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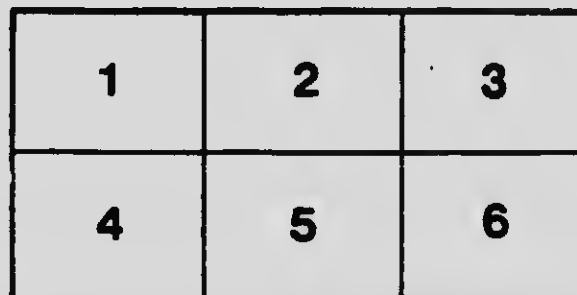
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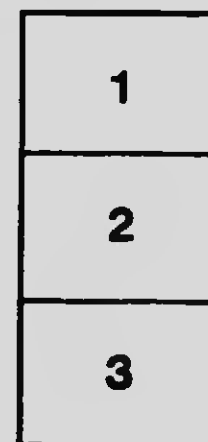
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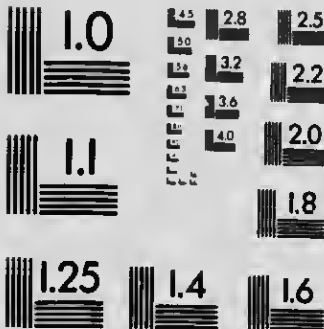
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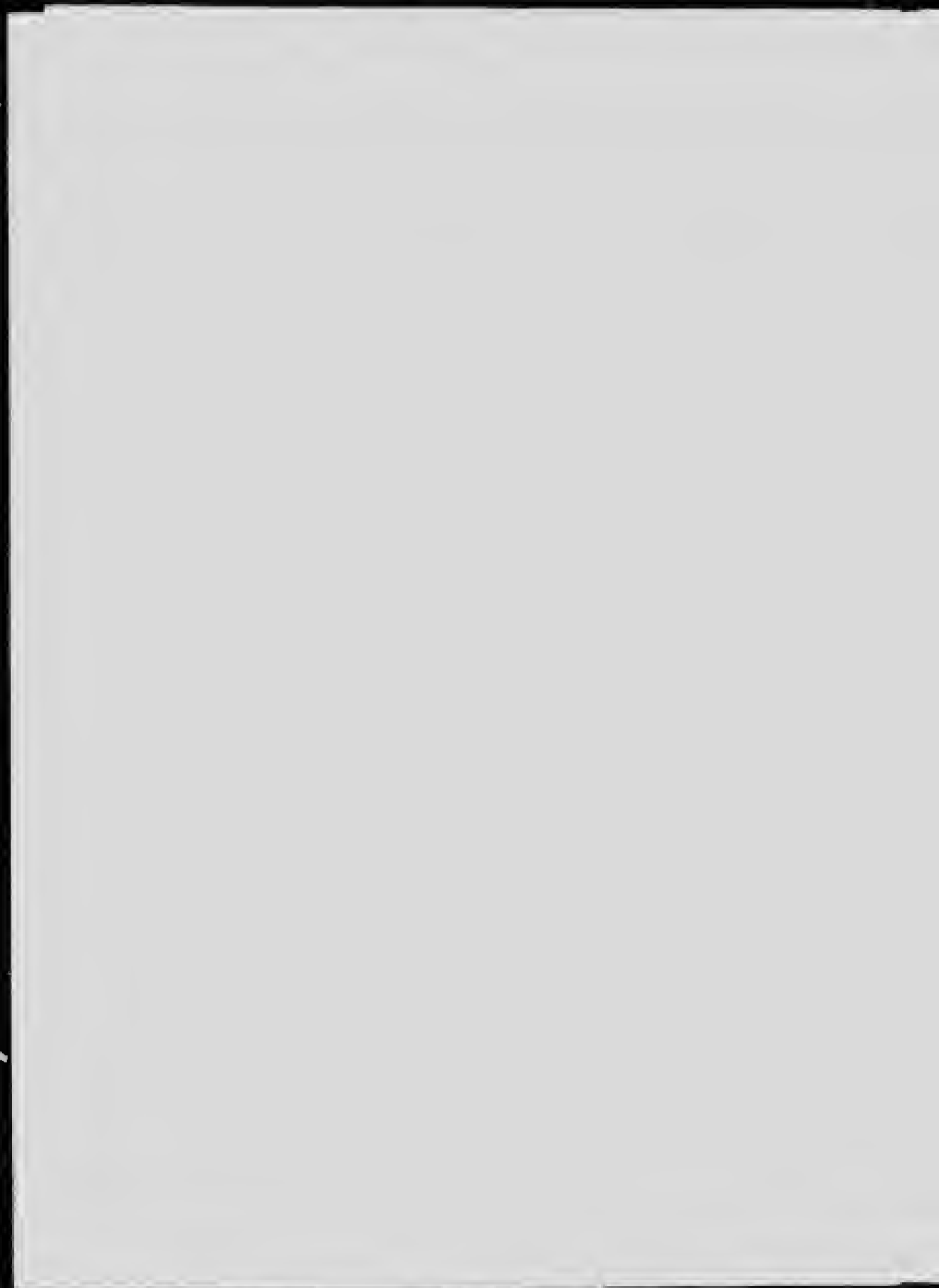
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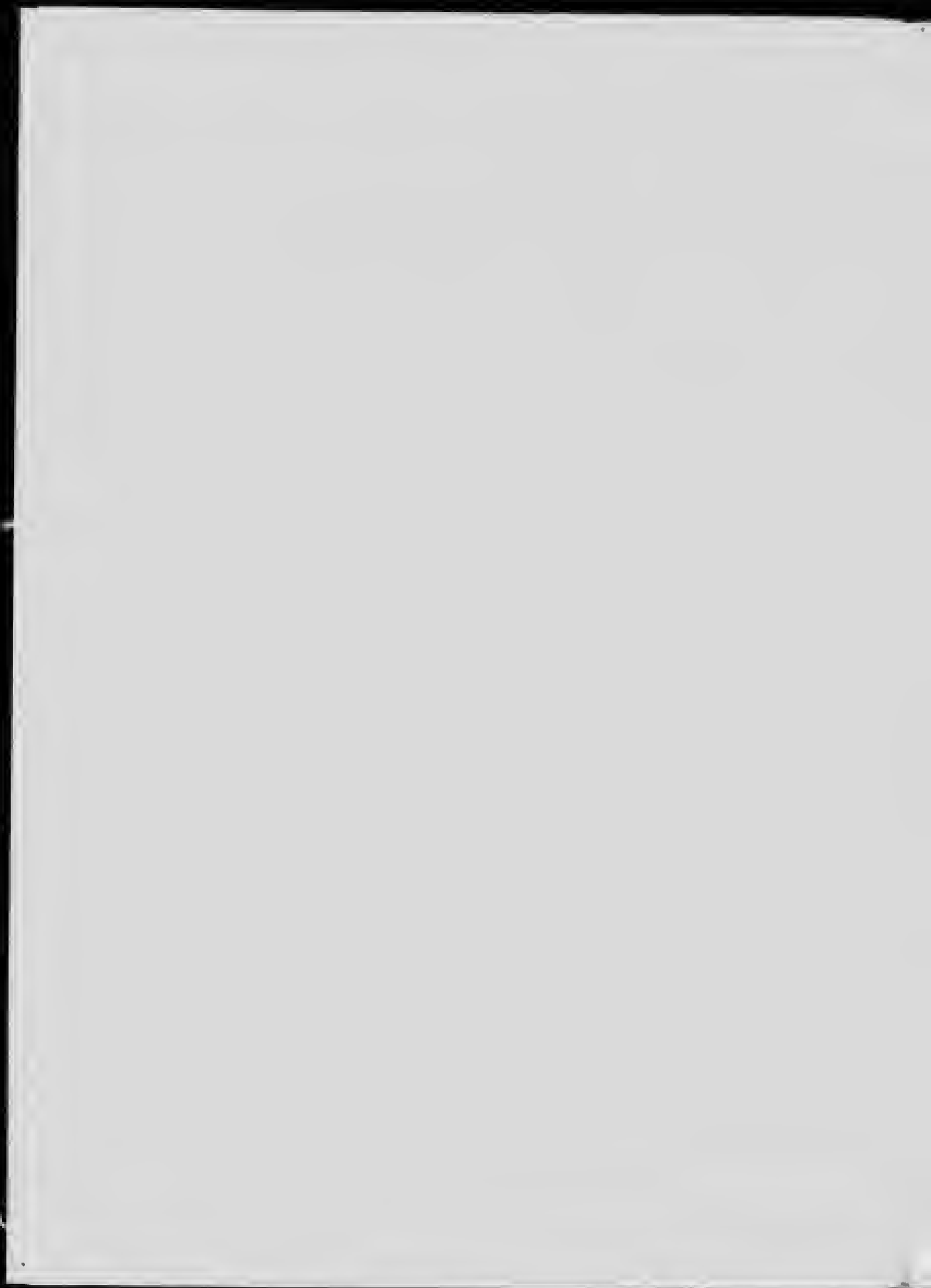


*In the Compliments of the Winnipeg Town Planning
Commission*

**The First
Canadian Housing and
Town Planning
Congress**



**INDUSTRIAL BUREAU AUDITORIUM
WINNIPEG, CANADA
JULY 15th, 16th and 17th, 1912**



**The First
Canadian Housing and
Town Planning
Congress**



**Industrial Bureau Auditorium, Winnipeg
July 15th, 16th and 17th, 1912**

Canadian Printing and Bookbinding Company Limited, Winnipeg, Man.

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PROGRAMME



MONDAY, JULY 15th, 1912

- CIVIC WELCOME by His Worship Mayor Waugh
- ADDRESS by W. SANFORD EVANS, Esq., Chairman of the Winnipeg Town Planning Commission.
- RAYMOND UNWIN, C.E.I.C.A., London; "Some Architectural Aspects of Town Planning." (By Proxy)
- TROS, ADAMS, Town Planning Assistant to the Local Government Board, London, England; "Some observations on the British Town Planning Act." (By Proxy)
- BURN, P. DON, Secretary, Tenants' Committee, City Club of New York; "Tenants and Town Planning." (By Proxy)
- MALCOLM W. BOSS, Regina; "Some City Planning Problems in the Prairie Cities."
- DR. CHARLES A. DOUGLASS, Medical Adviser to the Commission of Conservation, Ottawa; on "The Housing Problem" (Illustrated with stereopticon views)
- DR. M. M. SEYMOUR, Regina, Commissioner of Public Health for Saskatchewan; on "The Tenement House Question"
- MRS. ALBION FELLOWS BACON, secretary Indiana Housing Association, U.S.A.; on "Housing as it Affects the Community"

DISCUSSION

TUESDAY, JULY 16th, 1912

- HIS ROYAL HIGHNESS, THE DUKE OF CONNAUGHT, Governor General of the Dominion of Canada; on "Housing and Town Planning"
- MR. GUY WILFRID HAYLER, Member Institute of Municipal Engineers and Royal Sanitary Institute, of London, England; on "The Essential Elements of City Planning."
- MR. JAMES FORD, of the Department of Social Ethics, Harvard University, U.S.A.; on "The Social Aspect of Town Planning."
- MR. FREDERIC LAW OLNSTEAD, Chairman of the International Housing and Town Planning Congress Committee, Brookline, U.S.A.; on "The Four Cardinal Points of Town Planning."

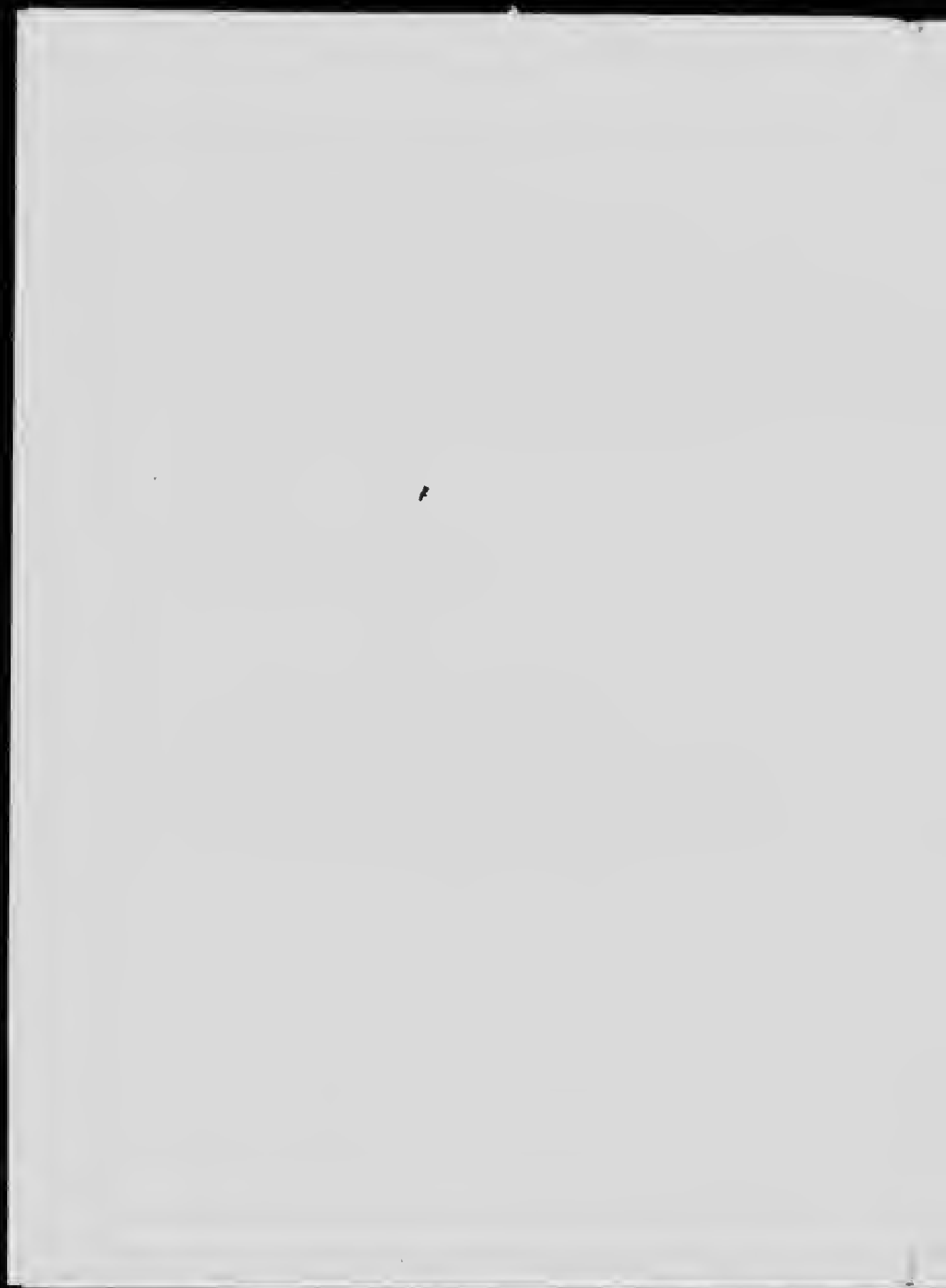
DISCUSSION

WEDNESDAY, JULY 17th, 1912

- MR. LOUIS BETZ, of St. Paul, Minn., U.S.A.; on "The City Beautiful."
- MR. J. ANTRIM HALPERMAN, Town Planning Engineer of the City of Philadelphia, Penn., U.S.A.; on "Some of the Fundamental Problems of Town Planning."
- MR. ARTHUR A. SHURTLEFF, Landscape Architect of Boston, Mass., U.S.A.; on "Civic Aesthetics."
- MR. L. J. BOUGHNER, Editor Minneapolis Tribune; on "Beautifying the City." (Illustrated by stereopticon views)
- MR. C. R. WHITSALL, Milwaukee; on "Financial Aspects of Town Planning."

DISCUSSION

The Clinic was taken each day by W. SANFORD EVANS, Esq., Chairman, Winnipeg Town Planning Commission.



CIVIC WELCOME

By H. WORSHIP MAYOR WAUGH

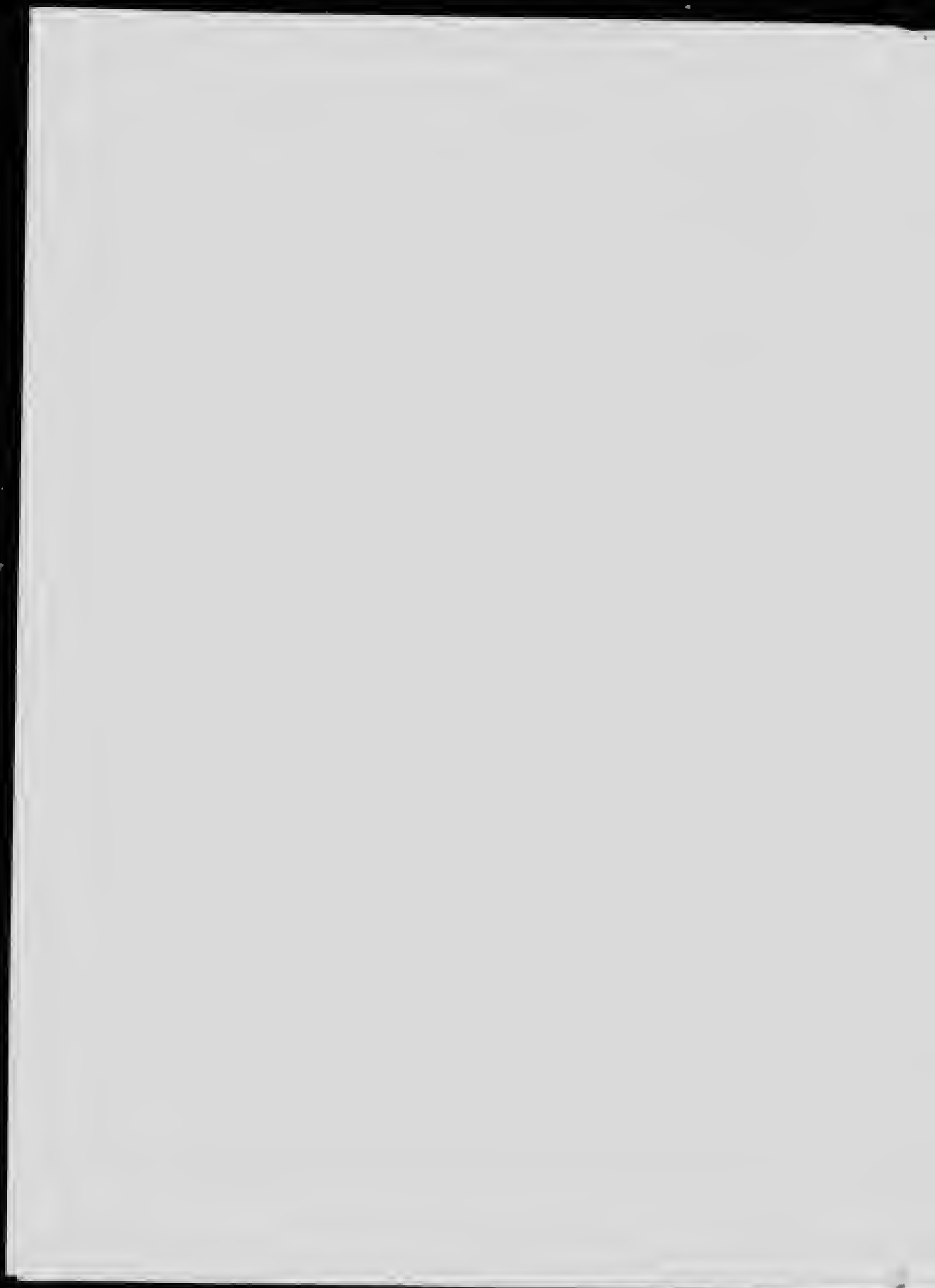
It gives me great pleasure to extend a welcome to a delegation of town planning experts, and I assure you, we in Winnipeg, appreciate the selection of our City as a place of meeting for the first Housing and Town Planning Congress held in the Dominion of Canada. We consider the honour done to our City very great indeed.

Especially welcome are those delegates who come to the Congress from a distance, from the Eastern Provinces, from the far West, from England over-seas, and from our neighbors to the South. Every thinking person appreciates the value of a town planning movement; both theoretical and practical plans for the beautification and betterment of a city are a lasting value. The cities of today are struggling along to meet absolute necessities, and the process of evolution I may liken to a man who gets married, he must add new luxuries as he can afford them.

As population increases, new districts must be opened up to accommodate the addition, and plans must be evolved so that the conditions in the new districts as regards housing and hygiene be adequate and thorough. The citizens must take broad views of the efforts of a town planning commission, so that from an aesthetic point of view the improvements may be a pride and credit to them. The effort requires a broad-minded, unselfish indulgence on the part of the people. But the question may be asked: Are the people prepared to build for the betterment of a city? Have they the courage moral and financial, to grapple with the problem? We think they have.

Our Town Planning Commission is composed of public spirited men, well able to carry out a town planning scheme, and they are putting into their work a great deal of valuable time, and their recommendations, we are confident, will be worthy of the consideration of our citizens.

I hope this meeting, gathered for the consideration of schemes of city planning, housing and the improvement of cities, will be crowned with success and prosperity, and that you strangers within our gates will thoroughly enjoy your sojourn in our city, and that the present be a memorable gathering on the question of town planning.



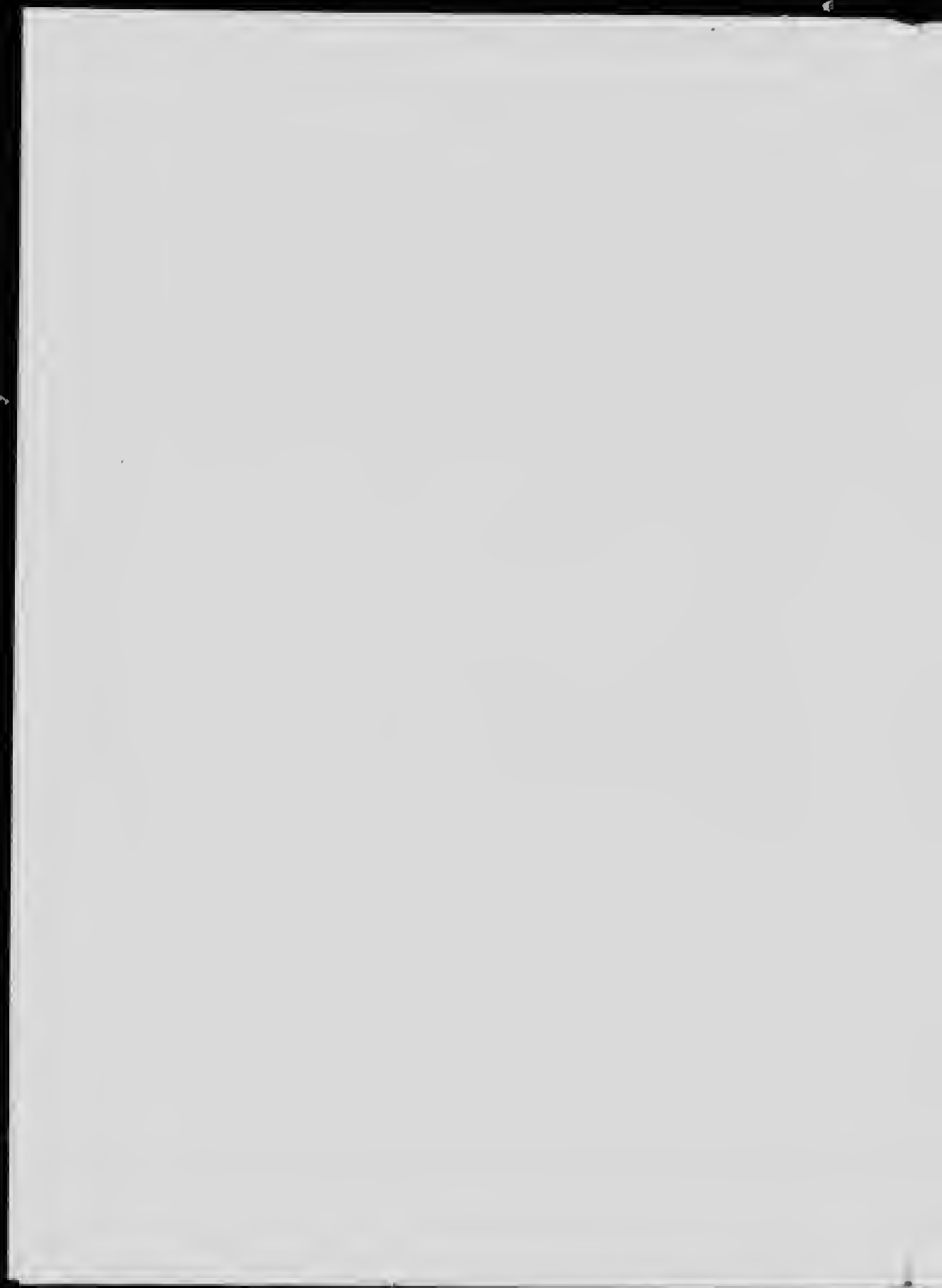
CHAIRMAN'S ADDRESS

By **W. SANFORD EVANS, Esq.**

Chairman of the Winnipeg Town Planning Commission

W. Sanford Evans, ex-mayor of Winnipeg and chairman of the Winnipeg Town Planning Commission, who presided, opened the proceedings by explaining that the congress had been called on the joint invitation of the Winnipeg Town Planning Commission and The Winnipeg Industrial Bureau. The City Council during the preceding year had appointed a commission to investigate the local conditions and report to the City Council, and the Winnipeg Industrial Bureau had before the appointment of the commission, created a committee on Housing and Town Planning. These two bodies had united to organize the congress, and it was a matter of the greatest satisfaction that so large and so representative a response had been made to the invitation extended. It was not necessary for him to attempt to deal with the history of the Housing and Town Planning movement or to say anything of its vital importance. One thing, however, was evident, and that was that a great deal of education was necessary for the successful carrying on of this work, first among those who took positions of leadership in the movement, and in the second place, and no less important, on the part of the general public, since it was absolutely essential to have a body of enlightened public opinion in support of any recommendations that might be made. And it was not sufficient that the public in small local districts alone should understand and appreciate. The movement needed the support of the whole country and would gather in strength as the public opinion of all civilized countries is educated, it was hoped that this congress would have an important effect, not only in the education and stimulation of those who attended as delegates, but also through them, and through the reports of the proceedings, upon the general public.

Mr. Evans called attention to the very large number of exhibits which had been kindly forwarded by experts and friends of the movement in Great Britain, the United States, France, Germany, Austria, Italy, Denmark and Canada, and which he believed would be found of great interest and value.



SOME ARCHITECTURAL ASPECTS OF TOWN PLANNING

By RAYMOND UNWIN, F.R.I.B.A.

Town planning is essentially a co-operative art, and that in two senses. If the work is to have any real stability, it must be the direct outgrowth of the activities of the community who are to dwell and work in the town or suburb when built and must afford satisfaction for their requirements; it must indeed be the expression of their corporate life and their aspirations. It is essential that the Town Planner should regard himself not as a dictator decreeing what form he would like the town to take, but rather as one whose duty it is to find a comely expression for common life which he must seek thoroughly to understand and in every way to provide for. But in a more direct way the work must be co-operative. The assistance of the surveyor is needed; he must prepare for us an accurate representation of all existing conditions, of nature of the site, of the existing portions of the town, of the contours of the ground, of roads, railways, rivers and all sewer and water conveniences. The co-operation of the engineer, who must advise on and be responsible for the carrying out of any alterations to the site, will also be required. While the help of the sociologist, the antiquarian and others must be called in to make what Prof. Geddes has so well called the City Survey, if we are to base our plan on a proper knowledge of that which is. Further, if the result is to be successful, we must secure the co-operation of the architects who will design the individual buildings of which the completed whole will be composed. From them we shall have to ask that they shall ever remember that the part is not greater than the whole.

Some may think that the actual work of town planning belongs rather to the Engineer or Surveyor than to the Architect and that the Architect should be content to deal with the individual buildings; but to me it seems that the success of a town design depends so much on the whole scheme being conceived by vivid and well-trained imagination, so much on the placing and grouping of the buildings, on the true emphasis of certain parts and the subordination of other parts—in fact on all that is covered by the word "design" that the Architect should be the proper person. This is not in any way to minimise the importance of either the Surveyor or the Engineer. In a certain sense their influence must be decisive—within their field they must be supreme. The prettiest scheme will come to naught if it depends on inducing people to go where they have no wish to go, on making water run up hill, or on driving roads regardless of cost or engineering difficulties. But it is just because these matters are absolute because they fix limits in so many directions within which the work must be carried out, that the making of the plan should be given to one whose training fits him, or should fit him, to grasp all these varying conditions

dictated by the site, the life of the people, the Surveyor and the Engineer, and regarding them all as part of his problem to create, by means of his imagination some design which shall beautifully express them all. But the best possible town planning will be of little avail if the cordial co-operation of all the architects building on the sites laid out is wanting.

During the last century, architecture has been, generally speaking, individual only. There has been no tradition, no conscious agreement, or regulation to co-ordinate the work of different men. Each has concentrated his attention on his own building. Too often influenced by the wishes of his client or by the necessity of making a name for himself the architect has considered mainly how he could make his building stand out in distinction from those surrounding it. *Individual* architecture must be, if it is to be interesting, and *interesting* architecture must be, if it is to make a general appeal, if it is to receive that degree of sympathy and general support from the public which alone can entitle it to take its proper place as the expression of the common life of the people. Individuality, in fact, is needed, to make the part worthy of its place in the whole; but as the whole is greater than the part, so the unity of the whole must dominate the individuality of the part. Something of that unity we need to secure today, either as in past ages by a common tradition accepted by all, changing but gradually, and followed instinctively, or by voluntary co-operation; or, as a last and worst resort, by some method of central guidance and control.

We must never forget the true meaning of variety. How often when we suggest some unity or design or treatment are we met by the opposition of those who say that they like "plenty of variety." These people seem to think that variety means mere unlikeness of several things to each other, but that is not variety at all. Variety means simply the minor changes of some fixed type. In music we speak of an air with variations. Each phrase is variety from the air. To that extent it is different, but the air, the common likeness, is greater than the differences. Variation is the difference that we find between the faces of different people, no two are exactly alike; but the common use of the word would suggest that variety in faces would mean finding some with one eye and two noses. Variety consists of subtle changes wrought in things essentially related. Unity must dominate if the variations are to please. Once let the variations dominate and the result becomes a jumble, the relationship is lost. There is nothing more tedious and monotonous than a succession of different things jumbled together without relation and without unity. The town planner has to do with two somewhat different types of beauty, both of which he must, to be successful, understand and appreciate. There is, first the natural beauty which is seldom absent from any site; beauty of undulating surfaces, of winding river, stream or valley, or of such minor features as rocks, woods and trees, or perhaps important lines of existing highways having considerable beauty of a somewhat similar nature. This type of beauty, for our purpose, we may consider informal and irregular; for while in all probability it is the result of a most accurate obedience to complex laws, the interplay of these laws

is so entirely beyond our power to follow that, as compared with our formal and regular designs, governed by few and simple rules, the result may be said to be informal and irregular. The problem of the town planner is how to adapt the ordered beauty of his plan to the natural beauty of the site, in such a manner as to weld the two into one harmonious whole. Town planning, owing to the nature of the site, can very seldom consist in the creation of symmetrical patterns on paper, and must often assume much of the irregularity of form which the site may dictate. But this does not affect the fact that all good town planning must be the logical following out of some definite design in which, whether regular or irregular, whether composed of straight lines or of curved lines, the component parts bear due relationship to one another and are welded together into something of a whole. In many old town plans, for example, though there may be nothing of symmetry, though hardly any lines may be straight and hardly any angles square, yet there is a very definite sense of design in the whole, due emphasis in certain central positions, due grading of the different parts according to their place and importance. This I think is very evident in the plan of the old town of Rothenburg, which in the many essential elements of design compares favorably with the more regular and symmetrical plan of Karlsruhe, which in its way is a most charming example of a symmetrically planned city, teaching us much respecting the value of order and unity in town design.

The architect is naturally tempted, when thinking of town planning, to picture great schemes for improving the central areas of towns, the creation of stately streets and squares adorned with groups of buildings treated in a monumental manner. Such imaginative dreams have their place: nevertheless the great need at the present day is rather to begin at the other end of the problem. *We must first see that our citizens are decently housed in comely dwellings, built amid healthy and pleasant surroundings, with ample space for the children to play in and for their elders to rest and recreate their faculties when they return from their day's labour.* This is the foundation upon which will develop fine city building. It is mainly to the planning of new suburbs that we must turn our immediate attention; and though the principles governing this work will be very much the same as those governing the planning of the central areas of towns, their application will be considerably modified by the different conditions.

Even in the suburbs there will be plenty of scope. It is essential that supplementary centres should be formed. The treatment may need to be simpler and less monumental than in the main centres of the town; but apart from social and municipal reasons sufficient in themselves, the very principles of design require that our suburbs should not be endless, monotonous out-growths of the town but should group themselves as minor organic wholes around some centre which shall focus the local life, the local patriotism, the local industry and government of the community. Here may be grouped with effect the minor public and business buildings which, though perhaps not attaining to the monumental character of the chief buildings of the town, will nevertheless in scale and dignity be sufficient to dominate the smaller dwellings and other buildings of which the suburb will be composed. Opportunities will occur here for creating central features

taking the form of places, squares, broadways or whatever may seem most convenient under the particular circumstances.

Apart from these centres, the problem of suburban development acquires new difficulties as well as new opportunities from the need for a greater degree of open space in the neighborhood of dwelling houses. The element of design is specially needed in suburban streets. Too often on the one hand we see today endless, monotonous rows of houses, repetitions of some unit, uninteresting in itself and small in scale in relation to the street. On the other hand we have the equally monotonous streets of detached or semi-detached villas needlessly repeated, or—and this is almost worse—each different to a degree that dissociates it from any of its neighbors. We may have scattered building near enough to each other to destroy the ordinary beauty of the country and yet too scattered to give any sense of architectural effect, or to acquire any of the beauty one associates with the town. The distance between the buildings on suburban roads tends to be too great in relation to the height, and the street pictures either present long, straight, vanishing lines converging at some distant point, or a mere jumble of unrelated buildings on opposite sides of a wide road, meandering on without producing any definite effect at all.

