

THE  
Slaughter of the Innocents

OR

“INFANT MORTALITY—ITS CAUSE AND CURE”

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WITH

A FOREWORD

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## FOREWORD.

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I gladly accede to the request of my friend, Dr. SRINIVASAMURTI that I should write a few lines introducing this book to the Indian public. He has ably handled a problem which, happily for this country, has just now begun to attract some attention and I feel no hesitation in saying that this book will markedly assist in educating the public regarding one of the most vital problems of modern India. The author has given in these pages quiet a cyclopedia of information much of which will be fresh to the average reader. The extent of infant mortality in India, is, as is shown conclusively by the author, far more staggering than it is generally described to be ; and the reader will doubtless be interested to read the narrative of the steps taken in some fortunate counties to reduce the mortality almost to zero.

I shall not spoil the enthusiasm of the readers by summarising the numerous and interesting topics dealt with by my friend. He has already won the approval of several competent experts for some of his criticisms—at any rate, for those which he dealt with in the lecture he delivered before the Madras Sanitary Association. Several of those who heard him then, including myself, were anxious that the lecture should be made accessible to the general public in the form of a book, and I feel sure that our request will be more than justified by the impression this book will create on the Indian public. To the best of my knowledge, this is the first endeavour made in India to present a clear and unbiassed analysis of the problem of infantile mortality and I subscribe to the author's appeal to co-operate with him in improving the book by sending him any criticisms the reader may have to offer.

K. RAGHAVENDRA ROW.

“ मातृतः पितृत आत्मतः सास्यतो रसतः  
 सत्त्वतइत्येभ्यो भावेभ्यः समुद्दिनेभ्यो गर्भः संभवति ।  
 समानयोगश्रेया हि माता तदौ गर्भेण केषुचिदर्थेषु ।  
 तस्मात्प्रियहिताभ्यां गर्भिणीं विशेषेणोपचरन्ति कुशलाः ॥ ”

“ From the mother, from the father, from the self, from the food and drink that are assimilated, from the juices from the mind—indeed, from all these entities combined together, conception sets in. . . . During the period of pregnancy, the mother in certain matters becomes accordant with the fœtus as regards the acquisition of what is un-acquired and the preservation of what has been acquired. Hence they, that are skilled (in medical science) treat the mother during such a period with all that is agreeable and beneficial.”

*Charaka Samhita, Sharira Sthana, IV—2, 17 and 18.*

“ The very foundation of the whole commonwealth is the proper bringing up of the young.”—*Cicero.*

“ There is nothing in all this world so worthy of love and service as childhood.”—*G. Stansley Hall.*

“ Save a man, you save one person ; save a boy and you save a whole multiplication table.”—*J. Wanamaker.*

“ Infant Mortality is the most sensitive index we possess of social welfare . . . . The infant death-rate measures the intelligence, the healthy and right living of fathers and mothers, standards of morals, and sanitation of communities and Governments, the efficiency of physicians, nurses, health officers and educators.”—*Newshomes.*

### THE GREAT CITY.

Where the city of the faithfulest friends stands ;  
 Where the city of the cleanliness of the sexes stands ;  
 Where the city of the healthiest fathers stands ;  
 Where the city of the best bodied mothers stands—  
 There the Great City stands.

*Walt Whitman.*



# THE Slaughter of the Innocents

OR

“ Infant Mortality—Its Cause and Cure.”\*

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## PART I

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### THE PROBLEM.

“The slaughter of the innocents” is a phrase peculiarly familiar to us all of the Madras University **Introduction.** —so familiar indeed, that, at the mere mention of the word “slaughter,” we are apt instinctively to conjure up before our mind’s eye, visions of certain lively Senate scenes, where one grave Senator would work himself up to sublime pathos over the wrongs wrought on the hosts of failed matrics and intermediates, while another, smarting with wounded pride and bursting with unspeakable indignation, would deliver himself of a lashing harangue over “efficiency,” while a yet another is unfeignedly tired and sick of it all, and sombrely bestirs himself, amidst some commotion, to bring forward a motion for adjournment, or passing on to the next item in the programme. It may therefore be just as well to state at the outset that it is not in this familiar sense that the term “slaughter” is used in this essay. Neither is it my purpose to speak of those Puranic or legendary “slaughters” recorded in the Ancient Hindu and Christian scriptures, wherein we read that Kamsa and Herod, hearing of the birth of the Divine Babe in Gokulam and Bethlehem, ordered the slaughter of all babes in the locality with a view to include the child Krishna and the infant Christ in this general massacre of babes. Breathes there a man or woman with soul so dead as will not look upon these scenes with sorrow

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\* A paper read before the Madras Sanitary Association on 25th April 1917, now published with some additions and alterations.

and horror? And yet, are we not permitting somewhat similar slaughters to take place, every second and every minute of our lives and under our very noses? Are we not—we of the civilised world all over—living a life of self-complacent resignedness and culpable indifference, (if not also of heartless recklessness and criminal negligence) while the tragedy is being enacted before our very eyes of infants dying by millions before they have drawn a single breath?

As long ago as 1859, Charles Kingsley, speaking on behalf of the Ladies' Sanitary Association of England expressed himself in this wise:—"Lord Shaftesbury has told you just now that there were one hundred thousand preventable deaths in England every year; so it is; we talk of the loss of human life in war; we are fools of smoke and noise; because there are cannon-balls forsooth, and swords and red-coats (Zeppelins, tanks, submarines, trenches, poisonous gas and burning fluids too) and because it costs a great deal of money and makes a great deal of talk in the papers; we think: what so terrible as war? I will tell you what is ten times, and ten thousand times more terrible than war and that is outraged Nature.....When I read in my book and in your book that "it is not the will of your Father in Heaven that one of those little ones should perish," it has come to my mind sometimes with very great strength that they may have a physical application as well as a spiritual one. . . A dying child is to me one of the most dreadful sights in the world. A dying man, a man dying on the field of battle—that is a small sight; he has taken his chance; he has had his excitement; he has had his glory, if that will be any consolation to him; if he be a wise man he has the feeling that he is dying for his country and the queen, and that is, and ought to be, enough for him... It does not terrify or shock me again to see a man dying in a good old age, even though the last struggle be painful, as it too often is. But it does shock me, it does make me feel that the world is indeed out of joint, to see a child die." And still to follow Kingsley, with slight alterations in his phraseology, may we not fervently pray "Ah! would to God that some man had the pictorial eloquence to put before the people of India the mass of preventable suffering, the mass of preventable agony of mind and body, which exists in India year after year; and would that some man had the logical

eloquence to make them understand that it is in their power, in the power of the princës and people of India, I will not say to stop it all, God only knows that, but to stop, as I believe, three fourths of it." "I really believe" continues Kingsley "that there are hundreds of good and kind people who would take up the subject with their whole heart and soul, if they were aware of the magnitude of the evil." Yes, this is very true; if only we would realise the enormous extent of preventable suffering and death among our infants, then we would perforce be roused to do our duty by God's children: if only we would realise that it is in our power to prevent more than three fourths of these deaths, then it would be impossible not to set about saving as many of the Nation's children as we possibly can. At no time perhaps, would it be necessary to apologise for a book which purports to put forth a plea on behalf of our innocents *par excellence*—the children of the Nation. But, at a time when, under the impulse of a general social awakening, peoples' thoughts are being, more and more increasingly, directed towards the amelioration of our social ills, it is hoped that this new venture would be particularly opportune and that the Public would welcome the plea presented in the following pages, on behalf of "our little ones" of whom it is writ: "of such is the Kingdom of Heaven." And the purpose of this essay is nothing more—and nothing less—than to do, if I may, some educative work, in the direction of indicating the enormous extent of our infant mortality, the causes which contribute to this tremendous wastage of infant life, and the methods whereby this slaughter of innocents can be checked and controlled. How far, if at all, I have been successful in accomplishing my purpose, it is, of course, for the reader to judge.

To help us in realising the magnitude of the problem that is now before us, it is desirable to obtain, if we can, some idea of the exact extent of the slaughter of innocents that has been going on around us and amidst us. Instinctively we turn for light to books on Indian Vital Statistics—Blue books, White books, books of other colour and no colour, *et hoc genus omne*. But, books mock us; for in India, registration of Vital Statistics is still notoriously unsatisfactory and unreliable; this is especially so in the case of mofussil figures, although the figures of even our

**The extent of  
Infant Mortality.**

Presidency towns are none too accurate; they, certainly, never err on the side of over-accuracy. Nevertheless we have to be thankful for small mercies and make the best we can of an unsatisfactory situation. Taking the most recent of the available figures for our Presidency towns, we learn that that the total infant mortality during 1915 in Bombay, Calcutta and Madras were respectively 6602, 4768 and 5241 and that the Infant Mortality rates (i.e. the proportion of deaths of infants under one year to thousand births) approximated, respectively to 329, 287 and 286 per mille; in other words, out of every thousand infants born in Bombay, Calcutta and Madras during 1915, as many as 329, 287, and 286 infants respectively did not live to complete even a single year of earthly existence, or roughly speaking we may say, that, in these cities, one infant out of every three or four born during the year, died even before it was barely a year old!

So far as figures for other parts of India are concerned, they are, as already stated, even more unreliable than figures for Presidency Towns. The following table gives by Provinces, the average Infant Mortality rate for ten years between 1902-11 :—

PROVINCES.	Average Infant Mortality for 1902-11.
*United Provinces	.. 352 per mille
Bombay	... 320 „
Burma	... 332 „
Bihar and Orissa	... 304 „
Punjab	... 306 „
Bengal	... 270 „
Madras	... 199 „

[\*Per Wattal : *The Population problem in India : 1916.*]

With the above, may be contrasted the corresponding figures for the following countries of the world :—

France	131.4 per mille	Sweden	84.4 per mille
Germany	186.6 „	Australian	} 87.5 „
Russia (European 1895-1904)	260.5 „	Common-Wealth.	



Ceylon	180·2	per mille	England and	} 127·3 per mille
Japan	159·8	,,	Wales.	
Hungary	207·6	,,	Scotland	110·1 ,,
Chili	293·4	,,	Ireland	96·1 ,,
New Zealand	64·3	,,		

From the Annual Report for 1914 of the Sanitary Commissioner with the Government of India, we learn that infant mortality for the whole of India during 1914 was as follows:—

Province.	Infant Mortality.		Province.	Infant Mortality.		
	Male.	Female.		Male.	Female.	
Delhi ...	292·00	281·79	Coorg ...	304·64	281·77	
Bengal ...	227·28	215·22	Bombay Presiden-			
Bihar & Orissa ...	177·71	164·43	cy ...	201·86	185·15	
Assam ...	200·32	177·84	Burma {	Lower ..	221·05	192·37
United Provinces	238·15	228·39		Upper ...	244·42	219·52
Punjab ...	208·98	211·38	Ajmer Merwara ...	Information not available.		
N. W. Frontier Provinces ...	191·62	180·63				
Central Provinces and Berar ...	281·89	245·11				
Madras Presidency ...	206·35	186·27	Total ..	218·93	204·29	

From the above, it will be evident that, roughly speaking, we may say that the rate of Infant Mortality for the whole of India is about 200 per mille; although some put it at 250 per mille; in other words, one child out of every four or five born alive does not live to complete even one year of earthly existence. Again, we learn from the same authority that the total number of births during 1914, in British India alone (excluding Protected States) was 9,447,300; and a fifth of these, that is to say, as many as 1,889,460 or roughly two millions, died before they were a year old. If we include the population of the Protected States also, which form roughly a third of the whole of British India, it is not too much to say that approximately as many as 2,500,000 (two millions and a half) infants die before they have lived a

single year of earthly existence. It is difficult to realise the dreadful immensity of these figures save perhaps by some illustrative graphs, comparisons and things of that sort. In the United Kingdom where the Infant Mortality rate is less than half of what it is in India the number of infants that die every year is roughly 150,000 as contrasted with our 2,500,000; in other words, our total Infant Mortality is about 17 times as high as that in the United Kingdom. It is quite true that the population of the United Kingdom is somewhere near fifty millions *i.e.* between a sixth and seventh of the population of British India; it is also true that the number of children born every year in the United Kingdom is only a little more than a million as against the nine and a half millions of births recorded for British India alone excluding Protected States, and that Europe generally had a long start over India in matters of modern sanitation. But, even after making due allowance for all such factors, our infant mortality of 2,500,000 is really terrible to contemplate, the more so, when we find that thoughtful people in the United Kingdom are well-nigh panic-stricken over their annual infantile death-toll of about 150,000—a figure which, after all, seems incredibly small and unimpressive to us, who are dealing with infantile death-tolls, not by thousands and tens of thousands but by hundreds of thousands and millions. Well, if people in the United Kingdom are deeply concerned over their infant mortality of 150,000 a year, how terribly serious should be the problem in India and how overwhelmingly urgent the need for action, when the Infant Mortality is nothing less than 2,500,000 a year? But, even this appalling figure does not perhaps represent the whole of the tremendous wastage of infant-life that is going on in this land; for one thing, statistics of Infant Mortality in India, as of Vital Statistics generally, is still quite unsatisfactory and the above calculation is more an under-estimate rather than true valuation. Then again there is the wastage due to the large number of deaths among women of reproductive ages consequent on such conditions as baby-marriage, early maternity, want of adequate maternity aid etc. The number of potential mothers who die from this group of causes cannot be estimated with any pretence to exactness, although there cannot be any doubt that the wastage

from this cause cannot but be lamentably great, so long as adequate maternity aid continues scarce and costly, so long as true education does not make headway and correct undesirable customs, habits and practices, and so long as pre-maternity problems are not properly handled by the State or society or municipality as the case may be. In England and Wales, it is calculated that 3500 women die yearly from conditions resulting from child-bearing and this has been enough to set people there thinking and acting too, while we here are more or less philosophically sombre and serene, when the number and proportion of female deaths at reproductive ages is many times as great. "Figures collected by Mr. Blunt for United Provinces (U. P. census report for 1911-P 194) show that on an average the ratio of female deaths at 15-30 to 1000 births is never less than 60. As at these ages, the Indian wife has not finished her normal span of life, the majority of these deaths must be due to child birth. In Bengal, between the ages of 5-15, the average number of female deaths per 1000 male deaths is 749, while between the ages of 15-30 it is as high as 1193. Figures for the other provinces are given below and are eloquent of the risks of child-birth to Indian mothers :—

*Average number of female deaths per 1000 male deaths.*

Province	Age—Group.	
	5—15	15—30
Bengal ...	749	1193
Bihar and Orissa ...	799	951
Bombay ...	970	1043
Burma ...	858	862
Central Provinces & Berar ...	881	1100
Madras ...	923	1232
Punjab ...	1055	1010
United Provinces ...	897	1080

Thirdly, there is the consideration that the figures of Infant Mortality abovementioned relate only to infants dying after birth and that there are good reasons to believe that even greater is the wastage that occurs in ways other than by the death of infants who are born alive. Of course, statistics are not available

so far as Indian conditions are concerned; but a rough idea of the tremendous wastage may be formed from references to available statistics of the United Kingdom. Dr. Ballantyne states that "*one pregnancy in five ends in abortion in city populations.*" Dr. Mrs. Mary Scherlieb writes "The amount of prenatal death that occurs is very little realised. From the best available statistics, it appears probable that we lose annually more than 100,000 children within the first twelve months of extra-uterine life and yet this appalling sacrifice of the innocents is exceeded by the numbers of children who perish before they have drawn a breath." If it is permissible to argue in this strain when dealing with Indian conditions, then, it follows that tremendous as is the wastage of infant life, that is represented by the annual Infant Mortality of 2,500,000, yet, this figure does not represent the whole of the wastage, which, must include at least another 2,500,000 more of "innocents, who perish before they have drawn a single breath." Excluding other factors, the total annual wastage of child life in India under these two headings alone, is nothing less than 5,000,000! This at least must make us think seriously and act promptly; we cannot afford to fiddle when Rome is burning; this wholesale slaughter of innocents is preventable and must be prevented. That our innocents are dying by millions, while it is in our power to save nearly three-fourths of them must fill us with that "noble shame" and "Divine discontent" of which it is writ "to be discontented with the Divine discontent and to be ashamed with noble shame is the very germ and first upgrowth of all virtue—the parent first, of upward aspiration and then, of thought and effort to fulfill that aspiration even in part."

Finally, there is one other aspect of this problem *viz* the economic aspect, to which the Americans have turned their attention with characteristic thoroughness. In this connection, the following note by Dr. Bridge of Los Angeles on "The economic waste of sickness and premature death" may profitably be cited:—

"In an active practice of Medicine of several decades and with some familiarity with the life of many hundreds of families, I recall hardly an instance among lay people in which the caution for health's sake was frankly urged on economic

grounds. And when it has been so urged it has usually been spoken of under the breath, as though it were a shame to put life and health on so sordid a basis.

But the economic basis is a most vital one, and money is our call on the world for the munitions that fight off sickness and death: for it is a fight, and a continuing one, till death takes us: comfort, health, and refuge from sickness and death, are often found by means of this potent thing called money.

Sickness and early death are the greatest drains on the resources of most of us, and more than any one influence, handicap us, personally and in families, in our search for the things of life that are of paramount value. Sickness is our greatest pauperizer, as health is our greatest asset; and we usually ignore both of these truths.

The actuaries have made it easy for us to state, with some approach to accuracy, the money value of health, the loss to the community from sickness through loss of earning time, and from the expense that must be paid in cash. They have also shown us the vast public loss from community from sickness through child mortality. Not only is all sickness expensive, but epidemics have destroyed nations and peoples, have led to the defeat of armies and have interrupted and postponed for centuries great public works that have been needed in the development of society and the safety of states. The Panama canal is one of them.

There can be no doubt that the figures are fairly correct as to the ultimate cost and loss to the individual and the public, from these calamities, but the loss appears to be largely in the cutting off of possible future gains rather than from loss of so much cash out of pocket (except sickness expense); and so, the public is slow to believe whole heartedly in the figures.

The pecuniary worth, potential and prospective, of an individual at different ages is given by Fisher as follows:

At birth	...	...	...	...	\$ 90
„ 5 years	...	...	...	...	„ 950
„ 10 „	...	...	...	...	„ 2000
„ 20 „	...	...	...	...	„ 4000
„ 30 „	...	...	...	...	„ 4100
„ 40 „	...	...	...	...	„ 2900
„ 80 „ minus	...	...	...	...	„ 700

The value of life is figured on the possible earning power through the years that are promised for the individual; so the value of the younger members is high, that of the middle life is a diminishing amount, while the aged have less than nothing of value in this sort.

The annual cost of illness and death in the United States is conservatively placed at \$ 460,000,000; let us add \$ 500,000,000 for loss of earnings by the victims, and we have a total of \$ 960,000,000".

Indian actuaries have yet to familiarise us with the money value of our health and the monetary loss to the community from her sickness and premature death; it is quite true that the average annual earning per head in India is only Rs. 27 to 30 against upwards Rs. 450 in America; nevertheless, the line of thought and argument pursued in the above quotation may help us to obtain some rough idea of the economic waste that is occurring in India through preventable sickness and premature death.

But it has to be recognised, however, that awakening from the indifference and apathy of ages is by no means easy; even in the British Isles, the average Britisher did not take to this question seriously, till the dreadful war, with its terrible depletion of man-power, opened his eyes to the intimate relationship of this question to that of continued maintenance of national greatness and supremacy. It is quite true that a number of thoughtful people had long ago realised the national importance of this problem, and organised under the usual ridicule and other annoyances, almost inevitable in every pioneering work of this description, several schemes of child-welfare work which are all bearing good fruit at the present day. But, as the author of the Child Welfare Annual for 1916 points out:—"It has been left for war, with its circumstances and concomitants to arouse a slumbering people to a realisation of the responsibilities and national necessity of child-welfare work; war has awakened all to a realisation of the slackness and selfishness, and apathy, lack of initiation, and imperfection of organisation which have characterised so much of our ways and work in the past. In no department of our national life have wastage and neglect

**War, the eye-  
opener.**

been more conspicuous than in those concerns which touch the highest interests of the children of the Empire.....At all costs, the conservation of the children of the nation must be secured. The fruits of victory may all be lost, if we neglect to rear an Imperial race which shall be capable of guarding the rights and liberties which have been bought with blood. For the sake of the fathers who have made the supreme sacrifice and in the interests of our Great British Commonwealth, child-welfare must be given first place."

Further, in addition to the direct depletion of man-power above referred to, there are also to be reckoned with such other factors as the indirect depletion and the diminished national vitality, which result from causes, less obvious perhaps, but none the less serious: In the first place, the strong, the healthy and the able-bodied go to war; and the death of each one of them means either a maiden left husbandless or unmarried, or married, in default, to a less able or worthy person, on whom now falls the burden of continuing the race; in the next place, even among those that return, some at least will have their constitutions so badly wrecked, tainted or weakened as to interfere seriously with their capacity to continue the race.

Such are a few of the considerations that helped to open the eyes of the average Britisher to the danger ahead; it is bad enough to have to face the problem of excessive Infant Mortality; but when this is complicated with the problem of declining birth rates, as has been the case for some years past in many European countries in general and France in particular, the situation becomes acutely threatening; for even if Dhanvantari himself were to preside over our Medical and Sanitary departments, it may not be generally possible to bring down Infant Mortality below a certain figure, although, as will be referred to in detail later on, the miracle of reducing infant mortality to Zero is being actually wrought, for the last ten years or more, at Villiser-Le-Duc, a commune of the French Midi, under the able guidance of the devoted philanthropist, M. Morel de Villiere. But circumstanced as we are, we cannot abolish all Infant Mortality, for there is a limit below which we may not be able to go; in the case of birth-rate, however, there is no such limit. We might reduce it to any extent, we please,—even to Zero—by

evading "for reasons, good, bad and indifferent, the God-ordained duty of continuing the race." If our birth-rates are persistently lower than our death-rates, we are already on the downward path of national self-destruction, although immigration and such other factors may, for a time, hide the danger from our view and keep us under a false sense of security; and this process of national self-extinction will be greatly hurried, if, in addition to declining birth-rates, we have also excessive infantile mortality, so that not only we have fewer infants born into the world, than are required to replace those who are lost to the nation by death, but even among those precious ones that are born, an unduly large number die, before they are even a year old. It is from considerations such as these, that France started, even before the war, with her schemes of maternity and child-welfare work, with the double object of at once increasing her birth-rate and decreasing her infant mortality rate; and the subject has, of course, assumed tremendous importance after the out-break of the present devastating war; indeed, if there is one thing more than another which has contributed to this general awakening, that is occurring not only in France and the United Kingdom but in many other parts of the world as well, it is undoubtedly this awful war with its disastrous effects on the flower of the belligerents' manhood resulting in a serious depletion of the manpower of the nations concerned. It was early realised by the pioneers of child-welfare work that it is at least as much necessary to take care of the babe when it is in the womb, as when it is out of it; or, in other words, it was realised that, to ensure the birth of an infant, who is not to be merely one more of those that are born only to die, but one who may reasonably be expected to live and thrive, it is at least as much necessary to ensure favourable ante-natal conditions as natal and post-natal ones; or, what come to the same thing, ante-natal measures, such as, the general care of the pregnant women, providing them with adequate pre-maternity aid etc., are at least as much the parts of child-welfare schemes as any scheme of post-natal clinic, feeding centre etc., that may be devised with a view to benefit the precious babe after it is born; nay more, for, though the former are directed primarily towards reducing mortality among infants by improving their



ante-natal nurture and endowing them with sufficient vitality to survive the dangerous period of infancy and childhood, they also operate indirectly to effect an increase in the birth rates, as many a woman might have aborted or brought forth a still-born babe, but for the institution of such ante-natal schemes; the problem before us is not merely a problem concerning the welfare of generations yet unborn but it is also a problem concerning generations who would never be born at all, unless we bestir ourselves betimes and check the evil before it is too late. France woke up some years ago to a sense of the national danger, indicated by her steadily declining birth-rates and the decrease in population occasioned thereby, and set about making frantic efforts for checking the decline in the birth rates by such measures as rewarding married people and parents, penalising batchelordom and single life generally by the imposition of heavy taxes, and so on; but, she soon found that when once the nation gets into the habit of deliberately checking the size of families, for reasons good, bad and indifferent, it is by no means an easy task to effect a change in this habit; for, as is well-known, a habit—especially an undesirable one—is often easier learnt than unlearned. However that may be, though the efforts of France in directly increasing the output, did not show encouraging results, her efforts at preventing wastage in the precious little output bore good fruit; with the result that she has been able to effect a marked reduction in her infant mortality; in fact, it is in the Commune of Villiers-le-Duc, in the French Midi, that the miracle already mentioned is being wrought, these ten years and more, of abolishing all Infant Mortality, as in the days of old when Shree Ramachandra trod this earth and ruled in Ayodhya. Nor have the United Kingdom and other parts of the civilised world failed to benefit by the lessons of France, as may be seen from the increasing interest and attention which many of these countries are showing in the subject of child-welfare. Even in India, though the general awakening is yet to come, there has already been some stir here and there. Bombay has already started work, with great earnestness and enthusiasm; Calcutta is following cautiously, while Madras has just now adumbrated a scheme of her own, which, let us hope, will soon come into operation. But, these are but isolated instances, mere

drops in the ocean. Much educative work has yet to be done, before general interest in the subject can be roused. Dr. Moore of Huddersfield bears testimony, in the following words, to the general interest and attention which this topic is receiving all over England :—“Let me refer to the notable fact that successive Presidents of the Local Government Board and other cabinet ministers have deemed the subject of an importance, such as to call for Parliamentary and public attention. And also I would point out that our real governors—the actual arbiters of our national fate (at least I do so regard them.)—I mean those who direct the daily newspapers—have given prominence to the importance of the subject from the national point of view.” Let us hope it will not be long before conditions in India are such as to justify us in giving expression to similar sentiments. In fact, there are already clear indications to show that both the Government and the Press have begun to bestow great thought and attention to the problem of our excessive infant mortality, as is evidenced by Government Communications and Press Comments, quoted elsewhere. (Vide Appendix).

