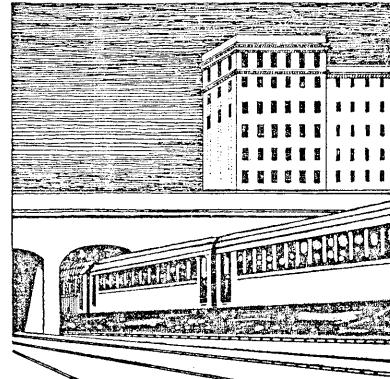
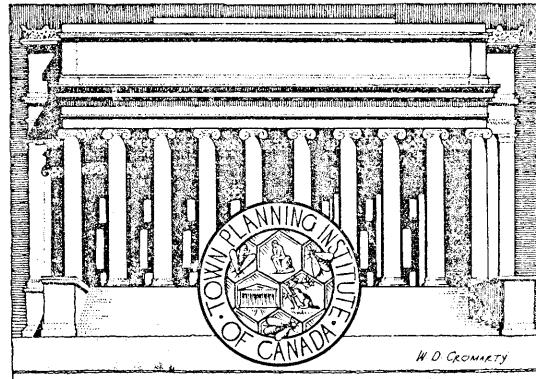
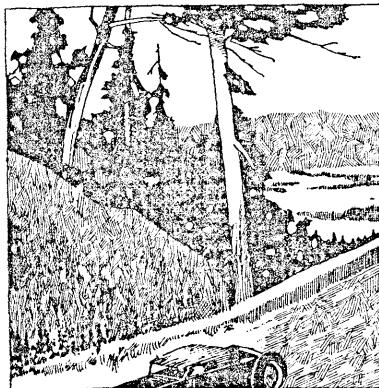


THE JOURNAL



TOWN PLANNING INSTITUTE OF CANADA

VOL. II.

OTTAWA, MARCH 1923

NO. 2

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

Land Ownership in Garden Cities and the Value of Zoning

BY EBENEZER HOWARD

I have been very glad to receive several copies of your *Journal* containing Mr. Lawrence Veiller's article "Are Great Cities a Menace?" Having read your editorial, I should like to make a few observations on the subject of the common ownership of land, with which you deal.

My experience as one of the founders and directors of Letchworth and Welwyn has naturally led to certain modifications of my original views, but my position may, I think, now be stated thus—first, as applied to England, and, secondly, as applied to Canada and the United States.

(1). The freehold of any estate which is to be developed as a Garden City should be retained in one ownership, so that all can be dealt with as a whole. This will naturally involve zoning—special quarters being set aside for manufacturing, for commerce, for a civic centre, for residences, for agricultural area, etc. Now the effect of such a system of zoning from the very outset would be quite naturally to increase the value of the land which is to be utilized for these various purposes in quite different degrees. At the same time it practically takes away, for the good of the community and in the interests of all, the ordinary right of a freeholder to do as he will with his own, as for example, having bought land in a resi-

dential district, utilizing the site for industrial purposes to the possible great injury of his neighbours. But inasmuch as in England it is extremely difficult to enforce covenants, however clearly and stringently such covenants are framed, in the conveyance of land, and as it is essential to prevent land being used in ways such as I have mentioned, we have not parted with the freehold at Letchworth, but in respect of houses, have granted leases of 99 years, and in respect of factories, 999 years, while at Welwyn we are granting leases both for residential purposes and for business purposes of 999 years.

(2). In parts of Canada or the United States where zoning laws are in force, I should not see any objection to the actual grant of freeholds in the case of the development of new areas, while naturally the prices charged for sites would vary greatly. There is another reason why I think the question of freehold land is not so urgent in America as it is in this country, and that is that undeveloped land is very lightly rented in this country, however "ripe" it may be for development. It was otherwise, I know in Nebraska, and I think it is so in other States of the Union. I do not know how it is in Canada.

There is another point to which I might draw attention. The general tendency of population has

hitherto been towards the great cities, and naturally such a tendency results in enormous increases in ground values which are often not at all created by owners of the land. On the other hand, if that tendency is reversed, as I am convinced it will be ere long, such vast disparities in the value of land will, I think, tend greatly to disappear. Further, if workers engaged in industries once become accus-

ted to work also on the land, it would be greatly to their benefit, and to the benefit of all—a method which Mr. Henry Ford so strongly advocates. Then, as the other cities could not afford opportunities to any large extent for this system, the working population would soon learn to prefer towns built upon Garden City lines.

EBENEZER HOWARD.

NEWS AND NOTES

Town Planning Lectures at the University

The establishment of town planning courses in the universities of Canada has been advocated by the Town Planning Institute since its inception in 1919. Toronto University has responded by founding short courses in civics and town planning which have been conducted for the second year during the past month. More than forty lectures have been delivered by members of the university and by well-known practitioners of the art and science of town planning. It is hoped that the concept of town planning as an important branch of applied science, profoundly affecting the welfare of the cities and towns of Canada, will develop sufficiently to induce the authorities of other universities to find a place for the subject on their curricula.

The course was opened on February 5th by addresses from the president, Sir Robert Falconer and Brig. Gen. C. H. Mitchell and during the succeeding two weeks the following programme was presented—though in several instances sickness interfered with its execution: "The Future of Toronto" by J. P. Hynes; "Town Planning Legislation" and "Toronto on Maps and Plans", by T. D. le May; "Town Planning and the Cost of Land", by A. G. Dalzell; "The Primary Survey", "Zoning" and "Street Layouts and Sunlight" by H. L. Seymour; "Financing of Betterments", by Professor Gillespie; "Transportation", by N. D. Wilson; "Roads and Pavements", by Professor Laing; "City Housing", by James Govan; "Town Planning and Public Health", by F. A. Dallyn; "Street Illumination", by Professor Anderson and R. M. Love; "Economics of Town Planning", by Professor McIver; "Transportation", by A. E. K. Bunnell; "Artistic Bridges", by Professor Young; "Tenancy and Ownership", by H. R. Kemp; "Maps and Plans", by Professor Treadgold; "Civic Government", by Dr. H. L. Brittain; "The Local Improvement Act", by R. C. Harris; "Housing and Health" and "Education and Recreation" by Professor Dale; "Ways and Means", by J. B. O'Brien; "Parks and Park Systems", by A. V. Hall; "Educational Possibilities of Parks", by Professor

Thomson; "Parks and Park Needs of Cities", by C. B. Chambers; "City Conditions vs. Country Conditions", by Professor Jackson; "Town Planning in the National Parks of Canada" and "Public Buildings", by W. D. Cromarty; "Congestion: Its Effects upon Civic Life, Material and Social", "Plans and Progress in Ottawa, Obviating Congestion", with additional lectures on regional planning and the railway problems of Hamilton, London and other cities, by Noulan Cauchon.

Obligatory Town Planning Begins in Britain

According to the British Housing and Town Planning Act of 1919 obligatory town planning becomes operative in the present year and within a period of the next three years every borough or other urban district with a population of 20,000 persons and over is under obligation by the law of the land to prepare and submit to the Ministry of Health a planning scheme for its area. If the local authority should fail to act the Ministry of Health is empowered to prepare a scheme at the expense of the defaulting town.

The passing of such an act by the British parliament should be sufficient evidence of the national importance that is attached to town planning in Britain. Justification for such drastic action is to be discovered in the belief of the legislators who voted for it that nothing but obligatory planning will secure for low-paid wage earners the elementary necessities of health, sunlight, air and room to live. Investigation into the living conditions of the poor disclosed such shocking facts as that 60 per cent of the population of Glasgow live in dwellings of not more than two rooms, irrespective of the size of the family and for the most part in massed slums, and 18 per cent conduct their family life in dwellings of one room. Legislators judged that if such results had followed the uncontrolled massing of dwellings into minimum space, where the life of the people must be depressed and degraded, that the time had come when the light of science should be turned upon this problem of town and city building in the interest of national health and efficiency.

British Government Housing

As a result of the British housing scheme, initiated under the Lloyd George regime 145,771 houses have been built by local authorities and 39,145 by private enterprise with the assistance of the government subsidy of \$1,200 per house. Looking back upon the programme which originally declared 800,000 houses to be the objective, it appears at this distance that the whole scheme has been vitiated by the profiteering of supply agencies. A little more than a year ago the cost of a cottage was \$5,000. With the change of ministry the announcement was made that such ruinous prices must bring the scheme to an end. Immediately the prices dropped to one-third of the previous figures and now it is discovered that the inducement offered to private builders to erect a cottage represents more than two-thirds of the total present cost.

It is the despair of all sincere workers for the better housing of working people that the deadly hypnosis of the idea that somebody somewhere has the right to make extortionate profits paralyses endeavour and depresses the impulse to improvement.

Life in One Room

At the enquiry of the Royal Commission on Housing conditions in Scotland a statement made by a medical witness, in language vivid and sympathetic, brought home to the commissioners something of the seriousness of housing conditions among working families.

Let us ask ourselves what life in one room can be, taken at its best. Consider whether, since the world began, men or angel ever had such a task set before them as this—the creation of the elements of a home, or the conduct of family life within four bare walls.

..... You mothers, with your cooks and housemaids, your nurses and general servants, how would you in your own person act all those parts in the one room, where, too, you must eat and sleep and find your lying-in room and make your sick room? You fathers, with your libraries and parlours—your evening hours undisturbed by washing days, your children brought to you when they can amuse you, and far removed when they become troublesome, how long would you continue to be that pattern husband which you are—in one room?

You children, with your nurseries and nurses your space to play in without being trodden upon your prattle which does not disturb your sick mamma, your seclusion from contact with the dead, and the still worse familiarity with the living, where would you find your innocence, and how would you pre-

serve the dew and freshness of your infancy—in one room? You sick ones, how would *you* deport yourselves in the racket and thoughtless noise of your nursery, in the heat and smells of your kitchen, in the steam and disturbance of your washing-house, for you would find all these combined in a house of one room?