To obtain a successful result it seems to me we must adopt the principle of grouping our buildings into larger wholes, creating larger units in the street picture, and of grouping our open spaces also into definite larger spaces at certain points. This will greatly help us in the designing of our streets and street pictures. No effect can be obtained by the mere compromise of scattering our buildings and dividing up our open spaces.

One of the first things for the town planner to realize is that in designing a plan he is laying as it were the foundation for and determining in the mass the future street pictures. The individual architect will be able to do very much to improve or to mar the result at which the town planner aims, but when once the town planner has laid down the streets and street junctions, has fixed on the shape of the places and settled the building lines, the individual architect must perforce build up in the main the street picture that is thus determined. So in planning it is necessary before deciding the exact lines of any of the roads to imagine clearly how the buildings are to come and how they will group. The Town Planner, after he has arrived at the general directions of his roads and the approximate positions of his centres, after he has arranged traffic facilities, drainage, water supply, and all the more practical considerations, must work out his building lines and his street pictures, must have his important buildings placed and the vistas leading up to them arranged before he can give the final form and exact lines to any of the details of his plan. Indeed, the grouping of the buildings is so much more important to the final result than the kerb line of his street or the fence line of his plots, that he will find it wise very largely to design by building lines rather than by road lines. It will be wise to study carefully the work of many of the German town planners; they have much to teach us. Modern town planning in Germany has already passed into a new and distinct style and has left behind that practised in the latter half of the 19th

century. That style of town planning was altogether too much dominated by the idea of creating short cuts from everywhere to everywhere. It was geometrical in form and hard in line, and much of it while having the defects of rigid formality for want of any appreciation of balance, proportion or symmetry missed entirely the beauty which is associated with the best formal design. But an entire change has come over German town planning during the last ten or fifteen years. Camillo Sitte carefully studied the forms of medieval German and Italian towns, the beauty of which was generally acknowledged, and he pointed out how much of it sprang from the way in which the buildings grouped into street pictures. He pointed out how this line was due to certain principles which he carefully illustrated in his book "Der Städtebau," and which he considered were to a large extent consciously followed by the builders of medieval towns. To what extent the picturesque beauties of Nuremberg, Rothenburg, Verona, Florence and a hundred other cities of the Middle Ages were due to conscious town planning, and to what extent they may have resulted from an instinctive following out of a splendid building tradition, we need not at the moment stop to consider. Certainly the picturesque result is evident enough and Camillo Sitte's analysis is good reading. He lays great stress on the importance of frequently closing vistas and on carefully planning of open places, so as to produce a comfortable sense of enclosure, and a continuous frame of buildings. Whether due to instinct or to conscious design, the extent to which the plans of many medieval towns seem to accord with these principles is certainly remarkable. His influence and that of his followers has revolutionized town planning in Germany, and I am inclined to think that, for the time being, the German town planners have become so much absorbed in the principles which they think produced the picturesque medieval towns, that they have perhaps forgotten that the picturesque is by no means the only effect which it is desirable to produce in town design; and, moreover, that it may be an effect which depends for its success on a slower natural growth and a more pervading tradition of building than is at all attainable under present day conditions. It will be found, however, that many of the principles of design which have been worked out by this school of town planners will be equally applicable to a more formal style of work, and that a study of these principles may go far to help us to avoid the monotony and lack of real grouping in the street pictures which characterise so much of the regular and symmetrical town planning of both the past and the present time, such as may be seen, for example, in many American towns.

I have said that our work must be based on first providing comely dwellings for our citizens; let me finish by referring in somewhat greater detail to the planning of residential areas, and particularly those devoted to cottages and buildings of moderate size.

The first great reform that is needed here is the reduction of the number of houses, and of the amount of building generally, to be erected on each acre of ground. It is common to find 40 to 50 houses erected on each acre of building land, and most urban building by-laws permit this to be done; yet no such number of houses can be

erected without gross overcrowding of the area. Garden space is impossible and the children can have no where to play but in the street. The number must be greatly reduced if satisfactory suburban development is to be secured. For cottage dwellings the desirable number of houses to the acre is probably round about 12. At any rate the number should probably lie somewhere between 10 in comparatively outlying suburbs, and a maximum of 20 in the nearer suburbs of towns. We must not lose sight of the fact that reducing the number of houses to the acre will not of itself tend to increase the amount of expense involved in providing roads, gas, sewers, etc., for each house, although the development must necessarily be spread over a much greater area for a given number of houses. The matter is more one of frontage than of area of building plot where the roads are so planned that practically the whole of the frontage is available for building purposes. Quite apart from the number of houses to the acre, the frontages provided for buildings of different size need to be increased if the houses themselves are to be properly designed. The effort to reduce frontages to a minimum in order at once to reduce the cost of road per house and to crowd the maximum number of houses upon a given area has evolved a type of plan characterised by long, projecting additions at the backs of the houses, which additions have, during the last century, tended to grow longer and longer and nearer and nearer together.

I consider that for proper planning the frontage allowed should be not less than 15 or 16 feet for cottages having two bedrooms on each floor, and from 13 to 20 ft. for cottages having three bedrooms on the first floor; while for parlour cottages there should be 20 to 23 ft. for an east and west aspect and from 25 to 28 ft. where the aspect approaches due north and south, for in that case it is desirable that both the main living-rooms should be on the sunny side of the house.

The question of aspect is very important in the laying out of roads for cottage building. Speaking generally and where the planner is not in a position to secure special types of plans, roads running due east and west and affording, therefore, due north and south aspects to the cottages, should be avoided as much as possible; and where it is not possible to avoid them, provision should be made in laying out the building plots for sufficient frontage to each house to allow for all the main living-rooms being on the sunny side and not on the north side.

In planning the streets and arranging the building lines to avoid both the monotony and the somewhat scattered appearance which often results from the wide space between the buildings, some definite variation in the building line may be arranged; the street picture may be framed and a sense of enclosure at the end produced by here and there bringing the buildings close up to the street line, and also by breaking at intervals the direction of the road, so that the street picture may be closed definitely. On curved roads also good effect may be sometimes be produced by designing the building line on definite lines, independent of the line of the curve. This will sometimes enable greater interest to be introduced into the convex side of the road, and will also enable the picture formed down the straight

portions of the road to be more satisfactorily closed at the angle. Another very important point to be watched is the treatment of corners and street junctions; each one of these should be carefully planned to produce some definite effect. Sometimes local by-laws render the turning of a corner with a continuous line of building very difficult; but, even where this cannot be managed, care in the treatment of corner sites will suggest many ways of improving the grouping of the buildings. It is sometimes possible to carry the buildings round in the form of a hexagon or an octagon, so grouping them that the views from some of the streets are terminated by buildings opposite, while the views from the junction are suitably framed. In this way also some open space, which is very valuable for traffic considerations, may be left around the junction, where by-laws will permit; and where they will not permit, it would be well to agitate for their alteration.

The street line may be very pleasantly varied by building some of the houses round greens, thus opening out the street at certain points. It will be found that very simply designed buildings erected round three sides of a green or open space will acquire a dignity and sense of unity which would be quite absent from the same buildings erected in a long continuous row. Where groups of small houses belong to one owner, or, better still, where they are built by some of the co-partnership societies now springing up, it is possible to make provision for the common enjoyment of these greens and so to provide for the cottager tennis courts, bowling greens, skating rinks, play grounds, etc., which they cannot hope to secure on their own plots.

I must not here enter into the social opportunities which are opened out by some small degree of co-operation in the owning and enjoyment of small houses, but I cannot forbear to refer to the great value, from the architectural point of view, of such common life and common enjoyment. So long as the architect's aim must be to secure the maximum amount of separation and detachment for each cottage and villa, surrounding every scrap of green with high walls or fences, little total effect is possible. But I look forward to the time when the gradual development of this co-operative spirit will become in the greater wholes of our towns a more extended civic life, and will give opportunities for expression in a greater harmony and unity of effect, so that it may again become not only possible but natural that our towns should express in the beauty of their outward form the intensity of their civic life.

SOME OBSERVATIONS ON THE BRITISH TOWN PLANNING ACT.

By THOS. ADAMS

Town Planning Assistant to the Local Government Board, London, Eng.

Our Town Planning Act in Britain has for its object the securing of amenity, convenience and better sanitation, in regard to all land that is not built upon or is in course of development. I want to direct attention to the great distinction there is between the object of that act and the land to which it applies, as compared with the objects of city planning as they are often understood in Canada and Germany. City planning is comprehensive enough to cover all civic improvements; but in our own particular case we have come to realize that the most immediate and most practical task is to deal with the land in our suburbs where we can prevent the growth of the evils that have already developed in the centres. We must continue to conceive and carry out reconstruction schemes in the centres, and population, but that can only be done by a slow process of evolution, and as we succeed in overcoming the prejudices of the ratepayers. Reconstruction schemes cost large sums of money, and the ratepayers have to be educated to approve of the expenditure. On the other hand the control of new development, i.e. the prevention of the necessity of reconstruction schemes in the future, and the proper planning of new areas can be carried out at trifling cost, and probably with an ultimate saving to the ratepayers. We shall continue to do what we can in Britain to cure the evils that have grown up in the city, but in the meantime we have determined not to let these evils be created in the future; and therefore the Town Planning Act in Britain provides that land that is in course of development or land that has not yet been developed may be developed so as to secure amenity, convenience, and proper sanitation. As a rule the Act can only be put into force on the initiative of a local authority or owner, and it is hoped and expected that it will in time be applied to all unbuilt upon areas.

There are some people who would say: "But you should have had these powers fifty years ago to do any good! it is too late now." But in Canada you believe that your cities are going to double themselves every ten or twenty years. Even in Great Britain, where our cities may be of somewhat slower growth, every fifteen years, according to a statement of the President of the Local Government Board, 500,000 acres of land are covered with houses, factories, workshops and other buildings. Now, that is a very important fact. The Town Planning Act provides that in the United Kingdom the authorities may secure that every fifteen years we shall have 500,000 acres of land town-planned. The area would be very much larger if we include

land that "is likely to be developed," as well as land "in course of development."

That shows you that the Act has enormous scope.

Moreover, in Greater London alone during the last thirty years we have built 550,000 houses on land which in the past has not been regulated by any town-planning act.

Now, what does the town-planning act propose to do? I have said that the initiative will usually rest with the local authority, whether city, or urban or rural district. If Winnipeg happened to be a city in the United Kingdom, it would have to come to the Local Government Board in order to get a loan to build a public hall, or lay a sewer, or carry on some of those public activities which at present it can do on its own responsibility. The Board would have to make inquiries as to whether the scheme proposed was satisfactory in its technical details and the expenditure judicious. Similar powers of supervision are exercised by the Board over town-planning. If this city decided to apply for permission to prepare a town-planning scheme a public inquiry would be held into that application; and one object of that inquiry would be to try to harmonize the often conflicting interests of the real estate owner and the municipal authority as well as a very important point which will equally appeal to you in the Dominion—the conflicting interests of two adjacent authorities. Authorities in this country are not altogether free from friendly rivalry.

The question of the co-operation, first of all, between the authorities and the real estate owner, and, secondly, between two adjacent authorities, is very important; and provision for this co-operation is made in the Town Planning Act. Co-operation of this kind is very difficult; because it usually means a sort of compromise in which one side gets the best of the bargain.

We have discovered in England that the owner gains by proper planning and I am sure you will soon discover it here. In new countries it is difficult to get an owner of land to submit to any restriction of his claim to use his land as he chooses. But I have seen American estates laid out under restrictions which make those who erect homes submit to the character of the fences being prescribed for them, to their plots having to go before an architect, and to a number of restrictions that you might call arbitrary; and these people who do so are able to pay \$4,000 and \$5,000 per plot and build houses from \$10,000 to \$20,000 apiece. They are the very people who could afford to say, "I am not going to have any one interfere with how I am going to lay out my land or how I am going to deal with the trees or the fences, or how I am going to build my house." No doubt there are examples of a similar kind in Canada. If you once have it established that this class of owner is prepared to submit to regulations in the interest of the general community, then you could surely find a practical way to enforce the same principles in regard to the poorer grades of owners and tenants who have not the same power or desire to object. I see no real difficulty in applying town-planning restrictions in this country as easily as we can in Britain without injury to your love of a free and full liberty, which I assure you we appreciate as

much as you do. Of course, we have to begin by recognising that our claim to liberty is not a claim to interfere with the liberty of others.

Under the British Act the owner is allowed to claim compensation for any injury suffered by his property as the result of the town-planning scheme; and the authority may claim betterment for any value which accrues to his land as the result of the scheme—that betterment being half of the value which accrues—so that you see you have the operation of what you call "excess condemnation" on the one hand, and "benefit" on the other. You pay him compensation for what injury he receives, and you secure half of the benefit which his property derives. But observe this important provision: once the local authority submits its application to the Local Government Board for the right to prepare a scheme, no individual owner can enter into any contract, or deal with that land in any way which contravenes the scheme, and thereafter claim compensation.

By this means you stop undesirable development as soon as you have carried out the preliminary steps to have your land town-planned, and you stop what might be called bogus claims for compensation. Moreover, no claim for compensation can be made on the ground that the authority wants to limit the number of houses per acre so long as the Local Government Board is satisfied that the limitation is reasonable in the interests of amenity. Birmingham, a city of nearly a million inhabitants, has applied for authority to prepare schemes for over 3,000 acres of land, and in both of the areas affected it desires to limit the houses to be erected on each acre to something between ten and fifteen over the whole area.

The Act also provides for the control of the character of the buildings to be erected. It may allow areas to be defined for certain purposes, such as that a certain portion shall be manufacturing, or that another portion shall be residential, subject, of course, to conditions regarding compensation to owners.

That is a brief description of some of our new powers in Britain, and at this stage I shall not weary you with further details, but commend those who are interested to read the Act and the Local Government Board town-planning regulations for themselves.

This problem is not one to be sneered at because it happens to interfere with the rights of those individuals whose sole object in owning land is to make money out of it. We must protect those rights; because it is necessary for the general well-being and commercial prosperity of the Empire; but it is neither in the private nor public interest that they should be allowed to overlap with the right of each man, each woman, and each child to secure the decencies and necessities of shelter or even to interfere with that desirable wedlock with nature, divorce from which eventually brings about corruption and ruin to the nation that encourages it. It has been authoritatively stated that in England 50 per cent. of our total pauperism, more than 60 per cent. of the cost of providing for that pauperism, much lunacy, and a great deal of our crime, is due to sickness, and a great part of that sickness is brought about by the conditions in which the

people live. In other words, there is nothing more costly than bad housing conditions, and to improve these conditions is to effect an enormous saving to the public purse to which we all contribute. What ever quibbles may be brought against the movement to spread the people and give them decent homes do not neglect this side of city planning, but proceed with it side by side with your fine schemes to create civic centres, beautiful parks, and play grounds. Let it be your object to plan and beautify the slum districts as well as the suburbs of the well to do, the east end as well as the west end. Improve the environment where the slum dwellers live. As I have said with reference to your great American neighbour, if you don't give your attention to these matters, the physique of your people, their intellectual calibre and their moral strength, will be lowered and weakened, as they will, so will you lose the very qualities that are building up the strength of this great Dominion. In conclusion let me quote some inspiring words spoken by the President of the Local Government Board at the opening of the Conference of the Royal Institute of British Architects in October, 1910.

"I do not think," he said "that the effect of good environment of fine buildings, of pleasant houses, upon the character, temperament, will, disposition and energy of the people sufficiently dwains upon the average citizen. Cities are not only unportunities for goods, centres of commerce and trade; they are something more than a mere cash-nexus, they are places where utility, comfort, and beauty can be and ought to be combined, so that the passer by can, from what he sees, feel something to which his sense of beauty and of domestic comfort can respond all the better for having lived in and seen beautiful buildings every day of his life, places which by their beauty, their acuity, their grace, and, above all, their greenery, create a joy in life which we Britons sometimes lack, and give a precious leisure in life moments, when busy work a respite and honest labour requires a pleasant rest.

" * * * * * So long as casual labour broods in squalid bars, in sunless streets, and ugly dwellings are its only habitation, we shall continue to turn out nervous manikins instead of enduring men. Motherhood, childhood, youth, society, and the very demand the demolition of the soul destroying slums. * * * * * The mean street produces the mean men, and the lean and tired women, and the unclean children. * * * * * Let every nation with its own character, individuality, climate and physical structure go to work and copy nobody.

" * * * * * Plan the town if you like, but in doing it do not forget that you have got to spread the people. In the light of some continental experience that wants driving home. Plan the town, but spread the people. Make wider roads, but do not narrow the tenements behind. Dignify the city by all means, but not at the expense of the health of the home and the family life and the comfort of the average workman and citizen. * * * * * If you do this, we all of us shall be rewarded by the betterment of our towns, the beautification of our streets, the improvement of our suburbs. We shall have made one step forward to still further elevating, improving and dignifying the life of our citizens."

TRANSIT AND TOWN PLANNING

By JOHN P. FOX

Secretary, Transit Committee, City Club of New York

It is quite unnecessary in Canada or the United States to point out what an influence electric railways have had in developing cities and towns. On account of the possibilities of traction lines in moulding the growth of communities, town planners are now beginning to recognize transit as a vital factor in town planning. Transit can no longer be regarded as a luxury. It is a necessity in our daily life, enabling people to live in healthy locations at a distance from work, to connect people with recreative and educational centers, libraries, parks, etc. It can make a city a unit, bringing all people within reach of each other, for mutual help and exchange of ideals.

Until very recently, our streets were laid out and built without any regard to possible car lines in them. Next, more width was allowed, and sometimes a reserved space for car tracks. While at last, in certain cities, notably New York and Paris, the public authorities have built and are still building municipal rapid transit systems, whose aim is primarily to benefit the city as a whole and not to make money for a person or company, although the systems are still privately operated.

We are only just at the beginning, however, of appreciating the importance of transit in town planning. Traction lines have generally been built for the purpose of making money, especially in America, and as a result there has been no adequate study of the vital principles which should govern their construction and of all their possibilities for good. Who can say, for example, with any positive assurance of being right, exactly how far apart surface electric lines should be built to properly serve a tract of suburban territory, in order to give no one too long a walk between car line and home? How large should a city be before real rapid transit is introduced, with trains to take the place of surface cars. Are subways a healthful enough means of transportation; or should freight be carried underground, and passengers kept up in the light and air? If subways are not healthful, or are otherwise undesirable, is there any type of overhead structure which is so noiseless, so free from obstructing light and air, and so otherwise unobjectionable that it will meet the severest tests of artistic critics? Should people be encouraged to ride less than now, and live where they can walk to their work, or is the Belgian idea the best one, of having the workmen own their homes in the country as far as possible, and ride long distances to whatever city they may have work in?

These are some of the multitude of questions that ought to be considered in every city and town from the public standpoint; but which are too often settled wholly from the selfish point of a public service corporation. Even in New York, where the city built the first subway system independent of existing lines, the city is today bending to the wishes of the corporations in order to get further transit lines, in a way which is highly unsatisfactory to the public interest.

Any one who examines critically the large cities of the world, will find there is not one yet which has a transit system that is really adequate from the town planning or any other standpoint, except that perhaps of the money lender. In the largest cities of Europe, there is a universal lack of fast service. In cities like London, Paris and Berlin, there are also too many companies, which are without free transfers between them, and without one fare for the whole city. American cities have faster service and more unity; but they usually have too high fares, too few seats, and generally inferior service, compared with the best in Europe. American companies have worked too hard to make speculative and other profits, to create artificial traffic, as to trolley parks, and have paid too little attention to the regular business, especially at the rush hours, when so many people must ride. No cities have enough surface lines, even supposedly well served cities like Boston having gaps where lines are greatly needed and where they would clearly pay if the company would only take the trouble to build them. To have transit lines properly effective, they must not only be properly located and built, but must have abundantly frequent service, an excess of seats at all hours, fares within reach of all workmen, extensions constructed constantly, and so on.

One city and town after another is now taking up the question of town planning, and is studying existing conditions and what ought to be done in the future. The study of transit ought to be considered in every such case, and from the broadest standpoint.

There is one great difficulty in making adequate transit investigation, and that is the lack of training of available investigators. The science of transit is still such a new thing and so little understood that there is hardly a single engineer in America who is capable of making a satisfactory report, especially from the public standpoint. The greatest lack is perhaps that of a knowledge of European experience. Some of the most important developments in traction matters have been made in Europe, and are almost wholly unknown in this country, while their invaluable importance is even less appreciated. Again, the best brains among American traction men are almost entirely in the employ of corporations, at whose hands the public receives too little consideration. And many an engineer capable of excellent public service, if afforded opportunity, is intellectually starved by being bottled up with an unprogressive corporation.

European transit engineers have their limitations as well as American; and the only hope of developing a real science of transit, of evolving principles which can be applied to different conditions as they are found, appears to be by having American and European

transit, authorities get together and freely exchange experiences, theories, and criticism; until, out of the present chaos of ideas, will come the real fundamental laws, which now no one knows. In dealing with railroad matters, the International Railway Congress is accomplishing much in the exchange of ideas around the world; and there is urgent need of a similar transit congress, which would cause the thorough exchange of ideas about electric municipal traction, and make available the results for the benefit of town planning.

There is one transit investigation which ought to be studied by all town planners, and that is the monumental work of the Royal Commission on London Traffic. Owing to unfortunate disagreements and especially to the influence of capitalists, no really satisfactory results have come from the investigation. But the report is still a mine of valuable information, and contains the most important transit project from a town planning point of view which has yet been made. The improvements proposed for London by Messrs. Meik and Beer, the well-known English engineers, contains some of the most vital ideas yet brought out. The ideas in the proposed plan are so broad and so far reaching that very few people appear yet to have comprehended their significance.

The plan briefly speaking was this: London today is a vast overgrown city, without any real rapid transit across it in spite of the tubes, and with even less facilities for rapid surface transit by vehicles or electric cars. Meik and Beer proposed quartering the city with two wide main avenues, running east and west, and north and south, built by means of excess condemnation, so as to pay for themselves in the end. The main avenues were to be new wide arteries, adequate in every respect for a city the size of London, with transit provided by fast through trains, distributing passengers locally by means of surface cars. There were to be pipe galleries, of course, to render tearing up of streets unnecessary. Recognizing at the time the possibilities of the automobile and motor truck, and the need of providing for fast through vehicular traffic as well as passenger, the main avenues were designed without any grade crossings at intersecting streets. So that vehicles could run directly and rapidly across the city in four directions, without the interminable delays which are so vexatious to day in London, and so costly in time lost to the community, all without constant danger of collision.

Ever since Sir Christopher Wren made his proposals for replanning London after the great fire, there has been constant regret expressed that his plans were not carried out. But the proposals of Meik and Beer are far more important and fundamental than Wren's, and the principles they embody should be studied by every city which would perfect itself, no matter how small the size is today. London at the present time might be compared to a huge round jelly-fish, without any skeleton or backbone, with a network of small highways choked with throngs of vehicles; while all persons who wish to travel with any kind of speed are consigned to deep tube railways, buried even one hundred feet below the sunlight of the street, much too fast even when reached. The main avenues would change all this, and provide backbones of traffic in four directions, being connected up with

existing streets, and introducing order into the chaos of narrow streets and wandering lanes of the great metropolis. Owing to various disagreements and jealousies, the plan has never been carried out; but if it were, it would do for London more than Haussmann did for Paris.

Haussmann's work for Paris has been greatly overrated, and Paris is more an example of what to avoid in town planning than what to follow. In the first place, it is a great city of tenements, with enough land wasted in grand boulevards, squares, and parks, to give perhaps every family their own single house and garden, instead of consigning the whole population to living in barrack dwellings. The town planners of Canada and the United States should study these cities of the old world with the most critical eye, in order to avoid their mistakes, and should guard against admiring things simply because they are old or because they have long been held up as examples for admiration.

Comparing London and Paris again, Baron Haussmann in laying out his grand boulevards for the French capital, made no provision for rapid transit across the city, because in his day no one had any conception of the importance of rapid transit. And neither did the French engineers when they laid out the present Paris subway system. The Paris subway lines merely follow the boulevards, with a service of local trains not much faster than surface electric cars. The subway lines do not run out into the suburbs; they have not opened up new territory; they have done nothing to further the building of single homes. They merely afford some assistance in getting about in a congested city. There are no transfers to surface cars, and Paris is still a traction chaos, served with competing companies.

London is still likewise a traction chaos, with motor buses where there should be electric cars, because of the opposition of the capitalists to the splendidly managed County Council tramways. The main avenues of Meik and Beer would have introduced the first real order into the London chaos, affording real rapid transit, extending out into the country to new land.

It may seem out of place to dwell so long on two of the cities of the world, at a town planning conference in Canada, where the problems are more of the smaller cities and towns. But even the smallest cities of the Dominion must look into and provide for the future; for who can say what their size may be, with the rapid development of the Great North-West? One of the great mistakes of the past has been the allowing of cities to reach an unwieldy size before introducing rapid transit. And when rapid transit is readily introduced, we have the difficult problem of knowing in what direction to build a high speed line. Rapid transit tends to build up a territory in a longitudinal direction. We develop our cities in a circular form, with surface lines radiating in every direction, and then are puzzled to know where to run and how to fit in the one subway line that perhaps a city can afford to build. As rapid transit has developed, it begins to appear as though the round city is not so desirable nor convenient as a longitudinal or star shaped one; and this question of a city's shape

should be considered for every growing place as soon as possible. So that if growth in one or two directions is found to be the best thing, no time need be lost improving the means for properly directing the growth.

It will take considerable study to determine positively whether the round city, with its radiating streets, has been outgrown as the ideal type, in the light of rapid transit developments. But even now it appears possible that the much abused checkerboard plan of streets may prove to have been the best arrangement after all; and that Philadelphia, with adequate rapid transit, may prove a better planned city for healthy living, than Washington, Paris, or other extravagantly praised cities.

It is not enough, in considering the future, merely to provide for adequate surface railways. Every city should provide for the introduction of rapid transit at some time in the near future, at as early a date as a rapid transit line can possibly be financed by a city. It has been the custom in the past to put off rapid transit as long as possible. Existing private companies have too often been so overcapitalized that they could provide no new facilities, and they have permitted no one else to do so. Town planners as yet have had little or no experience with rapid transit, and hence do not realize the importance of introducing it or providing for it in plans for the future. It is generally considered sufficient to have surface lines radiating from the center of a city in all directions, with some through lines perhaps across the city. That may be enough to satisfy a traction company or the ordinary unthinking citizen, but it is not the ideal. We want our cities compact units, not so much of houses and buildings, for too much concentration is unhealthy, but rather with social compactness. It used to be considered satisfactory if a person could get quickly into the center of a town for business or shopping. Now we see the value of having all the people of a city within easy reach of each other, for the exchange of ideas and not merely of material goods. The severest test of a city's transit system is the ability of a person at one extremity of a city to visit at the other extremity and return, in an evening say, with comfort and convenience, and at the price of a single fare each way. This test need not apply of course to communities which have annexed such vast areas of unoccupied land as Chicago, nor to persons who have isolated their houses too much. But a city is far better off if its educational facilities, recreation places, business centers, and similar places at least, are all within easy reach from every other part of the city; and it is better still if all the homes are within easy reach of each other. Moreover people who change their place of work should be able to go to the new work rapidly, without having to move or sell their home.

Rapid transit tends to spread out the business section of a city, as notably seen in New York, where both stores and offices have been moving north up Manhattan Island very rapidly since the subway opened. This is a good thing, as it tends to relieve congestion of the streets and to offset the evils of high buildings. With a rapid transit line, a city's growth can in such a way be better directed in a desired direction with mere surface lines.

Rapid transit can also make expensive street widenings unnecessary, by making possible the taking of all or most of the electric cars off the surface of the street, and carrying people entirely underground, as was most notably done in Boston with Tremont Street and Boylston Street, although the mistake was made in that case of merely putting the surface cars in a subway, instead of carrying the passengers in trains. This matter of relieving street congestion is a very valuable feature of rapid transit, and one which town planners have as yet almost wholly neglected. There are several cities where extensive new street construction and street widenings have been recommended, and where practically all the benefits needed could be far better obtained by the removal of all surface cars from the streets, the cities gaining not only great relief for vehicles, but also the immeasurable advantage of rapid transit, which no mere amount of street widening could bring.

How to get rapid transit properly appreciated is a very difficult matter. Existing traction companies are too much interested in making money to do things for the benefit of the city as a whole. Real estate owners merely want a line to the property they are interested in. Store keepers generally want trade to stay where it is, and to have all cars pass their doors. City officials, in the United States at least, are too often thinking of how to be re-elected or attain higher office, or help friends who got them in, or please the corporations, rather than how to afford the greatest unity to their city, the best housing, the lowest rents.

Canadian cities have set such a high standard for city government, that it would be a fine thing if some one of them would have a really thorough transit investigation made, one which would set an ideal for other American cities. Such an investigation should consider all the related aspects of town planning, even if made by itself. It should consider the housing situation; how people can live in single houses in healthy locations, at reasonable rents; how to get quickly to and from work in any part of a city. It should consider the business situation; how the business section needs extension and in what direction; and how best to coax it in the right direction, as with rapid transit. It should consider the location of factories, and how to connect them best with workmen's homes, and, if need be, how to encourage the location of factories in better localities, or the homes in better places, for it may be as in Pittsburg that there are people living near hot, stifling, and smoky factories who ought to be located out in the fresh air somewhere, and have new transportation provided to reach work. The accessibility of educational institutions should be considered, of parks, museums, etc.

The experience of other cities must be carefully considered in any investigation, because the principles of transit are so little understood, even by those who rank as authorities, and because every city, both European and American, which has already attempted rapid transit, has made mistakes which need to be avoided. Finally, in making plans every possible scheme should be devised, and every possible idea and criticism obtained, from the public as well as experts, in order that nothing of possible merit may be overlooked. And then no one plan should be adopted without long consideration of all the others.

The tendency of most cities which want rapid transit, is to try to plunge at once into a subway system, without any adequate realization of the disadvantages of subways—of their enormous cost, their possible discomfort if not unhealthfulness, the financial burden they place on a community with very little return, and many other disadvantages. Subways for surface cars should be avoided above all things, because they afford the minimum advantages for the maximum cost. And yet a number of cities are considering surface car subways in spite of the experience of places which have already tried them. The point of the matter is this—if a city is going to undertake the great expense of a subway, it should try to get the largest return possible for the money, and build a line for trams, even though this may require a more extensive system at the start; but it will give higher speed, greater capacity, greater safety, and more economy of operation.

It is to be hoped that the craze for subways has now reached its maximum, and that people will come to realize in time the mistake of spending four or five times as much as is necessary for rapid transit, for the sake of riding underground in a tunnel which may be stifling hot in summer, drafty in winter, dangerous in case of fire, and so on. It may take some time for the thing to be realized; but the fact is that Germany has made a development in rapid transit which has rendered both subways and ordinary elevated roads unnecessary, and allows people to be carried above ground where they really belong, without obstructing the light and air of the street, without damaging property with noise, without accidents, costing less to build and operate than any previous type of railway. In the suspended railway, as designed for Berlin, after ten years' operation in Barmen and Elberfeld, rapid transit has reached its highest stage of development; and it is to be hoped that a reaction will set in against riding in the cellars of the streets.

The suspended railway has been attracting a steadily growing attention, because of its two great advantages over subways. It not only allows four or five times the mileage of line to be constructed for the same cost as a subway; but it also has the other advantages of allowing a city to build a rapid transit line long before a subway could be afforded, and at less cost than an ordinary elevated, without any darkening of streets or damage to property.

It is needless to say that any transit investigation, to be really thorough, should be made independent of existing traction companies and conditions. What is needed now in every city and town is a study of things as they ought to be; and then ways must be found somehow to get the present transit systems changed over and extended, so as to be really effective in the unifying and upbuilding of the communities. It will be no easy matter to have a clear vision, to get a clear view of just what is needed; and still harder to find a way to get any results which are really ideal. The traction companies have had their way so long, and the public has been made so submissive, that few people realize how much more the corporations could and ought to have done. We can learn much by studying results in Europe, where the municipal tramways of England show how easy it is to seat every passenger at

every hour of the day; how workmen can be carried any distance for two cents; and how a city like London can build ideal cottages in the suburbs, carry workmen to and from the city in municipal cars, and do it better and more cheaply than any private company is able to.

The question of municipal ownership of transit lines may hardly seem to have a place in a town planning paper; and yet, unless our cities and towns can absolutely manage their own transit systems in the future, there seems little hope of getting transit to be really effective as it should as a factor in town planning. The more one studies the transit needs of our cities and towns, the more one feels the absolute necessity of having our transit systems freed from all the membrances of the past, and of being built up in a network wherever they are really needed for the health and welfare of the whole community, and not where they will best enrich a few stockholders, living perhaps a thousand miles away. If cities are going to keep out or drive out the shun, they must have every means in their power to do it. Even in England, the home of municipal tramways, of one-cent and workmen's fares, it is hard and slow work to spread out the cities, and to overcome the evils of overcrowding which have been growing up through so many years.

The time has come when the traction interests should be made to realize that the welfare of the public requires first consideration, even if it requires the sacrificing of excessive private gain. Vast sums of money have been made in the past out of American electric roads; and the public has paid the price by riding to and from home and work packed in cars under unhealthy conditions, at fares almost always too high for the pocketbook of multitudes who ought to live and rear their children in their own healthy homes instead of in congested tenements, heated near the sweatshop or the smoky factory. The investor will not really suffer with the spread of public ownership. There will be a market for more money than ever before, because so many more improvements will be required. The investor will always receive a fair rate of interest, and merely give up those excessive dividends or profits which are really needed for such works and projects as have been neglected in the past. Investors in Europe are satisfied with reasonable returns, and it is time that Americans should. It is time that the brains of America should be devoted more towards promoting the welfare of their fellowmen, and less towards the enrichment of a few at the expense of others. And along this line, Canada can do much by continuing to set the example to the United States.

