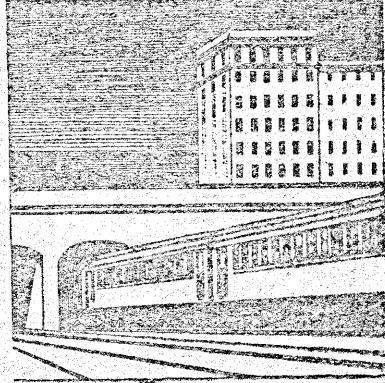
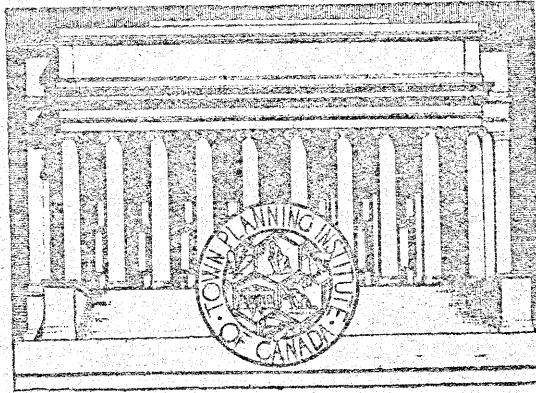
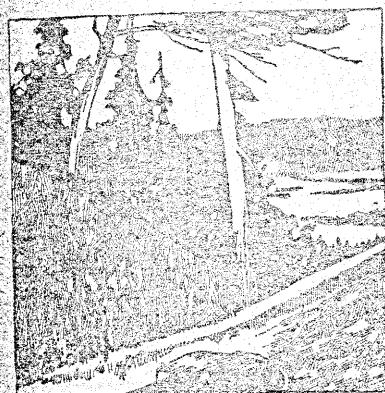


TOWN PLANNING



THE JOURNAL OF THE TOWN PLANNING INSTITUTE OF CANADA

JUNE 1929
VOLUME VIII.
NO. 3

CONTENTS

Advance Papers Ninth Annual Convention, Winnipeg, June 17, 18, 19

| | |
|---|---|
| THE ATTITUDE OF THE ENGINEER TOWARDS TOWN PLANNING | WHY PUBLIC CREDITS IS THE LOGICAL AND PRACTICAL SOLUTION OF THE HOUSING PROBLEM OF THE LOWER INCOME GROUP |
| THE PLANNING OF PINE FALLS, MANITOBA | THE PROVINCE AS A PLANNING UNIT |
| THE CONTRIBUTION OF ARCHITECTURE AND ITS CONTROL | THE NEED OF REGIONAL PLANNING |
| PLANNING FOR THE ARCHIVES, OR CITIES WITH PLANS "ON FILE" | MAIN OBSTACLES TO TOWN PLANNING |

Published bi-monthly by the Town Planning Institute of Canada, Ottawa. Subscription price, \$2.00 a year.
Editorial Committee:—Alfred Buckley, M.A., Editor, University Club, Ottawa, Canada; Noulan Cauchon, City Hall, Ottawa; J. M. Kitchen, Secretary-Treasurer, City Hall, Ottawa, Canada.

Ninth Annual Conference of the Town Planning Institute of Canada

WINNIPEG, FORT GARRY HOTEL, JUNE 17, 18, 19.

PROGRAMME

First Day.

Registration, 9.30 to 12.00 noon.

9.00 a.m.—Meeting of Council

10.30 a.m.—Annual Business Session

12.30 p.m.—Civic Luncheon at Kildonan Park.
Address of Welcome—Mayor Dan McLean.
Response by the President of the Institute.

2.30 p.m.—“The Attitude of the Engineer Towards Town Planning,” A. G. Dalzell, A.M.E.I.C., Town Planning Consultant, Toronto.
Discussion.

3.30 p.m.—“The Planning of Vancouver and District,” W. B. Young, Assistant City Engineer, Vancouver, B.C.
Discussion.

6.00 p.m.—Dinner (Hudson’s Bay Company Dining Room)—Young Men’s Section, Winnipeg Board of Trade Chairman, F. J. Freer, President Young Men’s Section. “Obstacles to Town Planning,” E. T. Hartman, Consultant to Planning Boards, State of Massachusetts.
“Planning for the Archives, or cities with Plans on File,” Walter H. Blucher, City Planner-Secretary, City Plan Commission, Detroit, Mich.

Second Day

10.00 a.m.—“The Province as a Planning Unit”, H. L. Seymour, C.E., Provincial Director of Town Planning, Edmonton, Alta.
Discussion.

11.00 a.m.—“The Need of Regional Planning,” A. G. Dalzell.
Discussion

12.30 p.m.—Kiwanis Club Luncheon (Fort Garry Hotel). “Why Public Credits is the Logical and Practical solution of the Housing Problem of the Lower Income Group,” Dr. S. J. Herman, Executive Director, Michigan Housing Association, Detroit.

12.30 p.m.—Winnipeg Real Estate Exchange Luncheon (Hudson’s Bay Company Store)—“Hexagonal Planning”, Noulan Cauchon, M.E.I.C., Technical Advisor to the City of Ottawa.

2.30—“Planning Progress in Greater Winnipeg,” R. F. McWilliams, K.C., H. A. Bayne, H. H. Stainton.
Discussion

3.30 p.m.—“The Planning and Development Act of Ontario: Its Operation and Shortcomings” T. D. leMay, D.L.S., City Surveyor, Toronto.
Discussion

4.30 p.m.—“The Planning of Pine Falls, Manitoba”.
Discussion

7.00 p.m.—Town Planning Institute Dinner (Fort Garry Hotel). Hon. John Bracken, Premier of the Province of Manitoba. Hon. D. G. McKenzie, Minister of Mines and Natural Resources.
Noulan Cauchon, M.E.I.C., Technical Advisor to the City of Ottawa. “Planning Progress in Europe”
Discussion

Third Day

10.00 a.m.—“The Contribution of Architecture and its Control,” Prof. A. A. Stoughton, Professor of Architecture, University of Manitoba, Winnipeg

11.00 a.m.—“The Control of the Subdivision of Land by Provincial and Municipal Authorities,” Stewart Young, B.A.Sc., Provincial Director of Town Planning, Regina, Sask.
Discussion

12.30 p.m.—Luncheon (Fort Garry Hotel)—Speaker, Alfred Buckley, M.A., Editor of “Town Planning,” Ottawa. “The Leasehold Principle in Practice.”

2.30 p.m.—Drive to Kildonan Park and Lower Fort Garry.

TOWN PLANNING

VOL. VIII.

OTTAWA, JUNE, 1929

NO. 3

Advance Papers Ninth Annual Convention Town Planning Institute of Canada, Winnipeg,
June 17, 18, 19, 1929

The Attitude of the Engineer Towards Town Planning

A. G. DALZELL, M.E.I.C.

Town Planning Consultant, Toronto.

THE URBAN DRIFT

The people that comprise a nation can be classified in many ways. One of the broadest classifications is that made in the taking of the census, between those who reside in urban communities, and those who are defined as rural dwellers. At the present time, in the Dominion of Canada, this classification divides the population into two almost equal parts. For many years the efforts of government authorities throughout the Dominion, both federal and provincial, and irrespective of party, have been directed towards securing an increase in rural population. No such direct efforts have been made to increase the urban population. Notwithstanding the concentration of effort for increase of rural population, the urban population has increased at a much greater rate. This is not a peculiar characteristic of the development of this Dominion. It is just as strongly marked in the United States, and in our sister dominions of Australia and New Zealand. The movement of rural population to urban areas has been noted for over a half a century, and there is no indication at the present time that the movement is slowing down.

Town planning, as the words imply, is something which has to do with the settlement of people in urban areas. Members of the engineering profession, in all its branches throughout the dominion of Canada, cannot afford to remain unconcerned about any subject which has to do directly with the welfare of half a nation, and consequently indirectly with the welfare of the whole. It is self-evident that engineers are more likely to have direct concern and contact with those that dwell in urban communities; though they cannot fail to realise that the very life and existence of urban communities is dependent upon the life and work of the cultivator of the soil, the herdsman, and the fisherman.

THE ATTITUDE OF THE ENGINEER

What then is the attitude of the engineer, using the word in its broadest sense, and including the surveyors and allied professions, towards town planning? Does the average engineer recognise town planning as something which is in his special field of work and service for his fellow citizens? Is it correct

to say that the majority remain aloof and unconcerned towards a movement, which, whatever they may think about it, is growing in importance and recognition by the highest government authorities, as an essential part of the science of government? If so, why do they remain aloof, and what can be done to arouse the interest of the engineer in this field which appears to be his special prerogative?

LIFE IN COUNTRY AND TOWN

Let us consider for a moment the difference there is between the life and work of the rural and the urban dweller. Take for example the first two hours of a working day. The farmer rises to his work of the day, lights an oil lamp which he, or a member of his family, had previously prepared for use. He kindles a fire with fuel which he has cut with his own hands from the wood lot on his farm. He secures his water from a well which he may have dug. His milk comes from cows in his own barn. The oatmeal, the bacon and eggs, even the bread of his breakfast table, may be the products of his own land and flocks. He goes to his work with horses which he has raised, broken to harness, fed and groomed; and by the combination of horse and man-power he hopes not only to furnish food for his own table and family, but to have a surplus which he can sell to provide for his other needs. In the direct results of his work he has many interests, and the weather is to him a matter of daily concern.

The industrial worker in an urban community rises somewhat later than the farmer. He simply pushes a button and gets a light ten times more powerful than the farmer's lamp. He turns a tap which supplies him with unlimited and purified water. Another turn of a tap and he is supplied with fuel to cook his food. His bread, his milk, his bacon and eggs are delivered to his door from factories where they have been made, pasteurized, or kept in cold storage. A few steps outside his door he finds a self-propelled vehicle, lighted and warmed when needed, which rapidly conveys him to his work in a factory, in which the machinery is operated by power from a source a hundred miles away. In the work he produces he may have no direct interest. It may be ship-

ped to other continents, and the weather in Canada may be of less concern to him than a drought in Australia, or floods in China.

THE WORK OF THE ENGINEER

A very little consideration will show that this great difference between the life and working conditions of the rural and the urban dweller, is largely the result of the work of the engineer. Electric light, gas, water supplies and sewage systems, bakeries, cold storage plants, pasteurization, public transportation, factories with machinery and power plants, railways and steamships to take the products of the factory to other continents, are all the work of the engineer. It is through the work of the engineer that in this day it is possible for more than a million people to live closely together, with safety, with an assured food supply, and with just as long an expectancy of life as those who dwell in the country. In the past, or where the work of the engineer has not been made available, when people congregate together they are liable to be decimated by plagues and pestilences, swept to death by conflagrations, or starved by famine.

Whilst admitting all that the engineer has done to make life in urban communities possible, healthy and safe, the engineer ought to be the first to recognise that there is still a great deal to be done to make it efficient and economical. A well known engineer, H. P. Gillette, has defined engineering as "the systematic application of science in the solution of problems of economic production." The progress of engineering knowledge is marked by increased efficiency and economy. From a pound of coal, or a cubic foot of falling water, much more power is obtained to-day than even a decade ago. A marvellous increase has been made in the efficiency and economy of electric light. Every motorist knows that more miles per gallon, more miles per tire, is something more than a slogan. Every engineer knows of the increased strength of cement, the greater tensile strength of steel. Every intelligent farmer knows that the fertility of the soil can be increased by chemical fertilizers, and the production of milk and eggs increased by foods prepared by chemists.

This increase in efficiency and economy is the direct result of the application of scientific knowledge. When conditions demanded an improved quality of steel for bridges or boilers, guns or armour, then the knowledge of the metallurgist was invoked. Impurities in the ore were eliminated, conditions of melting and working the metal changed, and by trial and experiment, and continued concentration on the problem, always striving to get at the cause of failure, progress has been made. Occasionally progress has been made by the intuition of some untrained worker, but the scientist has not rested until he found the scientific reason. Progress in structural design has been made in much the same way. Not long ago the design of a bridge, or a dam, was largely a matter of judgment based on the ex-

perience of the past. To-day it is mainly a matter of mathematical analysis. Stresses and strains are known and can be measured. A bridge can be designed and manufactured in Winnipeg, and though never completely assembled at the works, can be shipped to China with every confidence that it will carry the load that is called for. If however it should fail to carry the load, then engineers all over the world want to know the reason why. An engineering failure is the greatest incentive to further research. Failures are made stepping-stones to further and surer accomplishments. When portland cement failed to withstand the alkali soil of these prairie provinces then engineers demanded to know the reason why. If that problem is not already solved, it is near to solution, and the solution is being sought, and will be found, by intensive scientific research.

MISTAKEN DEVELOPMENT

In this province of Manitoba, and in the capital city of the province in which this annual meeting is being held, nearly all the development from prairie to fertile land, from a fur trader's post to a metropolitan city, has taken place within the memory of men still living. At the present day about 44 per cent of the population of the province reside in urban communities, the great majority in what is commonly designated as Greater Winnipeg. Giving every credit for what has been accomplished, it has been admitted by a select committee appointed by the provincial legislature, that much of it has not been economical and efficient. Indeed in some cases it has been perilously near to failure. It may be just as freely admitted that the same applies to some of the urban development in other provinces of Canada in the east as well as the west. Our neighbours in the United States, even if they are sometimes accused of boasting, will not boast that much of the development of their urban communities is either more economical or more efficient. Is this deficiency and weakness due in part to the neglect of the engineer to do his part in the problems of settlement and development? If it is, or is not, can the engineer help to solve the problem and increase efficiency and economy, or is it altogether out of his province? Does the average engineer recognise that town planning offers any solution of the problem? That question will probably provoke another. What do you mean by town planning? and to the answer of that question we now turn.

THE FUNCTION OF TOWN PLANNING

Many definitions have been given as to what is meant by town planning, but for our purpose we are satisfied to take the definition given in the Journal of our own Institute.

Town planning may be defined as the scientific and orderly disposition of land and buildings in use and development with a view to obviating congestion and securing economic and social efficiency, health and well-being in urban and rural communities.

Confining our thought to the towns and cities of western Canada and the western States which have been laid out within the memory of men still living, and after steam railways had been in operation for more than half a century, can it be said that the land has been laid out in a scientific and orderly way? Can any engineer justify the laying out of streets with absolute disregard of the topography of the land, even in the days of horse-drawn vehicles? Is there any scientific reason why the main streets of a city, on one of the finest harbours of Canada, should be laid out direct north and south, when that involved a grade of 10 per cent and when a slight diversion might have reduced the grade by one half. Even on the prairie where grades are insignificant, was there any scientific reason or justification for planning a street system for nearly one quarter of the capital city of a province, with absolute disregard of a creek draining a large territory passing across the area? After fifty years experience of railway operation was there much foresight in subdividing land for residences on both sides of a hundred foot right-of-way of the last two miles of a transcontinental railway on the borders of a great harbour? Is the subdivision of a square mile of land into lots of uniform size and 25 feet frontage a scientific way of providing for urban development? Such questions can be continued indefinitely. How is the engineer to answer them?