Slum Clearance

The result of such inquiries has led to further parliamentary investigations into the slum areas of Britain and in this connection, says *Housing Betterment*, it is interesting to note that important slum clearance and reconstruction schemes are under consideration by the government for Edinburgh and Leith. Those for Edinburgh represent an outlay of £200,000 and those for Leith £82,000. In Edinburgh the total number of houses involved is 635 and 105 shops and other business premises. In Leith 558 houses are dealt with where, in addition to reconstruction, 150 new houses will be erected. In Glasgow the town council have recently considered a report showing that 13,000 houses will be required to replace those declared not to be reasonably fit for human habitation and the city housing director has been instructed to submit plans for houses to take their place.

Doncaster Regional Plan

In the sociological laboratory where the only interests are those of science and public welfare the town planners of Britain are still leading the world. With the establishment of town planning as a successful social achievement it was recognized that new problems arose with the consideration of the surrounding region and regional planning was born as an idea. It was seen that the endless conglomeration of annexed suburbs where building had proceeded in haphazard fashion, was an expensive and unscientific way of building up a city since it left around the city a fringe of planless ugliness which could only be decently shaped at enormous expense to the taxpayers of the city. Regional planning was born and the first result of years of study has just been published in the shape of a report on a regional plan for Doncaster, Yorkshire, and the surrounding region, which comprises about 50 villages. For the carrying out of the scheme seven local authorities have agreed to co-operate. The scheme has been prepared and a report written by Prof. Abercrombie, University of Liverpool, and T. H. Johnson, architect and surveyor, Doncaster, and is published by the Liverpool University Press and Hodder & Stoughton, at 10 shillings. A map of the district and a brief review of the report will be found in this issue.

The Second Garden City—Welwyn

The second example of the garden city plan of town building is already rapidly coming into being, at Welwyn, Hertfordshire, about 20 miles north of London and within 40 minutes journey from the great city. As with Letchworth, the project is to be a self-contained industrial town, distinct from the mere garden suburb, and is to illustrate the idea of independent satellite towns around the great metropolis where all the activities of city life may be prosecuted under wholesome conditions of country environment. An account of Welwyn will be found on another page.

The Social Service Council and Town Planning

The Social Service Council of Canada is to be congratulated on its adoption of a town-planning policy as a definite part of its programme and on the publication of an admirable booklet on "Housing and Town Planning Legislation", prepared for "The Committee on the Family", by Mr. Norman A. Keys and procurable from the office of the Council, 2 Toronto street, Toronto, at 25 cents. The booklet gives a useful digest of town planning legislation in Canada as well as in the Old Country and the full text of Ontario legislation together with the new proposals of the Housing and Town Planning Association of Ontario.

At the recent annual meeting held in Ottawa the following resolutions were submitted and passed by the assembly:

1. That those provinces which do not already possess compulsory town planning legislation be urged to pass town planning acts which will make it compulsory for all municipalities with a population of 1,000 or more to prepare and adopt town planning schemes.
2. That adequate town planning schemes can be best promoted under the supervision of a provincial town planning bureau which will constitute a branch of a provincial department and be responsible to the minister of such department.
3. That every facility and inducement should be given to municipalities by the town planning acts to establish local town planning commissions, the duty of which would be to exercise complete control of local housing and town planning conditions.
4. Whereas insanitary and slum districts already exist in some of the larger Canadian cities, that housing legislation similar to the English housing act of 1919 be passed, making it compulsory upon local authorities to improve and reconstruct such districts.

5. That local authorities be empowered to levy an annual tax or rate for the purpose of defraying the cost of making and carrying out town planning schemes.

Town Planning Schemes in Manitoba

The Manitoba Town Planning Act has both site-planning and housing features. No comprehensive scheme is yet in operation, but one, embracing a residential area in a suburban municipality, is practically completed, though it has not yet been submitted or approved by the municipal commissioner of the province, which must be done before it can be effective. What must be observed in subdividing lands at present vacant or agricultural is laid down by the scheme. The area is divided into three districts. In the first, single-family dwellings only are allowed; in the second, single family or duplex houses, or apartment blocks are permitted; and in the third, which includes some of the lands fronting on the main traffic highway serving the district, retail stores and offices, as well as the buildings permitted in the first and second districts, are allowed. Building lines, fixed in relation to street lines, in front of which no building may be erected, are determined in all cases. The minimum space between dwellings on the same side of the street, and also certain details of apartment blocks, are fixed by the scheme, the object being to ensure an adequate supply of light and air through the windows to every sleeping and living room. The percentage of the area of the building site that may be occupied by buildings, the height and character of the buildings, and the purposes for which they may be used are also determined by the scheme. The scheme will apply to all buildings hereafter erected in the area and to additions or alterations in, or the reconstruction of, existing ones.—W. E. Hobbs, in *Social Welfare*.

Building By-laws and Fire Loss

Mr. A. G. Dalzell recently pointed out in a paper entitled "How Building By-laws May Help to Reduce the National Fire Loss", read before the National Clay Products Association that the fire loss for the Dominion of Canada for 1921, excluding forest fires, was over 45 million dollars. Later figures state that the fire loss for 1922 has amounted to 50 million dollars. The Dominion Fire Commissioner has made a comparison of the strength of municipal fire departments in 13 Canadian cities and compared them with 25 towns and cities of similar population in Great Britain and shows for each square mile of territory Canada has nearly twice as many firemen, and in towns and cities of similar size Canada has four firemen for every one in Great Britain. As a specific instance Glasgow, Scotland,

is a city of the same area as Toronto, Ontario, but has double the population within that area. Glasgow has one fireman for every 5,100 of its population whereas Toronto has one for every 82. In one year the Toronto fire brigade responded to 2,717 alarms of fire. In the same year the Glasgow brigade responded to 921. Toronto paid for its fire fighting force in that year over two million dollars. Glasgow paid less than \$400,000.

Climatic conditions, said Mr. Dalzell, are often held responsible for the large proportion of the fire waste in Canada and there is no doubt that the summers are hotter and drier in Canada than in Great Britain and the winters colder and drier. But Canada compares unfavourably even when contrasted with such countries as Norway and Sweden where climatic and building conditions are more comparable. The fire loss in Norwegian cities on a per capita basis is about one-fifth that of Canadian cities.

Mr. Dalzell's object was to show that much of this enormous loss was due to obsolete building by-laws and the lack of zoning practice. Cities appear to be quite willing to pay enormous sums to extinguish fires but are strangely reluctant to provide the machinery that will largely prevent them. In these days inefficiency is too extravagant a luxury to be tolerated.

Building By-laws and Some Cities

Vancouver promises to take the lead in bringing its building by-laws up to the requirements of modern ideas, thanks to the efforts of building inspector Mr. Bird, who has been so often embarrassed by obsolete building by-laws that he has given during the last eighteen months a large amount of his private time in preparing a new code for the city council. It would appear the need is manifest, judging by an excited editorial in the *Vancouver World*.

Tuesday night's fire on Granville street must be taken as a warning from Providence as to what will happen if rooming houses are permitted to exist over garages.

If that fire had happened at midnight or later instead of at 8 o'clock in the evening a row of charred remains would have been left as mementos along with the skeletons of the nineteen autos.

A great pillar of flame, higher than the building itself, shot out of the lower floor, used as an auto storage place, presumably when supplies of gasoline and oil caught fire. It burned like inferno and would have given none a chance to escape out of the wooden frame building above, had the flames come when the residents were fast asleep in bed.

Had such a calamity happened, the blood of these victims would have been on the head of the city council, which overrode the order of the fire authorities who condemned this building as a human fire-trap.

Montreal, according to the *Montreal Star*, has been hatching a new building code for sixteen years.

After being pored over for sixteen years, the city's building by-law—a document of the gravest importance—is still held in abeyance by the city council.

A fascinating romance could be written about this famous and aged document; it has been pigeon-holed times without number, and on two occasions sensations were raised by its loss. Detectives were called in and the dust-begrimed by-law was found reposing in the desks of civic officials.

Frequently the Builders' Exchange and other bodies have written to the city council urgently imploring that the code should be adopted without further delay, and pointing out that important building operations were being delayed because of the lack of proper rules pertaining to the construction of buildings.

The old bylaw is nearly twenty-two years of age and times without number it has been declared antiquated; all the same its mandates, unsatisfactory in many instances as they are, must be complied with by builders.

One civic body after another, during these long sixteen years, has taken up the task of compiling new bylaws, and hopes were constantly held out that it was on the "eve of completion."

It has yet to see the light of day!

Now there is renewed activity in building construction, it is a matter of vital moment that the measure should be completed without further delay and given to the public.

An up-to-date building law makes it an offence for builders to construct houses—of which there are many in Montreal—with dark rooms. It also lays down rules which prevent the erection of slum tenements, and has regulations leading to the abolition of slum districts.

Ottawa and Toronto are also understood to be hatching new codes, but the sittings seem to be extraordinary silent and unproductive.

The Ottawa Auditorium and Rink

Some excited exchanges of public opinion have been evoked in Ottawa by the proposal to build a large skating rink and auditorium in the vicinity of the Victoria Memorial Museum and in contiguity to many fine residences whose values, it is claimed,

will be seriously injured by the proximity of the new building. In the government plan of 1913—which cost about \$70,000 to prepare and has since that time remained a fruitless “scheme”—the district is described as residential. In the opinion of the Town Planning Commission, however, uncontrolled mixed building has proceeded to such an extent that in fairness to the promoters of the auditorium project and the needs of the city, no veto can be placed on the building scheme. The merits of the discussion need not occupy space here but the dramatic exhibition of the need for the immediate application of a zoning plan for the Capital city cannot escape observation and the need for reasonable co-operation between the federal government and the city is no less obvious. The fact cannot well be ignored that at present there is conflict, which commonly results either in inertia or obstinate and expensive mistakes in town planning. The economy and wisdom of co-operation are being widely recognized in Britain and the United States, as in the regional plans for Doncaster, Manchester and the Welsh coal districts and in the regional plan for New York. In all these cases large groups of local authorities are joining in study and effort towards a common and beneficent end. The present signs are that western Canada is destined to outrun the east in town planning matters in spite of the many advantages that fall to the east.