A remarkable feature of this world-wide general awakening regarding our duty to our infants is that it corresponds not, as may be expected, with a period of increasing infant mortality rates but that, curiously enough, it actually synchronises with a period when the rate of infant mortality is steadily declining. The explanation of this striking phenomenon lies in the fact that the countries concerned are not satisfied with their present rate of decline in infant mortality but feel, and feel strongly too, that there is plenty of room for improvement, especially in view of the terrible depletion in man-power that is being caused by this devastating war. The following table shows the gradual, and almost universal, decline in the infant mortality rates, referred to above :—

INFANT MORTALITY RATE FOR THE YEAR.

Country.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Australia	103	101	113	105	127	117	100	104	107	111	82	82	83	81	78	72	75	68	72	72
Austria	251	241	230	228	224	219	221	209	216	215	210	231	202	209	199	209	189	207	180	...
Belgium	152	172	142	149	160	167	172	142	144	155	152	146	153	132	147	137	124	167	120	...
Bulgaria	142	144	134	147	143	158	131	143	143	154	142	159	154	154	169	171	159	...	...	...
Ceylon	165	169	158	140	169	197	178	170	173	164	174	176	198	186	183	202	176	218	215	189
Chili	304	300	295	287	283	285	343	340	270	264	286	249	327	298	318	315	267	332	...	...
Denmark	134	137	126	129	123	154	128	134	114	116	112	121	109	106	123	98	102	106	93	94
England and wales	137	161	148	156	160	163	154	151	133	132	145	128	132	118	120	109	105	130	95	108
Finland	140	129	143	133	128	137	153	145	129	127	120	135	119	112	125	111	118	114	109	...
France	158	180	148	152	169	163	161	142	135	137	144	136	143	131	127	118	111	117	78	...
German Empire	...	...	...	...	...	...	...	207	183	204	196	205	185	176	178	170	162	192	147	...
Hungary	244	240	226	222	222	206	219	205	216	212	195	230	205	208	199	212	194	207	186	...
Ireland	102	104	95	109	110	108	109	101	100	95	100	95	93	92	97	92	95	94	86	97
Italy	184	187	177	165	169	156	172	165	175	168	164	166	160	155	153	155	142	153	130	...
Jamaica	168	178	176	177	176	170	174	163	162	187	193	165	197	223	175	174	188	187	193	171

## THE SLAUGHTER OF THE INNOCENTS

INFANT MORTALITY RATE FOR THE YEAR.

Country.	INFANT MORTALITY RATE FOR THE YEAR.																				
	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	
Japan	144	141	149	151	154	154	155	151	161	157	151	151	153	151	157	166	160	...	...	...	...
The Netherlands	152	167	148	148	156	149	155	149	130	135	137	131	127	112	125	99	108	137	87	91	91
New Zealand	81	88	77	72	80	96	75	71	83	81	71	68	62	89	68	62	68	56	51	89	89
Norway	104	96	96	97	91	105	90	93	75	79	76	81	69	67	76	72	67	65	68	...	...
Ontario	...	...	...	...	...	125	138	121	104	115	107	121	137	121	124	131	123	117	110	117	117
Prussia	196	212	191	205	193	204	212	200	172	194	185	198	177	168	173	164	157	188	146	...	...
Roumania	227	201	230	216	222	198	191	205	221	201	...	...	...	...	...	...	...	197	186	202	202
Russia (European)	265	280	274	260	279	240	252	272	260	256	232	258	243	233	247	248	...	...	...	...	...
Scotland	117	133	115	138	134	131	128	129	113	118	123	116	115	110	121	108	108	112	105	110	110
Servia	163	158	167	167	161	152	150	145	151	151	135	165	144	147	158	181	138	146	...	...	...
Spain	...	...	...	...	...	...	204	186	181	162	173	161	173	158	...	...	...	...	...	...	...
Sweden	101	95	103	99	91	112	99	103	86	93	84	88	81	77	81	72	75	72	...	...	...
Switzerland	153	159	132	141	155	136	180	137	132	133	140	129	127	121	108	115	105	123	94	...	...
United Kingdom	131	152	139	150	153	154	147	144	128	127	139	124	127	114	118	107	105	125	95	108	108

From the above, it will be seen that infant mortality rates are steadily declining over many parts of the world, while in a few countries, they are practically steady, but nowhere are they showing any appreciable increase; another remarkable feature of the above table is that during the year 1912 or thereabouts, there was a low rate of infantile mortality all the world over. Why this was so, is easier asked than answered.

Turning for a moment to conditions obtaining in India, the figures are truly awful; the following table is compiled from the official returns submitted by the Health Officers of our Presidency towns and embodied in, what they are pleased to term, "*The Health Reports.*" (euphemistically, doubtless, inasmuch it would be more appropriate to call them "sickness or ill-health reports", seeing that they are woeful records, more of death, disease and ill-health generally than of life, strength and health.)

Year.	INFANT MORTALITY RATES IN		
	Bombay.	Calcutta.	Madras.
1906	534·7	340·8	341·4
1907	423·6	293·0	270·7
1908	450·1	296·6	296·4
1909	404·7	268·0	295·0
1910	418·9	273·5	294·0
1911	379·8	251·6	305·5
1912	448·2	259·6	280·1
1913	381·1	274·8	293·4
1914	385·1	282·7	809·0
1915	329·2	287·6	286·1

What a shocking state of affairs is revealed by a comparison of the Indian figures of infant mortality as shown in the above table with those obtaining elsewhere and shown in the table immediately preceding it? Nowhere in the world save in distant Chili is the slaughter of the innocents going on at such an appalling rate as in India! This at least ought to open our eyes to the immense magnitude of the evil; this at least ought to rouse us from the slumber of ages; this at least ought to fill us with that Divine discontent and noble shame, which are the parents of all

high aspirations and ennobling achievements. The infant mortality rate of the United Kingdom is only from half to one fourth of what it is in India and yet, see, how a noble British citizen views the situation ; says Dr. Moore:—

“Let it be that I avoid exaggeration ; that I approach the matter with sane judgment, with care, and with accuracy. What is the subject in magnitude ? How does it stand in relationship with national life ? The number of human beings who are to replace the present farmers, artisans, weavers, bakers, butchers, merchants, shop-keepers and defenders of their fatherland, who are given to the nation by the nation’s womanhood annually is more than 800,000. During the seven years 1906 to 1912 the number of infants who died was 736,632. So that in seven years all the national recruits of one year may be said to be obliterated or nearly so.

“That seems to be an important matter. But were these deaths inevitable ? Let us consider. Let us try to answer clearly and in a manner which admits of no doubt. These infants died at the rate of 115 per 1,000 births. In Norway, Sweden, New Zealand, Australia, in whole agricultural counties here in England, and in the better wards of our large towns, the rate falls below 80 per 1,000. Furthermore, and I desire to give due prominence to this fact, in the better families among even the worst districts, the rate is equally low. But what is the very minimum fatality among infants ? Morel de Villiers has answered : “Zero”. But among the larger communities under the conditions of town life, Doctor’s babies show 40 per 1000, and almost all the professional classes under 50. But there can be no exact reply. Let me, therefore, err on the side of moderation, and assume that among these, 736,682 babies who died between 1906 and 1912 all who were in excess of the rate of 80 per 1000 might have been saved. How many ? The answer is 224,208.”

Be it recognised, I pray, that here is no trivial loss ; the figure is substantial. Now let us make a similar calculation for India and see what it amounts to. We have seen that, even if we are on the side of moderation and take the figure of 200 per mille as the average rate of infant mortality for the whole of India, the number of infants that die every year before they are a year old is 2,500,000 which means, that in seven years, infant mortality

amounts to the staggering figure of 17,500,000. If the mortality rate could be reduced from 200 to 80 (the hypothetical figure that was assumed above for England) then, it means that out of every 200 infant-deaths, as many as 120 are dying from easily preventable causes; in other words, 60 per cent of these 17,500,000 deaths *i.e.* 10,500,000 deaths are not inevitable; they are preventable and ought to be prevented; moreover, there is also this important consideration to be urged *viz.*, that our task here is, in one respect, easier than in countries where infant mortality is not so excessive as ours; for it is easier to reduce the mortality rate from 200 or 400 down to 80 or 150 than it is to reduce the same from 80 or 150 down to 40 or 80. During the six years between 1906 and 1912, the infant mortality of England amounted, as seen above, to 736,682, of which as many as 224,202 could have been saved from preventable death, but what are these figures when compared with our immensities of 17,500,000 and 10,500,000 for total mortality and preventable mortality respectively; even after making all due allowance for differences in population and such other factors, the comparison is truly staggering; If they count their infant-deaths by thousands and tens of thousands, we here count our slaughter by hundreds of thousands and millions. On a most modest scale, we could save as many as 1,500,000 infants every year from preventable deaths. Is this not a subject for "Divine Discontent and noble shame"? As was pointed out by an eminent philanthropist: "Here is no great political matter; here all parties can unite." Yes; this is one of the colourless, creedless, casteless, sexless platforms on which all could meet in co-operation, whether he be Hindu, Muslim, Brahmana or Non-Brahmana, official or non-official, or is classed among any other pair of fictitious or artificial opposites. "It is and it must be the plain immediate duty of every patriot, be he statesman or peasant, to do all that lies in his power to protect and foster the sole ultimate source of national strength—the mother and the child."

There are, however, some very good people and some wise ones too, who, being so oppressed with the problem of over-population, even when kind death has been carrying off millions of our babes before they have drawn a single breath and millions

**"A mad world, my masters"**

more before they are even a few days old, that they have no sympathy or patience with these "meddlesome and misguided" folk, who—bless their ignorance of even the elements of political economy—advocate reforms of infant welfare that have an inevitable tendency to make the problem of food-supply and struggle for existence more acute than it need be; even the problems arising out of the present war have left the convictions of these good and wise men, unaffected. "There are men," says Dr. Moore in his Milroy Lectures on Infantile Mortality "whose pens and voices hold authority, who express views having a distinct tendency to militate against work undertaken for the purpose of alleviating the sufferings and preventing the deaths of babies. This may seem strange and incredible. A priori, it is both. To all who have taken interest in the subject, during the last few years, however, this peculiar phenomenon is well-known. Moreover the persons may be divided into two schools—one, merely ignorant, prejudiced, careless and, it may be, parsimonious and the other, trained, learned and scientific. The former express their thoughts thus wise. "The poor little devils are born to lives of misery; they will never do any good; let'em die" (this is the reproduction of an actual statement by a person, holding some authority in the community).....The latter cloak their inhuman doctrines under the guise of science. They proclaim abroad that heredity counts, that environment matters little, acquired characters are not transmitted and therefore most, if not all, of the labour in this field is in vain. Moreover" they would perhaps continue "who wants these babes? Where is room for all of them if, instead of following the old beaten track of death, they come in crowding into life? What a mad world this, my masters, that it should think of saving these superfluous unwanted babes? As eminently practical men, it is no concern of ours to worry ourselves about such theoretical and abstract considerations as, for example, the question whether or not our high infantile mortality is an evil in itself; perhaps it is; perhaps it is not; even if it is an evil, it is a necessary evil; but, evil or no evil, it is an inevitable, natural phenomenon of cosmic evolution. "If Nature wants a school of fish, she spawns a million. To make certain of a hundred kaffirs, she produces 200." It is so to speak



Nature's *manul*; in our struggle for existence, the operation of natural selection must inevitably work towards the survival of the fit and the weeding out of the unfit. To think of cheating of her *manul*!—what madness this, my masters?"

It is obvious that if such contentions were to prevail all infant-welfare work is foredoomed to fail. Fortunately, the average man has not yet become a convert to the inhuman doctrines of these "superior" persons; perhaps he never will. Mathew Arnold says somewhere "There is something within ourselves which makes for righteousness." It is perhaps this "something" which prompts the average man to take up readily to infant-welfare work in spite of what our superior persons may say or may not say; and not all the so-called scientific arguments in the world can silence the still small voice within ourselves that always reminds us that "it is not the will of your Father in Heaven that one of these little ones should perish."

Nevertheless, it is the foremost duty of all those interested in the conservation of child-life, to meet these savants on their own ground and to show them, if we can, wherein lies the fallacy of their monstrous suggestions. But, it is not given to every one of us to do this; for though no amount of quibbling can convert us to the view that, "because  $4 \times 0 = 0$  and  $5 \times 0$  is also  $= 0$ , therefore  $4 = 5$ ," yet, it is not given to every one of us to show wherein the fallacy of this argument lies; and we would certainly be very grateful to any person who would help us to see the fallacy. Even so, although many of us may instinctively feel that the monstrous doctrines of the above said savants cannot be true, yet, we would certainly like to know wherein the fallacy of their argument lies. This knowledge would undoubtedly strengthen our generous impulses and add firmness to our purpose. A study on these lines of the problem of conservation of infant life is the purpose of the succeeding few pages.

Inasmuch as it is the bugbear of over-population that gives point to the inhuman doctrines under discussion, it necessarily follows that a proper understanding of the law of population is almost a *sine qua non* for all intelligent discussion of the said doctrines. Mr. Wattal, of the Indian Finance Department.

### **The Law of Population.**

ment, in his recent book on "*The Population Problem in India*" thus summaries the law of population as propounded by the late Rev. Malthus—a profound political philosopher— whose evil karma it has somehow been to have his fair name associated with certain "Secret" appliances and immoral practices that would have been most abhorrent to his saintly nature :—

"Population, according to Malthus, has an inherent tendency to multiply beyond the means of subsistence prepared for it by Nature; for, while the means of subsistence tend to increase in an arithmetical progression, population, if unchecked, would multiply in a geometrical progression; so that, supposing both to start on a level of equality, the ratio tends to recede further and further from the level. As, however, the population must be limited to the means of subsistence, this general tendency to increase, is held in check in two ways, by the preventive and positive checks. The preventive check is voluntary and consists in restraint from marriage when there is no reasonable chance of maintaining the habitual standard of comfort in life. The positive checks include diseases, wars, epidemics, famine, extreme poverty, unwholesome occupation etc., in short, everything which in any way contributes to shorten the natural duration of life. Such being the nature of the checks to the increase of population, it is evident that preventive and positive checks must vary inversely as each other; that is to say in countries where the preventive check prevails very little, there will be a high death-rate; while in countries, where the preventive check prevails, the death-rate will be low. It follows, therefore, that in countries with a high birth-rate, there will be a rapid succession of short-lived beings to keep up the numbers, one generation being pushed out of existence before its time to make room for the next."

The state of affairs in India is a high death-rate, especially infantile death-rate, associated with a high birth-rate. But, since it is only survivors that count towards population, the net result is that our natural increase is comparatively small. The most obvious method of bringing down our death-rates would be to remove all preventable causes of our general mortality—an almost Utopian ideal under existing conditions. But, all the world over, a high death-rate is generally associated with a high

birth-rate and a low death-rate with a low birth-rate. It would therefore appear that if we take care to reduce our birth-rate, the death-rate would then take care to reduce itself. As is well pointed out by Mr. Wattal, "It is our high birth-rate that is a social danger; the high death-rate, however regrettable, is merely an accident of our high birth-rate and, if we want to go to the root of the evil, we must look to the causes that give rise to the high birth-rate, much more seriously than to the other set of secondary causes that give rise to the high death-rate."

In countries where preventive checks do not prevail, it is the increase or decrease in the number of marriages that primarily affects the increase or decrease of the prevailing birth-rate. But, where such checks do obtain as in England, France and some other continental countries, a declining birth-rate and an increasing marriage-rate may and often do coexist. But, in India, such deliberate regulation of families by artificial means has not yet become prevalent. One may therefore say that our birth-rate is mostly a factor of our marriage-rate, which again is largely influenced by certain of our social customs, chief among which, may be mentioned the custom of universal marriage, more especially among girls, and the practice of early marriage (including baby marriage) among certain classes of our population. It is generally held that the number of children per marriage varies inversely as the age of the marrying couple, so that the number of children per marriage, as also the interval between successive pregnancies, among couples that marry late, is less than the number and interval among those that marry early. But, then, we are also told that "the effect of delay in reducing the size of families is much greater in the case of the wife than in the case of the husband, it being estimated that while a delay of three years on the part of the wife reduces the average size of the family approximately by one child, it requires a delay of something like forty years on the part of the husband to effect the same reduction." If this is true, then smaller families cannot be expected by merely postponing, as has been done so far, the marriages of boys, while the girls continue to be married before puberty or immediately after puberty. It is only by raising the marriage-age of our girls that any appreciable diminution in the size

of families can at all be expected. But then it is difficult to indicate with any pretension to preciseness, the exact extent which our early marriages contribute to our high birth-rate; for one thing, early marriage is, even in India, not so universal as is sometimes fancied. So far as Southern India is concerned post-puberty marriage has always obtained among large sections of Non-Bramhana Hindus, Musalmans and Indian Christians who constitute among themselves nearly 90 per cent of our population. Secondly, even assuming that early marriages are common, yet their contribution to our high birth-rate must, to some extent at least, be counterbalanced by the notoriously high death-rate of our young mothers at productive ages; nor, is it correct to assume, as it is sometimes glibly done, that fertility of marriages in India is higher than in England; for if we calculate the births on the number of married females of reproductive ages, the Indian figure (for 1911) stands at 160 per mille, while the English figure is 193 per mille. Of course; the proportion of the married to the unmarried is necessarily much higher in a country like India where marriage is almost universal among all communities than in European countries, where a good many remain unmarried. It is this universality of marriages and the non-prevalence of preventive checks that must be held to be the chief contributing factors of our high birth-rate.

“ Non-restraint of kama (Passion) by Dharma (Duty) is the cause of over-population ” said the ancient  
**Significance of our high birth-rate.**      Manu, who, seeing how self-indulgence and lack of self-restraint would inevitably lead to high birth-rate and superfluous population, laid down thuswise:—

ज्येष्ठेन जातमात्रेण पुत्री भवतिमानवः । स एव धर्मजः पुत्रः कामजावितराव्विदुः॥

“ The child of Manu becomes a parent the moment his *first* son is born; he alone is *the child of Dharma*; others born after him are children of passion.” Mr. Bhagavan Das, the well-known Samskrit scholar, in referring to this question, writes thus: “That the eldest son is declared the child of duty (Dharma) and the others, the children of desire (karma) is indicative of Manu’s intention that population should not multiply beyond the capacity of the

land to feed and clothe comfortably, and that celibacy (Bramha-charya) with its manifold benefits should be observed in later life as well as early."

High birth-rate is, according to Manu, a sign of self-indulgence and want of self-restraint; but, according to some of our modern writers of the subject (e g. Mr. Wattal) "It is an indication of the primitive state of our society and an evidence of civilisation of an unsophisticated type" and this startling proposition is sought to be supported by enunciating *ex cathedra* certain other propositions, even more startling than the original itself. As the line of argument is somewhat subtle, it is best to allow the author of the proposition to speak for himself. "For a demographic explanation, we must turn to Herbert Spencer for a short while. He says:—"Organisms multiply in inverse ratio to the dignity and worth of individual life" or, in other words, in all living beings the powers of reproduction are in inverse ratio to those of individual preservation. Thus in the humblest plants and animals there is an enormous number of seeds and eggs; while in the higher there are but few. In the elephant and man the reproductive powers are the smallest, because they have the greatest power of self-preservation". He gives an *a priori* proof of his argument thus: "Every generative product is a deduction from parent life and to diminish life is to diminish the ability to preserve life. The portion thrown off is organised matter; vital force has been expended in the organisation of it; which vital force, had no such portion been made and thrown off, would have been available for the preservation of the parent. Neither of these forces can therefore increase except at the expense of the other; in other words, individuation and reproduction are antagonistic"... That cerebral development lessens fecundity is corroborated by the results of the census of Scotland for 1911. ...Our high birth-rate is *therefore* an indication of the primitive state of our society and an evidence of civilisation of an unsophisticated type."

For light-hearted levity, confusion of issues and fallacious arguing on the basis of analogy alone, it is difficult to get a better illustration than the one afforded in the above. The extent of civilisation, attained by a particular nation or society, is a question of fact or of history; and facts cannot change in order to fit in with any particular pet theory, dear to our heart;

suppose, for example, I find that a number of shroffs or accountants are myopes; is that sufficient reason for me to argue that shroffdom or accountancy is an indication of myopia? Is that sufficient reason to argue "Mr. A is an accountant; accountancy indicates short-sight; ergo, Mr. A is a myope. It may that he is as blind as a bat for near objects; it may also be that a specialist has declared Mr. A to be long-sighted; but, long-sightedness of Mr. A does not fit in with my theory; his short-sightedness does; therefore, Mr. A's accountancy is an indication of his short-sightedness"? Whether or not our society is primitive or uncivilised is a question of fact; that a high birth-rate indicates primitive and uncivilised conditions is a theory which may or may not be true. Of course, Mr. Wattal is entitled to hold that the ancient Aryans were uncivilised, even as I am entitled to humbly follow many distinguished historians in holding that they are one of the oldest civilised races extant. But, he must not base his opinions on such a weak reed as high birth-rate; he must not try to fit in facts to a preconcieved theory; if a particular fact fits in with your theory, that may be *one* evidence and nothing more that the theory may be true; but, if it does not, the theory must fail; at all events, it cannot alter facts. It is a thousand pities that we ourselves do not often follow certain excellent precepts, which we lay down for the guidance of others. Mr. Wattal him-self says in another place, "the dependance of Sociology on Biology is not close enough to enable us to apply the results of the latter to the problem of civilised societies". Why then did he apply the Laws of Reproduction obtaining among lower plants and animals to problems of multiplication of the species in human beings in general and civilised communities in particular? Moreover, is there any reason to suppose that in countries like France, where the average duration of life is fairly high and where marriage is nothing like so universal as in India, there is more of self-restraint and less of sexual indulgence than in India? May be, there is more of "burning" than of marrying. May be, sexual life there is not allowed to be so fruitful as down here; but, so far as the alleged "deduction from parent life" is concerned, it ought to make no difference whether or not sexual life led to child-bearing and whether it was a case of "burning" or marry-

ing; and yet, enjoyment of sexual life has not brought down the expectation of life in France or England. Why, then, should it be otherwise in India?

That cerebral development lessens fecundity is again another loose statement, which is sought to be supported on a single year's census figures for Scotland. If this were true, the easiest way of reducing the birth-rates would be to pass at once a compulsory universal education bill and to make intellectual giants of us all. Moreover, when birth-rates are calculated on the number of married females at reproductive ages, the Indian rate for 1911 is 160 per mille, while the English rate is 196 per mille. Does that mean that cerebral development of the English is less advanced than that of the Indians, and that, in a land, where more than 80 per cent are illiterate?