STREETS

The scientific and orderly disposition of land in an urban community includes first of all a street system. The function of a street in the present day is not only to give access to the property adjoining, but to carry on its surface a great amount of vehicular traffic which has no relation to that property. If that is so, and with the knowledge we now have of the need for space for motor traffic, can we, as engineers, justify the continuance of a street system which calls for streets of uniform width, and disregards grade? Do the great number of engineers interested in all branches of the automotive industry, and continually seeking for improvements in the efficiency and economy of the motor vehicle, take any real interest in the replanning or improvement of street systems upon which the real value of the motor vehicle depends? They may take some interest in paving, because that is reflected in comfort in riding. But the railroad engineer has not been content with securing rock ballast for the road bed. As the efficiency and economy of the steam locomotive has progressed, so along with it the railway engineer has sought the reduction of grades, the elimination of sharp curves, so that the full efficiency of the locomotive could be secured. But how many engineers, even though using motor vehicles almost every day, take any real interest in the improvement of existing or the provision of new and better planned streets? There are a few in every city who point to the need of something being done, but when any real effort

is made to get something definite accomplished, as for instance a recent effort in Toronto, the great bulk of engineers are as silent as Quakers in a meeting house, and many appear to regard any member of the profession who expresses an opinion with much the same attitude as a high churchman regards the ranting of a Holy Roller.

In the days when the street systems of the oldest cities of the continent were laid out, the function of the street was confined to the surface. It was not so when the cities of western Canada were planned, and is far from so at the present day. Under the surface of the street of to-day provision has to be made for water and sewer services, gas and heating systems, electric light, telephone and telegraph cables, pneumatic tubes and messenger systems. Towards securing economy and efficiency in the building and working of these systems engineers have given much study and thought. The efficiency and economy of a waterworks pump, a dynamo, a gas retort, a central heating system, has continually improved. But the greatest factor in the cost of these systems, the mileage covered to serve a given number of people receives no consideration. A modern sewer system costs anywhere from \$1,000 to \$3,000 an acre of land served. By using excavating machinery and improved methods of construction engineers strive to keep down the cost of this essential service. But by permitting street systems to be planned regardless of the topography of the land, the engineer misses the opportunity to materially reduce one of the major costs of land development in urban communities.

ONE CITY DELIBERATELY PLANNED

On this continent there is one example of a city deliberately planned by an engineer. Though the plans of L'Enfant have been often changed and frustrated, and conditions of to-day are vastly different from those of 1790, the whole world acknowledges the merit of his work, and Washington is regarded as one of the finest cities of the world. But where else do we find an example of a carefully considered city plan? Will the engineers of the future regard it as a peculiar mark of incompetency and lack of vision of the engineers of the present and past generation, that in the development of a new country by their action they practically acknowledged their inability to design scientifically for urban development? What other conclusion can be drawn? If the reply is made that engineers have not been asked to design towns and cities, then it may be asked who do design them, and why have the functions of the surveyor or engineer been usurped? Are the members of the engineering profession content that this state of things should continue, and that much of the benefit provided by engineering works of all descriptions, should be nullified simply because we do not know how to order our development?

REPLANNING

Engineers must however face the fact that the work immediately ahead of them is not the possibility

of designing new towns and cities, but rather the correction of the faults and mistakes arising from the neglect to plan scientifically and order the disposition of land and buildings in existing communities. Whilst our definition of town planning suggests scientific and orderly disposition of land and buildings to avoid congestion, in western Canada there is perhaps an even greater need to avoid undue dispersion of population. In the area around the city of Winnipeg, only one lot in 12 is built upon, and there are areas occupied by dwellings which cannot be served with either water or sewers, except by philanthropic efforts. In this work the co-operation of every engineer is needed, because it requires the education of public opinion, and the training and education of the engineer ought to specially fit him for that task. If not it has in a measure failed.

TOWN PLANNING NOT A BRANCH OF ENGINEERING

Town planning is supposed by many to be a new and special branch of engineering. But, as Professor Patrick Geddes points out, it is not a new specialism added to existing ones; but it is the returning co-ordination of them all towards civic well being. It is the civic aspect of the higher and more general level of public and personal thinking. Such more general thinking is now beginning to dominate the unorganised thought of the past and passing generations of specialists, who have been so strong in details, but so weak in co-ordinating them. It is because there are so many details to be co-ordinated that the co-operation of every engineer is necessary to secure success in any town planning movement. But how many are prepared to give it?

During the campaign for the election of the President of the United States, one journal referred to Herbert Hoover as "merely an engineer with an excellent mind and great gifts as an executive". Concerning this characterization, Mr. R. F. Schuchardt, the president of the American Institute of Electrical Engineer comments:—

Why this deprecatory phrase, "merely an engineer"? Taking it, as it truly is, as an arraignment of all the engineering professions, the phrase is often justified. Engineers in general are too much occupied with the work they are doing, and too little occupied with the effect of that work on the general public. In their preoccupation with the economic and material forces of civilization they frequently overlook the social forces that are always just as important, and frequently more important.

ENGINEERING AND THE SOCIAL OUTLOOK

In the May 1928 proceedings of the American Society of Civil Engineers, Mr. William L. De Bost, a banker, and president of the Chamber of Commerce of the State of New York, wrote by request an article entitled, "As a Banker sees the Civil Engineer". Among much that deserves the serious consideration of all members of the engineering profession, Mr.

De Bost says:—"Civil engineers I know are excellent technicians and wonderfully trustworthy, but they do not make sufficient effort to control circumstances. They let somebody else do that".

In the development of urban communities will engineers deny that this indictment is true, and that they have made little effort to control the circumstances? Is it not also true that they have been so absorbed with their work that they have not noted the effect on the public? What real benefit is there in wide paved streets with all other improvements if they result in a taxation which is so burdensome that working people have either to live in shacks on the bare prairie, or crowd into one or two rooms of a down town rooming house?

There is no field of public service, no opportunity for the engineer to use his talents to the best advantage for the welfare of his fellow men, more important than in devising some better ways of settlement in urban communities, and some better method of housing low wage-earning workers than the flimsy boxes that are not worthy the name of homes. The success of industrial development, upon which the existence of most urban communities depends, is vitally concerned with the proper housing of the workers, and there can be no proper housing without an efficient and economical disposition of the land that serves as sites. Upon our industrial development depends our success and standing as a nation, and so the call is to national just as much as to municipal service. Can engineers afford to remain aloof? Is it not possible to raise the standing of the profession by raising the standard of community service, on the lines of special fitness for the tasks involved? Can we measure up to our responsibilities?

International Town Planning Conference at Rome

The Twelfth International Housing and Town Planning Congress will be held in Rome—September 12th to 22nd.

Some readers of this Conference Number of the Canadian Town Planning Journal who have not yet convinced themselves that town planning has come to stay and is destined to modify profoundly ancient concepts of town building may surely be asked to note that representatives of something like forty nations are meeting for the twelfth year at a city which for thousands of years has been a world centre of historic interest to consider the problems of Housing and Town Planning.

The subjects to be discussed will include, "The Historical Development of the Plan of Rome and its Significance for Modern Town Planners," "Methods of Planning for the Expansion of Towns, with Special Reference to Old and Historic Towns," "Financing Working Class and Middle Class Housing, with Special Reference to Methods of Attracting New Capital," "Planning Apartment Housing Schemes in Large Town," and "The Development of Milan."

The Planning of Pine Falls, Manitoba: a Model Industrial Town

By J. P. MERTZ, Town Planner.

The townsite of the Manitoba Paper Company, at Pine Falls in Manitoba, is located in a heavily wooded tract on the south shore of the Winnipeg River, approximately eighty miles north of the city of Winnipeg. Serving the paper mill in its entirety, the development has been laid out in close proximity to the mill and yet sufficiently removed to retain its entity and permit in the home and social life of its inhabitants a sense of remoteness from their daily business activities. Every effort has been made to preserve the natural beauties of the site. The necessary clearing for roads and buildings was carefully supervised so that the natural growth which blankets the townsite would not be effaced or marred. The completed whole presents a picture of attractive cottages in a parklike setting practically hidden from its mill yard background.

THE PLAN

In plan, the townsite somewhat resembles the back of a terrapin. There are no straight lines in the entire layout. Curved roadways flow into each other at curved intersections and the dwellings, following the sweeping curves of the roadways, are grouped to present a varied aspect from the various paths of approach.

A drive girdles the entire area, skirting the mill yards on the north and forming part of and joining the highway leading to Winnipeg to the east and south and to the summer resorts on Lake Winnipeg to the west. A boulevard bisects the townsite and from this central boulevard radiate the various crescents and circles that form the residential streets. The development spreads fanwise around a village green and semi-circular community and business block.

The village green, patterned after community greens in old country villages, is the heart of the townsite. Here are located the tennis courts, bowling green, playground equipment, shelters. Directly opposite the base of the green, and separated from it by a double boulevard with a planted island in its centre, is the community-business block. This area is designed to feature as its centre of interest a combined community club and theatre, with an inn flanking the club building to the east and the mercantile store to the west. A series of small shops, facing on the south circle of the block, will complete this development.

Ample provisions have been made for parks and playgrounds and this essential need of community life is being developed to the full. The nature of the terrain did not permit of the laying out of the townsite immediately on the shores of the Winnipeg River, as a rock outcrop of considerable area imposed a barrier to proper drainage and made the erection of dwellings in this section economically unsound. Full

advantage is however being taken of this granite barrier and on its wooded slopes and tops an extensive park system is under way. Adjacent to the townsite and within a three minute walking distance from the apex of the village green an interesting nine hole golf course has been put into play. Other sporting activities are also provided for with football and baseball fields, hockey rink, badminton courts. For the use of the children a floating swimming pool is anchored in the river and the school is surrounded by a good sized play ground.

The educational, spiritual and medical health of the community is provided for in a modern school, two churches and a fully equipped hospital.

ROADS

In developing the roadways and public utilities of the townsite every consideration was given to economy in maintenance without detracting from appearance. A study of traffic requirements led to the adoption of the British system of the narrower roadway. Owing to the somewhat isolated situation of the townsite, and its economic status, and in order to secure a higher standard of road construction in a muskeg and clay country, it was not deemed advisable to follow the usual trend in rural communities of unnecessarily wide roads. A standard of 40 foot width, for all main roads and of 30 foot width for residential streets was established. The double boulevard section serving the business block consists of two 30 foot "one way" streets separated by a 15 foot island running the full length of the section, thus avoiding the possibility of congestion at the one and only centre in the townsite. Residential streets connect with main arteries around easy curves, thus eliminating the danger of the hidden or sharp intersection.

No unsightly lanes and their usual complement of sheds and out-buildings mar the townsite. A service strip at the rear of lots carries the sewer and water mains and the pole lines. The problem of automobile storage will be met by the erection of community garages in easily accessible sites.

NO 25 ft LOTS

Minimum lot frontage on inner curves was set at 55 feet and on outer curves at 60 feet and all lots have an average depth of 110 feet. The lots on the inner crescent adjacent to the village green are of double this width. Main sidewalks flank the curb and follow the line of curve at street intersections. Sidewalk allowance is set at 5 feet and dwellings are all aligned 35 feet from the sidewalks. Gravel paths lead from main walks to and around dwellings. Several service stations, containing lawn mowers, rakes, garden hose and sprinklers for the use of tenants, are located in each block.

UTILITIES

A gravity service and storm sewer system and complete water supply system, with full complement of fire hydrants, have been installed and all water entering the townsite mains is automatically chlorinated. The sewer system joins the main mill sewer and is carried well down stream from the mill and townsite. Water is pumped from above the Manitou Rapids in the Winnipeg River, well above the townsite, thus ensuring an excellent and safe supply. A minimum 8 foot cover was maintained throughout in the laying of sewer and water systems in order to prevent freezing in the rather low temperatures sometimes encountered in this locality. Hydrants are all back drained to sewers and several fire stations are located in the townsite, equipped with hose reels, sleighs, ladders and full fire fighting equipment.

The light and power control station is located in the mill sub-station and the service lines are carried through the rear lot service strips, thus avoiding disfiguring pole lines in the streets and shortening the light and power feeders to the dwellings. The plan calls for ornamental street light standards served by parkway cable.

HOUSING

The dominating idea in the design and the setting of the dwellings was to adopt the English type of cottage to local conditions and group the various types in pleasing perspective. In order to avoid the monotony of the average industrial townsite, some thirty distinct types of dwellings were erected in varying numbers and these types were grouped with a view of showing them to their best advantage, with no two houses of the same type placed side by side except where a special effect was sought. Such grouping on the curved streets makes for an interesting line of elevations and accentuates color combinations on roofs, body and trim.

As practically all permanent employees of the Company are housed in the townsite, provisions had to be made to accommodate the various classes of skilled, semi-skilled and unskilled labour. The dwellings were accordingly diversified and the grouping of the houses also was influenced by this situation. Data available from other of the Abitibi Company's paper mill towns and a study of mill personnel indicated fairly closely the number of 4, 5, 6 and 7 room dwellings that would meet average local conditions. Cottages of the 5 and 6 room type predominate.

All dwellings are of standard frame and stucco construction and are set on concrete basements. Houses are double sheathed in and out with asphalt or tarred felt cover over outside boards and with sulphite sheathing or waxed kraft liner over inside sheathing. All buildings are surfaced with three coat, rough cast stucco on galvanized metal lath and interior walls and partitions are plastered on wood lath. In order to give a touch of variety to exterior walls color pigments in several light shades were mixed in the final dash coat. Composition slate surfaced

shingles, in solid and varigated colors, and on some of the larger dwellings creo-dipt shingles, in varigated combinations and laid over asbestos paper, were installed in accordance with a fixed color schedule. All exterior trim was painted to blend with the color scheme of roof and body.

Dwellings are all equipped with standard kitchen and bath room equipment and are heated by hot water or hot air heating systems. All are wired with both light and power wiring and the electric cooking range and hot water heater are almost universally employed. Added conveniences are, full complement of closets and kitchen cabinets in all dwellings and breakfast nooks and fire-places in some.

In addition to the dwellings erected for married employees, two staff houses are operated to accommodate office staff, school teachers, and un-married employees. A fully departmentalised mercantile store is also in operation and is designed to meet all requirements of the community.

In planning the dwellings programme, various economic factors influenced decisions, not the least of which was the question of rental rates to be established to meet the various conditions of labour that go to make up an industrial community. The prior establishment of such rates to some extent determined the basis of expenditure. Cottages were designed to range in cost from \$2,500 for the unskilled workman to \$5,500 for the skilled workman. Dwellings for superintendents were graded on somewhat higher basis. Unskilled workmen who are not married and temporary employees are provided for in regulation camps.

In general the layout of streets, blocks, parks and public utilities closely follows the plan prepared by Leonard E. Schlemm, of Montreal. The scheme of dwellings design, arrangement etc. and the development of the townsite plan was carried out under the supervision of Manitoba Paper Company engineers.

Ebenezer Howard International Memorial Fund

After the death of the late Sir Ebenezer Howard, founder of the English Garden Cities, a movement was inaugurated to raise an International Memorial Fund to commemorate, in some practical form, the work accomplished by this great social reformer in showing by actual examples a better way than the traditional way of building new towns and providing decent and attractive housing accommodation especially for working families.

The Memorial Fund is now under way and so far some \$5,000 have been promised by contributors from all parts of the world. The Fund will remain open for some time until the international response to its appeal has been properly tested. After providing for the erection of tablets in the Garden Cities of England the Fund will be divided into two Sections—British and International. Mr. Cecil Harmsworth, 13 Hyde Park Gardens, London, W.2, is acting as treasurer for the British section.

