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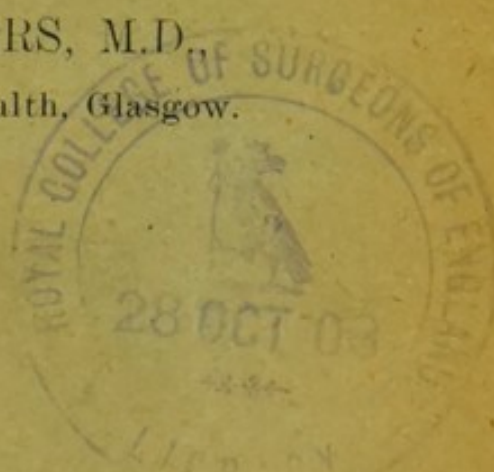
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THE GROWTH OF CITIES IN RELATION TO TOWN PLANNING.

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10





THE GROWTH OF CITIES IN RELATION TO TOWN PLANNING.

By A. K. CHALMERS, M.D.,

Medical Officer of Health, Glasgow.

I N inviting your attention to this subject, I do not propose to enter into any detailed criticism of the proposals now before Parliament in the Housing and Town Planning Bill of the President of the Local Government Board for England.

For this there is an obvious reason in the shortness of time available for discussion. But an equally, if not more cogent one, is that individual views of the present proposals will largely be influenced by individual experience of the defects of existing provisions ; and should we thus limit the area of discussion, we shall miss many things which are of importance. For much that has been done in the past towards housing reform has been accomplished outside the present Acts altogether, either by special legislation in the form of local improvement Acts and by philanthropy, as well as by industrial expansion, which, in the form of railway clearances and by absorption for business purposes, has displaced no inconsiderable proportion of the populations formerly living in insanitary areas.

2

It is true that the present Bill aims at something more than past housing legislation has done—at something, indeed, which is quite different from it—by providing for schemes for town planning. And to make the difference, as it were, more distinct, these schemes need not be limited to unbuilt ground within the district of a given local authority, but may be applied to any land in its neighbourhood, which appears likely to be used for building purposes.

The object of any such scheme is to ensure amenity and convenience in connection with the laying out and use of the land over which it extends, as well as to provide for its sanitary condition. There is, further, an interesting provision in Clause 46 (3), which appears to regard such an area as experimental ground for differentiating the various functions of public health administration, so that, in the words of the Act, the authority responsible for the execution of the scheme may be one of the local authorities concerned, or for certain purposes of the scheme one local authority, and for certain other purposes another local authority. Not only so, but a joint body may be constituted especially for the purpose, and this body is to be endowed with all necessary powers for carrying out the objects of the scheme.

It may be suggested that this is an extension of a principle implied, if not expressed, in the Housing (Amendment) Act of 1900, which enabled a local authority to acquire land beyond

its own area—that is, within the area of another local authority—for the purpose of erecting houses thereon under Part III. of the principal Act.

The illustration is scarcely a parallel one, however, for the purchasing authority in the one case acquired no administrative function in the land whereon the housing scheme is to be carried out; but it implies a frank admission that the problem of housing town populations may not, and in the given case cannot, be efficiently dealt with within the area of the authority primarily interested.

It is at this point—namely, the recognition by the Legislature that the requirements of life in towns, and indeed wherever masses of population are wrestling with the problem of a collective existence, extend beyond the limits of existing administrative boundaries—that we may take up the aspect of the question that I have more particularly in view.

Past Experience.—We shall probably best get into touch with this aspect of the question by some short reference to the original conditions out of which the modern problem of housing arose.

During the past seventy years or so—indeed, ever since the industrial dislocation which followed the wars of Napoleon, and the unequal, if not indifferent, administration of the laws for the relief of the poor led to the appointment of the first Poor Law Commission—the

condition under which life is passed in the industrial quarters of towns has rarely for any long period been absent from the mind of the Legislature, and for almost sixty years of this period a succession of general Housing and Public Health Acts, and Acts for local Improvement purposes, represents the efforts made to remove the administrative difficulties which experience was from time to time disclosing. Moreover, the difficulties themselves were arising from entirely novel conditions.

