

moreover, perform at their own expense, all municipal works, to wit: sewers, levellings, pavings, sidewalks, etc., and such work must be done according to the plans and specifications prepared by the city engineers. Needless to say that our debt would not be so high if this system had been adopted.

Absence of a common legislation, which would have placed the city and the municipalities which are bound to form part of Montreal, in the same conditions as to the manner of laying out the streets, of carrying out municipal works and of paying the cost thereof, which would have prevented the city from bearing the responsibility for and paying the cost of expensive works, which are often useless and do not agree with our general system."

Looking broadly at the situation, it seems evident that whatever troubles we are now afflicted with in the central portion of the city are in a fair way to be repeated in the outlying districts only in more intensified form, and on a greatly enlarged scale. Indeed signs are not wanting to show that in the method of laying out some of these new subdivisions the practice of preying on the city has developed into a kind of science.

However distressing and ominous such features may be for the future, they are relatively of minor importance for the present compared with the great central fact that the layout or rather conglomeration of layouts that compose the City of Montreal is not on the lines of economical development. It is hardly necessary to point out amongst engineers that its general rectangular character is a wasteful one, or to do more than mention as regards grades that the practice of going plumb up the face of a hill instead of taking it on the bias is devoid of ordinary common sense.

#### Traffic Thoroughfares and Residential Streets.

Regarding the streets of Montreal the commonest criticism we hear is that the streets are too narrow. But a better understanding of the subject would declare that on the contrary most of them are too wide, only a few of them, and these the most important main thoroughfares are too narrow. The great trouble is that we turn all our streets into through traffic streets, and pave them or endeavor to pave them as such, and the work is never done; it is entirely too big a job. The reason that we have so many holes in St. Catherine Street is because of our outlying residential streets of 60 and 80 feet width that we are striving to pave in concrete and asphalt, when 36 feet streets with the building line set back, and 24 feet roadways paved with a good tar macadam should suffice. It is not strange that we engineers should by patient research and careful design and supervision be straining every nerve to save the fraction of a cent off the cost of a yard of asphalt or concrete, and then go unquestioningly and plaster all over these streets anywhere from fifteen to forty per cent. more than there is any necessity for, just because it is not our business to inquire?

Is it not forcibly clear that the width nature and disposition of streets in a city are primarily engineering questions of the utmost importance and concern, and not to be settled lightly by a wave of the hand from the self interested landowner or his docile surveyor doing his bidding?

It is the main traffic thoroughfares that claim most earnest attention, and these with due and proper study and consideration of the volume and trend to traffic present and prospective, should be made of ample capacity of most direct route, and paved in the strongest and most enduring manner possible.

They should facilitate and invite traffic, whereas subsidiary streets should discourage everything but local traffic, and can quite well be narrow and tortuous, and can be ever so lightly paved. The money saved on the one hand could be much more advantageously spent on the other, and still

leave a handsome margin of profit.

It is doubtful if it can be said that Montreal has any typical main thoroughfares. We have some which for want of a better medium are used as such, and these are always congested, and in a condition of constant transition and upheaval.

The practice of widening them as necessity compels, especially under existing expropriation laws, experience has abundantly proven to be extravagant and prodigal, and the results in no sense commensurate with the cost. In many cases equivalent advantages could have been attained by the simple expedient of rounding off some of the principal corners, for as the strength of the chain is the strength of its weakest link so is the capacity of a street to be measured by its ability to digest the traffic at its busiest crossings. It may be noted that at many of the more congested corners on central St. Catherine Street such improvement as this would have been of the greatest advantage, and it is to be lamented that in recent years at several of these corners old buildings have been replaced by new and valuable ones, and such golden opportunities have been allowed to pass idly by.

#### Improving Traffic Facilities.

Generally speaking, the widening of principal streets is anything but a paying proposition, not only as regards actual expenditure, but the attendant dislocation of traffic and business is by no means to be lightly estimated. It is usually cheaper and more satisfactory to open up new parallel streets through less valuable property, at the same time as much as possible to weed out buildings of an objectionable nature.