The Contribution of Architecture and its Control

By PROF. ARTHUR A. STOUGHTON

Department of Architecture, University of Manitoba, Winnipeg.

THREE DIMENSIONAL THINKING

City planners so very naturally concentrate their efforts on the street plan, seeking abstractions of line and ingenuities of lay-out in a two-dimensional element that they must at times be reminded that another world—that of three dimensions exists. To relieve the seriousness of our studies of City Planning I purpose to speak of those structures which furnish and decorate the frontages laid down by city planners.

The physical city is essentially a collection of buildings, regularized by the street plan and made orderly by building codes and zoning schemes. After the city planner has done his best with the lay-out, the architect lines the streets with his product. He houses in a fitting manner the utilities of living in its varied requirements,—dwelling, educational, religious, recreational;—of business, in its aspects of administration, production, distribution and exchange;—of public affairs in the departments of government, justice, public service, health, charity and correction, and finally in that sphere of monumental works,—memorials, statuary, fountains, bridges, viaducts, waterfront treatment and cooperation in conspicuous engineering structures which make or mar a corner of a city. The architect builds civic groups, surrounds public parks and open squares, accentuates focal points, closes vistas, creates street pictures. At times, in fact, the architect first erects his buildings and the city planner then makes a scheme to enhance their effect and give them value, as in such cases as the Opera House in Paris and the Capitol Approach in Winnipeg, and many a civic centre. Throughout the age-long activity of man to build nobly and his tendency to congregate in cities there have constantly occurred examples of monumental or picturesque combinations of good planning and building in city or town. There are many cases in the ancient world of cities completely planned, and the classic architects especially have known how to make their buildings count in such schemes.

PICTURESQUE AND MONUMENTAL

Cities and towns of the past divide themselves into the two classes,—the informal or picturesque and the formal or monumental. The former, which usually owe their irregularity to their casual growth from an uneugenic birth, present pleasing curved streets, varying in width and adjusted roughly to the accidents of topography, water front, etc. They generally have some wide thoroughfare, market place, open square or quai, decorated or the vista ending in some church, guild hall, fountain, fortress or the like. Of the other class, in whole or in part planned, wide, straight avenues, public squares, axes, focal points and vistas, abound and the mind recalls the effect

of Priene, Alexandria, Paris, Washington, Canberra, Port Sunlight. In all, architecture plays the chief roll of decorator, furnishing the informal village picture with its casual charm of simple naturalness, and in the other sort doing the dignified monumental act, toeing the street line, rising to the height limit and running through the gamut of period style.

ARCHITECTURE AND HISTORY

Buildings have a peculiarly intimate connection with man in all his life interests. Their forms have in past time been developed, not by freak or fashion, but under the impulse of his needs, his aspirations, his idealism and his love of beauty. They have taken the impress of his character and personality and they speak to us eloquently of the history and complexion of the periods to which they belong. They are the most reliable historical document of peoples and times. It is a fascinating pursuit to follow step by step the architectural development of the world from the pyramids and other houses of the dead of the Egyptians down to the 80-storey towers of commerce of this present time and to realize how it walks hand-in-hand with written history. Building has ever been a major occupation of man and now it is second only to agriculture in the number of people engaged in it. City planning is its handmaid.

Various distinctive types of buildings have signalized certain epochs, which types have been the product and reflection of controlling ideas:—The temple tomb of the Egyptians, which was the expression of their conception of the shadowy after-life; the Greek temple, the essence of religion, culture and art of that exquisite age; baths and basilicas, triumphal arches, and arenas embodying the civic pride and luxuriousness of imperial Rome; the awe-inspiring marvel of the Gothic cathedral, that supreme product of the Age of Faith; the palaces of the Renaissance with their testimony to individualism; and now the monuments to industry and commerce. Thus has the architectural aspect of cities changed from period to period with the varying emphasis of civilization on one or another feature or interest.

THE HIGH BUILDING

In Europe, the height of buildings has always been moderate and this has been true on this continent till recently. But a radical change has followed the development of utterly new constructive systems and devices by which steel and concrete and the vertical transporter have enabled us to emulate the builders of the Tower of Babel. Even if the tops of our buildings do not reach unto heaven, as indeed theirs did not, they do scrape the sky. In this type of towering building, mostly erected in the service of commerce, we see America's great contribution to architecture, and the mightiest construct-

ive achievement of man. With the transformation of our cities by these towering structures, with their buttress-piers and pinnacles leaping upward, their set-back upper storeys and their pointed tops, our cities have taken on a tremendously impressive aspect. Their variety of mass and height and treatment give a peculiar picturesqueness to a generally monumental ensemble. At first the skyscraper was only for commerce. Now apartment blocks and even churches, universities and clubs are reducing the area of their standing room and increasing their uplift. The highest projected office building, the newest Book Building in Detroit, is to be 837 feet high, with 81 storeys. An office building in Chicago, besides having a street pass through it, is to include an opera house, a club, and gymnasium, and to have a garage in which the autos will be shot up many storeys on a number of individual elevators. There are not a few buildings so huge and so varied in their accommodation as to afford all the amenities for the population of a town.

CONTROL

With the increasing size of the city, and the concentration of population in it there has come the realization of the many problems thus created, and the principles of city planning have been developed and applied to the planning, direction of growth and control of conditions. The fundamental fact is recognized that if many people, crowded in such numbers in a city are to enjoy even the minimum of proper living conditions, they must submit to a control in many matters for their own good and that of all. A large sphere of such control includes the use of land and the construction of buildings.

The control of buildings may be divided into three classes:—Construction, Health and Amenity, Aesthetics. The first type of control has to do with the materials and methods of construction, its fire resisting condition and its fire escape facilities, its sanitary equipment, to ensure its stability and the safety and convenience of its inmates. This control is embodied in building codes. The second type, now usually under zoning ordinances or schemes, prescribes the permitted occupation or use of land, the area of the lot to be covered, and the nature and height of buildings, all these differing in the various districts of the city. In addition, the materials of buildings with reference to the fire hazard are fixed for a set of fire zones.

Of most of the provisions of building codes and zoning schemes I need not speak as they are all in line with good construction, better health, more abundant light and air and space, the maintenance of the character of occupation of a district and the stabilization of real estate values.

EXCESSIVE HEIGHT

Doubtless all city planners are agreed that it is a mistake to erect such tall buildings and thus concentrate business and people in relatively small districts. The general welfare would be better served

by a distribution over wider areas. All those problems of the city planner,—traffic and transportation, light and air, the equalization of real estate values, congestion of population etc.,—are rendered more acute and the human, sociological and economic situation aggravated thereby. The tendency toward height and the effort to equal or overtop one's neighbor is however too strong to be resisted or to be curbed by law. The only comfort the situation affords is the fact that a height for the wall on the street line is fixed in some ratio to the width of the street, above which those set-backs and reduced areas must be observed to the great gain in the beauty of the upper masses. On a small plot these reductions reduce the upper construction to a small tower, but now, by assembling many plots, sufficiently large ground areas are created to make possible very large ascending masses.

In Europe the tradition of a building limit of about five storeys, acquired before elevators were invented, and the steel frame introduced, has been adhered to but there are signs that the Americanization of English and Continental cities will carry with it the skyscraper as a by-product. For a while still, however, we may I hope be permitted to enjoy those orderly rows of Paris houses, for instance, of uniform material and architecture with an even cornice line and a curved mansard roof inscribed in a quarter circle of a certain radius.

The propriety of the sorts of control here mentioned are no longer matters of discussion. All are evidently in the public interest. They are merely questions of how much, but it is interesting to note how recently such considerations have been mooted and how quickly they were generally accepted, and incorporated in our codes.

AESTHETIC CONTROL

When we approach control on aesthetic grounds we assume a function not generally recognized as valid in this country. There occur to us the splendid architectural effects created in Paris in the uniform treatment of the Rue de Rivoli with its mile long arcade over the sidewalk, or the circular Place l'Etoile, with its 12 radiating avenues and the houses between these several avenues all alike, or the architectural uniformity imposed on the private buildings surrounding the Place Vendôme. These were results of royal or imperial fiat but republican France also secured a quiet dignity of effect by its height limitations before-mentioned, and by requiring in some streets limestone as the material and that all house fronts be cleaned at stated intervals. Many similar beautiful and dignified effects have been created elsewhere by public control or by the instinctive feeling for beauty.

What we in this country should begin to realize is that beauty of appearance or the exclusion of the ugly and uncouth is a matter of public concern which should, in conspicuous places, be publicly controlled. The individual should be required in certain cases

to build in conformity with pre-arranged plans for a general effect. Such a scheme is being followed in the Ottawa public group and widely in Europe.

WINNIPEG'S OPPORTUNITY

In this City of Winnipeg a great opportunity is offered to create a worthy group of public buildings. The Parliament Building stands in a 30-acre plot, approached by a 132 feet-wide avenue about half a mile long. The surrounding property is free of buildings of any value except the new Law Courts and Land Titles Office. It was suggested either that the Province or City procure all this land for public or semi-public buildings or, at least, that they should, through a commission or otherwise, control the architecture of any private buildings which might be erected on it. By means of the former there would in time come into existence a congruous group of official monumental buildings. It is possible that the long-perambulating University may finally come to a permanent rest on the city site as part, and a dominant element, of this group. A local example of official control is afforded by the action of the Municipality of St. James which adjoins Winnipeg on the west. The Municipal Council and the Town Planning Commission working hand-in-hand, largely through moral suasion but in part also by a town planning scheme under the provincial town-planning act, have improved the appearance of buildings and are in the way to eliminate billboards on public and private property.

The greatest offence against seemliness and good appearance of our streets and the countryside is that of the billboard and the electric sign. The projection of publicity on to the passers-by is an unwarranted private use of the public street for gain and it should not be allowed. In view of the vested interests in the advertising business and its alertness and resource in blocking any curb on its activities, over against unorganized public opposition, the increase rather than the decrease of this evil may be expected. What profit is there however in creating beauties of architecture or of nature if our efforts are to be nullified by the intrusion of billboards? It is to be hoped that the achievement of St. James may be duplicated in other municipalities as well as in cities and towns. Winnipeg is excluding billboards from residential districts under an enabling zoning act.

Actual artistic control of private buildings is rare except perhaps in highly restricted developments laid out by private corporations. In the beautifully laid-out town of Palos Verdes in Southern California, all building plans must be passed upon by an art jury. Such control of the art quality of structures and works of art to be erected or acquired by cities, towns or states is however, becoming common.

Another way of accomplishing the purpose is through emulation or rewards. In some cities the architectural societies or other bodies annually premiate the authors of the buildings in several classes,

including alteration works, deemed most worthy. The Fifth Avenue Association in New York, composed of many of the owners of property along that famous street, makes such awards and it uses its influence on its own members and others to maintain a high standard in appearance and character. Such moral suasion has limits, as when Mr. Woolworth started the five and ten habit on that stately avenue. The Fifth Avenue Association was faced with a categoric 'No' when it plead with Mr. Woolworth to omit his characteristic red paint from the exterior. Another example of the failure of emulation to secure good appearance is presented in the "chimney corner" now happily to be replaced, which has stood for a score of years at No. 1 Wall St. It gains its name from the fact that it resembles a chimney in form and material and lack of architectural treatment, although it occupies the most costly piece of ground in the world.

CONCLUSION

The conclusion of the whole matter seems to be that instead of the dignified sobriety and measurably uniform frontages of many old-world streets which will occur to all, we must expect in this frenzied modern age to have streets of buildings of every historic style and of many forms too new to have found their names, of every material and color, of every height and variety of sky-line within the local limits. From the sky, and sky pictures are now the thing. Some of our cities out-tower Bologna and Gemigiano in a picturesque magnificence; and along our streets huge buildings rise into the air wellnigh crushing us puny men with their height and mass as with the bulk of a cliff, but at the same time exalting us to their sublime character, inasmuch as men like ourselves have conceived and reared them. No one can foresee how far this building development may go. It is wise perhaps, that, except for mechanical limitations, the creators of these mighty structures should be left free to embody their architectural conceptions in their own way in forms which express the character of this marvellous new age.

SOME BIBLIOGRAPHY

Cheney, Chas. H.: "Progress in Architectural Control." Proceedings National Conference on City Planning, Washington, 1927.

Hegeman and Peets: "Civic Art."—New York.

Unwin, Raymond: "Town Planning in Practice."—London.

Nolen, John: "The Place of Beauty in the City Plan." Proceedings National Conference on City Planning, Springfield, 1922.

Raymond: "Essentials of Aesthetics."

Bosanquet: "History of the Aesthetic."

Gordon: "Aesthetics."

Edwards, Trystan: "Things Which Are Seen."

Cram, Ralph Adams: "Walled Towns."

Cram, Ralph Adams: "The Ministry of Art."

Planning for the Archives, or Cities with Plans "on File"

By WALTER H. BLUCHER
City Planner-Secretary, City Plan Commission, Detroit.

Somebody has claimed that criticism is the last and greatest of all the arts. It is certainly the most dangerous. I have just heard a story of an adventure in criticism on the part of a young, enthusiastic and very efficient waiter at a country club. He went up to his chief and remarked, "The trouble with this club is that you don't know how to run it." The chief said, "But we do know how to run you out. Get your hat and coat and I will make out your cheque." That was all, and too much for the waiter. He will probably never criticize any more. But this was the triumph of authority and not of reason. I have sufficient evidence to believe that the waiter was right. The chief might have said, "Well now I am always hospitable to ideas. What improvements do you think could be made?"

There is only one realm in which criticism is really welcome; that is in the realm of pure philosophy, where all is so vague that any man can splash about without offending the susceptibilities of his fellows or trenching on their vested interests. This was not always so, as the case of Socrates will remind you—who was compelled to drink a cocktail much too strong for his digestion. But today philosophers, and some scientists, look upon an efficient critic as a possible new star in the general gloom that surrounds their lucubrations and seldom fail to make him welcome.

My address will be an adventure in criticism of some aspects of the City Planning Movement as I know them, notwithstanding the experience of the waiter. They are founded on experience on the other side of the line. They may have some bearing on your own problems and if you are philosophers you will not resent such criticisms as I have to offer but will merely ask yourselves whether there is any truth in them.

WHY ARE WE PLANNING ?

First, then, Why are we planning? I suppose on the theory that we want our towns to be decent and desirable places in which to live and work. The feeling prevails, however, and to a considerable extent in our larger cities, that we are planning in order that our cities may grow still larger and prosper. And what kind of prosperity is it that we seek so anxiously? I suspect it is largely financial. Aside from certain cultural advantages, the only advantage which a large city seems to have over a small one is the opportunity to make money speedily. Large cities may have immense libraries, art institutes, symphony orchestras and schools, but large cities also have congestion, slums, smoke, fumes and nervous living. While the cultural pursuits take little of our time, the time spent in poor dwellings, in rushing madly from here to nowhere occupies most of our lives, and

it is questionable indeed if the large city has sufficient advantages to warrant its becoming big. If the large city is a desirable place in which to live, why do most men, when able, immediately move to the suburb or the small village? In these modern times, we have mistaken largeness and bigness for greatness and goodness. Some of the cities of Canada, particularly those close to the border, are in danger of the bigness germ, and it is perhaps necessary for the members of this Institute to warn them against its attack.