Real Estate Board Urges Zoning

The Real Estate Board of Ottawa has petitioned the city council to establish a zoning system in the interest of property owners. Their representatives pointed out that home values were being constantly depreciated by the admission to their area of other classes of building which destroyed the amenities of expensive homes and changed for the worse the whole character of residential districts. This elementary fact seems at last to be emerging into public recognition and there seems to be promise that if the plea for the protection of the homes of the poor can be disregarded the plea for the protection of the homes of the rich may perhaps command more attention. The history of the attitude of real estate men to the suggestion of zoning is not without instruction. First there was violent opposition to a movement designed, it was said, to interfere with the right of the man to do what he liked with his own, that is, land. Not so long ago a suggestion of zoning in one of the most charming riverside suburbs of Ottawa was defeated by the real estate men but the disintegration of the district by jumble building has become obvious to everybody and more recently a local by-law has been passed for a restricted building area where expensive dwellings are to be pro-

tected. But the town planner asks “Why not all dwellings? The homes of the poor as well as of the rich?” How can working people be expected to “own their own homes” if they are to be robbed of their light and air and vista by tin manufactories, junk barns, laundries and garages? Whole districts have been permanently blighted in the beautiful suburbs of Ottawa by jumble building and these districts in time will inevitably become integral parts of the city and will have to be remodelled and cleaned up at enormous expense to the ratepayers of the city. Surely it is time to make adequate provision for a more rational form of city development.

Infant Mortality in Toronto

The health bulletin of the Toronto Department of Health for June, 1922, stated that during the five year period, 1910 to 1914, inclusive, there was in Toronto an average infant death rate of 137 per thousand living registered births. “It occurred to us that this was an appalling sacrifice of human life when we compared our figures with those of New Zealand and other countries that were doing more careful and efficient child hygiene work. Consequently in 1914, we organized the Division of Child Welfare in connection with the department. This division we have been perfecting from year to year, and within the past two years have added on the pre-natal care of the mother. The results of the work in connection with this organization of infant and child welfare is very well illustrated by the thermometer, which shows the drop from year to year, until in 1921 we cut it down to 73.5 per 1,000 births (corrected birth rate). In other words, in the 5 years, 1910 to 1914, inclusive, for every hundred children registered as born alive in Toronto, 14 died during the first year of life. Here are averages for five year periods: 1900—1904, 151.1; 1905—1909, 140.2; 1910—1914, 121.4; 1915—1919, 89.1; 1921, 73.5.” For 1922, according to a statement in *Social Welfare* these astonishing results have been made further remarkable by a drop in infant mortality to 55 per thousand in 1922, which is probably the lowest on this continent for cities of the size of Toronto.

Town of Wilkie (Sask.) Adopts Town Planning

The town of Wilkie, Saskatchewan, has decided that the process of kicking against orderly and scientific development of its area—in the supposed interest of the social anarchist who claims that he has the right to do what he jolly well likes with his own—is not to its interest as a growing town and has cheerfully adopted the town planning and rural development by-law prepared by the provincial town planning branch of Saskatchewan. The town of Wilkie will thus have the distinction of being the

first town in the organized districts of the province to adopt a town plan approved by the Minister of Municipal Affairs and is clearly astute enough to see the advertising value of such a step as well as the advantages to its residents and business men of living in a town where developmental anarchism has been abolished. Perhaps the Wilkie folks do see that to make their town orderly, beautiful and interesting will do more to attract settlers than the loudest blasts of the loudest and most mendacious megaphone. We hope in our next issue to give an illustration of the plan adopted and a precis of the by-law.

Toronto Planners

At a recent joint meeting of the Toronto Branch of the Town Planning Institute and the Toronto Chapter of the Ontario Association of Architects Mr. T. D. le May presented an illustrated lecture of great interest on the developmental history of Toronto from 1793, from a town planning point of view. He showed very graphically many of the evils that had resulted in the development of Toronto from lack of foresight in the planning control and urged the fostering of a municipal town planning spirit by persistent educational means.

Eighty-Seven Millions for Town Planning

The work of Mr. Harland Bartholomew, city planner of St. Louis, Missouri, and his associates, seems to have resulted in a city converted and pledged to city planning. A bond issue of \$87,000,000 was carried last month by a big majority of civic votes and the local paper joyfully announces that the transformatiton of the city will soon begin. St. Louis will spend \$8,650,000 on the widening of streets; the buildings surrounding the Union station are to be torn down in the interests of a better approach to the station; new parks and playgrounds will be created; railway grade crossings will be abolished; \$6,000,000 has been allocated to the erection of a war memorial and plaza, and another \$5,000,000 to a municipal auditorium. "From start to finish", says *The Post-Dispatch*, "the bond movement has been one of the citizens. It was prepared by citizens in public hearings, drafted into an ordinance by the board of aldermen after a month of public hearings and expenditures will be subject to the control of the citizens' supervisory committee of seventeen members, representative of all interests." It would be profitable to know what percentage of this enormous outlay is purely destructive and entirely due to the absence of a city plan.

PLAN FOR OTTAWA SOUTH

BY NOULAN CAUCHON

The accompanying cut shows the plan approved by the Town Planning Commission of Ottawa and indicates a number of important developments which are independent units and can be carried out progressively as opportunity offers.

Most important is the Rideau Park, showing a tentative water embellishment scheme which aims at turning to account the drainage necessities of a vast swamp. There are also shown the canal lands to the west of the canal and a proposed short access from the Prescott highway; also a short link connecting the highway with the Sherwood drive free from the railway crossing which now is set out to the westerly limit of the city via Iona avenue.

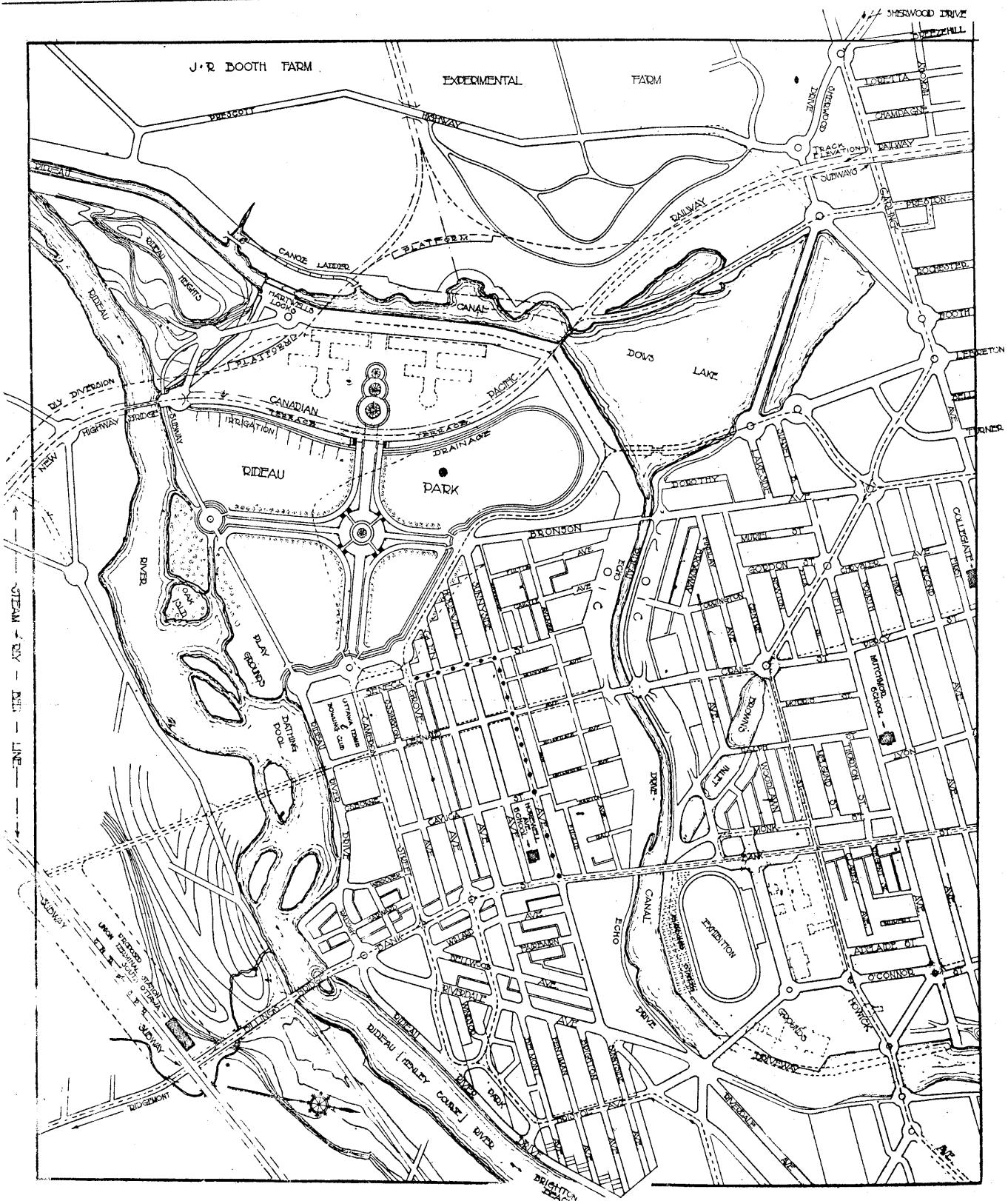
The Chaudiere branch is shown diverted to higher ground as it must necessarily be to accomplish grade separation. Preston street will then be extended south to and use the present railway bridge for access to the canal roadway and to the park. An exchange with the railway could make available the present C.P.R. Rideau river bridge for a short cut from the Bowesville road to Hartwell's locks and direct to the park and west side of the city.