In review, and in conclusion, one would urge that every Canadian city and town investigate thoroughly its transit conditions and needs, in relation to housing and all other aspects of town planning. That such investigations be made in the broadest way, in the light of all American and European experience. That the future be planned for, and that steps be taken to get the transit facilities which the public really needs, and not what some company wants. In other words, that transit be made an integral part of the fullest life of the city, for the benefit of all, including the poorest, and not merely the few who have money to invest. In no way can transit be better elevated to the place it should occupy than by giving it its proper place as a part of town planning.

SOME CITY PLANNING PROBLEMS IN THE PRAIRIE CITIES

By MALCOLM W. ROSS, B.G.A., Regina, Sask.

Considering the great amount of attention that is being paid to the improvement of conditions in the older cities, and the vast amount of money that is being spent by them to alter the inconveniences and objectionable features that have been allowed to develop in most of them, we might naturally assume that in the rapidly growing and prosperous prairie cities, advantage is being taken of the knowledge and past experiences gained elsewhere and that on visiting them, results and arrangements would be seen that are based on investigations of problems which are more or less common to all cities.

In some particulars we do find that there has been remarkable foresight, in others we find neither evidence of foresight nor any apparent effort to avoid some of the most common features that are universally recognized as uneconomical in modern city planning practice.

We find in some cities that the areas occupied by industrial, business and residential interests are well defined and separated, and nearly everywhere the streets and service lanes are of ample width for all general purposes. Public utility services are, as might be expected, well equipped, and up to date.

We do not find, however, any provision for reasonably convenient and economical transportation from points on the northeast and northwest, to others on the southwest and southeast, in any of the cities or towns, unless, possibly, it has been necessary to avoid some river, and no serious effects are being made to provide for any such facilities over those portions of land not yet built over but which are bound at an early date to become absorbed into the city limits.

As railroads almost always enter the towns from different points outside in a radial manner it would seem a comparatively easy matter to acquire or reserve land along these roads for some ten miles or more outside the city in order to facilitate the country trade, as well as to form a basis for radial streets as the cities extend.

There are large numbers of small towns growing up at the present time that are being really inconvenienced by the closing of the old direct trails which became main trails because they were those leading through the most settled districts, these are gradually being closed and instead of a farmer being able to reach the town in a five mile drive he may have to go seven when he is kept to the road allowance, thus making four miles extra, approximately the result is

that he now sends to Winnipeg or the east for much of his supplies. The manner in which the trails are made along the railroads as soon as the snow falls is sufficient evidence of the need for them there and also of the amount of traffic that would pass over them. Practically every railroad not running parallel with the road allowance has its accompanying winter trail when there are not too many farm fences to prevent them.

No advantage seems to have been taken of the great mass of information that has been secured in many countries concerning the housing of the working men and women.

There is no differentiation in the arrangement of roads and size of blocks in the various areas of the cities, and consequently we find blocks and streets of a similar size serving as sites for business and public buildings, working men's residences and high class residences.

There are peculiar local conditions which render this arrangement particularly unfortunate. There are on the prairies a few centres of population and they are surrounded by vast areas of thinly populated land which has all been divided in a rectangular manner. There is a sudden and enormously increased prosperity and naturally this is being taken advantage of to the fullest extent by those who are able to lay land in the immediate vicinity of the towns and cities.

Owing to climatic conditions the provision of the essentials—water and sewers—is arduous and very expensive and great extensions to outlying districts are not feasible; the consequence being, that it is practically necessary to live in those areas provided with these necessities and so the value of the districts served increases enormously, so much so, that it will soon (if it has not already) become impossible for the labouring man and poorly paid clerks to purchase a building lot in these districts, and not only must they buy the land but must also pay out about \$1,000 to \$2,000 for a house and as the single tax principle seems to be gaining ground he must face an annually increased taxation.

It is interesting to hear the opinions of employers on the question; some thoroughly realize the results but are too engrossed in keeping up with their rapidly increasing business to give it any actual attention; the majority, however, seem to consider it as being entirely the working man's affair and say that he can always sell and move further out if his property becomes too valuable. He can certainly sell if he has been fortunate enough to have bought a lot, but is it at all desirable that our working men must always be unsettled and continually moving on? For in "moving out" it must be remembered that we shall have to provide him the means whereby he may go in and out, in the way of street cars. Also with costly extensions of sewers and water lines, both for our own protection and his convenience; if we do not, he will surely "move out" to some other city or country where he will find conditions less onerous. It is a fallacy to assume that because the settlers on the prairie managed to get along without sewer and water service that the modern working man's wife will do so; competition between cities is too keen and transportation is now so easy that it is not necessary for people to be so uncomfortable.

It appears unlikely that private enterprise will be able to meet the conditions, and as they have to be met, it must be either by municipal action or by municipally assisted private enterprise.

Almost any concessions are offered to manufacturing concerns to locate in new cities, free building sites, freedom from taxation for stated periods, in some cases free power; therefore, will it not be quite logical to propose that some similar provisions might be made to induce the men on whose services the success of these industries depends, to live in these cities?

Arrangements may be made whereby any building company agreeing to erect a stated number of houses for working men could be guaranteed a definite rate of taxation for a certain period of years which should be unaffected by any increase in actual values of the land, with extensions of these terms provided for in the event of the property being continued as working men's quarters.

Or, municipally owned land might be apportioned for use as working men's quarters on which houses could be erected either with or without assistance, only a small rent being charged for the use of the land and with provision for reasonable permanency of tenure.

Careful restrictions as to the class of people using these areas would have to be made; many a man is a labourer today and next week an employer and property owner. In such cases he should have to make way for another labourer. It is probably this rapid advancement of condition that has encouraged so many men to come to these cities, but such opportunities cannot continue indefinitely.

A great amount of the crowding in sleeping rooms is due to the necessity for accommodation for single men, numbers of these would prefer to live in single rooms but it is not possible to secure them. The boarding house keeper commences with one man in each room but soon puts in two and later three or even four if there is room for the beds and if not then two are put in one bed and if the boarders do not like it they are given an opportunity to try another house.

It seems particularly necessary that any municipal housing scheme should include special provision for single men and this is even more important in the west than in the older parts of the country as the proportion of single men is greater here, and also because at certain times of the year there is a great number of men who come to the towns for short periods and who are often anything but desirable visitors and whose presence in regular boarding houses used by steady workmen is undesirable. Another advantage in providing special accommodation for such men would undoubtedly be the greater ease with which the policing of certain quarters of the city could be carried on at the time referred to.

An opportunity to have a bath and general clean up at a small cost would often transform a man coming in from a lumber or construction camp or threshing gang, from a dirty condition and an irresponsible state of mind to a clean and self-respecting individual, and many a man whose only place of refuge under present conditions is the bar room and the back street, if given an opportunity to clean

up and be respectable so that he would not feel himself to be conspicuous, would at once be able to go out and seek employment in a way that he is ashamed to do while feeling disreputable and dirty. Any houses put up to serve this class of men should at the outset be put on a higher and better footing than the usual "lodging house" such as the Mills Hotels and other such institutions in the American cities. The higher the standard the more self-respecting will be the inmates and the more particular would they be if later on it became necessary for them to look for room elsewhere. In fact this may be considered as one of the means for educating the poorer people in living conditions and especially in the care of new owners unacquainted with the conditions of a new country. A standard of living would be given them to commence with which they might never in the ordinary course of events become acquainted with; many strangers coming in are apt to consider the conditions that they best live under as being typical or characteristic of the standard of the country and they are content to live under them thinking that others are doing the same.

There must always be an increasing number of working men and they must be provided for if industries are to succeed. Attractive living conditions would go far to compensate for any local deficiencies in particular towns due to location and lack of some natural advantage or resources.

In considering the working men we have to remember that there are two distinct classes. The English speaking people with their own ideals and standards of living, and the Continentals with an entirely different standard; it is on the latter that we must depend for our labourers for most of the heavy construction work. They are physically strong and sturdy, and both men and women are good workers and seldom lose any time from sickness. Being in the open air all day they are able to sleep in crowded quarters without perceptibly lessening their capacity for work, their constitutions are probably strong enough to enable them to continue to live in their own way for years, but what of their children? They must go to school and so are kept indoors a good part of the day; in summer it is possible to ventilate their cramped and crowded sleeping quarters, but during the long winters, though possible, it is not probable, that there will be much voluntary ventilation with the outside air at a temperature of 15 to 30 degrees Fahr. below zero. These children will not obtain the outdoor exercise their parents do, and after having spent some years at school they will find that their knowledge is too valuable for them to spend time doing healthy labourer's work and they will become employees in stores, offices and factories and we know what will be the inevitable result exactly what it has always been in older European and American cities.

The most difficult problem of all is how to bring about any general interest in civic improvements. Individuals usually recognize and admit the desirability of careful planning but it seems impossible to secure any co-operation of action when concrete proposals are submitted. The general attitude is that nothing should be done because it cannot definitely be foreseen what may happen in a particular district and that in the meantime, each individual should be permitted

"to make hay while the sunshines" regardless of the effects on the future citizens or even on themselves.

There seems to be a fatalistic idea that towns and cities must be allowed to "grow" (in whatever way the real estate owners can make them), but that the development should be directed on certain definite plans carefully thought out before there is any extension, is regarded as altogether too Utopian for any but the slow going cities of the older countries.

It seems extraordinary that in a country whose reputation and prosperity is chiefly due to the accurate foresight, control, and direction on the part of the government over agricultural policies, that no kind of constructive assistance has been provided to assist in the laying out and development of the cities that must be the natural outcome of agricultural prosperity.

It is worth noticing, for it is often overlooked, that the quality of the wheat which has made the reputation of the prairies is not fortuitous or inherent in the prairie, but is due to the extraordinary foresight of the authorities, under whose directions regulations were made which automatically caused the growing of any but the higher grades of wheat to be unprofitable.

As a general thing, the inhabitants of the average prairie village, developing rapidly into first a town and later a city, can not reasonably be depended upon—especially during the early growth—to direct the extensions under what are now considered to be the best methods and arrangements, neither can they afford to employ men who are competent to do this work for them nor would the advice in many cases be carried out even if asked for. Neighboring cities, owing to their rivalry, cannot be expected to combine to carry out investigations or to assist each other in working out their difficulties, and the only possibility of overcoming this condition seems to be by the organizing of an independent public body whose duty it would be to secure and disseminate information on town and city planning, and which could be called upon to give advice and act as arbitrators in the carrying out of any general plans.

At present no one can foresee where the future centres of population will be, and the original settlers on land which some day may be covered by a city have not the time, the training or the facilities for satisfactorily directing the growth of a settlement from a village to a city, an expansion which does actually occur sometimes in a period of a few years.

The present governmental regulations concerning the subdivision of land for building purposes are crude, inelastic and restrictive, and the lack of initiative and constructive ability evinced in drawing them up is in great contrast to that shown in directing the agricultural industry of the country.

Taking all things into consideration the most promising course seems to be the formation of a governmental department to assist, direct and control municipal developments from the very first settlement of any locality. There is no reason why individual speculators

should be permitted to participate in the improvement of the city and for future citizens, nor, who the latter should be encouraged to do so. Economic development and constant improvement are the result of the action of persons who do not possess the necessary knowledge to properly direct the fundamental and very complex operations and to organize the methods the success of which will contribute so much to the ultimate benefit, comfort and prosperity of the citizen.

As there is already governmental control which prevents overflow and contamination of water courses with sewage or pollution and controlling faulty water supply systems there can be no good reason why there should not be a similar check on other developments which might have in the future bad effects.

There is no part of the world which has developed more rapidly and with a greater certainty of continued prosperity than the prairie lands, and it would be a great blunder to permit individuals to practically prevent future citizens from attaining the highest condition of civilized life.

At the present time there are many thoughtful officials in various branches of government and civic service who are doing their utmost to improve the conditions under their immediate control, particularly prominent are the public health officers in many places, engineers are also doing their best to give us good water supplies, sewers and well constructed roads, and those in charge of our rapid transit systems usually do their best to provide the latest accommodation they can under the conditions; but there is everywhere evidence of too small an opportunity for co-operation in these branches of civic machinery, each department is jealous of its supposed rights and the limits of other departments they affect their own and there is a very evident need for some system of co-ordination. In North America and in England this work is being done by experts or specialists, who are usually called in to give advice and to outline improved schemes and frequently radical and expensive alterations are made on their suggestions but it is quite evident that the sooner we recognize the fact that it will be necessary to employ men permanently for such work in Canadian cities the better for ourselves. Here again, a Government staff would be of greatest advantage and would be much preferable as far as economy and efficiency are concerned to the promiscuous employment of visiting specialists; one of the greatest advantages would be that the frequent changes in city councils would not affect the general carrying out of plans that have been commenced. It would also be more easy to secure helpful legislation for city improvements than it is at the present time as there would be a personal contact between government officials and the actual conditions that does not at present exist.

Turning to the aesthetic side, it will be found that very considerable progress has been made in the prairie cities as compared with any of the older cities in the same length of time; the general absence of native tree growth has made it necessary to take energetic action to counteract this condition. The requisite conditions for successful tree growing are now fairly well understood, owing to extensive experimental work carried on by the Dominion Government for the last

twenty-five years, and if landscape architects will be guided by the results of this work they need have no hesitation, despite the pessimistic warnings they will receive, in assuming that any efforts they may make in designing pleasure grounds or parks will be other than successful.

There is a very much greater range of planting material available than is generally imagined, many conifers, a few hard wood deciduous trees and a number of soft woods rapidly growing trees can be used, the list of hardy ornamental shrubs is considerable and will be materially increased as new varieties are tested, and nearly all the well known hardy perennial plants grow rather better on the rich prairie soil than they do elsewhere.

One great difficulty is to overcome the monotonous effects of the numerous long, straight streets, and another is to find something suitable to compensate for the absence of good-sized native trees for the production of quick effects, and to furnish shade; at present the pergola with its variations seems to offer the best solution for the latter purpose.

An interesting problem in this work is to work out some general style which shall become typical of the prairie cities, there are portions of the prairie country which are well wooded and which have a distinct charm and beauty unlike anything that I know of elsewhere and we shall probably do well to take our note from these districts.

It is not so difficult to secure the funds and the authority for the carrying out of this side of the city life, as it is to procure the material for carrying out the plans and in training assistants to carry on the practical work as readily as the extension of the city growth will demand.

Owing to the fact that labour is expensive and owing to the long winters, during which gardeners are unable to obtain work, men experienced in western garden work are seldom available for private employment, and as this condition is likely to continue, it would appear very probable that to offset this there will ultimately be a great demand by the taxpayer for unusually extensive public and private garden schemes. How to meet this demand, which will necessitate the services of reliable men with experience, which, in its turn, entails the necessity of providing them with winter employment in order to retain their services, is a question not easily answered.

May it not be that these western cities will evolve something new in the way of special provision for winter pleasures on public grounds which would bring a new and attractive feature into the life of the country and also serve the purpose of retaining many of our park employees.

THE HOUSING PROBLEM

By CLAS. A. HODGETTS, M.D.C.M., L.R.C.P., Lond.,
D.P.H., F. R. San. I.

Medical Adviser to The Commission of Conservation, Ottawa, Canada

It is an established fact today that environment is closely connected with personal efficiency, which is the unit of national efficiency, therefore, it behooves us thus early in our national history to better the house in which a man is born, in which he lives and in which he dies, and particularly as this necessary when we consider the great tide of immigrants which yearly reaches our shores, all of whom have to be housed. The incoming human wave breaks upon the ports of entry, chiefly on the Atlantic seaboard, and sends a spray to every city and town of importance in the Dominion, too little reaching the rural districts, while too much remains as canned up humanity in the urban districts. Such was the experience of the United States during the era of the great influx of immigrants, and such today is our experience. The authorities both federal, provincial and municipal, have not been alive to the situation and hence have followed the evils of overcrowding. It is, therefore, necessary that we work actively and unceasingly in endeavoring to prevent the further progress of this overcrowding evil. Laws—efficient laws, are necessary, but over and above the law it is essential there should be aroused such a strong public opinion that combined with a wise enforcement of adequate laws we will meet the difficulty which already exists and which is growing greater day by day, and a national calamity can only be met by united action on the part of our wealthy citizens, our municipal corporations and by governments.

As much may be learned in a practical way by the experience of others, a brief glance at the housing conditions in some of the cities of the United States may not be without profit, particularly, as the conditions which fostered them in the great centres of that country were somewhat similar to those which are producing the growth of the abominable tenement in the cities of this country. A census of the larger cities shows that the foreign speaking immigrants seek a dwelling in a locality where their own tongue is spoken, and often so strong is the difference in race and type that what may be called a clan segregation takes place, and they thus become crowded or lived together—the result is clearly set forth in the New York census of 1905, which stated that one hundred and twenty-two blocks in that city had a density of 750 persons per acre and thirty blocks with a density of one thousand or over. And what has happened since 1905? Hundreds of these houses have been raised from one to four stories in height and the total number of people per acre has arisen in some cases to

*The Health of the City—Goodrich

sixteen to eighteen hundred per acre* while in that same city today there is acre after acre on which thirteen hundred persons live their crowded and abbreviated lives. I would rather say, take out an existence.

That one may grasp the meaning of the density of 1,000 per acre we assume there are ten houses to the acre, which would about equal ten houses each on a lot 50 x 80 feet, each house with a population of six persons. This would equal a density of population of 60 to an acre. Now intensify this in the case of a four-story apartment house standing on a lot 60 ft. by 50 ft., in which each apartment contains five persons, and you have a density of 200 to the acre, then multiply this by 3½ and you are near the 1,000 mark; and yet the condition of 200 to the acre is altogether too crowded a one. What then shall be said of the conditions where a thousand or more are found in the same space?

In all of the American cities it is a case of housing the poor man, the wage earning man, upon the expensive land where his wage will pay for but little space—and so bad are the conditions in New York city that there are acres where there are ten persons to every seven rooms—where instead of the minimum of 880 cubic feet of air for each adult there are but 400 cubic feet with only 250 for a child and then only one room out of four receives direct sunlight.

Just here allow me to raise a word of warning in regard to the necessity for adequate air space, taking my text from the mistakes of New York, for in some respects American plans are being followed in the erection of some of our apartment houses in Canada, and they are faulty.

In 1878 the model tenement which secured the first prize was that known as the dumb-bell tenement, the name being derived from the fact that it expands at both street ends and contracts in the centre, to permit of the so-called "air-shaft." The building is seven stories high, with four rooms in the front apartment, three rooms in the back, with one room off the front apartment open to the street and one room off the rear apartment opening on twenty feet or less of back yard—the inside rooms opening on an air shaft whose wall is less than five feet away from the windows of the next house.

This well known case is simply mentioned to illustrate how people have been misled by architects and builders—people too who were endeavoring to improve the housing conditions of the working class. Of course, as might be expected, the evils of 1870 to 1901 are now being righted by adequate laws, but the results have been disastrous to the health and happiness of thousands, and it will be many years before they have been abolished altogether. The evil effects of this tenement housing and overcrowding are shown by the figures given by the Committee on Congestion of Population in New York, which indicate that preventable diseases alone have cost the city from thirty-seven to forty-one million dollars annually for the years 1906-9 inclusive, the total being \$106,248,408.24.

And what is the condition in New York is repeated in Boston where 1,143 persons live on an acre of ground in three and four story

houses. Coming farther west we find congestion developing in Chicago with great rapidity: although the average density of only 21.00 per acre at first seems to discredit this statement, the figures, however, are misleading as thousands of acres within the City limits are but sparsely settled and investigation has shown that in some blocks one half had three persons to a room and one fourth had two to every room. In this city the tendency is to cover from eighty to ninety per cent. of the whole lot with dwellings. Consequently the chances for adequate light and air become less and less as the city grows.

The reports received from most of the growing cities of the United States are all of a similar character. St. Louis Civic League reports one-half of the houses in the negro quarter unfit for human habitation, while the Polish quarter had an average of thirteen persons to four rooms and a number of lots were found wholly covered with buildings. Cleveland reports that one-third of all the buildings in one of its slum districts should not be permitted to exist, while Philadelphia, reputed as a "City of Homes," specializes in one-room "housekeeping apartments" where families of from two to seven persons eat, sleep, cook and live in a single room. Buffalo too, presents some most interesting features of overcrowding as conditions there very much simulate those in our larger Canadian cities: its buildings for the working classes, of whom many thousands are of foreign birth, are chiefly small individual two and a half storey wooden houses; in these houses are to be found from two to six and seven families living like bees, although the space is only sufficient for a single family. In this city we find an example of overcrowding altogether apart from the evil of the high tenement house.

And to each city, no matter how small, adds its quota to the horrible tale of overcrowding of the urban population throughout the length and breadth of the United States, happening too, at a time of commercial expansion and of a great influx of foreign population. Much has already been said and written as to the resulting evil effects upon the physical and moral condition of the people, but had as it is, time will record still worse than what has already been recorded, for the full effect of the evils of overcrowding are more apparent after a few decades of their existence.

That history but repeats itself in this respect, as in many others, we have but to glance at the housing history of Great Britain and Germany and so it may not be out of place to cross the ocean for a few moments and see what happened there—coincident with the growth of manufactures of all kinds which brought the people from the land to the manufacturing centres—in internal immigration—where they left the pure air and sunlight of the rural districts of these countries and were suddenly huddled together in the smoke begrimed environment of an industrial hell. It was the case in both countries of the building of houses failing to keep pace with the building of chimneys—a condition of affairs which dates back nearly one hundred years in Great Britain and only forty years ago in Germany.

In both these countries, it was the same as it was in the United States—a lack of proper and sufficient housing accommodation, while

the cry of the worker was "Where can I find proper housing within my means; where my family may live?" He asked for bread but was given a stone; so driven by lack of proper quarters he was forced to become a slum dweller. It was not the home of the well-to-do that was opened to him that could not expand, but he had to huddle in with the four room dweller, then by reason of the outside pressure with the three, the two room and then the one room dweller, until at last thousands of slum rooms did double duty day and night. Remember these were not temporary quarters that were thus taken up, but permanent apartments to be occupied by men, women and children, year in and year out. Little wonder is it then that bad air and malnutrition gradually began to have its effect and diseases of a communicable nature began to add to the miseries of these overcrowded European centres, and soon the evils became evident by the high mortality of the infant population—the nation's greatest asset being offered up on the altar of a modern Moloch. In one ward of the great city of Birmingham (St. Mary's) no less than three hundred and thirty-one infants were reported as dying out of every thousand born, with a large percentage of the remainder scarred, maimed or permanently disabled, the latter a burden upon the municipality, a tax upon the nation.

A little over twenty years ago, Dr. Russell, of Glasgow, which is now the second large city in Great Britain presented the results of his investigations into the overcrowding conditions of that City and in a most interesting report clearly showed that for every two persons who died in that city, where overcrowding did not exist, five died in the overcrowded slums.

Fortunate indeed for Great Britain was it that many, if not most of her overcrowded sections were composed of buildings over three or four stories in height, for it is the exception to find the tall barrack buildings of the continental city—which, for all purposes of discussion, are similar to the tenement houses of the American city and which we in Canada are unfortunately copying.

Now a few words of reference to German overcrowding and I am through with this portion of my observations. A report made in 1891 stated that in Berlin there were three hundred and sixty-seven families living in twenty-one thousand buildings, which is an average of seven-teen families to each roof and they were none of you American families of husband and wife only. And to give some idea of how the tenement idea had developed, it may be added that scarcely one family in six hundred had a house of its own, while of the total population of that fine city, 1,177,702 persons or seven and two-thirds per cent, lived in cellars. That Berlin was not alone in regard to these overcrowded conditions is quite evident from the fact that in Breslau, Dresden and Magdeburg nearly one-half of the population of each city was housed in dwellings containing but one room; in other words, at least half of the inhabitants were in barracks four or five stories high—buildings which, as just stated, correspond very closely to the American tenement house.

Much more could be said upon the evils of overcrowding, particularly as it relates to the tenement conditions in England and Amer-

mean cities, as volumes have been written thereon, but sufficient facts have been stated to show that as a result of rapid urban development, many housing evils have arisen in European and American cities, the continuance of which have proved detrimental to the health of the people, and not only is the physical standard lowered, but in both Great Britain and Germany, the tenement forms a part in a vicious circle, which includes drunkenness, immorality and gambling, factors which make for disease and death. And what is true of European cities is equally true of American cities in this respect.

Passing now to the housing conditions in Canadian cities, we have but to refer to the two latest reports issued, viz., those of the M.O.H. of Toronto and Hamilton. In the former city, a partial census was made of the housing conditions in 1911 and from Dr. Hastings' report, we quote as follows:

"The investigations * * * have fully demonstrated that we are confronted with the problem of a great city. There are few conditions found in the slums of European cities, or in the greater American cities, that have not been revealed in Toronto, the difference being only one of degree, and the conditions of the lesser degree today will, if not corrected, become those of the greater degree tomorrow. In fact, conditions have been revealed quite as bad in character as any in either European or American cities, but fortunately these are thus far limited in extent."

The Report goes on to show what some of these conditions were, viz., "rear houses, dark rooms, tenement houses unfit for habitation, inadequate water supply, unpaved and filthy yards and lanes, sanitary conveniences so-called, which because of their position or condition, or for various other reasons, have become a public nuisance, a menace to public health, a danger to public morals and, in fact, an offence against public decency."

And all this, mark you, in the City which prides itself as the Queen City of the Lakes. I ask you does not the Report read as if written of some of the older and more densely populated of the cities of Europe?

The Report shows a most disgusting and disgraceful state of affairs, but I am afraid all the tale has not been told, for upon analysis I find that all the figures and facts of the enquiry are not published; for after dealing with the density of population in Districts 1, 2 and 3 only, it states that "conditions closely resemble the "above in districts 4, 5, 6, 7 and 8, while in district 8 we found conditions almost imperative to deal with at once unless slums are to be perpetuated." It is to be inferred from this that while what appears in the report is bad, yet the tale has not half been told; indeed the housing conditions in Toronto are either indescribable or are too bad for publication.

But what of the tenements? Ninety-two in the districts reported upon and these do not include what we are pleased to term apartment houses of which it is safe to say there are several hundred and they will soon become a public nuisance—a menace to the health of the occupants—a hindrance to further improvement of the particular section of the city in which they stand and of profit only to the owners.

Then as evidence of this overcrowding and damnable tenement condition. The report states that 147 were found living in basements, 22 in cellars and 48 houses had dark rooms, while every twelfth house was found unfit for habitation, and thus 2,133 people really had no homes to live in, while in addition to this 108 families, representing 172 persons, live in one room.

Time will not permit me to dwell any longer upon the housing conditions existing in this city of churches, of philanthropic societies, charitable and benevolent institutions but one other extract from the report must be quoted as it is so descriptive of conditions to be found in other cities in Canada. The M.H.C. states:

Toronto should profit by the experiences of New York City, and other cities in regard to the cause of the common tenement house, inasmuch as we have tenement houses in Toronto at present. No house should be permitted to be made or converted into a tenement by default, and the tenements we have require most careful supervision. The apartment house really belongs to the same class as the tenement and we have information that even in Rosedale and College Heights, there are apartment houses having one or more dark rooms with no outside ventilation. These should not be permitted. With hundreds of acres of ideal residential land surrounding our city, why should we permit "Home," the most sacred word in our language, to be jeopardized by piling one dwelling upon another like so many human packing cases?

From this beautiful city, another so-called "City of Homes" (not for the working man), we will pass on to the smaller but still prosperous, because a manufacturing center, the City of Hamilton. Dr. Roberts, the M.H.C. stated as late as April 24th last: "The overcrowded tenement and the slums long tolerated as the natural concomitant of wealth and prosperity, and even regarded as the insignia of bigness and commercial activity, are gradually discovering themselves in their true significance as the prelude to civic disaster and national ruin," and then is submitted the result of a recent partial inspection into housing conditions. Some 203 families, aggregating 2,200 people were housed in 1,004 rooms. Fifteen families were domiciled in basements and nine in attics. "Sixty-seven houses showed overcrowding in a marked degree. These places are tenanted for the most part by new comers of the industrial class of every nationality, who know absolutely nothing about the value of sunlight or fresh air" (an expression which would very aptly describe the average urbanite and many property owners). Then in his concluding remarks respecting this small manufacturing city of less than 85,000 people, this public official asks the question: "Can it be denied that while the number of homes in Hamilton is greatly on the increase, the number of wholesome habitations is increasing faster?"

If the incomplete reports of the M.H.C. of these two Canadian cities reveal such shameful conditions, what can be said of the other cities? Of Montreal, it is safe to say, from a mere casual glance over the city and its environs, that the housing conditions if carefully investigated and fully reported upon, would rival those of ancient Babylon, or of any of the great capitals of the earth. Of this great

Western City, (Winnipeg) I have read much from the reports of your most efficient M.H.C. I have seen some of the bad housing conditions that existed some few years ago, but presume that with the wisdom of Westerners, you have profited greatly by the mistakes and errors which he very plainly showed us existed in Winnipeg at that time, some of which he succeeded in removing or abating. In the highest interests of the people of this fine city, it is to be hoped that progress has been made by the institution of civic by-laws for the prevention of those flagrant mistakes in tenement housing conditions which were then shown to exist. It would be interesting to learn of how much the City of Winnipeg has profited by the mistakes of the past, and what are the city by-laws for the prevention of their repetition.

Sufficient has been said to prove the parallelism between European, American and Canadian cities in respect to the housing crisis. Where they have existed long enough in Canada, some of the degrading effects are already to be seen, but these are but as a drop in the bucket to what this country will experience in the future, if we do not at once call a halt and hoist the banner of "Healthy homes for all," disparaging in every possible way - penalizing, if necessary, the damnable American, Continental method of warehousing humanity in packing cases. We must vindicate and perpetuate the law of nature that each and all are entitled to the proper quota of fresh air, sunlight and pure water, and if necessary must enact such laws as will assure the future generation of Canadians, these, their natural gifts, which are most abundantly ours. We must now, upon the threshold of our existence curb the hydra-headed serpent of greed, avarice and speculation, and solve the problem of providing healthy homes for every citizen of the community.

This demand may appear impossible of solution, certainly if it is to that class of fatalists who declare, if they do not at heart believe, that "that which is must be," but as a sanitarian, I believe it possible to give homes to the masses as well as to the classes. The fight has begun, it is waged against the strongest combination of unprincipled interests in Canada - a combination which is as speculative as it is unprincipled, so far as regards the health, happiness and physical advancement of our people are concerned. We must not rest content until both by the efforts of the governments, the municipalities, the philanthropists, the employers of labour, and the people themselves, the proper measures have been instituted. We must not be discouraged. The present Housing and Town Planning law of Great Britain was the result of many years of legislative work, and still many more years of suffering, and is the last of some eighteen Acts upon the question, and even now, it is not perfect. The laws of the German States would in many respects be imperative if it were not for the extraordinary powers of the police which have been brought into play, and in a measure, the people have to be good, for the powers that be, say it is right and proper for the good of the State that such things should be. The results make a sanitarian wish that so far as health is concerned, some higher power than a municipal council should be vested with arbitrary powers for the sake of the people generally.

The plan of campaign in both Germany and England may be

briefly outlined as illustrative of how housing conditions have been bettered in those countries and while not claiming their applicability to Canadian conditions yet it will be found they may be of use to us in the settlement of the questions involved.

1. Town planning whereby foresight is exercised in determining the inevitable development of cities and towns - restrictions are placed upon the area of land to be built upon (2-3 of the lot only - the heights of buildings are regulated. The zone system established together with many other improved methods).
2. The building of model tenements - recently extended to model homes - whereby some care and provision would be made for the housing deficiencies.
3. The encouragement of private builders and co-operative building societies in the erection of better houses.
4. The demolition of the slum.
5. In many States the towns acquire large areas within and adjacent to the municipality.

Thus the most approved German building regulations tend to the doing away with speculation, they rigidly control the builder who is building for investment while giving the greatest possible freedom to the individual who builds for himself. The authorities encourage individuality and resourcefulness while they guard the community when it is a question of building en masse. There is a limitation of dividends on municipal monies loaned for house building while land owned by the municipality is leased for periods of years with the proviso that the buildings erected thereon become town property at the expiration of the lease. The municipality at the same time reserves to itself the power of repurchase in cases of necessity.

In many respects these plans have been followed out in Great Britain in which country the autocratic form of government has been superseded by the legislative form. As already intimated some eighteen general acts have been passed in the last forty or fifty years, which provide for the

1. The wholesale clearance of slums and the erection of model municipal dwellings in their place either upon the same land or upon cheaper suburban land.
2. The compulsory improvement of unfit habitations at the expense of the owner and for the demolition of the houses where the owner refuses to act.
3. Local authorities have the power to buy land, erect houses, lay out open spaces for gardens, playgrounds and parks.

While the most advanced legislation involves sanitary changes of the highest importance.

4. Every County Council must appoint a M.H.O. who is to

have general charge of the health of the county, and to assist this executive officer.

5. There is a health and housing Committee to which very wide powers have been given. Cellar dwellings and back to back houses are forbidden.
6. Town planning schemes of great magnitude are possible.

With us in Canada it is essential that the Provincial authorities first consider the extent to which it is proper that powers should be given to municipalities in respect to the many questions involved and at the same time some scheme of central supervision with authorization should be established, and, in my opinion, the M.H.O. is the local authority around which the work should revolve in each municipality; while in the province the provincial health department should be extended by the addition of the necessary officials to be the permanent centre for advice and council of local authorities. There are too many problems of health, of construction, of finance, engineering and architecture to leave the whole question in one person's hands.

Here is a case when the wisdom is with the many councillors. But legislation is only a part of the movement—each individual city must get to work and each citizen must interest himself and herself; otherwise before this century is half over the people of Canada will be cursing our criminal indifference and lamenting their own physical defects.