"SELLING" THE PLAN

Second: Many town planners have done the cause more harm than good. I refer to the habit of getting a job, preparing a plan and then forgetting all about it.

In a period of ten years, prior to 1919, four plans were prepared for Detroit, all by eminent town planners. Some of them had good ideas and workable schemes. In others, there were just ideal ideas. The plans looked nice, but no steps were taken to carry them out. I doubt if the originals can now be found within the recesses of the municipal archives. I do not object to the expenditure of the twenty thousand dollars or more used to procure the plans. We could well afford that for experimental studies. But it will be difficult for you to imagine the opposition we met when the present City Plan Commission of the City of Detroit was first organized. We were still, in the eyes of some, "picture planners," "idealists" without a practical thought in our heads. It took some time and considerable educating to prove that we were not just preparing plans to be stored and not carried out.

PLANS "ON FILE"

In 1920, we sent out questionnaires to 119 American cities to learn what had been done in the way of planning. Of 88 returned, we found city after city which had had a plan prepared and which had done nothing since its preparation. Which brings us to the question: "What is our function?" Are we town planners just another professional group interested in making as much money as we can, or do we owe some duty to the community? Are we honest when we prepare a plan, get our fee and forget the town, passing on to newer and more fertile fields, Should we be party to a contract when we know that a town wants a plan only to be able to say that they have one, without any intention of attempting to carry it out, or should we go beyond the plan and insist that we will prepare it only upon condition that an honest effort will be made by the community to carry the plan into effect. You may say that it is not our fault if the plan is not carried out. The fault is often ours. Many town plans have been prepared without proper field study, without a knowl-

ledge of local finances, topographical conditions, laws and customs; all of which are important. Of what value is an ideal plan prepared for an already established community if there is not even a remote possibility that it can be put into effect? After all we shan't be remembered because we have prepared plans. The only monuments we can have are plans accomplished. Would Kessler be known in Dallas if his plans had reached the paper stage only? Is it any recommendation to us, as planners, when a town such as Auburn, Maine says, "Yes, we have a plan, but it is too visionary and not at all practical." I know of one plan which proposed a diagonal street through the most important building in the community, the pride of the town. Is it any wonder that the residents smile when the suggestion is made that they ought to look ahead to the proper development of their village. You may say, "We should prescribe only what is best", and I answer that we must prescribe that which is best, *considering all the circumstances and that which is best within the town's means.*

Think of the attitude of cities such as Bangor, Maine, which advised "other things of greater importance demand attention", as though there could be anything of greater importance. And yet such an attitude arises from a lack of respect for all planning because of impractical plans which have been prepared and submitted.

I do not wish to have it inferred that I am opposed to a plan. I believe it essential that all planning, all municipal developments, whether streets, parks, sewers, water or water fronts, should be a part of, and related to a fundamental and directing plan. I do not object to technical advice. It is absolutely essential in its place. My objections are levelled against theoretical, artistic plans, created only to make a showing, without any hope for their accomplishment. Yes, I object to the town planner who is interested only in selling a plan.

TOO MANY EXPERTS IN EVERY CITY

Heretofore I have called attention to a few of the faults in city planning engendered by the professional town planner. It must not be understood that he alone is responsible for most of the failures. Another fault in city planning, just as in traffic regulation, is that there are too many experts on the subject. In a city of 50,000 citizens, you will find 50,000 traffic experts with that number of solutions to the problem. The same can be said to a considerable extent of town planning. Many legislative officers, after viewing a single blueprint, feel that they are qualified to pass upon all plans, and there are a great number of real estate men, who having butchered a parcel of property, feel that they are qualified to pass upon all town planning designs, and that if a plan does not meet with their approval, it is "ideal", "artistic" and "impractical".

PUBLIC INTEREST ESSENTIAL

I argue that the public must be taken into our

confidence. The work which we are doing is not so involved that it cannot be understood by the average man if reduced to everyday terms. Winnipeg is today doing work which should be related to a plan. It may be making mistakes—I change that to say, it is making mistakes unless the municipal work is related to a plan. Will the water mains, pavements, streets and parks of today be adequate 10 years from now, or will the citizens be asked to appropriate funds for corrections in 10 years? All of these matters concern every resident. He must be interested for his own good, but the interest must be honest. In every community when a plan is proposed you will find a few people who object. Every community has a few residents who object to any kind of improvement. Things were good enough for their grandfathers and necessarily they are good enough now. In every community you will also find some people who think that their interests are going to be hurt by a plan. They think they won't be able to make as much money as they otherwise might and so they will raise a great hue and cry that the plans are impractical, ideal and worthless, and that they will bankrupt the town. Don't be misled by such. A good city plan has never bankrupted any town. It has paid huge dividends in the way of better living conditions. There are communities in which the people don't care about their town. They lack the interest, desire or will to improve conditions. We need spend no time discussing them. Although I castigate the devil when calling attention to these filed plans, and blame the town-planner in many cases, we must admit honestly that many of the failures are caused by lack of interest or the obstructionist tactics of "little men."

CARRYING OUT THE PLAN

There is one place in a city planning program where "selling" is necessary, but that is after the plan has been prepared. For a number of years, I have been preaching that there are three major steps in planning: first, the creation of the plan; second, its acceptance by the people; and third, its accomplishment. The finest plan created has no value, except as a work of art, unless it is carried out, and no plans are carried out until they are accepted by the parties interested and affected. So the most important feature is that which gets the least attention from most of us who are professional planners. Take this city where we are today. It goes without saying that a plan should be prepared, but some Body must be organized with sufficient authority and knowledge to carry it into effect and it will be necessary—this I tell you from experience—to pound and pound and educate and continue to educate if the plan is to be carried out. We found at an early date that we had to be more than planners: we have to be orators and newspaper writers and publicity men. Take my own case for example. My title is that of City Planner and Secretary. The city planner part of me must have engineering knowledge to know how things can be done practically. There must be

some knowledge of the fitness of things, appreciation of balance and symmetry. The city planner must also be a lawyer to know how these things which we design from an engineering standpoint may be carried out. The economist part of the city planner must know how the funds can be raised to pay for the improvements. That may be 60 percent of me. A jack of all trades is apt to be master of none and an engineer, an architect, a lawyer and an economist, none of whom are called city planners, working jointly but at their separate trades, could undoubtedly do as good or a better job than a man called city planner. I was once asked what form of education is essential if one were to be classified as a city planner, and I replied that a complete education in engineering, architecture, law, political economy and journalism was necessary. My questioner then asked "How many city planners are there in the country?" To which I was forced to reply "None". Perhaps we ought to be called city designers rather than planners. On the other hand, 40 percent of myself, which may be the secretary part, must appear before municipal bodies, before civic associations, and before groups of every nature to convince them of the need of city planning, and must at the same time be always preparing writings of one form or another to educate the public on city planning needs. For a time, in Detroit, the secretary was 80 percent of the combination in time spent. Can I say, however, much as we need the technical knowledge, that the other is unnecessary? Hardly.

The longer I remain in this work, the less am I sure that what we are doing is the right thing. It's very much like my experience in law school. Six months after I had entered, I was sure that I knew all the law and that my opinions were always correct. After two years I had certain doubts as to how much law I knew, while at the Bar examinations I was quite thoroughly convinced that I knew very little law.

DINOSAUR CITIES

I am somewhat amazed now at the sureness of the new crop of planners. For myself, after two years in the field I was pretty certain that any remedy we suggested would effect a cure. Today, after ten years of experience I begin to doubt if anything we are doing will effect a permanent cure of bad city planning. I am now talking about the huge unwieldy cities, which I do not approve of, and not about present cities of Canada. Most of our remedies, I am afraid, are pain-deadeners, opiates, palliatives. Let us admit that we are capable of planning not for the ages, but only for the next generation if we insist upon huge cities, and let us not assume the attitude that we are the only wise men living today. If we continue our present policy, some of the city planners, so-called, and the work generally are due "for a fall."

If I appear pessimistic it is perhaps because I have taken Spengler too seriously. Oswald Spengler in "The Decline of the West" makes this statement: Even now the world cities of the Western

Civilization are far from having reached the peak of their development. I see, long after A.D. 2000, cities laid out for ten to twenty million inhabitants, spread over enormous areas of country side, with buildings that will dwarf the biggest of today's and notions of traffic and communication that we should regard as fantastic to the point of madness.

I give thanks that I don't have to live in such a city and I confess an inability to plan for such a Megalopolis. The British are right in keeping for all time a permanent agricultural belt around their Garden Cities so that they cannot become "big" cities.

With your more liberal laws, you are in a vastly better position than we are to do effective town planning. You are new, or rather, newer than we are. You have a great opportunity—in many cases there has been little development. Your cities can be moulded into that which is good or that which is mediocre, or that which is bad. We know that planning must be done. It is not through choice but rather necessity. When the hamlet grows into a village and then a small city, the streets which served the horse are no longer adequate; where once we ran our sewers into nearby creeks, sewage disposal systems are now necessary; the old pump will no longer do, we must have water purification.

TOWN PLANNING IS A STARK NECESSITY

Yes, planning is no luxury, it is stark necessity. We have demonstrated that to the south but we started too late in most cases. It remains for you to show us how town planning can be done properly. I shall be greatly disappointed if Canada's towns and villages and cities fail to take advantage of their many opportunities.

I am capable of giving only one bit of advice, and I give it to you because I believe that most of you do not have the megalopolitan ideas so familiar in the States. All that is good does not come from bigness. A large city is not necessarily a happy city in which to live or a healthy city in which to work. The "prosperity" of the large metropolitan city may be largely a chimera. We lose something as we grow. Your opportunity lies in the smaller communities. It is my wish to go back some day to one of those smaller cities to re-plan it—to rebuild it into something closer to our ideal of a city in which to live.

To recapitulate: what then are some of the faults in city planning?

First: the desire to be big without the concurrent desire to be great or good;

Second: the desire of the professional town planner to sell a plan;

Third: the selfish desire of the resident who objects to any planning which might not let him make his profit;

Fourth: the disinterest of the public in that which is so essential to its well-being, and a lack of appreciation of the important part which the sociologist

and journalist plays in proper town planning, and

Fifth: a lack of honesty on the part of all of us in failing to place the fault where it belongs.

Gentlemen, if what I have said be treason, and I think many of Detroit's citizens will consider it

such, then, you must arrange the punishment to fit the crime. I feel, however, that it would be treason on my part, to my present profession, if I failed to call attention to these obstacles to town planning progress, known by many, but seldom publicly admitted.

Why Public Credits is the Logical and Practical Solution of the Housing Problem of the Lower Income Group

By S. JAMES HERMAN, M.A., M.D.

Executive Director—Michigan Housing Association, Detroit.

THE PROBLEM

We are confronted by alarming and revolutionary changes in the social attitudes of our people. In our larger cities men and women are not safe on the streets after dark, and crime and delinquency are growing apace. The stability of American family life is threatened, as evidenced by the rapid growth of divorce and by the failure of the church in its spiritual hold on the people and by the reduction of home ownership.

A study of causal factors definitely point to the changes in home life as the most potent contributing element. Students everywhere agree that a normal child placed in a normal environment will generally adjust normally to its social demands. The main difficulty seems to be family disintegration, and this is largely due to the fact that a little house and garden spot is no longer available to the majority of our people. The physical basis of a home is a good house containing at least a minimum of modern standards of sanitation, sunlight, air and play space.

Approximately 75% of our people in the larger cities are denied this minimum and are forced to live under conditions which breed discontent and foster bitterness of soul and hatred against the institutions that permit it.

If we are to succeed in checking the destruction of our American ideals and concepts of society and government we must hasten to provide a way for "a self-earned, self-owned home for every self-supporting family in our midst."

The National Bureau of Economic Research, from a study of over 37,000,000 incomes, gives 81.99% as belonging to the group earning \$150.00 per month and under, and 54.51% as earning \$100.00 per month and under. The Department of Labor made a careful analysis of the incomes of over 12,000 families in forty-two states, and considers this study a fair cross-section of the incomes of our people in these groups. The result of this analysis show that 78.07% earn less than \$150.00 per month; and this includes other family income amounting to an average of 7% of total income. Against this data we find that construction of multiple dwellings in 257 identical cities in the United States increased from 24.4% of the total con-

struction in 1921 to 48.3% in 1927—an increase of 100% during the six year period. Construction of one family dwellings on the other decreased from 58.3% in 1921 to 38.3 in 1927—a decrease of 34.3%. This is conclusive evidence that home-ownership is becoming more and more impossible on the part of the lower income group. It is a well known fact that home-ownership, especially in our larger cities, shows a definite and steady reduction at every decennial census period.

COMMERCIAL HOUSING COSTS PROHIBITIVE

A five room frame cottage containing modern heating and sanitation sells at from \$6,000. to \$7,500. Taking \$6,750 as a mean you have a monthly burden approximately \$80 entirely beyond the reach of the families of the group under consideration.

There is positively no question that home ownership under present economic conditions are denied to a large majority of our people, and there is no hope for the future, unless immediate, decisive, result-getting steps are taken to remedy the situation. There is wide disparity of opinion as to what measures should be applied. Roughly, these may be divided into four groups:

- (1) Commercial or private enterprise,
- (2) Philanthropy,
- (3) Governmental subsidies or ownership, and
- (4) Public credits.

COMMERCIAL OR PRIVATE ENTERPRISE

This has been carried on on a highly competitive basis the same as other basic industries, but has utterly failed in meeting the problem. This is largely due to the fact that the methods in housing construction have changed but little from those of centuries ago. Commercial housing has received substantial help from many non-commercial sources. The Better Homes in America movement, started in 1923, has done a great deal in stimulating the production of lower cost houses. Many outstanding public spirited architects and builders have given a great deal of thought to the reduction in cost of housing for the lower income group. Such men as Thomas Edison, Robert Tappan, Chas. H. Ingersoll and others have made notable contributions, but none

have succeeded in producing anything that will meet the needs of the \$100 per month family, which constitutes about half of our earning population.

We should give all possible encouragement and stimulus to commercial enterprises to continue its researches for better methods, standards, materials, design and land utilization, but we must not fail to take advantage of other means readily at hand, for no one can foretell when and if commercial enterprise can actually succeed in meeting the situation.

PHILANTHROPY

Philanthropy in housing presents two phases:

(a) Even if philanthropy were ample to solve the housing question effectively, would it not be more in accord with American principles to provide a way whereby a normal self-supporting family can earn its little home and garden spot without philanthropy and thus eliminate the stigma which should not be there. A man giving his labor to the community to the extent of his capacity is entitled, in return for services rendered, to the essential and primary needs of life, namely—food, shelter, clothing, education and recreation. Philanthropy is most excellent for pointing the way, but it is the duty of society to see to it that such an important thing as housing is made available to every self-supporting family on a normal basis of exchange;—Labor is worthy of its hire.

(b) Assuming that we accept this dictum and agree that philanthropy should be a basis for meeting the housing problem, experience of over twenty years has shown definitely that it will not invest its capital in sufficient and continuous quantities to care for even the immediate needs. A man will give millions for charity, but for some unknown psychological reason is not willing to tie up his capital for long periods of years in a non-liquid investment. The City Housing Corporation of New York, the most outstanding success of this type, though organized in 1922, has but recently completed the construction of Sunnyside, due to its inability to raise additional funds, and this occurred in spite of the fact that it was well sponsored, and located in the weathiest city in our country.