The fallacy of the line of argument, adopted in trotting out such sweeping generalisations as those mentioned above, lies in this that care is not taken to see whether sufficient evidence is available to correlate certain phenomena as cause and effect, and whether arguing by analogy alone is permissible when we are generalising from observations among special races or communities which differ widely, alike in their constitution and in their mode of living. Such indeed is the fate of all generalisations based on mere *a priori* considerations and superficial analogies, that, on the slightest provocation, they are wont, as Frederick Harrison reminds us somewhere, "to burst like bubbles and vanish into airy nothing."

Herbert Spencer is quoted as authority for the statement that "individuation and reproduction are antagonistic"; for, we are told that "every generative product is a deduction from parent life and to diminish life is to diminish the ability to preserve life." Now, if reproduction and individuation are really antagonistic as alleged, we should expect to find a higher death-rate among married persons than among the unmarried. But the fact appears to be just the reverse and nobody knows this better than Mr. Wattal himself, who, in writing of the great value of marriage as a life preserver, says "From statistics collected in 1909 by the State authorities of New York, and in 1910 by the United States census takers it is established that the death-rate is lower among married men than among single men." According

to Dr. Newsholme, the Statistics of the United Kingdom also support the view "that married life is more favourable to longevity than celibacy". If then marriage (which, of course, implies reproduction) conduces to longevity, how can reproduction and individuation be said to be antagonistic to each other? It is not given to every one of us to attain to the greatness and glory of Nitya Bramacharis and celibate Rishis—those flowers of humanity that tread a path "sharp as the edge of the razor." May it not be that God's scheme of evolution requires that many of our present day humanity should follow the Grihastha Dharma rather than avoid its duties and responsibilities? May it not also be that the world may well-nigh come to an end, if the theory that "reproduction and individuation are antagonistic" is driven to its logical conclusion and all reproduction is, as if by magic or miracle, stopped once for all, in order that a sterile array of hyper-ordinarily individualised beings may adorn the land?

Nor can the mere trotting out of high authorities like Herbert Spencer improve a hopeless situation; it is showing no disrespect to Herbert Spencer, if we say that even he may not be infallible. If even the great Homer is known to nod and the illustrious Newton to err, it is not impossible that Herbert Spencer could make a slip, especially when he seeks to base his sociological doctrines on biological dicta of his own. In any case our high birth-rate, it is submitted, does not and need not necessarily denote the primitive state of our society, although it may point to lack of self-restraint and the non-observance of "prudential checks".

Granting for a moment that it is desirable that our unduly high birth-rates should be brought down to a reasonable level, how is this to be effected?

The Malthusian remedy is undoubtedly splendid as an ideal; it consists in the observance of strict Bramhacharya (celibacy) by all those who cannot afford the costly luxury of rearing up a family. The only drawback—and that, a most serious one, unfortunately,—of this remedy is that it is mostly impracticable and all the more so in this land, where everybody marries whether or not he is fit. The remedy "makes far too great a demand and puts far too great a strain on the moral nature of the average person." The Engenist proposes to bring down birth-rates by



restricting marriage to the fit only and prohibiting others from marrying. This is even more impracticable than the Malthusian remedy; for "there is little prospect, under any social system which we can conceive, that mankind deliberately selects a portion among its members as alone privileged to perpetuate the race." Moreover both these remedies virtually prohibit marriage to an appreciable proportion of our population—a prohibition which is, by no means, salutary or desirable in the present stage of human evolution.

For one thing, prohibition of marriage does not mean prohibition of "burning"; and every doctor will tell you that St. Paul uttered a profound truth when he laid down that, as between marrying and burning, it is better to marry than to burn; and for another reason also, viz., the great value, as shown above, of marriage as a life-preserver, is it desirable that there should be no such limitations to marriage as those proposed by the Malthusian and the Eugenist. The Neo-Malthusian, recognising full well the beneficial effect of the institution of marriage both to the individual and the race, proposes to bring down our birth-rates by voluntary restraint in married life and artificial limitation of families. But, this is a remedy which is worse than the original evil itself; Charles Kingsley pointed out long ago that all such "preventive checks" have an inevitable tendency to lead to the "questionable habits of abortion, child-murder and unnatural crime"; moreover, once an individual gets used to the enjoyment of married life, freed of its burdens and cares, and a premium placed, as it were, upon the selfish propensities of the better class of citizens in the state, it is difficult to prevent the individual from drifting into ease-loving hyper-egoism and selfish avoidance of the national duty of providing the state with its future citizens. Once the birth-rate begins to decline, there is no knowing where this may lead us to. In referring to the declining birth-rates in France and England, Dr. E. J. Smith expresses himself thus:—

"When, for short-sighted, selfish, and pleasure-loving reasons, those who possess every reasonable qualification for helping to maintain a steady contribution of good healthy citizens, deliberately adopt the anti-patriotic policy of negation, they impose a progressively increasing penalty, not only upon themselves but

also upon the nation, of which they form a part; self-imposed childlessness destroys the finest qualities in the men and women concerned, as surely as infants, the most helpless and appealing forms of life on earth, bring with them that wondrous transforming dynamic which enriches affection, calls forth joyous self-sacrifice and stimulates the noblest virtues in every home that anticipates and welcomes their coming".

"It is probably no exaggeration to say that the declining birth-rate that has taken place in England and France during the last forty years is responsible for the European War. Had it remained stationary, the available forces in the two countries would have been such as to have effectually prevented Germany assuming the risk. If, however, she had been guilty of the incredible folly, there can be little doubt the war would now have been over, and we should have been numerous enough and strong enough to face the future without anxiety. But taking things as they are, and not as, under more favourable circumstances, they might have been, the significant fact will be apparent to the most superficial that the war is being won, not by those who for reasons good, bad and indifferent have evaded the God-ordained duty of continuing the race, but by those who have had children. And it will be equally clear that single men and women and childless married people owe their security of person and property, and freedom from anxiety to a section of the community, which has so far been denied, by the State it maintains and the industries it supplies with labour, that tangible recognition and concrete help without which the birth-rate will continue to decline and the State to decay. If the higher civilization we claim is to continue to wield its influence and power in the world, it must be obvious we cannot afford to allow our numbers to fall more rapidly than nations and empires which stand for meaner conceptions and grosser forms of life, but if actual experience is to be relied upon, they cannot be maintained unless drastic and far-reaching changes are forthcoming."

Undoubtedly it may be desirable that our unduly high birth-rate should be brought down to a reasonable level; but this does not mean that it should be so low as to be less than our death-rate, which means that we are on the high road to national self-extinction, although immigration and such other factors may, to

some extent, counteract the effects of such dangerously low birth-rates. Under such circumstances, there would be an actual decline in population instead of the "natural increase" characteristic of every normal community. This is exactly what happened in France some years ago where under the impulse of a rampant Neo-Malthusianism, preventive checks and artificial limitation of families prevailed to a terribly dangerous degree. All men (at any rate, what is mortal in them) must die some day and general death-rates cannot therefore be reduced below a certain figure; but with birth-rates, however, the case is different; we might, if we please, bring down birth-rates to zero and thus ensure national extinction. Let not the moral of the sad story of France be lost upon us; let us learn up the lessons of history betimes and be wiser than adopt the dangerous doctrines of the nature of Neo-Malthusianism. Even granting, for the sake of argument, that, under existing conditions, our high birth-rates are resulting in high death-rates, especially, infantile death-rates, it is certainly much better that ten should be born and five should live than that one should be born and one or even none should die. But, it might be asked "How then is the problem of diminishing our high death-rate to be solved, if not through diminishing our high birth-rates? So long as our birth-rates are high and we are multiplying beyond the limits of subsistence available for us, it is inevitable that the struggle for existence must be keen and natural selection must work towards survival of only a few fit persons and the weeding out of the rest; that is Nature's Law; you cannot consistently both oppose Eugenic, Neo-Malthusian and other such schemes for reduction of birth-rates, and also advocate measures for conserving child-life; you should not expect nature to find food and room for all your unwanted babes; either you should not marry or marrying you should artificially limit your family. If you do neither, it is your own fault if many of your superfluous babes die. You cannot prevent the operation of such natural laws as the Law of Population; in the struggle for existence, natural selection must tend towards survival of the fit and the weeding out of the unfit; what use, then, in entertaining impossible ideas regarding the conservation of infant life? Nature's Laws must be obeyed. She can be neither thwarted in her work nor cheated out of her dues."

The answer to these questions would be somewhat as follows:—

Firstly, it is not correct to assume, as is frequently done, that a high birth-rate necessarily means high death-rate, specially, infant mortality rate. It is quite true that a high infant mortality rate is frequently observed associated with a high birth-rate; but, from the statistics of certain countries *e. g.* Ireland, we learn that low rates of infant mortality may also be associated with very high birth rates; The most recent figures of Vital Statistics for the City of Madras also show that during the year 1916, the lowest infant mortality rate (265·1 per mille) for these twenty years was associated with a birth-rate of 41·8 per mille—the highest, for these ten years. Moreover, a rise in total infant mortality does not necessarily mean a rise in infant mortality *rate*—a distinction which is sometimes apt to be overlooked; it is quite true that a high birth-rate means the presence of a large number of children among whom mortality is high, and that therefore a high-birth rate has a tendency to lead to an increase in total infant mortality; but, infant mortality *rate*, being calculated on the number of births during the year, it follows that, *other things being equal*, a high birth-rate has a tendency to lead to a decrease, rather than an increase in infant mortality *rate*; in other words, a high birth rate may lead to an increase in total infant mortality but not necessarily to an increase in infant mortality *rate*. The fact seems to be that, as stated by Dr. Newsholme, in his 39th annual report to the Local Government Board, “there is no essential causal relation between a high birth-rate and a high rate of infant mortality.” Again in his 42nd annual report he points out that “such relationship between large families and high infant mortality, as is frequently found, is in the main indirect, large families being most common among the poorest who live under conditions unfavourable to child life. Infant mortality is excessive among the poor; it is low among the well-to-do.” In any case, the relation of birth-rates to death-rates is too complicated to permit us to generalise that high birth-rates necessarily cause high death-rates; on the contrary, it may be that just the reverse sometimes happens and a high birth-rate is the effect and not the cause of a high death-rate. It is just possible that Nature in-

creases births as death-rate increases, and lessens them as death-rate lessens.

Secondly, who has proved to us conclusively that the means of subsistence cannot, by *any* means, be increased so as to keep pace with the growth in our population? Till recently, it used to be thought that the days of our earth were fast numbered, that all forms of her energy would come down to one dead level and that she herself would become a dead mass in a definite number of years; physicists and mathematicians vied with each other in calculating this period to a nicety; but with the discovery of Radium all these calculations were upset and it is not probable that anybody is now thinking of setting up a definite limit to the life of mother earth. If, then, there need be no limit to her life, why should there be any to her bounties? Moreover India is waking up from her long slumber and her economic possibilities are admittedly immense. Who has condemned us to eternal economic depression and stagnation? Who has proved to us that our society is incapable of reform, or that such social reforms as later marriages, especially in the case of our girls, cannot effect any reduction in our birth-rates? It might be, we have sometimes lost faith in social reformers but never in the possibilities of social reform itself. Unless it is proved beyond all doubt that the bounties of mother earth are so limited that they cannot, by any possibility, be increased; that there is no salvation for us from our economic depression and stagnation; that social reform is impossible of achieving any success; and that unhealthy competition and ruthless self-assertion can never give place to healthy co-operation and kindly self-denial; unless we loose all faith and hope in ourselves and in our possibilities, there is no need either to get terrorised by the night-mare of over population, or to advocate artificial limitation of families by the adoption of the so-called "Preventive checks", which may lead us, as it has led others, to hyper-egoism, loose living and a dangerously low birth-rate on the one hand, or to the "questionable habits of abortion, child-murder and unnatural crime" on the other.

As regards the contention, that all schemes for conservation of child-life, leading as they do to the survival of the weak and the unfit, are in direct conflict with the methods of nature as

observed in the cosmic struggle for existence, where natural selection works to the survival of only the fit and to the weeding out of the unfit, the answer would be somewhat as follows:—“Nature is to be obeyed by discovering her laws and turning them to our own use, or by counteracting, if need be, one law of nature by another. If a drowning man strives to keep himself above water, or buoys himself with the aid of a life-belt, he is, in no sense, thwarting nature. He is merely counteracting the operation of the Law of Gravitation by the operation of another of her Laws. Are we not interfering every moment of our lives with the operation of “Natural Selection” and “Survival of the fittest”? As was well pointed out by Charles Kingsley many years ago: “If war kills the most fit to live, we save alive those who are most fit to die. Everything which makes it more easy to live; every sanitary reform, prevention of pestilence, medical discovery, amelioration of climate, drainage of soil, improvement in dwelling-houses, work-houses, jails; every reformatory school, every hospital, every cure of drunkenness, every influence, in short, which has increased the average length of life in these islands by nearly one-third; every influence of this kind, I say, saves persons who would have otherwise died. Do I say that we are not to save these people? God forbid.” “The Idea” says Prof. Gregory “that Darwinism signifies nothing more than striving after personal or natural mastery at all costs, is a crude misconception of this great principle which was repudiated alike by its founder and by Huxley, its most powerful exponent, as contrary to the best ends of civilisation. The road along which the course of evolution has advanced is not that of self-interest, but of self-sacrifice, of the subjugation of the individual to the needs of the type. Says Huxley:—

“The practice of that which is ethically the best—what we call goodness or virtue—involves a course of conduct which, in all respects, is opposed to that which leads to success in the cosmic struggle for existence. In place of ruthless self-assertion, it demands self-restraint; in place of thrusting aside or treading down all competitors, it requires that the individual shall not merely respect, but shall help his fellows; its influence is directed *not so much to the survival of the*

*fittest, as to the fitting up of as many as possible to survive.* It repudiates the gladiatorial theory of existence. It demands that each man who enters into the enjoyment of the advantage of a polity shall be mindful of his debt to those who have laboriously constructed it and shall take heed that no act of his weakens the fabric in which he has been permitted to live. Laws and moral precepts are directed to the end of curbing the cosmic process and reminding the individual of his duty to the community, to the protection and influence of which he owes, if not existence itself, at least the life of something better than a brutal savage." If then it is laudable to set up schemes for the purpose of defeating the operation of "survival of the fittest" by fitting as many as possible to survive; if it is laudable to make the 'struggle for existence' smoother and easier for those who could not struggle unaided; if it is laudable to save from the operation of "natural selection," undesirables of all descriptions, such as the criminals, the defectives, the syphilitics, the epileptics etc., surely it is not too much to ask that the same principle, which we tacitly recognise and act upon in our relations to the diseased, the defective and the criminal, must also guide us in our relations to our innocents *par excellence*, the children of the nation of whom it is writ "Of such, is the kingdom of Heaven." I cannot conclude this chapter better than with the following fervent appeal which Charles Kingsley made more than half a century ago on behalf of the children of the land "Oh! it is a distressing thing to see children die; a dying child is to me one of the most dreadful sights in the world; what has God given to this thankless earth and what has the earth thrown away..... The weakly, the diseased, whether infant or adult, is here on earth—a British Citizen, no more responsible for his own weakness than for his own existence. Society, that is, in plain English, we and our ancestors, are responsible for both; and we must fulfil the duty and keep him in life; and, if we can, heal, strengthen and develop him to the utmost and make the best of that which "fate and our own deservings" have given us to deal with. I do not speak of higher motives still—motives which, to every minister of religion, must be paramount and awful. I speak merely of physical and social motives, such as appeal to

the conscience of every man—the instinct which bids every human-hearted man or woman to save life and alleviate pain, like Him who causes His sun to shine on the evil and on the good and His rain to fall on the just and on the unjust.....A living dog is any day better than a dead lion ; I would rather have the living child and let it take its chance, than let it return to God—wasted. *When you have saved your children alive, then, you might settle what to do with them."*





## PART II.

### THE CAUSE.

Infant Mortality being, in the main, a sociological problem, its causation is as complicated as many another problem of sociology; and in investigating into the aetiology of this problem, we naturally turn for help to our records of Vital Statistics; but, unfortunately, as was seen already in Part I, the recording of our Vital Statistics is still far from satisfactory; but, that does not mean that these returns may be rejected as useless; for, the fact is we have really no option; we must either have them or have nothing; if we reject them, we have no other records available wherefrom to obtain the necessary data; moreover, whatever may be their value as reliable returns of any *one* particular year, they have nevertheless a distinctive value of their own for purposes of comparative study, such as the one we are now engaged in. Says the Government of India, in their Seventh Abstract of Public Health Statistics Page IV "The reporting of vital occurrences is still defective and all conclusions from these statistics should be drawn under reserve. Nevertheless these records of vital occurrences are valuable for comparative purposes, especially when one year is compared with its immediate predecessor and one month of the year with another. These returns also enable one to distinguish generally the comparative birth-rates and death-rates, province by province, and the general causes of mortality, healthy and unhealthy seasons of the year, and also years of specially low or high mortality.....In rural areas, it is generally recognised that registration is very often incomplete and unsatisfactory.....a *caveat* to this effect is necessary in any complete examination of returns."

In the following pages, it is the statistics of our Presidency towns that are mostly drawn upon, as they happen to be the least unreliable of all our records of vital occurrences.

The following are the Principal registered Causes of Infant Mortality in the City of Bombay, as shown in the published official Reports :—

*Infantile Mortality from Principal causes from 1909 to 1915.*

Cause of Death.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Small Pox ... ..	134	264	98	274	55	60	64
Measles ... ..	27	56	233	82	66	82	34
All fevers ... ..	182	238	251	277	201	163	170
Diarrhoea and Dysentery ... ..	611	674	581	900	615	579	501
Premature Birth ... ..	151	147	175	219	181	187	212
Debility ... ..	2,626	2,567	2,364	2,581	2,201	2,187	2,002
Diseases of Nervous System ... ..	1,466	1,402	1,400	1,570	1,278	1,271	1,006
„ Respiratory „ ... ..	2,231	2,292	2,364	2,877	2,113	2,425	2,006
All causes ... ..	8,030	8,253	8,120	9,646	7,488	7,580	6,602

On this remarks the Executive Health Officer of Bombay :—  
 “The mortality from Debility and Diseases of the nervous and respiratory systems aggregated nearly 75 per cent. of total Infant Mortality.....Generally speaking, these are a group of causes which have reference to the social environment and economic condition of the parents, as regards the home and its surroundings, occupation of mothers entailing hard work, habits and poverty, all of which affect the mother during pregnancy and influence the health of the child, before and after birth, and aided by the unhygienic conditions in which the large proportions of the infants are born, help to swell the number of those who come into the world only to die.”

*Infant Mortality from Principal causes by age periods in 1914 and 1915*

Age Period.	Year.	Small-pox.	Measles.	Malaria.	Ague and remittent fever.	Diarrhoea and Dysentery.	Premature births.	Debility.	Nervous Diseases.	Respiratory Diseases.	All causes.	Per cent of deaths in each age period under 1 year.
1 to 30 days	1915	2	...	...	17	21	207	1768	276	63	2417	36.61
	1914	1	...	...	23	30	184	1914	294	67	2588	34.14
1 to 6 months	1915	30	8	3	59	146	4	212	530	857	1990	30.34
	1914	36	18	3	56	158	3	232	683	1040	2360	31.13
7 to 12 months	1915	32	26	4	86	334	1	22	200	1086	2195	33.24
	1914	23	64	7	72	391	...	41	294	1318	2632	34.72
Total	1915	64	34	7	162	501	212	2002	1006	2006	6602	...
	1914	60	82	10	151	579	187	2187	1271	2425	7580	...

*Per centage table of Infant deaths from Principal causes  
in 1915.*

Age Period.	Small-Pox.	Measles.	Malaria.	Ague and remittent Fever.	Diarrhoea Dysentery.	Premature Birth.	Debility.	Nervous Disease.	Respiratory Disease.	All causes.
1 to 30 days	0'08	...	...	0'70	0'86	8'55	73'14	11'41	2'60	36'61
1 to 6 months	1'50	0'40	0'15	2'96	7'33	0'20	10'65	26'83	43'06	30'14
7 to 12 months	1'45	1'18	0'18	3'91	15'21	0'04	1'00	9'11	49'47	33'24
Total ...	0'96	0'51	0'10	2'45	7'58	3'21	30'32	15'28	30'38	100'00

On this, remarks the Executive Health Officer "out of the total number of deaths among children under one year of age, more than 36 per cent occurred in the first month of life, and further, that of the deaths at this early period of life, nearly three-fourths are due to debility; and in the second and third groups, the highest proportion of deaths is associated with the diseases of the respiratory system; the next most fatal cause is the disease of the nervous system in the first and second groups, and diarrhoea and dysentery in the third group, all of which signify Exposure and Defective Feeding".

From the tables given above, it well appears that debility, exposure and defective feeding are the most potent causes of infant mortality; and it is not difficult to see how unfavorable economical conditions and poverty are just the factors which would lead to such unfavorable ante-natal, natal and post-natal conditions, as would result in debility, exposure and defective feeding. The following tabular statement shows how certain causes of infant mortality are particularly fatal during particular age-periods:—

*Infant Mortality in 1915—City of Bombay.*  
(COMPILED FROM OFFICIAL REPORTS).

Causes of Infant Mortality.	MAGNITUDE OF INFANT MORTALITY.				
	Actual numbers (from cause opposite.)		Percentage Proportion of mortality from cause opposite during each age-period, to total Mortality.		
	particular Age period.	under 1 year.	particular age-period from all causes.	under 1 year from cause opposite.	under 1 year from all causes.
<i>Age-Period—1 to 30 days,</i>					
Debility and Prematurity.	1975	2214	81.7	89.2	29.9
Respiratory Diseases. ...	63	2006	2.6	3.1	0.9
Nervous " ...	276	1006	11.4	27.4	4.2
Diarrhoeal " ...	21	513	0.9	3.9	0.3
All Causes ...	2417	6602	100.0	100.0	36.6
<i>Age-Period—1 to 6 months.</i>					
Debility and Prematurity...	216	2214	10.9	9.0	3.3
Respiratory Diseases ...	857	2006	43.1	42.7	13.0
Nervous " ...	530	1006	26.6	52.6	8.0
Diarrhoeal " ...	158	513	7.3	30.8	2.3
All Causes ...	1990	6602	100.0	100.0	30.2
<i>Age-Period—7 to 12 months.</i>					
Debility and Prematurity.	23	2214	1.0	1.0	0.3
Respiratory Diseases ...	1086	2006	49.5	54.1	16.5
Nervous " ...	200	1006	9.1	19.8	3.0
Diarrhoeal " ...	334	513	15.2	65.1	5.0
All Causes ...	2195	6602	100.0	100.0	33.2
<i>Age-Period—0 to 12 months.</i>					
Debility and Prematurity...	2214	2214	33.5	100.0	33.5
Respiratory Diseases*	2006	2006	30.4	100.0	30.4
Nervous " ...	1006	1006	15.3	100.0	15.3
Diarrhoeal " ...	513	513	7.6	100.0	7.6
All Causes ...	6602	6602	100	100.0	100

From the above it will be seen that the most potent causes of infant mortality during 1915 were debility and prematurity during the age period of 1 to 30 days, diseases of the respiratory and nervous systems during the age-period of 1 to 6 months, and respiratory and diarrhoeal diseases during the age-period of 7 to 12 months.

There is apparently a minimal degree of vitality, the possession of which is ordinarily necessary if the babe is to be born alive

at all, or, having born, it is to live at least a few days after birth; a somewhat higher degree of it may enable it to withstand any unfavorable conditions that it may be subjected to during the first month of extra-uterine life; but may not be sufficient to enable it to brave successfully any exposure, which it may be subjected to, between the ages of 1 to 12 months, or to be proof against any defective or unsuitable feeding it may receive, during the period between 7 to 12 months, when in addition to or in place of breast milk, the babe may be receiving some artificial food, which may be poor in quality or quantity or both. This may perhaps account for the increase of deaths during this period from dysentery and diarrhoea. But, inasmuch as debility, defective feeding and exposure are frequently associated with poverty and ignorance, whether resulting from unfavorable educational, social or economical conditions, or from any other cause, it would seem that it is really this condition of ignorance and chronic poverty that is responsible for a large member of deaths of infants under one year of age.