New forces were transforming the national life. Railways and industrial expansion were adding fluidity to the hitherto fixed character of our population. Trade and commerce were proving more powerful stimuli to collective energy than wars of conquest had done. Migration to the towns was proceeding at a rate formerly unknown, and to the old method of replacing the wastage of town populations from this source alone there was added the but recently acquired art of recruiting their numbers also from the natural increment which accrues when the births exceed the deaths in number.

The first results of these combined sources of growth we know. The convergence of commercial routes and a ready access to new sources of mineral wealth were the strategic points in the new movement, and populations became industrial or commercial or both, according to the differing opportunities afforded them. For the hygienist the problem lay in

the uncontrolled aggregations of population which thus resulted, and it only required the disclosures of the first Poor Law Commission to pave the way for an inquiry into the health of towns.

Here was inaugurated the beginning of the movement for improving the sanitation of towns, and in the wealth of legislation which followed, there grew up a complex, if not confused, system of Local Administration which, in 1869, led to the Royal Sanitary Commission and a re-arrangement of the central and local authorities.

Through all this legislation there ran a chord of sympathy with the toiling masses of the great towns, which is easily distinguishable in the writings of the period, and of which the dominant note is the burden which neglect of sanitary provisions entails.

It was seen to be at once a cause and a consequence of poverty.

It told on the efficiency of the worker. If he escaped untimely death from infectious disease he was still exposed to the risk of more or less permanent invalidism from disease which was also to some extent preventable, although not in any sense infectious.

It may here be suggested that housing reform implies much more than improved sanitation of the home and its surroundings, and I agree; but there is sometimes displayed by many who are genuinely interested in the question what seems to me a regrettable tendency to dwell on these other factors to the

neglect of that on which the problem is primarily based — I mean the occupancy of a house which is unfit for human habitation.

To such I would quote the words of Sir John Simon in describing the sanitary conditions of the London poor now many years ago:—

“ Who can wonder if personal and moral degradation conform them more and more to the physical debasement of their abode? In the midst of inevitable domestic filth who can wonder that personal cleanliness should be neglected? In an atmosphere that forbids the breath to be drawn freely, which maintains habitual ill-health, which depresses all the spring and bouyancy of life, who can wonder that frequent recourse should be had to stimulants, which, however pernicious in themselves, still for a moment dispel the malarious langour of the place, give temporary vigour to the brain and cheer the flagging pulses of a poisoned circulation? Who can wonder that habits of improvidence and recklessness should arise in a population which not only has much ignorance and prejudice amongst it but is likewise often unaccustomed to consideration and kindness? Who can wonder that the laws of Society should at times be forgotten by those whom the eyes of Society habitually overlook, and whom the heart of Society often appears to discard? ”

Since these words were written, almost a generation has passed and much progress towards reform has been made.

By every test which can be applied, the general character of the housing of town population has been improved. Each census has shown this.

In Scotland, according to a return recently

issued by the Registrar-General⁰ the proportion of population living in one-roomed houses has fallen in forty years (1861-1901) from 26 per cent. to 11 per cent.; while the proportion living in two rooms has risen from 37·7 to 39·5 per cent., in three rooms from 12·6 to 19·9 per cent., in four rooms from 6·4 to 9·1 per cent. In Glasgow the average house has undergone a gradual enlargement in size and the occupants per room a gradual reduction in number¹ and this latter, which is the important sanitary factor, is true for all the large towns in Scotland.

Moreover, as we know, the death-rate of towns now approximates that which formerly obtained in rural districts, and the life of the worker has been extended at its most useful period.

But when all this has been said, it remains true that there are still many districts in all our cities where, despite the improvement which has taken place, the lives of the inhabitants are spent amidst a succession of scenes of squalid misery.

One ² illustration I take from our midst, because it presents, I think, a pretty fair sample of the problems of sanitation in a Scotch town at the present time.

Area.—It is an area bounded by wide

⁰ Housing Conditions (Scotland) Cd. 4016, 1908.

¹ Census Report, 1901, by Medical Officer of Health.

² Medical Officer's Annual Report, 1906.

well-made streets, and, if we include half their width, it extends to 13,000 square yards.

