develop a marvelous return.
Let us frankly recognize that youth demands amusement. When the cities begin to see their duties to the little ones, playgrounds come. Youth plays too. platforms: insteades give them slides and seesaws, theaters; instead of teachers of manual occupations, give them the so-
cializing force of contact with good supervising men and women. Replace the playground, or more properly, progress from the playg
amusement park.
Denial of these privileges peoples the underworld; furnishing them is modern preventive work and should be an integral part of any social program.


## THE SCOPE AND RESULTS OF CITY PLANNING IN EUROPE

## FREDERICK LAW OLMSTED

 brookline, mass.Three months of hurried travel in Europe last winter, devoted almost wholly to the study of city planning, sufficed to make me realize on the one hand what a deal of light can be thrown upon American city problems by a study of European work, how much we can learn from their mistakes as well the from thei how superficial and limited is my own how superce with the field In own humble spirit of a student, then, I offer my observations for what they may be my observations for what they may be
worth.


The most elementary kind of city planning, of which evidences are to be seen in almost every western city, while strikingly absent from the street plan of Constantinople-is the effort by some layout of new streets popen to by landlayout of new streets opened up by landlots that they shall serve more than strictly local purposes. The immediate, local selfish purposes of landowners would selfish purposes of landowners leys, courts and lanes coming to dead leys, courts and lanes coming to dead ends or returning upon themselves by to exclude through traffic, but fitting the

tyme of formal boulevard with vista foint at stuttgart.
shape of the land holdings and the con- enough to avoid probability of traffic our of the ground in the most economical and cheeseparing way. Indications or this primitive kind of individualistic development are to be seen in the medieval portions of most European cities, modified, however, by many evidences of their strong and healthy communal spirit, such as broad haymarkets and other market places and squares, churchyards common landing-places or strands on the shores of navigable waters, and almost always by a few tolerably continuous and irrect but often narrow thoroughfares contecs of traffic with places and ours ry. In the map of Constantinople these evidences of higher organization are gen erally lacking, wide areas being covere with a chaotic complex of undifferentiat ed wriggling alleys leading nowhere
Conscious and organized public effort
at city planning seems ordinarily to begin by the effort so to control the layout of new streets created by private initiative as to accomplish two simple and easily understood purposes.
First, to make new streets connect with older streets so as to afford more or less continuous lines of travel
Second, to make the streets wide 498

When city planning is taken up in detail with merely these two objects in view, and especially when it is done in a routine way, with the minimum of expense for surveying and the minimum of thinking and trouble devoted to special planning for special cases, the result is apt to be a mechanically standardized arrangement of
streets and blocks, in which nearly streets and blocks, in which nearly all the streets approximate the same standard width, and nearly all the lots the same standard depth, with little reto the velume and character of ; or on the streets as determined by the grades, by natural advantages and disadgrades, by natural advantages and disad-

This mechanically standardized planning in its extreme case of a single system of uniform rectangular blocks, with uniform straight streets covering the whole town or very large quarters thereof, is of course more characteristic of American cities than of any others in the world. But even where little rectangularity can be found in the plan and where there are few streets that run perfectly straight for more than a short distance

## THE SCOPE AND RESULTS OF CITY PLANNING

at a time, this mechanical standardizing of the street plan can often be recognized in the comparative uniformity of street widths, standardized at a breadth consictly local purposes, and in the com strictly local purposes, and in the comparative uniforing of lot depths.
An interesting fact is that although routine and local habit tend to bring bout such a standardizing in any given locality, much variation is to be found in the standards adopted in different localities, even under similar economic, social and topographical conditions. In other words, the standards appear to have been determined more or less by accident and to persist through inertia, rather than to be the result of a successful adaptation of means to ends. Another interesting fact about these locally standardized street plans is that they have a distinct influence on the type of buildings that can be economically erected in each locality at various stages of its development; for example, they often increase or decrease, as the case may be, the economic inducement to erect rear tenements and deep, dark, ill-ventilated buildings.
City planning, carried to this point, accomplishes two things. It gives through connections of some sort at both