An instructive corroboration of this proposition is furnished by the following tabular statement, which shows that, other things being equal, comparatively higher infant mortality rates obtain among communities which are handicapped by poverty and ignorance, than among those which are favoured with affluence and knowledge :—

*Infant Mortality rates for 1000 of births registered by  
Communities.*

	1910	1911	1912	1913	1914	1915
Hindus (All Castes) ...	431·2	407·0	483·7	408·3	410·4	350·9
Indian Christians ...	432·1	344·0	462·2	419·0	398·1	336·25
Musalmans including Negro Africans ...	441·7	388·5	421·6	369·5	391·0	335·81
Eurasians ...	397·2	290·3	388·2	230·0	244·2	181·81
Parsees ...	271·4	186·2	206·2	188·1	173·6	153·28
Jews ...	209·6	157·8	302·2	176·4	159·6	157·89
Europeans ...	228·6	173·1	207·9	151·9	207·4	152·54

The above is, in all probability, just the order into which the several communities would fall if they are arranged in their descending order of poverty and ignorance.

“With a view” proceeds the Health Officer “to estimating, if possible, how far the economic factor was responsible for the infantile mortality of the city, a new tabulation was opened during the year under report, for classifying births by the number of tenements occupied by the parents, as also the number of deaths that occurred among their infants. The classification covers the period of only last three months of the year and though it should be continued for a much longer period to warrant accuracy of conclusions that may be suggested, the results are interesting and are indicated in the following table:—

\* \* \* \* \*

*Births and Infant Mortality by the number of rooms occupied in October, November and December 1915.*

	Under 1 room	1 room	2 rooms	3 rooms	4 or more rooms	Road side.	Hospitals	Total
Births ...	78	4412	913	280	298	30	252	6263
Infant Mortality ...	49	1409	220	54	54	15	56	1860
Infant Mortality for 100 births registered.	61·8	31·9	24·0	19·2	18·1	50·0	23·3	29·6

It will be observed that out of the 6263 live births registered during the quarter, 4412 or 70·4 per cent occurred in one room tenements and the number of deaths among such was 1409 or 31·9 per cent; this proportion decreases with the number of rooms occupied; 24 per cent in the case of two room tenements, 19·2 in the case 3 and 18·1 in the case of 4 or more rooms; it was highest (61·8) in the case of more than one family occupying a single room.”

Finally, after examining all available statistics, the same officer comes to the deliberate conclusion that “Poverty, ignorance, neglect and insanitary surroundings are the principal causes of infantile mortality in the City of Bombay.”

**Statistics of the City of Calcutta.**

More or less the same tale is told by the vital statistics of the City of Calcutta, as may be gathered from the following:—

*Infant deaths up to 1 year of age during 1915.*

Disease.	under 7 days.	Between 7 days 1 month	Between 1-2 months	Between 2-3 months.	Between 3-6 Months.	Between 6-12 months.	Total.
<b>Fevers --</b>							
Small-Pox ...	2	18	24	20	102	271	437
Measles ...	...	...	2	3	7	11	23
Fever ...	...	1	3	4	12	19	39
Malaria ...	...	1	...	3	4	8	16
Total ...	2	20	29	30	125	309	515
<b>Diarrhoeal Diseases</b>							
Diarrhoea ...	...	5	5	7	12	21	50
Enteritis ...	3	14	15	20	45	106	203
Cholera ...	...	1	3	1	8	8	21
Dysentery ...	...	6	8	8	23	50	95
Total ...	3	26	31	36	88	185	369
<b>Debilities--</b>							
Premature birth ...	582	57	4	1	2	3	649
Debility at birth ...	628	70	8	3	6	3	718
Marasmus ...	...	3	3	4	12	15	37
Total ...	1210	130	15	8	20	21	1404
<b>Respiratory diseases--</b>							
Bronchitis ...	46	208	198	168	292	411	1323
Pneumonia ...	...	...	6	16	30	69	121
Total ...	46	208	204	184	322	480	1444
<b>Nervous Diseases--</b>							
Tetanus ...	321	345	15	5	1	3	690
Convulsions ...	3	12	8	4	9	11	47
Total ...	324	357	23	9	10	14	737
<b>Other Causes--</b>							
Tuberculosis ...	...	...	...	...	...	4	4
Syphilis ...	...	2	1	2	6	5	16
Infantile Liver ...	...	1	3	7	42	86	139
All other causes ...	18	22	17	14	29	40	140
Total ...	18	25	21	23	77	135	299
Grand Total ...	1603	766	323	290	642	1144	4768



On the basis of these tables, the Health Officer proceeds to observe as follows:—"More than one-third of the total deaths amongst infants occurred during the first week of life. The great majority of deaths (1210 out of 1603) were due to premature birth and debility at birth. The causes of this literal decimation of the infants born in Calcutta must obviously be almost wholly maternal. *Poverty and the consequent lack of good nourishing food is probably one of the chief factors;* when the expectant mother is not only under-fed, but is also subjected to the strain of pregnancy and lactation at short intervals and constantly exposed to insanitary surroundings as a Purdanashin, puny sickly babies, who only survive a few days, are the inevitable result. Of the remaining causes of death during the first week of life, the most important is Tetanus Neonatorum. It is difficult to write on this subject with moderation. This is an entirely preventable disease, due to dirty midwifery. \* \* The fact that there never has been a single case amongst the hundreds of babies brought into the world by the corporation midwives shows unmistakably that these deaths lie at the door of the Dhai.

Next to debility at birth, Tetanus Neonatorum is the principal cause of death among infants under 1 month, being responsible for 28 per cent (666 out of 2369) of the total mortality at this age. It is particularly fatal amongst infants from 1 to 4 weeks old and caused 345 out of a total of 766 deaths. The only other important cause of death at this period is Bronchitis. The total mortality among infants from 7 days to one month old is less than half of that during the first week of life. During the next month, a further decline in the mortality occurs. The principal cause of death is now Bronchitis. Similarly amongst infants of 2-3 months, the mortality is slightly lower, but Bronchitis is the chief cause of death. During the next months a further decline in the mortality occurs, but, now a variety of diseases appear on the returns. The principal are Bronchitis (292), Small-pox (102), Enteritis (45), Infantile Liver (42) and Pneumonia (30). Of the total infantile mortality (4768) no fewer than 3624 deaths or over 75 per cent occurred during the first six months. Amongst infants of from 6-12 months of age, 1,144 deaths occurred, of which 480 were due to Bronchitis and Pneu-

monia, 271 to Small-pox, 106 to Enteritis, 86 to Infantile Liver  
The relative importance of the various causes of death amongst  
infants may be briefly summarised thus :—

I	Group of Respiratory Diseases	1444	deaths or	30.3	per cent	of total deaths
II	Do Debility	1404	do	29.4	per cent	
III	Do Nervous Diseases	737	do	15.4	per cent	
IV	Do Fevers	515	do	10.8	per cent	
V	Do Diarrhoeas	369	do	7.7	per cent	
VI	Do All other Causes	299	do	6.2	per cent	

Here again we see that the same painfully familiar sight is in evidence here as in the Bombay Statistics and that the same groups of causes *viz.* Debility and Premature Births, Respiratory, Nervous and Diarrhoeal diseases, are working havoc among the infants of Calcutta as among those of Bombay. In both cities, the ultimate causes are alike traceable to diminished or low vitality, exposure, and defective feeding, all of which are generally found associated with poverty and ignorance; for, it is they that are directly or indirectly responsible for those unfavorable antenatal conditions which surround the babe in the womb and lead to "Debility and Immaturity"—lack of good, sufficient and nourishing food for the expectant mother; the need for her to toil, even late in pregnancy; lack of adequate maternity aid, and so on; and it is again poverty and ignorance that are directly or indirectly responsible for deaths under the headings of "Respiratory" and "Nervous" diseases, which are all easily tracable to such complications and sequelae of poverty and ignorance, as exposure, defective feeding, overcrowding, insanitary surroundings etc.

This causative relationship between poverty and ignorance on the one hand and high infant mortality on the other is corroborated, as in the case of Bombay, by the following table, which shows how infant mortality tends to be high among communities which are rich in poverty and ignorance, while it tends to be low among those, which are not so richly blessed with the same commodities.

*Infant Mortality rate according to Nationality.*

Muhamadans	...	375	per 1000
Hindus	...	270	"

Mixed	...	228	per 1000
Other classes (Asiatic)	...	146	"
Non-Asiatics	...	96	"

**Statistics for  
the City of  
Madras.**

The conclusions which the Madras figures lead us to are, more or less, the same as those which Bombay and Calcutta figures led us to.

The following table shows the infant-mortality rates for the decennium, between 1906 and 1915 :—

Years.	Small-Pox	Measles.	Malaria.	Ague and Remittent Fever.	Dysentery and Diarrhoea	Premature Birth	Debility.	Diseases of Nervous System.	Diseases of Respiratory system	All other causes.	Total.
1906	5.5	5.4	0.3	21.3	64.3	49.3	0.3	139.9	2.5	47.2	336.0
1907	0.2	1.3	0.2	25.1	42.9	37.3	...	148.2	3.02	112.1	270.3
1908	0.1	1.001	0.1	28.2	37.5	42.7	0.1	148.5	3.0	35.2	296.4
1909	0.7	1.8	1.5	27.8	43.1	54.8	0.3	10.9	11.5	44.4	294.9
1910	0.8	1.2	6.5	21.7	55.4	52.4	0.4	52.7	28.2	75.1	294.4
1911	4.6	3.3	5.6	3.5	72.9	58.3	0.2	54.9	47.8	54.2	305.3
1912	0.8	1.5	4.3	1.2	73.8	63.4	0.7	57.2	40.3	36.7	279.9
1913	0.5	1.5	2.9	7.4	79.7	44.3	7.4	70.7	42.9	25.9	285.2
1914	0.6	0.9	2.7	3.3	68.0	45.3	10.9	94.0	51.1	32.1	308.9
1915	1.03	1.1	1.5	3.5	64.8	53	8.2	83.2	38.9	30.9	286.1

*The following tabular statements show the total number of deaths among infants under 1 year of age from principal causes by age periods. (for the decennium 1906 to 15.)*

	Small-pox.	Measles.	Malaria.	Ague and Remittent Fever.	Diarrhoea and Dysentery.	Fremature Birth.	Debility.	Diseases of Nervous System.	Misases Respiratory System.	All other Causes.	Total.	Percentage of deaths in each age period to total deaths under 1 year of age.
<b>1906</b>												
Under 7 days	...	...	...	3	3	632	...	670	...	46	1354	21.81
7 days to under 1 month	2	4	...	6	24	219	4	579	2	64	964	15.17
1 month to under 3 months	9	9	...	41	73	1	1	376	4	62	576	9.07
3 months to under 6 months	14	22	...	114	263	2	...	427	14	153	1009	15.88
6 months to under 9 months	30	39	...	170	376	2	...	296	16	256	1185	18.65
9 months to under 12 months	47	26	6	163	458	1	...	256	10	298	1265	19.91
Total	102	100	6	497	1197	917	5	2604	46	879	6353	
Infant Mortality Rate	5.5	5.4	0.3	21.3	64.3	49.3	0.3	139.9	2.5	47.2	336	
<b>1907</b>												
Under 7 days	...	...	...	1	...	716	...	822	...	12	1551	28.92
7 days to under 1 month	...	1	...	17	22	20	...	736	...	35	831	15.49
1 month to under 3 months	...	...	...	25	64	2	...	413	1	40	545	10.16
3 months to under 6 months	...	7	3	150	168	...	...	508	25	44	905	16.87
6 months to under 9 months	1	13	...	155	244	...	...	262	25	66	756	14.09
9 months to under 12 months	2	4	...	161	353	...	...	195	9	52	776	14.47
Total	3	25	3	509	851	738	...	2936	60	239	5364	
Infant Mortality Rate	0.2	1.3	0.2	25.1	42.9	37.3	...	148.2	10.2	12.1	270.5	
<b>1908</b>												
Under 7 days	...	...	...	3	2	649	...	959	2	32	1647	27.81
7 days to under 1 month	...	1	...	7	10	199	...	787	1	60	1065	17.98
1 month to under 3 months	...	1	...	52	159	4	...	384	4	59	663	11.20
3 months to under 6 months	...	1	...	144	127	1	...	425	15	178	891	15.05
6 months to under 9 months	...	10	...	192	250	...	...	237	25	169	833	14.91
9 months to under 12 months	2	7	1	166	202	...	1	176	13	205	773	13.05
Total	2	20	1	564	750	853	1	2968	60	703	5922	
Infant Mortality Rate	0.1	1.001	0.1	28.2	37.5	42.7	0.1	148.5	3.0	30.2	294.25	



	Small-pox.	Measles.	Malaria.	Ague and Remittent Fever.	Diarrhoea and Dysentery.	Premature Birth.	Debility.	Diseases of Nervous System.	Diseases of Respiratory System.	All other Causes.	Total.	Percentage of deaths in each age period to total deaths under 1 year of age.
<b>1909</b>												
Under 7 days	...	...	...	12	5	929	—	631	49	171	1797	32.09 } 16.68 } 8.05 } 14.05 } 14.61 } 14.52 }
7 days to under 1 month	...	...	...	34	50	104	2	555	28	161	934	
1 month to under 3 months	...	...	2	57	69	1	3	204	20	91	451	
3 months to under 6 months	3	8	3	34	203	6	1	325	57	147	787	
6 months to 9 months	6	11	10	143	230	...	...	176	43	199	818	
9 months to under 12 months	4	13	13	248	262	...	...	178	21	74	813	
Total	14	35	28	528	819	1040	6	2069	218	843	5600	100
Infant Mortality Rate	0.7	1.8	1.5	27.8	43.1	54.8	0.3	109	11.5	44.4	296.2	
<b>1910</b>												
Under 7 days	...	...	...	6	13	962	1	253	28	278	1541	27.10 } 12.59 } 10.99 } 17.99 } 15.86 } 15.47 }
7 days to under 1 month	...	...	...	17	87	36	1	271	47	255	716	
1 month to under 3 months	...	...	4	49	116	6	1	125	84	236	625	
3 months to under 6 months	...	3	25	119	300	3	1	190	182	194	1023	
6 months to under 9 months	...	5	53	130	274	5	2	104	113	207	902	
9 months to under 12 months	...	6	44	98	281	...	...	76	91	281	880	
Total	15	23	126	419	1071	1012	6	1019	545	1451	5687	100
Infant Mortality Rate	0.8	1.2	6.5	21.7	55.4	52.4	0.4	52.7	28.2	75.1	294.4	
<b>1911</b>												
Under 7 days	...	...	...	...	38	1012	...	313	39	387	1,789	29.68 } 15.61 } 10.45 } 17.06 } 14.12 } 13.07 }
7 days to under 1 month	...	4	2	4	130	96	2	256	93	354	941	
1 month to under 3 months	...	5	4	1	193	24	...	170	151	75	630	
3 months to under 6 months	...	18	15	12	455	12	1	143	259	91	1,028	
6 months to under 9 months	...	18	42	28	346	4	1	86	230	63	851	
9 months to under 12 months	...	20	48	25	276	3	...	116	171	100	788	
Total	91	65	111	70	1438	1151	4	1084	943	1070	6027	100
Infant Mortality Rate	4.6	3.3	5.6	3.5	72.9	58.3	0.2	54.9	47.8	54.2	305.3	

1912	Small-pox	Measles	Malaria	Ague and Remittent Fever	Diarrhoea and Dysentery	Premature Birth	Debility	Diseases of Nervous System	Diseases of Respiratory System	All other Causes	Total	Percentage of deaths in each age period to total deaths under 1 year of age.
Under 7 days	...	...	...	...	39	934	7	307	55	174	1516	26.94
7 days to under 1 month	...	...	...	...	124	287	2	361	85	115	974	17.31
1 month to under 3 months	...	2	4	1	176	28	2	174	117	169	674	11.98
3 months to under 6 months	...	7	15	6	374	12	1	171	201	95	888	15.78
6 months to under 9 months	...	10	29	10	377	12	1	75	180	118	816	14.50
9 months to under 12 months	...	11	39	7	393	2	1	62	174	65	760	13.50
Total	17	30	87	24	1483	1275	14	1150	812	736	5628	100
Infant Mortality Rate	0.8	1.5	4.3	1.2	73.8	63.4	0.7	57.2	40.3	36.7	279.9	
<b>1913</b>												
Under 7 days	...	...	...	...	43	755	72	502	88	95	1555	27.22
7 days to under 1 month	...	5	1	3	153	93	51	461	97	104	968	16.94
1 month to under 3 months	...	...	2	15	194	14	8	202	119	71	628	10.99
3 months to under 6 months	...	4	10	36	361	1	9	223	161	87	893	15.63
6 months to under 9 months	...	12	24	44	416	...	1	117	204	76	897	15.70
9 months to under 12 months	...	9	19	46	384	...	4	69	167	72	772	13.51
Total	9	30	56	144	1551	863	145	1574	836	505	5713	100
Infant Mortality Rate	0.5	1.5	2.0	7.4	70.7	44.3	7.4	70.7	42.9	25.9	283.2	
<b>1914</b>												
Under 7 days	...	...	1	...	19	100	69	513	55	169	1526	27.1
7 days to under 1 month	...	...	...	1	82	106	62	497	89	159	996	17.7
1 month to under 3 months	...	1	2	7	155	15	24	287	139	44	675	12.0
3 months to under 6 months	...	4	9	19	271	3	24	232	206	65	835	14.8
6 months to under 9 months	...	8	11	15	341	3	14	123	229	102	950	15.1
9 months to under 12 months	...	3	27	18	373	...	5	62	214	47	753	13.4
Total	11	16	50	60	1241	827	198	1714	932	586	5635	100
Infant Mortality Rate	0.6	0.9	2.7	3.3	68	45.3	10.9	94	61.1	32.1	338.9	

1915		Small-pox	Measles	Malaria	Ague and Remittent Fever	Diarrhoea and Dysentery	Premature Birth	Debility	Diseases of Nervous System	Diseases of Respiratory System	All other Causes	Total	Percentage of deaths in each age period to total deaths under 1 year of age.
Under 7 days	...	...	...	...	2	7	832	68	368	26	124	1427	27.22
7 days to under 1 month	...	...	...	...	2	56	115	40	487	51	139	890	16.98
1 month to under 3 months	...	...	...	...	10	125	19	16	267	91	81	611	11.66
3 months to under 6 months	...	...	...	...	17	268	5	22	210	178	94	811	15.47
6 months to under 9 months	...	...	...	...	12	369	...	3	117	222	76	823	15.70
9 months to under 12 months	...	...	...	...	22	362	...	1	76	145	52	682	13.01
Total	...	19	21	27	65	1187	971	150	1525	713	566	5244	100
Infant Mortality Rate	...	1.03	1.1	1.5	3.5	64.5	53	8.2	83.2	38.9	30.9	286.13	

In the interpretation of the tables given above, it is often found helpful to study them along with corresponding tables, showing infant mortality by percentages, instead of actual numbers. The latter are readily prepared from the former by a few arithmetical operations in the Simple Rule of Three. Thus, when such manipulations are effected in the tabular statement of actual numbers for 1915, the statement would read as follows:—

Table of percentages of infant deaths from principal causes in the year 1915.

Age periods.	Small-pox.	Measles.	Malaria.	Ague and Remittent fever.	Diarrhoea and Dysentery.	Premature birth.	Debility.	Diseases of the Nervous System.	Diseases of the Respiratory system.	All other causes.	Total.
1 to 7 days.	...	...	...	0'14	0'49	58'30	4'77	25'79	1'82	8'79	27'22
7 to 30 days	...	...	...	0'22	6'39	12'92	4'49	54'72	5'73	15'62	16'98
1 to 3 months	0'21	...	0'26	1'64	20'46	3'11	2'62	43'70	14'89	13'26	11'66
3 to 6 months	0'74	0'47	0'86	2'10	33'05	0'62	2'71	25'89	21'94	11'59	15'47
6 to 9 months	0'73	0'97	1'22	1'46	44'84	—	0'36	14'22	26'97	9'23	15'70
9 to 12 months	0'88	1'32	1'52	3'24	53'24	...	0'15	11'18	48'15	7'62	13'01
Total ...	0'36	0'40	0'51	1'24	22'64	18'52	2'86	29'09	13'60	10'79	100



The first thing that strikes one in all the tables given above is the mighty role played by "the diseases of the nervous system" as a cause of Infant Mortality; for, during the age-period of 1 to 7 days, it ranks second only to "Premature Births", while during the succeeding age-period of 7 to 30 days it actually heads the list of the causes of Infant Mortality. In this connection it may not be without interest to note that, if the corresponding statistics of the United Kingdom and other countries where registration of births and deaths is fairly reliable be studied, it will be found therein that "diseases of the nervous system" is *not* at all an item that takes any prominent role as a cause of Infant Mortality. Without venturing to dogmatise one way or another regarding this remarkable difference, it may however be permissible to point out that, under the ordinary circumstances of registration of deaths in Madras, it is not unlikely that a good many deaths, registered as due to "diseases of the nervous system" may be merely cases where the fatal malady was associated, either at the beginning or some other part of its course, with what is familiarly known as "Infantile Convulsions"—a term, which does not necessarily point to the existence of any actual or primary disease of the nervous system at all, as the common "convulsion" of infants is, oftener than not, an indication primarily of acute fevers, bronchitis, peripheral or respiratory irritation, however caused; in fact, any other trouble of a like nature, which can cause an explosion, more or less violent, in the premature, over-irritable, or hyper-sensitive nervous mechanism of an infant.

Nor is Madras unique in this respect; it is the existence of similar conditions of defective registration in distant Burma that made the Sanitary Commissioner complain in his report for 1914 that "convulsions" is a term which "merely describes the symptom attending the close of most fatal illnesses in infants," just as the diagnosis "Malaria" is entered against every fatal malady where "the parent or relative reports that there was fever during the illness."

Another feature of the Madras Statistics is the relatively insignificant role played by "Debility" as a cause of infant mortality; curiously enough, this is associated with comparatively high figures under "Premature Births" and "Nervous Diseases."

The following comparative table of Infant Mortality returns (for Bombay and Madras) is compiled to serve as an illustration of such striking discrepancies as those mentioned above:—

*Infant Mortality by Age periods.*

Causes.	1 to 30 days.		1 to 6 months,		7 to 12 months.		0 to 12 months.		Per cent of total deaths from causes opposite to deaths under 1 year from all causes.	
	Bombay.	Madras.	Bombay.	Madras.	Bombay.	Madras.	Bombay.	Madras.	Bombay.	Madras.
Debility	1768	108	212	38	22	4	2002	150	30.3	2.8
Prematurity	207	947	4	24	1	...	212	971	3.2	18.6
Respiratory Diseases	63	77	857	269	1086	367	2006	713	30.4	13.6
Nervous	276	855	530	477	200	193	1006	1525	15.3	29.1
Diarrhoeal	21	63	146	393	334	731	501	1187	7.6	22.6
All causes	2417	2317	1990	1422	2195	1505	6602	5244	100.0	100.0

From the above it will be seen that, while in Bombay out of 6602 infant-deaths during the year, 2002 or 30·3 per cent of the whole were attributed to "Debility", the corresponding figure for Madras was only 150 out of 5244 or 2·8 per cent approximately. This wide discrepancy is, in all probability, due to defective registration, as it is difficult to imagine that infants suffering from debility are as uncommon in Madras as they are plentiful in Bombay. If, however, the figures under "Debility" and "Premature Births" be considered together, then the discrepancy is very much less, indicating thereby that there may be some confusion in diagnosis between "Debility" and "Prematurity"—quite an excusable confusion, considering the close relationship between these two pathological conditions. Then again there is a somewhat similar discrepancy between the Bombay and Madras Statistics in their returns for "Nervous" and "Respiratory" diseases; out of a total of 5244 infant deaths during the year, the Madras returns attribute 1525 deaths or 29·1 per cent of the whole to "Nervous" diseases, the corresponding figures for Bombay being 6602 and 1006 and 15·3 respectively; almost just the reverse is the state of affairs regarding "Respiratory" diseases; out of a total of 5244 infant deaths during the year, the Madras returns attribute 713 of deaths or 13·6 per cent of the whole to "Respiratory" diseases, the corresponding figures for Bombay being 6602, 2006, and 30·4 per cent respectively, as shown below :—

City of	Respiratory diseases		Nervous diseases.	
	Actual Numbers.	Per cent.	Actual Numbers	Per Cent.
Bombay ...	2006 out of 6602	30·4 per cent	1006 out of 6602	15·3 per cent
Madras ...	713 out of 5244	13·6 „	1525 out of 5244	29·1 „

The discrepancy is even more striking during certain age-periods, as may be seen from the following ;—

City of	Infant Deaths from		
	Nervous diseases in age-period 1 to 30 days.	Respiratory diseases in age-period.	
		1 to 6 months.	7 to 12 months.
Bombay ...	276	857	1086
Madras ...	855	269	367

Such are a few examples of defective registration observable in our statistical returns; and it is just as well that this fact is emphasized, before we proceed to examine the details of the statistical tables given above.