The work is our own hands the question is will we obey the summons to bless and endow Canada with a posterity which will be the pride of the earth or will we be satisfied with the present day conditions where greed, avarice and speculation have their unbridled sway? On behalf of Conservation I can assure you its influence and work is with those who stand for fresh air, sunlight and fresh water for ALL.

DISCUSSION

ALD. EAST: I would not condemn the building or tenement houses altogether, but in the long run I think they are a direct loss, except when their plans of construction have been passed on by competent men. I think there should be placed in the hands of the municipal authorities great powers in regard to their oversight and control. It is only by placing such authority in the hands of the health officer of every city that you can hope to keep them in a satisfactory condition.

MR. EVANS: Naturally this has already received a good deal of discussion in the framing of our by-laws. We want to hear some frank discussions, and I would call on Dr. Douglass to let us know what he wants.

DR. DOUGLAS: I was immensely interested in Dr. Hodggets' very able address. I think he has hit the nail very squarely on the head, and though I cannot say that in Winnipeg all those conditions obtain, our hands are by no means clean. We have to contend with most of the conditions to which Dr. Hodggets refers. We have the foreign population herding in clan-like communities, and living under the most improper conditions. We have the house which was once

a fashionable house in a fine district, first of all becoming a boarding house and then being split up into individual rooms—each family doing its own cooking and sleeping in one room. We have the problem of the dark room; we have the problem of the tenement house which is erected as such, and we have the problem of the building, which Dr. Hodgetts has very properly dignified by the term of apartment house, but which later on slides into a tenement house. The cellar dwelling is a thing which I don't think we are cursed with in Winnipeg. We have had one or two instances of it, but I think not frequently.

I consider that one of the principal causes of overcrowding is that we have more people than we have houses for. I think that will undoubtedly explain some of the causes. At the present time the City Council is framing a by-law which aims to provide better housing for the people, and to not only regulate the construction, but regulate subsequent management and control of apartment houses. To my mind the construction of apartment and tenement houses should be very rigidly supervised, and equally of importance, that the subsequent manner in which these tenement houses are handled should be very thoroughly covered by the by-law or act. I think that is of the utmost importance. I don't care how good a building you erect, you don't have laws governing conditions which may arise in that building so that it will not become a serious menace to the health of the people. We hope that when we get this by-law into shape it will give us at least something to work on. The work which is being done by your Town Planning Commission will undoubtedly help us to a great degree, particularly the interest which is being taken by well-known citizens in this work, in arousing the public to action, for, after all, the educational side of this work is the most important thing. I think that the words of Dr. Hodgetts should be printed and spread throughout the whole country, thereby giving us great assistance in obtaining such legislation as we may need for the future. (Applause.)

MR. WM. PARSONS: I might say that the Chairman of the Housing Committee of the Town Planning Commission and a number of us were down in regard to the tenement house by-law, and while we were received very cordially there and received quite a few concessions, we realize that we have a great way to go in the way of educating public opinion. There were a great many things such as in regard to the size of courts, the admission of sunlight, and many other sanitary features, that we found a decided objection to on the part of the Civic Committee. They, of course, are bound to a large extent by public opinion in the city. It is a question of investment, and until we get a much larger volume of public opinion and arouse an interest as to the dangers of the tenement buildings which may look very nice at the present time, we cannot expect these desirable measures to be enacted. Some gentleman in this city has stated that we have magnificent air and splendid health conditions in this city and we don't need to be as particular as we would be in other cities; this is shouldering all responsibility on our Western Canada atmosphere, and of course is ridiculous. Conferences like this, with a number of papers read on the subject will do a great deal towards enabling the Com-

mission and the Committee that has charge of the housing work to get further suggestions from time to time from the city authorities, because that is, after all, where the remedy will ultimately come from. But, of course, the Council will not pass and enforce these enactments as public opinion demands them.

MEMBER: I would like to ask Mr. Hodge's one opinion. It seems to me that looking around about Winnipeg that our slum districts are being treated long before they ever come under the municipal control on account of the high price of land in the city. Most of moderate means are compelled to go outside the city limits, and it seems to me that many subdivisions are subdivided into 25-foot lots, and little houses are put up there, and I imagine that a good deal of crowding is done in those very places. The houses are built in anything but a sanitary manner, and in that way a slum district is created and the evil done long before they come under the control of the city. How could that be corrected? What measures would be taken in order to correct that?

DR. HODGETTS: I almost wish we were living under German laws. The Germans would simply deal with it by the municipality purchasing the land and letting the men lease it at reasonable prices. The land values have gone up so much in this country that you would think you were living in the midst of London, England. The municipalities have got to handle the problem by forming co-operative building societies. We are up against very fictitious land prices. The land is not really worth the money, and the poor man has to pay it. Now, in several of the German cities they were up against the same proposition and they purchased the lands (the German laws allowed them to acquire the land) and then they sold it back to the people at reasonable prices.

MR. PEARSON: Dr. Hodge's illustrates the condition which actually exists in Winnipeg today, as indicated by our health officer, that we have more people than we can house. The people are literally forced to live in overcrowded houses which do not leave adequate accommodation for themselves and families. These are conditions which exist for the most part in the United States and the municipalities have opened offices for the dissemination of housing schemes, and have provided interpreters to show how adequate accommodation can be provided for the people at a reasonable rental.

DR. HODGETTS: I think it would be some little time before we could get our municipalities to go into it the same as they have done in other countries. But we should go farther back than the municipalities; it is a national thing. We have plenty of land for the people of Europe, but we haven't got the houses for the people to live in. It is land if you haven't got the houses for the people to live in. It is cruel to bring those people out to this country and encourage them to come out here. What do you and I know about building houses? It becomes a national question, and the national and provincial governments should co-operate with the municipalities and see that there is proper housing for the people. If you take the census returns from 1901 to 1911 you will find that there was an increase in the popu-

ation of 200,000. How many of them went on the land? I think over 120 odd thousand went to the cities and towns of Manitoba and only 80,000 went on to the land. The tide of immigration went to the cities. Is the city of Winnipeg inducing any people to come from Europe? No. It is the railway companies and the Federal Government. We have the air and the land, but we haven't got the homes. Germany is not encouraging emigration to America; she thinks America has got enough of her population, so she is encouraging the people to go back to the land. Germany finds that it pays her to loan money at about 2 1/2 per cent. to the men who would like to take up a 3-acre patch, and so she loans the money and see that the house is put up for him. She is taking him back to the land. There has got to be some co-operation between the Federal Government and the municipalities. It is for us to get our heads together and say how it shall be effected.

There is another class of population that we have to handle—the moving population. Why, I could tell you horrible stories of these lodging houses. People come from good homes in Europe and have been forced to spend their lives in these damnable lodging houses. The housing question is right before us and if we want the people here we must have a home for them.

MR. EVANS: Have you anything to say, Mr. Falk, as regards condition in Winnipeg?

MR. FALK: I have nothing further to add, for while I am a member of the Housing Committee, I am not a housing expert. I only know the problem, through the cases presented to the Association of Charities this last winter. I believe that rents have actually doubled themselves within the course of two months. The people cannot afford it. A family renting a house at \$15 a month, to suddenly have to pay \$30 a month for the house cannot pay such an amount of rent without getting in someone else to help pay it. Dr. Douglass will tell me, I know, from experience that no matter what the law says, you can't put people on the street, especially in the winter time at 45 below zero.

In regard to the homeless transients, Winnipeg has not the same problem in regard to the lodging houses that some of the other cities of the United States, and Montreal and Toronto have. We are fortunately in possession of two fairly good lodging houses for homeless men, which accommodate, as a matter of fact, the bulk of the English-speaking homeless transients. But the problem of homeless men as far as the foreigner is concerned, mixes itself up with the condition which exists in the case of foreign families, whose members are out of work, taking in men who come in from the construction camps, as a means of adding to their income, and consequently you find them herding together to an extent that is perfectly appalling.

MR. CLEMENS: Your idea of controlling building operations by the Government rather than by the people may be a good idea in Germany, but I dare say it would hardly work well in this country. We had a similar experience with an attempt that looked like an autocratic attempt to force a law upon us which was embodied here

in the health act and that enacted by the Legislature. But I found that it forced merely from the fact that the people would not appear of it. In my opinion it was a good act, it called for more space around tenement houses, etc., but that law was abolished by the last Legislature on the plea that it was contrary to public opinion. Now that is a pity. There is not a way whereby we can say definitely that such an idea is in conformity with public opinion or not. There is no way whereby that can be determined, and it seems to me that one of the things this Congress might do would be to call for such experiments as would enable the Town Planning Commission to find out exactly what the public thinks of the various questions at issue. I only mind there is a fundamental principle involved, viz. as to whether there shall be a democratic or despotic government, and there is quite a difference between an autocracy and a democracy. Shall we move in the direction of despotism or democracy?

With regard to the solution of the question of more houses and better housing—that to my mind is also a fundamental principle. We had the ignorant people here in this city not long ago by a man conversant with the facts that only one-tenth of the area of Winnipeg was built upon. Now, what right have we to crowd the population of Winnipeg into just one-seventh of the area of Winnipeg. What is the reason for this crowding? Surely, to earn the land speculator is allowed to raise the prices to such a point that a farmer that it is impossible for the man of average means to buy upon it, and that it simply rises for the price. I asked the lecturer his opinion on the question of taxing the land values higher than before, to cause the purchase by the Government of the land and selling it again at a lower figure, is not feasible in this country.

MR. PEARSON: Might I just say that the real difficulty is that in certain areas of the city which are changing from residential to business districts, it becomes a question of revenue on the investment. It is not very well to talk about the land speculators and so on, but after it is said and done when you come to face public opinion of the mind that many people are now, you will find that the people who have small houses in a district that is becoming a business district, are not making more than one or two per cent. on their investment, and the question is: What are they going to do? The average property owner is out for interest on his investment and he is going to put up his investment building in order to attempt some solution of the subject.

DR. HODGETTS: In comparing the democratic with the autocratic method, I must say that I lean more to the autocratic for reasons I do to the democratic, I suppose largely because the autocratic person to some extent is educated as to what should be done to remedy these conditions. The democratic person has not yet been educated up to the proper standing. Both may be right; I leave it to posterity; each will have its day. Possibly the happy division between the two is the solution of the difficulty.

The question of values in this country is, as I said before, largely based upon fictitious values. You must agree with me—perhaps you don't, but it is true just the same—that men have purchased land at value which will not be its true value 50 years from now, and that

same thing is going on over the length and breadth of this Dominion, from Nova Scotia in the east to British Columbia in the west, and if you are going to base the interest on too high a value, then the poor man has got to suffer; he has got to be crushed and crowded down like a sardine in a box because of the great expansion on the one hand and the inflated price that is paid on the other. The poor man has got to suffer in every case. What the solution is I hope to see shortly solved, and only wish that I was 20 years younger in this work. I hope that meetings of this kind will create an enthusiasm which will bring men together to help to solve the difficulty.

MR. BENNET: We are probably running across difficulties which are not yet before us. I don't wish to discuss the matter of prices and values, but when we realize that today the production of current funds is five times as great as it was 20 years ago, and when we realize that the average workman is earning more than twice as much as he did at that time, and compare the actual difference between the earning power of a man today and 20 years ago in every walk of life, we begin to notice that some of these things are not as real as they seem to be. There is five times the gold produced each year today than there was 20 years ago. Dr. Douglass has struck the nail on the head when he says that the educational feature is the first one. You may take the people from the slums of Winnipeg and put them in the best apartments in the city and you have not remedied conditions one whit; they remain identically the same. If the Great Creator were to place before us the right to redistribute our facilities in home which we have already created, we would neither change the construction of those homes as they were built nor would we change the families who occupy those homes. It takes time to change public opinion. We should place before the people the progress we have made all these years, that the average length of life has been increased 20, 30, possibly 40 per cent. In the city of New York the death rate has been reduced more than 50 per cent, and we are still doing wonderful things. What are the improvements to be sought after? We have learned to fight typhoid fever. We have pure water and pure food. We have good schools and we are educating the people. We know that tuberculosis comes from tuberculosis and not from bad air. We know that by keeping out the tubercular germ we can keep out tuberculosis. What do we now lack? We lack in certain instances pure air. That is the greatest problem. Dirt will accumulate in large and expensive houses as well as in small and poor houses. Dirt will accumulate in the sunlight as well as in these alleys. What we want is some method of regulating the air and making it pure and clean, as we regulate the water. We need that one thing too, more than any other necessary. The presence of rickets which you find so frequently today in children is because they lack proper air and proper air is easily obtainable if we build our houses in a sanitary manner. But let us not forget the things that we have done. We need to do a few more of them, but we should not criticize that which we have accomplished and that which we have at our hands.

MR. EVANS: We have but entered on the discussion of the problem but we have other papers dealing with the same question.

Those who have questions which they would care to contribute to the Congress, I will ask them to be kept in mind and used at the next opportunity. I have been personally very considerably impressed by the reference which Dr. Hodgetts has made to the possibilities of housing construction.

There are a great many intelligent people facing that problem in connection with agriculture in this country. You all know what the C.P.R. has done in the west in connection with the preparation of the farm to make provisions for the erection of suitable buildings and that a certain amount of land be broken up in preparation for the settler, so that when he comes he has a home suitable to the conditions of this country and a certain amount of land which he can crop at once. And at least one company is now in process of organization, which proposes to do over a little more general extent of country, not confining itself to any part of Canada, the same thing. The company proposes to limit its earnings to a nominal return upon the capital invested, and provide the settler when he comes with a well constructed house and stable and a certain amount of broken land. If it is true, and we find it true, in connection with agriculture, that the man who comes out here and has not got a home and has not got enough land broken to give him enough return to support himself and his family will fail absolutely; there have been a lot of failures because the settler has not got to the point where he is able to make a success of his unaided efforts, how much more if it true in connection with industrial workers and others who we are inviting to this country, who, as has been shown by more than one speaker, are pouring in on us faster than we can take care of them. We haven't got proper housing accommodation. Our housing committee of the Town Planning Commission is investigating the conditions in Winnipeg. They haven't yet got their facts in such shape that we can get definite results, but what they have done so far shows that we have a serious aspect of these problems right in this city; that due to these conditions the death rate among our population is altogether too high. And, gentlemen, if we in the city of Winnipeg find that we have those conditions, you are going to have them tomorrow if you don't take proper steps to prevent it. It is therefore important that we should get together to compare notes and receive suggestions. We must not allow ourselves to forget to further consider this great problem of providing in some way proper housing for the people who come to the city.

THE TENEMENT HOUSE QUESTION

By DR. M. SEYMOUR, REGINA

Commissioner of Public Health for Saskatchewan

Tenement Houses.

The rapid growth of cities at the present time makes the need of proper town planning, as well as the erection and enforcement of sewerage systems; it will also help to improve the artificial conditions which living in cities brings about.

Among the important features to be considered in town planning are those connected with sewerage, sewage disposal, drainage, water supply and lighting. In preparing the plan of any of these, the physical character of the district must be carefully studied, as the general plan of a town or city affects very materially the economical as well as efficient design of pipe lines. In many cases it is necessary to resort to costly construction and the installation of expensive appliances in order to overcome difficulties, which, a little foresight in laying out of the town would have avoided.

As the selection of most of the townsites in this country is in the hands of the railway companies, it would be well to interest them in the importance of considering the above mentioned questions. Frequently the procuring of an immediate water supply seems to have been the only consideration in the selection of a station site, which becomes the starting point of a town. The neglect of taking into consideration the physical features surrounding a station is apparent in a number of instances where towns are located in the midst of sloughs, affording more suitable living conditions for flies and mosquitoes, than human beings.

As the town grows, epidemics of typhoid break out, as is always the case where many people live without adequate facilities for the proper disposal of sewerage. This has been, and is still, a most serious question in the prairie provinces; it can only be remedied by the installation of sewers and the procuring a supply of good water. The importance of streets and lanes of sufficient width is becoming recognized. In Saskatchewan the act governing the survey of townsites provides that no street shall be less than 66 feet and no lanes less than 20 feet in width.

Many municipalities are taking advantage of the wide lanes, in having their water and sewer mains, lighting conduits and poles, as far as possible, located on the lanes, thus reducing to a minimum the amount of excavating on the streets, as well as eliminating the electric poles.

To Preserve Health.

Town planning is an effort to control town development with a view of providing health, convenience and beauty. This movement is destined to have a very beneficial effect upon the health and happiness of urban population.

This movement will be very much in the interest of this prairie country where in the past too many of our towns have been allowed to grow in any hap-hazard way without any thought as to the formation of industrial or residential areas. This not only hampers trade, but interferes with the development of that quiet and beauty of surroundings which should be prominent features of home districts. That there is a need of the town planning movement is proven by the following: Eleven thousand men in Manchester England, tried to enlist in the army. Eight thousand were rejected, two thousand were accepted for the militia, and only one thousand were taken for the army. Similar complaints are made of applicants at workshops and factories. With the possibility of an invasion ever before her eyes, it is not to be wondered that this defective condition of mankind is giving Britain anxiety for the future, both from a military and industrial standpoint. Investigation has shown that housing has a direct connection with the welfare of every individual. A national movement is consequently started to improve the house in which a man is born, in which he lives and dies, in a belief that environment is closely connected with personal efficiency.

The building of houses, even in the west, has not kept pace with the demand, and it a difficult matter for men to find decent housing within their ability to pay. This condition leads to overcrowding and the development of slums. We already have bedrooms doing double duty, night and day. No sooner do the night sleepers leave than the beds are filled once again. Overcrowding, as has been well said, is almost synonymous with slum. Godfrey of Boston says: "It has been proved that the various barriers by which the slum holds its people are not long necessary. By imperceptible but rapid degrees its denizens sink into apathy and develop that strange malady of the great modern city, the "slum disease." This is an infection productive in infections, a contagion which, as it spreads through the slum, creates new slum dwellers as it passes, leaving its victims stricken with inertia, slothfulness, drunkenness and criminality. Marvelous it is, and worthy of high praise, that so many escape these characteristics. Let them escape or not, one and all suffer equally in their lack of resistance to disease. Malnutrition, bad air, and over-crowding swell the columns which tell of tuberculosis, pneumonia, diphtheria, and every kindred disease. The slum is the great culture medium of civilization, wherein huge cultures of disease are growing, ready when ripe to rise and sweep the city streets."

The ideal to be aimed at in tenement and apartment house planning should be to obtain for every room an adequate opportunity for the admission of air and light, if possible direct sunlight at some hour of the day, with the added precaution of only building upon such a percentage of the available ground as will ensure the mainten-

ance of these conditions. In addition, legislation limiting the number inhabiting such apartments is desirable.

In these days of easy and rapid transportation, there is less excuse than ever for congesting housing conditions and the accompanying evils. This is particularly true in most of our western prairie cities where nature has placed no obstacles such as hills and rocky shores to limit expansion; under such conditions a narrow 25 ft. lot, in otherwise desirable residential districts, is indefensible.

One of the most objectionable types of tenement house is that known as the "one-room apartment." The necessity for regulations controlling the erection of tenement houses was made manifest recently in Regina where a company endeavored to obtain permission for the erection of a tenement block, consisting practically of one room suites. The plans show a building of three floors, the basement floor being only partially underground. The suites consist of one fairly large room, which would have to act as living room, dining-room and bedroom. These are provided with windows to outside air. Each of these rooms has in connection with it a very small kitchen, only 7 feet by 6 ft., and a bath and toilet room of same dimensions. The bath room has only borrowed light, and although the specifications call for some sort of artificial ventilation the principal ventilation of this toilet room would be directly into the living room. The regulations controlling the erection of tenement houses in Saskatchewan do not allow of this sort of a building, as past experience clearly proves that this is the sort of a building which soon develops into a slum. This building provides for housing 40 families, occupying a space of 100 x 125 feet. It would be quite impossible to prevent overcrowding in a building of this character. The prospects of this block being a money-maker made a certain number of people very determined the building should go on, and my refusal to assist in their money making scheme at the cost of the health of the occupants met with a lot of opposition from those interested.

MR. EVANS: The last paper, by Dr. Seymour, has been very interesting and it is a very good thing for us to know that in the Province of Saskatchewan, as well as in the Province of Manitoba, there are men who are conscientiously taking hold of problems of this kind, and we have in the last remarks of Dr. Seymour additional point given for the necessity of the education of public opinion. There are many medical men in every district who know what is right and are prepared to do it if they can, but it is very difficult unless they are backed up by public opinion, and it is our duty as citizens to give all possible support to experts who are working on this problem.

HOUSING AS IT AFFECTS THE COMMUNITY

By MRS. ALBION FELLOWS BACON

Secretary Indiana Housing Association, U. S. A

No one comes to a Town Planning Conference more eagerly than the Housing Reformers. We come from the reek and grim of the slums that require so much of our effort, to wander down your inviting streets, to gaze upon your uncrowded buildings and to enjoy your noble views. We, the "Slaves of Things as They Are," feel more keenly our iron limitations when we visit you, the Gods of "Things as They Ought to Be," and see you, Titan-like, playing at chess with mills and towers, hills and streams.

Yours is a work of creation for the future. Until the slums are all wiped out, a large part of our work must be to repair the wrongs and mistakes of the past, and remedy the ills of the present. Even our work for the future must be largely the prevention of ills, for Housing Reform, as we are allowed by law to work it, means the remedy, the cure, and the prevention of slums.

Enormous as is this undertaking, it is safe to say that few Housing Reformers, starting out in the work, realize just how they are to be restricted. Driven into the work by our horror of what we find in the slums, sickened by their sights, smitten by their dingy, dreary ugliness, we wonder how the child of the slums can ever have a pure or noble thought in such an environment. We dream of destroying the vile tenements, and of giving in their place, cleanliness, comfort, convenience, sunlight, flowers, in short, "beauty for ashes." We find that Housing Reform can be accomplished only by means of strong laws. That, while our philanthropic enterprise may be able, here and there, to plant a garden spot, our main effort must be in rooting up the noxious weeds that choke our civic and social life. We find, too, much to our disgust, that, in the majority of cases, the buildings that affront us cannot be torn down, but, with certain alterations, will be left standing in all their ugliness. We lose, early, our hope of view or outlook, glad if we can get a full breath of air from any side. We find that we may require by law, only what is necessary for public health, public morals, and public safety, the barest necessities, the merest decencies. These we figure up to be mainly, light and air, water, sewerage and drainage, necessary repairs, fire protection, and the privacy which saves each family from being invaded by others. Bringing these down to actual terms, we require certain spaces of a lot to be left vacant, to allow for the necessary amount of light and air. We require at least one window in each room of a tenement, and fix

the minimum dimensions of rooms, to guarantee air space. These provisions we draft (in writing laws) with a frowning builder at one elbow, a helligerant landlord at the other, an indifferent public at our back, and an uncertain legislature to face. We make these requirements as low and meagre as safety allows, and then fight to get them, fight to hold them, fight to have them enforced. We can but think Town Planning would save us the struggle over the most bitterly contested point, namely, the amount of space left vacant on a lot.

You may be surprised, as we were, that, in this day, in this country, with its vast, unpeopled spaces, we should have to struggle so fiercely, not only for a few feet, but even a few inches, of space on our building lots. Suffice it to say that the supposed right of the landlord to build over his entire lot, and to borrow his neighbor's light and air, is as bitterly defended in our little towns as in our great cities, notwithstanding the absurd difference in values. This, of itself, shows the urgent need of the Town Planner in this country. To those who, from the Old World, visit our shores, who note its unbuilt wastes, its illimitable fields and forests and the newness of its scattered towns, it must seem as if there is great need for the Town Planner but that the Housing Reformer ought not to be necessary. So many have believed, and so, unfortunately, our own people have thought, if they have thought at all upon the subject.

"How could we have a Housing Problem when we have no slums?" Our people said. "And who ever heard of slums, in this country, except in New York and Chicago? To be sure, we had our poor, but not very many of them, and they were not very badly off, indeed, much better than they were in the old world, whence some of them came. Yes, they did live in old houses, but it was their fault if they were dirty and tumbledown. They ought to fix them up. It was plain they liked to live that way, and they deserved no better. But as to slums, that was absurd. Only great cities had slums." So our people went on, building, crowding, "booming" their cities, reaching out with both hands to draw in new industries and new citizens. Yet the citizens they had were not all provided with houses, and there was no place for the new comers; their natural resources were going to waste, the heart of the city eaten out with ruin and decay where the poor, in their business district, hid away in rear tenements, filthy dens, and stables. Here, filth bred disease, and darkness bred immorality. Poverty hid within a block of the city buildings, a stone's throw from their churches, around the corner from their handsome residences. And we could not see that we had slums. Our cities called aloud to the home-seeker to come to our "city of homes." And when the working men came by the hundreds, they had to take shelter, with their families, in the already overcrowded quarters of the poor. And this has been the outrage of our American cities, in their mad scramble to get rich quick, and get big quick. "Not many poor," our people said. We have not found the city, the town, the village, that knows all about its poor, how many they are, or where they live, or how they live. We have not found the community that knows how much poverty and vice and disease is bred in its hidden haunts, nor how much they cost the citizens in "dollars or deaths."

It was many years after New York City had fought its "Battle with the Slums," long after Chicago had passed its tenement law, and a number of our eastern states had taken up the fight, that Jacob Riis went through our land crying aloud, "Head off the slums." Like a prophet of old he foretold the destruction of our cities, and the danger in our midst. "Fifty years ago," he said, "the slums of New York resembled those of our larger western cities today." Then we awoke to the truth, just a few of us, not all, and set about to awaken the others. Our first step was to find out the actual facts about our slums. The result of this investigation may be anticipated. We know now, as it was not so well known then, that every one of our states has a housing problem, just as every country has. Reports show that not only all our great cities have slums, but that they exist in almost every town and in many villages. So, when we started on our search for slums, we found them on every hand. We found them hidden away behind respectable fronts that we had passed daily, unsuspecting. We found wretched blocks and rows of tenements, in every stage of neglect and delapidation. We found people living like cattle in wretched hovels, or shacks, on the outskirts of the towns. We found block on block of "detached" or single dwellings, dingy, unpainted, flimsy, with no provision for sanitation, comfort or convenience, in just as bad condition as the tenements. Some of the conditions that made most against sanitation were present everywhere though each locality had its own peculiar drawbacks. In the larger cities, naturally, we found more dark rooms, and more tenements. In the smaller towns we found few houses built for tenements, but we found many old "converted houses," where a number of families had seized upon an old residence, and had made a slum quarter of it. In some places we found from ten to twenty workmen occupying a small cottage, changing off from a day shift and a night shift. Here it was the custom to bury garbage in holes in the yard. In some towns we found a regular defined poor district, often on the edge of a town, where the poor lived in hovels and huts. In most of the towns we found the poor living in the upper floor of warehouses, and over stores, the middle room being windowless, and used for the sleeping room. These apartments are rough and unfinished, with no possibility of being made homelike. Some of the poor were found sharing a stable with the horses and mules. Others were found living in filthy alley hovels, herded together like cattle. In one alley the police made a raid, after a fight, and discovered negroes and whites sharing vile, unlighted rooms, full of bunks and cots, and carrying on every form of vice.

The lack of water, drainage and sewerage is one of the worst features of our slums. It is a rare thing to find a hydrant in any of these dwellings, rarer still to find an inside water closet. Crude and filthy sheds in the rear yard cover foul smelling cess-pools, and these are used by a number of families. In some towns, the old fashioned cistern is found, with an open box top, instead of a pump. This, of course, give free access to dirt and trash, and draws in the seep water from the surrounding yard where the suds and dishwater are thrown, as well as the leakage from the old cess pools. And this is not, in many instances, due to a lack of ability on the part of the owner to make water and sewerage connections, for even when the mains are

at hand, in the street, no effort is made to make the connections. Indeed it requires a hard battle to enforce it.

Numberless instances are reported of families carrying all their water one, two, and even three squares, and then carrying it up several flights of stairs, to their tenement room. In most cases, a number of families share one cistern, and we found as many as ten families using out of one cistern, for washing and cooking. No wonder their clothing is always a yellow-gray. No wonder one of the poor women washed her baby in the bluing water, in a spirit of saving. No wonder, when the open cistern, full of floating trash and seep water, furnishes the supply of drinking water, typhoid reaps its deadly harvest. In some localities the situation is complicated by hordes of foreigners, "Humyaks," as they are called. These, unable to speak English, and thus protect themselves, crowd into houses that have been let and sub-let, and which they take at an outrageous price. Here they are found, 10 to 17 in two rooms, eight or ten in one room, cooking, eating, sleeping, all together. Too often that room is windowless. Eleven hundred absolutely dark rooms were found in one of our cities, to the amazement of all, especially those who said they had "no slums." In the same district were found rear tenements, built on the alleys, close to the overflowing sinks of the front ones, whose odors compelled the windows of the alley houses to be kept shut, night and day. Yet sewer mains were close at hand, and the trouble was unnecessary. In these tenements, crowded by the foreigners, where three prices are paid for dark, windowless rooms, foul air and polluted water, one can imagine the filth, the odors, the germs, the wretchedness and misery. The danger of pestilence is appalling. In one place a slum village was found, built upon the dumps, and inhabited by rag pickers and their ilk. They had put up rough shacks, each for himself and family, built of refuse tin, wood, scraps of iron, etc. Each family had one room, with no conveniences, living partly off what the produce man discarded. Here washing was brought from the town across the narrow river. The people of the village walked the streets of that town, were entertained in their pails, subjected their citizens to every kind of contagion, moral and physical, but were not interfered with, because "they were used to living that way." One strong distinction must be made between the slums of a great city, and those of the smaller ones. In the latter everything is present that is found in the great cities' slums except the "land congestion," that one horror that the Town Planner puts out of the range of possibilities. Though the danger of "land congestion" is steadily coming nearer all of our cities, with many of them it is still remote. Note, then, the realities of slum conditions that can be found without it, and are utterly independent of it. We have found typical slum dwellings where not less than a whole acre of land surrounded them. To be sure, sunlight and air were plentiful—on the outside—but all the other conditions, and the family within, would have disgraced a New York row. In fact, we have found dark rooms in such houses, as strange as it would seem.

The real horror of the slum of the smaller town is "room congestion." The "converted house" which we have mentioned is most

often a residence that was built for one family. With one stairway, one cistern, and one yard closet, they are often seized upon by eight or ten families, one to each room, who use all these conveniences in common, men, women and children together. Too often the stairs and the hall are dark, and so is the yard, and the inducement to immorality is extreme. The crowding of one family into one room gives the worst cases of room congestion. We have even found two families in one room. Often there are visitors, sometimes boarders. When the beds, table, chairs, cook stove, wash tub, "safe," and the family itself, of from five to ten persons, are all in this room, the term "congestion" is well applied. The worst trouble is not in the insufficient air, for so many persons. It is in the fact that there is no privacy, that every function of family life goes on before the little children, that growing boys and girls have no chance to know what modesty, or even decency, means. We are assured, by one who has kept note of these things, at our State's prison, that almost every case committed there for assault may be traced to these places where people are herded together. It is impossible to have any home life in these wretched places, where there is no privacy, no comfort or convenience, and where there is such crowding. The uniform condition is dilapidation. Searred walls, rough floors, broken windows, open woodwork where soot and dust pour in and vermin and germs find a retreat, combine to make an interior so uninviting that it is small wonder if the boys and girls prefer to roam the brilliant streets, and the men go to the saloon. The odor of the garbage, and of the sour, sodden yards, as well as of the cess pools in the rear make the overbreathed air intolerable. The presence of the stove where the family cooking is done adds to the discomfort of the room, especially in summer, and makes it very bad for the babies, who wail through the hot nights, sick, too often, from the polluted water they are given out of the open cisterns. And this is not an occasional case, for hundreds, thousands of families live under just such conditions, in one room. Where the family has two rooms, or even three, the sleeping room is sometimes windowless, and infant mortality as well as malarial fever is given all the encouragement possible. The investigation of bad housing takes one up rickety stairs, through pitch dark hallways, up into rough garrets, down into mouldy reeking cellars through vile alleys, and, sometimes, up over business houses, where one would never dream squalor could exist. The investigator comes away with a collection of records and photographs, cold and colorless. But in his heart is a hot indignation, and in his mind a vivid picture, seared so deep that it can never be obliterated. For where is the investigator who, looking at the leaky attic roof, does not see beneath it the burning eyes of the child with pneumonia fever, upon whose head the icy rain had poured? He sees, after he shuts his eyes at night, the poor woman dying in the little, stuffy, close dark room, without a window. He sees the pinched face and claw-like hands of the baby, moaning in its mother's arms, too sick to cry, with dysentery, from the foul water in the cistern. He sees the group of children, huddled in an upper room, because the yard below is so full of trash and refuse they cannot play in it, and hears the mother plead, "Don't send the health officer, or the landlord will get mad and put us out, and I'm a widow, and it will go hard with me."

So, with the sights of the slums before us, with their odors clinging to us, and with the ache of the misery of the poor in our hearts, we despair of telling the story of the slums to the public, so that they will be moved to wipe them out. We can only implore people, "Go and see for yourselves." Alas, the general public is like the lady who went once, at our request, and looked and sniffed, and lifted up her dainty skirts, and went away, refusing to go again, because "It made her so blue." And the public must be made to know and to feel what these things mean to the poor, and to the working men's families, too, if we are ever to get rid of the slums. The trouble is, these things don't touch the men and women who might do most to help them. We might wish that these builders and owners, those members of councils and legislature who do most to oppose housing reform could spend one August night in our stuffy, close, windowless tenement rooms, or in one of the alley hovels, where the reeking garbage piles and horrible yard odors are at their worst. This, we believe, would bring reform. But, as such methods of instruction are not likely to obtain, we must continue to depend on the pulpit and the press, and, with the moving picture, bring an odorless and colorless slum to the public that refuses to see the real thing. The conditions we have been reciting were all of them found in one state. Reports from other states show that similar conditions prevail, all over our country. To be sure, they vary, from villages of adobe huts, on the Mexican border, to the many storied tenements of our great cities. But the reports all tell the same story of poverty, neglect, human misery, human self-interest. They tell the same tale of ignorance, the pitiful ignorance of the poor, the selfish ignorance of society, the blind ignorance of the business world, that is just now beginning to learn that slums do not pay. They repeat the stories of the slums that have come down from the earliest days, when the burden of the Hebrew Prophets was the oppression of the poor, and civic dominations. And whether in Peking or Paris, London, New York or San Francisco, the story of the slums brings out the same sad lessons, and we find the problem of Housing Reform is much the same.