Bronson avenue is shown connected along the

edge of the park and on land now owned by the city to Grove avenue in Ottawa South. A short diagonal connecting Centre street with Bronson avenue at the junetion of Third avenue would give a tram route to Bank street beyond which it is projected eventually to circuit with Main street in Ottawa East.

Tram line approaches are also shown from the west and via Sherwood Drive; from Preston street and from Bronson avenue all leading to the park; also their interchange of traffic through Ottawa South with the Bank street and the Main street Ottawa East tram lines giving service to Brighton Beach and the Henley course in passing. An extension of the Bank street trams to the new union station at Billings Bridge and beyond is also shown.

The removal of the cross-town traffic of the Grand Trunk line will divert all trains from the west and south via the new South Ottawa station beyond Billings Bridge. Leonard and Percy streets are shown connected through by a new high bridge across the canal midway between Bank street and Bronson avenue. O'Connor street is shown opened through Lansdowne Park, bridged across the canal to a connection with Riverdale avenue, thus giving a through



Plan of Ottawa South. Noulan Cauchon

traffic artery free from trams from Wellington street south to Billings Bridge.

Better inlet and outlet are proposed to the In-

provement Commission's driveway in the vicinity of Brown's inlet. Elimination of the unsightly and noxious wooden cattle sheds at Lansdowne Park will

permit extending the canal driveway under Bank street high level bridge to the other section of it, continuing from Fifth avenue to Cartier Square. The drive which the city now owns along the Rideau river, passing Brighton Beach, is shown extended westerly across Bank street past the Ottawa Tennis Club to the Rideau Park playgrounds bathing pool

and alongside the river to a connection with the canal road at Hartwell's locks. A short steam railway belt line south of the Rideau river will put the park and Chaudiere branch on a direct loop around the city from the Chaudiere yards to Sussex street yards, tapping all the railway lines entering the city from every direction.

BIRTH OF A CITY

In the heart of a beautiful country district of Hertfordshire, within 40 minutes journey from London, an ideal of the better way of building towns has taken material form and a new Garden City has been born at Welwyn, 21 miles north of London. The success of Letchworth—hampered though its progress has been during the 20 years of its existence by insufficient capital—as an embodiment of a more intelligent and scientific way of providing for the industrial and social needs of a community and insuring for low-paid wage earners those amenities of life which are the common places of the well-to-do, is acknowledged by practically all students of this particular problem. But since the foundation of Letchworth much work has been done in the sociological laboratory and the concept of self-contained satellite towns around a great city—with permanent agricultural areas intervening—to take the place of annexed suburbs, which so quickly become indistinguishable from the body of a city and add so seriously to the city's problems of transportation and the supply of public utilities, has given direction to endeavour and established itself as a practical means of solving many civic problems. Letchworth is a self-contained country town built without special relation to any city—though it is only 34 miles from London. Welwyn is intended to be a satellite city in relation to the metropolis and to lead the way to the development of similar towns around London on the approved principles of Garden City building. Letchworth has delivered working people from the dearthiness and depression of slum dwelling and the monotony of suburban life under the heavy drain of time distance in order to reach their work. It has given to them the simple and wholesome delights of country life and an easy means of acquiring pleasant homes for themselves and has shown by its reduction of infant mortality to 30 per 1,000, as against 165 for the slum towns of England, that sunny homes, pure air, parks and open spaces for play are exceedingly effective means for the preservation and conservation of life.

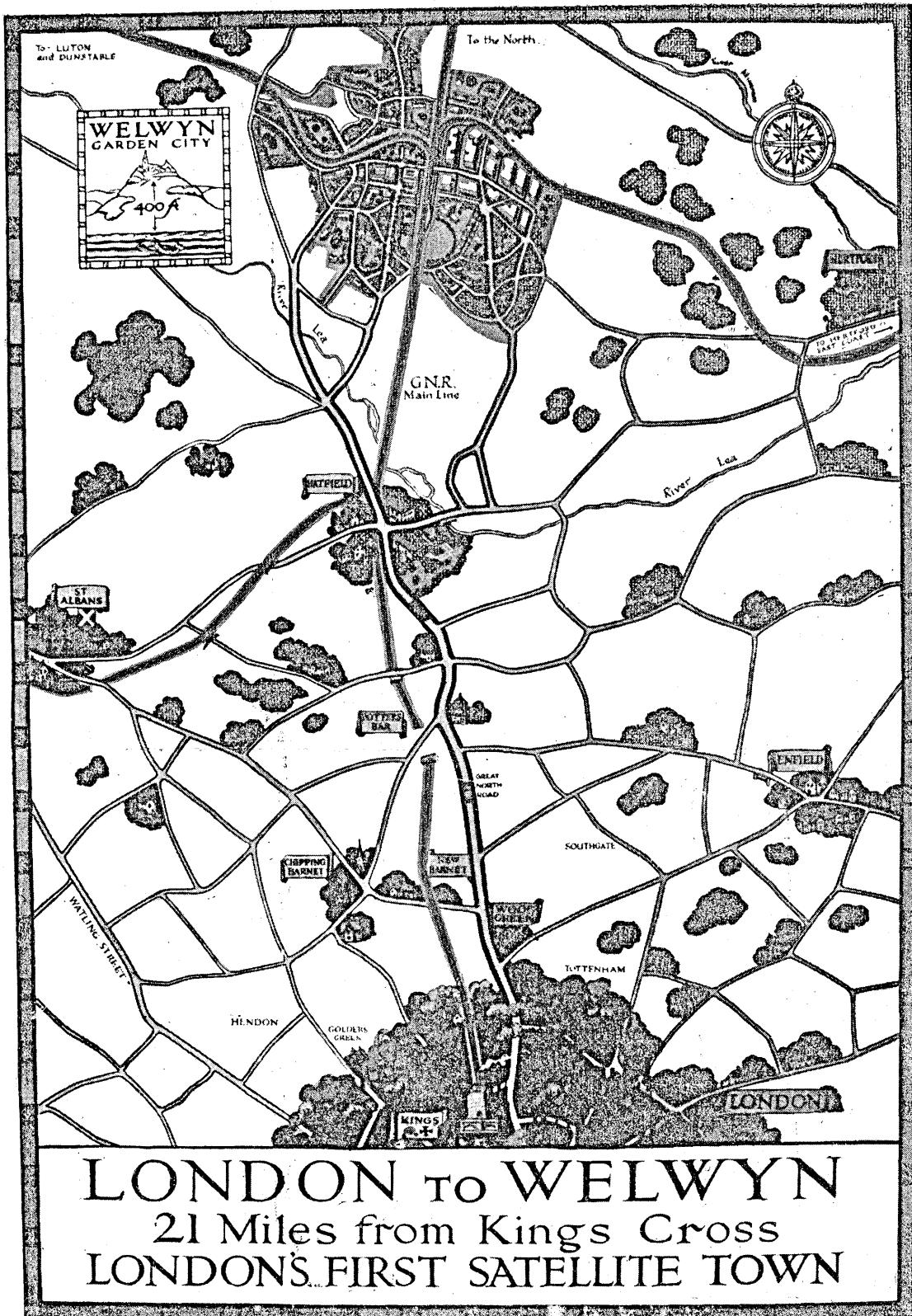
The second Garden City is being constructed on

similar lines but with the advantage of Letchworth experience. It has been financed in the same way—that is, by appealing to private persons who have money to invest and are interested in the establishment of a better order of social life, to place their capital where the returns will be something more satisfying than the seven per cent that is offered. Public confidence in the Garden City experiment may be said to be established since while there are reasonable returns for all business connected with the project there are no opportunities for men to make big profits out of public needs and out of all proportion to capital invested or work done. There is no traffic in land, since the land is under public ownership, as are also the public utilities of the town. Leases on land are granted practically in perpetuity. The leaseholder may acquire possession of his land for 999 years, which, it is claimed, is really better than freehold since the leaseholder is protected by the reasonable conditions of his neighbour's lease from the *laissez-faire* destruction of his environment which usually follows freehold acquisition of small parcels of land. By this means the poor man and the young married couple can acquire land without submitting to years of penurious saving and so long as they use it for the purpose for which they acquired it they are in undisturbed possession of the land for their own lives and the lives of their families.

An experiment is also being made at Welwyn in the serious problem of distribution of the commodities of life by which primary costs are so fearfully multiplied. In the place of a crowd of corner stores a large departmental store has been built, which does not tower above the sky-line or surrounding buildings like an abnormal tooth but pleasantly stretches out along the way like an extended conservatory, adding greatly by its lights and pleasant architecture to the charm and life of the streets.

A Story of Amazing Progress

In May, 1920, Welwyn Garden City was little more than a site and an idea. To-day it is a fact. The progress made in two years has astonished the



experts no less than the man in the street. Though the first new houses were not occupied till the beginning of 1921, the population is already over 1,200.

250 new houses are inhabited or nearing completion, and another hundred are under way.

Prior to the development a mineral survey dis-

closed rich natural resources for building purposes. The water supply was tested and found adequate for 50,000 people. The work of development was then taken in hand on the most modern and scientific lines. Pumping plant was installed and mains put in, roads were made, sewers laid and sewage disposal works constructed. Extensive pits of sand, gravel, ballast and chalk (the latter for a new form of chalk and cement building) were opened. A brickworks was established for the manufacture of a good red facing brick. Special railway sidings were constructed for the bringing in of materials, saw-mills and carpenter works were set up, and these and the gravel pits were connected with all parts of the building area by means of a network of narrow-gauge railways. Building and development can therefore be carried on with exceptional rapidity and economy.

