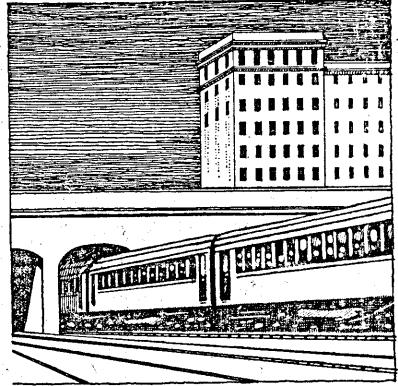
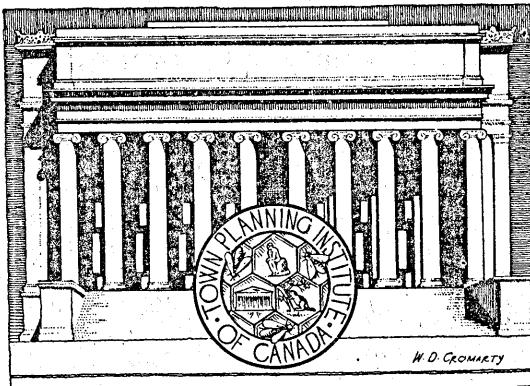


# THE JOURNAL



## TOWN PLANNING INSTITUTE OF CANADA.

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NO. 1

### EDITORIAL

#### A New Way to Build a City

The present issue of *The Journal* contains a study of the English Garden City by Mr. Lawrence Veiller, secretary of the American National Housing Association, which will repay consideration by those sociological observers who are profoundly dissatisfied with a "civilization" that is making decent home life for working families almost impossible. For many years Mr. Veiller has worked strenuously for the improvement of housing conditions in the larger cities of the United States with perhaps a certain distrust of any massed activity such as government housing, which might seem to undermine the responsibility of the individual to provide proper housing for himself and family. Mr. Veiller has now made a study of the English Garden City movement on the spot and has, clearly, come away convinced that the extension of this movement is socially and economically justified, and that most other orthodox and *laissez-faire* methods of building up towns and cities may be described as "blundering on in the same old way."

In presenting this very interesting study one comment may perhaps be permitted. Mr. Veiller discussed with Ebenezer Howard, the founder of the movement in England, to what extent community ownership of land should be considered an essential part of the scheme. He obtained from Mr. Howard the admission that it was not essential at all though Mr. Howard declared that it was an article of his belief. From this admission Mr. Veiller proceeds to an implicit disparagement of community ownership of land on this continent for the purposes of building up a city on the ground that America is a country of home owners and that the system of land

tenure is different from that of Europe. With the best will to be fair it does seem that here we touch some of the mythology of this continent. The drift away from home ownership to European conditions of tenancy is one of the most obvious facts of our city life, and the increasing drift to the city is beyond question. Is it not time to recognize that traffic in land and the decline of competition among building supply agencies are steadily driving us to European conditions of life and that the belief that we are a "peculiar people" with home owning as a faith and practice is fast becoming a myth? Home ownership in the largest city of Canada has fallen to 12.5 per cent and apartment life for young married couples "with no children" is very fast becoming the order of the day.

The community ownership of 4,000 acres of land on which the English Garden City was built prevented that unconscionable traffic in land by which the proper housing of working people is so commonly made impossible. If the land values at Letchworth had jumped every time an astute land owner decided that somebody badly wanted a home it is very doubtful if there would have been any Letchworth at all other than the unknown hamlet of twenty years ago. Countless promising settlements have been killed in this way and are being so killed every decade on this favoured continent of broad lands and immense spaces. It is difficult for the present writer to see the smallest reason why the Letchworth plan of land tenure with lifetime leases and carefully preserved environment should not be equally successful on this continent as the basis of a new plan of town and city building.

## ARE GREAT CITIES A MENACE?

## THE GARDEN CITY AS A WAY OUT

By LAWRENCE VEILLER

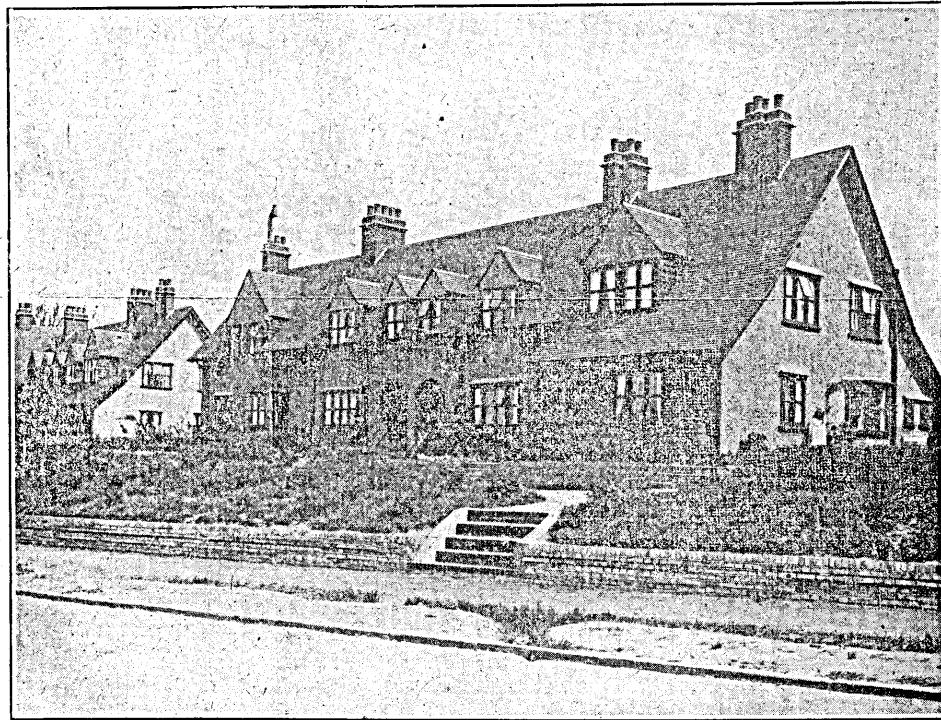
*Secretary of the American National Housing Association*

## Great Cities

What are we to say of the dangers that inhere in such vast agglomerations of populations as New York and London, where 6,000,000 people are included in a single community? It has often been said that if it were not for modern sanitary science, the modern city would be impossible. How true this is we realize when epidemics of infantile paralysis and influenza sweep the country—when, but for the efficiency of sanitary science, the population in our large cities would be decimated.

And more recently a new menace of the great city has made itself manifest, holding for its citizens the threat of starvation. This time, not through any natural catastrophe but through industrial disturbance.

It was demonstrated about two years ago in the teamsters' strike and later in the strike of longshoremen, that a small group of men, controlling vast numbers of workers, held the city in the hollow of their hand, and by their ability to manipulate the transportation of the city's food supplies could,



Garden City Tenants, Letchworth, soon: Owners.——Rents \$1.50 to \$2.00 weekly, including taxes, before war.

Modern industrial conditions have brought a new menace in the large city. Its citizens at times face famine as truly as did a beleaguered citadel in ancient days when a besieging army sat outside its gates. When New York awoke one morning thirty-four years ago to find itself snowed in under the great blizzard of 1888, it was not long before it became a serious question whether its store of essential food supplies would last until the city could be dug out and transportation could be resumed. As it was, not a drop of milk could reach the city for three days. What that meant to the life and health of the city's thousands of infants is readily apprehended.

through the threat of starvation, bring New York to its knees.

London was recently confronted with the same situation. If the transport workers had united with the railroad men and refused to handle the city's food supplies, the city must either have starved or come to terms.

That intelligent observers of our institutions have been alive to the dangers inherent in the unrestricted growth of cities was made manifest in this country over nine years ago when Viscount Bryce, at that time British Ambassador to the United States, in a memorable address delivered before the National

Housing Association, discussed "The Menace of Great Cities." Among other things he said:

**Viscount Bryce**

Evil is the inordinate growth of our modern cities. It is a phenomenon which is very striking, not only here but in all parts of the world. It is even more striking in Australia than in the United States. Sydney, the capital of New South Wales, has nearly half the population of that state. The city of Melbourne has half the population of Victoria. The city of Buenos Aires, standing in an enormous country, has, I think, one-fifth of the population of the whole of Argentina. The city of Montevideo has one-third of the population of Uruguay.

and formed their constitutions in the air of the country—the population would decline physically and, perhaps, begin to die out.