Houses.—It contains 443 houses, 357 of which are ticketed, 202 are single apartments, 209 two-apartments, and 1 four-apartment houses; 11 one-apartment and 5 two-apartment houses are “farmed-out”; 3 one-apartment, 8 two-apartment, and 8 three-apartment houses are let in lodgings; 29 one-apartment houses, 35 two-apartment, and 1 three-apartment houses are empty.

Shops.—There are 57 shops in the area, of which 6 are public-houses, and there are 5 where food is sold.

Occupation of Inhabitants.—This varied, but workers in skilled handicrafts were by no means numerous. Of 301 households where information was ascertained, 164 were labourers or carters, 22 domestics, and 24 cleaners or charwomen.

Rentals.—The rents of the one-apartment houses average from 7s. to 11s., of the two-apartment houses from 13s. 6d. to 16s. 8d. per month.

Lighting and Ventilation.—One hundred and twenty-six of the houses are deficient in free space in front of their windows of one or more of their apartments, and the internal ventilation of the lobbies and staircases is in many cases defective.

Density.—The density or persons per acre

is 550, if half the width of the streets is included, but excluding this it is 929; in other words, if the population were distributed equally throughout the area there would be 8·8 square yards per person only, as compared with 66·7 for the city as a whole.

Vital Statistics.—The birth-rate is 49 per 1,000, the death-rate 41. The infantile death-rate is 230 per 1,000 born, while that for the city is 131. From diseases of the respiratory organs the death-rate is 9·5 per 1,000; the corresponding rate for the city is 3·5.

Economic Conditions — Failure to Pay Rates.—

1. *For Police Purposes.*—It is our custom in Glasgow to assess the occupiers of houses of small rentals between £4 and £10 annually at only one-half the rate levied for certain police purposes on rentals exceeding the latter amount. The proportions unpaid during 1906–7 were as follows:—

Grading.	City.	Insanitary Area.
1. By occupiers at rentals £10 and over, assessed full rates	0·744	1·878
2. By occupiers at rentals £4 to £10, assessed half rates for certain purposes	24·171	62·646
Proportion unpaid	24·915	64·524

2. *For Poor Law and Education.*—The method of classifying here enables a distinction to be drawn between the several causes of failure to pay, and an allocation to be made to the several classes of the proportion of the total amount unrecovered for each.

Class.	Parish of Glasgow.		Area.	
	Percentage of persons not paying to total persons chargeable.	Percentage of amount unpaid to total amount leviable.	Percentage of persons not paying to total persons chargeable.	Percentage of amount unpaid to total amount leviable.
Paupers ...	1·798	0·286	4·585	3·719
Inability ..	8·162	1·012	3·220	22·727
Irrecoverable ...	6·483	1·010	30·349	21·074
	16·443	2·308	38·154	47·520

Much significance attaches to the proportion here called "Irrecoverable," because it indicates that one-fifth of the total amount leviable in this area was lost through the migratory habits of 30 per cent. of the population inhabiting it. For this group includes none of those whom the poor law authorities recognise as paupers nor, any who, after inquiry showed reason for being exempted from payment. It consists almost wholly of those for whom the postal legend is "Gone—No address"—and

who, if not the pariahs, are at least the nomads of city life.

As we have seen, the movement for improving the sanitation of towns set out with a perfectly definite object.

Disease is a powerful stimulus to reform, and our present systems of water supply, scavenging, and of sewage disposal, and of regulating the occupancy of houses, are some of the results.

At an early period also, many authorities were tentatively feeling their way, through local provisions, towards a code of building regulations intended to prevent those uncontrolled massings of population which had formerly marked the growth of towns.

But that the results are wholly satisfactory, no one maintains.

It is told by Sir Ian Hamilton, in his work on the Japanese war, that officers of the Japanese staff could distinguish between country and town regiments, even when at a distance, by the difference in their staying powers in difficult positions.

For a nation which in 1890 had barely 6 per cent. of its population in "great cities" and had no city with a population exceeding 200,000, this is somewhat remarkable testimony to the difficulty which a race may experience in maintaining its physique when the trend of national life changes and it undertakes the problem of healthy town life.

