduation and, at the same age, has had only a couple of years experience. A few years later, however, the conditions will be reversed. When it comes to the higher work in any business organization the training of the graduate, if he is worth anything, and has had proper business training as well as his college work, is sure to tell. He has a clearer and more logical mind, his reasoning powers are more fully developed, he is capable of taking broader views. The personal equation, however, counts tremendously and all we can say with certainty is that a University course gives a man the best chance to make the most of his qualities.

On this question, however, you will find the most diverse opinions, people will tell you that education beyond a certain stage not only unfits men for business but puts them wrong with the practical things of the world generally. Others who admit the need and value of Universities say that education there makes men incapable of realizing their own deficiencies in practical knowledge and wisdom.

It cannot be denied that many graduates regard the degree they have gained as itself an end, instead of being merely a stepping stone to the next stage in life. The men who do realize this, and also realize that they have to face life, after graduation, as students to whom a new set of lessons is set, will escape these criticisms.

The number of men who take their degree, and then enter on a business career, has grown enormously of late, both in England and the United States. In Germany the men who desire to take high place in industrial affairs remain until they reach 25 years of age in technical colleges, devoted chiefly to the teaching of applied science. While this is not the same thing as spending the years in an arts course, it shows that that very practical and thorough people regard with approval entrance into business life at 25 after a college training.

For the proper development of the industries open to use, whether manufacturing or agricultural, and for research work, men who possess technical knowledge are needed, and these men should come from the Universities. Nothing in modern manufacturing practice has become so important as scientific research. The extent of which this branch of work has grown in the great manufacturing Companies is marvellous.

Much might be said on this subject and many cases might be cited where, by process of pure scientific deduction in the laboratory or study, problems have been solved and difficulties removed, so that processes have been prefected or discoveries have been made which have completely changed an industry, or made practicable things that had before been impracticable. The need for research work applies equally to the tillage of the soil, to dairying and to all industries connected with the land. For the men whe are to undertake the work of research as well as those who are needed to guide our industries, we must look to the Universities. It has been elsewhere urged that they will accomplish their best work for the country by turning out more men of scientific training, and fewer candidates for professions already overcrowded, and there can be no doubt that it is of the greatest importance to the Maritime Provinces in whose future Manufactures must play a large part, that the Universities should meet this need.

No one doubts the value of University training as a preparation for research. But as to other work there is another point of view. There is a wide-spread belief that college-trained men have been found to lack the thoroughness, the dogged perseverance, the willingness to spend time and strength on the work which characterise the best men who have worked up from the ranks.

It would probably be found that this opinion is in many cases the result of individual experience, unduly generalised, but the experiences are by no means unkown. I am, of course speaking of men who are ambitious to apply their technical or scientific Education in practical work carried on by themselves, and not of those who seek the more professional sphere of technical advisers to those who are doing the practical work. The two careers differ greatly, and the last may well attract the man of a purely scientific bent. The first has the greatest promise of material reward, but no one should undertake it who is not prepared to sacrifice sleep and rest and comfort when the work calls. It is hard work, often carried on under trying and repellent conditions, and any one who is willing to stand aloof and leave the work to subordinates because it calls for sacrifice of comfort or of other interests is already on the road to failure.

The man who has entered on practical life as a lad and learned his business in actual work, step by step from the bottom, has gained a knowledge of men and things which no lectures, no reading can impart.

The student who has acquired at college, scientific knowledge, an analytical mind and power of expression, has attainments one who has grown up in the work, cannot hope to rival. Each needs for full development the attainments of the other, and that training will be most successful which gives opportunity to combine the two.

It is not an easy problem, and it is not sufficient merely to impart knowledge, whether scientific or practical. To ase the words of a disconguished German authority, which I find in the report of our own Royal Commission: "Real scientific culture in union with that discipline of character which teaches thoroughnes: and devotion to aims lying outside of ourselves are of no less importance to the development of a country than technical training." From another German source the Commission quote with approval the statement that "the amount of technical instruction is far less important than the development of character and intelligence" of the student, and that "technical training must be regarded as a means to this end." This was said of the work of technical schools which teach vocational work and not of colleges which teach applied science, but in each case the need of mental training and character are given the first place.

If I have found cause to re er herein chiefly to the German Schools and Colleges, it is not because I think less of the work done by other countries. It seems to be the general belief that Germany has a strong lead in this respect; but our Royal Commission report very highly of the work which they saw going on throughout Great Britain the United States and France and express doubts as to this belief in the superiority ϵ^{\prime} Germany. It must be said, however, that the system of education built up in Germany in the last 40 years has succeeded in combining the two great requirements of scientific training and practical experience to an extent unknown elsewhere.

To conclude what I have to say, it is generally accepted that for scientific work in connection with our industries special training is essential; for the rest I hold rather to the old fashioned idea, which is in line with the German opinion I have quoted, that the development of character and intelligence are the essentials. If a tool is sharp it is of little moment how it has been sharpened; if a man's mind is trained and strengthened it does not matter much by what means it has been accomplished. He has mental power which he can apply to the problems with which he may be faced, on whatever path his fate may lead him.

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On one thing I wish to be emphatic; a man who leaves college with a sound general education and takes some pains to keep his knowledge alive while he is learning his business, will be a better man and take a very much better position when he is a master in that sphere, than one who has not had these advantages.

You must forgive me, if, in saying this, I seem to apply to intellectual culture a gross measure of value; but it has that kind of value, and to be aware of it may be an incentive. I have no doubt that some of us here would be glad if even for that worldly reason we had kept on the path on which we started. But the joy and pleasure which a habit of reading and study can bring into a busy man's life, and the wholesome mental discipline it affords are ample reward. Those who have made a good start and allew themselves to be wholly absorbed in material things will not be saved from regrets in after years by any material success. Those who keep in touch with current thought and literature and maintain their interest in the humanities will find their lives broader and more full of interest, pleasanter to themselves and more useful to their fellows.