**Second:** It is a great evil in the city that people are cut off from nature and communion with nature, so that they who would like to enjoy the sights and scenes and blessings of nature can do so only on rare occasions and by taking a journey.

**Third:** It is an evil in that it separates the greater part of the community into classes and disturbs the sentiment of neighbourliness between the richer and the poorer, which existed formerly in smaller communities and which ought to exist.



Common View Letchworth,—Built by L. Cottage and Building Society.—Rents \$1.50 weekly, including taxes, before war.—Tenant owners.

These things all witness to a tendency of modern civilization to crowd people in vast centres. It is evidently increasing, and will increase unless we can find some way to stop it.

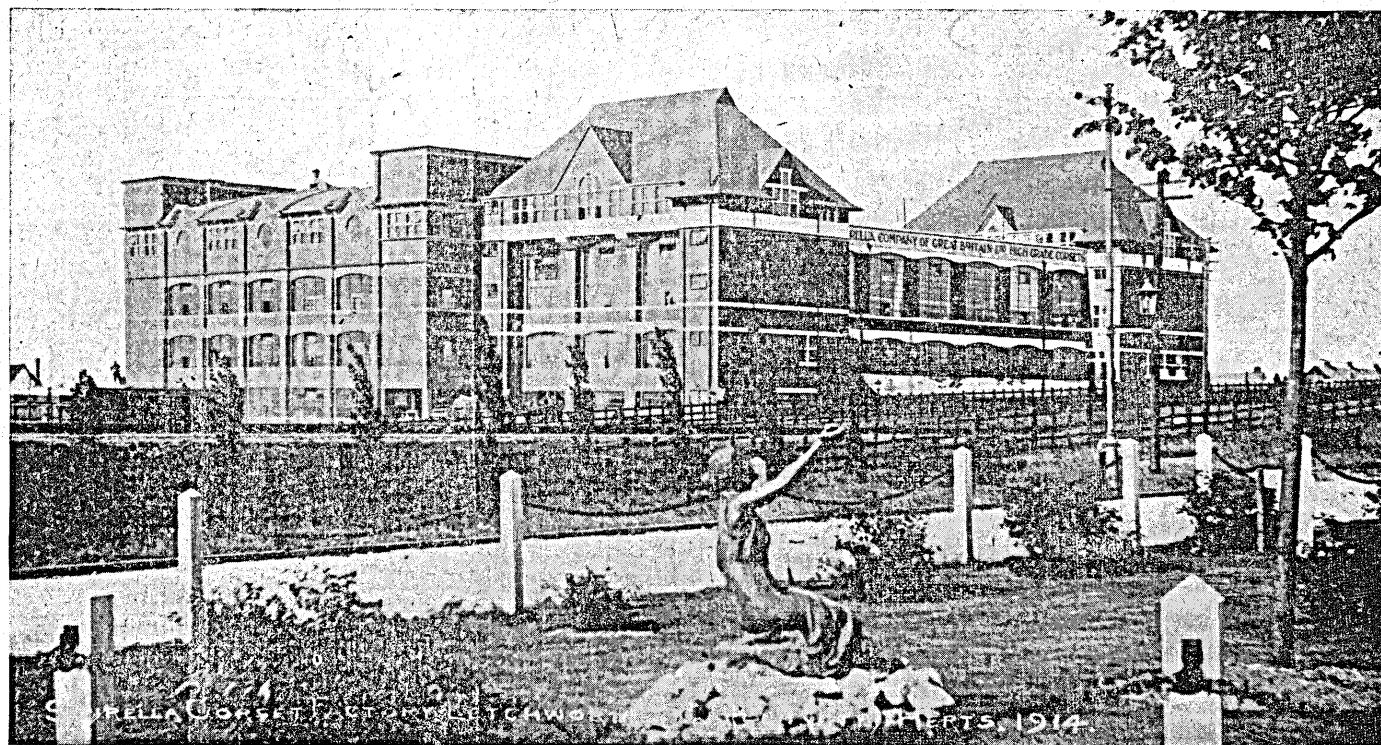
I wish to give you some reasons why a great city is a great evil.

**First:** From the point of view of health. In the city, and most of the great cities are crowded, there must be less oxygen and more microbes. I believe it is a fact that no city has maintained itself and its standard of physical excellence without an indraught from the country. If you were to leave the city alone—stop the indraught of the people who have grown up

**Fourth:** Life in the great city tends to stimulate and increase beyond measure that which is the menace of the American city—intensification of nervous strain and nervous excitability. Cities are the homes—especially in the United States—of every kind of noise, and nothing in the long run puts a greater strain on the nervous system than incessant noise. People live in crowds, under the ceaseless stimulus of always seeing one another in crowds, always moving to and fro in street cars and railroads and automobiles, backwards and forwards and at an increasing rate of speed. They are always under that exciting influence which the

mere sense of living in a crowd of people and of trying to pack so many things in the 24 hours, including the reading of numerous newspapers, produces. It tells injuriously upon the nervous system. All these things tend to increase the nervous excitability and the consequent neurasthenia from which we are told most of us are suffering. Some people think this is going to be the real danger in the future of the human race, and that unless the right means are found for the protection of our nervous system, its undue stimulation and consequent exhaustion may become a source of weakness for mankind.

other boys, and if he is not well guided in his home he is very apt to fall into bad company and get into all sorts of trouble. I think the Boy Scout movement has done a great deal to meet and cure that danger, but still it is a danger for many boys. There has grown up in the large cities a class for whom names have been invented, like "hoodlums" in California, and "larrikins" in Australia, which denote an undesirable kind of boy citizen. It is a tendency much in evidence in huge cities among the younger part of the community, who have a superabundance of energy which cannot work



Type of Factory, Letchworth: Plenty of light, plenty of room, garden surroundings.—Workers live few minutes walk away.—No car fares, no waste of time in travelling, no industrial slum.

Fifth: If these conditions are not favourable for the population generally, they are particularly unfavourable for the bairns—I mean the boys and girls. The boy living in the country has any amount of opportunity for the development of his vitality, full space to give vent to his natural exuberance of energy. He climbs trees, jumps over fences; he rambles about with his boy companions and gathers blackberries and sees all kinds of things upon which his natural activity expends itself. He has all sorts of winter sports in snow and on ice. So he gets insight into nature through his curiosity and can have in the country some little sense of adventure. But if he is cooped up in the city he takes to rambling the street at night with

itself off in the old natural way.

Sixth: Great cities are liable to become great dangers in a political sense, because the more men are crowded in great masses the more easily they become excited, the more they are swept away by words, and the more they form what might be called a revolutionary temper. All revolutionary movements or acts of violence are more apt to spring up in a dense city population, a population which is liable to be swept by excess of emotions, than among people living in the country.

Lastly: In the great city there is a deplorable amount of economic waste. In the city the manufactories, offices, warehouses and shops, all the large places in which people are employ-

ed, whether in distributing commodities or purchasing, are in the central parts of the city. The people want to live in the outer parts of the city, and as the city grows the people are driven more and more into the outskirts. If you will consider the amount of time that is taken from work to be given to mere transportation from the residence of the workingman to his working place in the city, you will see how great the loss is.

I used to make computations of that in London. In London a large part of the working people live on the eastern side of London, the northern side and the southwest, and come in ten, twelve or fourteen miles every day to work. The man walks ten minutes to the railway station from the place where he lives, and then walks another ten minutes from the station to his work in the city, and he spends from three-

the mere business side, the need for saving the productive capacity of our people from such waste.

Instead of letting a few cities grow to more than a million in population, it would be far better to have more and smaller cities not exceeding 150,000 population, or perhaps even 100,000. These would furnish all the things that are needed for comfort and social enjoyment.