A more serious indictment, however, is sometimes made, and the following statement by a leading medical journal is worth quoting, although we may not subscribe to all it implies. "It is beginning to be recognised" says this writer, "that the progress of hygiene is attended with the disadvantage of burdening the community with an increasing number of useless lives and a tendency in some measure to sap the strength of the race by lowering the standard of vitality, and of bodily, mental and moral power in those by whom it is propagated."³

I am not concerned with controverting the writer's conclusions, but most of us would, I think, place a different interpretation on some of the facts which seem to have suggested them.

That racial dangers do attend the ever increasing masses of our population who pass their existence in towns under existing conditions, requires almost no argument, but so far as they are definable they arise not from advances in hygiene, but because of its neglect; and when they belong to the group, which for want of a better term, may be called neuropathic, and of which hooliganism is the most obtrusive type—we are too prone to suggest degenerate parentage and degraded home life as the cause, instead of seeking the true explanation in the wholly artificial life of a city child. In his complete divorcement from

³ British Medical Journal, June 13th, 1908. p. 1444.

nature as God made it, and in the necessity for finding on the streets and amidst the whirl of passing traffic, that freedom for play, which should be his birthright, he undergoes a lop-sided development which forms a basis for the hooliganism of later years. Hooliganism, indeed, is wholly a disease of town life.

Parks and open spaces no doubt have their value here as local correctives, but experience is teaching the cities that these must be supplied on a more generous scale in the future.

Again, however, the argument illustrates, not the defects of hygienic advancement, but the neglect of things essential to it.

I have said little of the influence of the home on the character of the children, because the conception of home implies the existence of something which is relatively permanent, and this can scarcely be said to exist in the 30 per cent. of the small group I have described to you who found it convenient to remove their dwellings before the rate collector made his call.

If our present methods have failed to influence the lives of these sections of our populations, we should hesitate before regarding them as utterly irreclaimable until, at least, we have made clear that there are no houses unfit for human habitation in which they may find even temporary shelter.

That they have missed sharing in the

social and sanitary advancement of recent years is but too obvious, and it may be that the astounding reduction in the death-rates of towns during the last thirty years has, by its very magnitude, obscured the fact that some were sharing in it only to a limited extent, if at all.

But the well-being of a city demands more than the abolition or reconstruction of its worst houses. They form, as it were, the inner citadel around which the neglect of former days has built a rampart of insanitary conditions, now levelled by the weapons of modern sanitation in the form of pure water supplies, scavenging and drainage.

But if it is reasonable to expect that the death-rate of towns may be reduced to that of the rural districts—and we can at least imagine conditions in which this is possible—there remains the question of the physical efficiency of town populations, on which the life of the nation must now more than ever depend. This indeed is the problem which we in Britain have set ourselves to solve by concentrating three-fourths of our population in towns.

I need not recall to you the origin of the movement for the Inspection of School Children or the results of recent inquiries on the basis of house room, between this and their educational progress. If these investigations do not yet amount to evidence, they at least suggest an intimate relationship

between house room and dietary on the one hand, and physical efficiency and educational progress on the other.⁴

And their importance to us in Glasgow is that even the children from families in two-apartment houses, who constitute 47 per cent. of the population, compare so unfavourably with those from houses of larger size.

That defects in dietary may be here quite as important a factor as deficiency in house room is, I think, possible, and we want in all our towns inquiries such as those carried out by Dr. Noel Paton and others in Edinburgh, and more recently by Mr. De La Touche and Dr. Stafford in Dublin.

But it raises anew the question whether current views regarding density of population do not require revision, more especially in Scotch towns, where, with our predilection for three and four-storied tenements, the number of persons housed per acre is apt to run to excessive figures.

⁴ For information regarding condition of children in Glasgow see—

- (a) Report of Physical Training (Scotland) Commission, 1903.
- (b) An inquiry into the physique of Glasgow school children. *Trans.* Royal Sanitary Institute (Glasgow Congress), 1904.
- (c) Physical inspection of school children in relation to public health administration. Conference on School Hygiene (Royal Sanitary Institute), February, 1905.
- (d) Report by Education Department (Scotland) of inquiry into condition of Glasgow school children, 1907.

Prevention of disease is not here in question so much as the physical efficiency of no inconsiderable portion of our population.