The history of philanthropic housing developments, over a period of fifteen years or more, clearly indicates the unwillingness of philanthropic groups to sponsor more than a single undertaking. Philanthropy should be encouraged everywhere; it is most excellent for pioneering and demonstration, but it seems utterly futile to look to it for the solution of the problem.

GOVERNMENTAL SUBSIDIES OR OWNERSHIP

It is most likely that subsidies for housing will become mandatory for the indigent class in our midst. Those, who, because of physical or mental handicap, are unable to compete normally with their fellowmen, should have special consideration. These groups are not, however, being considered in connection with public credits. They are practically wards of the city or state and must receive specialized care.

The use of direct subsidies or municipal ownership

by recognizing housing as a public utility offers serious objections. While the housing policies of European Governments are valuable guides, we must use guarded caution when it comes to their practical application in our country, and we must shape our program to fit public attitude as well as public need. First and foremost, our principal aim should be to build American character and not to foster the development of a generic, indigent class, forever dependent upon some form of government doles.

Objections to this proposal from the standpoint of municipalities, beneficiaries, and the public at large, are:

- (a) The bond limits of most large cities prohibit major housing undertakings, and even if such limits are legally extended, any substantial increment in debt is bound to have a like effect upon interest rates.
- (b) Frequent changes in the administration of municipalities will deleteriously affect efficiency of management.
- (c) Political preferment cannot be avoided, hence, a large percentage of incompetency will inevitably result.
- (d) The relationship of landlord and tenant is vastly different from that of producer and consumer in the matter of selling water, light or gas. The city must be paternal, sympathetic, even charitable, and at the same time rigidly enforce hygienic, sanitary and health measures, and, above all, collect rent. The same would apply in the case of purchase and sale, with the city as vendor and the tenant as vendee.
- (e) A municipal housing project of this character, would, in time, involve a large percentage of the population and a class whose vote could be easily influenced in favor of the existing administration and, per contra, a large body of voters can unite in forcing its demands upon political aspirants for lower rents and lower standards of restrictions.
- (f) Municipal construction will cost more and may, in part at least, nullify the savings established by the elimination of the cost of financing, tax remission and lower rate of interest during tenure under land contract or other conveyance.
- (g) Municipal ownership of so large an undertaking would involve a substantial loss of taxes in addition to a probable operating deficit. The resulting increment in taxes may become burdensome to other home owners as well as to industries.
- (h) While some may welcome the innovation, others will object to being stigmatized by governmental subvention.
- (i) The public is not convinced that a municipal utility of this character would function happily or that direct subsidies in any form are economically sound.

(j) American tradition insists upon the policy of equal opportunity and conservative helpfulness but *not* charity.

PUBLIC CREDITS

The first requisite of any plan for the solution of the housing problem is—AMPLE CAPITAL. A large liquid fund is essential to any housing plan whether applied to the development of communities, the slum clearance or to the construction of garden apartments. Ample capital can perform difficult tasks with comparative ease. It fits in perfectly with mass buying and mass production. Public credits are almost as old as our institutions, and are commonly used in all civilized countries.

District, state and county improvements are financed on a basis of public credits—the initial capital is obtained through the issuance of bonds and the beneficiaries pay for such improvements on the instalment plan over a period of years.

Public credits seem to be the logical solution to the housing problem of the normal self-supporting family. Credits, properly applied, are and always have been a sound economic policy. Our entire economic system, whether applied to individuals, corporate entities, or nations, is based upon credits. The principle of public credits is not socialistic or radical. The housing conditions in the modern industrial centres have so radically altered that families of the lower wage group find it impossible to obtain housing facilities that will measure up to American standards of living. With this point in view, outstanding leaders of state and nation are in complete accord.

PRESIDENT HOOVER'S VIEWS

President Hoover has been prominent in his effort for housing betterment, and his position in relation to farm relief clearly defines his attitude on public credits. In his acceptance speech he stated:—

With that objection I have little patience. A Nation which is spending \$90,000,000,000 a year can well afford an expenditure of a few hundred millions for a workable program that will give to one-third of its population their fair share of the nation's prosperity. Nor does this proposal put the Government into business except so far as it is called upon to furnish initial capital with which to build up the farmer to the control of his own destinies.

EX-GOVERNOR SMITH'S EFFORTS

Ex-Governor Alfred E. Smith's efforts for better housing in New York, as well as the measures he sponsored, include tax remissions and subsidies—more advanced than the principle of public credits. Among his public utterances, the following are very pertinent:—

.....building of homes for wage earners is a matter of vital public interest and should not be left to the chance of speculative business. Ordinary commercial trends in the construction

industry hold out little hope.The social ills and moral dangers consequent upon our neglect of housing have been ably presented by the courts dealing with juvenile offenders, by church, social and civic bodies of every kind. Our government has been and will continue to be compelled to pay in the impaired vitality and health of a large part of its people for the failure in coming to grips with this situation on a large scale.In focussing our attention on this subject we are on the right track; we are getting down to bed rock on many of our social evils. I can think of nothing that will go further to promote the health, comfort, happiness and morals of our people than comfortable and sanitary housing.

GOVERNOR GREEN ACCEPTS PRINCIPLE

Governor Fred W. Green, of Michigan, summarizes his acceptance of this principle in unmistakable terms in a public message on February 4, 1928, from which I quote:—

No one should shy away from it on the theory that a program of public building is radical. All remedies for new conditions must be radical just as the conditions themselves are radical.

For over two years I battled with this question myself and was finally compelled to admit that there seemed no other way out of solving the housing need of the large majority of our people. During the last three years I have had occasion to analyse its various aspects with bankers, manufacturers, businessmen, sociologists, and economists, and none of them have been able to offer any substitute or any other solution to this paramount question. With the health, welfare, and comfort of three-fourths of our people at stake, we should be willing to re-align our traditional attitudes in order to meet the unprecedented economic change. Nothing should be allowed to interfere with the progressive measures leading to this desideratum, for no other effort will do so much toward fostering a deep appreciation of American ideals of government and society.

PRACTICABILITY OF PUBLIC CREDITS

Now as to the practicability of the use of public credits. I do not know of any method that offers so many advantages and yet so few inherent faults. By making ample capital available through the use of public credits, and combining it with mass buying and mass construction, we are building our plan on a firm foundation and along sound economic lines. Duly recognizing the force of American traditions, the intricacies of our political machinery, and the mandates of our economic institutions, a group of controlling principles are hereby submitted as a fundamental to any plan involving public credits. They are:—

- (1) That the benefits to accrue are to be limited to self-supporting families with gross earnings not exceeding \$150 per month. (This plan makes

no attempt to provide for the needs of the poor, the indigent or the mentally or physically handicapped.)

- (2) The plan must function without private or public philanthropy, without subsidies, remission of taxes or gifts of public money. In other words the entire plan must be self supporting and incur no additional burden to the tax payer.
- (3) It must not, as far as possible, interfere with the economic status of the various real estate, building or financial interests. This will be accomplished: first, by having all utilities installed and homes constructed by private contractors, subject to public bid, and, secondly, the benefits will be limited to those families who have no hope of becoming home owners on the ordinary commercial basis.
- (4) It must be strictly non-partisan, non-sectarian and not be subject to political preferment, hence neither the state nor any political subdivision thereof is permitted to have any part in the purchase of the land or its development.
- (5) In order to permit amortization over a long period of years, reducing annual principal payment to a minimum and lowering the cost of up-keep and maintenance, all houses must be durably constructed, faced with brick, stone or concrete and contain modern heating and sanitation.
- (6) Cost of construction must be brought down to the level of the budget limit of family incomes as low as \$100 per month and the carrying charge must not exceed 25% of income.

REQUIREMENTS OF PRINCIPLES MET

To meet the rigid requirements of these principles, we are forced to take four important steps, namely:

- (1) Eliminate cost of financing by making ample capital, at reasonable rates of interest, available through regional public credits by establishing a Home Loan Revolving Fund. The cost of financing alone constitutes from twenty to twenty-five percent. of the selling price of the average working man's home, sold commercially on the deferred payment plan.
- (2) Purchase raw acreage for cash in parcels of not less than 200 acres, thus reducing the cost of the land.
- (3) Purchase materials in like manner, for 1,000 homes at a time, thereby lowering their cost.
- (4) Schedule the building program on a mass basis of not less than 1,000 homes per undertaking, thus forcing the cost of production to the lowest level.

Of these four advantages, the last three are well established and in common usage in the modern field of industry. The only one requiring particular discussion is provision of ample capital *without bonus* and at reasonable rates of interest.

PROVIDING AMPLE CAPITAL

To provide this capital the plan proposes to use regional public credits, subject to proper safeguards and restrictions in the manner following:—

The Constitution of the State of Michigan does not permit of the use of public credits for the purpose under discussion, hence the Michigan Housing Association proposed, at the last session of the Legislature, to amend the prohibitory section in the constitution reading:— "The credit of the state shall not be granted to nor in aid of any person, association or corporation, public or private."—by adding the following:—

except that the legislature shall have power to enact laws to foster and finance home building and home ownership for and by citizens of the lower wage or income groups as may be designated by the legislature and to that end the legislature may provide for the creation of home-loan districts with power to raise moneys on the credit of the district and advance said moneys to local non-profit, state supervised housing associations on such terms as the legislature may direct.

OUTLINE OF LEGISLATION

The outline of the intended legislation to follow the adoption of the proposed amendment is here briefly summarized:

To guard against political intrusion, and to insure that all benefits shall accrue to the home buyer, it was found necessary to provide a distinct cleavage between the duties and functions of the financing body and the local entities organized for the specific purpose of carrying the housing plan into execution.

HOME LOAN COMMISSION

A State Home Loan Commission will be created whose members, serving without compensation, will be appointed by the Governor direct, or from a list of nominees submitted by various civic bodies. This body will be the only legal instrumentality of the state. Its duties and authority will be limited to:—

- (1) To create Home Loan Districts, comprising one or more counties in which the larger urban centres having housing problems are situated.
- (2) To create Home Loan District (or Regional) Revolving Funds through the issuance and sale of housing bonds secured by the faith and credit of such districts.
- (3) To provide for the serial amortization of such bonds over periods of from twenty to thirty years.
- (4) To loan said funds to local, non-profit housing associations, and to see that such loans are adequately secured by first mortgage on all properties against which loans are made. It should be noted that in addition to the first mortgage there are created three sinking funds as additional safeguards for securing the repayment of principal and interest, namely:—(a) by each District, (b) By each Housing Association, and (c) By each Community.

- (5) To charge an interest rate sufficiently higher than the rate paid on the bonds to cover the operating expense of the Commission, plus a further addition of one per cent per annum to create an emergency sinking fund to meet any contingencies.
- (6) To collect all payments due by the non-profit housing associations to meet interest and principal maturities under the housing bonds.

NON-PROFIT HOUSING ASSOCIATIONS

The non-profit housing associations will be organized wherever they are required or wanted and will be the only organizations empowered to borrow from the Home Loan Revolving Funds, to buy land and to build communities. Each will constitute a separate corporate entity, the same as any other business corporation, and will be responsible for its own acts. They will operate under special charter which will provide for proper safeguards, restrictions and limitations. The city or country in which they are located will not be financially responsible for their undertakings, although members of these associations will be appointed by local authority in like manner and on the same basis as the members of the Home Loan Commission.

Assuming the Home Loan Commission as actually functioning, any city requiring or wanting to undertake a community building project will appoint a group of citizens to initiate the formation of a non-profit housing association. After being duly organized, it will borrow its gross capital requirements from its own district, giving a first mortgage on all property purchased and improvements to be made thereon; will buy not less than 200 acres of raw land and proceed with the installation of utilities and the construction of not less than 1,000 homes. Its executive personnel will be responsible for all plans, specifications and supervisions, but construction work will be carried on by private contractors subject to public bids.

Each local housing association will be required to establish an emergency sinking fund of its own by adding a specific amount to the cost of each house as additional security against advances made from the Home Loan Fund.

Homes erected in the above manner will be sold to purchasers without profit and monthly payments will be inclusive of all charges, as interest and principal payments, taxes, insurance and pro rata contributions to the community contingency fund and other local budget needs.

While it is essential that purchasers be required to make a down payment of 10%, it is hoped that some plan can be worked out whereby a limited number will be permitted to make smaller cash payments, and make up the difference within one year by services rendered to the development of the community.

These associations will have full discretion in their choice of applicants for the purchase of homes, and

will use every care in the selection of the residents in order to assure reasonable amalgamation of various racial stocks.

SPECIAL STUDY CONFIRMS ECONOMIC SOUNDNESS OF PROPOSED PLAN

From a study of financial set-ups in relation to the family budget, it was found necessary to reduce the cost of the average home to forty per cent. of its present selling price in order to bring it within the means of the \$100 to \$150 per month family. This seemed rather questionable, but the results of a careful and thorough investigation were more than encouraging.

In order to determine, in a definite manner, the cost of individual homes, if erected under this plan, a parcel of land containing 160 acres was selected on which to base this cost, after a number of pieces had been examined and priced. An architect, with city planning experience, was engaged to draft a model community plan suitable to the land selected. After providing for a business centre, civic centre, administration building space, one central park of about ten acres, four smaller parks, school ground surrounded by playground, library location and four church sites, it was found that the remainder of the 160 acres would divide into 604 residence lots 50' by 130' each. (Note size of lots as compared with size of average subdivision lot.)

Plans and specifications were drafted covering all public utilities such as sewer, water, gas, electricity, paving, sidewalks, curbing, park development, tree planting, etc., including complete drawings and specifications of three types of bungalows, none containing less than two bedrooms. Part of the bungalows were to be finished in face brick and others in stone tile. Every aesthetic advantage was utilized in the treatment of land and architecture, with the idea of avoiding monotony in perspective, as well as drab sameness of duplication.

In addition to the improvements mentioned, these plans provided for a double tennis court in the centre of each block. The object of such an arrangement, which the depth of the lots permitted, was threefold. In the first place, convenient access to the courts would stimulate interest in, and lead to the adoption of the simple and inexpensive sport of tennis as the principal physical diversion of the adult as well as the child. Secondly, the question of safety was considered. If a ball was batted over the wire enclosure of such courts, it would not be necessary for the player to run into or across the street to regain it as is a common occurrence where courts are exposed to the street. Thirdly, the courts, which are not usually ornamental, would be out of sight.

Complete bids were submitted by two reputable firms of building contractors, which included a provision for ample surety bond for completion of the entire community within a period of two years.

In estimating the cost of the complete, individual home and garden spot, under this method, every

precaution was taken, and all figures, bids, etc., were as carefully computed or submitted as if the actual construction were to be proceeded with immediately.

The results were surprising, for in spite of the fact that the community contained many features in the way of improvements and embellishments not to be found in the average subdivision, it was found that these homes, with all modern and sanitary conveniences, could be produced at slightly over forty percent. of the normal market-selling price of similar homes built individually.

An analysis of the great difference between the cost arrived at and the normal market price was then undertaken, and it was not difficult to establish and allocate the various items, as indicated in Table "A". Table "B" gives a detailed summary of the items comprising the total development of the community.