We have not pressed the comparison to your own country, but we know you will not hesitate to do this. With the growth of your cities, with the tides of immigration that bring so many helpless thousands to you, as to us, you share with us the great problem of adequate housing. You have, too, the problem of housing reform that waits on all towns, as age and deterioration steal upon them, and as the poor seek a harbor within their gates. You, however, have learned, better than we have, the value of the workman as an industrial and commercial asset, and will not suffer his health to be broken down or his life sacrificed in unsanitary dwellings. You realize the cost to the state of poverty, crime and disease, and appreciate the bad business policy of abandoning vast areas of a city to be breeding places of paupers and criminals, the hotbeds of pestilence.

Our people are not apt to get wildly excited on the subject of public expenditures, but we have pressed home some of our discoveries that touch them in a vital place. When we found the children of the slums in the same room, at the public schools, with children of the

best families, the mothers and fathers listened more attentively to the stories of slum life. This would not happen if all of our slum districts were set apart, in our towns. But it is the case, in many towns, that the slums are scattered, a miserable block here, a dingy row there, an old dilapidated dwelling, sometimes, with new houses, well built, on either side. Sometimes a slum district is huddled away, in rear dwellings, a few squares from beautiful residence blocks. So it happens that the child from the worst slums sometimes sits across the aisle from a child of wealth, and the moral and physical contagions of the slums, with their low language and standards, must all be feared.

The growth of tuberculosis has frightened some of our people, with the danger of germs brought home in washings, in bakery products, in sweat shop goods, or encountered on the streets and in public places. The fight against tuberculosis is helping the fight for better housing, and just lately in Cincinnati, O., more than 250 organizations have joined with the Anti-Tuberculosis League in a crusade for better housing conditions, putting 10,000 people into the fight. So, here a city and there a state, is taking up the fight for Housing Reform. Under the leadership of our Director, Lawrence Veiller, whose Model Law we hope to see adopted, state by state, our nation is awakening to its need for better housing conditions.

Gradually our people are coming to see that our social problems, our civic problems and our business problems are all tangled up with our housing problem. Our charity workers realize that the poor cannot be permanently relieved until their living conditions are changed. Social workers see that the wreckage of the slum is being piled up mountain high, faster than our churches can evangelize or our schools can educate. The best of our architects and builders are beginning to see that good standards of building cannot be maintained, unless there are laws to require them. Civic workers are coming to understand that, after all, our towns are mostly houses, and the "civic improvement" which contents itself with boulevards, parks, playgrounds and gardens, but leaves untouched its dilapidated tenements, the ugliest blot of all on civic beauty, falls far short of its opportunities. They have learned, too, that the class of citizens who are reared in the slums too often hang like a dead weight about the neck of civic progress, especially when they grow up into councilmen or mayors. But, most hopeful sign of all, there is dawning upon all of our people the significance of the home. The watchword of "Conservation" keeps before us the need of the conservation of the child, and this can only be achieved by the conservation of the home. In our own state we have taken "The Homes of Indiana" as our slogan in the housing fight. We have repeated to our people the saying of one of our own great men, who, years ago, thus expressed "social sobriety": "Whenever any little child suffers, or is in danger, my little child is not safe." It is to make all childhood safe, to give each one its birthright of room to grow in, air to breathe, and sunlight to blossom in, to give childhood the chance to be pure—dreadful words to say—that we are all working together to make the home what it should be. England has led the way, and we are ready to follow you, with our Garden Cities. Here will be planted the happy homes, and we would fain join with you in

your joyful planting. But we look out over the vast plains, where the cities already built lie like blots on the sunshine. Among the deepest of the shadows we see the white pinched faces of little children, who are stifling amid gloomy walls, where sunshine cannot enter, where flowers could never bloom. We see their grimy little hands outstretched to us, we hear their cry, and we cannot cease from our battle until they are set free.

HOUSING AND TOWN PLANNING

By HIS ROYAL HIGHNESS THE DUKE OF
CONNAUGHT

Governor General of the Dominion of Canada

Ex-Mayor Evans occupied the chair and opened the meeting with the following brief address:

"Our congress is highly honored today by a visit of H.R.H. the Duke of Connaught and Princess Patricia. This visit is evidence of the deep personal interest which we know His Royal Highness has for years taken in the problem of town planning, and it will prove a great encouragement to us in our work in trying to prevent here the evils which tend to creep in in all centres of population; to rectifying abuses already existing and to lay deeply and broadly the foundations for the future which may be worthy of the possibilities of the humanity which we inherit.

"We are sensible of the very serious fact that humanity must follow in efficiency, in morals and in happiness, if material conditions under which that humanity lives are as favorable as they should be. There are in this congress representatives of the Mother Country, of the United States and of Canada. Speaking for Canadians, let me say, I realize that Canada cannot be as great as it should be unless that little part of it for which we may be directly responsible, has not municipally the facilities it ought to have, and as citizens of this great Empire we know that imperialism and patriotism in general is a vain thing, but it must show itself in building up the thing at hand. We cannot be true patriots of the Empire, neither of Canada, unless we deal seriously with the problems of health and aesthetics, which are involved in this congress.

HOUSING AND TOWN PLANNING

By His Royal Highness, the Duke of Connaught.

Gentlemen: I can assure you that it is a genuine pleasure for me to be present at this meeting of the first Housing and Town Planning Congress of Winnipeg, which is, I believe, the first such congress to be held in Canada, and I trust that your citizens may be by your influence educated up to the importance of the various items of your programme.

Money and thought expended now while your city is young, and while whole districts are covered with buildings of a temporary character, will repay you a hundredfold in saving the great expense of remodelling the city when its buildings have assumed a more permanent character, generally. You already have a splendid city, but every city

in the world is capable of improvement. You must remember, however, that town planning is a special branch of art, and that before committing yourselves to any general scheme it is advisable to call in the best expert advice which can be procured; that of a specialist in this branch of art.

Any scheme adopted must be general—such as that which the genius of Baron Haussmann gave to Paris, and which made the French capital into such a beautiful city; a scheme which—long after the death of its author—is still being carried out in its entirety, and owing to which we now see broad boulevards still being driven through the insanitary rookeries of lower Paris.

In these days, when so many people are thinking solely of the amassing of wealth, numbers of them are careless as to where and how they live. We must try to discourage this spirit and make the public insist on the surroundings being beautiful as conditions will admit.

You must not forget that some of the problems which confront you are not to be permanently solved; the city is ever on the move. Where you have shot prairie-chicken your sons will transact business; where your fathers fought against Indians we are standing this morning.

The garden suburb of today is the manufacturing district of tomorrow; so you must look to it that your improvements keep pace with the growth of the city and at times even show an intelligent anticipation of such growth.

Furthermore, it is not sufficient to provide suitable and sanitary buildings. Many thousands of the working classes are far from grateful for being put into them. This phenomenon has repeatedly evinced itself in other great cities. You have not only to provide improved conditions of housing, but you have also to educate the working classes to such an extent that they will insist on living in a decent and sanitary manner.

If you can do this you will reduce the work thrown on the hospitals, and will contribute to the eradication of tuberculosis, which is so terribly prevalent in Canada. The public are notoriously apathetic and are slow to learn that tuberculosis is a preventable disease and that one of the first steps towards stamping it out is the provision of proper domestic conditions, of fresh air and of open spaces.

Before closing my remarks I should like to make a suggestion for your consideration. It is that a committee be appointed at this congress to consider either permanent organization of a national character, or at least such organization as may facilitate the holding of further congresses at intervals.

These congresses are of the very greatest value, enabling those attending them to exchange ideas and broaden their view of this important subject.

I hope many such congresses may be held in Canada, affording

opportunities for those interested in the subject to improve their knowledge, and rousing the interest of the general public in a matter which affects them closely.

It is not only the great cities which should be interested, but also the smaller and newer municipalities, for their towns stand as much in need of help as do the greater, and can be equally assisted by a congress such as this.

Your Commissioner's programme, which I have had before me, is a model of conciseness; it could not be improved. The next step is by constant repetition of that programme to the public, either in its existing form or in analogous terms, so that they may eventually realize and believe in what it sets forth.

It will be uphill work, but persistent energy is assured of ultimate success, and for that success my heartfelt sympathy accompanies the labors of this congress and of the Housing and Town Planning Commission of Winnipeg.

THE ESSENTIAL ELEMENTS OF CITY PLANNING

By MR. GUY WILFRID HAYLER

Member Institute of Municipal Engineers and Royal Sanitary Institute, of London, England

The design of a city is in the main, an engineering one. The primary feature of any scheme concentrating a great mass of people within a restricted area, must be, that the highest efficiency is secured for all, by such lines of intercommunication from point to point as are the most convenient by being the shortest. This will be determined by the nature of the site and the disposition of the buildings, and will be the function of the Engineer to solve. The aesthetic features will then follow in the proper evolution of the scheme, and will fall to the Architect to design. Thus the Engineer and the Architect working together will give us utility and beauty in a scientific and artistic scheme of civic design.

The new City as conceived from the engineering, architectural, artistic and social standpoints will have provision for every civic want as far as can be possibly foreseen. It is no new dream, to so contrive, by means of well-planned streets, squares and boulevards to bring the industrial, recreative and residential portions of the city into one harmonious and systematic entity. It has been the ideal aimed at from the earliest times. Both Rome and Athens planned their colonial cities on orderly lines, though Rome and Athens allowed their capitals to grow in a fitful way. Paris and Washington in later times both built themselves up on a pre-conceived plan of development. Thus City Planning has throughout the ages had a chequered and loosely-connected history, and it has not been until more modern periods in the world's progress that the subject has been deeply thought about and placed upon a substantial basis. And in our own day we now see the wide appreciation of the Art of Planning Cities. The Australian Federal Capital, the Indian Capital of Delhi, and the wide extension of the Garden City movement in England and abroad, together with the various schemes of civic improvement in England, the United States, Germany and practically all the world's progressive countries, show that the new movement has come to stay. It is a movement pregnant with greater possibilities for establishing a better social life than any other social movement of our times. It cannot be neglected by anyone who wishes well for their country, because it is the logical basis of all social reform. The better house, the better factory, the better street and the better park are the *raison d'être* of City Planning. In the words of Professor Drummond: "Whether our national life is great or mean, whether our social virtues are mature or stunted, whether

our sons are moral or vicious whether religion is possible or impossible depends on the City."

The essential elements of City Planning need careful consideration, and though local circumstances of climate, materials, construction, nationality, temperament, etc., will necessarily differ in many cases, there are the broad principles always before us, and upon these, every civic design must be built.

The situation of a city is of primary importance, and it should be the first point of consideration. A good belt of surrounding agricultural land, a region of mineral wealth, a junction of highways, railways or rivers influence location, and with it the necessary conditions for growth and prosperity. The healthiness of the site is also of tremendous importance, for whatever engineers may do to make improvements it is surely a grave indictment against everyone concerned to proceed with the erection of a town on an obviously unhealthy site. In a new country, land is practically unlimited, and swampy or flooded portions or an imperious sub-soil will produce evils vastly in excess of advantages. It is essential that there should be natural healthiness, as well as the possibility of its artificial preservation when buildings and streets with population cover the area. First then, an abundant supply of good water at a sufficient elevation and within a reasonable distance. Second, adequate surface drainage for storm waters, and thirdly, levels that will permit of a system of underground sewers with a suitable outlet, and an area of land for the disposal of the effluents. Without these primary essentials no new city should be laid out. For though it would not be past engineering skill to overcome such difficulties the community would be saddled from the first with vast expenditures and the problem would become more serious as time went on. Several of the British Colonies have examples of such bad selections of town sites.

An Australian Town Planner, Mr. John Sulman, F.R.I.B.A., says, "Too often good conditions are wanting, and then (if Government origin) it is a direct loss to the community; if privately promoted it is still a loss, but indirectly through individuals."

The utilisation of the land to the best advantage not only to the individual occupiers, but to the community as a whole is the next consideration. Generally speaking the city may be said to be composed of three distinct parts amalgamated by streets, railways, or rivers, as means of communication. These are, (1), The industrial part, comprising manufactories, warehouses, offices and shops. (2), The recreative part, comprising parks, play grounds and open spaces. (3), The residential part comprising private houses.

The city of the past has been content to allow all these various parts to grow exactly as local conditions have dictated. They have grown in accordance with themselves alone, and have had no concern with their relations to the corporate whole. The result has been so entirely evil that all the old cities which have grown up on these lines have been sooner or later confronted with the imperative necessity of huge schemes of radical improvement in the matter of housing, street communications, open spaces and traffic facilities. The new city need

have none of these difficulties to contend with, if it is planned originally on a rational and far-seeing basis. The three parts of the city as just outlined need to be designed in full view of future developments. The Chicago authorities have estimated that their city would have saved at least one hundred million dollars had its growth been properly directed in its early days.

On a fairly level site, an ideal city plan is possible, but the presence of a river, hilly country or some such natural condition, will break up an uniform design. But such breakage can be made to add to the pictorialness of the place if planned aright. On city sites of varying contour, streets at right angles are ludicrous. Examples might be given of towns built with up and down streets on the sides of hills, on which it is most inconvenient to walk and for vehicular traffic almost impossible. The only proper way to treat such sites is by curving roads with easy gradients which will be far less costly in construction and immeasurably more serviceable.

Though, in the past, land has been laid out with the narrowest width of street allowable and the greatest ingenuity displayed in squeezing together as many building sites as possible, it is generally admitted now, in all countries where town planning has been earnestly taken up, that this is a short-sighted policy, from the point of view of the land owner, as well as the community. In Germany, where Town Planning is an exact science, the landowners are entirely in favor of a comprehensive scheme embodying all the improvements possible. There are differences of opinion as to ways of laying out, but land owners recognize that if the property which they erect, or which is erected upon land they own, is not to be injured by inferior property in the neighborhood, there must be a Town Plan to protect them. Dr. Adickes, the Oberbürgermeister of Frankfurt, who knows English as well as German towns, says distinctly, "that the chief cause of the greater part of the evils which exist in English towns is due to their not having Town Plans and town regulations of the German type." Happily the recent Housing and Town Planning Act will prevent to a large extent this state of things in the future. But what has already been perpetrated will take many years and much money to remedy.

The street system of any city plan is the essence of the design. It may be radial or rectangular, or with variations or combinations of either, or both. In the thirteenth or fourteenth centuries when the building took place of the great Gothic Cathedrals of Europe, the Courts of Justice and the seats of the Nobles the idea suggested itself of grouping them with a view to emphasizing their individual importance in the civic life. This went on from 1300 when Florence was rebuilt and continued more or less until the time of the Renaissance, being then brought into especial prominence in Rome. The scheme was to arrange the streets so that their vistas terminated at some prominent building, and from this, was probably conceived the radial system of street planning which came in its zenith in Paris under the Monarchy, its main object was undoubtedly the easy sweeping of the streets by artillery in case of revolutionary outbreaks. Paris, by its adoption has been created a city of supreme beauty and it is owing to it that the field has been opened for unrivalled architectural display. What Paris

achieved by this system was copied by Brussels, Vienna and almost every other Continental city long after the time of its vogue. The radial system opens up the possibility of grouping buildings at important radial centres and making use of such centres as points for arches, sculpture, fountains, etc. And though the small things of the Art of Architecture can never be neglected, there is no gainsaying the fact that Architecture is seen at its best on the great thoroughfare and especially at radial centres. The Arc de Triump in Paris, the Capitol in Washington are instances. But Town Planning in the future will systematise such civic centres in a way as was not done by Baron Haussmann in Paris or L'Enfant in Washington. When the radial system is adopted the centres lying on the chief lines of communication will be made use of as sites for buildings embracing Administrative, Educational, Industrial, Commercial, Military and Religious activity. The grouping of such activities within certain areas will be both an aesthetic and economic gain and the various special quarters of the city will, therefore, be naturally disposed in rightful relation one with another. The radial system has the great advantage that its arterial thoroughfares will receive the heaviest traffic, because they are the most direct lines of communication. The vista of each street will be broken by the centres, a very desirable thing because street perspectives unless terminated by monumental piles or objects of natural beauty are not to be commended. The outer rings of the radial system will naturally become boulevards only having tram car lines, carriage and promenade traffic. The system is seen at its best in Continental Europe, and the more later examples in Germany have proved so acceptable that it has become the standard plan in that country taking into it however, many of the improvements effected in other countries.

The rectangular system of Street Planning has been generally adopted in America and Australia throughout the nineteenth century and though Washington is a combination of both the radial and rectangular system with only slight variations. The same is the case with the Australian cities with the notable exception of Adelaide which has made some attempt to form a civic centre and provide a belt of open space around the city with suburbs beyond. The rectangular system stands condemned on a site of varying contour, and on a level site it is a waste of efficiency to traverse any but the shortest route from point to point and thus needlessly expending effort. Though destinations may be more easy to find on a rectangular system and especially by the numerical system of street naming, the fact remains that the traveller must traverse two sides of a right angled triangle to reach a point not on his own street. The radial system, however, resembles that marvel of ingenuity, the spider web, than which nothing could be better devised for rapid access to all parts of its surface. The one redeeming feature of the rectangular system is the shape of the building blocks which facilitate easy and economic building, whereas in the case of the radial system, the shape might in some instances be awkward of use for building purposes. But if the main purpose of Town Planning was the use of every available inch for building purposes, the rectangular system might be justified, but the aesthetic aspect gains vastly in importance in the radial system as

is allows of the utilisation of such sites for the purposes of civic adornment and at the same time relieving the monotony of the street line. Each street system has its merits and it is the duty of the Town Planner to take the best of each and adopt it to his particular needs in drawing up his civic design.

The road and street arrangement need treatment principally from the aesthetic and traffic standpoints. From the aesthetic point of view the frontage line of buildings, makes or mars a thoroughfare. It is to be hoped that the day of monotonous streets of long continuous rows of houses is over, but a uniform frontage line for detached houses is essential to a good street appearance. The houses need not be all square with the street, the variation of grouped houses is particularly pleasing, but the unsystematic projection of one house beyond another is decidedly objectionable. The standing back of houses beyond the side walk allows of tree planting, grass lawns or flower beds and gives shelter from sun, dust and noise. In the business quarters of the city where the buildings abutt on the side walk, it is very detrimental both to the architecture and the street in general, to allow projecting advertisement devices. And as protection of the frontage line is so important, the sky line is equally an aesthetic consideration. The sky-scraper demands regulation unless our city streets are to become mere lanes between lofty buildings, excluding the sunlight and fresh air from the lower stories, and creating terrible fire dangers, as well as insanitary conditions. If the buildings are not carried up to huge heights, the streets need not be so unnecessarily wide, and a narrower street is much better for shopping and business purposes. Wide streets are expensive to maintain in a well-paved and orderly condition, and conduce to the dust nuisance.

On main city avenues, north and south, east and west, divisional arrangements for traffic make for easy and speedy locomotion. They should be divided into carriage drives, automobile and bicycle tracks, and tramway routes, consequently separating the fast and slow traffic. Such divisions can be made by rows of trees, grass strips and stone curbs. The crossing of the thoroughfares by pedestrians may be made at defined points by means of islands, which will afford positions for artistic electric light and tramway standards. Narrow lanes in the rear of all main thoroughfares should allow of access to the premises for tradesmen's supplies, wood, coal and refuse removal, and at the same time allow of the placing, either under or above the surface—preferably the former—of all electric wires, telephone and telegraph cables, as well as gas, water and other pipes, together with the main lines of sewerage. The removal of all poles and other obstructions from the main streets is at once a great aesthetic gain, as well as a traffic consideration of much moment. The tendency of the time to allow the streets to become the dumping ground of all the various little accessories of civic life is greatly to be deprecated.

A city laid out on modern lines of city planning is not likely to suffer from the traffic terrors of the old cities, but nevertheless it is essential that main thoroughfares adapted for heavy traffic should be constructed throughout the city on a definite system. These should be based upon the tramcar routes to some extent, but particular

streets should be set apart for particular classes of vehicles. Business streets too often become choked with slow and fast moving traffic and quiet, residential streets never constructed for the purposes of a main thoroughfare become such, because they are a short cut to some particular building, depot or station, and their trouble never ends. Paris under systematic planning has forty-two roads radiating out into the surrounding country, whilst London, with a population twice as large, has only twenty. This explains much of what Sir John Henn, of the London County Council, calls "The nightmare of London traffic." City planning would take into account likely traffic developments and make provision for them in advance.

Other phases of the street, such as paving, lighting, repair, cleansing, etc., also need consideration by the town planner, though their subsequent execution will fall to the lot of the municipal engineer. The City Beautiful will be made up equally of the smaller matters as the larger ones, and be soundly hygienic as well as aesthetic.

Daniel H. Burnham, of Chicago, may be said to have initiated the present-day idea of civic centres, and they are now looked upon as essentials in any well conceived design. A modern city is an organism, and the different members of it need different treatment. It is too often forgotten that buildings require classification, and it is better to have order at first than to shift the parts into shape afterwards. The Agora of a Greek city, the Forum of a Roman city, and the Market Place of an English country town have each in their separate instances centralised the life of the community. Life in the open was carried on at these points, and they were the axes around which all revolved. Civilisation has made such impracticable today, but the idea may be adopted to form a main principle of city planning. The city can be linked up with the surrounding suburbs by means of elegant boulevards, belts of parkland, and recreation grounds can be provided, roads and streets made pleasing to the eye, and convenient for traffic, but until the whole is welded into a complete organism by the creation of civic centres at suitable points, the city will not possess the essential radiating lines for its activities. The sub-division of cities into sectional areas of distinct characters may be said to menace the theory of democracy, but it must be recognised. It has been inevitable in every city, and is the result of the operation of social law. But whereas it has been created in Paris, in London, in Chicago, without forethought and preparation, and has invited and encouraged many evils, in the better city of tomorrow, it will be systematised by well defined civic centres. In Germany, the principle of a "zone system" of town planning has been established, and experts in both Europe and America are taking advantage of these social laws, and utilising them for the benefit of the community.

The main civic centre will always be the Administrative one, whether national or municipal, and it is desirable with the wide extension of the city to create further administrative centres. Miss Jane Adams, one of America's foremost social reformers, says, "The city grows more complex, more varied in resources and more highly organised, and is therefore in greater need of a more diffused and local anatomy." The administrative centre will contain the Houses

of Parliament, or the City Hall, and the position should be well chosen. The world's greatest cities have been built generally on uneven ground, or beside a river, and in either case, the Administrative centre is best situated on the highest point, or by the river. The highest point should be used for a public purpose, for defense, for worship, or for recreation. The highest dominates the city, and should personify the community rather than the individual. It is not always possible to have the seat of administration at such a point on account of difficulties of access, but the possibility should always be kept in view. If the centre is one of national government, the various departments of the legislature should be centred here, with open space containing flower beds, gardens, fountains, arcading, statuary, etc. If the centre is one of municipal activity, the City Hall, Postal and Telegraph buildings, Police Courts, Lands and Mines Offices, should be grouped at this point.

An educational centre should be created within easy reach of both the residential and recreative centres. An University, Technical Colleges, Art Schools with all their necessary play grounds, gymnasias, baths, etc., will form a grouping adapted for the purposes of study. It is greatly to be regretted that large colleges and public schools are dumped down in congested districts and in busy thoroughfares. Provided that the methods of communication by railway, street car, etc., are in easy access, they are much better situated on the outskirts of the city. Besides ample light and air, so necessary for the young, quietude is gained, and the chances of accidents amongst the traffic of city streets obviated. When the new University of California was initiated, the value of an artistic placing of buildings was realised, as well as appropriate location. This was an interesting architectural development, which can be well adapted to play an important part in city planning.

Unless the main trade of the city is derived from the water, the commercial and business centres are better situated if placed away from the river bank, which may then be given over in part to recreative purposes. A centre may be created containing the Markets, Exchange, etc., with surrounding commercial and office buildings. The centre must be chosen on considerations of speed, suitability and adaptability for the purposes intended, remembering that the primary aim of all commercial concerns is to produce at the lowest possible cost. The modern housing of commercial offices in huge blocks, with all the accessories connected therewith, simplifies business considerably. Arcades and Corridors may be also constructed to house shops, and the great departmental store is an adoption of the idea. It means organisation of business, and City Planning which is an attempt to place the city on a good business footing will evolve means to arrange trades, occupations and general business, so that they may be carried on with economy and convenience.

A well chosen site is necessary for the Industrial quarter, where the prevailing winds will not carry the smoke and fumes over the town. It laid out with a generous amount of open space, and screened from the residential and business quarters by a wide belt of trees, there is no reason why the conditions of labour should not be of the

best, and the factories and workshops be of the least nuisance and eyesore. The surrounding district might be laid out into model garden villages for the employees. It is worthy of note that over 200 years ago, when Sir Christopher Wren proposed his rebuilding of London, after the great fire, on better lines, he said, "All trades that use great fires, or yield noisome smells, to be placed out of town." This has been carried into effect in the new garden cities which have sprung up in recent years with great success. Industrial development is one of the most urgent points of consideration to the town planner, and every effort should be made to guard against the amenities of the residential districts being destroyed by factories, workshops, etc., being indiscriminately erected in these localities.

Centres for public worship cannot be arbitrarily fixed in any one district, but groupings are possible in certain places. As a vista-terminal for a road or street, nothing is more effective than a well-designed church or chapel, and advantage might be taken of them in residential districts where dwelling houses at radial points, unless large and pretentious, would be unsuitable. It should also be aimed to set churches and chapels in more beautiful surroundings, with gardens, grass sward and driveways. The old churches had their church yards round them, giving them a picturesque and restful appearance. The same idea might be used today, adapting it to modern conditions.

An important civic centre should be devoted to recreation and amusement. Sites should be devoted to opera house, theatres, music halls, art gallery, library and museum. They should be away from the business portion of the city, with easy access to the various residential quarters. The library and museum should also be easily reached from the educational centre. All the streets leading up to these public buildings should provide for heavy vehicular traffic, and ample open space for the large crowds which congregate at different times. Theatres and public halls on busy thoroughfares create both pedestrian and vehicular difficulties. No accommodation is provided for carriages, and the road paths are too narrow for crowds. Even public squares, both can be regulated, and the traffic can be expeditiously handled. Theatres, etc., in the old cities show an instance to group themselves and city planning should utilise this apparent law for the benefit of the city and the citizens.

The residential district opens up another opportunity for a civic centre, and enlarges one of the most vital elements of city planning—the housing question. There is a great need, in any country, to town in every civilised nation, and it is imperative that good housing should be provided for all classes. It is essential first, that no more houses are not built on any given area of land. The principle of the English garden city movement is that each garden city shall house about 35,000 people, and that this area shall be surrounded by a belt of open country. Any increase shall then be met by the creation of another city. This figure makes the density of population about nine per acre on the estate area, and on the town areas about twenty-three per acre. Many of the newer suburban estates have houses planned at from four to twelve to the acre. This alleviates congested

property, and allows gardens to each house, broad boulevard streets, and open spaces. The houses must be well built, well lighted, well ventilated, and well drained, each particular being dependent upon good city planning. Whilst the purely residential centres will be on the outskirts of the city, chosen from the points of view of soil, altitude, winds, etc., as well as accessibility, there should also be provision made for residential mansions, within easy walking distance of each business and commercial centre. The system of block dwellings has been roundly condemned, principally because of insanitation and inadapability for child life. The vital statistics have shown that they are seriously detrimental to the health of the tenants. Much of this, however, is not due to the system, but to the way in which these dwellings have been built. Great advances have now been made in the construction and planning of such blocks, and there is no reason why they should not be made suitable and healthy places of residence. There should, however, be ample open space around them, with good court yards, gardens, playgrounds, fountains, etc. There is a great demand for accommodation of this character—they are no more than hotels—and provided they are not built too high and too many people are not living in each suite of rooms, and there is efficient regulation and administration, they will meet a legitimate want, and meet it without detriment to either individual or public health. But the idea of the separate house in garden surroundings is the one to be aimed at, and to educate the public up to.

City planning is something more than civic aesthetics, because it embraces good housing, sanitation and traffic facilities. But the great factor of aesthetics overshadows the whole of its work. It begins with the choice of the city site, because natural beauty and situation may make even the ill planned city pleasing to the eye. The well-planned city on a good site stands unrivalled, so insistently does topography stamp its character on a community. Age after age can give the picturesqueness of an Edinburgh, Venice, or Rome, but the modern city may at least have the help of good design, architecture and art, to make it attractive. The task is a great one, the combination of poetry with commercial enterprise, but the rights of the seeing eye must be vindicated, as well as the claims to material comfort and health. We must learn to plan cities artistically, and care for them in the broadest sense of the word. Professor S. D. Adshhead, of the Civic Department of the University of Liverpool, says, "The city is, in the first place, the envelope of its inhabitants; its buildings are their constant horizon, and their streets have their daily regard. As such, it should exist primarily for their edification, their pleasure and their well-being. To talk of a city as existing solely for the purposes of trade is to talk of mankind existing for meat alone. In the city of the future, mining, manufacturing, and other necessary but unmechanical occupations which are, under existing conditions, smoke producing, accompanied by excessive noise, or in which are emitted pungent smells, need not be identified with city life. Improvements in methods of manufacture, or in communication, will remedy this. We shall then have a city on which it will be possible to lavish all the thought and skill of the artist. Broad, tree-lined thoroughfares, radiating throughout the city will be convenient and beautiful, and

the architecture of the buildings, business and residential, will give evidence of a high standard of culture. We must realise that the bustling crowd surging through the streets may not notice the architecture, but it undoubtedly feels it, and the city of poor buildings reflects itself in a poor type of citizen. The streets must cater for the man in the street, and after their elementary design, with good paving, lighting and cleansing, need furnishing and adorning. We need to make most of the street during all seasons of the year, and especially the summer. The better city will mean a more open-air life, with increased benefits to the inhabitants. Continental Europe has realised this, and amongst the Latin Races, the street is largely the drawing room of the poor, melioring their lives with its colour, variety and movement. Trees will give shade, health and beauty to a city, and a garb of grandeur and magnificence such as no act of man can ever clothe it. Besides the public trees of the gardens, motivates the individual as well as the communal care of the tree and the flower. Whilst the streets and houses are thus set in an aerial surrounding, the ideal city will provide public gardens and parks throughout each district, linking these together in a well devised park system. Each civic centre should have its public gardens, with band stand and seats, and graced with fountains, statuary, and arcading, making quiet places for the business workers, especially in the noon hour, and adding to the commercial quarters, the touch of nature which will be restful and healthful. The parks on the outskirts of the city are a great aesthetic asset. There is, happily, no need of argument for parks, but in the rush of modern business, and in the stress of real estate speculation, the best advantage is not always made for the community, because their consideration has come too late. One writer says, "In the growth of taste, no educator of the people has been more valuable than the parks. Their attractiveness is undoubtedly one of the causes of that everywhere-increasing desire for more perfection in home surroundings." A beautiful park awakens the desire for better houses, better streets, and a better civic life, and unconsciously raises the standard, not alone of the poor. They have become the delight of the well to do. Parks should be provided for at the very commencement of the city, as if they have to be added afterwards, value of land and accessibility, as well as appropriate location, immeasurably complicate the problem. The parks should have good boulevard driveways from the city, as well as inside the park limits. If a hill, or a portion of river bank is available, a park can be appropriately set in such locality. Every effort should be made to get good vistas, and lakes, tree plantations, etc., should be included in all park reservations. It is also desirable to have monumental park entrances, sculpture, fountains, arcading, terraces, etc., for they can all be added to increase the effectiveness of the picture from an aesthetic point of view. Playgrounds should be provided for children in the parks as well as in the residential districts, and can be made of aesthetic, educative value, if well designed. The artificial beauty of the city is the problem for the town planner, where nature has not endowed the scene. It might be said to commence at the railway station, the first object the traveller sees, as well as the last he sees. The railway can be made beautiful in its utility, as well as hideous, and the station maybe made as dignified a gateway to the city as the gates which pierced the walls of the medieval

town. A structure of commanding architecture, it should be set with a bold approach from a main thoroughfare or square, and the vicinity laid out with drives and walks to the principal entrances. The curb-planting and ground around stations, at present made hideous by rubbish, ash, and waste material, might be cultivated, and color evoked, where, in so many cases, done at present in vain. Several railways have a landscape gardener employed around their stations, keeping tidy the trees, shrubbery and grass plots, and the practice is worthy of extension. The companies will find it pays to make their station surroundings aesthetically attractive. On the street, a wide field is open for artistic effort. The advertisements which offend the eye by day, are equally as offensive by night as glaring illuminations. The sky line is spoiled by hideous erections proclaiming the merits of somebody's manufactures, and the architecture of the buildings cluttered by gigantic lettering and signs. It is unfair to the architect and artist, and the advertiser who disregard dignity and propriety in the cities, and desecrate the picturesque simplicity of rural and river scenery is degrading the best elements of their art. Advertising is a public, rather than a private function, and city planning must ensure the aesthetic aspect of the streets by regulating indiscriminating displays. The electric light poles, telephon and telegraph standards, and tramcar standards, should be artistically designed, and from being the eye sore which they are at present, they might be made pleasing and graceful. As the eye travels down the vista of a street, it should find nothing to grate on its finer sense, but discover grace and pleasure in the various objects of utility. The aim should be to clothe in an artistic form that which civilisation has made useful in the public life. When civic art was at its zenith in Venice and Florence, the artists did not think it beneath their dignity to expend talent on those street furnishings which the citizens all saw. They gave beauty to lamp, sign and pole, adding thereby to the splendour and repair of the city. The architects should give variety to their different buildings, rather than creating a wholesale monotone repetition. The municipal art workers in Paris and Brussels offer yearly prizes for the best facade erected on their streets, and the results have been wholly successful. Civic art is as much a matter of public concern as health, police or fire, and the beautiful cities of today realize this and are jealous and proud of their heritage. Colour in our cities opens up a great aesthetic possibilities. It will play a great part in the City Beautiful. City planning will isolate the factories, and render the smoke nuisance less harmful, and scientific improvements are making headway to remove it altogether. The red tiles of houses, the bright colours of walls, will then add a new note to the green tree garbed streets. It is only within the last hundred years that the street has become a monochrome, dull and dingy. The architects in the new era will come into their own again as city artists. Architecture stamps the city at once, and the problem before us is to express via our buildings all that is worthy and noble in our civilisation of today, to express all that intense energy, vivacity, polished refinement and intellectual perception which marks our life. Architecture is a public concern, and with our newer methods of construction, we should be able to produce as good an aesthetic effect, as past civilisations have done with theirs. We are slowly evolving an architecture

and an art peculiar to our own, and we must see that, to all its strength and force, it has that gentler touch of poetry which a man can create. Our skyscrapers are pointed to us as symbols of the concentration of an enterprising people. That may be, but their characteristics will reflect themselves assuredly on the character of the citizens. A claim to exercise in form, design, grouping and expression cannot be left to blind chance to develop. Civic art is central to city planning, and must supplement all the elementary facts of the scheme.