Imperfect use of Existing Legislation, with some defects.—We have just seen that housing—using the term in its widest sense—as a social index, may be regarded as at once a cause of disease and of physical defect, and as forming the central problem of town sanitation. But it has been suggested that the operation of Housing Acts has frequently resulted (1) In creating a house-famine; (2) In leading to overcrowding; (3) In raising the value of the slum property which remains, and (4) In leaving untouched a considerable number of houses which are still insanitary.

With regard to the first of these objections, it would seem that in rural districts some scarcity of houses may be felt, but the general improvement in the standard of housing which the census returns disclose, hardly supports the suggestion that absolute scarcity of houses at any time exists. And if the past affords any guide as to what may be expected in the future, periods of great displacement of population will always be accompanied by periods of active house building. This was notably the case in Glasgow during the Improvement Trust Displacements early in the '70's, and it was so also in Birmingham.

The *Spectator*, if I mistake not, in an article now some years ago, with reference to this

very point, expressed the opinion that the public mind never would be convinced that difficulty in finding suitable houses existed until it saw the displaced tenants from insanitary buildings seeking shelter in tents in the street.

But while this dread of creating a house famine, or of producing even local overcrowding beyond the area of displacement is not, I think, founded on fact, the mere apprehension that such might result is tending to restrain local authorities from rigorously exercising the provisions of the Acts. And so we find the President of the Local Government Board, in introducing the present Bill to the House of Commons, stating that Local Authorities had not made sufficient effort to exercise the powers presently existing for improving the sanitary conditions of houses.

But the hesitation to which I have alluded is supplemented from another source. Disappointment is expressed with many of the results of displacement. Slum areas have been re-constructed, but the slum is reproduced elsewhere. The new populations of the re-constructed areas have mostly "been selected from the well-doing and from those who have shown some measure of desire to do well and are willing to continue the effort to do so."⁵

We need scarcely wonder if the tempta-

⁵ Report of Glasgow Housing Commission, pp. 19-20.

tion to feel and express disappointment with these efforts is yielded to. But the effect on public policy is to be regretted.

Because reconstruction areas are costly and fail to meet the case of the displaced tenant, there has been a growing disposition to leave the tenant in his surroundings, and find excuse in the reflection that in himself he is in some sense a contributory cause of the surrounding degradation. Whether this be the case or no, local authorities are, if not lax, much less enthusiastic in the demolition of insanitary areas than formerly, and this, partly I think, because re-housing has come to absorb more attention than the displacement of populations who are insanitarily housed. Indeed, the movement in the course of years has changed front, and the gravity of the conditions which pervade the insanitary area have suffered by comparison with the cost of removing them.

The requirements of the Act to provide accommodation equivalent to the number of persons displaced has thus operated in some measure to defeat its main object, and so, instead of displacement schemes from insanitary areas, we have come to think mainly of re-housing; that is, demolition has come to be regarded mainly as an incident in a scheme for reconstruction. The emphasis has thus fallen on the wrong place, the primary object of all housing reform being to displace from houses which are unfit for habitation. For replacement of

populations has never taken place in the sense originally intended, and there exists no scheme municipal or otherwise, save those with which the name of Miss Octavia Hill is so honourably associated, which can point to populations reclaimed along with the houses which they inhabit.

Can the present tendency to Aggregation be limited?—We have seen that cities still contain scattered groups of population, living under conditions, somewhat similar in character to those which first attracted attention to them, and originated the movement for reform. There is also some evidence to suggest that simple massing of populations, even under the improved conditions, which modern sanitation has created, leaves something to be desired in the physique of the children who are growing up under them. For this reason I have indicated that our standards of density need revision, *i.e.*, that the number of persons who may be housed on a given area of soil requires some limitation. Indeed we lose something of the advantage of wide streets in the correspondingly tall houses which flank them. Lower buildings and wider intervals between them seem to me to be a necessity for the future, more especially in our Scotch towns with our flatted tenement system. But even should we be able to restrict the number of persons on a given area, can we limit the number of contiguous areas similarly occupied. That is, can we

control aggregation as distinguished from density? The history of the growth of towns supplies the answer. To an industrial nation, grouping of population is necessary, and when commerce and the industrial arts combine in a common centre, they produce aggregations as we know them. London and Liverpool are probably the best illustrations we have of purely commercial centres; Manchester and Glasgow are both industrial and commercial. So long as food supplies can be imported, their growth will continue to respond to the demands of their special industries. Even in this respect, however, the character of an industrial centre undergoes change, and yet the expansion of population continues.