topographical obstacles boldiy overcome on main thorougheares in
ends of practically every new street that is constructed for local purposes in opening up new building land, and it insists on a standard minimum width for every street so that it will be able to carry some through traffic in addition to serving the purefy local needs of the abutters. The everywhere, is due to the fact that the everythere, is due to the fact that the tends to concentrate itself upon a certain limited number of thoroughfares, the lines of least resistance, and unless this tendency is foreseen and adequately pro vided for by giving very much more than the average capacity to those streets which will form the main thoroughfares, there is danger of serious congestion and inconvenience. On the other hand the uniform insistence upon a minimum street width that is but little below the average for all streets in the city results, in the case of purely local streets, in a needless extravagance in respect to the land thus withdrawn from productive use, and in respect to actual outlay for street construction and maintenance; an extravagance the burden of which must be borne by the occupants of the district, whether they be tenants or owners. Also the tendency of the standardizing plan to encourage the distribution of a certain amount of through traffic upon nearly
every street in each district is a distinct injury both to the residential streets, where the abutters wish to escape from the disturbance of traffic, and to the retail commercial streets where the abutters wish to have the maximum amount
of traffic pass their places of business.
the more obvious trouble of deficiency in the main thoroughfares, whether resulting from a wholly unregulated natural growth of local strects, or from a perfunctory and mechanical standardizing plan such as has so often prevailed both in English and American towns, wholesale rectangular and monotonous with us, and piecemeal with them, but similar in practical results. For more than half a century, particularly in France and in Germany and in the countries that have most strongly felt their influence, the provision of a liberal number of exceptionally wide thoroughfares, from a hundred reet to a hundred yards or so in width, has been a systematic feature of city extension plans. The type was fixed mainly perhaps by the striking examples set in Paris under the Second Empire, which were themselves based, artistically, upon the avenues of the formal parks of Le Notre, made known to the great prestige of France. The type is great prestige of France. in almost any part of continental Europe where active city development has been in progress: a broad straight avenue, usually of a moderate length, often provided with an effective vista point such as a public building or monument or fountain, generally lined with symmetrical rows of trees, and flanked or intended to be flanked by buildings approximately uniform in height and architectural character.

As the common name of "boulevard" implies, these broad thoroughfares originated in the opportunities which are repeatedly presented during the expansion of fortified cities for so utilizing the the sites of the older and outgrown military defences, technically known as "boulevards" or bulwarks. But the utility and popularity of these circumferential boulevards early led to a public demand for similar thoroughfares running
in and out of towni on radial lines where danger of traffic congestion is obviously much greater than on circumferential be a regular feature of progressive city be a regular feature of progressive city ing the latter half of the nineteenth century. These boulevards are not in most cases primarily pleasure drives, as is usually implied of a so-called boulevard in this country, but are main thoroughfares used by street railways and all kinds of street traffic, heavy and light, the trees and decorative features being a mere incident though an important and highly appreciated incident of this general utility. The absence of fortified cities in England and America during the period of most active city growth and the consequent absence of the peculiar opportunities for forming successive ring-boulevards as popular object lessons in what a really liberal thoroughfare can be, have probably had as much to do with the deficiency of such thoroughfares in our street extension plans as the individualistic and decentralized character of Anglo-Saxon democracy.
Although the provision of a certain number of exceptionally wide thoroughfares, adapted to carry without possibiltravel, has thus for a long time been an accepted feature of extension plans of continental cities, and although great numbers of such boulevards have come numbers of such boulevards have come decades that the other objections to mechanically standardized street planning have begun to be fully realized. In 1892 in the Prussian House of Representatives the minister of finance, in presenting a bill relative to town planning, said:

Everywhere equally wide streets have
been made, whether they were intended for been made, whether they were intended for
the use of the well-to-do classes, whether they are in a district of heavy traffic, or whether they are in the less busy parts of the town in which, naturally, workmen
seek a home. seek a home. . . And the spaces streets have been made far too great and thus back-bulldings have been artiflclally called into existence. In preparing a rational town building plan our task will alm that narrow as well as wide street shall be lald out, which will cost less to
make, and especially that plots for build-