### The Garden City

Twenty-four years ago an unknown court reporter in London, Ebenezer Howard, dreamed a dream of an ideal community from which the evils of the great city would be absent and yet which would contain the advantages of modern city life; which would combine with those advantages the quiet and sweet charm, the healthfulness, the tranquility



A back yard three years old: pair of houses, Letchworth.

quarters of an hour to fifty minutes, sometimes perhaps as much as 60 minutes, on the railroad. In other words he wastes from 50 to 70 minutes in the morning, and as much in the evening, which might be given to work, or if not to work, then to mental recreation or improvement.

Think what that means in a year. Think what is the waste that is involved in a great city like London or New York in people spending an hour or more in the morning and another hour or more in the evening in going to and fro to their work, when if they were near their work they might either be working or enjoying themselves or having wholesome rest. It is an economic waste which is really an insult to our civilization; it ought to appeal to us on

and ennobling influence of country life.

Recognizing fully the tendencies we have referred to, towards concentration of the population in cities and the depletion of the countryside—today six-sevenths of the people of England live in cities—he set forth these influences as a series of magnets drawing the people towards the city, embodying his ideas in a book which he published in 1898 under the title of "Tomorrow; A Peaceful Path to Real Reform," later known as "Garden Cities of Tomorrow."

The idea contained in this book of a "Garden City" in which people might live with all the advantages of both city and country, through Mr. Howard's persistent advocacy, slowly but surely, gained acceptance in England, and twenty years ago

took visible form and shape at Letchworth, where in a peaceful country side thirty miles from London the first Garden City was established.

In those twenty years, notwithstanding the difficulties that any pioneer effort such as this is bound to encounter, the results have been far beyond the fondest expectations of its most ardent advocates.

#### The Thing Done

Today the Garden City is an accomplished fact; over 12,000 people live in Letchworth. Its eighty-two factories and workshops give employment to a large part of its population.

By the average man the Garden City idea is not fully understood. To him it is "a little collection of Noah's Ark houses, all with red roofs." Even when not thus ironically expressed it is merely an attractive suburban community where people live in pleasant surroundings.



A Factory need not be ugly.

That it is a vast scheme for decentralization of industry; for conservation of the nation's food and coal supplies; for improving the health and morale of the nation, is understood by comparatively few. Notwithstanding the years of educational work by such organizations as the Garden Cities and Town Planning Association, the idea is still imperfectly understood by the average man, who confuses it with the Garden City Suburb and the Garden Village.

It may be asked "Just exactly what *is* a Garden City?" The essential features of the Garden City idea may be summed up as follows: Garden Cities are towns, limited in size and population, possessing a permanent reservation of rural land all round them, carefully planned so as to avoid crowding of houses and factories, in a self-contained community with sufficient industries to provide occupation for the inhabitants; with the population living in self-

contained houses with gardens, as a rule with not more than eight families to the acre and with the land owned by the community and administered either by the municipality or by democratic non-profit-making bodies on behalf of the community.

#### The Idea

As set forth by its founder, Mr. Ebenezer Howard in his original presentation of the subject in "Garden Cities of Tomorrow," the scheme is described as follows:

My proposal is that there should be an earnest attempt made to organize a migratory movement of population from our overcrowded centres to sparsely-settled rural districts; that the mind of the public should not be confused, or the efforts of organizers wasted in a premature attempt to accomplish this work on a national scale,

but that great thought and attention shall be first concentrated on a single movement yet one sufficiently large to be at once attractive and resourceful; that the migrants shall be guaranteed (by the making of suitable arrangements before the movement commences) that the whole increase in land-values due to their migration shall be secured to them; that this be done by creating an organization, which, while permitting its members to do these things which are good in their own eyes (provided they infringe not the rights of others) shall receive all "rate-rents" and expend them in those public works which the migratory movement renders necessary or expedient—thus eliminating rates, or, at least,

greatly reducing the necessity for any compulsory levy; and that the golden opportunity afforded by the fact that the land to be settled upon has but few buildings or works upon it shall be availed of in the fullest manner, by so laying out a Garden City that, as it grows, the free gifts of nature—fresh air, sunlight, breathing room and playing room—shall be still retained in all needed abundance, and by so employing the resources of modern science that art may supplement nature, and life may become an abiding joy and delight. And it is important to notice that this proposal, so imperfectly put forward, is no scheme hatched in a restless night in the fevered brain of an enthusiast, but is one having its origin in the thoughtful study of many minds and the patient effort of many earnest souls, each bringing

some element of value, till, the time and the opportunity having come, the smallest skill avails to weld those elements into an effective combination.

These are the essentials. Some advocates of the idea have placed rather undue emphasis on the feature of community ownership of land. This feature, however, is in no sense essential to the scheme.

### Community Ownership of Land

In discussing this question not long ago with Mr. Howard, I asked him point blank to what extent he considered community ownership of land an essential part of the idea. He answered "To no extent," adding that, personally, he believed in it, and pointing out the many advantages accruing therefrom.

But the fundamental idea is just as sound, just as easily applied without this feature, as with it.

I raise this point because it has much importance for the American continent. The conditions of land tenure here are so fundamentally different from those that prevail in England, that it would be folly to cling in America to a feature of the Garden City plan that was devised to meet an evil—very real in England—but non-existent here; for, England is a land of tenants so far as the average man is concerned, while America is a country of home-owners.

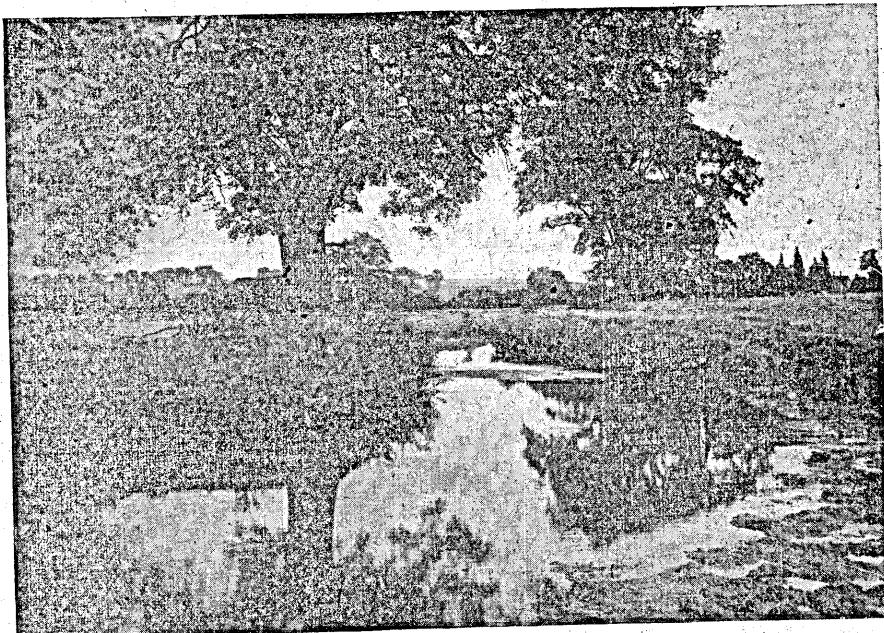
### A Self-Contained Town

The vital features of the Garden City idea have just as much value for America as for England. These are: the definite limitation of the city's population (50,000 people has been set as a reasonable maximum; in the United States 100,000 or even 150,000 might be more appropriate); the agricultural belt surrounding the city, providing the chief part of the city's food supply and acting as a natural barrier against undue growth (better than the walls of the old mediaeval city); the inclusion in the city of diversified industries affording employment in healthful surroundings to the major part of the city's population; and last, but not least, healthful and attractive homes in peaceful and ennobling surroundings, with a definite limitation of the number of persons living in them (not more than eight families to the acre).

To practical men in America to whom such a plan

may be proposed, the question will at once arise "Can it be done?" Will business men move their factories or establish new ones in such communities? Will they not prefer to stay in the large cities with their less limited labour markets even with their other disabilities? Will the workers move there? Will they not cling to their slums? Will they not prefer the noise and stir of the city's streets, the greater ease of obtaining employment, the greater amount of social life, the shops, the lights, the amusements, the free shows, the stir and bustle and activity of the great metropolis?