The great impetus to city planning in America began in 1889 when the World's Fair was held at Chicago. Those who viewed that memorable occasion and "WPA, cannot we live in cities as beautiful as this play city, which will disappear at the end of the summer? Why care, if we have comfort, beauty and joy in our work-a-day cities? An inspiration came to work a far-reaching effect in the minds of men. The city itself has become more important than the empty auditor, because we have realized that cities are founded on the welfare of cities, and that if they will always remain the pivot around which human life is to revolve, we must find ways for democracy what kings and princes did for their subjects. City planning will show us a new method of the concentration of mills, factories and shops, of villages, and of cities again have its place in city life, and there will be no more of the happiness Germany, France and Italy support in America. Drama, just as we support the Police and Fire Departments. We shall do much of this under a wise system of civic action, and there is a renaissance of civic life and a community spirit born of the supposition that we are to live in our own city."

City planning therefore is an organized art, which is based on the aesthetic and economic principles and methods of the science of planning civilized humanity. It seeks to reduce the chaos of the industrial city to a more orderly and harmonious form. It has been to an industrial town, and now to a city, the result of the consequent widening of communal rights and the extension of communal services. The spread of cities growing with their own orderly crowds, fighting for existence with an immense and ever increasing amount of beauty, is a degree of civilization. It can no longer be tolerated. Individualism must give way to cooperation in the building and civic purchase, design, development, and central maintenance of the watchword of the progress of city of order, a city which shall be generous, humane, democratic, and beautiful.

THE SOCIAL ASPECT OF TOWN PLANNING

By MR. JAMES FORD

Of the Department of Social Ethics, Harvard University, U.S.A.

This first Canadian Congress on Town Planning has already devoted much time to a consideration of the social aspect of Town Planning—a most auspicious beginning, and one calculated to bring large results. My purpose in this paper will be to indicate the scope of the social problem involved in Town Planning and to outline a policy.

It is scarcely necessary to demonstrate that any town plan which fails to consider directly the needs of the whole mass of population is abortive. Society is everywhere recognized to be like an organism to this degree—that if any of its parts are ill, the whole suffers. We know from experience that a man with indigestion is less efficient and less companionable, other things being equal, than the normal man. So the city with congested traffic is less efficient and less attractive than the city with streets and sidewalks broad enough to handle all the traffic, and the city with slums is less efficient and less beautiful than the city without. Moreover, we grant that slums are diseased spots in the city body and that from these spots, if care is not taken, the whole organism may become infected.

There are three essential means to create citizens strong in body and in character, the first is scientific breeding or eugenics, the second is education—the function of family, school, social centre, and church. The third means is the provision of a physical environment that is conducive to health and moral life. This last, if we look at the matter broadly, is the function of the town planner. I do not mean that the town planner who is now architect, or landscape architect, or engineer, must also be a zoologist. Society cannot afford to sacrifice expertness in a matter of such importance. I mean rather that experts in social problems must be permanently associated with the town planner, in order that the vital interests of the whole population may be safeguarded and promoted to the maximum degree.

To show the social aspect of town planning more specifically, we may divide the physical environment of urban inhabitants into its three parts, the workshop, the home, and the place of recreation. Any comprehensive city plan affects all three environments.

It is the function of the city planner to remove destructive elements, insanitation, inconvenience, ugliness, from each of these environments, and furthermore to create a constructive environment—that is, a city in every part as sanitary, convenient and beautiful as an ably guided public opinion, and a maximum available appropriation will

permit, (since appropriations are always limited, it is essential that the most necessary thing should be done first—hence the need of the expert.)

Within the industrial environment it is peculiarly important that streets should be direct and wide enough to carry traffic without delay, for delays cause waste of human labor time, and increase the cost of products to the consumer.

For the same reason, improved harbors, docks and railway service are essential to reduce the waste of human labor and thus to reduce the cost of goods. Furthermore, if the waste of labor is reduced, the labor time that is saved may be employed in further production, or else a portion may be devoted to increase the fund of leisure time. This leisure hours are man's major opportunity for self-improvement. The town planner is directly concerned in the creation of leisure time through his promotion of improved transportation and transit.

If we examine further the town planner's function, we shall deserve that he can not only increase the available leisure time of citizens, but that he is in a position of peculiar power to promote its constructive use. Few adults or children use their leisure time for self-improvement. Unless their use of leisure is directed, children will "fiddle around" instead of playing, women will gossip, and men will idle aimlessly at the saloon or billiard hall. Yet the leisure hours are primarily the time in which the body, restrained and cramped by the day's work at some monotonous task, may be balanced and strengthened by physical exercise, play and sports. Leisure is the time in which the emotional life of man, choked by the tense industrialism of our age, must find expression; when the appreciation of beauty must be taught, and the family and civic virtues must be developed. It is the time too, for mental training, for the perfection of old knowledge, and the acquisition of new. We already recognize the danger of a *laissez faire* policy. Private greed has exploited the pleasure instinct of the masses for profit, and has offered recreations seldom constructive, usually passive, and often dangerous to health or morality.

The need of municipal provision of educational facilities has long been recognized. Today the municipal provision of recreations is seldom disputed. The town planner must, therefore, see these needs broadly, for the present and for the future, and must provide for them wisely.

This is no simple task. The future direction of the growth of the city must be foreseen, and adequate reservations of land must be made at proper intervals for schools, social centres and libraries. Park reservations and systems must be designed in such a way that park facilities will be accessible to every part of the population. There must be a supervised playground within four city blocks of every tenement house, or there will be young children lacking both a place to play and a knowledge of games. Reservations must be made on the lakes and rivers of the city for boating, beach bathing, floating baths, and wading—and these too, must be made accessible and must be adequate. Even though the town planner has provided the adequate parks, lofts, and playgrounds, his task is but half performed unless

he renders them enticing to the people by beautification, equipment and publicity. The playground must have apparatus and a director; the baths must have an instructor in swimming, the art galleries must have guides, the parks must furnish poetic grounds, nature walks under competent instruction, folk dancing and pageants. Dancing pavilions, bandstands, manageries and other accessories of parks can be made of great social value but their utility is largely dependent upon their being rightly placed and managed.

In the provision of an environment for the city's leisure hours, the town planner is in a position of peculiar influence. He may save the city vast sums by the early reservation of land for parks and recreation centres strategically located. He can, and should, discover by careful study, the recreation needs of each age and race group of the population and should co-ordinate and adapt all existing and potential forces and institutions of the city to meet those needs.

If we turn now to the third division of man's urban environment—the home—we shall discover what is probably the most urgent of the town planner's tasks. All the good which we may do for our citizens by building magnificent civic centres, by widening streets, by building park systems, etc., will be undone if we permit him to dwell for one third, or more, of his day in a home that destroys his health. Improper housing conditions work insidiously upon the health of the occupants. Overcrowding of rooms must result in a loss of privacy and sense of decency—it may result in sexual diseases and immorality. Poor ventilation and darkness caused by lot congestion, high building and bad planning will result in reduction of vitality and resistance to disease and may result in tuberculosis. Bad plumbing or sewerage systems, inadequate or polluted water supply, defective collection of refuse and cleaning of streets, not only reduce the comfort which is so largely essential to happy and efficient living, but menace the health of the already undervitalized slum dweller, by continuous exposure to a number of diseases.

Granting these facts the town planner must first know the housing conditions of his city, and the relative extent and urgency of these conditions. For housing problems vary widely from city to city, and to prescribe for one city on the basis of another city's conditions would result in a pathetic waste of energy and money. If there is no Housing Association of local citizens, one should be formed to help Boards of Health, Building Departments, landlords and tenants up to the highest standards that are locally practicable. But the Town Planner's function here, as everywhere, is primarily preventive. A park or playground may be needed on the site of what is now a noxious slum (as in the case of Mulberry Bend, New York), or certain alleys may need to be widened (as at Washington) or a group of rear dwellings or tenement flats may need to be opened to the street by the removal of intervening buildings (as in Birmingham, England).

In every case city planning commissions should make sure that local building ordinances absolutely preclude the future erection of any building that is in any way dangerous to the health or safety of the city. This means, in addition to the usual prescriptions with

regard to materials, size of rooms, placing of windows, plumbing, the application of a very strict standard relative to the area of lot that may be covered by buildings and of the height of buildings and the distance between them. The German zone system, which will be described in more detail by Mr. Haldemann, is probably applicable in certain cities, progressively limiting the height and area of buildings in the inner city, and excluding them from the spaces reserved for the construction of retirement houses (that is, buildings housing two or more families) with non-fireproof roofs and outer walls must be built of brick.

Moreover, the suburbs must be opened up to the city, and the factory district, by cheap rapid transit, and direct radial roads. The municipal town planning commission must supervise the allocation of suburban land and building, as, for example, is done in the Island of Montreal for example, where they are being used for open fields. It must promote suburban housing, as public housing, offer no impediment to private building, by means of subsidies, labor, real estate companies, and land purchase, and the building of cheap suburban cottages for the family of four for \$8,000 to \$15,000 each for rent or sale. It must also encourage the building of plans of a very cheap low-cost housing, and for the construction of putting up of the ugly, large, and factitious type of construction of the present slum towns.

In case the suburbs are not developed by the municipality, the municipality will remain a number of independent cities, as is the case in American conditions, the kind of development that is being planned must invariably be preceded by a number of factors, such as loans and tax exemption for philanthropic and cooperative societies which develop suburban estates. The creation of municipalities in urban areas has those of the I.C.C. exhibit here. Municipal planning, however, must ordinarily remain a last resort for American cities, for it is seriously dependent for its success upon the existence of an integrity of government officials.

Let me close, gentlemen, with a statement of social facts which I believe should be followed by any local planning commission or town planner.

First, learn the local facts and needs. Discover the composition of your population and the environment of each section of the city, while at work, at home, or at play. Discover how the environment can be adapted to the welfare of the present and future population in city and suburbs, and the relative urgency, and cost of the necessary measures. Gather all possible information on these subjects from the heads of municipal departments, so that every householder, business and other agencies in a position to know local facts, and conditions, if they understand just what you want to know, and who can help you use, if possible, the services of an outside expert, such as a town planner, or a town planner, as well as an architect and transit engineer. If you have a good perspective survey you will be able to do so. Finally, and place at your command the experience of other municipalities of this type will increase both the cost and the quality of town planning.

PRIME CONSIDERATIONS OF TOWN PLANNING

By MR. FREDERIC LAW OLMSTEAD

Chairman of the International Housing and Town Planning Congress Committee, Brookline, U.S.A.

Member of the American Society of Landscape Architects, Corresponding Member of the American Institute of Architects, Member of the Commission of Fine Arts of the United States of America, Charles Elliot Professor of Landscape Architecture in Harvard University.

The people of the Canadian West, from whatever source they came, are as a whole self-selected because of certain mental qualities. They would not be there if they lacked these qualities. I mean such qualities as a confident out-look upon the future, a willingness to enter upon new ventures and to give up minor advantages in the present for the sake of future good, a willingness to look facts in the face, and a habit of going directly to work to get what is needed. These are qualities common to the West on both sides of the border. But in the United States, the complicated systems of constitutional checks and balances, inherited from our eighteenth century forefathers, so frequently interpose obstacles to a direct, straight-forward, practical approach by public action to any newly recognized objective, that the energies of our people are largely forced into private, individualistic, or extra-legal methods of accomplishing their wants, often at a great waste of time and effort.

If a new thing that needs to be done can obviously be done more promptly and effectively by some common agency, municipal or otherwise, than it can by individual effort, it accords both with the straight-forward, practical spirit of the West and with the practical Anglo-Saxon disregard of logical theories to go ahead and get it done that way, without splitting hairs over the question of whether the thing to be done falls into a previously conceived logical category of governmental functions or not, and similarly, if the new thing to be done can be most effectively handled by individual initiative it accords with the same spirit to give scope to that initiative, even though no very complete logical theory has been evolved to account for the practical difference of method.

I venture to believe that the majority of delegates are not theorists in government or in economics at all, but practical men looking for a tactical result, and ready to use any practical business-like means of attaining the desired results, regardless of what camp of theorists may use those means as their special pet.

There is a tendency among theorists, and certain politicians, to insist upon a permanence or logical consistency in so shaping their constitutions

that it can always be defended by the same set of arguments. A man such as Henry George or to such men to admit any validity in the arguments of Henry George or to use those arguments in support of any practical proposition, stands one in a row, as it might be said, to be henceforward regarded, according to the color of the particular theorist, as a dangerous foe of property rights or as a fellow enthusiast in a struggling cause. To object to a measure on the ground that it would hamper and depress individual initiative, curtail investment of private capital in another category, called by some, too liberally, by others, safe and sane.

For the practical man who is not a slave to labels and to precedents, does when the circumstances seem to demand in each case, without any fear that he will commit himself to the whole socialist program by doing one thing the socialists approve or debate himself from taking the side of the conservatives in another matter. Of course, I here use conservative in its broad significance and not in its conventional application to a political party. Those who are by habit and theory always conservative in this broad sense are sometimes, in the right and sometimes illustrate this definition of conservative implied by Gram White to certain mind and men people living through the American civil War. He said, in substance that, "the conservatives be they who, finding themselves in hot water, remark there lest they be scalded." It would be equally easy to define the progressives as those who, finding the frying pan too hot, precipitate themselves into the fire. But the man who steers his course directly toward definite practical ends, and who selects his methods by the results they bring instead of by the company they keep, is saved by common sense from following any theory till it gets him into either of the situations held up to scorn by these definitions.

I believe that that you who have here gathered at Winnipeg, possessed of the western spirit of activity and directness, and freed from many of the hampering legal technicalities which impede straight forward approach to practical ends in the United States, have before you a golden opportunity.

Now the practical end in view of the business of town planning is to bring for a community of people as much as possible of the advantage of gathering close together with as little as possible of the drawbacks, so far, at least, as those advantages and drawbacks depend upon the physical configuration of the town and its equipment. This end cannot be approached with measurable success except by the expenditure of a great amount of effort and of capital by a great number of individuals working from all sorts of moral motives, or which are of the most universal and most effective, is hope of personal betterment, whether in the form of speculative profit or fixed capital or compensation for services or both.

It is the business of town planning to watch this huge activity and the tendency of it, wishful, to guard, so far as practicable, against its application in a chattering, wasteful, innumerable way, and to stimulate and guide its application in efficient ways. As long as a town is kept up, it is a community in function, never finished and never dead.

No limit of time can be set beyond which the future is not to be considered in town planning; yet, as a practical matter, regard for the contingencies of the remote future must not be allowed unduly to delay or hamper provision for the immediate future.

No limit of space, such as an arbitrary municipal boundary, should check the town planner from studying and providing for any physical changes required by the probable growth of any community; yet, as a practical matter, the planning for remotely outlying improvements must not be done at the expense of pressing improvements closer to the heart of the town.

No hard and fast limit should be set to the scope and subject matter of town planning by any theory of the limits of governmental activity or the rights of the private property owner; yet, as a practical matter, town planners are under obligation to deal effectively in the first instance with those features of the town which depend wholly upon municipal initiative, and to concern themselves with the rest only in so far as they can extend their activities without neglecting their first obligation.

In other words, although the field be unlimited as to time, space, and subject matter, there are certain portions of the field which are of much more pressing practical importance than others, and town planners should bear this fact in mind and be careful not to bite off more than they can chew.

On the other hand, one of the great obstacles to the farsighted planning of any active growing town is that the planning and execution of immediately necessary improvements is apt to absorb the whole time and energy of the technical staff available for the work of planning. It is, therefore, almost essential, in order to secure well balanced progress in town planning, to provide a separate and considerable appropriation for planning *not* directed to immediately necessary ends. It is of the judicious expenditure of such appropriations that I want to speak.

There are two important features of a town which can seldom be secured in any other way than by deliberate municipal initiative, and which can be economically secured only by providing for them in advance of an actually pressing need. Those features are adequate main arteries of circulation and adequate public recreation grounds.

Local streets will always be provided, after a fashion, on the initiative of landowners in any growing town, and as to them, therefore, only a certain degree of regulation and guidance need be exercised in behalf of the community. Public building sites can always be secured, after a fashion, as they become needed, although better results and sometimes greater economy may be secured by planning **ahead and making provision for them in advance of actually pressing necessity**; but unless steps are taken by municipal authority, long in advance, to **secure from occupation of buildings all the ground which is likely ever to be needed for the main arteries of circulation and for parks and playgrounds and other large public open spaces**, the community will pay a heavy toll.

I use "main arteries of circulation" in a very broad sense. Its interpretation in any given town involves a large part of the work of town planning for that locality, but always it involves more or less detailed consideration of the requirements of the future as to the location, size, and gradients of the main channels of storm water discharge, of sewerage discharge, of general street traffic, and of street railway traffic. Normally, it should also involve consideration of the requirements of the future as to other railway lines, including inter-urban and rapid transit lines and freight facilities, and sometimes commercial waterways.

The percentage of the whole town area required to make even a liberal provision for the future in respect to such main lines of circulation really involves so small an addition to the percentage normally set apart for local streets that it does not appreciably affect the convenient compactness of a town during the years before it grows up to the need of the increased means of circulation, nor does it at all diminish the total valuation of private lands. The chief danger of reserving such areas long in advance of the immediate necessity for their public use is two-fold. They are withdrawn from the many useful purposes to which they could be put if left in private hands, even without being laid upon, and the public is burdened with their unproductive maintenance or even induced into undertaking large expenses of construction upon them long in advance of any real necessity.

Of course, the mere careful planning of such a system of adequate main arteries of circulation does not involve any such danger, but in order that the planning shall lead to practical results it is usually necessary to take some legal steps to prevent the erection of obstructive buildings within the areas designated for the future arteries, and to do so long before the public needs to use the whole of the reserved space. In most cases, however, by the time it becomes necessary to take any public steps to prevent the erection of buildings within such a reservation, it is reasonable to lay out within it, for present needs, a street of ordinary width (if such does not already exist) and at that time an easement can be taken on the rest of the area by establishing a building line which will permanently prevent the obstruction of the wider artery by buildings while leaving that portion of the land now required by the public to be used by the allottees for gardens or other such purposes.

Almost the same procedure applies to local parks and playgrounds as to district thoroughfares, and the German principle is a sound one which declares that whenever any tract of land is opened up for sale or division into streets and lots, a proper percentage of public open space to provide for *all the needs* of that locality when *fully populated* must be dedicated, or must be acquired by the municipality in the vicinity, and assessed upon the land pro rata.

Equally important with establishing an adequate standard for main arteries of circulation and public open spaces and providing for them while the land is yet but sparsely occupied is the need of establishing a standard of open spaces for assuring light and air to all the

buildings of a town before the unrestricted play of economic competition shall have imposed a wholly needless standard of crowding and darkness. No matter how far a town may see fit to go or how short it may see fit to stop, as concerns planning and regulating the development of private property in other respects; no matter whether it leaves the layout of local streets wholly to the initiative of landowners, or fixes every one of them according to a set plan; no matter what its building law may be; it owes to its citizens and to the whole body of its landowners the definite establishment of standards beyond which its land owners may not be driven by economic competition in crowding the land with buildings.

Ten thousand dwellings of a given cubic capacity and of a given quality of construction cost about the same to build when they are so spaced that every room is light and airy as when they are crowded together in a dark and pestiferous shanty. A town of a given population, other things being equal, has about the same total land valuation where it is spread sufficiently to give all its people decent living conditions as when large portions of them must live and work in dark and ill-ventilated rooms.

Where insanitary and uncomfortable crowding of the building masses is avoided the extra cost involved is mainly in a somewhat greater length of local streets with their underground service mains. This extra cost is so small a fraction of the total cost of buildings and lot areas to be almost negligible, and it is not, of course, a desire to avoid this slight extra cost of street construction and maintenance which causes injurious crowding of building masses, but merely the pressure of commercial necessity where land values are fixed in relation to the rental derivable from the most crowded condition which is possible under the law without driving away tenants.

We are all familiar with the tendency. We all know that in towns of moderate size it is the exception for buildings to be so crowded as to darken each others' rooms unduly, while with increasing land values, the temptation to crowd becomes greater by imperceptible degrees and the standard of the town or city degrees is lowered. All of us who know New York are prepared to believe that there is absolutely no limit to the progress downward except in the establishment of minimum requirements by law.

It is just as easy to arrest the progress of congestion at an earlier point as at a later. It is just as easy to have a great city which is composed of well lighted and well ventilated buildings as a more congested city of equal population, living under less favorable conditions.

It is, therefore, one of the prime duties to be faced in Town Planning to define and firmly establish standards in respect to the obstruction of light and air by building masses.

Town Planning is much more than the things I have been speaking of; there is, indeed, nothing in the town that lies beyond its purview and it is, or should be, at all points, dominated by a keen appreciation of the aesthetic values that can be realized in solving the problems of

town development; but I think it is fair to say that its paramount duty, at the present day, is to deal with the problems of assuring the proper town, at all stages of its growth, of adequate main arteries of circulation, adequate public open spaces for recreation, and adequate spaces for the admission of light and air to every room in which its future citizens shall work and live.

The opportunity before the cities of the Canadian West in respect to effective Town Planning is peculiarly favorable. If they will seize that opportunity and attack the problem directly and courageously in the light of success and failure elsewhere they will not only profit their own citizens greatly, but will, I believe, materially advance the science and art of Town Planning for the benefit of all the world.

DISCUSSION

PROF. PERRY, Winnipeg: I might say that in our own Province at the last session of the legislature in order to preserve a proper relation between municipalities and large corporations, our government saw fit, and wisely so, to appoint a person whose judgment would be final with regard to any question in connection with the law. Now, it seems to me that the solution of the question before us must be on somewhat the same lines. There must be a man with knowledge of municipal matters to whom these very points could be referred, and to such person should be given a veto power, to veto undesirable legislation enacted by any council or any municipality where they were never brought in touch with these things and had no special knowledge of them, also legislation ought to be brought in to prevent conditions being handed upon a community before the significance of the state of affairs becomes apparent to them. It seems to me there should be some such commission as that appointed in a municipal line, just as it has been in a legal line.

ALDERMAN BEHRENS, Chicago: I do not know just what your condition is in that regard, I am not familiar enough with it, but it seems to me in this matter of city planning another vital point which should be considered is home rule. The city itself should regulate its own affairs. Now, we unfortunately in Chicago, and I think in many other cities in most of the States, are governed by the Legislature, or by the City of Springfield. And there we have a more responsible condition as to the calibre of the men than what we have in the council. And these gentlemen are given the power to say what shall or shall not be permitted. There was perhaps a dozen things in the city of Chicago that we took up and dropped, such as if you desired to put a machine shop in a residential district you would have to get two-thirds of the people to give their consent, or some other rules to hinder yards and other things. What we would like to have is home rule in those respects and I think the municipality should regulate their own affairs, or at least make suggestions in that direction. If we had that right in Chicago we could do a great deal more for the benefit of the city than we can at the present time. We have got to go down to Springfield and when we do go down we find an unlearned class of people legislating for us.

I hope that the opinions of a body of men, such as this, coming from various directions, will have great effect on public sentiment.

DR. HODGETTS: Let us forget. I think the instance of Dr. Seymour refusing to give his consent to the erection of an ill planned apartment block indicates that he had the courage of his convictions, that he had full knowledge of what he was doing, and was acting so as to preserve the health of the people in condemning such a proposition as was presented to him, and should be put on record. I therefore move that this conference entirely disapproves of the scheme of one-roomed apartment buildings, as condemned by Dr. Seymour, and that it should be brought before the committee.

I think that the province should have commissions along the lines suggested in my paper. We cannot throw this burden on Winnipeg alone. Let us employ proper men; it is not only a health matter, it is an architectural matter, an engineering matter, a financial matter, a legal matter, and we must in our provinces appoint a committee with power to veto even home rule, for we know what municipalities have been in the past and they will be the same in the future. We are cursed with incompetent aldermen in Canada, and I think we should have some central power, and they should be vested with power to carry out beneficial schemes in this connection. In Germany they have a body of men who have a knowledge of the requirements and on whom the authority for the carrying out of these requirements rests.

PROFESSOR PERRY: I would like to second that motion. That is a concrete case of where the municipality was ignorant of the proper methods. To effect good laws on this matter it requires men with special knowledge. I think there should be a board of trained experts who would be able to say what is and what is not good for the people's health.

MR. EVANS: On this question of home rule, or control by the legislature in the United States according to the constitution, and to our country, by the province, because the municipality is the creature of the province and of the state. The state or the province has the superior jurisdiction, and the municipality is created for certain purposes and its administration is controlled by the Province or State. But I think that the source of the trouble comes from the fact that both your municipalities and ours have to go to the legislature very often for particular legislation. If we do anything at all in the City of Winnipeg out of the ordinary, it is necessary for us to go to the legislature for definite approval of that particular thing. Our courts, very properly, strictly interpret the exact terms of our charter, so that there has to be definite legislation therefore for everything we do. In the United States your state authorities also exercise the same powers of appointment, and even to enactments referring to the cities. We haven't got to the same extent the difficulties from that source. It seems to me in this respect the English system is better than ours. There they have what is called a "General Clauses Act" which says that the city may do so and so, but before they actually do it, you must secure the administrative sanction of a body of experts of the Local Government Board. If, instead of the very elaborate city

charters which cover the administration of our cities, we had a general clause or two saying that the cities could administer their own affairs and make the necessary by-laws, but before putting them into force they would have to be approved by the Board of Experts. This would give you what is absolutely necessary: viz. central administrative control, and yet you would not have to go to the legislature for power to add certain clauses to your charter every time a needed reform was necessary. In the majority of the cases the members of the legislature would not be familiar with the peculiar conditions obtaining in your cities, and it would probably take six months or longer to pass the amendments.

MAYOR ARMSTRONG, Edmonton: I would like to say in connection with what has been said by our friend from Chicago and Dr. Hudgerts. It seems to be a case of more or less intelligence. I have no doubt that in the case of Chicago, that city has a greater intelligence to draw from to solve her own problems than the Legislature at Springfield. But there are conditions that may be just the reverse. Take a little jerk water town in the State of Illinois, it may be that the intelligence of the Legislature is a good deal greater than the intelligence that is brought in to hear on the local council. We have a great many towns in Alberta that are being incorporated, or at least incorporation is sought for them, and in a great many cases these are land speculations pure and simple. Now, we discussed the thing last year, and when I say "we" that means the City Engineer of Edmonton, myself and a few people who are interested in the legislature, and our idea was to approach the Government of the Province of Alberta with a plan for the creation of a Central Board. The Board was to be composed of a doctor, a civil engineer, and of course, we did not forget ourselves, a landscape architect, a real estate man, several merchants and so on, making a very comprehensive, broad-minded board, which would have the control especially of the newly created towns. The idea was that this board should meet and be in session, so as to be able to advise the Legislature on anything that was to come up, mainly the incorporation of new cities, towns and villages, and the idea was further, that people who wanted to incorporate such towns or villages should make their plans at any time in the year and submit them to the Legislature during the time the Legislature was in session; these plans to be fully approved by the Board before being passed by the Legislature.

The Bill covering this proposed Board will come up for discussion during the term of the present Government, and I hope it will be passed. It seems to me it is the only solution for curbing those land speculators who lay a quarter section today and lay out a town tomorrow. It compels them to perfect their plans because they have no chance of getting their plans accepted without first having been approved by this Board.

M.D. EAST, Edmonton: In preparing the new building by-law for the city of Edmonton, the question of tenement houses came up very strongly and in the new by-law, which has been drafted and has passed its second reading, it is provided that apartment houses with suites of no less than three rooms be limited to a size of 9 x 13. That was done on the lines of morality and good health.



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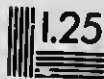
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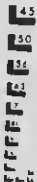
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THE CITY BEAUTIFUL

By MR. LOUIS BETZ

Of St. Paul, Minn

The Town Planning Commission of Winnipeg has honored me, by the request to read a short paper before this Congress on the subject: "Opening up and Beautifying the City."

I do not possess any expert knowledge on this subject and appear here as a private citizen who has been connected for a number of years with the Municipal Government of St. Paul. My chief reason for accepting this invitation is to give emphasis to a movement which is sweeping this country, and to call attention to private citizens that it is their duty to take a profound interest in--so that any suggestions which I make in this paper are simply the opinion of a layman.

City or town planning has become one of the most important topics which is now being discussed by all people interested in the progress, advancement and betterment of Municipal Government throughout America. City officials and prominent citizens everywhere are giving the subject much and earnest attention. It has taken on extraordinary proportions in the last few years. It is a sudden awakening in these two sister nations of America to the fact that all our cities have been built up without any regard whatever to some of the principal functions of a municipality. These are: First, to provide suitable areas for the construction of homes, and to regulate their construction as to sanitary conditions, safety to occupants and to provide suitable and proper environments. Second, to provide the necessary areas for the workshops of all the people, factories, stores, warehouses, office buildings, railroad terminals, shops, etc., and the construction of all these should be so regulated as to give to the great mass of people who work in them, air, light and an environment that will tend towards health, happiness and contentment while at work, thereby increasing the efficiency of all who labor, with the resultant, economic gain. Third, to provide suitable areas for the recreation of *all* the people, such as parks, playgrounds, boulevards and water fronts. So it seems to me that the first consideration in planning a town or city should be to make it a place in which people can live, work and play, in a manner that will be productive of the best citizenship.

In speaking of "opening up a city," we may discuss cities of 50,000 inhabitants or more, which have been poorly or improperly planned at the beginning. This includes most every city of Canada and the United States, with the possible exception in the United States, of Washington and Detroit, which were built up according to a city plan from the beginning. The work of opening up these cities will be the slow work of a century; a beginning has been made, but I am

afraid we all started to make plans for the superstructure instead of first digging the cellar and laying the foundation. Up to the present time most all city plans that I have seen or heard of, have one dominating feature: "Civic Centers," "Show Parks" and "Boulevards," features that cost an immense amount of money and can be enjoyed mostly by the well to-do class of people. To my mind these features should come last, and in planning the opening up of a city, first consideration should be given the housing problem. I know that this problem has been taken up by many cities separate from city planning; some of the eastern cities and states have already passed excellent laws regarding the construction of homes. But before considering city planning on a large scale, let us make the home areas of our city, and especially those areas occupied by the working class, wholesome and cheery places. After this is done it will be much easier to go a step further and start the widening of the narrow streets in the business part of the city. People content with their homes will then want easy access of their places of work, wide streets and good transportation facilities. The widening of streets is the great problem here is where the most of us balk. It looks impossible and the cost seems prohibitive, but it must be done in course of time in cities that have narrow business streets, if the people of such city wish to maintain property values in such districts, otherwise the business district will move to such areas where the streets can accommodate the traffic. This condition is very acute in the City of St. Paul where our main thoroughfare (Seventh street) is only about 60 feet wide, with double street car tracks; this leaves only space enough between the outer rail of the car tracks and the curb for the passage of one line of vehicles, hereby retarding traffic immensely. If this space were wide enough for two or three lines of vehicles, traffic would move almost twice as fast and the same conditions are true regarding the sidewalks. The more time consumed by the movement of traffic through the business streets of a city, the greater the money loss to business. The minimum width for a principal retail street should not be less than 85 feet; from that to 120 or 140 feet, but if too great difficulties prevent the widening of a principal street, other thoroughfares should be opened up traversing such district, in order to relieve the congestion of the main thoroughfares. Streets leading from railway stations to hotel districts, should be planned so as to be direct and at the same time not to interfere with the main business arteries, affording quick travel between these two points. The opening up of entirely new avenues will be found a part of any new city plan that may be adopted, and here we find one of the greatest difficulties, especially in the United States. In cutting through squares, fragments of lots are always left that would have little value unless attached to adjacent property, and then leaving much property poorly suited for the erection of such structures as would properly adorn the new thoroughfare. This is hard to overcome, as under the laws most cities of the United States have only the power to condemn such property as is actually to be used for public purposes. Before comprehensive city plans can be realized, we should have laws upon our statute books, giving the city the power of excess condemnation and the right to re-plat and re-sell such excess property abutting the improvement under such conditions as it may impose. In this way much of the cost can be realized from

the enhanced value of the abutting property. London and Paris have cut through new avenues in this manner without cost to the municipality or its tax payers, the profit from the property concerned in excess of what was actually needed paying for the entire improvement. In the last ten years Rio Janeiro, Brazil, has spent something like \$50,000,000 in opening up new streets and beautifying the city and mostly on this plan. In St. Paul we made the attempt six years ago to have two such avenues cut through the city, creating approaches to our new state capitol, which is considered one of the architectural gems of our country; but the cost staggered the people and not enough enthusiasm could be aroused to realize the undertaking at that time, although we still hope for its completion in the near future. Through the efforts of the committee who had charge of this proposition, the State Legislature was induced to create a Capitol Grounds' Commission, and has since appropriated \$300,000, with which this Commission has purchased property surrounding the Capitol. If the State Legislature will make further appropriations, some day the Minnesota State Capitol will have the setting that it is entitled to. As to widening of streets, St. Paul can report some real progress. Only three weeks ago upon the petition of a majority of property holders, the Common Council ordered the widening of Robert Street from Eighth Street to Central Avenue, by condemning twelve and one-half feet on each side of the street, making it 85 feet wide. This will create an easy thoroughfare from one chief residential section to within one block of the very heart of the city, and it is proposed to establish a building line on this street from Eighth Street to the river, twelve and one-half feet back of the present line, so that buildings constructed in the future will be set back to that line with the exception of the first story, and fixing a time, say, 20 or 25 years hence, when all buildings must conform to the new line. In this manner streets upon which abut many costly buildings, can be ultimately widened and made serviceable for the increased traffic, at the same time increasing the value of butting property.