Ings shall be less deep, so that huge tene-
ment houses may be avolded.
confine myself to the fractional minor ity with which I have some slight per-
This speech suggests the coming of a far broader and wiser attitude than that which merely sets an arbitrary minimum of street width and establishes a mechanical method of agglomerating block after block and street after street of a standardized type, or even that which adds with liberality the main thoroughfares of extra width and gives them a grandiose architectural character. It marks a recognition of the idea that the ultimate purpose of city planning is not to provide facilities for certain kinds of transportation or to obtain certain architectural effects, but is to direct the physical development of the city, by every means of control within the power of the municipality, in such a manner that the ordinary citizen will be able to live and abor under conditions as favorable to health, happiness and productive efficiency as his means will permit. Intelligent truction and in maintenance is of the sence of the problem. It involves large sence of the problem. It involves large questions of economics and social developring in the narrow sense, or of architecture in the narrow sense.
This broad ideal of city planning has been worked upon for fifteen or twenty years with the diligent patience and technical erudition with which the German is apt to pursue his ideals, and has been of influence not alone in Germany but in many other countries, particularly among the keen and progressive democracies of Switzerland.
Just as in America, cities in Germany deal with problems of street layout and other items of city planning under general state laws supplemented by a certain amount of special enabling legislation passed at the instance of particular cities. The laws differ widely in differtaken under them by different cities is still more various. The same is true of the different cantons and cities of the Swiss Federation, and it is quite impossible to condense into this paper any proper summary of the scope and results of the multitudinous experiments in European city planning, even though I

Merely by way of example, as show ing the scope of city planning in a progressive European community, I will of fer some citations from the state law of Saxony on this subject, and supplement it by references to a few different provisions elsewhere. In most cases my from Mr . Horsfall's excellent compila from Mr. Horsfall's excellent compilaAs, The Example of Germany.
As in Germany includes in one a city plan in Germany includes in one unined project not only a surveyor's plat for the whole code of building regulations, health ordinances, police rules and sys tem of taxation in so far as they have a direct influence upon the physical de a direct of the city Perhaps of the city.

Perhaps nothing will give a more definite idea of the scope of German city plans than to enumerate the provisions of Section 18 of the Saxon
law, which directs that in the prep aration of building plans, as they are called, attention must be paid "to are called, attention must be paid to
the claims of security from fire, of the the claims of security from fire, of the
public traffic which is to be expected public traffic which is to health; to a suitable supply of water and to drainage; to the position and development of the place, and to the need for dwellings corresponding to the local conditions; and also to ensuring that streets and squares shall not be disfigured. In this relation special attention must be paid to the following points (a) The position of the blocks of building, as well as of the lines of streets and the building-ines, must be adapted to the configuration of the land, and must be such that an adequate supply of sunshine will be secured in occupied rooms (b) the dimensions of the various blocks of building must be such as to allow of the proper utilization of the ground for building; (c) the width of streets and footpaths is to be decided by the requirements of local traffic, and must be suitably graduated in accordance with the nature of the streets as main streets secondary streets, or streets only used for dwellings. In the case of streets for which through traffic may be expected

view across a bing-boulevard at the point where it is intersicted by two
eventually, especially street railroad ines, and where a widening of the street must be anticipated, there must be front gardens of suitable depth on both sides estricted against building; (d) gradients in the streets must be distributed as evenly as possible; heavy gradients, deep cuttings and embankments, as well as inordinately long straight lines of streets, must be avoided as much as possible; (e) in determining the directions of streets care must be taken to provide short and convenient connections between streets and with the chief centers of traffic; (f) open spaces and public shrubberies must be so arranged in respect of size, position and number, as to be userul in relion both to conven Sites fram and oo general welfare. Sites for churches and school buildings, as well as public playgrounds in cufficient groumber must be provided in sumcient the kind (g) in deciding what shall be the kind of building allowed, and as to whether lowed, the existing character of the dis owed, the existis trict. or part of a district, and It needs case, care must be taken that continuous ines of building so far as they are not excluded by the local building regula exclus, shall be interrupted in sufficient measure by streets of open building, and
that in the outer districts a suitable re striction of the density of building and population occurs; (h) front gardens, except when they are provided only in view of a future widening of the street, must have a depth of at least fifteen feet; (i) the number of stories to be allowed must be decided according to the character of the place and the width of the street ; $k$ ) the necessary courts and gardens in the interior of a block of build ings must be secured by regulations re specting their area and position, and, if necessary, by fixing back-building lines (1) so far as any building at all is perbe made to depend on the size of the be made to depend on the size of al court or garden, and, as a rule, be al supply of light at an angle of at least supply of light at is secured for all the windows of the back-building, and the space between the front and back-build space betwitabe cases, planted as a den. Exceptions are to be allowed un der special conditions in the central dis tricts of large towns. In no case may the back-buildings of a street form continuous row ; ( m ) in the case of blocks of building land which are suitable for the purpose, power can be reserved for the building police authority on the application of the parties inter-