Still more promising is the new diagonal main thoroughfare with its double effect of at one reducing distance and grades, and at the same time relieving both uptown and crosstown streets of their overburden of traffic. It may be objected, of course, that the new diagonal superimposed on an existing rectangular layout is not an economical one as regards land, leaving as it does a number of odd shaped cuttings at the crossings. This is true, but even that has the advantage of providing open spaces that break up the dull and deadly monotony in the regimental regularity of the grid-iron pattern. After all, notwithstanding its tawdriness, it is Broadway that is the outstanding feature of New York, and not Fifth Avenue with its never ending repetition of complacency and smugness.

These open spaces, too, offer a fine solution of the automobile parking problem which is irritating enough already, and bids fair ultimately to become a vexation of the first magnitude.

The cost of constructing wide diagonal boulevards would naturally be tremendous, and could not be attempted under existing expropriation laws, but, on the basis of a fixed percentage over assessment, and with powers of excess condemnation, there can be little doubt that by thorough and careful study and planning and economical execution the expense would be amply justified by the results.

The improved land values on such wide boulevards would naturally involve less rigidity in our by-laws regarding the height of buildings. Without attempting for a moment to criticize the propriety of the decision recently given on this question, the wisdom of setting a fixed arbitrary limit for all over the city is surely open to criticism. This is surely a question which should be settled in relation to site, surroundings and locality, for it is not difficult to see how a ten story building on St. James or Notre Dame Streets may easily be more of an iniquity than a sixteen or twenty story one on a public square or a wide boulevard, while a ten story apartment house on a narrow street in an uptown residential district is a greater evil than either.

Indeed the carrying out of any great improve-

ments in a city like Montreal can hardly be made feasible without counting on a considerable increase in land values involving the erection of higher and better buildings, and it is the public square and the wide boulevard which should have them and not the narrow side street. Such views as these may be deemed somewhat heretical from the orthodox town planning standpoint. Common sense would indicate however that a great metropolitan city should be proportionately and uniformly great, and the concentration and condensation of business can be of greater import to the public at large than the conservation of a few rays of direct sunlight.

#### What Town Planning Does.

Town Planning has never been more aptly or comprehensively described than by the expression of "Everything in its place and a place for everything." It is the essence of orderliness in city development, but our usual practice is almost the antithesis of this. The ill considered intermingling of industrial business and residential premises has precipitated a condition in which each element is detrimental to the advantageous development of the other. As a natural consequence whichever is most injured and least able to hold its ground has to get out of the way of the offender.

The home gives place to the shop, the shop to the office building, the office to the industrial flat, and in the rear of the procession comes the big heavy factory driving everything before it.

Now it could have been arranged that certain areas contiguous to main transportation lines should have been reserved for factory purposes, with room for extension, where they might have every facility for carrying on their work, an economic concentration of water, sewerage, light, heat and power, services, special fire protection, and the elimination to a large extent of ruinous cartage on other main thoroughfares suitably paved. Certain other areas appropriate for residential development could have been selected, and these suitably laid out with streets winding or otherwise, and of no larger capacity than would be necessary for local requirements, with the exception of a few main boulevards on which out public, semi-public, amusement, and tall apartment buildings could be placed, and all of these steadily improved and embellished.

Adequate provision could also have been made for shopping and business operations located in a way that would be relatively helpful and advantageous each with the other, and planned altogether with a view to the ultimate and highest development of each component part, and to the stability and enduringness of the whole. Such a consummation would be an inestimable and universal benefit to the whole community.

Such ideas as these are by no means so fanciful as they may at first appear. On the contrary they are intensely practical and practicable, and to a greater or less extent are usually being carried out in other places to-day, with most beneficent results. And the more study that is given to the question the more it dispels the wonder that New York and other large cities should be able to get such result and save such fabulous sums of money, and replaces that wonder by amazement that they did not commence sooner.

#### Railways and the City.

The question of the railway situation in any city is one which lies at the very foundation of the civic structure, and to understand it we would do well to remember in the words of one of the railway people themselves that "Railways are not built to carry passengers or freight, but to earn dividends." The convenience and accommodation of the public is therefore not of such paramount importance to them as the securing of business, especially under competitive conditions. In the original locations of these railroads, as in most other things, the lines of least resistance are usu-

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