Taking first the age-periods of 1 to 7 days and 7 to 30 days into consideration, the most potent causes of Infant Mortality, according to age-period-tables given above, are as follows:—

Causes of Infant Mortality.	Age-period 1 to 7 days.	Age-period 7 to 30 days.
Premature births ...	832	115
Nervous diseases ...	368	487
Debility ...	68	40
Respiratory diseases ...	26	51
All causes ...	1427	890

But, as has been pointed out already, there seems to be a marked confusion in our returns between "Prematurity" and "Debility," as also between "Nervous Diseases" and "Infantile Convulsions" which may either herald or be otherwise associated with a number of acute fevers and other "non-nervous" diseases of infants. During the age-period of 1 to 7 days, these errors seem to be especially prominent. If, however, we group together the two age-periods of 1 to 7 days and 7 to 30 days and consider the whole as one age-period of 1 to 30 days, and if we also show deaths attributed to "Debility" and "Prematurity" under one comprehensive heading of "Debility and Prematurity," then the errors do not seem so glaring and the returns may be more helpful for purposes of comparative study. When these

manipulations are effected in the table given above, it reads as follows :—

Causes of Infant Mortality.	Mortality during age period 1 to 30 days.	
	Actual numbers.	Per cent proportion to total deaths.
1. Premature births and debility ...	1055	46'0 per cent roughly.
2. Nervous diseases ...	855	37 do. do.
3. Respiratory ,, ...	77	3'5 do. do.
*	*	*
All causes ...	2317	1000' do.

The chief causes, then, of infant deaths during this period are principally "Prematurity, Debility and Diseases of the nervous system"—a group of causes, which may be termed, for the sake of convenience, the "Prematurity group", if indeed it is permissible to use such an expression with reference to all the three entities mentioned above. However that may be, these are causes that, as will be seen later on, have special reference to unfavourable ANTE-NATAL conditions, such as the lack of good and sufficient food for the expectant mother, the need for her to toil till late in pregnancy, the lack of adequate pre-maternity aid, and so on.

Coming next to the age-period between 1 to 6 months, "Premature Births" as a cause of Infant Mortality is, as may be expected, practically non-existent; for, "Prematurity" rarely takes more than a month to finish off the infant; if it did, it is perhaps not a case of prematurity at all. Out of a total of 1422 infants that died between 1 to 6 months, as many as 477 deaths (or 33 per cent. roughly) are attributed to Diseases of the Nervous system, while 48 deaths (or 3'5 per cent. roughly) are put to the credit of "Debility"; but two new factors now come into prominence; during the age-period of 1 to 30 days, "Diseases of the Respiratory system" as a cause of Infant Mortality was responsible for only 77 out of 2317 deaths (i.e. 3'5 per cent. roughly),

while now we find that it has to its credit no fewer than 269 cases, or roughly 20 per cent of the total deaths during the period ; so too, during the age-period of 1 to 30 days, "Diarrhœa and Dysentery" were responsible for only 63 cases (or 2·5 per cent. roughly), while now they claim as many as 393 victims, being roughly 27·5 per cent of the total Infant mortality during this period. Thus, the chief causes of infant mortality during this period are as under :--

*Age-period—1 to 6 months.*

Cause of Death,	Actual Number.	Percentage proportion to total deaths.
1. Nervous Diseases ...	477	33 percent roughly.
2. Diarrhoel ,, ...	393	27·5 ,, ,,
3. Respiratory ,, ..	269	20 ,, ,,
*	*	*
All Causes ,, ...	1422	100 ,, ,,

Thus, it will be seen, that "Diseases of the Nervous system" which took a second rank as a cause of Infant Mortality during the age-period of 1 to 30 days has now become the first ; but, then, it has to be remembered that, as has been pointed out already, "Diseases of the Nervous system" is an ill-defined entity, in which are probably included a large number of cases that ought properly to come under the head of Respiratory and other similar diseases. If, for example, a fatal attack of Acute Bronchitis in an infant starts, as it well may, with "convulsions", then, it is very likely that, under the ordinary circumstances of Registration of deaths in Madras, the death would in all probability be registered as being due to "Disease of the Nervous system", although Bronchitis or perhaps Broncho-pneumonia was the primary or real cause of death. It is for this reason that we expect to find, and we do find, that, although other causes of Infant Mortality may vary and do vary with varying age-periods, "Diseases of the Nervous system" is a factor that is fairly constant throughout the whole of infant-life.

As regards the incidence of deaths from Respiratory and Diarrhoeal diseases during this period, it is not difficult to see how an infant, though it may have vitality enough to brave the dangers of the first month, may yet not have enough vitality to stand any unsuitable feeding or exposure which it may be subsequently subjected to with the result that it may fall an easy victim to Gastro-intestinal or Respiratory disorders. As is well-known, infants are very susceptible to exposure; and though artificial feeding is not so common during this age period as in the next, yet, it is greatly to be deplored that a truly dangerous and catching fashion is growing up even in India, as a result of which even able-bodied mothers stop wholly or partially from suckling their babies, justifying their monstrous practices on, what they are pleased to call, "medical grounds", whatever that may mean. This must make doctors pause and reflect well, before they proceed to prescribe weaning in any particular case, as it sometimes happens that the mere random suggestion of possible inability to suckle the infant operates in some predisposed individuals, as a very powerful exciting cause of that increasingly fashionable and highly catching malady, whose prominent symptom is that the patient *imagines* herself to be unable to suckle the infant, so as to necessitate, on medical grounds of course, the discontinuance, not only of breast-feeding but of "mothering" also. This subject will be dealt with at some length later on; meanwhile, it may be just as well to note that it is unspeakable cruelty to deny the infant, for frivolous or insufficient reasons, its natural birthright to being breast-fed and "mothered."

Exposure and artificial feeding then, are the chief factors which contribute to the high figures for Respiratory and Diarrhoeal diseases during this period. These have special reference, as will be seen later on, to unfavourable post-natal conditions in which the infant is reared up, such as improper feeding, insanitary surroundings and so on.

Coming next to the age-period of 7 to 12 months, inasmuch as artificial feeding is more prevalent during this period than during the previous ones, one would naturally expect Diarrhoeal diseases to be more prevalent during this period than during the two previous ones; and so it is, as will be seen from the following table:—

*Age-period—7 to 12 months.*

Cause of Death.	Actual Number.	Percentage proportion to total deaths.
1. Diarrhoeal Diseases ...	731	48.5 percent roughly
2. Respiratory " ...	367	24.5 " "
3. Nervous " ...	193	13.0 " "
*	*	
All Causes " ...	1505	100.0 " "

From the above, it will be seen that "Diarrhoeal diseases" which took a second rank during the previous age-period of 1 to 6 months have, as may be expected, now become the first; similarly "Respiratory diseases" which then took the third rank have now mounted to the second, as may be expected from the fact that infants are even more liable to exposure during this period than during the last. But, as may be inferred from the fact that the nervous system is now becoming less and less liable to oversensitiveness or hyper-irritability, the number of deaths from "Nervous diseases" is now seen to be the lowest; during the age-period of 1 to 30 days, it was 37 per cent; during the period of 1 to 6 months, it was 33 per cent and now it is 12.5 per cent.

Diarrhoeal and Respiratory diseases, then, are the chief causes of Infant Mortality during this period also, as during the previous age-period of 1 to 6 months; and, as mentioned already, these have special reference to unfavourable post-natal conditions in which the growing infant lives, moves and has his being.

When Infant Mortality is considered for the full period of one year as a whole, the chief causes may be tabulated thus:—

*Age-period—0 to 1 year.*

Causes of Death.	Number of Deaths (Total deaths during the period = 5244.)	Percentage proportion to total deaths.
Diseases of the Nervous System ... ..	1525	29.1 percent roughly.
Diarrhoea and Dysentry ...	1187	22.6 " "
Premature births and Debility ... ..	1121	21.4 " "
Diseases of the Respiratory System	713	13.6 " "



The following tabular statement is intended to illustrate the several facts mentioned above:—(This may be usefully compared with the similar table for Bombay, shown under the heading "Statistics for the city of Bombay.")

*Infant Mortality in 1915—City of Madras.*

*Age-Period—1 to 30 days.*

Causes of Infant Mortality.	MAGNITUDE OF INFANT MORTALITY.				
	Actual numbers (from cause opposite.)		Percentage Proportion of mortality from cause opposite during each age-period, to total mortality,		
	During each Age-period.	Under 1 year.	During same age-period. from all causes.	Under 1 year from cause opposite.	Under 1 year from all causes.

*Age-Period—1 to 30 days,*

Debility and Prematurity.	1055	1121	45.9	94.1	20.1
Respiratory Diseases. ...	77	713	3.4	10.8	1.5
Nervous " ...	855	1525	36.9	56.0	16.3
Diarrhoeal " ...	63	1187	2.9	5.8	1.2
All Causes ...	2317	5244	100.0	100.0	44.3

*Age-Period—1 to 6 months.*

Debility and Prematurity...	62	1121	5.3	5.5	1.1
Respiratory Diseases ...	269	713	19.9	37.7	5.1
Nervous " ...	477	1525	32.9	31.1	9.1
Diarrhoeal " ...	393	1187	27.5	33.1	7.5
All Causes ...	1422	5244	100.0	100.0	27.7

*Age-Period—7 to 12 months.*

Debility and Prematurity.	4	1121	0.27	0.30	0.08
Respiratory Diseases ...	367	713	24.4	51.5	7.2
Nervous " ...	193	1525	12.8	12.7	3.5
Diarrhoeal " ...	731	1187	48.5	61.9	13.9
All Causes ...	1505	5244	100.0	100.0	28.7

*Age-Period—0 to 12 months.*

Debility and Prematurity...	1121	1121	21.4	100.0	21.4
Respiratory Diseases ...	713	713	13.6	100.0	13.6
Nervous " ...	1525	1525	29.1	100.0	29.1
Diarrhoeal " ...	1187	1187	22.6	100.0	22.6
All Causes ...	5244	5244	100.0	100.0	100.0

Finally, after an examination of all available statistics the deliberate conclusion of the Health officer of Madras is much the

same as that of his confreres at Bombay and Calcutta. Says he in his report for 1915 :—“More than 50 *per cent.* of deaths are due to causes purely preventable or remediable by the observance of simple rules of living. But such observance is often hampered by the economic conditions of parents, namely, poverty with insufficient and inefficient food, bad housing and bad surroundings. A potent source of misfortune is the necessity to work and earn among the women of the poorer classes. Among the poorer classes children come into the world surrounded by unhygienic conditions only to die within the very first days or months of life, and often from trivial causes.”

In Madras also, as in Bombay and Calcutta, the causative relationship, between poverty and ignorance on the one hand and high infant mortality on the other, is well illustrated by the returns of infant mortality by communities. If, for example, the different communities of Madras be arranged in their descending order of infant mortality, they arrange themselves as follows:—

<i>Community,</i>	1915.	1914.
Mohamedans	387·3	294·2
Hindus (all castes)	303·3	295·6
Indian Xians	282·6	174·0
Anglo-Indians	162·1	197·2
Europeans	92·1	71·4

This is perhaps more or less the same order into which the several communities would fall, if they are arranged in their descending order of poverty and ignorance.

The following comparative table, compiled from the available official returns of our three Presidency towns, also points to the same conclusion, *viz.*, that, other things being equal, infant mortality tends to vary directly as poverty and ignorance; or in the language of Mathematics, Infant Mortality is a function of at least two variables, *viz.*, Ignorance and Poverty.

Race or caste.	INFANT MORTALITY IN												
	Bombay.						Calcutta.		Madras.				
	1910	1911	1912	1913	1914	1915	1915		1914	1915			
							Hindus	...	270	Hindus.	...		
Hindus (All castes)	431.2	407.0	483.7	408.3	410.4	350.9	Hindus	...	270	Hindus.	...	303.0	295.6
Musalmans	441.7	388.5	421.6	369.5	391.0	335.61	Mohamadans.	...	375	Mobo madans.	...	387.3	294.2
Parsees	271.4	186.2	206.2	188.1	173.6	153.28	...	...	...	...	...	...	...
Jews	209.6	157.8	302.2	176.4	159.6	157.89	...	...	...	...	...	...	...
Indian Christians	432.1	344.0	462.2	419.0	398.1	336.25	Mixed	...	228	Indian Chris- tians.	...	282.6	174.0
Eurasians	397.2	290.3	388.2	230.0	244.2	181.81	Other classes,	...	146	Anglo-Indians	...	162.1	197.2
Europeans	228.6	173.1	207.9	151.9	207.4	152.54	Non-Asiatics...	...	96	Europeans.	...	92.1	71.4

So much for conditions in Presidency towns and urban areas generally. As for villages and rural tracts, their conditions are in a sense, even more pathetic. Born into chronic poverty, bred in chill penury, sunk in abysmal

ignorance, and living in cruel indebtedness and far from the sphere of influence of any adequate medical or maternity aid, the condition of many of our agricultural masses fills one with sadness indescribable. It is of these that we have heard it said "they do not know what it is to have two full meals a day"; and we may well and truly add "they do not know what it is to have good water to drink and good huts to live in": how can they, as long as mass education and rural sanitation are merely in the stage of academical discussion among the rich, who talk and talk, while the masses continue to live in ignorance and insanitation? Of factors that make for high Infant Mortality, the two most potent ones—*viz.* Ignorance and Poverty—exist in plenty in the country and we really do not need the evidence of statistics to demonstrate to us what is painfully familiar to us everywhere. Moreover, so far as Infant Mortality is concerned, the rural returns are so hopelessly defective and unreliable that it is unsafe to base any conclusions on these returns alone. In any case, the poverty, the indebtedness and the ignorance of many of our agricultural masses are too patent to be overlooked. It is, therefore, difficult to see why in the list of causes of infant mortality given in the Annual Report for 1915 of the Sanitary Commissioner of Madras, "Poverty" is conspicuous by its absence; for, considering the fact that the Health Officers of all our Presidency towns are of opinion that the Poverty of our masses is the chief contributory factor of our high infant mortality, this *apparent* omission is rather remarkable; I say "apparent" advisedly, for, almost all the factors given in the said list, can be traced directly or indirectly to poverty. However that may be, in para 18 of the report we find the following:—

"The following causes contribute generally to the unusual high rate of Infantile mortality in the rural areas of the Presidency:—(1) General insanitary condition of villages and dwellings therein. (2) Extreme ignorance of the people in matters connected with pregnancy, child-birth and infant-rearing.

(3) Insufficient protection of infants against small-pox. (4) Special circumstances such as abnormal changes in the weather, rise in prices of staple food-stuffs and consequent low-living of the poorer classes, outbreaks of epidemics, etc. (5) Extreme unreliability of birth and death figures in all rural areas, where registration is optional.

[That birth-rates and death-rates are unreliable is undoubtedly true; but, its effect is, it is submitted, more often in the direction of omission and under-estimation than of the reverse.]

The omission of poverty as a cause—if, indeed, it is a real omission at all—is difficult to divine, especially when most sanitarians include it, as a matter of course, among the most potent causes of infant mortality. Moreover, when it is remembered that poverty, as a cause of infant mortality, is an awful problem even in prosperous Europe and rich America, it is impossible for us in this land of poverty *par excellence* to overlook this obvious factor of poverty—especially, the primary poverty of the multitude; for, whether we take the figures of Mr. Patro of the Madras Economic Association, or of Dr. Slater, the University Professor of Indian Economics, it will become apparent that a large proportion of our masses are suffering from Primary Poverty. “The inquiry” say Dr. Nair “of Mr. Charles Booth of London and of Mr. Seebohn Rowntree in York, concerning the problem of poverty in those cities, shows that in the metropolis 30·7 per cent. of the people, and in York 27·84 per cent. live under conditions that produce a perilously low standard of health. What will be the percentage of such people in Madras? We are certain that it will form more than 80 per cent. of the population of Madras.” It is, however, possible that the report includes “poverty” under “special circumstances”; but, then, poverty that is ever present with us and on so large and general a scale can hardly be a “special” circumstance; it is possible that poverty is indicated in the first two groups of causes mentioned above. In any case, it is most assuredly not a factor that can be overlooked in our study of Infant Mortality.

Turning now for a moment to conditions obtaining in the United Kingdom regarding infant mortality and the principal causes thereof, we find that the state of affairs in England and Wales during 1915 was, as shown in the following table:—

**Infant Mortality  
in the  
United Kingdom.**

*England and Wales, 1915 : Infant Mortality by Sex and Legitimacy.*

	Deaths per 1,000 Births.						Mortality per cent.						
	All Infants,		Legitimate Infants.		Illegitimate Infants.		Male of Female Infants.			Illegitimate or Legitimate Infants.			
	Male.	Female.	Male.	Female.	Male.	Female.	Legitimate.	Female.	Illegitimate.	Male.	Female.	Male.	Female.
All causes.	43.16	32.40	41.55	31.11	78.13	60.01	133	134	130	188	193	130	188
under one month	21.74	16.18	20.51	15.26	48.26	35.82	134	134	135	235	235	135	235
1-3 months	21.24	16.88	20.18	15.85	44.12	38.90	126	127	113	219	245	113	219
3-6 "	19.16	15.24	18.56	14.79	32.05*	24.80	126	125	129	173	168	129	173
6-9 "	17.56	15.36	17.35	15.05	22.03	21.80	114	115	104	127	145	104	127
9-12 "	122.86	96.06	118.15	92.06	224.59	181.42	128	128	124	190	197	124	190
Total under one year	4.23	4.69	4.20	4.73	4.84	4.03	90	89	120	115	85	120	115
Whooping cough	4.90	4.19	4.90	4.09	4.62	6.16	117	120	75	94	151	75	94
Other common infectious diseases	17.14	13.06	16.23	12.33	30.72	28.66	131	132	128	226	232	128	226
Diarrhoea and enteritis	20.99	16.81	20.32	16.32	35.36	27.48	125	125	129	174	168	129	174
Premature birth	6.51	5.09	6.42	5.03	8.49	6.16	128	128	138	132	122	138	132
Congenital defects	14.18	10.80	13.30	10.11	33.03	25.47	131	132	130	248	252	130	248
Atrophy, debility and marasmus	41.68	32.70	40.04	31.46	76.88	59.11	127	127	130	192	188	130	192
Developmental and wasting diseases	3.26	2.47	3.15	2.38	5.49	4.31	132	132	127	174	181	127	174
Tuberculous diseases	9.91	7.42	9.52	7.11	18.39	14.05	134	134	131	193	198	131	193
Convulsions	20.04	19.83	25.52	19.32	37.16	30.62	131	132	121	146	158	121	146
Bronchitis and pneumonia	15.70	11.70	14.59	10.64	40.49	34.48	134	137	117	278	324	117	278
Other causes	122.86	96.06	118.15	92.06	224.59	181.42	128	128	124	190	197	124	190
All causes													

All ages under one year.

*England and Wales.—Deaths of Children under One Year of Age from Developmental and Wasting Diseases per 1,000 Births, 1886—1915.*

	Sex.	Proportion of Deaths to 1,000 Births of each Sex.						
		1886— 1890.	1891— 1895.	1896— 1900.	1901— 1905.	1906— 1910.	1911— 1915.	1915.
Premature birth	M.	17.8	20.3	21.7	22.4	22.0	21.7	21.0
	F.	14.4	16.4	17.5	18.1	17.8	17.6	16.8
	P.	16.1	18.4	19.6	20.2	19.9	19.7	18.9
Congenital defects	M.	3.5	3.9	4.3	6.4	7.3	6.2	6.5
	F.	2.9	3.3	3.5	5.0	5.9	4.9	5.1
	P.	3.2	3.6	3.9	5.7	6.6	5.6	5.8
Atrophy, Debility, Marasmus	M.	24.9	25.0	23.9	20.8	17.5	15.3	14.2
	F.	20.6	20.3	19.5	16.6	13.7	11.6	10.8
	P.	22.8	22.7	21.7	18.7	15.6	13.5	12.5
Total : Developmental and wasting diseases	M.	46.2	49.2	49.9	49.6	46.8	43.2	41.7
	F.	37.9	40.0	40.3	39.7	37.4	34.1	32.7
	P.	42.1	44.7	45.2	44.6	42.1	38.8	37.2

It may perhaps be just as well that a word of explanation is put in here, regarding the nomenclature of diseases adopted in the above table; we have already seen, in our discussion of the returns of our Presidency towns, how the principal causes of Infant Mortality fall naturally into the three following groups:—

- (1) Debility and Prematurity group.
- (2) Respiratory diseases group.
- (3) Diarrhoeal diseases group

The grouping adopted in the British returns is much the same as the above as may be seen from the following classification:—

- (1) *Group of Developmental and wasting diseases or Group of five diseases* including prematurity and congenital defects, atrophy, debility and marasmus. This corresponds to our Debility and Prematurity group.
- (2) *Bronchitic group*—including Bronchitis, Bronchopneumonia etc. This corresponds to what we have called Respiratory diseases group.
- (3) *Diarrhoeal group*—including Diarrhoea, enteritis etc. This is practically the same as our Diarrhoeal diseases group.

It is perhaps needless to mention that registration of deaths is nothing like so unsatisfactory in European countries generally as it is in our land; the fact that causes of deaths are, in a large number of cases, certified by competent medical practitioners is, in itself, a guarantee that the causes of registered deaths are fairly reliable. But, although our returns are admittedly defective, yet they are of undoubted value for comparative study and the general conclusions drawn from them are much the same as those which are deducible from the British returns; and these may now be summarised thus:—

- (a) *High incidence during the first few days and weeks of infant life.* According to our statistics, *(vide tables on pages 48 to 52 supra)* as many as from a third to a half of total deaths during the year occur during the first month alone, while, during the first week, the proportion

**Infant Mortality  
by age-periods.**



is as high as between a third and a fourth of total mortality for the year. The chief causes of these early deaths are those which are included in our "Debility and Prematurity group" corresponding to the group of "Five diseases" or "Developmental and wasting diseases" of British returns. The deaths during this period seem to depend mostly on such factors as parental debility, the lack of good and sufficient nourishment for the expectant mother, the lack of adequate prematernity aid, the need for her to toil even when she is late in pregnancy and other unfavourable conditions that handicap the infant during its ante-natal existence.

(b) *Low incidence during the Age-period of 1 to 6 months.* The mortality during this period is roughly about a fourth of the total mortality during the year. There is a curious fall in mortality rates occurring during the first half of this period, accompanied by a distinct rise during the succeeding trimester (vide tables, referred to above). Why there should be this curious rise and fall is easier asked than answered. The chief causes of deaths during this period are those which are included in our "Respiratory and Diarrhoeal groups corresponding to the "Bronchitic and Diarrhoeal groups" of British returns. The deaths during this period seem to depend mostly on such factors as exposure, neglect, premature weaning, bad feeding, overlying and other unfavourable conditions, that handicap the infant during its early post-natal existence.

(c) *Low or Medium incidence during the age-period of 7 to 12 months.* The mortality during this period is roughly between a fourth and a third of the total mortality during the year (vide tables referred to above.) Here again, there is a slight fall in mortality rates, during the first half of this period, accompanied by a slight rise during the succeeding trimester. But, these falls and rises are not so marked as those during the two halves of the previous age-period. The chief causes of deaths during this period are more or less the same as those during the previous one viz, the "Diarrhoeal" and "Respiratory" groups, although the Diarrhoeal element is naturally more in evidence now than ever before; and the mortality during this age-period as during the previous one, seems to depend mostly on such factors as improper feeding, neglect, exposure and other unfavourable

conditions that handicap the infant during its late post-natal existence.