view lengthwise of a hiberally parked ring-boulevard at the point WHERE IT IS CROSSED BY RADIAL THOROUGHFARES.
ested, to allow supplementary streets or dwellings to be formed, but in such cases only detached or semi-detached houses, of not more than three stories can built.

The Building Plan . . . when it has been once decided on, is authoritative in relation to all buildings in the district to which it applies. But the owner of land which the plan shows to be intended for use for public traffic may use it, till he has to surrender it to the community, for purposes other than building, and . make changes in the mode of cultivating the land which increase its value. If later the land is expropriated or the owner has to give it to the town without receiving payment, compensation for the increase of value must be paid him.
It is just as well to explain in regard to he somewhat startling phrase about the owner having to give land to the town without payment, that it refers to the extension and systematizing in German cities of the custom which is common in actual practice in America, of requiring owners who wish to open up their land for building to "dedicate" the streets without cost to the city before the city will accept them as public ways and put in sewers, etc. With us, if the land owner is not absolutely dependent upon
fall entirely upon the owners thereof and not upon the taxpayers at large. If, however, the building plan for the district more than a certain standard width and more than local value, the extra width of land included in those thoroughfares is paid for by the city.
But perhaps the most interesting and illuminating feature in this connection is that in some cities at least, the land owners of each district as it is opened up by the city for building purposes, are required to dedicate not only the streets but all other areas of land properly to be regarded as necessary for the public uses of that locality. This means that an apportionment of lands for local playgrounds and recreation grounds, local squares, etc., and sites for schools and other public buildings, sufficient in extent and suitable in position to meet the reasonable requirements of the locality when fully built up, must be set apart at the beginning, and the cost of so doing must be deducted from the profits which up of the territory for building purposes up of the territory for building purposes prices from the purchasers who are to use the lands thus set apart. As in the case of wide thoroughfares of more than local importance, so in the case of lands reserved for parks or other public purposes if they be greater in extent than is required by a proper regard for local needs the balance is paid for and charged to the city as a whole.
In this connection it is interesting to note the land policy of many European cities. There are great diversities of policy but at least in the case of many Swiss and German cities there has been a recent revival and reapplication under new conditions of an old inheritance. A great many old communities have possessed since an immemorial past large areas of land, mostly outside of the built-up parts of the town, held as common land and used by the citizens, or by certain restricted classes of burghers or commoners, for purposes of pasturage or timber supply or corwise. The England towns represent the transfer of this custom to America; and in the case
of Lynn, Massachusetts, an outlying wooded tract of about a thousand acres common-land although a few years as not in the municipality but in the widely scattered heirs of the original settlers. In many Swiss and German cities the community has retained down to the present day an effective, undivided control of large areas of this sort, and they are being utilized not only as recreation grounds for the people, which is the only use of the remnants of the old commons in English-speaking communities, but as productive financial assets. The beautiful forest of the Burghers of Berne in Switzerland, and the well-known Stadtwald of Frankfort on the Rhime are but types of hundreds of such commmity forests which are being run at a smal but steady profit. On the other hand, with the growth of the cities, a consider able municipal income has been derived from opening up portions of such public lands for bulding purposes. Sometimes the lands so opened up were sold, but ing leases. It has become growingly ing leases. It has become growingly put blocks of suburban land upon the market at a reasonable rate provides an effective and valuable control upon unhealthy land speculation and a means of stimulating the erection of good cheap houses at times when rising rents and bad housing accommodations begin to bear too hard on the working population and to disturb the labor market. Also the possession of this stock of reserve land has proved a great convenience and economy in connection with the various and increasingly numerous city institutions, and the enterprises of various sorts which a modern city is forced to establish, and for which it must purchase land under pressure if it has no reserve of land beyond that in actual use for its current needs. Thus many cities, looking back upon this history and looking forward to its probable repetition, have been led to become extensive purly in the suburbs or putlying country