CONCLUSION

It is not possible within the space of time allotted to take up a detailed discussion of the various phases of the plan, and we must content ourselves with the conclusive statement—that there seems to be no way of meeting, speedily, the urgent need, without the use of public credits in some form. It has been suggested that wages should be increased to enable the family to be decently housed. In my opinion this is not economically feasible, and, if it were, the prices of dwellings would rapidly rise in proportion to the increase in wages and would be as far out of reach then as now.

There is but one practical way of meeting this problem, and that is by bringing the cost of a home with American standards down to the wage level of the group under consideration.

TABLE "B"

Estimated Cost of Development of Model Suburban Community.

| | |
|--|---------------|
| Land: 160 Acres at \$1200 per acre | \$ 192,000.00 |
| Paving; 175,000 sq. yds. (5" Asphaltic Concrete) @ 1.21½ per sq.yd., (City of L.A. quoted \$1.35 less 10%) | 212,625.00 |
| Curbing: 35,500 lineal feet at .45c per ft. (City of L.A. quoted .50c less 10%) | 15,975.00 |
| Sidewalks: 141,000 sq.ft. 4' wide at .117c per sq.ft. (City of L.A. quoted .13c less 10%) | 16,497.00 |
| Sewers; 24,000 lineal ft. @ \$1.12½ (City of L.A. quoted \$1.25 less 10%) | 27,000.00 |
| Water Mains: 24,000 lineal ft. @ \$1.60 per ft. | 38,400.00 |
| Fire Hydrants: 40 at \$75.00 each | 3,000.00 |
| Trees; (residence portion) | 1,200.00 |
| Septic tank (if required) | 5,000.00 |
| Primary development of parks | 10,000.00 |
| Busses: 5 at \$8,000 (if required) | 40,000.00 |
| Initial management, advertising, overhead etc., | 25,000.00 |
| Possible emergencies | 25,000.00 |

| | |
|---|----------------|
| Gross Cost of Tract and improvements | \$611,697.00 |
| Less sale of 500 feet business frontage at \$100 per ft., | \$50,000.00 |
| Less sale of 500 feet business frontage at \$150 per ft. | 75,000.00 |
| | 125,000.00 |
| Net Cost of Tract and improvements | \$486,697.00 |
| 300 Bungalows, Model No. 1 at \$1284.30 | —\$385,290.00 |
| 150 Bungalows Model No. 2 at 1989.00 | — 298,350.00 |
| 154 Bungalows Model No. 3 at 2308.50 | — 355,509.00 |
| | \$1,039,149.00 |

TOTAL COST OF DEVELOPMENT \$1,525,846.00

TABLE "A"

Savings Affected by Mass Construction, with Ample Capital as Compared with Normal Commercial Price, on Deferred Payment Plan.

| | |
|--|------------|
| Selling Price | \$6,500.00 |
| Contractor's Profit at 15% on sale price of \$6,500. | \$ 975.00 |
| Appraisal, abstract, legal fees, etc. | 37.50 |
| Fee for Builder's Loan (Loan \$2,500.) | 75.00 |
| Bonus on Permanent Mortgage (Mortgage \$2,500) | 75.00 |
| Interest and insurance charges before property is sold—approximately | 30.00 |
| Discount on sale of builder's equity of \$6,000—(selling price \$6,500 less down payment at 20%) | 1,200.00 |
| Salesman's commission—5% on \$6,500 | 325.00 |
| Contractor's excess, paid on account of buying material, etc. on small quantity basis, (Bungalow No. 2—\$1,989) at 10% | |
| Syndicate's profit and overhead—consisting of commission of subdividers and salesmen when land was originally subdivided (25% on \$1,800. "a" used as selling price of lot—\$450. and 100% on actual cost of lot—\$659.61) | 1,109.61 |
| TOTAL LOANING | \$4,026.01 |
| Actual cost of house and lot (Bungalow No. 2, \$1989) lot (Table B) \$659.61 including all improvements | 2,648.61 |
| Approximate selling price ordinary commercial method—compare with selling price given above | \$6,674.62 |

The Province as a Planning Unit

By HORACE L. SEYMORE

Director of Town Planning, Province of Alberta

ALBERTA—AREA AND POPULATION

If you were to measure from the westerly limit of the State of Pennsylvania, considerably further west than the city of Buffalo, to the most easterly point in the Republic; that is in the State of Maine, you would still have a distance less than the length of the Province of Alberta, as it extends from south to north some 750 miles; and the area of all the States from Pennsylvania to Maine and, this includes as well the States of New York, New Jersey, Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island—the area of all these States is less than two-thirds the area of the Province of Alberta, about which I am to make some remarks in connection with its planning problems and planning administration.

The Province of Alberta has an approximate area of over 254,000 square miles, Alberta had in 1926 a population of 608,000 or only 2.3 persons per square mile. The States mentioned taken together have an area of 161,976 square miles with a population of 29,662,053 or 183 persons to the square mile. Please note the contrast, 2.3 person per square mile in Alberta; 183 persons per square mile in the New England and Mid Atlantic States. Only the States of New Mexico, Arizona, Wyoming and Nevada have a smaller population per square mile than that of the Province of Alberta.

In Alberta there were in 1926 six cities, 55 towns, 114 villages. Of these urban municipalities only 91 were over 300 in population, only 27 over 1000, four over 5000 and only two over 50,000. Such urban population gave a total of 221,243. That includes within a few thousand the whole urban population of the Province. The remainder, the rural population of Alberta is therefore from 60 to 65% of the total population, a high percentage as compared with the national averages both in the United States and Canada, of approximately 50%.

The figures just quoted have been given to show that Alberta is a large Province, that it has a small population, mostly rural, and that that population is as yet scattered over many square miles. Why the desire, whose the vision to have the Province function as a planning unit and how is that function of Provincial Government being worked out? These are the questions I shall try to answer for they may have some implications of value to other Provinces.

RESOURCES

All signs point to a great future for the western Provinces of Canada and, may I add in particular, for the Province of Alberta:

Alberta's total coal reserve is estimated at one million million tons (a real British billion) sufficient to last the whole of Canada for many

generations, being 14% of the entire world's coal reserve.

Many cities and towns in Alberta use natural gas and Alberta's production exceeds the productions of all the other provinces in Canada—use it industrially in the southern part of the Province, but almost exclusively for domestic use in the more northerly part of the Province.

Alberta has valuable timber in the north, tar sands in the far north and already clay product industries in the south. With great opportunity for future industrial development.

The manufacturing industries now established and flourishing in the Province show that with the growth of the farming industry there is an increase in the scope for industrial enterprises having for their object the processing of farm products and supplying the farmers needs. The coal, gas and oil resources of the Province suggest that in the not very distant future there is a possibility of substantial industrial development in Alberta, comparable to the industrial development which has already taken place in many of the Western States.

AGRICULTURE

But it is Alberta's agricultural possibilities that make particular appeal to the writer. You know how the prairie provinces of Canada are producing more and more grain. Just as the combined output of these prairie provinces must inevitably, under ordinary conditions, soon greatly exceed production in the United States so must, under the trend of settlement, the province of Alberta exceed the output of neighbouring provinces. Study the isotherms, the amount of summer sunlight, the soil conditions and you will understand why. Grain is being grown in Alberta 600 miles north of the international boundary in the famous Peace River Country which, as early as 1893, at the Chicago World's Fair, took the first prize in wheat. Again in 1926, and since in Chicago at the International Hay & Grain Show, the world's championship was won in both wheat and oats by Herman Trelle, in the Grande Prairie district of the Peace River country.

Bordered by and partly included in the "prairie", Alberta claims on its western boundary two of the greatest natural scenic parks (under Federal control) in the world,—The Rocky Mountain Park, with Banff and Lake Louise best known, and Jasper Park farther north in the Province and a continuation of the same Canadian Rockies. Waterton Lakes Park (another national mountain park) is in reality a continuation of the Glacier National Park of Montana and is equally attractive.

THE NECESSITY FOR TOWN PLANNING

Very briefly and very sketchily, of course, I have tried to show that Alberta has wonderful future possibilities. But until a very few years ago there existed very little public realization of the necessity of town planning. As a result development, particularly in urban centres has been haphazard, costly, inconvenient and unsightly. The Premier returned from a trip to the Old Country in 1927 impressed with what he had seen there in the way of convenient and beautiful development and an earnest desire that the future development of his own province should be guarded along lines which would make urban centres pleasing places and would tend to improve instead of marring the natural beauties and amenities of the province. He at once started to get public support for his ideas and within a year has enlisted not only the Members of his cabinet and the agricultural group which elected him to office, but also the public at large in the cause of the rational development of the province with a due regard to aesthetic values, both in town and country.

THE ALBERTA ACT

What has actually been done? In the fall of 1928 a Town and Rural Planning Advisory Board was appointed by the Government under the provisions of an Act prepared largely for the purpose of appointing such Board. Mr. C. Lionel Gibbs, architect and member of the Provincial Parliament is chairman of this Board. Premier, the Hon. J. E. Brownlee and the Hon. R. G. Reid, Minister of Municipal Affairs, (under which Department the actual work of Town Planning is being carried out) are the Government members of the Board. Appointed from various parts of the Province other members of the Board include a civil engineer, a farmer, a financier and, last but not least, two women members, representatives of the United Farm Women of Alberta and the Women's Institute. The writer appointed as Director of Town Planning is also a member of the Board.

On the 20th March, 1929, the Town Planning Act, being Chapter 49 of the Statutes of Alberta came into force. Of this Act the *Journal* of the Town Planning Institute of Canada in its April, 1929, issue states, in part, as follows:

It is divided into five parts, the first deals with the preservation of natural beauty and the duties of the Advisory Board in that regard. The Board will co-operate with any local or rural authority in formulating and carrying into effect any official town plan or any town planning scheme; it will assist and advise any rural authority in devising ways and means for preserving the natural beauty of the locality and of insuring that any new buildings and erections therein shall be so designed and located that they shall not mar the amenities of the locality. The Board will have power to make regulations respecting any part of the province which is not included in any city, town or

village with respect to building lines on each side of highways, design, location, and construction of gasoline stations, garages and refreshment booths, sites of tourist camps, character of sign boards and advertising devices. If such structures do not meet with the approval of the Board an order will be issued for the removal of them within seven days under penalty. The Board may acquire land for highway park purposes by private treaty or expropriation.

Part II deals with the appointment of Town Planning Commissions to act in an advisory capacity for the promotion of town planning projects in city or town. The Commission may appoint town planning engineers, consultants and other officers with the approval of the Council. Regional Planning Commissions, composed of representatives of adjoining municipalities are authorized and councils may delegate to the commissions such powers, with the exception of raising money or expropriating land, as are necessary to their work. Any local or rural authority shall have power to prepare an official Town Plan and official improvement schemes, street widenings, street traffic improvements, railway and airport facilities and to acquire land for public purposes. It is made clear that such planning does not involve immediate expenditure, but is an assurance for a proper development in the future. Any official plan will need to have the approval of the Minister before it can be adopted as a by-law.

Under Part II the right of excess condemnation is granted to the council, by which is meant power to acquire lands adjacent to those actually required for a town planning scheme in order to establish some proper planning control over adjacent lands. Provision is made for zoning schemes, including an important section controlling the design, character and appearance of buildings in certain places and another section prohibiting the erection of buildings until provision has been made for the supply of light, water, sewerage and streets. Anyone with experience of conditions under which shack towns grow up will see the importance of this provision.

The Minister is given power under this section to bring pressure to bear on local councils which are taking no town planning action, and if he is convinced that it is in the public interest that a town planning scheme should be prepared he has power to order such authority to prepare and adopt an official town plan. If the authority is recalcitrant the Minister has power to appoint officials for the carrying out of a scheme as indicated by the Act.

Part III deals with damages and enforcement. Part IV deals with subdivisions and makes adequate provisions for the re-plotting of areas.

that have been badly subdivided. Part V is concerned with administration, making provision for the appointment of a Town Planning Director, Advisory Board and the necessary staff.

The Alberta Town Planning Act has obviously entailed an enormous amount of study and a vigorous attempt has been made to adopt new ideas in town planning legislation and to make the act a powerful up-to-date instrument for the development of town planning in Alberta. Such features as architectural control and excess condemnation may be said by this time to have won the suffrage of town planning authorities all over the world and it is much to the credit of Alberta that these principles are to be given adequate recognition.

THE RIGHT TO BEAUTY

In an editorial dated March 30th, 1929, the *Saturday Evening Post* under the caption "The Right to Beauty" tells us that the State of Nevada leads all the rest in the thorough going character of the legislation she has passed to preserve the natural beauties of her highways and to ensure that rural bill boards may not be erected that will immeasurably mar the natural beauty of the scenery or obscure the view of the road ahead. Regulations of similar effect are being prepared by virtue of the new Town Planning Act for the Province of Alberta. The *Saturday Evening Post* editorially adds: "Not only should bill boards be regulated, but there should be exercised reasonable control over the character of filling stations and other vending establishments which abut on rural highways", and points to the step that the State of Connecticut has taken in this regard. Other provinces and states as well are considering such problems, but it is felt that the Province of Alberta has, at the present time, more far-reaching legislation in these matters. In fact, it seems to the writer, it may be stated that there is no Government in any province or state which has such a fine conception of how Town Planning should and can be accomplished throughout its domain, in highway and countryside planning, in the planning of cities, towns and villages, with which most of us are more familiar, and in that much more ambitious undertaking, the assisting of each individual farmer with his "planning" problems. Consideration is also being given to new community settlements to be designed along modern lines.

FUNCTIONS OF THE PROVINCIAL TOWN PLANNING BUREAU

Equally courageous and far reaching is the conception of the Government as to how this work is to be carried out. With a total population largely rural of under 700,000 averaging 2.3 persons to the square mile, with its two largest cities each with a population of less than 70,000, both just recovering from the effects of pre-war speculation, as well as lack of planning, and with the majority of its towns under 1000 in population, it is recognized that a Town Planning

office must for some time at least be not merely administrative—it must be as well consulting and even in certain cases a practising organization. It has been stated that you cannot advise and consult with a municipality on plans that eventually will come before you for official approval. But the Government of the Province of Alberta does not regard this problem in that bureaucratic way. The Town Planning Branch of the Government is for service. It will lay out rural parks, picnic grounds, tourist camps, school grounds, fair grounds and hospital grounds. It will advise cities, towns and villages on their planning problems when definite information (according to instructions and typical plans prepared by the Town Planning Office) is provided. And for the farmer wherever possible, a competent Government official will visit his site and prepare a sketch and submit plans which suggest proper grouping of farm buildings, the location of drives and the installation of running water and sanitary conveniences and the planting of the farmstead with shelter belts and hedges, specimen trees, shrubs and perennials.

In all these matters of rural planning the subject of sanitation is stressed. Co-operating with the Town Planning Office as now established assistance is being rendered by Mr. R. B. Owens, Provincial Sanitary Engineer, Professor Burgess, Architect, and Professor Harcourt, Horticulturist, of the University of Alberta. Assisting particularly in the farms work there are several district agriculturists, all technically-trained men, and some of the principals of the various Agricultural Schools throughout the Province.