Fortunately, the answer to these questions does not have to be on a theoretical basis. It is not what people may do or may not do. It is what they have done. For the scheme has proved itself. It has twenty years' practical experience behind it. Letch-



Letchworth: Garden City agricultural belt.—The marriage of town and country.—Rus in urbe, urbs in rure.

worth has been so great a success that a second Garden City is now being established at Welwyn, twenty-one miles from London.

The question as to whether manufacturers will move to such communities is best answered by saying that they have done so. Letchworth contains eighty-two factories and workshops.

On August 1, 1920, the town of Letchworth comprised, in addition to these eighty-two factories and workshops 2,282 houses, eighty-two shops or stores, and twenty-nine public buildings, including churches. As indicative of the growth of the town it may be of interest to note that in fifteen years the amount of water consumed increased from 10,000,000 gal-

lons a year in 1905 to 177,000,000 gallons in 1919; that gas consumption increased from 5,000,000 cubic feet of gas in 1906 to 92,000,000 in 1919. And all these are public services.

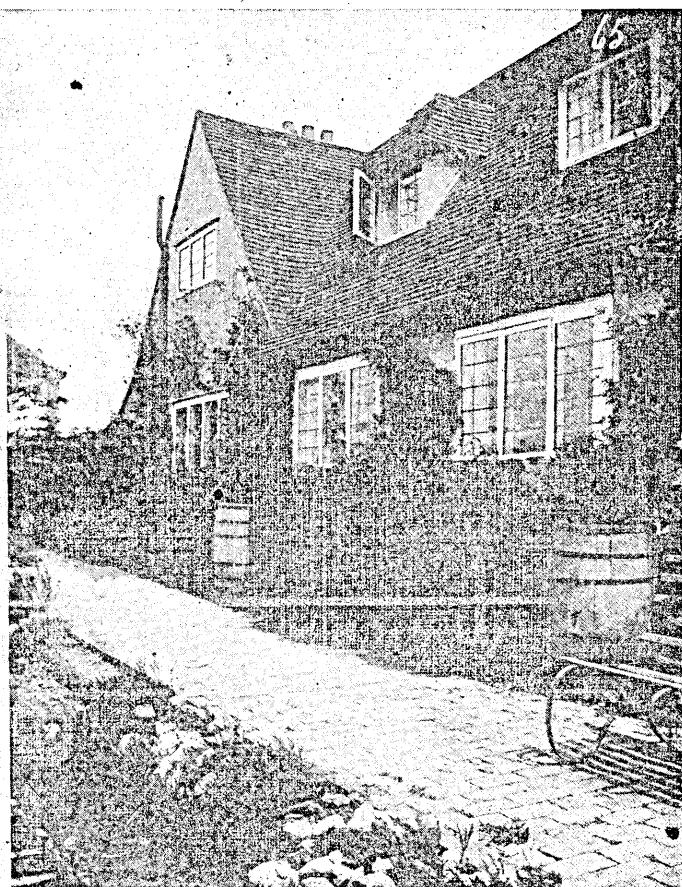
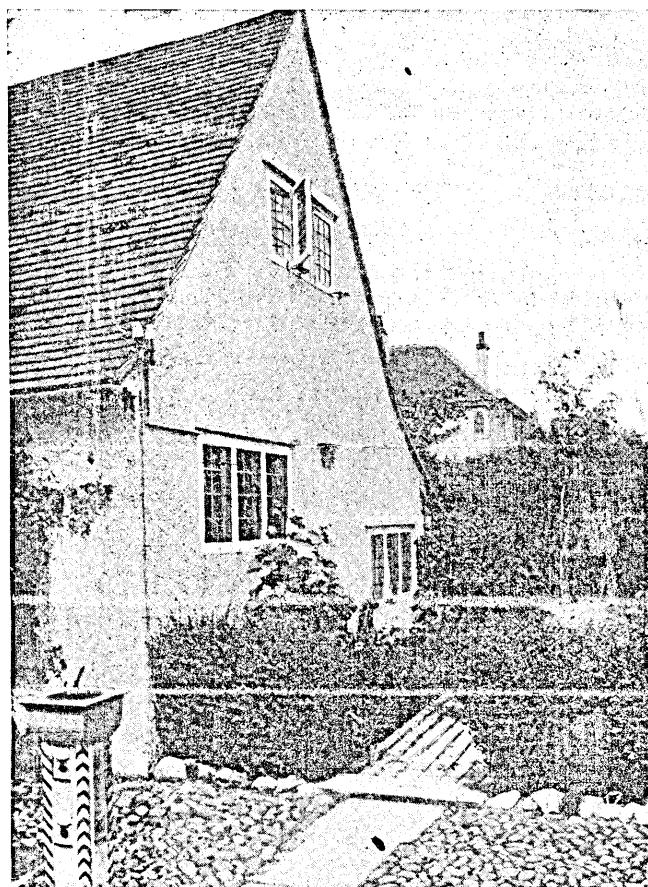
During the past year the progress in building has been marked. Eighty-four cottages had been completed by December, 1920, and 707 further cottages are now in course of construction as well as additional shops, factories and public buildings. Secondary schools for boys and girls are now in course of erection. New industries are rapidly being attracted to the town. Large extensions have been made recently to the Spirella Corset factory, to the

workers singing at their work.

The best answer as to whether the workers will care to live in such a community is that Letchworth now contains over 12,000 people.

#### The Lesson of Letchworth

The Garden City idea has more than proved itself, from the point of view of improved health conditions. The local medical officer of health reports that, taking an average of the last ten years, the infant mortality rate for Letchworth was about 40 per 1,000 births compared with an average infant death rate for the whole of England of 89, or more than double that of Letchworth. In certain Cana-



Letchworth: Back gardens of workmen's homes.—Ugliness of back home premises is not necessary.

Phoenix Motor Works and others. Among the industries which have recently taken sites preparatory to the building of factories at Letchworth may be mentioned a tabulating machine company, a pump manufacturing company, a manufactory of baby carriages, a saw-mill and timber yard and an engineers' pattern making plant. One of these employers of labour states that he can produce goods much cheaper at Letchworth than he can in a great city for the reason that the workers are more healthful and contented there than under ordinary city conditions. In one factory I found the

dian cities the rate approaches 300 per thousand.

The death rate for both adults and children, that is, for the entire community in Letchworth, was but 6.1 as compared with a death rate of 13.7 for all of England.

If a nation can make that saving in human life, has it a right to refuse to do it?

While the Garden City has a direct appeal to all classes of society, to statesmen, to students of government and of economics, social and industrial conditions, it has an especial appeal to labour and industry.

The outstanding feature of American industry today is the increasing importance which attaches to the stabilizing of labour. The war taught employers, among other things, the seriousness of the economic waste involved in the constant shifting of labour; the training and breaking in of new workers in an industry; the importance of quieting industrial unrest. There is probably no one factor which can achieve so much in this direction as the improvement of the living environment of the workers.

The Garden City is the most helpful and hopeful scheme to stabilize industry that has yet been presented.

England has demonstrated that the Garden City is a practical scheme; of benefit to the workers, of benefit to industry, of benefit to the community, of benefit to the Nation.

Will America heed this example, or will she be content to blunder on in the same old way?

—Courtesy *Architectural Record*.

## SUGGESTED PLAN FOR AGRICULTURAL SETTLEMENT

The Rev. Geo. W. Slater, Jr., pastor of a coloured church in Edmonton, has shown his interest in the better planning of agricultural settlements by submitting a diagram of a Rustic City plan to the Town Planning Institute of Canada. The diagram was brought before the council for discussion and it was decided that while the council could in no way be committed to an endorsement of the plan a certain benefit might accrue from varied criticism of it in the pages of *The Journal*. Experienced town planners pointed out that many practical considerations had been overlooked in the framing of the plan but it was agreed that a critical symposium might serve to awaken and sustain interest in better rural planning. With this object the plan was circulated among a number of members of the Institute for critical purposes. The replies received are printed below together with a paper written by Dr. E. Deville, Surveyor General of the Dominion Government, several years ago, under similar provocation. Since the criticisms were confidential they are naturally published anonymously.