One of the chief features of any new city plan, should be the creation of many small parks and playgrounds, especially in the congested residence districts, as such districts are mostly inhabited by the working class of people. As I have said in the beginning, throughout this country our municipalities in adopting park systems, have laid the greatest stress upon the creation of "show parks" and boulevards" and the greatest amount of money has been spent on these. The large parks are generally only accessible by the tramway or private conveyance, and are therefore not of constant benefit to the ordinary working man; but if we had many open spaces through the city accessible by a few minutes walk, where the whole family could sojourn after supper and get a breath of fresh air without first putting on their Sunday clothes, the benefit to the great majority of people would be many times greater than that which they receive from the distant large parks. These open squares can be truly designated the lungs of the city, so the more we have of them, the healthier the population; and there should be music in them once a week. Would it not be wiser to provide these kind of recreation places and beauty spots first, before we attempt to spend great sums of money raised by

taxation (and a great part of it from these very people), for the erection of monumental buildings, "civic centers," "show parks," etc.? If we make the home areas of the great mass of working people attractive and healthy, will not their appetite be whetted for something *more* beautiful, and the natural result be that the tax payers instead of blocking the attempt to create civic centers, show parks and boulevards, will loosen their purse strings and demand them? The "City Beautiful" is our goal, but before we can reach that goal we must first provide for the "city practical" and gradually lead up to the "beautiful." City planning has taken hold of every corner of America, and all communities are active (as they should be) in securing for themselves a comprehensive city plan, but there has not been much actual work accomplished, and this may be fortunate, if, as suggested, some of the fundamental ideas of present city plans are wrong.

Let us hope, therefore, that when our country begins actual work on changing the character of our cities according to the newly adopted plans, that work will be done right.

SOME OF THE FUNDAMENTAL PROBLEMS OF TOWN PLANNING

By MR. J. ANTRIM HALDERMAN

Town Planning Engineer of the City of Philadelphia, Penn

The true conception of the modern city can be no more appropriately or elegantly expressed than in the words of Mr. Stanley D. Aulhead, Professor of Civic Design in the University of Liverpool, who says: "In the contemplation of a city, we have before us the most comprehensive of the works of man; its solid walls tell us of his skill and will, its fine facades of his success, its twisted streets of his uncertainty of purpose, the squalor of its slums of his defeat. It is in human life we find the secret of its growth and man himself is but a reflection of its breadth."

"A city is the greatest of the works of art; written on its walls are the traditions and the history of the past, outlined in its composition is the imprint of the human soul. The city is a great stage, and city building is a real theatrical art. Mellowed in harmonious color and reflecting the soft blue of the sky, the effect of its sunlit walls is such as the most brilliant stage display can but poorly suggest. And yet it is but the background of the citizen who traverses its ways. Great is the city whose architecture is passed unnoticed by the crowd, but unfelt. Great is its presentment when its more important buildings alone demand conscious attention, leaving the rest but subconsciously felt. Convincing is its merit when the persistent formality of its street is conducive to a sense of respect and arouses in the heart of the citizen that pride of citizenship alone engendered by civic art."

What a splendid epitome of the real dignity and grandeur of those vast masterpieces of man's creative genius which most of us are prone to regard merely as hives of human industry in which we are born, pursue our destinies for a brief space, and then pass on to our reward.

How seldom do we pause, in our headlong hurry from the cradle to the grave, to contemplate the splendid triumphs of human ambition and achievement as exemplified in the physical development of great cities; how little does the average citizen see, or feel, or care, that, in the creation of the city in which he feels the conscious pride of partnership, some of his fellow-citizens are courageously grappling with grave and perplexing problems upon the intelligent solution of which depends not only his city's place and prestige in the world, but his own comfort, convenience, health and happiness. And yet, the progress of civilization through the centuries, and the zenith of man's greatness in every age, are marked and measured by the cities that have risen, ruled and fallen in their turn. The power, wealth, and glory of Egypt, Persia, Greece and Rome are revealed only by wresting the

secrets of the past from the ruins of their once splendid cities. And so will the story of the marvelous progress and achievement of our own "Industrial Epoch" be told to the civilization of the centuries to come through the records of our cities; not, let us hope, through the no-ventful column of tragic failures and chaotic ruin, but through enduring monuments to steadfast accomplishment and the skill and genius that have made us great.

Since the "traditions and the history of the past" are to be written on the walls of our cities, let us build those walls to carry fine traditions and glorious history; let us lay their foundation deep and strong and enduring; let us raise the superstructure to express the courage, confidence, faith, and high ideals that must be ours if our cities are to resist the desolating touch of time. This does not mean that every stone we lay, nor every wall we rear, and every road we spread must defy the ravages of time; but it does mean that, in the planning and the building of our cities, we must have a wide vision of the future, a strong faith in the important part our city is to play in that future, and the courage to insist that every forward step we take shall be a substantial gain in establishing our right to rank above the city-leaders of the past. We cannot hope to leap, at one grand bound, beyond the storied fame of Thebes, Persopolis, Athens and Rome, but we can hope to create cities that, unlike those ancient sepulchres of despotic power, shall typify the spirit and courage with which the people, from the lowest to the highest, have cooperated in the progress and achievements of the marvellous age in which we live.

The cities of the past were built by slaves, whose only inspiration was a master's lash; and slaves destroyed them when the master's arrogance drove the lash too deep. The cities of the present have been built to meet the imperative needs of sudden and impulsive growth; they have fulfilled their mission but imperfectly and reconstruction is the heavy price they must pay if their prestige is to be maintained. The city of the future will be a city built on the broad basis of the common welfare of the human race; not to gratify the vanity of autocrats or to create wealth and power for a favored few through the concerted energy of the citizen masses, but to gratify the wish and confer the right of those masses to enjoy their just share of the fruits of their united efforts and the amenities that are the just reward of social and civic duties well and faithfully performed.

Let us take cognizance of the lessons taught us by the experience of the cities of the past and of the present; of the causes that have led to the fall of the former, and the failure, or partial failure, of the latter to meet the tests of time. Rome, that "sat on her seven hills and from that point of vantage ruled the world" met the inevitable fate of the city that ruled selfishly, arrogantly, and oppressively. Let us, in planning the cities of this continent, cities that shall play a mighty part in the progress of the years to come, plan them with a far-seeing vision, with a wise conception of the equality of human rights, and with the firm confidence that what we build shall stand as perpetual monuments to a race that ruled through the common intelligence, patriotism and civic virtue of all the people.

You men and women of the Great Northwest, who are in the

vanguard of the civilization of a new land, are carving new commonwealths from the boundless plains, have the history of the successes and the failures of centuries of city-building to teach you the art of planning wisely and accomplishing splendidly in the creating of the cities that are springing up almost like magic throughout this broad land.

It is not many years since such names as Winnipeg, Regina, Calgary and Edmonton sounded like vague echoes thrown out across vast desert spaces; today we find they stand for substantial cities moving with great strides along the path of modern progress, full of fine impulses and driven on by the courage that conquers and the confidence that compels success.

And with this courage and confidence they approach the problems that are engaging the serious attention of the thoughtful citizens of every progressive community—the problems of modern "City Planning," and it is for the purpose of discussing or at least suggesting, some of these problems that this paper has been prepared.

And what are these problems, and why the world wide interest in them that has been aroused in recent years? Some of them are as old as civilization and some have been born of the industrial progress of our own time. History repeats itself in city building as it does in all things else, but with new conditions and new responsibilities. The problems of city planning today involve the practical and economic co-ordination of all those broad human activities that have developed through the concentration of the people in closely knit communities.

City planning, until quite recently, had but a narrow meaning. The "City Plan," in the indifferent manner in which it was formerly regarded, meant merely a plan of streets, but in its newer and broader sense it also includes, or should include, the distribution of parks, squares, playgrounds, and other open public spaces, the improvement of water fronts and all other property which may be subject to public control. Some of the most advanced planners, those of England under the Town Planning Act of 1909 and those of Germany under their zoning system, believe it should also include the regulation of the subdivision, use, and improvement of private property. We are scarcely prepared to accept these English and German doctrines in America, but the time will probably come when we must reconcile ourselves to them.

The "city plan" even in its narrow limitation as a plan of streets, is the foundation and framework upon which the city is built, and its character affects, directly or indirectly, every department of the city government, every class of society, and every branch of industry and trade. But modern "city planning" goes much farther than this and has a far broader scope; it goes beyond streets and squares and involves every function of the city; it reaches the homes and the health, the work and the play, of the community; it aims toward the systematic co-ordination and development of the physical features and social forces of the city in a manner which shall give greater encouragement and larger opportunity for every legitimate enterprise and ambition of its people; it is altruistic in its intent, and its ultimate object is the making of better citizens as well as better cities; in its most compre-

prehensive meaning and broadest intent it involves so many and such varied physical and social elements that no one person can hope to solve, or suggest solutions for, all of its problems. The planning of a modern city which shall fully satisfy all present needs and anticipate and meet the necessities of the future in any large degree demands the best service of the skill and genius of many professions, arts, and trades, no one of which, working alone, can accomplish great results, but all of which, working in cooperation, may achieve a large measure of success.

The problem of modern city planning may be conveniently grouped under three divisions. First, and largest and most important, is the physical division, embracing the purely constructive problem involved in the development of street systems, of transportation and public service facilities, and of public and private property. Second, the social division, in which fall all those activities which may be carried on in the interest of the social welfare of the community. Third, the aesthetic division, new in American city planning and not as yet considered essential, but which will grow in importance as our cities grow in wealth and amulation and as our citizens grow in culture, refinement and civic pride. Although we may speak of these as divisions, no sharp line of demarcation can be drawn between them; no problem involved in any one of them can be worked out to its best conclusion that does not give each proper place and weight; the elements of all must enter in just proportion into every true solution.

In taking a close view of these problems let us begin as the city itself begins - with the planning of streets. The subject of streets may seem a threadbare one, but in considering the fundamentals of city planning it cannot be neglected, for the very step in the creation of a town or city is the preparation of a plan of its streets, for without streets, or public passageways serving as such, there could be no city; therefore, the street system may fairly be considered the foundation upon which the city, with all its countless activities, rests, and unless the foundation shall be properly proportioned and constructed, the structure reared upon it will be subject to the constant menace of failure, decay and ruin.

Almost invariably the street system of a new town has been prepared by or for a proprietor or proprietary corporation and the site has been selected for the promotion of some commercial, industrial, or social enterprise. The plan adopted has usually provided only for the development of a limited area with little regard for future expansion; if the enterprise proved successful the town gradually grew beyond the original limits of the plan and the owners of adjacent property began to lay out streets and sub-divide their land, sometimes in conformity with the original plan, but more often in the manner most advantageous to their own immediate purposes and profits without regard for any existing system or future exigency. It is just here that the evils of careless, irresponsible, and ill-considered street planning begin to take root unless there shall be some public body with sufficient authority, foresight and skill to control and direct the planning of extensions with due regard for public service as well as private rights.

Once established and built upon, the street becomes more nearly permanent than any other feature of the city. Assuming that the city will grow to metropolitan proportions and continue to prosper indefinitely, the passing of time may witness an endless process of demolition and reconstruction of its buildings to meet the needs of new conditions, methods of trade and transportation may be revolutionized, business and social customs may be transformed, the forms and methods of every class of public service necessary to the health, comfort and convenience of the people may change, the people may change, the people themselves may have new ambitions, new ideals and new activities; the tendency of all these changes will be to increase the importance and usefulness of the public highways, but no matter what changes come or what new demands upon it may be made, so long as the city endures, the street system will offer the strongest resistance to the process of transformation; its evils will be the most difficult to reform and opportunities for its improvement will become fewer as the years pass away; therefore, the best judgment and skill and the keenest foresight of the probable future usefulness of the street should be called to its original planning.

The expenditure for the construction and maintenance of streets are among the largest items of the municipal budget, and the investment is one that can return no direct profits. The street enters constantly and intimately into the daily life of the citizen and is absolutely necessary to his comfort and convenience. The economical construction, maintenance and operation of every other public utility depends upon the street, but none of them receive so little really intelligent thought or skillful attention, and in none of them is there a larger opportunity, or one more neglected, for the practical exercise of economy; the most expert engineering skill is called to the planning of our public works, but the planning of the street system is too often done in a perfunctory manner by the municipal officers charged with the duty, or left to the tender mercies of the real estate operator; long established custom or the force of habit have controlled in the one instance and personal interest in the other.

Boston and Salt Lake City may be taken as contrasting examples of arbitrary, wasteful, and unscientific planning. In one the streets have just "happened," and happened of an average width of less than fifty feet; in the other they were regularly laid out of the grand width of one hundred and thirty-two feet when land was plenty and cheap. Every line of activity is hampered in the narrow streets of the one, while the cost of the improvement and the maintenance of the excessively wide ones of the other is a burden too great for the community to bear. Between these two extremes we find cities laid out with streets of whatever arbitrary width the founders happened to adopt and whatever the founder did adopt was pretty certain to become the standard and be applied to all extensions. Although every community in which human beings have congregated since the creation, whether it be a colony of barbarians or the metropolis of a continent, has expanded rapidly, few of our planners seem to have realized that American cities would probably expand in like manner, and most of them have violated the natural law of urban growth by establishing rectangular systems instead of radial ones.

The large importance of the street lies in the fact that the entire system of transportation throughout the city depends upon it, that it is a controlling element in the development of property and the making of the homes of the people, and that it is the principal factor in encouraging and promoting the physical expression of civic art.

Transportation and the street are inseparable, as they are indispensable in the working out of a city's destiny. The dictionary defines transportation as the "act of conveying," very simple and very plain, but the ramifications involved in this definition are almost infinite; it embraces every act or agency by which any object or substance is conveyed from place to place; applied to the street it includes every means of conveyance under, upon or above the surface. Transportation is the great factor, as it is the great problem, in the growth of modern cities, and it is the mainspring of the industrialism upon which the prosperity of the modern state is erected. The healthy growth of the city depends upon the facilities offered by the transportation systems for the economic conduct of trade throughout the city and between it and its sources of supply or its markets. The economy and efficiency of urban transportation depends upon the street system and must receive first consideration in any scheme of town planning.

The radial system of planning streets meets the requirements of transportation more successfully than any other method, as it supplies the shortest possible routes for the trunk lines of all kinds of public service, but it has a natural tendency in the application of this system towards concentration in one great center. A new town, or the extension of an existing one, should be laid out with the view of encouraging the creation of a number of centers each with its scheme of radials and proper connections with other centers; this will naturally tend to encourage the spreading of business areas and the avoidance of concentration of population, business and traffic.

Concentration of business forces land values to rise and this in turn invites congestion of population in or near the business center. The best preventive of the evils of congestion of population is to so control the growth of the city by intelligent planning and wise building regulations, that the skyscraper, the tenement, and the apartment house will have little opportunity of getting a strong foothold. A single administrative and financial center may be necessary, and certain other forms of business directly concerned with those public activities will gather near it, but every effort should be made to secure a general distribution of the branches of trade with which the masses of the people come in direct and constant contact.

The first projection of a town plan, or a plan for street extension, might well be confined to such streets as will form an economic and efficient system of main traffic streets. These should be of generous width, those connecting the more important points or centers from 100 to 150 feet, and those of lesser importance, 70 to 80 feet. In the improvement of wide streets where the full width may not be needed for traffic for an indefinite period considerable economy may be effected by improving only a narrow driveway with a narrow sidewalk on either side, maintaining the remainder as grass plot; or, better still, if it is

possible to restrict the buildings to the lines of the plotted width, only such portion of the street as is immediately necessary for traffic or may be necessary in the near future need be opened and improved; in either case the demands of increasing traffic can be met by widening driveways and footwalks at any time without seriously interfering with private property, and if the necessary for such widening never arises, the street will always remain a very attractive one. In the practice of this elastic scheme of planning, trees should be planted in such a manner that they will not be disturbed in any readjustment of the driveways.

Traffic streets need not necessarily be straight, but sharp curves and sudden jogs should be avoided, and change of direction should be accomplished by means of easy curves rather than by angles; a graceful curve or a well planned fork will tend to break the monotony of long, straight lines. Topographical conditions should not be permitted to exert as large an influence as in streets of less importance; detours which would materially lengthen the route should only be made to avoid excessive grades; some heavy cutting and filling is to be preferred over many windings in a great traffic route which in the course of events may be called upon to carry the trade of a great city for centuries; the widths and grades of a street must usually be considered paramount as established at its original opening for it is seldom they can be altered without almost prohibitive cost after the abutting property has been built up.

The question of grades is one of great importance and should receive the most careful study; grades that are steep or irregular, or that break at frequent intervals are neither desirable for traffic or attractive in appearance; long, even slopes should be obtained wherever possible, especially upon straight streets, and changes of grade should be effected by means of easy, vertical curves rather than by sharp breaks. Upon main traffic streets the maximum grade should not exceed one in twenty unless physical conditions render it absolutely impossible to keep within it, and places where it is exceeded should be short, few and far between. Maximum grades in Europe, even in hilly cities, are generally lighter than in America and in some instances are kept within the limit by crampeing or zigzagging the lines. In some parts of Europe the law limits the grades to one in fifty; in France the maximum on national highways is one in thirty-three and on departmental highways one in twenty.

The secondary traffic streets seventy or eighty feet in width should be established to connect the main traffic ones with each other or with secondary centers of population and industry and the two classes of traffic streets should form the skeleton plan designed with a view of creating direct routes at reasonable intervals throughout the entire city and surrounding districts without regard for the development of any particular property, but with the intelligent purpose of encouraging an equal distribution of opportunities for improvement.

With an efficient system of traffic streets firmly established other parts of the plan, covering the residential streets and those which can never be of much importance to through travel, should be left as elastic as possible in order that any legitimate form of development

may be accommodated. Industrial sections, high class residential sections, and sections given to the modest type of dwellings, each require a different treatment of the street plan. In factory districts the streets surrounding industrial plants should be wide and straight, while those in the same vicinity upon which the homes of the workmen from may be of quite different type, some of the garden cities and industrial colonies of England and Germany suggest admirable arrangements for this form of development, the driveways and walks being in rows and the buildings set back with foreyards or arranged at angles in squares or squares.

High class residential sections lend themselves to most attractive forms of planning; houses built singly or in pairs on large plots permit greater freedom in establishing picturesque conditions and narrower paved areas are allowable. The local traffic through a residential section may even be accommodated by lanes wide enough for two vehicles to pass and a single footwalk, but the necessity of an improvement of this kind requires that there be a permanent restriction concerning ample width of open space between the fronts of the houses.

In sections given to more modest dwellings built in pairs, or long, solid rows on small plots, a minimum width between building lines should be established and this should be sufficient to allow a part of it to be planted with grass, trees, and even flowers. In such a section the streets will naturally be closer together and economy will be effected if the paved space be only such as is necessary for the local use.

In the growth of most towns where there has been little or no public control of the laying out of streets, real estate interests have been largely responsible for fastening wasteful or inefficient schemes of planning upon the public; the economic development of property has received little serious consideration; the street system, and the subdivision into lots has been arbitrarily established with the view of serving the immediate purposes of the owner or operator; this purpose is usually one of pecuniary profit and is accomplished in disregard of considerations of future exigency or the broad public interest; the initial development may be entirely satisfactory, but in the subsequent changes that are constantly occurring the increased value of the property or the new use to which it may be put may create conditions detrimental to the public welfare. There does not seem to be any means of effectively controlling such operations except through legislation conferring authority upon some public body to regulate such improvements not only within the town itself but throughout adjacent territory which may be opened for subdivision into town lots.

One of the principal sources of difficulty in the way of remedying the evils that have become manifest in our large cities is the enormous value assumed by land where there is no check put upon its use. The suggestion of public control of the use and occupancy of land is, of course, repugnant to the real estate interests, but it is rapidly becoming apparent to those who are watching, with concern, the rapid and ill-regulated growth of cities that there must be a limit put on the hoarding of land with both buildings and population. Speculation in land is a legitimate business but the owners or operators have little to do with

the appreciation of values; these are fixed by the law of supply and demand, which, in turn, depend upon the increase of population and trade and the enterprise and energy of the people, and in consideration of the sources from which land values spring, it would seem that the public should exercise larger control over it and obtain greater direct benefit from it.

Under American laws and methods of taxation the immense unearned increment of land value cannot be appropriated or used to the extent it should be for the benefit of the community, but, although it is created by the community, goes to enrich the individual who has but a transitory interest at stake while the interest of the community is permanent and continuing. Several profits are generally taken by middle men in the transformation of undeveloped land into business or residential property all of which are paid, directly or indirectly, by the community at large and with no adequate compensation therefor. The land and the various owners through whom it passes in the course of development owe a duty to the community which the public authorities should have the power to compel them to perform.

New towns, and cities, that are ambitious for future greatness should take measures to control the development of private property in the interest of public economy, to prevent the inordinate inflation of land values which spring from the too intensive use for either business or dwelling purposes, and to appropriate for the public use and service an equitable proportion of the increment of land values created by the common enterprise of the people and the general prosperity of the community.

The temptation to make a grand showing and obtain advantageous advertising through rapid increase of values and the construction of big and costly improvements is very great in a young and ambitious community, but greater stability and economy will be insured if steady progress can be shown along more rational lines, meeting promptly the call of immediate necessity and planning wisely for the future. If a town possesses the natural and substantial elements that make for healthy growth and a virile citizenship that believes in it and in its future and gives its best energy and enthusiasm to promoting the common good of all, greater success and permanence will be assured than if it performs a few spectacular acts that create a sudden boom, develop premature and ill-considered schemes, and leave a multitude of evils in their wake.

There are two great problems involved in town planning that do not fall within the province of the engineer, the architect, or other constructive agents, but which must be more clearly solved before we can expect really effective accomplishment in the practical and economic planning and replanning of towns and cities. These are the problems of legislation and finance and are truly fundamental as all accomplishment is predicted upon them. More failures to produce practical results in modern economic town planning are occasioned by restrictive laws and limited financial resources than by any other influences. There are, perhaps, a hundred towns and cities that have prepared well-considered and workable plans based upon careful investigation of

existing condition and as intelligent a forecast of future needs as it is possible to make, and covering every class of improvement that contributes to communal welfare, but with the completion of the plans the work has stopped or is being carried on fitfully and precariously because the legislator and the financier are unable or unwilling to provide the legal and financial means necessary to the full fruition of the projects of the planner. And here again new commonwealths and new municipalities should frame their legislative acts that the larger and more vital interests of the people shall be paramount to the rights and privileges of the individual so far as this may be accomplished without injustice or oppression.

The cities of Germany have progressed further than any others in the solution of these problems, having been driven to the necessity of taking greater care of the health of their working people in order to build up the industries and develop the resources of the Fatherland. They not only buy and sell land as a part of their municipal activities, thereby obtaining the benefit of increased values, but they take a percentage of the natural and legitimate increase of the value of private property, as represented by actual sales, for public use, while, at the same time, they take measures to protect and maintain the stability of values.

In the first small beginning of a town its citizens do not usually look far into the future; they are too deeply immersed in their own individual affairs and in the building up of industry and trade to give much attention to the manner of growth of the town itself; the country is all about them and so close that they do not feel the need of taking and keeping a part of it for the public use against the time when the gradual widening of their city boundaries shall push the fields and forests further and further away from them; the need of parks and open spaces is not felt until the problem of obtaining them becomes a difficult and costly one. No call is stronger today in many of our large cities than that for parks and open public places for the health and enjoyment of the people; indeed, it has been the insistent demand for such places that has given what we call modern city planning its greatest impetus. The park has become almost as fixed and necessary as the street, and money spent upon a well conceived system not only gives large returns in health and pleasure but adds to the stability and value of property.

It seems somewhat curious that open public places were so long neglected by American cities while they were considered almost an essential feature in Europe and were provided even in private land schemes. William Penn introduced a London custom in his original plan of Philadelphia by laying out five public squares, but nearly one hundred and fifty years passed before another was established. Parks were ignored in the original planning of New York, and that city has paid as heavily as \$2,500,000 per acre to partially atone for early neglect; some compensation is obtained, however, in the fact that the value of Central Park and the property in its vicinity is forty times as great as it was in 1856 when the park was acquired.

The park system, if taken in time and planned with the main arterial street system in advance of building improvements, loses its

complexity as a problem, and, as the community expands, not only falls naturally into its ordained place in the healthy economy of urban life, but becomes a source of legitimate profit to the public treasury.

The playground and the civic or neighborhood center are the near cousins of the park. The former is the preparatory institution in which the child conserves the physical health and vigor that fits it for the larger activities of life, and the latter provides the opportunity for the social contact of the people that create a closer common interest in the civic and social welfare.

The civic or social center, as an adjunct to the public institutions of the city, can be made to play a large and important part in educating the people to a broader conception of the duties and responsibilities of citizenship; its prototype in America is the village "green" of the New England towns, around which were gathered the church, the town hall, and the school, and in which the people met to discuss the affairs, both public and private, of the community. Its modern form might still retain the "green" and have grouped about it the church, the school, the library, the public hall, the gymnasium, the local civic organizations and the branch offices and establishments of the central government; here could be the intermingling of the people of the neighborhood in every kind of civic and social function that would tend to bind them closer together in their common causes.

City planning reaches the health of the people through the methods employed in laying out streets and sub-dividing property for building purposes. Where no public control is exercised over these, or where it is exercised indifferently, bad housing conditions may result; if not in the initial improvement they may be brought about subsequently by the municipality, but the light and air, which are as necessary as sanitation, can only be provided by nature, and nature's efforts are often futile when pitted against the desire for pecuniary profits.

The housing problem, as it affects the working man and the people of small means, has become a difficult one, not only in large cities, but in many small communities; such remedial measures as have been successful in improving evil conditions have been taken through the power of the police or the health authorities, and here again reasonable public control should be exercised over the use and occupancy of land in the interest of the public health.

Great efforts are being made both in America and Europe to improve the living conditions of the common people; the greatest success has been attained in the garden cities and industrial colonies which are largely of philanthropic origin; progress has been made by the public authorities only where they have had the power to purchase and own land and erect dwellings at public expense, or where they have been able to exercise supervision over private development.

The ideal of city life might be realized if every family was the possessor of its own home surrounded by lawn, garden or open space sufficient for the free admittance of light and air, but this is a utopian condition that our knowledge of human nature hardly bids us to hope for, and it is more than probable that safe and hygienic living conditions can only be assured to a considerable percentage of city dwellers through the enactment and vigilant enforcement of wise building codes.

Industrial and commercial enterprise has been the dominating influence to such an extent in the growth of American cities that aesthetic conditions have been largely neglected and beauty has found little consideration in our buildings, especially the beauty that springs from harmonious surroundings; here and there we find a daring city planner has provided an opportunity in his street lay-out for effective treatment and an ambitious land-owner or builder has used it to the best advantage, but this is due to private enterprise; private enterprise also purchases the skill of an architect and erects a fine building, but its neighbors may all grow up in a mediocre class. There should be some public agency through which harmony in architectural effects along our streets may be insured. Beauty and harmony do not mean decoration, nor do they mean added cost; they mean doing things intelligently, doing them well and doing them right; they would frequently mean real economy, for much costly ornamentation and decoration done in the name of beauty is merely the sign of bad taste and extravagance.

If the municipal authorities may not exercise any influence in the aesthetics of private development, they can at least control the planning and improvement of streets with due consideration for attractiveness. In most of our cities the idea has apparently prevailed that the municipality could not afford to construct or maintain anything in the streets except paving and such unlovely objects as telegraph, telephone and trolley poles, but we shall probably find in the future that considerable of the area can be used for grass plots and trees, that the cost of maintaining them properly need not be prohibitive, and that the attractiveness of the streets will be immeasurably enhanced.

Competition is as keen among cities as it is among individuals, and skillful advertising is a necessary in establishing and maintaining a city in a position of eminence as it is in assuring success in business. The most effective advertising of a city is accomplished through the agency of the street and its furnishings, and the opportunity and encouragement it gives for expressing the civic pride and ambition of the individual and the community; a city whose streets are uniformly common-place and monotonous will never inspire its citizens with a very high order of civic pride or patriotism, nor, will it engage the earnest attention, admiration or respect of the visitor.

There are two classes of streets in foreign cities that are the delight of tourists, one is the narrow thoroughfare of the olden time, full of angles and offsets, curious gables, picturesque open spaces and quaint buildings; the other is the wide, dignified, tree lined avenue of recent years, flanked by stately buildings and bearing the finished touch of the most skilled architects. The picturesque passageways of the middle ages will never be reproduced, nor should they be; they belong to an urban condition that has passed with the progress of industrialism, and their legitimate successor will be the minor residential street planned with an enlightened conception of the needs of its dwellers for sunshine, light, air and a little of the charm of nature in its grass and trees. The wide avenue we have in many forms, but too often it has been unwisely planned, without proper advice, control or supervision, and, instead of giving expression to civic dignity, order and beauty, it has degenerated into a desolate waste of paving or a

grotesque combination of various experiments in street decoration.

American cities lead the world in the beauty and charm of their suburbs, but, as urban improvements are pushed outward, much of this is destroyed by inflexible insistence upon some formal scheme of development regardless of the character of the street or the nature of the adjacent territory. With all our boasted wealth and progress our great municipalities have failed dismally in both the efficiency and attractiveness of our streets and roads; the best we have to show, with few exceptions, is in our suburbs, in our smaller towns, or where development has been due to broad-gauge private enterprise.

In the building of the town or city many different plans may be worked out and each a good one; the best can only be secured through sympathetic collaboration; some sacrifice of time, labor and money must be made; the municipal officers, the engineers, architects, artists and artisans, and the owners of property, must work together for the common good of all if the great problems of city building are to be satisfactorily solved and fine ambitions achieved.

THE BANE OF THE GRIDIRON

By MR. ARTHUR A. SHURTLEEF

Landscape Architect of Boston, Mass., U.S.A.

While the bees are making cells and thereby constructing great honey-combs, men are building houses and thereby creating vast cities. With fabulous industry bee and man devote themselves to the little tasks of cell and house construction and give no thought to the greater aggregate structures which grow without let or hindrance for the happiness or misery of the swarm and of the human family. We have been told that the bee solves with partial success some of the problems of statics, sanitation and administration which originate with the development of the ponderous combs, but the insect is too busy with cell construction to devote adequate attention to the greater problems of the natural hive. In fact, the bee will eagerly build its cells upon artificial schemes of embossed wax hexagons thrust into the hive by the commercial bee-keeper, rather than plan its own comb. Mankind shows a similar inability to deal with the greater problems of cities while engrossed with the construction and equipment of houses, and they willingly accept the surveyor's stock pattern of the gridiron rather than pause to devise a rational scheme of streets and lots. For two centuries in this country men have willingly wasted their earnings and their lives to perpetuate in this headstrong manner the monotony and the inconvenience of the stereotyped gridiron.

The cheapness and speed with which the wax stamping machine reproduces the sham comb pattern for the universe of domesticated bees has a counterpart in the facility with which the surveyor of the old school turns out his plans for the layout of our American cities. To save expense and delay this master of the rectangle ignores all local topography of hills, valleys, cliffs, river gorges, and he cares nothing if his lines run counter to the natural course of traffic, to the gradients of water supply and sewerage systems, and to the points of the sun's aspect and exposure. He logic abhors site and reduces all points of vantage to a commonplace of exact duplication. There is no delay in his methods, he wastes no time in a study of the ground or of the requirements of business or of residence, he produces the plan in a twinkling before our eyes at the very moment it is needed.

If we inquire why this casual and cruel plan has left so conspicuous a mark upon our preoccupation and our gullibility, we grasp the gridiron precisely as the bee seizes upon the sheet of stamped wax. We perceive familiar and coveted corners, we are captivated by the straightforward simplicity of a scheme which recognizes no obstacles, no uncertainty, no limits, no intermeddling of Nature, no rough contact with facts, no delay in starting at once to build and to lay up store. We are

exceedingly busy, building materials are at hand, time is ripe for building, therefore we accept the obvious pattern so timely brought to light.

Gridirons can be laid out upon the ground with amazing speed. Miles of streets can be established over hill and plain in a day by the merest surveyor's assistant, who can indicate at the same time the position of blocks and subdividing lots once the pattern is impressed on his mind. Since the deeds for transfer are alike in description and text, a whole city may be put to press and made ready for signature in a few hours. Purchasers have no cause to quibble over the lots, for they are all on main streets, they are all of similar orientation, and of precisely the same shape and size. The Atlas is also readily prepared by repeating the characteristic block and lot to the very margins of the page. To be sure some correction must be made if the city is large, for the curvature of the earth's surface, which tends to make parallel lines converge or lose their precise angle of intersection. This phenomenon unlike prominent features of topography, is rarely overlooked by the expert gridiron maker, who tests his work by the true meridian and by the standard length at Washington and regards himself as a champion of an exact science.