To-day Welwyn Garden City stands equipped with every essential attribute of an adult town. The new station on the Great Northern main line brings it within easy reach of London. There is an excellent and ever-improving train service, and the Great Northern Railway Company has bought 70 acres of land with the intention of creating an important junction station which will still further augment the transport facilities.

Electricity, obtained in bulk from the North Metropolitan Electric Power Supply Company, is transformed at a substation on the estate and is available for power and lighting to all building sites. Gas also has been laid on to all the houses.

A hotel-restaurant (now fully licensed) with delightful tea gardens, has been opened near the station, and a central store with eighteen departments is already a success. Branches of two banks have been established. A fire station has been equipped. Playing fields have been laid out.

All these things have been accomplished at Welwyn Garden City in two years of the most difficult period known to English industrial history. Ideas, enterprise, forethought and common sense have triumphed, and Welwyn Garden City is growing, from day to day, into a complete self-contained community.

When Welwyn Garden City was first mooted, there were many to say, with a convincing show of argument, that the thing was impossible. It couldn't be done.

It has been done in two years, and a great idea has become a living fact.

Planned to Live in

Few towns were planned to live in; few were planned at all; most grew haphazard and uncontrollable. Welwyn Garden City is planned to live in; planned to work in; planned for the efficiency,

health, comfort and happiness of all its citizens. It will never have an ugly congealed district of "inevitable" slums or forget the needs and rights of poor people. Long before the land (which formed part of the ancestral estates of Hartfield and Panshanger) was in the market the site had been singled out by Mr. Ebenezer Howard as the perfect situation for a satellite town for London.

The general slope of the estate is to the south, permitting sunny aspects to all the houses. Sherard's Wood, rising to over 400 feet above sea-level, forms a natural shelter from the northern winds. The extensive agricultural area reserved about the town for all time gives every advantage of country life—clean, wholesome fare at low cost, the permanent blessing of healthy air, and the pleasure both of rural and urban surroundings.

For Welwyn Garden City is not a garden *suburb*. It is not designed as a mere dormitory place. It is to be an independent, self-sufficing town, with a population as large as that of Halifax or London, Ontario. But there is this great difference. Its size is limited, its density controlled. It will never be allowed to sprawl clumsily and aimlessly across the country side, nor to have its buildings huddled together or rising to excessive heights or encroaching on its gardens or open spaces.

Good Architecture Amid Natural Beauty

Each road has its own special character both in architecture and in the layout and planting of the trees, shrubs and gardens. In some of the roads a formal treatment of the whole of the front gardens without dividing fences gives a pleasing and original note to the picture. In others separate treatment of each garden gives the interest of individuality.

The houses are of the type that attract and welcome. Nor is their attraction belied by their interiors. Every house is planned on labour-saving lines, and soundly constructed to be a worthy unit of the new town.

How to get a House in Welwyn Garden City

At the present time houses are not available on a simple tenancy basis, except for workers in the town itself. The demand for houses at the low prices at which the Company can build is so keen that the resources of the new town are fully occupied in building for purchasers.

Houses, however, can be secured very advantageously on a tenancy-investment basis or purchased outright at figures which show a distinct advantage over average prices.

In the case of tenancy-investment, the intending occupier invests from £250 to £350, according to the size of the house chosen, in the shares and loan stock

of a public utility society, on which he is entitled to interest and dividends.

The greater part of the cost of the house is advanced on a fifty-year repayment basis by the Government. The rent payable by the tenant-investor varies from £30 to £50 a year, according to the cost of the house. Taxes are very low.

The covenants of the perpetual lease are reasonable and are only such as are necessary as safeguards against the abuses which arise under unrestricted ownership.

The careful planning of Welwyn Garden City ensures that every plot of land is a good building site, but naturally the terms for sites vary according to position and extent. Most of the sites are from 120 ft. to 200 ft. in depth, and frontages are usually from 35 ft. to 100 ft.

Many charming residences are now being built to order by the Company's well-trained staff. This organization — including architects, engineers, surveyors, builders, landscape gardeners, etc.—is at the service of all who wish to build in the new town. From the selection of a site to the last detail of the creation of an ideal home, the advice of the Company's staff is available.

The Company has made special arrangement with the Co-operative Permanent Building Society, under which advances up to three-quarters of the cost of houses may be obtained without undue formality or difficulty.

The terms quoted for houses and land cover the cost of making roads, laying sewers and general development charges.

Social Life

A flourishing tennis club is one of the most popular institutions of the town. Cricket, football and hockey clubs are in full swing.

The Welwyn Garden City Theatre society gives frequent performances of very great interest and variety. There is a well-supported music society, an arts club and clubs for chess, whist, bridge and dancing. A circulating library and an unusually well-stocked book shop are to be found in the central stores.

As social centres the Cherry Tree restaurant, the public meeting room, the Lawrence hall, and the Welwyn Stores annex, are in continual request for functions of every kind.

Young farmers' clubs, formed in connection with the *Daily Mail* Village (which occupies ten acres of the Company's estate) are a source of lively interest to the junior members of the community. Clubs have so far been set up for the keeping of poultry, bees and rabbits and for gardening, and all are very successfully run by the children themselves.

Shopping needs are met by the central establishment of Welwyn Stores Limited, which has eighteen departments and caters for most of the demands of the residents.

A clean milk supply is one of the town's most important features. Grade A (certified) milk is produced in the model dairies of the New Town Agricultural Guild, now farming a large part of the agricultural belt of the town, and distributed by the Welwyn Stores.

Planned for Production

Messrs. R. S. Murray and Co. Ltd., well-known confectionery manufacturers, are to erect in the industrial area a large factory. They calculate that their saving on taxes alone will be about \$10,000 a year.

In transferring their works to Welwyn Garden City, Messrs. Murray are setting an example which other firms will follow. For Welwyn Garden City in its industrial area is *planned for production*. The estate was chosen as much for its industrial advantages as for its residential amenities. The sites for factories are alongside the Great Northern Railway, fronting the main line and adjoining the spot where the new junction will arise in the near future.

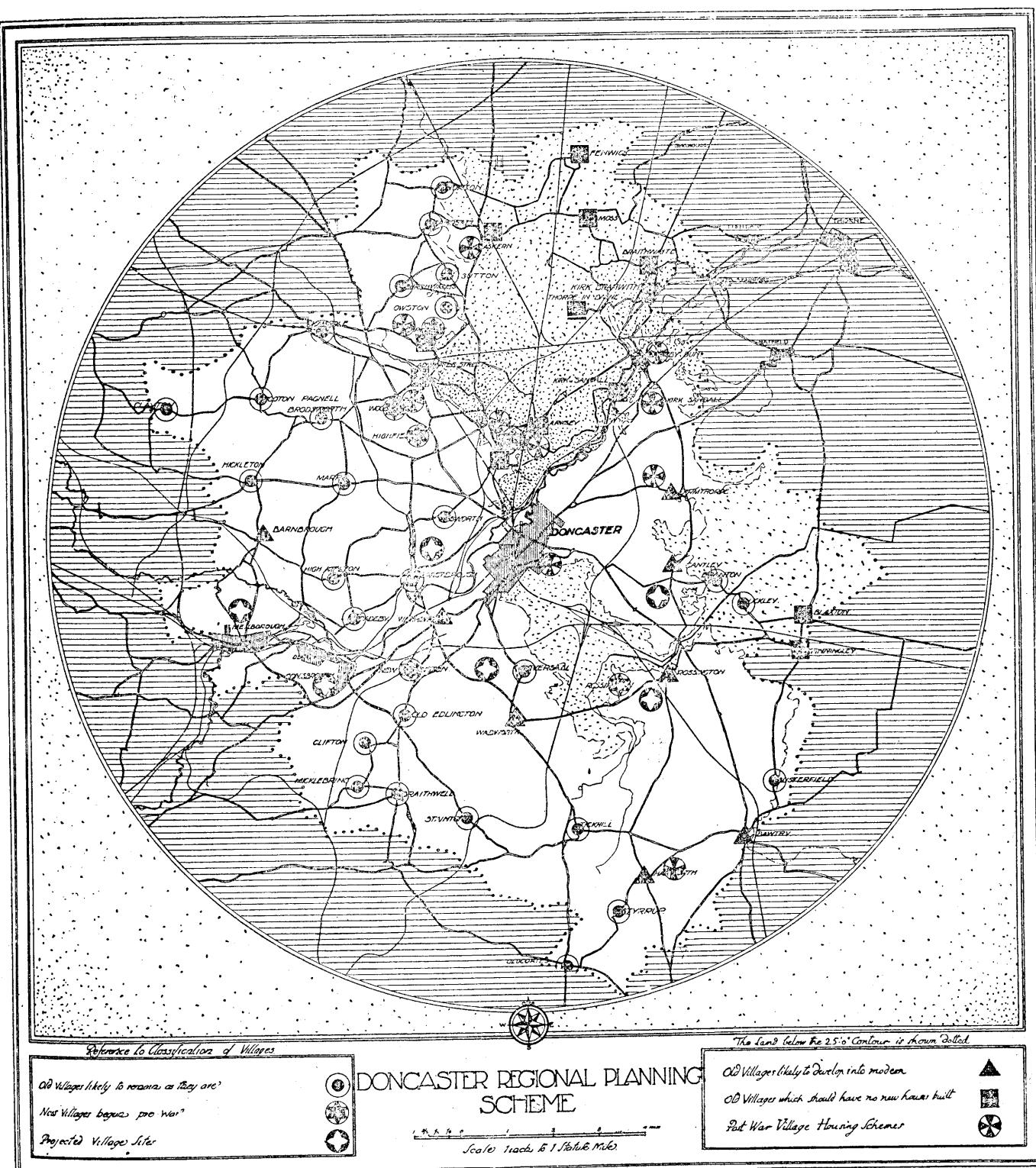
Manufacturers who build their works in Welwyn Garden City secure in every way efficiency and economy. Even in the construction of the factory at Welwyn Garden City there is economy because of the natural resources of building close by, while in the working of the factory the saving is immense. Sidings can be taken right up to the doors, road access is good, and ample land can be secured at low cost, while reserve for extension is necessary.