### RADIAL HAMLET SETTLEMENT SCHEMES

By E. DEVILLE, LL.D.

*Surveyor General, Dominion Lands*

A number of hamlet settlement schemes, in which triangular farms are formed by lines radiating from the hamlet, have recently been presented to the public through the newspapers. The object of a hamlet scheme is to enable farmers to enjoy the social and other advantages resulting from community life by gathering their houses and buildings into small hamlets.

The idea is not new: it can be traced back to the early days of the colony. The first settlements were along the shore of the St. Lawrence, around Quebec, each settler's lot being given a narrow frontage on the river, generally 2 or 4 arpents (23 to 46 rods),

and a depth of several miles. The houses were built on the water front and stretched in a long line along the shore. This state of affairs did not agree with the views of the King; his subjects in France were living in villages, which was the proper way for people to live, and his subjects in Canada must dutifully conform to the established custom of his kingdom. Accordingly, by an 'arrêt' of the 21st March, 1663, he ordered the population to be gathered into hamlets and boroughs. In his instructions to the Intendant, Jean Talon, he tells him to divide the inhabitants into boroughs, each composed of a reasonable number and with a suitable amount of land, and to cause them to observe the regulations and usages which are practised in France. Great was the consternation among the Canadians on receipt of the King's arrêt; they feared being compelled to abandon their houses and improvements. Talon told them that the measure was not intended to be retroactive. To further allay the excitement and demonstrate the feasibility of the scheme, he laid out, in 1667, a few miles northwest of Quebec, the three

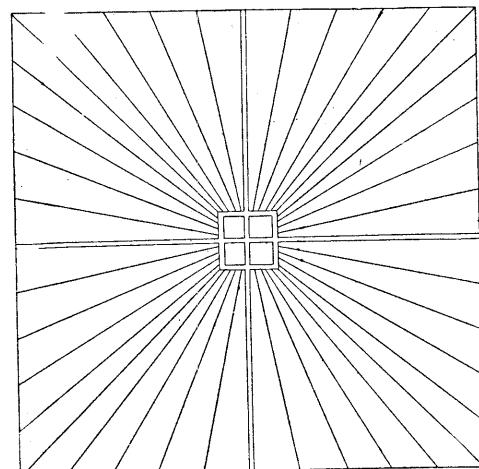


Fig. A.—Charlesbourg and Bourg Royal Settlements, near the city of Quebec

villages of Charlesbourg, Bourg Royal and L'Auvergne; two were settled with 'families' and the third one with soldiers.

The village was in the form of a square of forty-arpent sides (about  $1\frac{1}{2}$  miles). Each side was divided into ten parts of four arpents each (46.5 rods), which formed the bases of forty triangular farms of forty square arpents (34 acres). In the centre was a small square, with a road around it called the 'Trait-Quarre' (square line). Inside the trait-quarre were the church, cemetery, flour wind-mill and flour water-mill; the inhabitants' houses were on both sides of the trait-quarre. Charlesbourg, three and one-half miles from Quebec, is to-day a town of some 2,500 population.

This first attempt at rural planning in Canada did not prove popular. Only five villages were laid out, and the inhabitants continued as before, to take their lands in long, narrow lots, fronting on rivers or roads. Incidentally, it may be mentioned that when one of these lots is divided among the farmer's heirs, it is divided preferably in the breadth, not in the length, because each heir wants his share of the frontage. Farm lots exist to-day which are only a few feet wide and several miles in length. There is ample scope here for re-planning.

The hamlet colonization idea was revived on various occasions, but never made any headway. A notable instance is Sir William Van Horne's scheme. He did not publish it, but never lost an opportunity of explaining it to his friends and extolling its merits.

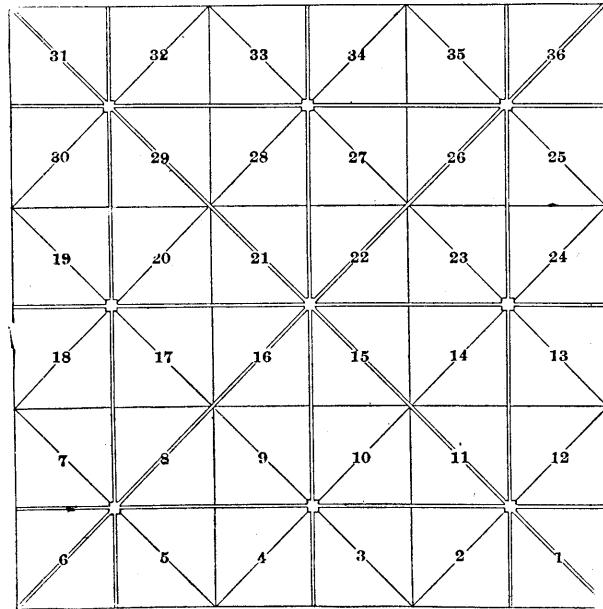


Fig. B.—Sir William Van Horne's scheme of 320-acre homesteads

He was quite enthusiastic about it. He contented that, in the western prairie, 160 acres was insufficient

to support a family, and his view must have been shared to some extent by the government, since homesteaders were allowed to acquire as pre-emptions the quarter sections adjoining their homesteads. His scheme, shown in Figure B, provides for 72 homesteads, of 320 acres each, in a township six miles square, each section or square mile being divided into two equal parts by a diagonal. The houses and buildings of the settlers were to be concentrated into eight hamlets of eight families each and a village in the centre. He added two diagonal roads and re-arranged the other roads, the total length being 53 miles per township against 54 under the present system of square subdivision. Although the length of the roads was less, the means of communication were much improved.

Dividing each of the 320-acre homesteads of the Van Horne scheme into two equal parts by a radial line from the hamlet, is the scheme now of E. H. Phillips, Acting Chief Surveyor of the Saskatchewan Land Titles Offices, published in May last (1917). The result is 16 homesteads of 160 acres and 16 families for each hamlet.

The Van Horne scheme can be adapted to 160 acres homesteads without changing its features, but it is necessary to turn it around 45 degrees to make it fit a township six miles square. Each hamlet still accommodates eight families, but there are eighteen hamlets and 69.25 miles of road. The scheme is illustrated below.

The disadvantages of all hamlet colonization schemes are:

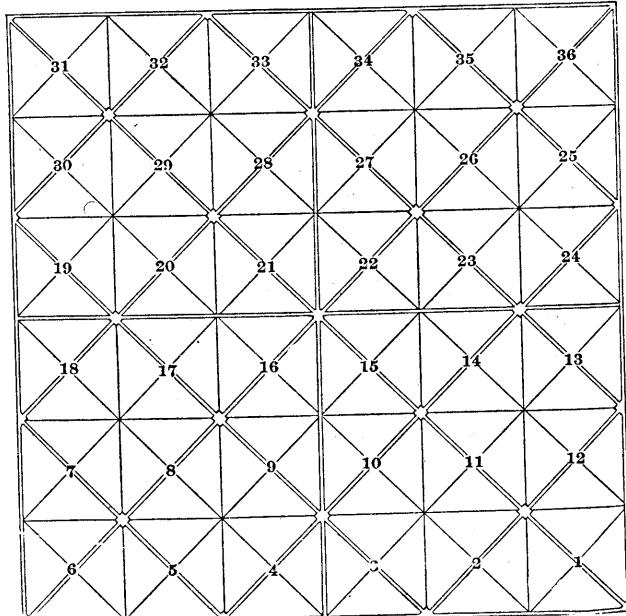


Fig. C.—Sir William Van Horne's scheme adapted to 160-acre homesteads

1. The homesteads are elongated, with the bulk of the land at the far end. In Mr. Phillips' scheme,

for instance, some of the lot lines are nearly a mile and a half in length. If a farmer had to walk a mile and one-half to his work in the morning and as much to go home after the day's work, he would be somewhat handicapped. One who builds his house in the middle of the side of a quarter section is little more than one-half mile from the corners.