The gridiron as a field for residence and manufacture and as a channel for business and transportation, is seen at its worst when it is applied to an uneven topography. On such ground streets of ample width may prove to be impassable on account of steepness, and the construction of main thoroughfares may be postponed for years for the need of funds to overcome obstacles which might have been avoided by a slight deflection, traffic may be forced by wide detours to secure an outlet which might have been provided directly by a radial or a diagonal; railways may be forced to enter the city through heavy cuts or tunnels and proceed upon trestles or causeways in order to avoid diagonal crossings of the street system upon natural gradients; water-supply mains for high service may require frequent and expensive inverts into low ground, and normal pressure mains and the sewers may be required to zig-zag from street to street in order to make amends for faulty profiles; whole districts set aside for mercantile purposes may be forever handicapped for business use, because natural lines of approach have been blocked; residence streets may suffer seriously from an unfavorable aspect to the sun in summer or winter, and to the prevailing winds. Cities ill-planned in these ways, which do such violence to the ground upon which they stand, which suffer such inconvenience for want of the most primitive forethought, and which stun the senses by a monotonous succession of streets and blocks of exactly the same pattern extending mile after mile, are the common type with us.

Strangely enough, when our gridirons are established and their faults widely known, we experience the greatest difficulty in preventing their further extension. Their growth becomes as automatic and as relentless as their pattern is mechanical and arbitrary; only the great barriers of the sea and the mountains have usually sufficed to check them. Fortunately there is now arising a tide of public opinion which promises at length to turn the energies of the house builder into rational channels and to lead traffic in the direction which the contour of

the ground and the requirements of commerce suggest. We realize that a city should be more than a mere aggregate of buildings and that time and money invested in these structures cannot bring proper returns unless the relation of the buildings to the city at large is logical. Experience has taught us that an ill-planned city is by nature ugly. The mere addition of street trees, the construction of monuments and the architectural embellishments of facades cannot cover glaring faults of city structure or hide obvious conflicts of plan with topography. A city cannot become beautiful unless its plan is adapted to its use. Herein the bee working on his sham wax foundation has an advantage over us.

BEAUTIFYING THE CITY

By MR. I. J. BOUGHNER

Editor Minneapolis Tribune

Mr. President, ladies and gentlemen: I assure you I have no place on the program of a Town Planning Commission, or a Town Planning Congress, for if anything grew without planning it was the vacant lot gardens of Minneapolis. There is one consolation in starting a movement of this kind without any definite plan and without following any well defined program, that you can fit all your conclusions to what you have actually accomplished, so when I set forth the ideals of the vacant lot gardens and our accomplishment, and can show you how they match exactly into what we have done, you will understand that we are counting our chickens after they are hatched. That is in many ways more satisfactory than the other way.

The vacant lot gardens originated in Minneapolis without anybody knowing it. Three years ago there was a plan under way to organize a Garden Club, to promote an interest in the making of school gardens. That plan fell through. There was a vacant lot in the centre of the city on the road to one of the principal clubs that had for years been overgrown with weeds and was in many ways undesirable in that part of the city. The idea came to us that we might possibly do something in the way of making a garden out of that vacant lot with the help of some of the children of the schools even although they were not school gardens. Just at that time there was a Boys' Club in Minneapolis that was appealing for help, and we conceived the idea of having the Boys' Club do the work of making the garden in return for help in connection with their club. Thus was established the first civic vacant lot garden on this continent in the heart of Minneapolis, and we started working on it 16 members of the Boys' Club, little fellows we picked off the streets. We established many things. Among them, that the improvement that can be made, cannot be measured; second, that it was absolutely impossible to try to do any gardening in the city with school boys unless they were either under the discipline of the school or the discipline of their parents. Take the 16 street arabs mentioned. In endeavoring to have them work at any kind of a desirable garden plan, they proved to require so much supervision as to be financially worthless to the city and to those who directed them, but the idea of improving the vacant lots was firmly implanted in the minds of hundreds of those Minneapolis people who happened to pass this vacant lot while on their way back and forth to the centre of the city. So that last year when there was organized a civic celebration, it was proposed as one of the adjuncts of the celebration that we should beautify all the vacant lots

in Minneapolis with the help of the funds raised for this Civic Celebration. We had no modern city to pattern after. In the city of Philadelphia they had vacant lot gardens, but they were purely charitable; in Detroit they are charitable. We did not want to make them a charity. Experience has proved that we saved ourselves from shipwreck by not making them charitable. But we did make them civic, and we established 302 vacant lot gardens which produced a crop giving in return in the neighborhood of \$13,200. With that foundation and with the experience we gained last year, we increased the number of gardens this year practically by 500 so that in Minneapolis today we have brought about the planting of 1,002 vacant lots to vegetables and flowers. This should be compared with 302 in 1911 and 1 in 1910. In addition 270 home gardens are being cultivated and in these gardens twice as many rose bushes and apple trees have been planted by the members, which are a permanent addition to the city. There were no home gardens in 1911 under the auspices of the club.

We have also brought about the decoration with flowers and grass of 140 front yards in the congested Russian Jewish district in North Minneapolis. Children under 16 are doing this work, and not one of the lawns affected had been previously improved. Grass seed, vines and half a dozen varieties of flower seeds have been distributed to each child.

The significance of the garden work started is not so much in the numbers that have been interested, or in the number of acres that have been planted, as in the permanence of the interest. Of the 302 gardeners of 1911 all but 16 (excluding those who have left town) are gardening again this year. Of the 1,430 gardeners we have this year, 81 per cent, have never gardened before. So that we have introduced gardening to slightly less than a thousand people. Then there is the most encouraging feature of the whole movement. Last year we started out and had plenty of funds to back us, and the Associated Charities had about 45 dependents that they recommended to us and we took them into the garden club without fee, and they had meals supplied them by charitable persons. Thirty out of the 45 kept the work up, and this spring without any encouragement on our part every single one of last year's charitable patients came unsolicited and joined the garden club and paid the fee, and we didn't know until we had compared the records at night that they were charitable patients of last year. They had gone beyond the point where they were charitable gardeners.

Just a figure or two to show the extent of the vegetable and flower gardens. They covered 100 acres inside the city limits, exactly a quarter section. About seven acres in this area was planted with flowers. The frontage of the gardens is a trifle over 11 miles. Based on the returns of 1911, the total value of the crop will be slightly over \$50,000, and the total cost for all purposes is less than 20 per cent, greater than it was in 1911, although the gardens have increased in number 400 per cent., and this cost includes tools and office equipment which are permanent.

The total cost this year is only \$5,500 of which about \$2,800 has been contributed by the gardeners, leaving between two and three

thousand dollars to be raised by contribution. Last year \$4,500 was the cost, and \$4,000 was raised by contribution, the gardeners contributing only \$500.

Now here are the things that gardening does. The benefits are divided into four different classes: Social, Civic, Economic and Hygiene.

Perhaps the Social benefits are the most important although not the most striking. One of the conclusions after the work was done we had no clear of course, when we went into this work of the results that would be obtained was that more than 90 per cent. of those who went into gardening had boys between the ages of 12 and 15. Boys have a right to work and they must work or they will not get the discipline that is good for them. There is no other way that boys can work unless by carrying papers, and that is not good work. The gardens provide a place of not too hard work, to which the boy can go when he feels like it, and the garden belonging to his parents, at home or on the vacant lot next to the home, is always the boy's garden and he is always interested in it. In this way it is different from the school garden. It enables the parent to take the boy over that distressful period between the time the plant comes up and the time it begins to bear fruit.

The gardens unite families, and they unite neighborhoods. One instance of this has repaid me for all the time put on the gardens. There was one garden on Portland Avenue in Minneapolis near a block in which lived an American woman, a Jewess, two Germans and a Norwegian. Nationalities do not always mix, and they didn't in this case until this American woman had established a garden on the corner directly across from the house of the Superintendent of Schools. He was the first to watch the making of the garden, the first to offer advice. Soon the wives in the block came to watch the making of the garden, and to offer their advice. Then the husbands in the block would stroll over to watch operations. It was the proudest moment of my life when I was invited to a garden party in that garden and sat down to a spread of vegetables raised on the spot, and noticed the good feeling that existed between the different families in the block, when but four or five months before they were not on speaking terms.

As to the hygienic side, there is of course nothing to be said as to the value of the exercise which has appealed so strongly to men of the office and better laboring class and the like, nor as to the value of fresh vegetables could anything be added to what you already understand of that phase of the garden work.

On the civic side the fact that there are 40 or 50 cities following Minneapolis' example, shows the value of it to our city. That fact, that in place of tin cans and rubbish of various kinds there are flowers, vegetables and places of beauty, indicates that too much cannot be said of the civic side, and yet the civic value is also one of the things that goes without speaking.

Now, as to the economical value of the gardens. Each garden last year brought in \$39.10 to its owner. The gardens this year, as I said, will produce something like \$50,000 worth of vegetables in cash

to their owners. I have a clipping which I will read from the Minneapolis Journal, not my own newspaper, so that it is not a prejudiced account.

"Amateur gardeners are held responsible by members of the Market Gardeners' Association for the present low price of vegetable products. Professional gardeners declare that one fourth of the people of Minneapolis are raising their own vegetables.

"Vegetables were cheaper on the market today than at any time in 18 years. Two hundred and ten market gardeners' wagons were on Market Row today. Lettuce, spinach, beets, onions and carrots were sold at less than one-half the price asked at this time in 1911 and 1910. Market gardeners said that even at these prices 25 per cent less produce has been sold this year than at the same time in 1911. Here are some of the comparative prices on June 28:

	1912	1911
Lettuce, dozen	\$ 1.10	\$ 2.20
Spinach, bushel	1.25	2.45
Beets, bunch of 18	.10	.20
Onions, doz. bunches of 6	.10	.15
Carrots, dozen	.10	.35
New Potatoes, bushel	1.25	2.25

Another feature of the economic value of the gardens came up last Friday when Minneapolis was visited by an 84 miles an hour wind, hail and rain storm. On Saturday morning it was discovered that the truck gardens had been practically wiped out of existence, that the truck gardens had been practically wiped out of existence, that the truck gardens had been practically wiped out of existence, that the truck gardens had been practically wiped out of existence, that the truck gardens had been practically wiped out of existence. The price doubled on Market Row Saturday morning, and dropped again on Monday because it was discovered that inside the city there was, protected from the elements by individual care and the protection the city offered, 100 acres of vegetables that could materially help Minneapolis in fighting the problem it is up against as a result of last Friday's storm.

There is enough vacant land, excluding all the park property, in the cities of North America to support all their inhabitants if it was cultivated. There isn't any city which does not contain tracts of this kind, and a piece of ground 10 feet square will provide enough fresh vegetables for the individual.

The way we started out last year and the way we started out this year are materially different, and in telling you about it I am going to combine the two because it is hard to tell a straight story of what has been done. We have had to retrace our steps many times, and we have had to profit by our mistakes, but the thing that counts most is the object that is set for the gardens. It is perfectly apparent to anyone in this room that gardens are profitable, for, even if you don't need the money that the gardens return, you do need the exercise. You can materially improve the property around you, by preventing the surroundings of the property from being a disgrace to the community. There are many reasons why intelligent people should take up gardening, but when you are dealing with a mass of 20 to 30 thousand, you are not dealing with intelligence, no matter

what the components of that mass may be, because of the difficulty of reaching the individual. It is hard to reach the individual in the mass. Forty American cities have taken up the vacant lot garden plan along the lines Minneapolis laid down last year, and with each of those cities I have been in constant touch by correspondence, and yet in each of those cities a failure, or the next thing to a failure has been made, and the reason in each one has been the making of the gardens a charitable not a civic undertaking.

We serve in Minneapolis, equally in Lowry Hill and in the Sixth Ward, which are the opposite poles of residence in Minneapolis, vacant lot gardens. The man whose income is \$5,000 a year, has a garden in Minneapolis, and so has the man whose income is \$8 to \$10 a week. The only thing that we required of any man that desired to join the garden club was his fee and the desire to beautify and to garden vacant lots. And we never mentioned the word charity, so that the office man and the man who needs the garden most is not ashamed to be seen in the vacant lot garden, and the person that actually does any charity isn't ashamed to be seen there because no matter what his situation in life is, the garden is not a charitable work. In Des Moines, Columbia, Seattle and other cities where one single word has been said about the benefit of the garden to the poor man or one word has been said that certain beneficent people are giving so much money to make possible the profit of other people, the gardens have been a flat failure, and so they will always be when undertaken on that basis. A civic basis seems to bear out that conclusion.

So you should start out—I am giving you advice now—and resolve that the object of the gardens is to be the beautification and the making useful of the vacant lots of the city. You can make lots more beautiful and you can make them more useful at the same time.

We require ten feet of flowers on the front of the lot. We put no restriction on the people as to what they shall plant. We let them be, as far as the flower question is concerned, their own masters, except that they do not go contrary to the purposes we have in mind, namely, the beautifying of the property.

When we started out last year we had the belief that it was necessary to employ a large number of expert gardeners to give instructions, and our employment of those men may have had some advertising value, but as a matter of fact after the first trial we valued the supervisors only for the purpose of proving to their satisfaction and to the satisfaction of the Garden Club that, compared with the gardeners themselves, the supervisors knew absolutely nothing about gardens. The average man, once he is convinced that he can garden, needs no further instructions. He will take a seed catalogue or a garden magazine and find out all that he needs to know about gardening, for after all what man does is one per cent, and what nature does is ninety-nine per cent, in gardening. Almost any kind of soil that is given any kind of treatment will produce some kind of gardening. Of course, it takes experience and education to produce prize vegetables. But they have got to be convinced that they can garden in the first place.

This year we are not paying any supervisors and we have not even advertised that our Superintendent knew anything about gardening, and next year if the Superintendent takes any of his time in order to tell anybody how to garden he is going to be discharged right off the bat, of course handling 2,000 gardeners in fifteen days is all a superintendent with a big corps of assistants can efficiently handle. This year we put that information in a hand book, so that while advertising expert supervision has value at the commencement of a work of this kind, it can very safely be dropped, and the instruction given by means of articles in newspapers and magazines.

After you have a superintendent, the organization forms will be the next thing. A very simple form of receipt, a membership card and record blank were all that we wanted. This year, when the last days for taking in members were drawing to a close we had as high as 125 applying in a single day and as many as 25 men asking for the same vacant lot. We had to have a somewhat elaborate system of record keeping, and we were also required to know every vacant lot in the city and for this purpose we had a map made after the plan of a real estate chart.

We advertised through the newspapers and at meetings. I am talking about this year, because last year it cost us a little more than for \$1.50 we would get a vacant lot for him, plow it, give him all the seeds he would need in his garden, and give him instructions in Y.M.C.A. lectures and through our hand book. The seeds were given to us by the Government, together with 28,000 tomato plants and 50,000 cabbage plants, and we had to have more than this amount. The plowing we expected to do cheaper than we did last year, but we found it impossible. The plowing cost \$1.50 a vacant lot and we only required a \$1.50 fee so that the rest of the expense had to be borne by outside people. Next year for a fee of \$1.50 we will do the plowing and give out possibly the tomato plants. Next year also we will have done away with the office of administration, and the advertising necessary in getting members for the Garden Club. We find that each member last year brought another member this year so that we doubled our membership, making five to six hundred without any effort. But we wanted to go over the thousand and I suppose \$600 or \$700 were spent in getting the additional 500 members for the Garden Club. Now that we have 1,400 we shall not have to spend a cent, because it is expected that each one of the old members will bring in one or two members which will give the Garden Club the increase we want for 1913. Last year we endeavored to find out the lots for the people wherever they wanted to locate. This year we required them to find the vacant lots themselves. Next year we will require them to find the vacant lot and find the owner because it cost us \$300 or \$400 to locate the owners of those vacant lots last year. We must avoid that expense another year.

Now, the secret of our success was in the fact that we had just enough of that adventurous spirit that comes from working on a daily paper for 10 or 15 years to make an instant determination to start this work, and so far it has cost us only about \$30.

We were faced in 1911 and 1912 with the fact that about 75 per cent. of our gardeners came the moment we had announced the closing date of applications for membership. You have got to set a definite time limit to move city people quickly. In the last week this year there were five or six hundred applications for membership. We closed our membership ten days before the plowing began. In the meantime we had to verify the location of every lot and check up the duplicate applications so as to be able to return the fee to those that had applied for a lot already taken. When you come to the task of locating the owners of a thousand vacant lots you find them living from one end of the country to the other, and not even confined to the United States, and less than half live in Minneapolis, and if we had waited to hunt up those owners, it would have taken two or three weeks more and unlimited expense, in order to get their permission for the use of the vacant lots. So we took this chance. If a man owns a vacant lot on which there is a lawn, we would not touch it. If the lot is used as a playground, no matter how much the neighbors need the money, the children need the use of the lot more so; and we will not garden any lot that is kept in good condition or that is used as a playground. Eliminate those two classes of vacant lots, and we have left the vacant lots that are maintained in weeds which are a constant menace to the farming population outside of the city, on those lots on which are strewn ashes, riddish and so forth. We assume that the owner of the vacant lot was allowed it to be kept in weeds didn't care particularly what happened to it, so when we received an application for a vacant lot of that kind we went ahead and plowed it up. We have not got the consent of the owners of the vacant lots for the use of more than 50 lots out of the thousand. Two men out of the thousand have said we have destroyed their Kentucky grass, and they are the only ones who have seriously objected to our using them. We haven't plowed any good-looking lots; we haven't plowed any baseball lots, and it has cost us in two years \$30 to make amends for entering on them and plowing them up. This year out of \$1.50 that came in we have reserved 10 per cent. so that we may enter these vacant lots after the season is over, harrow them over and restore them to better conditions than they were in before we used them.

After the people had joined the Garden Club we required them to come to the office and get their seeds.

We found, also, by experience again this year that it was apparently worthless to print application blanks in the newspapers, except to serve us a constant reminder of the work. They were simply overlooked. Out of the 1,400 I should say all but 50 wanted to come to the office and talk it over before they decided to join the Garden Club. That talking it over consisted usually in the question: "Do you really do what you say you do?" and on the plan being explained, they paid their money willingly. We found that there was an unwillingness on the part of the people to send their money in without investigating the matter for themselves, no matter if the thing was discussed in public or in the newspapers. (At this juncture a voice exclaimed: "They were from Missairi.") All of them. We also put on a course of lectures at the Y.M.C.A.

We had on the 23rd of April, when we began plowing 100 acres of vacant lots, in no one instance more than 4 vacant lots side by side to plow and harrow and make ready for planting by the 1st of May. That was the most difficult problem of all. We prepared a map as large as one of the windows here, and every time a garden was applied for we were able to spot the garden on the street given. The day that our membership closed we went to work to find out the number of vacant lots that were to be used, and we figured that we could plow and harrow these vacant lot gardens in one day. Then we got our teams together, sixty-five to start with. We had to buy a good many plows and harrows. This expense will be practically nil in the future. We located these plowmen on the map by means of yellow tacks and then prepared from the map a regular train despatcher's list of gardens to be plowed, with the number along each side and with complete instructions at the top to the teamsters and supervisor. That is the most expensive feature of the whole work. Before we had been working three days we discharged half of them, and the remaining half seemed to be incapable of doing quick work. It is hard work getting competent plowmen in the city. We started out with the assumption that one supervisor would look after ten teamsters, but we soon cut it down to three teamsters and even then we lost hundreds of dollars. Every teamster did his utmost to do as little work as he possibly could, apparently owing to the fact that it was a civic undertaking and we therefore had money behind us, as he thought. The men were assembled in the central part of the city, and you will get some idea of the scope of this work when I tell you that it cost us \$75 an hour, and we hesitated whether we would have these men assemble for an hour beforehand to give them a short instruction on the nature of the work, but we finally brought them together and gave them the final instructions and sent them into the field. Then we found the next day that our whole beautifully planned system had gone to pieces. Some teamsters had plows and no harrows and had plowed three gardens and harrowed none, and vice versa, and then we would find along in the middle of the afternoon that a teamster would get tired and he would get a job excavating for some other firm and would go home. But we had it all plowed in one week, and then we had to go over it the next week with disc and harrow, because outside of the 302 gardens that we plowed last year all of this territory was the original virgin soil of Minnesota and there isn't any tougher land in the world.

That was the end of our gardening campaign with the exception of the distribution of tomato plants and cabbage plants on the 1st and 2nd of June, but of course none of our machinery was needed for that. We addressed a post card to each member of the garden club with instructions to call at the office for seeds. Each post card was good for 20 plants, so that there was no elaborate checking necessary, and in the few instances that we had to secure some extra tomato plants the expense did not amount to anything.

Now I realize that I have rambled along and that I haven't touched by any means on all the problems. I think now of one that I have forgotten to tell you about. Last year we put up over \$500 in prizes and found that only a few competed for the prizes; the rest

were not moved one way or the other, and of those who did, or rather those who thought they should have received a prize but didn't, really worked a greater harm to the Garden Club than if they had not competed for the prize at all. This year we varied our prizes so that there are practically no prizes at all. The Real Estate Exchange is offering a prize of \$100 for the best flowers of half a dozen different kinds to be brought in and turned over to the hospitals. There is a prize to be donated by the Commercial Club for the best three ears of sweet corn, and a prize for the best potatoes, to be used for the annual banquet of the Civic and Commerce Association. It is our experience that the setting up of competitive money prizes by the Garden Club works more harm than good when working along civic lines. The chief prize to be obtained, which is impressed upon every member, is that there is \$40 to be made out of his garden in cash; that he can materially improve all the surrounding property by making beautiful his vacant lot; and that he is gaining health, which is by far the best of all prizes.

I have some pictures that I am going to show you, and I will also be glad to answer any questions in regard to the problem we have successfully mastered.

FINANCIAL ASPECTS OF TOWN PLANNING

By MR. C. B. WHITNALL, Milwaukee

A habit is the result of repeating an activity until we perform the same without further thought or reasoning. A habit is therefore economical of personal energy. But there is always danger in a habit, no matter how carefully the original action may be studied, where the circumstances surrounding the original action change. The habit becomes a misfit and as the change continues the habit is frequently rendered vitiating.

What is true of an individual's habits, is likewise true of a city, where social customs or the machinery of its business are adopted as may be most expedient at the time.

As the city grows in population habits become so inadequate as to be extremely wasteful. This is not infrequently the case where real economy actuated the original.

Our modern "keep down the tax" economist is usually one of those who has become attached to the idea that to refrain from spending a dollar is to save it. This unmistakable symptom of a hide bound intelligence, as pertaining to community welfare, is usually coupled with a high regard for the words "independence and patriotism," with a stolid indifference as to all efforts made to teach him that the greatest word to understand today is "interdependence" these are the elements with which the Town Planner has to contend.

In Milwaukee the task of promoting necessary measures for health and economy in the business of life is more of a mental process than an engineering project.

I will just give a few facts in reference to Milwaukee's need for a better plan, that will give but a vague idea of its old habits and what the "keep down the tax" economist is defending against the efforts of the city planner.

The yield in land of Milwaukee County in agriculture and horticulture has decreased very much within the last ten years, while the price of such produce has advanced. Thousands of our people are emaciated for want of sufficient wholesome food of that nature, while the elementary land value of our sewage and other filth amounts to over \$50,000,000 a year, which we do worse than waste - we run it into the lake from which we draw our water. Of course, this causes less of a draft upon the city treasury for the time being, but tuberculosis, typhoid, insanity and all the crimes which naturally accompany such devitalizing conditions are bringing us gradually and inevitably

to disaster. The city planner is told his plans are "too expensive, where is the money to come from," etc., yet that \$500,000.00 annual waste alone, of food supply represents a capital of ten million dollars at five per cent, half of which would be enough to inaugurate a system of economy. Whenever a manufacturing plant ignores wasteful machinery and habits of employees and saves (?) the expense of a cost accounting system, it loses its credit at the bank and goes bankrupt; yet how strange it is that business men who know this of individual corporations are so slow to apply it to the business of the municipality.

It costs more to distribute coal in Milwaukee than it does to bring it from Pennsylvania, but because the coal dealer professes to maintain a free delivery we stand the tax without question, because it is called coal. If one dollar a year were put on your city tax bill for building an arterial highway which would lessen the cost of distribution for all time, there would be trouble. It is astonishing how many "pin head" economists we have, who will tolerate indirect taxation unto starvation and are ready to voice the arguments prepared by the shrewed individuals, who have a fear and horror of the municipality undertaking the cure of a disease for which they have for generations been "family physician."

Milwaukee is one of the worst congested cities, owing largely to inefficient platting. It costs too much and takes too long to get in and out, yet we are wasting about \$700,000.00 a square mile on useless streets, grades, pavements, etc., and maintaining about one-third more pavement than there is any need of.

This terrible waste is countenanced by the same people, who say we cannot afford a few 150 foot highways, which properly constructed, would reduce the width and wear of pavement of at least 50 streets paralleling each of these highways. We have as yet a "checker board" plan to zigzag our way for long distances. The city has borrowed money the third time for paying before the original paving bonds had been paid. It has become a habit with which the city planner requires the patience of Job in his endeavor to inaugurate methods of conservation.

Perhaps the most serious habit to overcome in all American cities is that of individual platting. Milwaukee's plat is a composite of about two individual subdivisions and additions, accepted by the common council, which changes its personnel every two years, and there being but a mere chance as to whether any member of the body knows anything about city planning. This honorabile body has just decided that to spend \$5,000.00 for expert service in going over some tentative plans, outlining a system of arterial highways, establishing areas apart from manufacturing territory (so that you could locate a residence with some assurance that a tannery would not be your next neighbor), providing ground for schools and other public utilities, etc., so as to have the territory surrounding the present city limits fixed by legislation as to manner of its future growth, so that every real estate man could assure his client as to the future development, etc., would be illegal.

Contrast this illegal proposition to cost \$5,000.00 with the habit

of spending an average of \$35,000.00 a year to purchase pieces of land and pay drainages in order to get the numerous individual plots to fit together—that is to create what might be considered a harmony of discord, that is *legal*, but to spend \$5,000.00 to obviate it would be *decent*.

There is another economic phase in building of a city properly that has not been as carefully considered as it should, yet it is extremely important alike in economy and health for all, which properly enters into the financial aspect. If the system of arterial highways most approved and the zones with their suggested areas were adopted at once, the mass of the people would not know how to extricate themselves from halats so long forced unnaturally upon them.

Some of the more progressive tax payers have come to recognize the demand for parks as legitimate, and admit we must have "breathing spas" for the people. This is a mistaken idea. A park is desirable for as-cuddles at times, and there should be a few, but the place to do our breathing, is at home and at work; we can go for hours without food and sleep, but not long without breathing. The real object of a park is to restore that natural equilibrium between animal and vegetable which is so necessary for a normal atmosphere and it is far better that a good portion of this consists of fruits and vegetables for family consumption. The mothers and children can produce far more of health and value on a piece of land surrounding their dwelling than by leaving home for work in a factory. With intelligent direction all the animal and vegetable waste of a city can be returned directly to the land, the only safe place. People can afford to pay for street sweepings, etc., all it costs to clean the streets, and in this way the wasted, improvident land along the highways can easily be made intensely productive. No trees, and fruits can be used more, and nonproductive trees less. Thus by proper planning of residence areas and the establishing of a county school for the purpose of teaching this practical side of the improved city building, much can be accomplished that will insure the proper execution of better city planning.

We have inaugurated such a school in Milwaukee, but there is a determined effort by the "keep down the tax" economist of slovenly habits to kill it and use the plant for an insane asylum. These people are willing to spend large amounts annually for remedies, but to take sane steps to prevent insanity and other demented conditions they call, "crossing the bridge before you get to it." Here again the city planner must lay down his engineering tools and educate his obstructionists.

There is another important feature of the financial aspect that is also difficult to deal with in a thorough manner owing to the fact that certain injustices have become a habit and are endured because not understood. I refer to the retention by the city of all community values. Although they have been conserved carefully, it has not been paid into the city treasury for the welfare of the community which has produced it, but has been diverted to the shrewed manipulator, for his own advantage.

The most important community value is that accrued to land, which outside of Milwaukee is worth \$400.00 per acre, eight lots per acre or \$50 per lot. As you enter the city prices are higher, increasing as you get towards the center, where \$100,000.00 a lot is not an unusual price. That addition of \$99,050 to the lot is measured by the power of its owner to exploit the people who are obliged to use it. That is the community value, a value supported by the community. The owner of this lot has simply held the reed as you would hold a lottery ticket. The value virtually belongs to the people, (that is the city), and amounts to many millions of dollars from which the city should receive the income for its community benefit. The community value of our streets is much. Yet we permit the use of them for street cars free of charge; the same is true of gas, electricity, telephones, etc. In many ways community values are appropriated as personal incomes. We are giving something for nothing, which is the fundamental reason for considering gambling a crime.

The gradual stopping of this leakage is what will rid cities of their tax burden.

This has been accomplished to some extent and is now being undertaken here, by what is called excess condemnation, whereby the city is given power to appropriate as much land as will be directly benefitted by any contemplated improvement, so that new increment will support the actual expenses.

Here again the city planner has to convert lawyers and courts.

Good city planning will conserve labor, and the product of labor directly, and human welfare indirectly. It makes for true economy, whereas we are now extremely wasteful.

The beauty, too often advocated, should come or develop as a natural consequence, for it should be remembered that there is no real beauty but that which is the result of goodness.

Utility is the fundamental; whenever we depart from utility, as art for art's sake, usually does, we have mere fashion.

EXHIBITION

During the Congress the building was occupied to its fullest extent by exhibits from all parts of the world. The photographs, plans and models illustrated practically every phase of the work of *Housing and Town Planning*. An interesting feature was the exhibits illustrating sites before and after improvement.

Harvard University and the "American City" Publishing Company exhibited large collections of views illustrating conditions and improvements covering the whole of the United States.

The following is a list of cities and others who contributed exhibits:

Great Britain

Bournemouth
Port Sunlight
Norwich
Durlam
Liverpool
Bath
Bristol
Northampton
Edinburgh
London County Council
Manchester
Leeds
Bradford
Cardiff
Exeter
Garden City Assoc. London
Shrewsbury

Germany

Mannheim
Karlsruhe
Nuremberg

Belgium

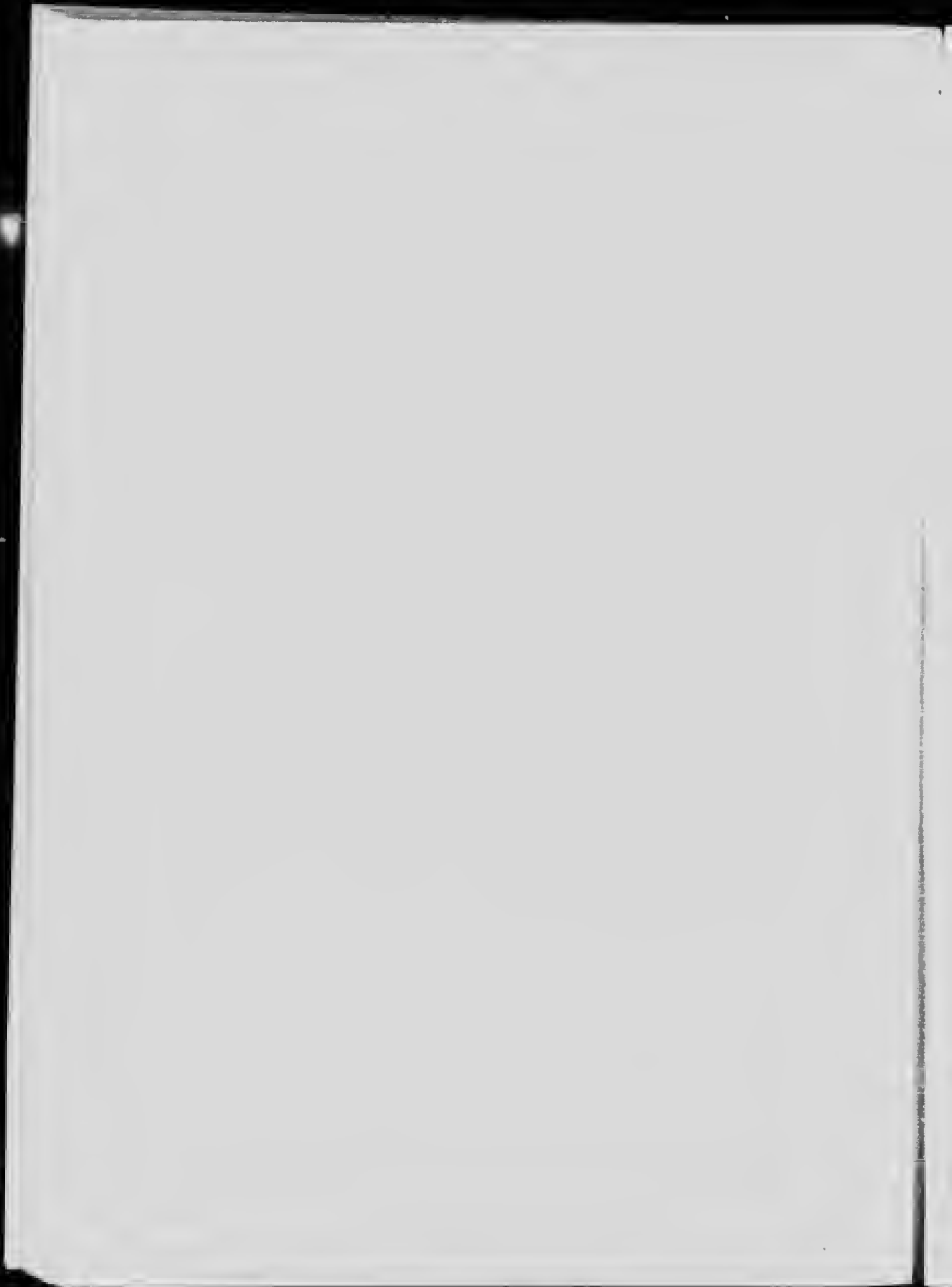
Ostend

Italy

Turin

United States

New York
Louisville
Eric
Rochester
Chicago
Boston
Philadelphia
New Orleans
Kansas City
Minneapolis
Harvard University
The "American City" (New York)
Manhattan
Pittsburg
Washington, (D. C.)
Springfield
Canada
Edmonton
Regina
Peterborough
Ottawa
Perth (Ontario)
Saskatoon



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