Again, the health and energy of the staff will benefit, since all the workers will live in the best possible conditions within walking distance of their work. No modern manufacturer needs to be told how much that means in efficiency and the reduction of labour costs. A minor point of economy as compared with a factory in central London, is the saving in illumination. No Welwyn Garden City factory will be hemmed in, and artificial light will never be necessary during the day.

The manufacturer finds at Welwyn Garden City all the advantages of a London factory, with none of its disadvantages. Every public service is up to date and efficient in itself, the citizen-workers enjoy good health and contentment; and lost time is reduced to vanishing point.

The Company's experienced architectural and engineering staff is prepared to design and superintend the construction of factories of every class in the shortest possible time.

FIRST REGIONAL PLAN*



The necessity for regional planning of large metropolitan and industrial areas has been pressed upon the Ministry of Health for some years by the

leading town planners in Britain. Three years ago the Ministry of Health took the sensible step of calling a conference of the local authorities of the coal-

field area of Doncaster, Yorkshire, where it was resolved that a regional planning scheme of the Doncaster district should be prepared. At a subsequent meeting of the seven local authorities concerned Professor Patrick Abercrombie, of Liverpool University and T. H. Johnson, architect and surveyor of Doncaster, were commissioned to prepare an outline plan and report for the area. This work has now been published in a large quarto volume of 93 pages which comprises a series of definite recommendations to the several constituent authorities, studies of the geological, industrial and social aspects of the scheme and a valuable series of maps.

The authors of the report believe that when the plan is put into operation there will spring up in the Doncaster region ten or more communities, new or so changed as to rank as new towns, complete in every respect but of moderate size. Central to these but in no sense dominating their individual existence will be the town of Doncaster, neither swollen nor tentacular but in the truest meaning of the word metropolitan. For major pleasures, higher studies and for contact with art dramatic, musical and visual, the inhabitants will have within easy reach the central city. Agricultural land, small holdings, allotments and ample space for playing fields will form the natural matrix to these human and industrial aggregates, cementing them together and at the same time preventing them from conglomeration. Social life in such a region, it is believed, can be rich and varied and there need be no tame villatic existence in the smaller communities nor loss of touch with

* **The Doncaster Regional Planning Scheme.....**Report Prepared for the Joint Committee. Liverpool: University Press, London: Hodder & Stoughton, Ltd., 10s. net.

nature in the central city. The industries will benefit from the reaction of the mental and physical qualities of the inhabitants and the requirements of industry can be met where there is a plan, in a way impossible where the old haphazard methods of growth are allowed to continue.

Three zones are contemplated. Central land lying too low for residence will be used for industrial purposes and agriculture. Other land at a higher level has been chosen for housing, commerce and clean industry. The antiquities and beauties of the area will be carefully preserved and new tracts of land will be reserved for parks and playgrounds. Six old villages, which still retain their original character are to be left practically intact and new roads of traffic are to be carried by them with a view to preservation of the old fashioned charm of these villages.

An event of this character is of much more than local importance and the execution of the plan, as in the case of garden cities, will do more for the progress of town and regional planning than floods of journalism. As Letchworth has become the cynosure for the observation of the world so the Doncaster region, the first to be planned on regional lines, will inevitably attract to itself the interest of all students of the new methods of town and rural planning and, incidentally, will reap much material advantage as a pioneer in scientific development of land for the uses of life.

The volume should be accessible to all Canadian town planners and should be incorporated in the public libraries of Canada.

UNIVERSITY LECTURES

CONGESTION: ITS EFFECT UPON CIVIC LIFE MATERIAL AND SOCIAL

BY NOULAN CAUCHON, A.M.E.I.C.

Chairman of the Town Planning Commission, Ottawa. *

Environment

To plan a city to efficient purpose the nature of its functions must be clearly understood and provision made for that normal exercise of function which generates and maintains efficiency and well-being.

It is a function of town planning to determine the orderly coordination of those external physical factors which fulfil environment in relation to the maintenance and enhancement of human life.

Life in the individual is a problem in personal

*Introductory to a series of lectures at the Toronto University Extension Course in Civics and Town Planning.

biology. Life in the community is a problem in social biology. Life individual is the product of heredity and environment. To the community and to the individual environment means, elementally, accessibility to nutrition requisite for the support, continuity and development of life for the fulness of human life.

It is the aim of town planning to establish an environment that will afford social nutrition, i.e. nutrition of collective life. Let us examine the requirements of individual and of collective life, wherein they coincide and also whereby the circum-

stance of numbers may affect the nature of the demands upon environment.

Nutrition

Under simpler conditions of existence man through the chase and agriculture sought and obtained abundant food and well-being in the exercise of obtaining it.

The complex of civilization and confusion of industrialism which have induced migration from the free life of the soil to the limitations of the city have obscured the fact that air and sunshine are constituent elements of nutrition in the maintenance of life—and for its enhancement have almost failed to recognize that "Man cannot live by bread alone."

The fires of life are sensibly and visibly fed by the conventional staff of life, yet the flame must be fanned by the oxygen of the air to accomplish combustion. Further life cannot prevail without the beneficent energizing rays of the sun which infuse health-giving heat, light and chemical action. The rays of the sun are the ultimate source of all energy upon this planet.

Economics

Economics is the science of energy in the maintenance of life—of human life and efficiency.

There is a restricted theory of economics which is expressed in terms of profits as the science of wealth. But town planning is suffused with a more abiding vision of truth in a general theory of ultimate economics expressed in terms of survival of the individual and of the race. The survival of a species under migration depends upon mutation, its adaptability to changing circumstances, that is, environment.

When populations migrate into cities they suddenly become subject to a change in environment, to artificial restrictions upon the access of air and sunshine. The general problem of distribution becomes insistent and must be balanced by adequate equivalents in time and space—in food, air and sunshine—in transportation, comfort and amenity—in means to ends.

Now it is the province of town planning to implement and adjust these requirements in the distribution of energy to human purpose. The distress of modern living conditions is congestion, consequent mainly upon industrialism having crowded urban centres over rapidly with rural populations beyond measure of mutation — of adaptability to new environment.

"The Sausage Maker's World"

Professor Ferrero emphasized some of the consequences that have followed throughout the modern

world from the concentration on production or output as the main interest of life that marked this period. One result was visible in the coarse and casual disorder of these towns. The social arts lost credit and significance because the general life of the spirit and faculties of man was subordinated to this single aim. If a man invents a good sausage-making machine, he increases his power, so far as his power depends on his contrivances; but if the effect on his mind is such that he cannot think of the world except as a place where sausages are made from morning to night he limits his power, so far as his power depends on imagination. Something like this happened to England during the Industrial Revolution. The public men of the age thought little of beauty or open spaces or wise arrangements for securing the future interests of their towns because they thought little of the art of life. The factory stood for the governing idea in their minds; the idea that society exists for the creation of material wealth. The town, with its hang-dog look, its disfiguring neglect and squalor, illustrated the degree of importance that was given to man's life outside the factory."—*Manchester Guardian*.

The accelerating complexity and burdens of the predatory culture—our civilization—under which we struggle seem to be ever widening the gulf of inadaptability and to be fostering a spreading impulse towards reversion to type—to primitive reaction against restraint; the psychology of world conditions since the great war.

Redemption postulates to live and let live.—Simple life vs. Primitive life.

The crux of the problem is to so dispose planning and development as to obviate and eliminate congestion.

Transportation

Transportation—time-distance—is the modern Aladdin's lamp of progress. Population is fluid in the nature of its mobility and its flow is determined by relation of speed to dimension in the channels and arteries of communication. Ordered ebb and flow in tide of city population answers to adequacy and speed of railways, radials, trams and highways, to the width of streets related to the use, height and area of buildings desirable for given purpose and locality; from which may be calculated a width to meet local requirements plus, within limits reasonable the quota of through traffic.

It is evidently prohibitive in cost periodically to widen streets to meet indefinite expansion. There are effective economic ratios of street widths to length and a curve of accelerating caution in discounting the future. Engineers will easily accept the principle that street widths should be multiples of traffic

clearances, pedestrian and vehicular, raised by their varying speeds to an equivalent of total delivery—beyond which arises congestion from the containers (buildings) holding more than the channels (streets) can flow within useful time limits; or congestion due to flooding the local channel (street) with a torrent of through traffic.

The Interceptor

When the spread of settlement straining the capacity of speed and safety comes to overburden channels adequate for local purpose then relief should be sought in applying the principle of the interceptor. In general, when the graduated sizes of an original sewerage or water system have been extended to the pressure limit of effective usefulness, their increased volume and expansion are provided for by the introduction of intercepting sewers and mains.

Relief for excess flow of traffic should be found through intercepting arteries of high speed as free from interruption as possible—surface or sub.

Some Canadian cities will have a unique opportunity in town planning when the terminal consolidations of the National Railways release duplicate rights of way as obsolete. These should be obtained and converted into rapid transit highways to enable radial and motor traffic to serve the ends of time-distance between the centres of cities and their uttermost individual home expansion. My first application of this principle dates back to my early planning for Ottawa since 1910 and subsequently in my Hamilton plans since 1917. Access and exit from such routes should not average closer than half a mile and as farther apart as may be, increasing the time-distance of the city's effective area.