2. A consequence of the elongated shape of the homesteads is that more fencing is needed to enclose them.

3. In dividing a homestead into fields, triangular fields are inevitable; they are not so convenient as rectangular shapes for ploughing, harvesting, etc., especially when the angles are acute.

Considered purely as a problem in geometry, the solution of the hamlet colonization scheme is the hexagonal system, the system of survey of the bee. It is in that system that the disadvantages enumerated above are reduced to a minimum, although they still exist.

The hexagon can be divided into any number of homesteads of equal area by lines radiating from the centre, like the spokes of a wheel, the hamlet being at the hub, but the greater the number of divisions, the more elongated the homesteads become, and a practical limit is soon reached. Figure D represents a unit of the system divided into twelve homesteads, each corresponding to an hour of a clock dial. A road is laid out on every second lot line. For 160-

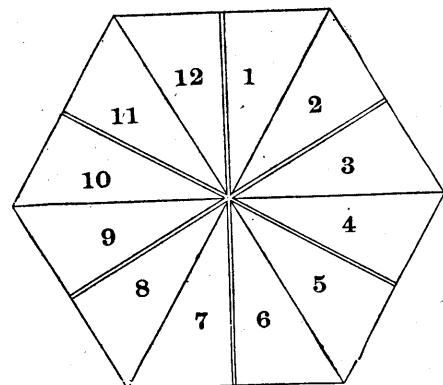


Fig. D.—Unit of the hexagonal system divided into twelve homesteads

acre homesteads, the length of the triangles is very little over a mile. If a mile is the limit of the length which it is practicable to give to a 160-acre farm of triangular shape, then twelve is the limit of the number of farmers that can be gathered together into one hamlet. The hexagons have to be squeezed slightly to make them fit a township six miles square, as shown by the figure, but the distortion is not enough to make any practical difference. However, there is no imperative reason why the size of the township should not be changed to fit the hexagons.

There are 67 miles of road in a township, against

54 in the present townships, but the means of communication are vastly improved; the distance by road between any two hamlets is at the most only 15 per cent longer than the straight line.

The Dominion Government has never departed much from the square plan; the parishes and settlements along the Red, Assiniboine and other rivers were laid out by the Hudson's Bay Company prior to the acquisition of Rupert's Land by Canada. The only attempt to introduce a modification was in the early eighties, when the lands on the South Saskatchewan

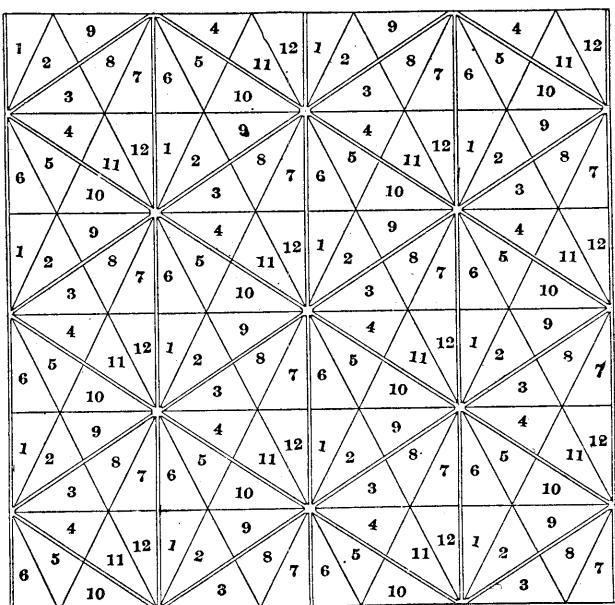


Fig. E.—A township subdivided in the hexagonal system, 160-acre homesteads

ewan, Red Deer and Battle rivers were being surveyed. It is obvious that a quarter section cut into two parts by a large river is not convenient for working as a farm; on the other hand, a river frontage is an advantage. The sections fronting on these rivers were accordingly divided into river lots a quarter of a mile wide and a mile deep.

Advanced thought does not favour planning by geometrical rule. It is held that the subdivisions of a tract of land must be adapted to its topography, that the roads must be located where they will be of most service, where grades are light and the soil suitable, and that every local feature must receive due consideration in devising the general scheme. There is only one instance of a subdivision of this kind in Canada; it is in one of the Canadian Pacific Railway irrigated townships in Southern Alberta. The company having invested eighteen million dollars in the irrigation works, considered that they might as well spend a little more money to alter the subdivision in conformity with modern ideas, and have everything as perfect as possible. They selected a town-

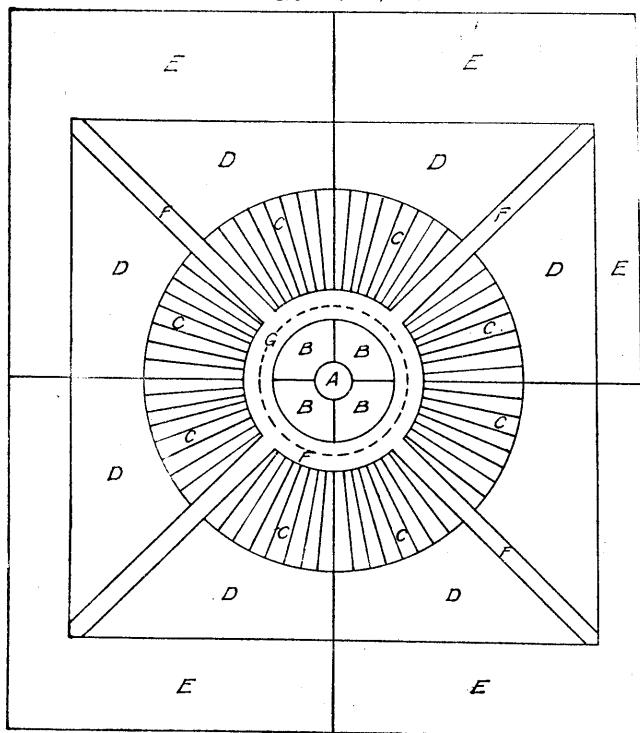
ship badly cut up by irrigation ditches, where the need of a readjustment of the subdivisions was obvious; they made an elaborate planning of the land, laying out each farm so as to best meet the requirements of the farmers. They next proceeded to fill it with selected farmers, some from Alberta and some from the United States. To the astonishment of the company, these farmers took, in preference, the lands in the adjoining townships divided into squares, and it was not until all these lands were taken that the scientifically laid out township was filled in.

The Dominion Government had no more luck with its river lots. Such a storm of protest came from the west that they had to be unsurveyed, except those that had been disposed of, and turned into quarter sections. The protest was unreasonable because a quarter of a mile by a mile is a good shape for a farm, better than most of the farms in Ontario. It is also pertinent to remark that notwithstanding his enthusiasm, Sir William Horne never tried his scheme, although he had twenty-five millions of acres at his disposal; he must have been satisfied that it would not prove successful. It is difficult to avoid the conclusion that the man behind the plough wants his farm to be square. He may be deluded, but, until he changes his mind, the prospects of a departure from the square farm are remote. A campaign of education is needed; the returned soldiers' settlements may afford an opportunity of starting it.

### RUSTIC CITY

by

Rev. Geo W. Slater Jr.



#### A. Community Buildings:

Administration offices, schools, churches, theatres, stores, factories, water, light, gas, central heating plant, phone, telegraph library.

#### B. Public Pleasure Resort Park:

Athletic grounds, fountains, pools, bathing, fishing, sceneries, etc.

#### C. Town Lots:

Five-acre tracts, house, outbuildings, garden, fruit, stock pens.

#### D. Common Pasture:

Milch cows, horses, sheep, goats, poultry.

#### E. Agricultural Fields:

Wheat, oats, corn, cane, alfalfa, orchards, potatoes, stock farm.

#### F. Streets:

Wide streets with separate runways for street cars, wagons, bicycles and automobiles.

#### G. Mains:

Water, gas, light, heat, phones.