**Infant Mortality by Sexes.** Infant Mortality among male infants is generally higher than among female ones except perhaps in the case of deaths from whooping cough, and this comparatively higher male mortality is attributed to the comparatively larger size and more difficult birth of male infants. One effect of this comparatively higher mortality among male infants is that it tends to lower the disproportion in the sex-constitution of our general population; thus, from the returns of the Madras Maternity Hospital, we learn that out of "13544 births during 1873 to 1882, the proportion of male to 100 female births was 115 before the famine, 93 during the famine and 111 after the famine; according to 1881, 1901, and 1911 censuses in Madras, as in every other country, the mortality of males under 5 years and over 35 years exceeds that of females, so that the population normally contains 103 females to 100 males."

**Infant Mortality by months.** Seasonal variation of Infant Mortality is a complicated question; it depends on a number of varying factors such as rainfall, temperature, severity of the seasons and so on. It also depends to some extent on any seasonal variation that may occur in the birth-rates, as for example the rise in Madras birth-rates that occurs, curiously enough, mostly in the winter months of September to December. In the year 1914, however, there was a precipitate drop, instead of a rise in the October and November birth rates, accompanied by as marked a drop in Infant Mortality rate for November. The following interesting and memorable explanation of this curious phenomenon occurs in the Annual Report of the Health Officer of Madras for 1914. "It will be seen that the months of October and November, which are the months usually returning the larger birth-rates show a very precipitate drop in the curve of births. The "Emden" bombarded the City on 23rd September and the exodus from the city has probably to account for the decline of births; we may compare the records of previous years :—

*Births for October and November.*

1911.	1912.	1913.	1914.
3681	3963	3577	2588

The decrease of over a thousand births may therefore be attributed to the Bombardment”

Mortality among illegitimate infants is, as may be expected, much higher than among legitimate ones ; this is particularly noticeable under the headings (in British returns) of birth-traumata, overlying and syphilis, which are reported to claim about eight times as many victims among the illegitimate infants as among those born in lawful wedlock. The following dictum of Dr. Fretz—(quoted in the Madras Health Report for 1915) may usefully be cited here:—“The importance of illegitimacy as a calamity and its effect on infantile mortality is evident ; it is beyond doubt that fewer illegitimate children grow up to maturity than children born in wedlock ; it doubles or even trebles the chances of an infant dying before it reaches its first birthday. Illegitimacy is in itself an evil to man and we should seek to diminish the number of illegitimate births.” On *a priori* grounds it appears extremely likely that infant mortality should be closely associated with such factors as illegitimacy, maternal mortality, still-births, and so on. As Newsholme points out : “It might reasonably be expected that accurate Statistics, if available, would show relationship between the rate of mortality from child-bearing and the proportion of still-births to registered live-births, a high maternal mortality being associated with a high proportion of still-births to live-births. It might be expected also that a similar relationship would be traceable between maternal mortality from child-bearing and infant mortality during the first week after birth, as this is most often due to ante-natal causes and conditions affecting the infant during parturition.....The importance of illegitimacy as a national calamity is evident and the following remarks, quoted by Dr. Farr from Von Bernoulli are so apposite that we reproduce them here : “The invariable fact that the mortality among the illegitimate is greater than among

the legitimate, and that many more of them are still-born, shows clearly enough how much more unfavourable their position is from the first. Who can doubt that their bringing up is much harder and more difficult and that the existence of a class of men, bound to society by few or no family ties, is not a matter of indifference to the State? It is beyond doubt that fewer illegitimate children grow up to maturity—that they get thro' the world with more trouble—than children born in wedlock, that more of them are poor, and that therefore more of them become criminals. Illegitimacy is in itself an evil to a man; and the State should seek to diminish the number of these births, and carefully enquire to what circumstances an increase may be ascribed."

Other things being equal, a large number of infant-births would mean a large number of infant deaths also, as mortality among infants is known to be high; but, infant mortality *rate* being calculated on the infant population, or its nearest ascertainable approximation viz. the number of births, it follows that other things being equal, a large number of births has *per se* a tendency to lead to a low infant mortality *rate*; in other words, a high birth rate may lead to a high infant mortality but not necessarily to a high infant mortality *rate*; this distinction between infant mortality and infant mortality *rate* is rather important to be borne in mind as there would be nothing surprising if a high birth-rate, a high infant mortality and a low infant mortality *rate* were seen associated together. But, it frequently happens that a high birth-rate, a high infant mortality, and a high infant mortality *rate* co-exist, as the highest birth-rates usually occur in populations among whom abound poverty, ignorance, overcrowding, neglect and other factors that make for high infant mortality. In other words, a high birth rate is quite consistent with both a high or low infant mortality *rate*.

That a high infant mortality occurs in our densely populated and overcrowded "slums" is quite true; but, a high degree of density of population is not necessarily associated with a heavy infant death-rate, as was shown by Dr. Newsholme in his

**Infant Mortality  
and  
Birth-rates.**

**Infant Mortality  
and Density.**

masterly paper on "The Vital Statistics of Peabody Buildings"; moreover, density of population, as expressed in terms of so many people per acre may be no true index of overcrowding of any locality; thus, if a locality includes in its area an extensive tract of waste or unoccupied land, its density will be shown as low, altho' there may be intense overcrowding, in its occupied parts. The true relationship between density and infantile mortality is thus summarised by Dr. Newsholme:

"The number of rooms occupied by each family is of much greater importance in relation to health than the number of persons living on a given acre, as this fact throws important light on the state of each tenement as regards overcrowding. In the Peabody Buildings the average number of persons to each room is 1.8. Given houses properly constructed and drained, and given cleanly habits on the part of the tenants, increased aggregation of population on a given area has no influence in raising the death-rate, except in so far as it is accompanied by *overcrowding individual rooms*, an event which is by no means necessary under the circumstances named. In other words, there is no causal relationship between density of population *per se* and a high mortality. The true index of density is the number of persons to each occupied room."

**Infant Mortality  
in relation to  
age of parents.**

This is a very interesting inquiry but the difficulties are great in the way of obtaining reliable natal statistics, not vitiated by the influence of social position and such other disturbing factors. From the observation of Dr. Mathews Duncan, it appears that the vitality of infants in a maternity hospital was greatest when the age of the mother was about 24 years. Says Newsholme:—"Korosi has investigated the same subject (*Transactions of the International Congress of Hygiene and Demography*, London, 1891, vol. x, p. 262) from the records at Budapesth of the death of 29,813 children under ten years of age in relation to the age of their parents. Korosi classifies the cause of death in these children as "uterine," as premature birth, weak constitution, and "extrauterine," where the cause of death is acquired after birth. Diarrhoea is taken as the most important instance of the latter. The general result is, that

with the youngest mothers the number of weakly children is greatest.

The influence of the mother is shown in the following table:—

Age of Mother.				Out of 100 Deaths the cause of Death was	
				Weakness or other Uterine Cause.	Diarrhœa.
Under 20	...	...	...	57.5 per cent	26.3 per cent
20-30	...	...	...	36.0 do	21.9 do
30-35	...	...	...	26.0 do	18.1 do
Above 35	...	...	...	28.8 do	19.3 do
If the mortality 20-30 be stated as 100, the following table is obtained:					
Under 20	...	...	...	158	210
20-30	...	...	...	100	100
30-35	...	...	...	77	82
Above 35	...	...	...	82	88

On the father's side the youngest parents also appear to disadvantage. Korosi gives elaborate statistics bearing on the influence of the difference of age and the combined ages of the two parents. The general lessons confirm those taught by other considerations, viz., that girls should not marry before the age of 20, and that old men ought not to marry young women." The following is a brief summary (by Mr. Wattal) of available knowledge on the subject:—The construction of natality tables is far more complicated than the construction of life tables and requires a scope for observation which is not vouchsafed to private individuals and which Governments, who alone can undertake the task, are not keen on supplying for the edification of the students of demology. The first attempt, it is believed, was made by Joseph Korosi whose classical paper based on observations made at Budapest is still the starting-point of all investigations on the subject. Korosi's observations extended over nearly 72,000 married couples in Budapest and refer to the period 1888-1893. His principal results are:

(1) the summit of legitimate fertility is reached very soon, so that the decline begins, in the case of the male, upwards from 25, and in that of the female, upwards from 18 years,

(2) the legitimate fertility does not remain at the same level for many years together, but it declines immediately after reaching the highest point.

A similar line of investigation was pursued by Dr. Dunlop and his results were published in the form of a paper in the Journal of the Royal Statistical Society for February 1914. Dr. Dunlop arrived at the same conclusions as Korosi, but as his observations relate to Scotland the year of maximum fertility is different. As with Korosi, the younger the wife or the husband the larger the average family, but the effect of delay in reducing the size of the family is much greater in the case of the wife than in the case of the husband; it being estimated that while a delay of 3 years on the part of the wife reduces the average size of the family approximately by one child, it requires a delay of something like 40 years on the part of the husband to effect the same reduction."

The relation between infant mortality and general mortality is a very intimate one; according to a famous dictum of Newsholme "It is strictly correct to say that a high infant mortality implies a high prevalence of the conditions which determine national inferiority." While it is quite true that there are certain special factors, which make for our excessive infant mortality, it cannot be too strongly emphasized that, in general, the causes that make for high general mortality also contribute to excessive infant mortality. In this connection, the following note that appeared in the Madras Health report of 1914 may be usefully cited:—"Without in any way depreciating in the least the value of special measures directed towards the care of mother and child, it would be advisable to take a broad view of the general causes of mortality, and not to be misled into the belief that infantile mortality is a condition apart from general mortality, to which it is but necessary to apply the usual accepted remedial measures to achieve ideal results. It has to be remembered that special efforts to reduce mortality among infants are directed towards reducing conditions inimical, and peculiar to the earlier periods of life. These, however useful, will not control mortalities attributable to general causes which are always present, and associated with

### **Infant Mortality and General Mortality.**

general insanitary conditions which operate prejudicially on all age periods. The following figures suffice to illustrate the point :--

Year.	Total mortality rate.	Insantile mortality rate.	Comparative ratio.
MADRAS.			
1905	59'0	316'3	5'4
1909	46'6	341'2	7'3
1907	40'5	270'7	6'7
1908	43'7	296'3	6'8
1909	37'9	295'0	7'8
1910	39'8	294'1	7'4
1911	42'0	305'4	7'3
1912	38'8	280'0	7'2
1913	39'9	293'4	7'4
1914	46'6	308'9	6'6
ENGLAND AND WALES.			
1913	13'7	108'0	7'9
RANGOON.			
1913	35'2	269'0	7'6
CALCUTTA.			
1913	29'2	274'8	9'4

It will be observed from the above figures that the infantile mortality ratios generally bear a more or less close proportion to the total mortality ratios, whether we examine the returns of different towns, or of Madras City for various years. Although these two ratios are obtained in different ways a comparison of this nature is instructive. In England, the infantile ratio for the year 1913 was 7.9 times the total mortality ratio. For the same year, in Rangoon and Calcutta they were 7.6 and 9.4 times respectively. In Madras we had, no doubt, a very high infantile death rate during the year under review, but it can be seen that the comparative ratio referred to above approximates to that of former years. Thus, *the causes that raise the infantile mortality are chiefly those which increase the general mortality.* As already pointed out, there are special causes which usually account for excessive wastage of infant life; but, these in common with pronounced general causes must be regarded as having an origin



in common—a low standard of general sanitation. Granted even, that conditions inimical and peculiar to infant life were entirely removed, the existence of the causes of general mortality would still exact a heavy toll in the early months of life, as infants are delicate indicators of the social and sanitary conditions of any given locality. Further, it seems but a fair inference that a marked decrease in infant deaths need not be expected until the causes which are responsible for the general mortality are also dealt with and removed.”

“Insufficient protection of infants against small-pox” is sometimes adduced (vide list of causes given in the Report of the Sanitary Commissioner with the Government of Madras, on page 65 supra) as a contributory cause of our high infant mortality rates. It may be so ; but, it is *not easy* to see how an occasional occurrence like a visitation of small-pox could be a cause of an ever-present evil. Further, so far as Madras Statistics go, infant deaths from small-pox, even when epidemics prevailed, (as during 1915 and 1916) were not as high as those from measles which, however, is not adduced as a cause of our high infant mortality.

The following table may serve as an illustration :—

—	1912	1913	1914	1915
Small-pox ...	17 or 0·8 p. c.	9 or 0·5 p. c.	11 or 0·6 p. c.	19 or 1·03 p.c.
Measles ...	30 or 1·5 p. c.	30 or 1·5 p. c.	16 or 0·9 p. c.	21 or 1·1 p. c.
Total Infant deaths :	5628	5713	5635	5244

It is however probable that the above conclusion is based on data not given in the Report ; if so, it will help to clear doubts if these data are published. Of course, doubting is not discrediting ; जिज्ञासा नास्ति नास्तिक्यम् (Enquiry is not disbelief) as our ancient logicians used to say.

From the seventh abstract of Public Health Statistics issued last year by the department of statistics of the Government of India, we learn that, “according to local authorities”, one of the causes of our high Infant

**Malaria as a cause of Infant Mortality.**

Mortality was Malaria. This is certainly borne out by available statistics. Indeed, the intimate relationship of infantile mortality to Malaria is so fully recognised by all "Malarial experts" that, other things being equal, they look upon infant mortality rates as one of the safest and most reliable indices of the prevalence of Malaria in any locality,

There is a growing belief that the use—often clandestine—of abortifaciant drugs and of various procedures "directed towards the prevention of pregnancy, or in the alternative of procuring abortion or miscarriage," is on the increase of recent years. Regarding the prevalence of this dangerous and immoral practice amongst Europeans in India, the following statement is attributed by Lyons to "an experienced Anglo-Indian physician"—"I am afraid that in India inducements to procuring abortions criminally are frequent and strong; and I have known instances in which solicitations in that direction have caused medical men to swerve from the path of rectitude." Regarding the prevalence of this practice the among Indians, the sad experiences of our maternity Hospitals and the woeful records of our criminal courts make it abundantly clear that this dangerous practice does obtain among them also, especially among that unfortunate section of Indian womanhood, the Hindu widows. But, in the absence of reliable statistics, it is difficult to say how far the belief in the increasing prevalence of this practice is founded on fact and how far on fiction. But, medical opinion is decidedly of the view that children born to women who had drugged themselves during pregnancy are apt to be weakly. Moreover, there can really be no manner of doubt as to the probable prejudicial influence of drugging on infant life; for, "even though a subsequent miscarriage, abortion, or still-birth be avoided, the infant may have suffered injury to such an extent that owing to prematurity or debility, etc. it does not long survive its birth."

That a certain proportion of our infant mortality is attributable to some of our socio-religious customs and practices cannot be denied. Foremost among these is, of course, early marriage and the consequent immature

**Infant Mortality  
and socio-religious  
customs.**

parentage. Prohibition of remarriage of Hindu widows is perhaps a fruitful cause of still-births. Without venturing on such large and vexed questions as, whether or not the institution of post-puberty marriage is likely to lead to worse evils than those which it is intended to cure, and whether or not it is enough to abolish pre-puberty marriage and the irritatingly anomalous distinction between widowers and widows in their right to remarry, it may, however, be pointed out that the accused in cases of Foeticide and Infanticide is frequently an unmarried female in European countries but a Hindu widow in India. An excessive and disproportionate amount of deaths among female infants is sometimes a pathetic feature of Indian statistics. It is quite true that in India, as in Europe, a certain amount of abortions and even infant deaths are attributable to the anxiety of parents to reduce the increase that might occur in the size of families, if the influx of too many inconvenient additions is not restricted somehow or other; but this mode of thought is confined to those that are learned in the monstrous doctrines of Neo-Malthusianism, and of that soulless political economy against which Ruskin protested of old and several Socialists are protesting to-day. The great masses of India are too simple and "uneducated" to imbibe these unnatural doctrines. If deaths among female infants are especially excessive in certain localities and among certain communities, they are mostly tracable to certain socio-religious causes, chief among which may be mentioned the following:—“(a) Family pride among certain khatryas (warrior castes), notably the Thakurs and Rajputs, and the consequent fear that a husband of suitable rank and position may not be found if the infant is allowed to grow up to girlhood (b) the extravagant expenditure which a daughter's marriage involves, (by way of bridegroom price (vara sulkam), ornaments, son-in-law's school and college expenses, and so on.) (c) The disgrace attached to parents of girls who attain puberty unmarried”. What wonder then that, as soon as a girl baby's birth is announced, some poor parents are actually in unnatural grief, rather than in the joy that is natural to such an occasion; how can they help not conjuring up before their mind's eye, awful visions of crushing demands of bridegroom-prices; of Sambandi Amma's expressive gestures at the poor show and the

ridiculously small gifts, made to her B.A. son, as compared with the handsome gifts made to the matriculate-boy of her neighbour; of the awful monthly bills of their son-in-law in the Law College, a little delay in settling which may mean that the enraged son-in-law will promptly hurl down an ukase, announcing his displeasure and his disinclination for the proposed consummation of marriage! About the middle of the last century the practice of female infanticide became so scandalously prevalent in certain tracts that the Government of India ordered an enquiry in a few districts where the practice was suspected to be most prevalent. "It was found that in many villages of the Benares District there were no girls at all; In Mainpuri, out of 30 villages, there were no girls in 11; and in the whole 30, there were only 37 girls to 329 boys. Again in the United Provinces, in seven villages inhabited by Rajputs, there were 104 boys to 1 girl and in nine other villages, 71 boys to 7 girls. In Kathiawar, there were only 335 females to 4912 males of pure Jadeja (Rajput) blood. The scandal was so great that the Government of India thought it fit to pass an Act (Act VII of 1870) the chief provisions of which are as follows:—Power is given to Local Governments to apply the Act to any district or class; and thereafter (subject to the confirmation of the Government of India) to make rules applicable to such district or class: (1) For the Registration of births, marriages and deaths. (2) For the regulation and limitation of marriage expenses. (3) For the establishment of punitive police posts. After the application of the Act. the results were as expected. In Mainpuri. for example, the number of Rajput girls rose in 13 years from 0 to 250 and in the Agra District, the number of girls was doubled in a few years."

There seems to be an impression in some quarters that baby marriages and early-marriages are not now prevalent to any marked degree; the actual state of affairs is revealed by the following table taken from the last census report, which gives the proportion of marriage per mille of each sex at the periods of 0-5 and 5-10 years.

	0--5		5--10	
	Males.	Females.	Males.	Females.
All Religions ...	7	14	37	105
Hindu ...	10	18	48	132
Mussalmans ...	2	5	15	65
Buddhist ...	...	...	...	...
Animist ...	4	4	10	22
Christian ...	2	4	6	15

From the above, it will be seen that early marriages are most prevalent amongst Hindus; but then, when the Statistics for the several divisions among Hindus are separately taken, infant marriages are, strange as it may seem, least prevalent among the Bramhanas in every province. Next to Hindus come the Musalmans, closely followed by the Animists, then the Christians and last of all, the Buddhists, amongst whom infant marriages do not seem to obtain at all.

The harmful effects of town life and industrial centres, on infant life are well-maked under all groups of causes except perhaps, under the group comprising congenital defects, immaturity etc. where the difference is not so very marked; while it is especially noticable in regard to diarrhoeal and respiratory diseases. In British returns, overlying is said to be nearly four time as common in town as in the country. Dampness, dirt, overcrowding within, and insanitation without and all that the term "slum-living" indicates, are special features of large towns and cities. "If flowers will not grow in slums, it cannot be expected that infants will flourish among insanitary surroundings."

Whether employed in industrial occupations as in an essentially industrial country like Great Britain or engaged in agricultural labour as in an essentially agricultural country like India, there is little doubt that such employment is decidedly prejudicial to infant-life not only during its postnatal phase but during its pre-natal existence as well. As has been well pointed by

Dr. Newsholme, "It is reasonable to believe that the industrial occupation of women, in so far as it exposes the pregnant mother to laborious work and strain and in so far as it separates infant from its mother, thus preventing not only suckling but also diminishing the individual care which the mother can devote to her infant, must tend to increase infant mortality and sickness. ....In a wider sense all industrial occupation of women may be regarded as to some extent inimical to home-making and child-care. This is so, even in the case of girls; and their industrial employment should be associated with systematic training in domestic economy."

It is now well recognised that improper management of confinements and new-born babes, along with the lack of proper maternity centres and infant clinics is a serious cause of preventable deaths amongst both mothers and

**Infant Mortality  
and Lack of  
Maternity aid.**

infants. Lack of competent medical aid is bad enough; but, *bad* medical aid is worse. It is a very sad story that a number of mothers and infants should die every day, merely because the ordinary dhais and barber-midwives do not know how to avoid dirty and meddlesome midwifery. How many lives could be spared every day, if only they are instructed in the elements of surgical cleanliness and in the supreme value of avoiding unnecessary interference and meddlesome midwifery! How many deaths from tetanus neonatorum could be prevented if only they are made to understand that, in most cases, it is the dirty instrument with which they cut the cord or the dirty ligature they used, or the dirt—the surgical dirt—that they introduced through their fingers, instruments etc. that was the cause of these preventable deaths! How many deaths from puerperal fever could be prevented if only our barber-midwives are made to understand that it is the surgical dirt they introduce through their fingers, instruments etc that is responsible for the large majority of these deaths? The first great lesson that is to be taught to them is not so much what to do, as what *not* to do—*not* to use dirty fingers, *not* to use dirty instruments, *not* to examine the private parts as a matter of routine and *never* with dirty fingers or instruments, and so on. It is a good sign of the times that the need for action in this direction, as also in that of starting proper maternity centres and infant clinics is being more and

more increasingly recognised and that definite schemes for combating the evil are being discussed and planned, both by the Government and the Public (Vide Appendix). In connection with this barber midwife aspect of midwifery practice in this country the following words from an acknowledged authority are well worthy of serious consideration:—"Midwifery in India is still in an awful condition. It is the common habit and custom in almost all districts to hand over the women in labour to the care of one of the dirtiest, most backward, illiterate, ignorant and superstitious classes, the barber midwife. The result of this custom is that untold misery and unnumbered unnecessary deaths, are meted out to the parturient women of this country by these untrained and unclean practitioners. I do not exaggerate. Every medical practitioner in this country will substantiate this statement" (Lt.-Col. Giffard, I.M.S., at the opening of the Giffard Medical School; cited with approval by Mr. Molony I.C.S., in his census report for 1911).

That poverty and ignorance (for, they very often co-exist) are at the root of the evil is well recognised by all competent authorities that have bestowed any thought or attention to this problem. Indeed, poverty, ignorance, insanitation, disease and death are so closely inter-related that it is difficult to deal with them in strict isolation. It seems as though nobody can think of infant mortality without thinking, at the same time, of ignorance and poverty. "Ignorance, neglect and insanitary surroundings are the principal causes of high infant Mortality" says Dr. Furner, the Health officer of Bombay "Poverty and the consequent lack of good nourishing food" puts in Dr. Crake, the Health officer of Calcutta; "Ignorance of mothers about certain elementary ideas of living, both natal and post-natal" adds Dr. Russell the whilom Health officer of Madras; "Poverty with insufficient and inefficient food, bad housings and surroundings" chimes in Dr. Raghavendra Row, the present Health officer of Madras. "If flowers will not grow in slums" thunders forth Dr. Sethna the Health officer of Delhi "it cannot be expected that infants will flourish among insanitary surroundings; it is the poverty of parents which forces to dwell in such places". "Ignorance, insanitary conditions,

**Infant Mortality  
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ignorance and  
Poverty**

defective scavenging, ill-ventilated, ill-drained and overcrowded dwelling houses" argues Dr. Arora, the Health officer of Lahore; near at home, the verdict of Major Justice, the Sanitary Commissioner of Madras, is "Extreme ignorance of the people in matters connected with pregnancy, child-birth and infant-rearing": "Poverty of the parents and ignorance of the proper way to rear and feed children." so says Dr. Williams, the Sanitary Commissioner of Burma, while Dr. Williamson the Medical Officer of Health of Edinburgh expresses himself thus :—"The chart showing the rates in the various wards of the city only serves to emphasize what must be an *accepted fact, viz. that high infantile mortality is always associated with poverty and overcrowding.*" Such authoritative sayings can easily be multiplied; but the above is a fair representation of all shades of opinion. Many and varied are the cause of infant mortality but poverty and ignorance are at the root of them all; and if under poverty we include not only primary poverty but also such associations of poverty as ignorance, insanitation, over-crowding, intemperance, the need for expectant mothers to toil till late in pregnancy, lack of adequate ante-natal, natal and post-natal aid, improper or defective feeding, neglect, exposure, and the many other evils which both mother and child may be subjected to—if under poverty we include all these—then, it is not too much to say that poverty, with all its complications and sequelae is responsible for over three-fourths of deaths among our innocents. Says Dr. Newsholme:—"Poverty is a direct cause of infant mortality where it induces malnutrition of mother or infant or where it implies that the mother cannot give adequate care to the infant. Poverty is also an important indirect cause of infant mortality. Its influence is exercised in the following, among other ways: (a) Poverty is not infrequently associated with ignorance and carelessness. (b) With these are commonly associated overcrowding and uncleanness. (c) Alcoholic habits frequently result from living under conditions of poverty, the converse also being true. Poverty, uncleanness, overcrowding, alcoholic indulgence and diseases are closely inter-related in vicious circles, the starting point leading to excessive infant mortality not always being the same."