The securing now of such intercepting arteries means prevention of congestion at comparatively low cost vs. cure later at enormous cost. Prevention if secured now means initial freedom from congestion and its consequent ills of neglect.

Moreover, if congestion be once allowed to arise in a growing city it must be endured with all its malign influence till the pressure and distress of a million or more population insure dividends upon the millions of money then involved in subway tubes. Like the disease of cataract the evil must become fully ripe before it can be surgically operated upon—and even so the scars of over density rarely ever fully heal.

Proportions

Leonardo da Vinci, that versatile genius, admonished planners, over four hundred years ago, that a street should equal in width the height of its houses.

The views of a French writer, Jean Labadie,

upon American skyscrapers, are interesting:

There is in this mutual resonance of the intensity of traffic, of the cost of land and of the density of population a striking analogy with that other resonance of a tissue living upon itself which constitutes a cancer.

We instance skyscrapers, office or tenement, rarely on a street width equal to their height, as the symbol of disproportion in civic life; the harmful exponent of the restricted commercial theory of economics dominating popular ideals.

We submit the logic and design of Leonardo and Michael Angelo as justifying the general theory of economics—ultimate economics—the general benefit of the community, the survival of the race.

Exclusion

The justification for discrimination and exclusion in national immigration lies in the economic fact that certain races can physically outlive us at our minimum standard and would exterminate and replace the white race—us. They seem to have acquired immunity from living conditions that kill us off.

It is recorded that Lucknow at the time of the mutiny contained 700,000 population with streets averaging 10 feet wide—the widest, the market, 20 feet wide. Their transport through these narrow shady canyons was by palanquin and elephants! How long would or could our population survive under similar conditions and without modern sewerage and water works?

Energy

As the beneficent conversion of energy to human purpose is our goal there needs must be exercised a knowledge of the properties of matter and the nature of things in conscious evolution towards expression in beauty of form and colour as evidence of ultimate efficiency. Beauty is a dazzling form of energy, a reflex of harmonious energy. Ugliness is a discordant vibration of energy, a disharmonious reflex of inefficiency.

"For we who are tax-payers as well as immortal souls must live by politic evasions and formulae and catchwords that fret away our lives as moths waste a garment. We fall insensibly to "common sense" as to a drug; and it dulls and kills whatever in us is rebellious and fine. And so you will find no man of my years with whom living is not a mechanism which gnaws away time unprompted. For within this hour I have become again a creature of use and wont. I am a lackey of prudence and half-measures."—*Jurgen*.

The Sad Story of a Babylonian Plumber

From the Mugheir Manuscript, published by the American Archaeological Association, containing the so-called Annals of the Assurbanipal, unearthed by the American Commission early in the present century:

Then Neriglissar the Repairer of Pipes came into the palace as he had been commanded, and bowed him down before Merodach the King.

And Merodach the King bade Neriglissar make whole the pipe wherein it had been broken.

"It is a bad pipe," said Neriglissar, "would that I and not another had laid it in the palace, so it had been better done."

Neriglissar the Repairer of Pipes worked upon the pipe where it had been laid in the wall, and about the third hour he said unto Ashboka, the Chamberlain of the King: "Listen, O right hand of the King, I have not the mallet that I need withal," so he departed and returned to his shop for the mallet.

And he was gone for about two hours, and when he came again to the palace he brought with him the youth Labashi, and Labashi was of the same brotherhood with Neriglissar the Repairer of Pipes.

And Ashboka, the Chamberlain, said unto him, "For what purpose is the youth?"

"For to hold the mallet when I am not using it," said Neriglissar.

On the first day of the month there came to the King's household a writing from Neriglissar the

Repairer of Pipes, and there were writ therein the charges of the Repairer of Pipes, and these are the words of the writing:

	SHEKELS
Gazing upon pipe	75
Approaching pipe	25
Hammering pipe	50
Changing hammers	25
Going back for mallet	50
Time of Neriglissar the Repairer of pipes..	100
Time of Lahashi the youth	50
Not thought of anywhere else.....	10
	280

When the King read thereon he sent for Neriglissar the Repairer of Pipes and slew him. So there were no more Repairers of Pipes in Mashoban.

Graphs of Ottawa Civic Expenditure

Useful work is being done by the Ottawa Town Planning Commission in presenting to the council detailed analyses of the debenture debts and rates of expenditure in the various big divisions of the city's administration. The figures are accompanied by a unique series of graphic charts permitting the drift of expenditure to be seen at a glance. Various factors are brought to a common denominator by showing expenditures in percentages of increase using the increase of population as the basis of comparison.

A CONTRAST IN CITY PLANNING

SHOWING THE ECONOMIC AND SOCIAL ADVANTAGES OF MODERN TOWN PLANNING

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

The early settlers in Western Canada evidently intended that the evils of narrow, crooked streets and overcrowding of population to which many of them had been accustomed in the older countries, should not prevail in the new land which they had set out to develop. This seems to have been specially the case in mining districts, as mining towns like Lethbridge, Nelson and Ladysmith have exceptionally wide streets, so that very nearly half of the entire area is community-owned. Unfortunately, in most instances the topography of the ground or the nature of the soil was not considered, and the problem of street construction and maintenance resulting from ill-considered plans and excessive area of streets is to-day a very serious one, whilst the problem of overcrowding has been only partially met. The population is far too scattered in some sections and unduly crowded in others.

When a town has excessive street area in propor-

tion to building area, several consequences may result. The most usual one is that street construction is temporary and makeshift, resulting in dirty, dusty roadways and dangerous ditches and sidewalks. If, on the other hand, the citizens are determined to have improved roadways with cement sidewalks, and surface or combined drainage, a burden of taxation may result out of all proportion to the value of the property benefitted. In some cities this heavy taxation for street improvements has made it impossible for owners of vacant property to retain their holdings, and the property has been allowed to go to tax sale, with the consequence that the holders of improved property have to carry an increased burden, and educational and social programmes essential to the upbuilding of true citizenship have been crippled because of excessive taxation for what are generally termed "local improvements."

Excessive street area also adds to the cost of build-

ing land. If 20 per cent of the total area of land in a subdivision is devoted to streets, 25 per cent must be added to the original price of the land to make up for the loss of land not saleable. With 25 per cent in street area, 33 per cent must be added; with 33 per cent, 50 per cent has to be added; and with 40 per cent in street area 66 per cent. It is thus quite common to find subdivisions with very wide streets having very narrow frontage lots resulting in lateral over crowding, which far outweighs any advantage that may result through the separation of buildings by the wide streets.

Another evil often results. To offset the high cost of land and street construction, the character of the building suffers, rooms cramped or the sanitary essentials of a true home sacrificed. It is not uncommon in such cases to find

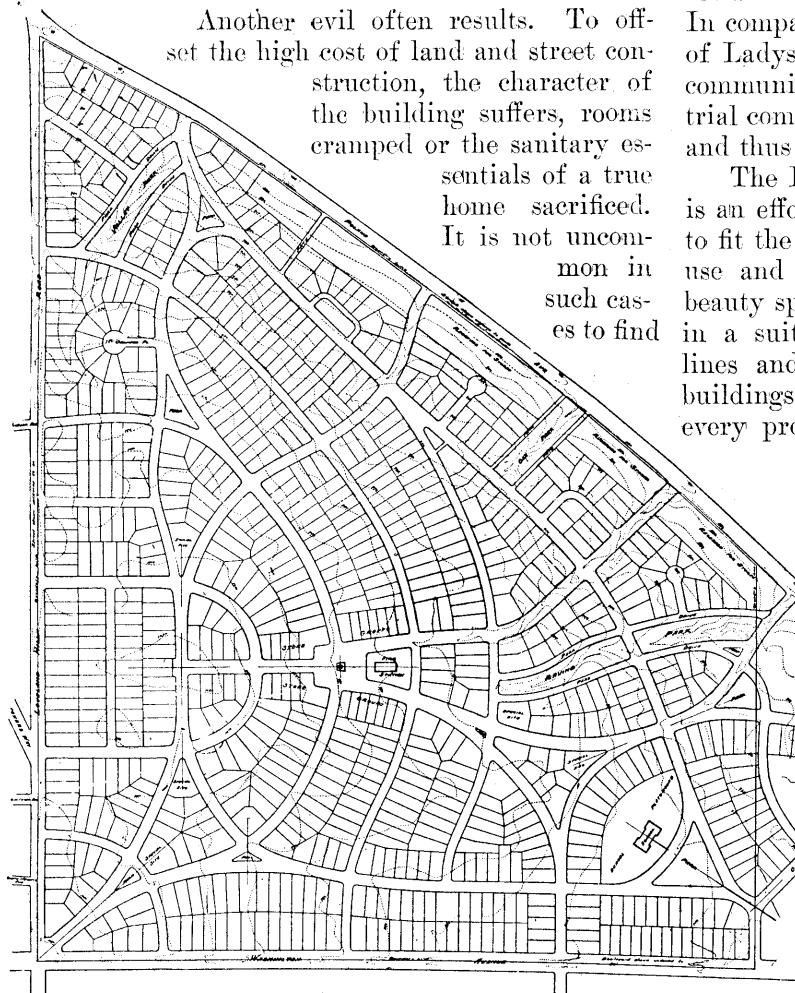
rect the errors of the past has a far harder task, and his difficulties are increased by the lack of education and want of understanding of the problem by the average citizen, who still thinks that wide streets are the hall mark of proper city planning.

By the courtesy of Mr. John Nolen, landscape architect, of Cambridge, Mass., who is responsible for the design, and Messrs. Morris Knowles, Inc., engineers, of Pittsburgh, Pa., charged with the construction work, the writer is enabled to present a plan and particulars of a development planned for an industrial community near Youngstown, Ohio. In comparison with it a plan is presented of the city of Ladysmith, on Vancouver island, B.C., a mining community. Whilst they are alike in being industrial communities, they have also the same total area, and thus are directly comparable.