Two illustrations of this I am able to submit to you in a table which I have obtained through the courtesy of Mr. H. M. Robinson, Deputy Inspector of Factories.

Clyde ships go everywhere, and the Clyde, we fondly think, means Glasgow. But ship-building in Glasgow is a lost art if we reason only by topographical boundaries. In thirty odd years the number of persons employed in ship-building in Glasgow has shrunk from 13,000 to 1,000. So also in Manchester, which once was "famous for its cottons." Reduced to the inexorable logic of an official return, "Manchester cottons" can now only afford employment to 8,000 persons in place of 20,000 formerly. Of course we are perfectly familiar with the fallacy underlying such a statement. The truth is, London and Liverpool,

FACTORIES (IN SPECIFIED INDUSTRIES) AND PERSONS EMPLOYED THEREIN IN GLASGOW AND MANCHESTER
IN 1871 AND 1904.

GLASGOW.					MANCHESTER.				
1871.		1904.			1871.		1904.		
Industries.	Works.	Persons employed	Industries.	Works or Depts.	Persons employed	Works.	Industries.	Works or Depts.	Persons employed
Blast furnaces	3	1,230	Smelting of iron.	1	252				
Iron mills	6	3,320	Iron mills	8	3,807				
Foundries	43	5,289	Foundries	113	9,289		Cotton (textile processes)	111	20,346
Mnftre. of Machinery	78	13,857	Mnftre. of mechry., &c.	242	23,597		Mnftre. of machinery	83	8,981
Iron ship-building	15*	13,031*	Ship & boat building	17	1,048				
							Cotton (textile processes)	73	8,033
							Mnftre. of machinery	197	14,607

* These totals are identical with those for the whole county of Lanark, and it seems probable that they refer to a larger district than the city of Glasgow.

TABLE SHOWING PERCENTAGE NATIONALITY OF POPULATION OF VARIOUS
BURGHES IN SCOTLAND IN EACH CENSUS YEAR, 1861 TO 1901.

SCOTLAND.

Year.	In County.	Out of County	Total Scotch.	Irish.	English.	Colonies, etc.	Foreigners.
1861 ...	—	—	90·970	6·664	1·851	0·385	0·130
1871 ...	—	—	91·117	6·184	2·118	0·441	0·140
1881 ...	—	—	87·116	8·634	3·221	0·727	0·302
1891 ...	—	—	88·700	6·807	3·501	0·687	0·305
1901 ...	—	—	88·427	6·323	3·838	0·830	0·582

GLASGOW.

1861 ...	—	—	81·005	15·697	2·665	0·506	0·127
1871 ...	57·835	42·147	81·912	14·320	3·067	0·493	0·208
1881 ...	68·704	31·296	82·829	13·123	3·169	0·575	0·304
1891 ...	68·949	31·051	85·244	10·038	3·691	0·648	0·379
1901 ...	71·760	28·240	85·720	8·877	3·720	0·793	0·890

1861 ...	—	—	—	—	—	—	—	—	—
1871 ...	—	—	—	—	—	—	—	—	—
1881 ...	57·458	42·542	81·215	14·040	3·787	0·784	0·174		
1891 ...	62·891	37·109	85·929	9·440	3·932	0·562	0·137		
1901 ...	65·839	34·161	84·077	11·510	3·531	0·621	0·261		
PARTICK.									
1861 ...	—	—	—	—	—	—	—	—	—
1871 ...	—	—	—	—	—	—	—	—	—
1881 ...	62·939	37·061	77·877	18·289	3·013	0·661	0·160		
1891 ...	62·414	37·586	81·693	14·068	3·396	0·627	0·216		
1901 ...	65·465	34·535	82·520	12·050	4·203	1·032	0·195		
COATBRIDGE.									
1861 ...	—	—	—	—	—	—	—	—	—
1871 ...	—	—	—	—	—	—	—	—	—
1881 ...	—	—	—	—	—	—	—	—	—
1891 ...	83·573	16·427	80·975	15·625	2·980	0·339	0·080		
1901 ...	84·439	15·561	81·025	15·158	2·920	0·386	0·511		

Manchester and Glasgow, have long since ceased to represent units of population. They have become place-names for large surrounding districts, which are relatively almost as densely peopled as themselves.