Although the new Town Planning Act has only just recently been printed for distribution, several cities and towns have, or are appointing, Town Planning Commissions, which they may do under the provisions of the Act. The advantages of such action have been pointed out to them and they have also been told that such action on their part is one way of indicating their approval of what the Government of the Province of Alberta is endeavouring to do to make Alberta a better Province in which to live.

Those of you interested in the problems of planning for a Province and all its various needs will realise the great amount of information—instructions and regulations that must be prepared for the various municipalities—first of all to interest them and then to instruct and advise them. A great deal of this information is codified and now ready for distribution. Typical zoning by-laws and building by-laws are in draft.

PLANNING CONTROL OF SUBDIVISIONS

Before concluding I wish to mention something about regulations in regard to subdivisions. The intention of the Act is that any new subdivision or sale, lease or mortgage of land should be subject to the approval of the Town Planning Board for reasons of which you are well aware. The proposed regulations in regard to the subdivision of land include this provision:

"All land to be subdivided shall be eminently suited for the purpose it is intended" and "should it appear that the whole or any part of the land proposed to be subdivided is not in the public interest to be subdivided or offered for sale to the public" the registration of such subdivision can be refused. With certain exceptions 10% of the total area of a subdivision being registered is to be set aside for public or park purposes. In the case of residential subdivisions bordering on railroads a 150 foot park strip is required between the nearest street and the railroad right of way.

For areas outside cities, towns and villages, and where there are no zoning regulations then there must be registered with that subdivision a caveat which is in effect a simple form of zoning by-law, to protect such subdivision until such time as it becomes an organized municipality and can make its

own zoning regulations.

Attention has already been drawn to the fact that under the powers of the new Town Planning Act of Alberta there may be included under a zoning scheme a provision prohibiting the erection of buildings until adequate provision has been made to supply such building with water, sewers, light, etc. Then there is the broad power giving control over design, character and appearance of buildings. Just how that will work out remains to be seen. Like some of the other powers in the Act it may not be called into frequent use, but it is there in a permissive way under ordinary conditions, and it can be invoked under special conditions.

In conclusion I would like you to feel, as I feel, that the Province of Alberta is engaged in a worthwhile experiment that has great possibilities in making life more beautiful and efficient.

The Need for Regional Planning

By A. G. Dalzell, M.E.I.C., Toronto
Vice President Town Planning Institute of Canada

The word "region" hardly needs to be defined, but if it means a district or territory, it usually implies that which is around it. Regional planning therefore differs from town or city planning because boundaries cannot be so rigidly fixed, all the territory that is subservient to the interest of the community engaged in the planning must be brought under review. The term "regional planning" may be new but the need for it is as old as human history.

THE USE AND MISUSE OF LAND

In considering the need for regional planning on this continent it is essential to remember this very important fact. The national policy for agricultural and urban development in the past, both in the United States and Canada, has been to sell as much land as possible, to as many people as possible, at as high a price as possible, and with as few restrictions as possible. The area of this continent is vast, the density of population as compared with the old world is low, and the term the "New World" has hardly passed out of use. For many years efforts were concentrated on increasing the population. For a time land was given away. Increase of population means increase of wealth, and as landowners increased, their efforts were then concentrated on increasing the selling price of land. The higher the price of land, the supposedly greater wealth of the community.

Progress of development in urban communities has usually been measured by the enlargement of the area of municipal limits, the number of lots sold, the mileage of streets, water mains, sewers; the number of building permits, the rise in municipal assessment. In Canada the earlier example set by the United States in urban development has been copied, and if it has not been outdistanced it certainly has not been be-

cause United States citizens did not encourage us, or come over to try and make some thing for themselves whilst the making was good.

There are cities on the prairies of Canada, which, before they had secured a population of 50,000, had more land subdivided than the city of Buffalo when it had a population of 450,000. *In these cities there are building lots ample for fifteen times the existing population, indeed, one city has through tax sales acquired building lots sufficient for ten times its existing population.* The city of Winnipeg has 23 square miles within its municipal limits, for a population of a little over 200,000, and only 42 per cent of the building lots are improved. Yet outside the municipal limits 36 square miles of land has been fully subdivided, only one lot in thirteen is built upon, and the density of population is less than three to the acre. If the population of this outside area was moved into the city, the total population would only have a density of 17 to the acre, as compared with 26 in the city of Toronto, which is in no sense unduly congested. In and around the city of Vancouver, B.C., land has been subdivided sufficient for one third of the population of the entire dominion.

The agricultural land which has been used for most of this urban development would be very high priced at \$200 an acre, indeed \$40 an acre was a more common selling price. But when converted into building land values soared. In one instance every building acre within the 40 square miles of one prairie city had by municipal assessment an average value of \$11,000 an acre. One quarter section with which I am familiar brought in a revenue of \$50 a year for grazing rights. When brought into the city as acreage the assessment was placed at \$1100

an acre, the capital value being thus raised 150 times. The assessment was appealed against, but was sustained by legal authority. In the strength of this assessment the land was actually sold to an English investor for \$249,000, or over \$1550 an acre, and the municipal assessment promptly raised to \$320,000 before a single acre had been improved. Fifteen years have passed since the sale was made, and the land is still used for grazing, but the man who paid \$249,000 for it, and over \$4000 in taxes, had eventually to let it go in tax sales, and so does not get even the revenue from the grazing.

These records of extensive subdivisions of land in Canada, much of it sold for extraordinary prices, can be matched and probably excelled by what has been done in some of the states of the Union. Possibly Florida could offer some interesting examples, more familiar to you than they are to me. But even in the eastern states, and in the eastern provinces of Canada, there are areas of land far too extensively subdivided, and with less chance of increase of population than in the west and the south.

THE MANIFEST EVILS OF LAND SPECULATION

The standard rectangular system of urban subdivision so characteristic of the North American continent has been perpetuated so long, and adopted so extensively, because of its peculiar fitness for the speculative sale of land. When lots are made of a standard size, preferably as small as possible, the greater the number likely to be interested in the sale, the greater uncertainty of the use to which the land would be put, hence the greater speculative value. The standard width of streets also aids speculation. More streets have a prospect of becoming main business streets, or select residential streets. To plan streets of exceptional width gave lots from the start an uneven value, and most operators preferred to sell five lots at \$100 each than one lot for \$400 and one for \$100.

With the beginning of this century motor transportation on streets brought in an entirely new factor, which now demands a complete revision of street design and street plan. The speed of traffic on streets is now ten times what it was, the amount even greater than that. Streets designed for ox carts, wagons and buggies, and primarily for the speculative sale of land, are quite unsuitable for modern road traffic, just as unsuitable as the rails and roadbed of the railways of the last century would be for the rolling stock of the present day. We have been very slow to realize this evident fact, but once it is realized then the need for regional planning, and for town and city planning, is indisputable.

Urban development in the past has proceeded primarily in the interests of the landowners and those who act for them. Streets were designed by them for the purpose of disposing of land, no consideration given to the needs of the community, the requirements of traffic, or the cost of sanitary services. In many cases the standard plan, because it ignores the

topography of the land involves the maximum cost for sewer services. Subdivision of land has been permitted without any regard for the need for parks, playgrounds or land for many community needs, school and hospital sites and so forth. Vancouver, B.C., is a comparatively new city, only established 40 years. To salvage 92 acres of land in 22 park sites in that city from the standard subdivisions has cost the citizens one and a quarter million dollars. Some of those park sites are not two acres in extent, and as bought were without a single tree or even a decent sod of grass, they had been ruthlessly cleared for building sites, whereas beautiful ravine sites, ideal for parks and boulevard driveways had been converted into city dumps. The shortage of playgrounds means that children must needs play on the streets. Investigations made in Chicago, a city mainly planned on standard lines, has shown that of the accidents to children arising out of motor traffic, nearly one half occur in the block in which the child resides, two thirds not farther away than the next block, and three quarters within two blocks. When all streets lead in the same general direction, and all are paved alike, the quietest residential street is the most attractive speedway for the careless motorist, and into the gay abandon of the children's play swoops the grim shadow of death.

STANDARD STREET SYSTEM OBSOLETE

Apart from all dangers to human life the existing standard street system is quite unsuitable, under the changed conditions of modern life, both for business and residential purpose. Improvement in the quality of steel and cement now make it possible to erect buildings not four or five, but twenty and twenty-five stories in height, and into a city block we crowd for the working hours of a day the population of a small town. To efficiently move these people in and out of such crowded area, mainly by motor transportation, we should either make our buildings suit our streets, or the streets suit the buildings. To a great extent we do neither, and the consequence is the congestion and confusion which is making city life so strenuous and so difficult. Inadequate streets are now the greatest factor in restricting the usefulness of the motor vehicle, and the value of the large building. To provide streets suitable for modern traffic conditions will be costly, but much of the cost can be met by reduction of the cost of streets needed solely to give access to homes. The standard street system with its uniform width, and its demand for wide and heavy paving suitable for all kinds of traffic, involves a cost which is burdensome to the small homeowner, directly and indirectly by increasing his municipal taxation. Industry and commerce, upon which most urban dwellers depend for their living, are also very seriously affected by excessive street costs. Industries and business should pay their fair quota towards municipal expenditure, but if the demand is excessive they are placed under handicaps which will not permit them to compete with others more favorably.

situate. Street paving costs have been known to be three time the assessed value of the land, indeed I know one case where the cost of the cement sidewalk alone is more than the cost of the land served. If too great a subdivision of land is permitted, if the population is so scattered that the density is only three or four to the acre, and if then an attempt is made to serve that population with the necessary sanitary services, with schools within a reasonable distance, with streets on which motors can travel in all weather, then an expenditure is involved which cannot possibly be met by taxation solely from small homeowners. But when some inducements are offered to industrial leaders to establish plants in the community, if they are men wide enough awake to run a successful industry, they are wide awake enough to refuse to establish a plant to serve as a milk cow for the municipal authority.

STANDARD SUBDIVISION OBSOLETE

The wealthiest people both in the United States and Canada have come to realize that the standard subdivision does not provide suitable sites for economical and comfortable homes. There was a period when those who amassed wealth quickly delighted to build pretentious dwellings on main streets, and to sit on the verandas and hear the conductor of the sightseeing coach announce "On the right the fifty thousand dollar home of Silas Humdigger, the well known manufacturer of Killquick soothing syrup"; but that stage has largely passed. The wealthiest people now plan homesites away from the main avenues of traffic. *It is not generally realized that these specially planned, highly restricted, residential districts, cost the owners less per square foot of ground occupied than the average working man pays for his homesite.* For the wealthiest citizens of Vancouver, B.C., the land department of the Canadian Pacific Railway Company, developed just before the war, a high class residential district just outside the city boundary. All the building sites were first cleared at a cost of \$350 an acre, then streets formed, sewers and water mains with connections to the lot lines installed, boulevards planted and small parkways provided, and these sites with all the improvements were sold at a price of \$10,000 an acre. At the same time the city authorities annexed an area with equal acreage, bounded by the same avenues, and within the same radial zone as the railway company's land, but on this area 3,300 working people had settled, without sewers without water supply, with no street improvements except a few plank sidewalks, but this unimproved area came into the city at an assessed value of over \$10,000 per building acre. Municipal assessment is often considered as no fair criterion of value, but in this case when the municipal authorities had to buy seven acres in four scattered parcels within the area, it cost the citizens \$19,000 an acre.

WHY NOT PLAN FOR WORKING FAMILIES ?

Whilst it is instructive to know that specially planned sites can be provided for less cost than the usual standard subdivisions, and that the cost of

street improvements is also usually less, it is unfortunate if this advantage is reserved for the wealthy, and no consideration given to the planning of economical home sites for the working classes. There is some danger in our so-called democratic countries of segregation of classes that may lead to division, and to the loss of that consciousness of mutual dependence which is essential to a healthy community life. The people of Nob's Hill are very likely to lose touch with the people of Damp Hollow. Charity by proxy, charity by service organizations, or municipal institutions, can never replace personal sympathy, and the goodwill which comes from the direct knowledge of our neighbors' conditions. There may have been a great gulf between the squires of England and the farm labourers, but the squire took an interest in the cottagers pigs, his lady visited the sick, and with her own hands made garments for the babies, and the squire's son played cricket with the farm lads on the village green. Men and women with title and large estates are also members of the British labor party. We need to plan for the poor as well as for the rich, to plan for municipal golf courses as well as for select country clubs; and much more essential to try and plan so as to create the spirit which will allow the master to enjoy a round of golf with the servant, and to squash that spirit of snobishness which is indicated by pink teas, peacock parades, and other inane frivolities of the idle rich.

Two alternatives face us. Either to plan in advance for community development, or to permit community development to proceed as before primarily in the interests of land owners, and then spend all our money and energies in the attempt to overcome the disadvantages that result from considering a class instead of a community. Let it be clearly understood that by so planning in advance there is no necessity to upset social orders, or deprive landowners of their fair rights, but as the premier of our dominion has so well stated:

There is no private right, or law, or custom, so absolute or so inflexible that it may not be cast to one side, if it can be clearly shown that it menaces personal health or stands in the way of community well being. In the conflict between the temporary interests of selfish individuals, and the permanent welfare of nations the latter alone is entitled to consideration.

Plan as carefully as we may some mistakes will be made, but they can never be as serious and so costly as those that will result by letting things go. Will anyone deny that the city of Buffalo has gained by the planning years ago of radial roads and civic squares, a distinct departure from the standard rectangular system? Many cities on this continent envy this advantage of Buffalo, and are spending millions to make diagonal highways and civic centres which can never equal that which Buffalo possesses.

REGIONAL PLANNING

Regional planning is evidence of a higher and more general level of public and personal thinking than

even town and city planning. Regional planning is mainly directed towards the prevention of mistakes, town and city planning, for want of regional planning in the past, has to be in the main corrective rather than directly constructive. In our urban developments narrow views too often prevail: We extol our citizenship, and debase the spirit of brotherhood. Municipal boundaries are too often used to divide the interests and goodwill of communities essentially one. Twenty years ago I was engaged in surveys and plans for a large sewer system in the city of Vancouver, B.C. Natural drainage areas did not coincide with municipal boundaries, but I was told to plan for the city and ignore the adjoining municipalities. I was not in a position to make an effective protest, though I did point out the disadvantages to the city. Fortunately through the statemanship of one citizen, who has since risen to a high place in the government of the dominion, this narrow view was not allowed to prevail, a joint Sewerage Board was formed and trunk sewers and outfalls provided for the whole area. The wisdom of this was so clearly proved that at a later date the board was enlarged and the water supply systems of the different municipalities co-ordinated. Today the two largest municipalities outside the city have agreed to annexation, and the greatly enlarged city has a simple problem of water and sewer supply, whereas it might have had to deal with three distinct systems with all the disadvantages of increased overhead.

Contrast this foresight with what has taken place in and around the city of Toronto. The policy of the civic administrators of Toronto has been to ignore the development of outside municipalities. These municipalities have had to provide their own water and sewer systems, though the boundaries between city and townships in some cases runs through buildings. In one case for lack of co-operation the outside municipality has been obliged to construct a sewer system against grade, with sewers in tunnel seventy feet deep, and with disposal plants about as far as possible removed from the lake, which is the ultimate destination of the treated sewage. One results in that the cost of the work has been probably fifty per cent in excess of what it might have been under a joint system. Today much of the energy in civic affairs of that municipality is directed toward securing annexation with the city, and it must inevitably come. What advantages will the enlarged city secure by acquiring this very expensive sewer system, and two or more scattered disposal plants?