### THE RUSTIC CITY

#### I. What is the Rustic City?

A community whose basic economic activity is agriculture and intensive gardening. A city life where the homes cluster about a central pleasure resort park and necessary business activities which homes are surrounded by the common pasture lands, and which pasture lands are in turn surrounded by the agricultural fields.

1. The homes comprising a house, etc., with about five to ten acres of land are owned, controlled, tended, and improved privately.

2. The pasture lands are commons and free for the use of all of the citizens of the community alike.

3. The farms, orchards, and, in fact, all public utilities, are owned, controlled and operated by the community by democratically chosen officials.

#### II. What is the Aim of the Rustic City?

1. To combine the advantages and to eliminate the evils of both the city and the rural life.

(1) Advantages. a. Social, educational, religious and business culture of the city life. b. The economic stability of intensive gardening and agriculture. c. Open air, sunlight, etc.

(2) Evils. a. Isolation. b. Caprice of the weather, the so-called law of supply and demand and the mere whim of employers. c. Overcrowding, etc.

### III. How to Start the Rustic City?

1. Secure an intelligent, sympathetic and competent general directing agency.
2. Form a bond-holding company for the purpose of raising funds and guaranteeing the maintenance of the city for one year when it is to be turned over to the citizens.
3. Select a fertile tract of land (part timber land preferable) within a few hours run to good markets.
4. Select from a hundred to a thousand choice families with at least a practical common school education.
5. All work initiatory and otherwise is to be performed by those families, except the expert services which are to be the best obtainable. All work is to be in character the latest, the best and the most scientific.
6. The workers are paid the prevailing wage scale. The citizens may pay for their homes in cash or on the instalment basis.

### IV. Public Utilities in the Rustic City

Schools, theatres, fire, lighting, phone, water and heating plants, library, all stores, factories, common pasture lands; general farming and also parks.

### CRITICISMS OF THE RUSTIC CITY PLAN

#### I.

I am in receipt of your recent memorandum enclosing copies of correspondence from Rev. Geo. W. Slater, Jr., of Edmonton, regarding his colonization scheme known as the Rustic City.

The basic principle of his proposed layout, which is to bring all settlers closer together, enabling them thus by cooperation to obtain some of the advantages of city life while still being farmers is, of course, one which has always appeared to be desirable where it is possible to accomplish it. The scheme, however, which involves the organizing and financing of considerable communities of selected individuals agreeable to work on a community basis seems to me altogether beyond the scope of the Town Planning Institute. Possibly the Western Canada Colonization Association might be a proper body to deal with Mr. Slater's proposal.

#### II.

The fundamental conception of mixed agricultural pursuits carried on in the immediate vicinity of a community centre offering facilities for trading, education, recreation and social enjoyments is good and the diagram pictures the relationship in a simple manner that would be easily grasped by the eye untrained to map reading. There is a natural ten-

dency for the formation of such communities and this tendency needs guidance and encouragement by the formation of planning bureaus in connection with the governmental departments having control over the development of the rural areas. The discussion of such schemes as this will do good by arousing public opinion to the need of central planning and advising agencies.

The agricultural belt surrounding the industrial and residential area of a town is an accepted feature of the garden city but no garden city in the prairie provinces could hope to supply its inhabitants with the utilities and services listed in the Rustic City scheme unless it had industries of a sufficient number to maintain the population that could pay for such services and utilities. The scheme has no conception of the difficulties of municipal finance. There is no warrant for the expectation that community farming would pay so well that the profits would meet the interest on the bonds for schools, theatres, fire protection, lighting, water and heating plants and all the other improvements and no one could ever be persuaded to advance money for the construction of such utilities until the assessed value of the buildings, land and business and the population and stability of the place offered substantial security.

The Mennonite and Doukhobor communities are examples of community farming. These communities are disintegrating and if it had not been for the common bond of religion, language and the patriarchal family life these communities would have long since disbanded. It has been common knowledge that when the younger generation has secured a public school education it is with the greatest difficulty that any can be persuaded to remain with the community.

If the reverend gentleman would endeavour to promote the revision of the legislation in Alberta respecting town planning and the appointment of officials to supervise and direct the planning of communities in his province, I am of the opinion that he would in the greatest measure further the objects of his scheme in so far as the same are practicable.

#### III.

I am in receipt of the documents relating to the Rustic City scheme. On general principles it is the same idea that has been advocated many times for Canada.

The only question that would seem to be appropriate for the Institute to consider is the actual plan submitted by Mr. Slater. My own view is that the circular pattern with very long lots is open to serious criticism. In the first place, no pattern should be adopted, but a plan prepared to suit the character of the topography, the class of farming to be adopted,

and the social habits of the settlers. Mr. Slater's plan may be taken as a diagram but each scheme or group of schemes should be planned on its merits, having regard to the above three things.

In my report I shewed several alternatives of square lots having the same idea of centralization as Mr. Slater's plan. I think the square lot is better and can be adapted to a system of diagonal roads: there is very little waste in triangular lots in certain positions. I see no reason why the Institute should not express approval of the general principle of community development and centralization of settlements without committing itself to the proposed plan.

#### IV.

The plan is open to the objection that the disposition of the organic functions would lack continuity, i.e., be interrupted in their natural sequence.

As an instance the activities which one ordinarily accomplishes in one trip, such as calling at the store on one's way home from work on the farm would be impossible; a separate trip out in opposite direction becomes necessary.

The administrative buildings, schools, churches, theatres, stores, etc., being all grouped in isolation would lack the usual accessory advantages of progressive expansion, they would be "land locked" by the park upon which they could not encroach. It is humanly impossible to forecast absolutely, or even approximately, what development may become necessary in either time or quantity. It is unsafe to attempt inflexible limits to human wants or activities. The safer principle is to so design a village, town or city as to provide for visible necessities with conditions permitting expansion in restrained and ordered continuity, as time and circumstances may warrant.

The Rustic City plan submitted provides for about 65 families which number could hardly call for or support "theatre", "street cars", "gas mains".

The schemes of community operation which includes both factories and general farming, classified as public utilities, seems too near the Soviet altruistic ideal to secure whole-hearted support and success within the mild predatory culture of our western "progressive" pioneers.

Rev. Mr. Slater's endeavour to formulate living conditions which will obviate isolation and provide some large measure of community life for the settler is most heartily endorsed. The writer of this criticism of Mr. Slater's scheme is a firm believer in the practical possibility of expanding and adapting the English Co-partnership Garden City ideals to "small holdings" in so far as collective ownership of the land is concerned and has submitted such as soldier settlement schemes. These, however, were to be adjacent to large eastern centres such as Montreal,

Ottawa, Toronto, Hamilton, etc., where local civic demand would absorb the produce of intensive cultivation. It is very doubtful if intensive cultivation could be made profitable where isolated from city markets.

#### V.

Upon close examination this scheme, as submitted, calls for some adverse criticism. It is a pleasure to admit, nevertheless, that the ideal behind the scheme is commendable.

No scale is indicated on the blue-print, but apparently about one thousand acres are involved in the scheme. The first difficulty that certainly would be encountered in a proposition of this sort would be to take any definite, or stereotyped plan such as this is, and make it fit the varied topographical and other conditions that would attach themselves to large parcels of land as required by the scheme. Even in the prairie country, where the uniformity of the topography is most pronounced, no two similar areas could be laid out in exactly the same way. Joining up the scheme with the highways, railways, and towns or villages providing the markets for the settlers, would make this impracticable.

A close examination of the blue-print will reveal several outstanding weaknesses. For example, "A" on the plan is an area of perhaps four acres, and the notes state that this area is for "community buildings" as enumerated. "F" on the plan are streets, "for street cars", etc., and these terminate in "E" which according to the notes appear to be "agricultural fields". "D" on the plan is "common pasture" but surely no one could disregard agricultural requirements and practices to such an extent as to plan "pastures" and "agricultural fields" on paper without first making a careful soil survey of the area and duly considering other important features. If the plan and the notes are compared in these definite examples the impracticability of the scheme is seen without further comment.

Apparently the notes were written without any particular attempt to correlate them to the "Plan"; and both were produced without any great study of suggestions or concrete examples relating to the same idea, which might have been profitably studied by Mr. Slater to the advantage of his scheme.