Evidence of Increasing Stability in the Structure of Town Populations. — Change, therefore, in the staple industry of a population or displacement outwards, is, in reality, what takes place—it does not necessarily entail restriction on its growth, although in the Clyde Valley we are fortunately situated in respect of the great variety of our industries.

Moreover, considerations based on the structure of populations suggest inherent sources of growth which tend to give them permanency. If we take for illustration Glasgow and the suburban burghs of Govan and Partick, we find that during the past forty years, an increasing proportion of their populations have been drawn from a relatively limited area. In 1861 eighty-one persons in every hundred of the population of Glasgow were of Scottish birth; now there are nearly eighty-six. A similar proportion obtained in 1871, but whereas in this year 57 per cent. only of its Scottish inhabitants had been born in the city or county of Lanark, in which it is situated, this proportion had risen in 1901 to 71 per cent. And conversely, while 42 per cent. of the Scottish inhabitants in 1871 were drawn from other parts of Scotland, this proportion in 1901 had been reduced

to 28 per cent. In Govan and Partick the proportions closely follow these, and even Coatbridge—a purely industrial burgh in Lanarkshire—shows some indication of movement in the same direction over the only decade for which information is available.

These facts are, I think, not without meaning, for they indicate that populations may develop power of internal growth, which is quite distinct from additions to population, arising from immigration and consequently liable to wide fluctuations and even cessation.

The modern city has, as it were, wrenched from Nature the secret of growth, a gift which would appear to have been denied to the cities of the past, and it is this which makes the problem of town life to-day quite without a parallel.

Town Planning necessary over Large Areas.—Where, then, does this argument lead us, and how does it affect the question of town planning? As I have suggested, so long as we can buy in our food supplies and maintain our markets, the massing of population in towns is likely to continue. The problem will be to regulate its conditions. I greatly doubt whether industry and commerce can well be combined with agriculture in the same population. We no longer concentrate for protection—Vienna long ago demolished its ramparts and created a boule-

ward in their place—but, for organisation, industry demands it. The mediæval city was held together by a common bond, of danger at least, if not of interest, but more frequently of both. In any case, it produced a unity of mutual purpose, which is lacking in our modern groupings.

The modern city has no name, or rather it has a multiplicity of names, and the interests of its several parts are sometimes supposed to be divergent. Here it is that the present Bill may, I think, prove of advantage if its provision for schemes of planning for the future be but liberally interpreted.

But as a basis for this we shall have to be agreed upon some things which seem to me essential. What these are may best be indicated in a few questions, and I would ask, in the first place, as it is of the greatest importance: Do we at the present time frankly recognise the corporate life which keeps industrial units together? The cities of old found expression for it in the public ceremonies, which were at once religious and patriotic in their character; it was maintained in spirit if not in form through the trade guilds of the Middle Ages.*

For this the modern city has found no substitute. There has been much organisation for administrative purposes, but little or no co-ordination of its several functions.

Take the map of any industrial area, and plot out on it the various administrative units

* See "The Meaning of History," by Frederick Harrison.

of which it is composed; the results suggest administrative chaos. Education, Poor Law, hospitals, police, health, water supply, cleansing, the maintenance of roads, transport, rating—all are functions of corporate life.

Yet they overlap in confusion so profound that a comparison of pauperism with industrial dislocation, and with crime and disease, becomes almost unreliable, and even the cost of each to the community is barely ascertainable.

There are some functions of administration which are best exercised within limited areas. But unless we recognise that town planning must include all the units of population which industrial pursuits have gathered together, we shall, I think, fail to give expression to that conception of civic unity which, although often but feebly expressed, lies at the bottom of our present-day administration.

Were this spirit to obtain free expression, many of the apparent difficulties which lie behind all questions of differential rating would, in the end, find some practical solution.

It is because Part II of the present Bill is fitted to pave the way to this higher realisation of civic life that its provisions are, I think, worthy of careful study.

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