The city of Duesseldorf country.
established a special L and Fund Department with a credit of a million and
a quarter dollars furnished by city bonds. It is the business of this department to acquire land against the future needs of the city. It has power to sell and lease, and it is required to pay the interest on the bonds issued on its account out of the rentals and the profits on sales. The city through this department is fairly and squarely in the real estate business. Whenever any other department of the city needs a piece of land held by the Land Fund, the lot is transferred and its value paid over to the fund by the department in question.
say that under American municipal con ditions such a land fund department as that of Duesseldorf would safely be administered with sufficient honesty and efficiency to show any considerable profit. It might become a very hot-bed of corruption. But substantially the same opportunities for corruption exist under our present system of purchasing every piece of land as an emergency measure, with the added feature that indiscreet precipitancy and secrecy in closing a deal are often excused and covered by the need for prompt action.


CITY planning adapted to irneqular topography. district building REGULATIONS ENFORCE DETACHED HOUSES WITH GARDENS AND PREVENT OBSTRUCTION OF VIEW BY BULLDINGS ON LEFT HLND SIDE OF LOTVER STREET

Just how many European cities are showing this increasing aggressiveness in acquiring and holding land for miscellaneous purposes I cannot say, nor can I say whether the policy has had much of the cities concerned. pursued with tolerable intelligence and honesty, there can be little doubt that in the long run it will have a marked influence in supplementing the already notable tendency of systematic city planning to bring about a reasonable, convenient, and equitable distribution of playgrounds, squares, parks, and sites for schoolhouses and other public buildings.
He would be a rash man who should

In this matter of land policy it is interesting to note the rather extreme case of the town of Ulm in Wuertemburg. It had a population of 42,997 in 1900, with a total arca of 1,128 acres of bind 1888 it has the then active policy of purchasing unimproved land, and of selling it off in lots at a reasonable price under careful restrictions to guard against speculation and overcrowding. By Igot it owned more than three-fifths of the building land within the town and 2,926 acres outside the town boundaries, and had made enough profit out of its operations to pay for large expenditures on schools, street improvements, etc., with-
out raising its tax rate, which is much out rasing its tax rate, wuertemburg towns. ${ }^{1}$ Many other cities which are arge landowners might be cited if space allowed.
One of the most fundamentally important features of recent city planning in Europe has been the system of differentiated district building regulations. In America we are familiar with the principle in the case of districts developed by land companies and syndicates and by individual large owners of land. Its application in these cases is due to the recognized fact that a man who is going to buy a lot for any given purpose, will pay more for it if he can be tolerably certain that the surrounding property will not be developed in such a manner as to interfere with the satisfactory accomplishment of his purpose. But in America it is only where a unifed ership over a considerable area makes it in a series of deeds, that we have any le al machinery for affording purchasers of lots this sort of neighborhood protection. We are all familiar with cases of the marked depreciation of property, especially of residential property, and of the forced breaking up of pleasant home neighborhoods by the introduction of objectionable features on one or two lots, A tenement or apartment house set down in the midst of detached dwellings may produce such a change; or a livery stable or a factory or a saloon set down in the midst of lots whose occupants object seriously to such company. One selfish or shortsighted lot owner can ruin a neigh borhood.
Now one of the purposes in view in the system of district building regula tions, which forms a feature of recent city planning in Europe, is to give every lot owner fa each district in the city, a fair degree of assurannce as to the kind of thing which may be done and which may not be done in the way of building, and of commercial and indus trial occupations in the vicinity of his lot; to give him in other words the same kind of protection for which a man is buys in a "restricted" neighborhood. Of
1Horatill
course it all depends on the nature of the restrictions. These are not fixed for any given district without full and repeated public hearings at which the views and wishes of the property owners are expressed and considered, and the endeavor is to give each district as nearly as possible just what it wants, to protect it from deterioration at the hands of a selfish minority, and to give stability to its real estate values.