With regard to the notes it is a pleasure also to compliment their author on his ability and the clear, concise style of these notes. On examination, however, the notes call for considerable criticism in regard to the feasibility of many of the suggestions which appear to be based on ideals and not on facts. For example, carefully examine the different paragraphs under II. "What is the aim of the Rustic City?" and under III. "How to start the Rustic City."

It is one thing to enthuse on the "objects" of a great subject, it is quite another thing to become a master in that subject. As far as the former is concerned it must be admitted that Mr. Slater has paid the subject of town planning and rural improvement a compliment, but when that is said, those who know anything about the subject at all, have very little left to add. To enter into a more detailed criticism would scarcely serve any good purpose. Mr. Slater would be well advised to review what has been suggested and accomplished toward a similar ideal under other circumstances.

## VI.

Mr. Slater may not be conversant with recent developments in Garden Cities as carried out at Letchworth (1903) and at Welwyn (1920) in England, and in the proposed town of Mariemont, Ohio, which I understand is to be modelled on the Garden City plan with American adaptations, but Mr. Slater has conceived a scheme which obviously embodies the Garden City idea, except that extensive gardening takes the place of commercial manufacturing. The success of the scheme, of course, depends on the Rustic City being close to good markets—which would mean a large city.

There does not seem to be anything particularly new in Mr. Slater's scheme. His plan, which apparently is not drawn to scale, is only diagrammatic and does not add anything to the art of radial planning. The geometric difficulty of radial planning is that whereas for the success of the scheme the grouping of buildings should be as near the central point as possible, yet there must be a number of buildings erected at a considerable distance from the centre if the number of families as specified by Mr. Slater, are to be housed and provided with public institutions.

In "Town Theory and Practice" 1921, in which the subject of the Garden City is dealt with by a number of prominent English town planners, there will be found facing page 18, Mr. Ebenezer Howard's diagram of the Garden City.

Facing page 24 is a map showing Letchworth, the first Garden City, as actually laid out and built. It is interesting to note the difference between the diagram and the plan. Mr. Slater's diagram in the same way, would undergo a great change if the scheme were put into effect.

As a matter of interest, attention might be drawn to the first radial plan carried out in Canada. In "Conservation of Life" for April, 1918 Dr. Deville draws attention to a radial settlement near Quebec city. Further information is given in an article on pages 63 and 64 of the annual report of the Association of Dominion Land Surveyors for 1917 and 1918.

## VII.

I do not feel myself to be sufficiently versed in prairie problems to give a constructive criticism of the attached Rustic City plan, propounded by the Rev. G. W. Slater, Jr.

If the thing is viewed as a diagram embodying a principle capable of elastic application to any given problem, there is much that seems commendable—Sir William Van Horne once showed me plans of his own invention for somewhat similar projects—but if the diagram is intended as a ready-made plan, it might be adversely criticised as over-symmetrical, and so leading to a defiance of the principles of aspect.

Personally, I am inclined to distrust any piece of planning whatever which, from its nature, commits the development involved to a limit of size. Towns are things which grow, bigger most of the time, and smaller on occasion. Mr. Slater's scheme seems to violate Nature in this respect.

## VIII.

The plan presents two distinct aspects, the physical as displayed by the diagram and its addenda "A" to "G"; and the sociological, declared in paragraphs I. to IV.

In my opinion the latter appears somewhat utopian; since experience of humanity in the few years since Adam does not promise, for instance, peaceful development of Mr. Jones' flock of pedigreed chickens on the common pasture "B", nor the concession by a majority of, say, agricultural voters, of a "prevailing wage scale" satisfactory to the ideas of the village cobbler.

The "so-called law of supply and demand" is fundamental; it causes tree roots to burst the mountains and makes a cat useful; for a well fed, contented cat is not a mouser, except by instinct, which a generation or two of content may eliminate. Price by legislation, at any rate by democratic legislation, cannot in its nature be consistent with equity.

I may be excused for remarking that the manner of the unsupported statements in II. 2, is reminiscent of certain eastern European theorists whose practical performance on opportunity has not been constructive.

It does not appear, however, that the physical or even the sociologic aspect of Mr. Slater's plan need necessarily depend on the attachment of a communistic tail and the physical arrangement, *per se*, has a strong bearing on the sociologic side, in that it tends to strengthen the agricultural communities. For in these communities rather than the super-crowded urban centres where mob psychology rules, where the neighbour is a stranger and an Ishmael, and where the individual may conceal his anti-social

activities—it is in these communities that the strength of a country appears to lie.

The principle of local concentrations of the homes of agricultural workers is doubtless the main factor by which rural life may be rendered more attractive; and in the application of this principle the radial system appears generally the most efficient.

Any such application, however, must be elastic. A perpetually fixed population for, or use of, a given area is not a practical objective, and therein appears to lie a certain weakness in the diagram presented.

Although the diagram is probably not intended to be an invariable plan to scale, yet it may be noted that it comprises an area of some four square miles (presumably on flat prairie), and that we may imagine nine such centres in a township, carrying some 570 families, a density of 80 persons to the mile. This indicates a semi-urban community where less than half the endeavour would be agricultural. But the plan carries no provision for factory or other development save at the civic centre; putting, so to speak, the back and front doors in contact, and the kitchen sink in the parlour.

Arteries N. S. E. and W. would presumably lie along the boundaries of the tract shewn; and, with the wide diagonals shewn, upkeep might entail a heavy burden. Developed in strips as proposed, however, with trees, a large part could be used for park pasturage when not otherwise required; and generous highway space is a first requisite in good planning. Such rural avenues, common in New England, have been a godsend as the areas filled; and the plan under discussion provides excellent intercommunication, improving greatly on the French Canadian system of concentration, which entails continuous street or water front with extreme depth of property. The latter handicap, however, has not been eliminated, as note the distance of over a mile from home to field.

Either much of each lot "C" must be devoted to private roads and a circular road provided outside "C" (to save "D" from destruction) or else all traffic of cattle, fodder, fertilizer, etc., must be by the main avenues and the central park.

It is difficult to visualize the effect of railways, watercourses and contours, which must reduce the final layout to an approximation only of the plan, because of the inelasticity of the latter. This is not referred to, nor the best use of varying soils and exposures considered in the specifications. Such matters cannot, in practice, be subordinated to a theoretic diagram.

Methods of overcoming these difficulties could doubtless, however, be found in most cases, and while the arrangement is not entirely novel, its application by superposition on the grid of an ordinary prairie township might be an experiment well worth the trial, given a group of suitable emigrants. The diagonal roads could be carried through, and the outer zones subdivided as farm land.

To be a satisfactory test, however, it does not seem that such an experiment should be foredoomed by an interdependent attempt at communism.

Thanks are due to Mr. Slater for his submission of his plan, together with congratulations on his effort to improve rural conditions.

#### IX.

No scale is given and therefore I do not know the size of the proposed settlement but assume it to be one square mile or thereabouts. The motive behind the scheme is one that ought to be encouraged. It means improving the social life of the rustic dweller. I believe in some European countries, notably in France, the owners of a group of farms arrange to build all their dwellings at the cross-roads about the centre so as to have village life, and something like that is very much needed in our western country where men with their families are forced to live so far away from their neighbours.

I cannot say that I like the geometrical plan submitted. There would be great monotony in having all groups drawn on exactly the same pattern; in having every building lot or garden plot exactly of the same size and shape; of having a definite geometrical figure like a circle always for a park.

I think there should be four more roads from the centre to the periphery. With the space allotted for pasture, which does not seem too large considering that eight owners of plots must use each space, the space remaining for grain groups is not very large.

#### X.

I hardly need to say that there is nothing new in the scheme, and that it is merely a diagram of an idea, but, with a careful working out in detail, it should in my opinion, give an advantageous layout. It is evident that it could only be used in plots of moderate size on account of their elongated wedge-shape and that it is rigid and incapable of expansion, but it has many good features to commend it and I think it should work well and accomplish its purpose and that the scheme of congregating all the houses around a compact civic group would be of the greatest value.