REGIONAL PLANNING FOR HOMES AND INDUSTRY

Any regional planning, any town and city planning fails and is fundamentally unsound if it neglects to plan for the provision of good and economical sites for the homes of the people who form the solid base of the social pyramid. The greatness of any nation and the position it will ultimately hold in civilization depends on the maintenance of proper standards of family life. I have therefore been

specially interested in a book written by an American woman, entitled "Mother India." The purpose of that book is to show that India can never take a proper place in the civilization of the world, until there is a complete change in the family system, and woman occupies her proper place. Other American women, like Mrs. Edith Elmer Wood, and Mrs. Albion Fellowes have worked just as earnestly as Miss Mayo, to try and convince us that our own civilization is imperilled by lower standards of family life which result from improper housing conditions. The neglect to plan, the neglect to set aside land specifically for housing, has resulted in a cost of land development which threatens to extinguish the single family dwelling house, which is the soundest base on which to build true family life.

The urgency of the traffic problem which is forcing urban authorities to consider planning of their areas may have far reaching consequences. The great industrialists engaged in the motor and allied industries are apostles of efficiency and economy. The machines they produce can only be successfully manufactured by using the right materials to the best advantage. If they break up ships to build automobiles it is only done by reworking the metals to their original state. These men and others may come to see that efficient and successful urban development can never take place if before land is put to legitimate use it is used as a medium for gambling, and plans designed more for that purpose, than for the purpose of providing the most economical and efficient sites, either for business or housing. Regional planning aims at preventing the improper use of land, it may not be able to entirely eliminate land speculation, but it should be able to prevent that gross manipulation of land which is not only a curse to the country, but a sure sign of lack of intelligence for which we pay dearly. In the preamble of the Federal constitution of the United States we read that the aim is:

.....to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare and secure the blessings of liberty for ourselves and our posterity.

Regional planning aims to secure all these in the smaller federation of municipal authorities, and I ask you gentlemen, is not this work well worth while? In the words of that great social philosopher, John Ruskin:

When we build let us think that we build forever. Let us not be for the present delight for the present use alone. Let it be such work as our descendants will thank us for, and let us think as we lay stone on stone that a time is to come when those stones will be held sacred because our hands have touched them, and that men will say as they look back upon the labor and wrought substance of them, "See this our fathers did for us."

Main Obstacles to Town Planning

By EDWARD T. HARTMAN
Massachusetts State Consultant on Planning

Obstacles to town planning vary in different communities. They may not be graded according to their importance. The obstacles I have selected, however, will be quite commonly found.

LACK OF A SENSE OF DIRECTION

This lack is almost universal, as to where it may be found, and as to the subjects to which it may be applied. Everywhere in communal affairs our youthful democracy may be distinguished by the assertiveness of the sovereign citizen who knows but little of the subject on which he asserts himself. This is aggravated by the exploitation of the so-called experts, as I shall bring out later.

A wise speaker has said that "Wisdom is knowing what to do next. Virtue is in doing it." This wisdom is born of study and of honesty of purpose. It is now acquired overnight by the jack-leg lawyer, for example, who by a turn of the political wheel of fortune becomes a member of a municipal council or a provincial or state legislature.

A proper sense of direction in town planning may be acquired by a community only by securing the co-operation of careful advisers, of men whose work is in the highest degree not only scientific, but conscientiously scientific.

Then the people must study the proposals in the light of their knowledge of the community and they must with each item follow through, to use a golfer's term, in their thinking to see how the thing will work out, alone and in its relationships with all other elements of the plan. When this is done unselfishly and in the spirit of creative statesmanship the community will develop a sense of direction and will evolve towards functional efficiency.

To acquire a sense of direction the people must have some conception of the manifest destiny of their region. If the goal is the exploitation of the helpless by the powerful, under the slogan of "law and order", there will be no advance of the interests of the people and there will be no genuine town planning.

SELFISHNESS AND POLITICS

It may as well be said at once that the failure of communities to acquire a sense of direction, to vision that goal which their highest destiny would set up, is primarily due to selfishness, and its chief handmaiden, politics. Selfishness and politics, the sinister team that smears large areas of this continent with its noisome slime! It should arouse us to (I started to say "renewed" effort but there is no visible effort in this direction to renew) it should arouse us to an appreciation and strenuous support of the many honest and capable officials who are now fighting almost single-handed with the two-headed dragon of selfishness and politics. But we have learned to whine and complain of corruption and inefficiency,

rarely to do anything about it, and less rarely to come boldly to the support of the honest official. We are afraid it will "hurt business" or injure our standing in the herd with which we run.

Honest officials are more numerous than we think. Because of the depth of degradation in many directions we too little expect and too seldom observe honest and capable officialdom when it does appear. There is nothing the people can do that will so much help the planning movement and all other communal movements as to hearten honest officials by standing shoulder to shoulder with them. To do this we, as citizens, must understand planning, etc., we must know what our officials are doing, then we must do something about it. Here is the field for patriotism.

We are not civilized till we see the difference between a response to chauvinistic fanfaronade and self-service club ballyhoo, and a response to that still, small voice which calls us to our activities. We can all pick out cases of loyal service to the public weal by officials who seldom get into the papers and whose greatest hazard is dismissal because of adherence to duty. In many jurisdictions the official who is in the position safest for himself is the official who does nothing and who is obsequious to a properly selected list of powers. History is fair—in due time. One of our mayors has said that "The office cannot honor the man unless the man honor the office."

Right here, perhaps, lies the greatest hope, for good government and good planning. They are, in the public mind, gradually becoming concomitants. Planning, especially the feature known as zoning, affects and arouses the people in an unusual way. It is not a subject with which an official may safely play fast and loose. In the States we are finding planning in this broader sense the greatest of our civic awakeners.

Our court decisions on zoning are blazing a new trail. They hold that the greatest good of the individual is promoted by the greatest good of all. Under this principle we are checking almost for the first time the individual who would hog the good of the many. The idea is as revolutionary as any we have developed in our history. It carries a strange aroma, in the atmosphere, for example, of our textile industries which have never paid a living wage, though often earning 30, 40 and 50 percent on their capital investment. The basic principles have never been better brought out than in "Industry and Humanity" by the Premier of Canada, W. L. Mackenzie King.

THE FAILURE OF DEMOCRACY TO "DEMOC"

Democracy is a youthful idea. It is so youthful that we have to say it is only in process of getting born. Our blatant use of the term "democracy"

has been largely as a blind to what was actually being done. Our greatest problem is democracy; not the principle, which we in theory accept, but the effective functioning of democracy. Just as our religions are considerably padded and addled by myths and superstitions, so is our democracy influenced by our dependence upon autocracy and authority.

When we would do a thing, we look for a leader. If he happens to be a good leader we take credit unto ourselves. If he is a bad leader most of us follow blindly; some of us complain. Whether the leader be good or bad he is an autocrat. Following the leader is not characteristic of a functioning democracy, where the people study their problem, arrive at a common conclusion pointing to the best good of all, and then have the virtue to put it impartially into effect.

NEOPHOBIA

Another substantial obstacle to planning is instinctive fear of all things that are new. This fear may be found in varying degrees in a majority of minds. The prospect of having to think causes unrest. We overlook the most obvious of facts, that life is never safe. It is only safe to be dead. The inquiring mind, the mind that is responsible for all progress, is most irritating to a mind that prefers to be dead.

And yet we may get amazing manifestations from dead minds. Prof. Overstreet has said that "If we are not up on a thing we are very apt to be down on it." The energy and venom some of us can put into expressing our "downness" is amazing. It is one of the surprises of the dead mind that it can be so pestiferously active.

I will give you two examples of neophobia. One was recently reported by a friend of mine, as follows: Back in 1828 the school board of Lancaster, Ohio, refused to permit the use of the school-house for the discussion of the question as to whether or not the railroads were practical. The action of the Lancaster board is emphasized in their reply to the request: "You are welcome to use the school house to debate all proper questions in, but such things as railroads and telegraphs are impossibilities and rank infidelity. There is nothing in the word of God about them. If God had designed that his intelligent creatures should travel at the frightful speed of 15 miles per hour by steam, He would have clearly foretold through His holy prophets. It is a device of Satan to lead immortal souls down to Hell."

In 1827 the Boston *Courier* said, editorially: "The project of a railroad from Boston to Albany is impracticable, as every one knows who knows the simplest rules of arithmetic, and the expense would be little less than the market value of the whole territory of Massachusetts, and which, in practice, as every person of common sense knows, would be as useless as a railroad from Boston to the moon."

We should never lose respect for suspended judgment, or for judgment after mature deliberation,

but what must today be our opinion of these statements by authority. The man of independent mind does not hesitate to differ with authority. He takes truth for authority and not authority for truth.

EXPLOITATION BY PLANNERS

Untold damage is done to every cause by two groups, the "lunatic fringe" and the exploiters. We have to expect exploiters. They have followed every movement within the memory of man. They are always pestiferous. They drive honest minds from affiliation, and disgust and injure practitioners who are conscientiously scientific in their work.

The planning movement is having its exploiters, its charlatans, its lunatic fringe, just as have religion, medicine, law and other fields. It is an unfortunate circumstance, because big movements have troubles enough without exploitation. Planning is expensive, of money, but partially of thought and time. It is, therefore unfortunate, as Arnold Brunner pointed out in 1912, to find so many beautiful and expensive pictures of proposals which "not only could not be executed but which should not be executed."

We have cities that have spent thousands of dollars for what in the main could not and should not be carried out. Local citizens and officials coming in contact with such "planners" naturally get the impression that all are alike. Such "planners" must therefore be listed among the obstacles to town planning.

COST OF CARRYING PLANNING INTO EFFECT

The cost of any scheme is serious as an obstacle. Because of lack of foresight we do too little. When more is forced upon us the increments of land value and buildings in the way effectively block much action that is all but imperative. Perpetual maladjustment is the result.

In 1907 the city engineer of East Ham pointed out that the new way out from London was too narrow. He said that when the work was done a few years earlier the additional farm land needed for a real job could have been had for an additional \$2500., that now it would cost \$750,000, that in ten years it would cost \$7,500,000 and that it would never be done.

The *American City Magazine* in September, 1928, quotes the Portland, Oregon, City Planning Commission as follows:—"A few instances of what has happened in other cities where business methods have prevailed over visionary plans, might be illustrative of just how much can be lost by trying to save at the wrong time. In 1875, it was proposed to widen Grand Avenue, St. Louis, at a cost of \$5,000. In 1925, a less extensive widening was being done at a cost of \$1,500,000. What would have cost \$5,000 in 1875 would cost \$5,000,000. in 1925. In Los Angeles there is a jog at Ninth and Figueroa. Twenty years ago this could have been eliminated at a cost of \$1,000. but 'dollars-and-cents- business judgment' said 'No', and today it is about to be done at a cost of over \$900,000. These are extreme cases, but scores as extreme can be cited and hundreds where good banking interest has been forfeited."

Along with ordinary costs must be included the numerous unfair awards when land is taken for public needs. Every town needs land for public buildings, schools, playgrounds, parks, land in many places for meeting future needs if the place is to develop properly. The worst enemy in the way of securing such land is the private owner who is willing, yes, anxious to take every cent he can get. He is encouraged by a peculiar and mysterious attitude on the part of jurors who will mullet any community, even their own, and thus themselves, for the benefit of almost any private individual who happens to own land that the community may need. A concrete illustration will help. Oak Bluffs in Massachusetts has a small park fronting the water on the left of the boat landing as one approaches the town. There is a street in front of the park and a narrow strip of land between the street and the water. The town had secured on the other side of the landing a larger area for \$3500. The land in question was taken to protect the landing the park and the town, because it was proposed to use the land for shack stores. The land had been bought two years before the taking for \$5000. It was assessed for \$4500. The award was \$77,000. Further comment is unnecessary. But it is in order to point out that it is this sort of thing that is killing proper town development everywhere. If this land had been developed with shack stores there would have been untold damage. But suppose it is land that has to be used to permit the town to function. Fear of an unfair award delays action. When action is forced the award is naturally still more burdensome. There is something fundamentally wrong with a system that perpetuates such conditions. Such conditions are imposing problems on town development that will cost millions in inconvenience, ugliness, privation and stagnation.

In view of such things it is to be hoped that people will not accept as commonplace the fact that many citizens, and even non-citizens, sell land for public purposes at a fair price, and that many others are giving land, valuable land in many cases, to aid the community in its efforts to grow in the right way.

PERNICIOUS LAND DEVELOPMENTS

Another obstacle to town planning is the ubiquitous and pernicious land developer. They know well enough the injury their work is doing and there is little credit due the community that allows them to do their work. I was once looking at the paper plans of a certain developer, lots 20' wide by 60' deep. I asked, "Do you happen to be doing any work in the town of _____?" He shot back with "No, by God! I live in _____ and send my children to school there." He had at least sense enough not to foul his own nest.

Almost everywhere we may find lots laid out, thousands beyond the needs of the community, with no adjustment to the street system, no space for schools or playgrounds, no anything but promises that will never be kept. We spend untold millions carrying out

streets, sewers, water, light and all else years before the area is ripe for development. In the meantime it too commonly becomes a shack town to the permanent injury of all.

AGAIN—A LACK OF SENSE OF DIRECTION

It is well to reiterate that we shall as communities and regions make little progress till we get a better sense of our goal. This involves both the direction and nature of the goal. We must learn that sound planning results in the orchestration of all community functions—more, it must result in the orchestration of our citizenship, so that we as people work together cooperatively towards all good ends.

We think the goal of every town in greatness, ever more and more of badness. There are very few towns that can afford to grow. No town can afford to grow if its later condition is not to be better than its former condition. Said the *New York Globe* in 1920:—"Some day a model city will furnish an original attitude toward the census; it will hail with joy the announcement that its population is not too great for its street-railways, its schools and its homes." And we may well add, not too great for its sewers, its water supply, its parks and playgrounds, its streets and all else that the people need—not too great to be decent.

And yet, as Charles A. Beard has said:—"Whoever surveys things done and in contemplation, powers and capacities lying on every side, will concede that the ability of artists and engineers to conceive city plans and of technical experts, contractors, organizers and laborers to carry them into execution is without discernable limits. In front of us, infinity; and yet, to the right and left, infirmity."

Mr. Beard also points out that we can calmly discuss the comparative merits of many things, like carbureters, but that when it comes to affairs like planning we proceed with the sweet reasonableness of fighting cocks.

IN GENERAL

The discussion of obstacles is not a cheerful task. In spite of the obstacles there is progress. Yes, in spite of the fact that the planning movement has developed obstacles of which we never dreamed, we still make progress in planning. That we shall continue to make progress is evidenced by the fact that we meet together in bodies like this, your Town Planning Institute, to consider problems, to discover ways, to give each other mutual encouragement.

The main thing to remember is that the Town Planning Movement is of and from and for the people. It is a public welfare movement. It is deeply sociological. It is not a trades union of professional planners carried on for their sakes alone. Technically, it is the technique of sociology, as your Mr. Cauchon has often said, but it is the social benefit inherent in it that is making it to-day a world-wide movement of unending significance.