As a matter of fact the real estate men of Hamburg, where I caused some inquiries to be made among them, state that the effect of the district building regulation plan there has been, in general, to raise values except in those districts where tenement houses are not prohibited, and that the tendency has been everywhere to greater stability of values and smaller speculative fluctuaAnot

Another purpose of the system of district building regulations has been to prevent the spread to outlying districts velopment, which are recognized as undesirable but which in the absence of restrictions, have developed in the downtown districts as the inevitable result of economic causes. If there is no arbitrary limit to the crowding of the land, we know that in a growing city it pays the owner to crowd it far beyond what is desirable from a sanitary point of view. In almost every civilized city there are today building laws and tenement house laws which set a limit beyond which the rights of property are not permitted to squeeze the rights of humanity. Those limits must be fixed in a spirit of compromise between the vested interests of property and the ideal interests of health and human well-being and in fixing them it is necessary to regard the existing values of the more congested property. But to fix the same limits all over the city is merely an invitation to make conditions everywhere equal to the worst. The alternative to this is some system of graduated district building regulations fixed for each locality so as not to curtail existing property values, but yet so as to prevent that lo cality from ever becoming as objection-


A NEW "ONE SIDED" STREET ON A STEEP HILLSIDE, DISTRICT BUILDING REGULATIONS PERMIT NO RUILDINGS ON DOWN HILL SIDE TO OBSTRUCT THE VIEW.
ably crowded as the worst place in the city now is.

It has taken so much space to give any idea of the scope of city planning in Europe that very little can be said about its physical results. In the newer quarters there is to be seen, first, a reasonably good provision of main thorough-

fype of discarded rond point treataient interrupting traffic routes and ENCOURAGING CONGESTION BY NEEDLESS CONCENTRATION OF THOROUGHFARES. 507

## THE SURVEY

ance, so far as possible, of concentrating provides long rows of factory sites
several lines of traffic upon a single point of varying dimensions, sites with several lines of traffic upon a single point of intersection, as in the ronds points characteristic of the earlier French plans, and in the informal "knots" of streets often found in cities of accidental growth. Second, there is an increasingly liberal and equitable distribution of small parks and playgrounds as well as numerous small interesting squares, and minor enlargements of the streets, so arranged as not to interfere with the free movement of traffic. These are replacing the familiar but highly inconvenient and illogical circle or square so placed at the intersection of two or more important avenues as to block them and require a sharp detour. Washington is full of the latter and some of them are charming to look upon, but the art of city planning has reached a point where it demands in new plans a better adjustment of the type of beauty to practical function. Third, a good distribution of excellent public building sites is being provided, especially in connection with the squares, and on many of them some very interesting public buildings are being erected. Fourth, very notable facilities for commercial and manufacturing districts are being provided in connection with water fronts and railways. When the city plan lays out a district with a special view to manufacture, it does not just cut it up into the standard streets and blocks and then leave the railways, the manufacturers and the teamsters to struggle with the transportation problem, but begins by laying out the necessary rights-ofway for the railroad facilities, and
of varying dimensions, sites with railroad sidings on one side and streets on the other, with the minimum of objectionable grade crossings and the maximum of convenience. Fifth, the newer districts are developing, under the influence of district building regulations, in a less crowded and much more homogeneous manner than in the past.
In closing I wish to point out that although we have an immense amount to learn from Europe, and especially from Germany, in regard to city planning, it would be very foolish for us to copy blindly what has been done there. Apart from the differences in climatic, economic, social and political conditions between European countries and America, there is need for some caution lest we copy the mistakes.
The Germans recognized fifteen years ago that they had made mistakes in city planning, they have made other mistakes since, they are probably making mistakes now ; but they are watching the results and when they recognize a mistake they try to correct it. Here in America we seem to go on complacently perpetuuating our old mistakes long after we have recognized them, preparing over again in our suburbs without material variation the same conditions that have given rise to results we deplore in the older parts of our cities.

How to change this helpless fatalism in our attitude toward the more fundamental factors of city growth, is what we most need to learn from the example of progressive European cities.