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## PART III.

### THE CURE.

Where causes are so complicated, remedies cannot be expected to be simple; it is beyond the powers of mere sanitarians to break the vicious circle of poverty, ignorance, intemperance, insanitation, disease and death—the vicious circle of five D's, as it is sometimes called, of Dirt, Debt, Destitution, Drink and Devil. The proper solution of what is essentially a sociological problem requires the close co-operation of the sanitarian and the statesman, the physician and the philanthropist, the economist and the sociologist. Poverty is at the root of the evil and this cannot be abolished by an Act of Parliament. In an ideal state, there would perhaps be no poverty; workers would perhaps be sure of at least regular employment and adequate wages; a wage-earning mother would perhaps be a monstrous anomaly; but a consideration of these complex problems are, I fear, beyond my depth; in any case, I do not propose, even if I had the ability to do it, to comment on these vexed questions in an essay of this description, which is intended to deal only with those topics, in which the Public Health administrator is more or less directly concerned.

In discussing the relative practical value of measures against infant mortality, it is desirable and helpful to set up a standard as an *ideal*, by which to measure the degree of success reached by our *actual* performances. The highest standard so far attained is that of Villiers-Le-Duc, a commune of the French midi, where the infant mortality has been reduced to zero, and maintained at that level, for these ten years and more; the story of this ideal of perfection is so well narrated by Dr. Moore in his Milroy Lectures on Infant Mortality that I cannot avoid the temptation to reproduce it here in full.

“During my early inquiries into the subject I saw a statement in a medical paper to the effect that at Villiers-Le-Duc, a Commune of the French Midi, the infant mortality figure

**The Miracle of  
Morel De Villiers.**

had been zero for ten years. I did not believe the statement, It was incredible. Yet I wrote to the French Academy of Medicine and inquired if they had any information on the subject. With the customary courtesy of our neighbours and gallant allies, the Academy sent me a very full and complete answer confirming the fact, not merely by affirmation, but also by means of a print of a report to the Academy made by a special Commissioner, with the additional facts that during the same period that no mother had died in child-bed, and at the date of the report all were *vivant et vigoureux*. Apparently the French Academy of Medicine had felt some difficulty in accepting so startling and important a statement.

\*                     \*                     \*

The actual Regulations which achieved so perfect a result were as follows:—

The Mayor of Villiers-Le-Duc, considering that the Municipal authorities have the duty of endeavouring to stop the depopulation of the country by taking the measures necessary to prevent birth mortality and any child being still-born, and to do away with infantile mortality, the municipal council orders as follows:—

ARTICLE I.—Every woman with child, whether married or not, having her home in the village, and not in possession of sufficient means to allow her to take upon herself the expense of the measures necessary to secure, as far as possible, not only her own life, but also that of the child about to be born, shall have the right to require the help of the village authority.

ARTICLE II.—In order to take advantage of this favour she must declare her condition at the office of the Mayor, before the seventh month, and she shall at the same time indicate by what midwife she wishes to be attended. The midwife named shall be requested by the official head of the village to visit the woman with child in order to ascertain for herself that there is present neither albuminuria nor dystocia either of the child or of the mother, nor dangerous presentation. For this visit there shall be allowed to the midwife a sum of (5 francs) 4s. 2d. out of the fund opened in the village for free medical aid, and without any share of liability on the State or on the Department.

ARTICLE III.—In case the midwife, after this examination, shall consider that it is necessary to call in a medical man, she must at once notify the municipal authority without giving the reason for the notice. The authority shall then request a medical man, at the choice of the woman with child, to take the measures necessary to bring about the confinement successfully. The fees of the medical man shall be secured on the credit of the free medical aid fund without any liability on the State or department.

ARTICLE IV.—Every woman who is assisted by the Commune at her confinement shall receive a grant of 10d. per day during six days (not counting the day of her confinement) if she remains in bed. This grant shall be paid to her at the end of six days. If a woman gets up before the time fixed, the grant shall be refused. The cost of this shall be defrayed from the free medical aid fund without liability on the State or the department.

ARTICLE V.—Every woman who takes in a child to nurse, if she does not feed it at the breast, or if she feeds it partly at the breast and partly otherwise, shall be bound to provide herself with an apparatus to sterilise the milk, and shall follow out, for the feeding of the child, the written instructions which will be supplied to her by the Municipality. She shall, on every occasion, when required by the municipality or by the visiting doctors, produce the sterilising apparatus, the feeding bottles, full or empty, the teats, and other accessories, in such a way that it will be possible to ascertain that they are in good condition.

ARTICLE VI.—All the infants placed out to nurse shall be weighed every fortnight on the communal baby weighing machine either at the office of the Commune, if time permit, or at the home of the child. The increase of weight shall be noted on a slip kept separately for each child, and preserved at the office of the Commune.

ARTICLE VII.—Every nurse-child brought up at the breast or on the bottle who may be attacked by any illness, especially by diarrhoea, vomiting or respiratory troubles, must be notified to the municipality with a maximum delay of not more than 24 hours from the first appearance of the illness.

ARTICLE VIII.—In case nurses who have charge of infants do not conform to the regulations in articles, 5, 6, and 7 above given, the certificate notifying their qualifications may be

withdrawn from them eight days after the notification has been received without effect.

ARTICLE IX.—An apparatus for sterilising milk and exchangeable parts of the apparatus shall be placed at the office of the authority for disposal to the nurses, who may purchase them at a reduced price. The mothers who nurse their own children, and who are known to be in a state of poverty, shall be able to obtain on loan, without charge, a sterilising apparatus which they shall return to the office after the weaning of the child.

ARTICLE X.—Every nurse bringing up her own child, or a child entrusted to her, whether at the breast or by bottle, who shall produce the child in a good state of health at the age of one year, shall have the right to a grant of 2s. per month dating from the time when the child was begun to be nursed by her, up to the time when the child shall have reached the age of one year.

There is one more Article, which was added on to the above under the following peculiar circumstances: From 1804 to 1878 there were 43 children stillborn, whilst there had been only two from 1878 to 1903. There had only been one child stillborn for 15 years. The death of this child, caused by the want of timely medical assistance has made our friend (M. Morel de Villiers) take a special precaution. He has ordered the midwives to call in a doctor on every occasion where confinement is not brought to an end within 24 hours. The last measure just completes the admirable work organised by medical assistance at Villiers-le-Duc.

All the facts clearly impress upon us how necessary and essential it is to have the union, *the combined strength of both the officials of the administration and the representatives of the medical profession*. Isolated, their efforts, however good their intentions and wishes, will be fruitless and ineffective, but combined their effects will be all powerful. However, it is not always so, unfortunately.

### Essential features of foregoing Regulations.

Let us consider what are the essential features of these regulations, which gave a perfect result. 1. There are *orders* to the people concerned to do certain things, and not merely recommendations or advice. 2. *Every* mother with child has the *right to adequate* assistance in child-bearing. 3. She is required to

notify pregnancy. 4. The midwives are *required* to ascertain that the pregnancy is normal, and if it be not so to notify the fact to the Authority. For this service the midwife is paid out of public funds. 5. The authority then pays a doctor, *whom the mother chooses*, to take measures to bring about a satisfactory delivery. 6. A continuous supervision of the provision for the infant by the authority. 7. They are complete; they deal with all mothers and infants. It is worthy of note that in one of the most democratic countries in the world, a Republic, whose watch-words include "Liberty" and "Equality", these things are *ordered* to be done. That the orders were obeyed is vouched for by the result.

Every one interested in Public Health Administration may well set up as his ideal this example of zero infant mortality of Villiers-Le-Duc; I do not mean for a moment that the schemes and regulation of Villiers-Le-Duc should be followed to the very letter and in every detail; if you transport *en masse* some exotic growth of the frigid zones into the soil of the sunny equator, you must not be surprised if the growth does not thrive and you are disappointed in your expectations. To take but one single detail, the system of "ordering" about, is certainly not calculated to succeed in this country; neither the cause nor the public good is served by Nabobs and Bahadurs who go about "ordering" people to do this, nor to do that, and so on; in matters of Public Health, the people that succeed are those who are blessed with tact and persuasive power—people "who know how to get along with other people; who respect the rights of people while loyal to the Law; who are jealous of the rights of the weak and the helpless; who have not an excess of official dignity with projecting elbows; who can convince the majority of the constituents of the necessity of progress and of the value of reforms they propose; and who, when obliged to use their power in ways likely to be displeasing to the people affected, always regret, and act as though they regretted, to use their power with severity—and then use it politely if firmly, and only after persuasion—"the iron hand within the velvet glove" that usually accomplishes the difficult object with thanks, rather than execration from the public." Similar remarks apply to other details, which must necessarily vary with the varying conditions of

different localities. What is required is intelligent adaptation and not slavish imitation of the methods of Villiers-Le-Duc; as Dr. Moore himself points out "It is to be borne in mind that Villiers le-Duc is a small place, the life there is that of a simple rural village, that the numbers concerned are small, and that the conditions in large urban communities are different; that these present degradation of living, drunkenness and other forms of vice, degrees of poverty and so forth, which must preclude the hope of similar results, however effectively the measures of de Villiers may be applied. When we remember that the infant mortality figure for the children of medical men is 40 in this country, it at once becomes manifest that there are factors in the problem which make it clear that the results at Villiers-le-Duc are not within our reach. Yet, on the other hand, let us not flinch from giving them their due weight. Let us not flinch from facing and attempting to overcome difficulties from whatever cause arising. We know that ignorance stands in the way. We can dissipate that. Apathy will disappear once it be realised that there is a stark need in the interest of the race, for the conservation of infant life."

Infant mortality, being merely a symptom, albeit a most sensitive one, caused by diverse diseases to which our body-social is heir to, the cure must necessarily vary with the specific cause is at work in any particular instance; there is no universal panacea that can cure all our social ills, any more than there is one for our physical ills. Moreover, the remedies that may suit a rich and advanced country like England may not suit the conveniences of a country like ours where poverty and ignorance abound. To take an analogy from Medicine, a symptom like cough may be caused by a variety of diseases to which flesh is heir to—a bad throat, an inflamed ear, a disordered stomach, a diseased heart or lung and so on; and the proper cure of the cough—a symptom common to all these distempers—must necessarily vary with the causative agent that is at work in any particular case; the same is the case, with the cure of infant mortality, the most sensitive symptom of our social distemper. Many and varied are the remedial measures that have been proposed and tried from time to time; and they will be dealt

**No universal  
panacea.**

with, in some detail, in the succeeding paragraphs. But it may be just as well to state at the outset that many of the remedial measures discussed hereunder have special reference to city-life and town conditions generally, as infant mortality is an especially serious problem of "the slums" of every big town, city or industrial centre.

Improvement in General sanitation has, of course, an important part to play in every scheme for reducing our excessive death rates—both General and Infantile. But there is abundant evidence to show that if we trust to improvement in general sanitation alone, to effect any improvement in the direction of reducing our excessive infant mortality rate, we might perhaps have to wait till Doomsday before any *appreciable* improvement is effected. To take an illustration from the United Kingdom; there is perhaps no town in the whole of the United Kingdom (save perhaps Birmingham) which is more advanced in sanitation and municipal cleanliness than Liverpool, which spends, for these purposes, sums of money, which to us appear almost fabulous; and yet, the infantile mortality figures remain high; on the contrary, it is well-known that sanitation is of very low standard in a number of rural and urban districts where the infantile mortality is astonishingly low. In other words there are a number of factors, other than general sanitation or a municipal cleanliness, which are of very great importance in the problem of infant welfare. As Dr. Moore well points out, "the fact appears to be worthy of emphasis that if we rely upon improvement in the general sanitation to reduce the excessive fatality among infants, even the most sanguine must recognise that many generations will pass before anything like a satisfactory result can be realised. On the other hand, events of recent years have demonstrated that special measures directed to individual infants have given results immediate, and better than were anticipated. . . . The demonstration of the existence of "blots" in good areas and of the existence side by side of areas of high and of low infant mortalities is of great significance. *Not climate, not topography, not municipal sanitation but the lives, the habits of the mothers in the homes determines the difference.*"

“The object of child welfare work is to ensure that each parent has within reach accurate counsel as to Hygiene of childhood and as to the general and domestic conditions necessary for ensuring its maintenance. From the

**The General lines  
of child-welfare  
work.**

standpoint of Medicine, this implies such advice as will conduce to the prevention of minor ailments, to their prompt discovery, and to that early treatment, which is essential for the prevention of more serious disease” *Newsholme*.

The general lines on which work is to be undertaken to gain these objects may be stated thus:—

*Infantile Hygiene should begin before the birth of the infant.* It has been seen already that the number of children that die before they have drawn a single breath is at least as great as those that die before they are a year old; furthermore, as many as  $\frac{1}{4}$  to  $\frac{1}{3}$  of the total number born during the year die in the first week of extra uterine existence. These facts emphasize the need for *ante-natal clinics*, where diseases and minor ailments of the expectant mother can be detected and treated, and where still-births, eclampsia and other preventable causes of maternal or child mortality may be checked or prevented.

*The supply of midwives should be increased and their training supplemented by a course in General Domestic Hygiene.* Under such improved conditions, the midwife will be an important agent in securing infant hygiene. In connection with maternity work, the opening in each large area of a *maternity Home* will be of great service. This will form *the natural centre for ante-natal clinic*, and for the training of midwives and of Health Visitors. In large towns at least, the ante-natal clinic should be associated with a maternity hospital, “where expectant mothers can be confined when their home conditions are unsatisfactory, and where the complications of pregnancy, of parturition, or, of the puerperal period may be treated.”

Work is also needed in the direction of *visiting infants and mothers at their homes* and guiding the latter in feeding their infants and attending to their general hygiene.

To secure the maximum benefit, it is not only necessary that there should be adequate provision for prematernity and maternity



centres where mothers could be referred, to but there should also be provision for *baby clinics* at which the threatened illnesses of the babies may be prevented, errors of dieting or clothing corrected, and diseases diagnosed and treated as their earliest symptoms develop.

These, and other measures of child-welfare work are succinctly outlined in the following memorandum issued by the Local Government Board to all their county councils and sanitary authorities :—

## MEMORANDUM.

## MATERNITY AND CHILD WELFARE.

A complete scheme would comprise the following elements, each of which will, in this connection, be organised in its direct bearing on infantile health.

1. Arrangements for the local supervision of Midwives.
2. Arrangements for—
 

ANTE-NATAL	{	<ol style="list-style-type: none"> <li>(1) An Ante-Natal Clinic for expectant mothers.</li> <li>(2) The home visiting of expectant mothers.</li> <li>(3) A Maternity Hospital or beds at a hospital, in which complicated cases of pregnancy can receive treatment.</li> </ol>
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3. Arrangements for —
 

NATAL.	{	<ol style="list-style-type: none"> <li>(1) Such assistance as may be needed to ensure the mother having skilled and prompt attendance during confinement at home.</li> <li>(2) The confinement of sick women, including women having contracted pelvis or suffering from any other condition involving danger to the mother or infant, at a hospital.</li> </ol>
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4. Arrangements for—
 

POST-NATAL.	{	<ol style="list-style-type: none"> <li>(1) The treatment in a hospital of complications arising after parturition, whether in the mother or in the infant.</li> <li>(2) The provision of systematic advice and treatment for infants at a Baby Clinic or Infant Dispensary.</li> <li>(3) The continuance of these Clinics and Dispensaries, so as to be available for children up to the age when they are entered on a school register, <i>i.e.</i> the register of a Public Elementary School, Nursery School, Creche, Day Nursery, School for Mothers or other school.</li> <li>(4) The systematic home visitation of infants and of children not on a school register as above defined.</li> </ol>
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It may appear a truism to say that healthy children presuppose healthy parents, even as a good

**The soil and the seed.**

crop presupposes good seed and soil; and yet, not till very long ago people in even

advanced England, were acting as tho' they did not realise the full significance of the statement that "the prevention of infant mortality is a moral problem, as well as a problem in *public and personal hygiene*" It is difficult to approach this subject without stumbling on the thorny topic of Eugenics—a topic, which I do not venture to touch upon in an essay of this description. The report of the Royal commission that enquired into the prevalence

of venereal diseases in the United Kingdom is such a fearful reading that it fills one with dismay as to the future of the race, if the extent of the evil in India is anything like so appalling as in the United Kingdom. Early marriage, leading as it often does, to child-percentage and sickly progeny is another distressing feature of Indian social conditions. We *must* anyhow get our girls married before they come of age; and oftentimes, it has to be done literally at all costs; an eligible bridegroom is a highly marketable commodity, whose price, like that of food-stuffs, is rising by leaps and bounds, resolutions at social conferences for thirty one years notwithstanding. Apart from the social demoralisation involved in the buying and selling of bridegrooms, there are also to be considered certain other evils of early marriage and child parentage viz. sickly progeny and weakened parents; it has been seen already (per Korosi) that the number of weakly children is greatest with the youngest mothers, that 20 years is the earliest safe age (in Europe) for girls to get married and that old men ought not on eugenic grounds to marry young women. It has also been seen that, so far as the size of the family is concerned no improvement can accrue so long as the principle of late marriage is applied to boys only and not to girls as well, "it being estimated that while a delay of three years on the part of the wife reduces the average size of the family approximately by one child, it requires a delay of something like forty years on the part of the husband to effect the same reduction. Is there no escape from a "system that burdens a boy with a wife long before he has any ability to support one, or that subjects a woman to the inevitable risks of maternity, long before Nature turns the balance of probability to the side of safety?" There can be no manner of doubt that child parentage is, apart from other considerations, distinctly dysgenic in its influence, and requires at least as serious an attention as other distressing features like those which the Royal Commission on Venereal Diseases has brought to light. But, perhaps, we will be told "that even in advanced countries of the West, legislation on Eugenic lines has not proceeded as far as society has a right to expect. To believe in the possibility of concerted action, in this land of tradition and sacerdotalism, for

the prevention of the multiplication of the unfit would argue a want of balance in the proposer and a lack of humour in the convert if such a one could be found." What may usefully be attempted at present is perhaps not so much the Eugenists' ideal of prohibiting the unfits from marrying, as letting the race of present unfits severely alone to die their inevitable death, and preventing the births of future unfits, by making every citizen,—more especially every man citizen—strive to live up to the ideal of keeping oneself pure in thought, word and deed in order to efficiently discharge the supreme responsibility and the patriotic duty of providing the state with healthy and efficient citizens of the future. Some will perhaps smile at this "original discovery"; but let me point out that is what suggested is not that mankind can undergo spontaneous improvement by merely laying down morals or preaching them, or that Society has ever fallen or suffered *because* of the lack of moral precepts (in fact, they are ever found in plenty in the scriptures of every religion) but that the ever-present example of those who *live* good and moral lives acts as the leaven that leaveneth the whole of the society among whom they live, and that their influence, though not perhaps consciously felt by others, will yet make for the gradual improvement of the society as a whole; for constant dripping wears away even a stone. The reason for laying special stress on the responsibilities of the man citizen is not that the need for purity on the part of the mother is less important or urgent than in the case of the father but that, for some reason or other, there is a tendency everywhere to condone men's sins, while a very high standard—an impossibly high standard in a few cases—is demanded of our women. "Parents must be led to recognise that they are responsible for such indulgences as will lower the standard of domestic life by leaving insufficient margin for adequate housing, food and clothing; their sense of responsibility must be raised; every support must be given to schemes which have for their object the promotion of health, temperance, thrift, and purity of life such as the various sociological and social service leagues, the boy-scout and girl-guide movements, the religious and moral instruction societies, the social reform leagues (especially those which aim at the abolition of baby-marriage and consequent

child parentage), depressed classes missions, the temperance associations, the co-operative movement (with special reference to housing schemes and reduction of indebtedness), schools for mothers, infant homes and in fact to every movement which strives to make for that high and noble ideal, put forth by His Majesty the King-Emperor, viz. "The foundation of national glory are set in the homes of the people; they will only remain unshaken while the family life of our race and nation is strong, simple and pure."

The organization of ante-natal work is admirably out-lined in the following extract from Newsholme's *Ante-Natal Work*. Supplement to his annual report for 1914-15:—

"Ante-natal care is the application of preventive medicine to pregnancy in the common interest of both mother and infant. Care bestowed at this period will often secure saving of infant life or the prevention of chronic diseases in childhood. It also enables much unnecessary suffering on the part of the mother to be prevented. Both ante-natal care and skilful midwifery are needed to ensure in the majority of instances a healthy mother able to nurse her healthy infant. Failing these conditions there is liability to one or more of the following results:—

- (1) Death of mother and infant; or
- (2) Death of one of these; or
- (3) Chronic invalidism or protracted debility of the mother; or
- (4) Impairment of health of the infant by deprivation of mother's milk; or through neglect of disease in the mother.

The main *functions of an ante-natal clinic* are the following:—

- (1) To advise the expectant mother as to the special hygiene of her condition, and as to the best preparations for the birth of her infant under existing circumstances.
- (2) The minor disabilities of pregnancy, such as dyspepsia, constipation, varicose veins, and defective teeth, are made the subject of advice and treatment, and thus much unnecessary suffering is avoided.
- (3) More serious conditions, such as albuminuria, cardiac or pulmonary disease, are looked for and the necessary measures taken in regard to them.
- (4) In midwives' cases, when conditions are found which render it likely that medical aid will be needed at the confinement, arrangements are made for this.

- (5) By means of the advice and aid given, the conditions are avoided which imply that the mother reaches term in an exhausted condition. This exhaustion involves a lingering labour and a bad prospect for the infant. If satisfactory conditions cannot be secured at the patient's home, hospital treatment is indicated.

By means of an ante-natal clinic, supplemented by sympathetic home-visiting by a trained visitor, there should be secured a diminution in the number of miscarriages and of stillbirths, more intelligent preparation for confinement, increased interest in the post-natal care of the infant, a marked increase and longer duration of breast feeding, a diminution in the amount of ophthalmia neonatorum, as well as reduction of suffering for the mother, a happier home, and a better prospect for future confinements.

In several instances some modified system of *notification of pregnancy* has been recommended, under the erroneous impression that this is a necessary antecedent to the commencement of an ante-natal clinic. Such notifications should not be entertained without the formal and intelligent consent of the expectant mother. The ante-natal clinic can be fed by means that do not imply formal notification. Thus—(1) The health visitor who visits the house in connection with an earlier infant advises the parent to consult her own doctor, or failing this to attend for advice at the maternity centre. The health visitor can be of great service in increasing resort to the clinic, as well as in maintaining the influence of the clinic by means of home visits. (2) The midwives are under the official supervision of the Local Supervising Authority (the county or county borough council), and can be instructed to refer their patients to the centre for medical advice and help. (3) At the present time midwives are under an obligation to hand to the husband or the nearest relative or friend in all cases of illness of the patient or of any abnormality occurring during pregnancy, the form of sending for medical help (Rule 22) (a) and to send a copy of this form to the Local Supervising Authority (Rules 19, 20 and 21 of the Central Midwives Board). The conditions in the case of a *pregnant woman* for which medical help must be asked are enumerated as follows in the rules of the Central Midwives Board:—(a) If the patient is a dwarf or deformed; (b) When there is loss of blood; (c) When there is any abnormality or complication, such as Excessive sickness. Puffiness of hands or face. Fits or convulsions. Dangerous varicose veins. Purulent discharge. Sores of the genitals. These conditions often are not ascertained until the confinement

takes place. It is to be hoped that in future careful inquiries will be made by the midwife as to their existence before the actual confinement, and the patient referred to the Maternity Centre. (4) When an expectant mother registers her name for attendance under the charge of a lying-in or other similar institution she thereby places herself under the supervision and care of officers of this institution. (5) It may be expected that as the clinic becomes known expectant mothers themselves will ask for its help.