The Loveland Farm development at Youngstown is an effort of modern town planners to make a plan to fit the site, to design street widths suitable for the use and function of the street, to reserve natural beauty spots for park purposes, to centralise business in a suitable location, and, by enforcing building lines and building restrictions, to ensure that all buildings are properly placed on the land, so that every property owner is assured of adequate light and air and a reasonable safeguard against the spread of fire.

The plan of Ladysmith, on the other hand, is the usual type of rectangular street development so common in the prairie sections of Western

Canada, but in this case the defects of the plan are greatly intensified because it is superimposed upon a very hilly site. The axis would seem to have been determined by the railway right-of-way, which forms the northern boundary of the city, and it is interesting to note that had it followed the cardinal points of the compass, as is so usual, better street grades would



Loveland Farms, Youngstown, Ohio.

that more has been spent on the land and its development than on the buildings which are placed on the land.

The modern town planner endeavours to avoid these errors. With entirely new development the problem is simpler, though even yet a serious handicap is often presented by legislation which prescribes a standard street width regardless of the use or function of the respective roads. But the town planner who has to face the problem of endeavouring to cor-

rect the errors of the past has a far harder task, and his difficulties are increased by the lack of education and want of understanding of the problem by the average citizen, who still thinks that wide streets are the hall mark of proper city planning.

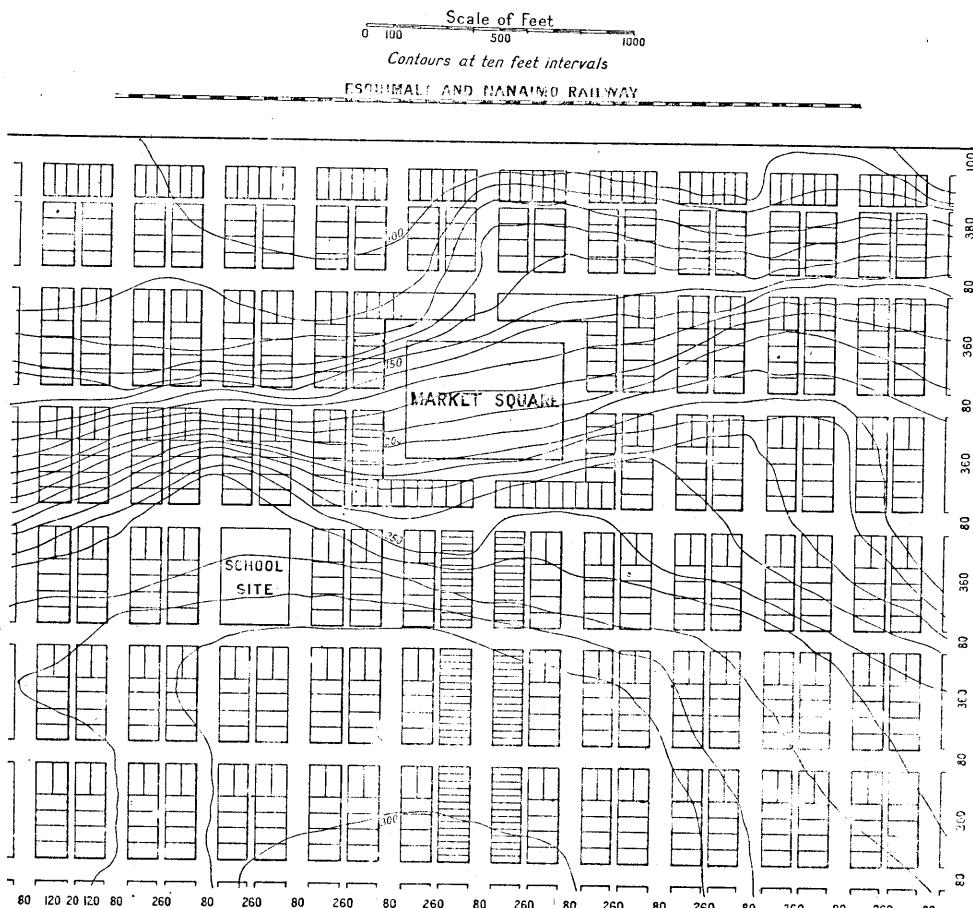
Ladysmith (200 acres)—

Building area	114½ ac.	52	% of total
Park area	6 "	2¾	"
Street area	99½ "	45¼	"

Youngstown (220 acres)—

Building area	156 acres,	71%	of total
Park area	11 "	5	"
Street area	53 "	24	"

CITY OF LADYSMITH, VANCOUVER ISLAND.



The above statement shows the utilisation of the land in the respective areas, and it shows how great is the advantage of economy in street area of the Youngstown development, and also that more land is available for communal enjoyment.

The comparison is perhaps more striking if put in another way. Assuming that street costs are equally apportioned amongst lot owners in proportion to the area of the lot, and taking the standard lot of 800 square yards, as in Ladysmith, the lot owner in that city would be responsible for 693 square yards of street whilst the owner of a similar lot in Youngstown would be responsible for 271 square yards only.

At Youngstown, in addition to the saving of street area, by planning the streets to fit the site, economy in grading and in drainage and general construction is assured, whereas in Ladysmith, topography not having been considered, the street grades are excessive, running as high as 23 per cent. and street construction of all kinds is correspondingly expensive.

The difference in the two plans is also very strikingly shown in what are intended to be the business

centres of the respective communities. In Youngstown the business square and the community centre are on a high level plateau, made accessible from all directions by streets of easy grade. In Ladysmith the so called "market square" is useless both as a business and recreational centre, the grade of the centre line on the short axis being 14 per cent., whilst the street that leads to it from the railway station has an average grade of 7 per cent. As an actual fact the square is not used for business and is never likely to be. A high school has been built in one corner, but the excessive grade prohibits the formation of a campus or playing field. It is not necessary to point out other defects in the plan, such as the rear of property facing the square on two sides, with frontage property on the other two, or the subdivision of the corner lots, which makes the most valuable corner inaccessible to the lane. The subdivision of large lots into small ones on the central street is of course a modification of the original plan, but is witness to the fact, already stated, that excessive street area tends to force the creation of narrow frontage lots. As there are no building-line restrictions the tendency throughout has been the usual

one of building as close to the frontage line as possible, so that in spite of the wide streets the general effect is one of overcrowding.

Ladysmith was planned over a quarter of a century ago, and though the defects of the plan seem so obvious similar plans are still being produced in British Columbia, which is without any effective town planning legislation.

Unfortunately, town planners in the boom days were inveigled into the production of many ambitious plans for civic centres, boulevard systems and parkways, without due regard to the general city plan, and the public still regard town planning as an artistic fad. Education is needed to show that true town planning is a scientific and economic study, absolutely essential to true industrial progress, economic welfare and human happiness.

The burden of municipal taxation cannot be reduced if the fundamental principles on which the city is planned are themselves economically unsound. No hotel or office building could be self sustaining, let alone revenue producing, if one-half of the floor area were devoted to passengers and lobbies. No manufacturer could successfully conduct a business if all his machinery were only working to half its capacity, with an empty floor or an empty room between each department. To secure economical municipal administration we must eliminate waste street area, save on street construction by a properly worked out plan of street development, and also learn how to control building development so that our public utilities, corresponding to the machinery of the manufacturer, are more efficiently utilized. The spacing of population must be more carefully studied, with the endeavour to avoid the overcrowding in the centre of our communities and the undue dispersion in the suburbs.

All over the country the cry of extravagant municipal expenditure is heard. Everywhere taxpayers are endeavouring to shift municipal burdens on to the administrators of Provincial or Dominion governments, only to find that if the load comes off one shoulder it goes on to the other. If more attention were paid to such causes of high taxation as the want of proper city planning, the avoidable waste by lack of control in the development of land, and in faulty building regulations leading to excessive fire losses and the lowering of the vitality of the people, we might then effect a gradual reduction in taxation, or, if that is not possible, at least secure greater value for the money that we spend.

The Garden City Movement

There can, indeed, be no question that as transport facilities increase, including as we may expect, transport by air, industrial communities will refuse to live in rows of "boxes with lids on" near the factory, but will demand that their non-working hours be spent in air and scenery as fine as the land round them for fifty miles can give. The garden city movement is still only in its raw but lusty and likeable youth. As often with youth, it is marked by a certain self-consciousness and idiosyncrasy. No one, for instance, could mistake Letchworth or Hampstead for a perfectly normal place in which to live. Their buildings are too consciously varied and picturesque to be quite natural, their appearance of mellow mediævalism too complete to be convincing, and the concern of their inhabitants for reforms, causes, and cultures, just a shade too ardent to make the plain man feel quite at home. But the plain man, even though he be middle-aged, conventional and obtuse, cannot walk their shady avenues nor contemplate their trim and gracious spaces and their combinations of antique gables and labor-saving devices without a pang of envy. Sooner or later he will seize upon the pioneering ideas for which they stand, and make them his own and comfortably commonplace.—*Manchester Guardian*.

The Chicago Plan

Twelve major features of the Chicago Plan (says the *Toronto Civic Gazette*) are actually under way, or have been completed, and seventy-five other projects are pending. Among the items partially or altogether completed are such colossal undertakings as the widening of Michigan Avenue from 66 to 141 feet.

The benefits resulting from these improvements have been immediate and tremendous. In the case of the Michigan Avenue widening alone, the advance in property values since the improvement was consummated is more than six times the total cost of the widening—and this advance has just begun. Of these projects, Mr. Wacker says that they have all increased the value of property far beyond their cost, they have facilitated traffic; they have improved economic conditions and made it easier and cheaper to conduct all classes of business. And last, but not least, they have made Chicago more attractive, and have added to the health, the wealth and the contentment of our people.