So far as the city of Madras is concerned, the existing maternity institutions could well be adapted to serve the purposes of combined ante-natal clinics and maternity homes. But our greatest difficulty lies in persuading the average expectant mother of Madras to resort to maternity centres sufficiently early for difficulties of labour to be anticipated and prevented; if, for example, every expectant mother of Madras would think it worth her while to put herself under medical observation, at least during the last three months of pregnancy, irrespective of the fact that she is or is not actually ill during this period, how many cases of labour could be prevented from becoming abnormal and how many deaths, both maternal and infantile, consequent on eclampsia or other preventable ills of pregnancy and motherhood be prevented! At present a large number of expectant mothers of even the poor and middle classes, would not think of going to a maternity centre unless labour has become difficult or complicated—too complicated perhaps, to be managed by the barber-woman or other midwife in attendance, if indeed the provision of even such attendance has not been considered a needless and superfluous luxury. Almost similar is the difficulty in the case of infant clinics. The community has yet to realise that a good many ills of both mother and child may be easily anticipated and prevented, if only they are brought under medical observation sufficiently early to receive suitable advice and prophylactic treatment. If this is clearly realised, more than half the battle is won. But, if Muhammad would not go to the Mountain, the Mountain will have to go to Muhammed; if our expectant women and new-born children will not be taken to our maternity-centres and infant-clinics, then, it may be necessary to take these institutions to our expectant women and now-born children, even as we are taking by means of our itinerating dispensaries, both the doctor and the drug, to the very doors of the villagers in certain

backward tracts ; next to poverty, (or even worse than that) our greatest enemy is ignorance; and that has to be dispelled, by endowing every person with at least an irreducible minimum of elementary education, which should include not only the three R's but also, a knowledge of the elementary principles of hygiene and sanitation. Herein lies ample scope for useful work, not only for our health visitors (whether honorary or paid), but also for many a member of our social service leagues and other philanthropic associations. Even the best of health visitors may not be able to cure poverty but should certainly be able in some measure to correct ignorance.

As you are all well aware, the scheme of health-visitors is now in the air everywhere and it may **Health Visitors.** therefore be not unprofitable to go into this subject in some detail. But before passing on to the consideration of certain schemes recently aduntrated, it may be just as well to make a careful study of the following masterly memorandum on the subject prepared by Dr. Newsholme, which may well be taken as the basis of all work in this direction :—

Measures for maintaining and improving the health of mothers and of their children under school age mainly come under one of two divisions—home visits, and attendance at a Centre. In the present memorandum both these are considered. The work at the Centre can only be satisfactory when it is a natural development from, and kept in touch with, a system of organised health visiting at home. In recent years, Maternity and Child Welfare Work has extended rapidly some of it being undertaken by local authorities and some by voluntary agencies. It can only be undertaken on an adequate scale when the information supplied to the local authority by the notification of births is fully utilised. By this means, early visits can be made to every household in which a birth has occurred and where a visit is considered desirable. At these visits suitable advice is given by the health visitor, and, when there is a Centre in the district, the mother is recommended to bring her child to it. The health visitor also attends the Centre, hears the advice given by the doctor to the mothers, and subsequently re-visits the homes, thus ensuring that the medical instructions are being carried out in the home. Experience has shown that usually about a quarter of the mothers visited can be persuaded to attend at the Centre ; thus, for the majority of the mothers with infants, the only opportunity at present of giving the needed hygienic advice is afforded by home

visiting. The importance of home visiting is further shown by the fact that a Centre can only be established satisfactorily where the mothers and infants have not to travel a long distance to reach it. A large part of the total population of England and Wales lives in districts which are rural in character. It is undesirable to attempt to open a Centre in such areas if the births are few and attendance of mothers and infants will be irregular. In such areas the necessary supervision for the present will need to be supplied by increased home visiting. The child welfare work of a voluntary society nearly always consists first in the establishment of a Centre and, unless exceptional arrangements are made, home visiting is necessarily limited to mothers and infants who attend the Centre. Much valuable work has been done at voluntary centres (infant consultations, baby weighings, &c.) but the full utility of their work cannot be attained unless it is associated with a complete system of health visiting under the Notification of Births Act. At the present time, nearly all sanitary authorities of districts with a population exceeding 20,000 have started a system of health visiting, and this work is being carried on by a considerable number of smaller sanitary authorities. Many county councils have organised county systems of health visiting. The powers conferred on local authorities by the Notification of Births (Extension) Act, 1915, may be exercised by a committee, on which women are required to be represented; and this committee, on which it is desirable that voluntary workers should be included, can undertake all the responsible maternity and child welfare work authorised under the Local Government Board's scheme of July, 1914. The notifications under this Act are required to be sent to the medical officer of health. The work following on the notifications should form part of the public health work of the district. In some counties notifications will be received by the County Council, and the health visitors of the County Council will then arrange the home visits. When this is done, it is still important that the visiting should be in close co-operation with the local public health work of each sanitary area. During the past year, many local authorities have inaugurated schemes of work which unite and extend all previous voluntary and official work within their areas. By this means it has become practicable to prepare the way for developments of maternity and child welfare work, on a scale adequate for the needs for the areas concerned. Whether the work of a Centre is provided by the sanitary authority or by a voluntary agency, it is essential that it should be directed by the medical officer of health. It is only by this means that close co-operation between health visiting and the



work of the Centre can be secured. In counties and country boroughs the work can also thus be brought into relation with the inspection of midwives. The question of midwifery inspection is discussed in detail in the recent Report on Maternal Mortality and its Relation to Infant Mortality [Cd. 8035], pages 60-100. Health visiting also has been discussed in earlier reports.\* In view, however, of the importance of health visitors, both in relation to domiciliary visits and to the work of the Centre, the following notes as to the qualifications of the health visitor and her work are given here:—

#### *Qualifications of the Health Visitor*

Experience shows that the three most useful qualifications for non-medical health visitors are those of:—1. A trained nurse, 2. A certified midwife, and 3. A certified sanitary inspector. The training of a nurse is valuable. The knowledge and experience thus acquired should enable the health visitor to give important instruction in the hygiene of child life; but, this training in nursing needs to be special in character, if it is not to be stronger on the side of nursing as a part of treatment than as a part of hygiene. The possession of the certificate of the Central Midwives Board (or of any other competent body e.g. of the authorities of the Government Maternity Hospital, Goshia Hospital or Ramaswami Lying-in Hospital is a valuable asset to a health visitor at Madras). It enables her to supplement the work of the midwife, who during the first ten days after the confinement is largely responsible for the health of the mother attended by her and of the infant. The health visitor in some instances can also act as an inspector of midwives, and thus help to bring into line the hygienic advice given to the mother during and after the lying-in period. The possession of the certificate of the Central Midwives Board is likely to make the health visitor's visits more acceptable to the mother; and the practical experience acquired in the training of a midwife gives the health visitor an insight into, and sympathy with, the life of the married women she has to deal with, which it is difficult to supply by other means. The possession of this certificate is of special importance for the ante-natal visitor. The knowledge of a sanitary inspector's work, implied by the possession of a satisfactory certificate, is valuable to a health visitor in her actual work, and in her relationship to the rest of the sanitary staff of the public health department. Mothers are not infrequently glad to inform a health visitor of choked closets or drains, over-full

\* Particularly in the 43rd Annual Report of the Medical Officer of the Local Government Board, 1913-14, p. 72 (Cd. 7612); and in The Third Report on Infant Mortality, p. 26 (Cd. 7511).

dustbins, or neglected sanitary repairs; and it is practically convenient that her visit and report should suffice to enable action to be taken. The possibility of maintaining personal hygiene in the homes of the poor often depends on the health visitors' recognition of overcrowding and of defective sanitary conditions of the home. The intimate relation between defective sanitary conditions and excessive infant mortality has been shown in the three Reports on Infant Mortality. It is important that well-qualified women should be appointed as health visitors, and that they should be paid adequate salaries. Whatever the training of the officer, the personal characteristics of the health visitor are extremely important. Tact and knowledge need to be combined, and the best health visitor is one who regards her work as a mission in life, and whose kindness and humour commend her to the mothers whom she visits. The grants administered by the Board are available to meet half the salaries of health visitors.

*Number of Visits.*

The practice as regards the number of visits made after a birth has been notified varies greatly. Commonly, a visit is made by the health visitor within two or three days of the notification of birth. There will not be the same need for a visit by the health visitor while the midwife is still in attendance when all midwives are prepared to give the best advice to the mother respecting the management of her infant. Where possible, the health visitor should arrange her visit so that she can consult with the midwife before the latter ceases her attendance. In some homes, no visits may be needed, though there is reason to think that the wives of many of the prosperous classes would welcome and profit by visits, if the staff of visitors were large enough to enable them to be made. The experience of industrial towns and districts indicates that about eight visits are required on an average during the first year after birth for each infant born. Some infants will require a larger number of visits, and some less or none. In other areas of a less industrial character, a smaller proportion of children may need to be visited, and a correspondingly smaller number of health visitors will suffice. Two points, however, need to be remembered; first, that mothers who may be regarded as well-educated, do not necessarily understand the management of an infant, and may require—and will probably welcome—detailed instruction; and second, that for a large number of mothers, advice given only on a single occasion has but little value. This advice needs to be reiterated, if it is to become effective, and above all, it must be personal and given to the mother herself. The average daily

number of visits that can be made by a health visitor may be placed at 15. Thus, as a rule, one health visitor should be allowed for not more than 500 births, on the assumption that the whole of her time is devoted to this work. Where the population contains a large proportion of well-to-do, the number of births for each health visitor may perhaps be more than 500. The visits should be continued at intervals up to school age, attendance at the Centre being encouraged for purposes of medical inspection at such intervals as will enable a record to be kept of each child's health and sicknesses up to the time when the child attends school and becomes the subject of school medical inspection. This record should be carefully preserved for reference as required. In some areas the health visitor also undertakes other work such as that of tuberculosis-visiting. Much can be said for varying the work of health visitors, especially in scattered areas, but this should not be done if, in consequence, the health visitor cannot keep in fairly frequent touch with the mothers who need special help and supervision. The health visitor when suitably qualified may undertake ante-natal visiting.

*The Work of the Centre.*

The same Centre should, as a rule, be utilised both for the mother and her infant. In it, ante-natal and other consultations for the mother and consultations for the infant are carried on. The welfare of the mother and of her child cannot safely be considered separately. About 40 per cent. of the total deaths of infants occur within a month of birth, and these are due very largely to conditions determined by the mother's health before the birth of her infant. The physical influence of the mother on her offspring is much greater and more durable than the above statement implies. During the period of breast-feeding, the child's welfare is directly dependant on the mother's health, and after this period it is still liable to vary directly with the mother's well-being, which necessarily affects the care she can bestow on the child. Experience already gained in medical work among infants has shown the need for getting into touch with the mother before the birth of her child, and of attending to the health of the mother during the first year after birth of her infant, in order to obtain the best results for the infant. Hence, the work of the Centre, so far as both mother and infant are concerned, must be both ante-natal and post-natal. The chief object of the Centre is to secure the medical supervision of the expectant and nursing mother and of her child. This supervision takes the form of a medical consultation, followed by the giving of hygienic advice, and by treatment, especially for minor complaints, when local circumstances

indicate the need for this. It is not intended that the work of the Centre should replace that of private practitioners. As a result of detection of symptoms of illness at an early stage, many additional cases should come under the care of private practitioners for early and, therefore, effective treatment. The chief utility of the Centre consists in the giving of advice based on medical knowledge of the condition of the patient (mother or child). If the patient is ordinarily under the care of a particular private practitioner, she will be referred to him for treatment. Most of the adults coming to the Centre as patients will, however, be expectant mothers who have engaged a midwife ; (this, however, is not yet common in Madras) ; Midwives should be encouraged to accompany their clients to the centre or to send an explanatory note as to their needs. These patients will also commonly be referred to a private practitioner, no responsibility being accepted at the Centre, under present conditions, for the continuous treatment of serious illness. (In Madras, however, this responsibility has to be accepted at present; otherwise the success of the scheme is likely to be jeopardised.) The value of a Centre is much increased by obtaining the close co-operation of the medical practitioners in the areas served by it ; and, in organising the arrangements, it is desirable that they should be consulted. At the most satisfactory Centres, each mother or child is seen at definite intervals by the doctor. It is unsatisfactory for the non-medical staff to select the children to be seen by the doctor ; still more so for the doctor to discontinue seeing children after the first visit, if in the opinion of the non-medical worker they present no symptoms of illness. Early departures from health are difficult to detect, and, unless medical supervision is continuous, disorder or disease may be overlooked for a considerable time. During the war, however, medical oversight at a Centre will often be restricted, and if the advice given at the Centre to mothers and their children is only hygienic in scope, the health visitor may give such advice at the Centre as well as in the course of her home visits. Special warnings should be given against the treatment of illness by a nurse or voluntary worker, and as to the need to refer to a doctor every mother or child whose condition is not normal. The ante-natal and post-natal work of the Centre in larger areas may conveniently be conducted on separate days. For smaller areas this separation will be unnecessary. For the present, the ante-natal work will be less extensive than the post-natal, and expectant mothers may be asked to attend either just before or just after the usual hour for the post-natal consultations. The number of meetings held each week will

depend on the number of persons attending. Probably 25-30 cases at one session, including not more than 8 to 12 new cases, form a reasonable number of medical consultations at the centre. Crowding, and protracted waiting of mothers and of their children, should be avoided, and the interview of the doctor with each mother and child should not be hurried. Commonly, it will be desirable to secure that each infant attending the Centre is seen by the doctor at least every four or six weeks. These consultations should be arranged more frequently, if the health visitor in the intervals finds that the infant is not progressing favourably. After the early months of life less frequent attendances will be needed, but the consultations should suffice to secure early recognition of rickets, &c. After the child has reached the age of two or three years, efforts should be made to secure a medical examination at quarterly or half-yearly intervals, until the child is entered on a school register. Home visits will be necessary to bring this about, and it is most desirable thus to keep in touch with mothers and their children, even when the home address is changed.

*Accommodation at, and Equipment of, the Centre.*

At least two rooms, preferably communicating, are necessary; and a third room is desirable when this can be arranged. One of the rooms should be sufficiently large to accommodate the average number of mothers and infants who may be expected to attend the Centre at a single session. This larger room will serve as a waiting room and undressing room. The second room is used for weighing babies, and for consultations if no third room is available. The third room serves as a consultation room for the doctor: a good light for this room is essential. Warming arrangements should be available in both rooms. Lavatory and sanitary accommodation should be provided, and a supply of gas is desirable. A place for storing perambulators is required. Seating accommodation is necessary, and a table for each room; also such cupboard and drawer space as is necessary for the records and other material incidental to the work of the clinic. Each member of the staff should be provided with clean overalls or washing coats, which should be worn throughout the session. For ante-natal work a couch is required; also urine-testing apparatus. Simple abdominal belts, and bandages suitable for varicose veins, are sometimes provided at cost price. By these means, great relief often can be afforded. A separate receptacle should be provided for each child's clothing. These may be wire baskets or may consist of other material able to be washed. A good balance is required for weighing the infants. The usual spring balance cannot

be regarded as accurate. The scales should weigh accurately, otherwise the weighing is of small value, especially for infants who are making slow progress. For older children, a second weighing machine will be necessary.

*Keeping of Records.*

A record should be kept for each mother and child seen at home or attending the Centre, a note being made by the doctor on each occasion when he sees the mother or infant. The doctor should also indicate at the interview the date for the next medical consultation. A card system is recommended, as then the items can be filled up at the time of the consultation or visit, and subsequent book keeping avoided. Separate cards may be used for the mother and for the child, and for notes as to the home conditions; but a combined card or sheet may be used, if preferred. In all cases, the records should be fixed together and kept in such a form that the information is available for the school medical officer when the child enters school. The notes will almost necessarily be brief, but they should give the chief points of the hygienic or medical history. The notes as to home conditions are summarised for the information of the doctor of the Centre from the fuller information obtained for the medical officer of health at the time of the health visitor's home visit; or one record may, when convenient, be made to serve the double purpose.

The following items are suggested for inclusion in the record:—

A. *Mother.*

Name..... Age..... Address.....  
 Patient of.....  
 Date of first attendance .....  
 Date of expected birth .....  
 Occupation } present .....  
                   } before marriage .....  
 Occupation of husband.....  
 Former pregnancies } 1st.....4th.....  
 (including miscarriages). } 2nd.....5th.....  
                                   } 3rd.....6th.....  
 (State in each case whether the child is still living, and, if  
                                   not, cause of death.)  
 Previous medical history of patient.....  
 Present health (teeth, constipation, }  
                   digestion, obstetrical, &c) } .....  
 Adequacy of food.....  
 Arrangements for confinement—  
 Present condition (doctor's note).....

Treatment recommended.....  
 General notes.....  
 Dates and notes of subsequent attendances (on back page).

**B. Infant.**

Name.....Date of first attendance.....  
 Address.....  
 Date of birth.....Maturity.....  
 Weight at birth.....  
 Health prior to attendance.....  
 Method of feeding.....  
 Digestion and bowels.....  
 Sleeping.....  
 Clothing.....  
 Bathing.....  
 Open air.....  
 Present state and weight.....  
 Doctor's notes (including nutrition).....  
 Dates and notes of subsequent attendances (on back page).

**C. Home Conditions.**

Occupants of house.....Adults.....Under 15.....  
 Number of rooms and size.....  
 Sanitary conditions.....  
     Ventilation.....  
     Light.....  
     Repair.....  
     Dampness, &c.....  
     Cleanliness.....  
     Refuse Receptacles.....  
 Social conditions and habits.....  
 Dates and notes of revisits (on back page);

The back of the sheet should be reserved for further notes, especially for medical notes of consultations and for consecutive weighings.

*The Staff of the Centre.*

This will consist of medical and non-medical workers. Under present circumstances, the chief good derived from the work at the Centre, beyond what can usually be done by home visits, consists in the fact that it renders practicable medical supervision and examination of the mother or child and the giving of advice based on the exact knowledge thus acquired. It is essential that there should be close co-operation between the district medical officer of health and

the medical officer of the Centre. Each local authority opening a Centre will decide the best arrangement for medical service. An officer of the local authority may undertake this. The arrangement made should, so far as practicable, be one which will receive the general approval of local medical practitioners. This may sometimes be secured by appointing a practitioner not practising in the district, (or one, who prohibited from taking up any private practice). It is less satisfactory to have a rota of doctors. The last-named arrangement should not be entertained unless it is provided that the same doctor will attend at consecutive consultations for not less than six months. The non-medical staff of the Centre should, whenever practicable, include both salaried and voluntary workers. The salaried workers will usually be the health visitors or the inspector of midwives; occasionally other trained workers are employed. (In Madras, however, voluntary workers of the right sort are difficult or impossible to obtain just at present), The services of voluntary workers are particularly valuable in arranging for any social work that may be desirable, and generally in making the Centre as bright and attractive as possible. These workers often provide tea at the Centre. Voluntary workers also can give valuable advice to the mother as to the provision necessary for her confinement, and for the infant; and often also as to older children's clothing. Model garments are shewn to the mothers and advice given as to the making of them, if this help is required. In many Centres voluntary workers assist in arranging the consultations, in the weighing of infants, and in keeping records,

*Cost of the Centre.*

The cost of a Centre will vary with local circumstances. It is assumed that the health visitors will be officers of the sanitary authority, and that their salaries need not be reckoned as part of the working expenses of the Centre. The expenditure of the Centre will comprise the doctor's salary, rent, rates, taxes, lighting, heating, care taking, and a few minor items including drugs and medical appliances. The Local Government Board will pay 50 per cent. of the amount spent on approved expenditure for the above purposes. The total expenditure incurred in connection with a Centre will usually include payment of doctor, rent, rates and taxes, heating, and a number of sundries. In many instances the Centre can be conducted on premises used for other purposes, and no rent will need to be paid. (As to what portion if any, of approved expenditure should be borne by our Local Governments, it is too premature to judge just at present when no details are laid down; the cost of the scheme



adumbrated by the Corporation of Madras, will have in all probability to be borne by the Corporation alone, at least till it has passed the experimental stage. When however the scheme is to be extended to the mufassal also, the Local Government will in all probability, undertake to pay a certain proportion of approved expenditure.)

#### THE ANTE-NATAL WORK OF A MATERNITY AND CHILD WELFARE CENTRE.

The object of the ante-natal Centre is to ensure the removal of factors adverse to the health of the expectant mother and infant, and to ensure that the confinement takes place under conditions favourable to the life and health of both mother and infant. As already seen, the post-natal work of the Centre will depend for its success on the home visits made by health visitors under the Notification of Births Act. There is no similar machinery for securing the clientele for an ante-natal Centre; and its success will depend on the co-operation of medical practitioners and midwives, and of any voluntary agencies likely to send expectant mothers for advice to the Centre. Health visitors, also, in the course of their visits become acquainted with expectant mothers for whom attendance at the ante-natal Centre is desirable. *Patients of medical practitioners.*—An expectant mother who has engaged a doctor for her confinement will often be able to pay for medical and hygienic advice, if needed, during pregnancy. It is a common belief, however, that minor ailments are the inevitable lot of the expectant mother, and often, therefore, the doctor is not consulted unless some serious symptom has arisen. It is hoped that doctors will encourage their poorer patients to attend the ante-natal Centre, sending their card with the expectant mothers. It should be understood in such cases that, if anything beyond hygienic advice is needed, the doctor would be informed, and that no treatment would be undertaken at the Centre, except at the request of the doctor in question. This arrangement is easier to effect when the medical officer at the Centre is not engaged in practice in the district. (Or is one, who is prohibited as in Madras from taking up any private practice.) *Patients of midwives.*—For these, ante-natal Centres will prove of great value. Usually, the engagement for the confinement is made about two months previously. Midwives are then required by the rules of the Central Midwives Board to inquire as to the patient's general condition; but even if this is done, the confinement may, in the absence of medical advice, such as can be obtained at an ante-natal Centre, be attended without any warning as to possible dangers. Even for multiparæ, with a history of previous good confinements,

the presumption that the confinement will be normal is not always justified; and for primiparæ, and women with a history of previous difficult confinements, attendance at a Centre may mean important assistance to the midwife and her patient. If the local authority conducting the Centre is also the local supervising authority for midwives (counties and county boroughs), the inspector of midwives has opportunities to explain to the midwives the value to them of the Centre in their work. In other cases it can usually be arranged for this to be done by the county inspector of midwives. The health visitors often also are well acquainted with the local midwives and can explain the working of the Centre. Midwives should be encouraged to accompany their clients to the Centre, or to send a note to the doctor concerning them. Some system of notification of pregnancy has been suggested, under the impression that this is a necessary antecedent to the commencement of an ante-natal Centre. Such notifications should not be made unless the express consent of the expectant mother has been previously obtained. When a Centre is established at a hospital from which the patient is to be attended in her confinement, the question of formal notification of her condition does not arise. By registering her name for attendance she has placed herself under the supervision and care of officers of the institution, and can be given most valuable assistance in the weeks and months preceding her confinement. Midwives, if encouraged, will soon learn to send their patients to the Centre, and, it is hoped, will also themselves seek advice there in regard to cases in which there has been difficulty at former confinements. They are already required under the rules of the Central Midwives Board to ask for medical help in certain specified conditions in a pregnant woman (*see* Rule 22 (a) and Rules 19, 20 and 21). These rules can be supplemented by general advice to the same effect from the local supervising authority. It is important that the medical officer of health should confer on the subject with the midwives in the area.

*Procedure at the Centre.*

A careful examination of the expectant mother's condition is desirable, especially as to the condition of the heart, lungs, or kidneys, and the pelvis should be measured, when this is considered necessary. If there is serious organic disease, medical aid at home should be advised, or arrangements made for the patient to receive in-patient treatment at a hospital, according to circumstances. Any immediate treatment required may be given at the Centre or by the private doctor or by the hospital, by arrangement between the

parties concerned. No responsibility should be undertaken at the Centre for the continuous treatment of serious illness. Experience shows that cases of serious disease are not likely to be numerous at the Centre, though minor degrees of albuminuria will not be uncommon. Such conditions as constipation, chronic bronchitis, varicose veins, and swollen feet or more frequent; and dental caries is a common cause of trouble. The most numerous classes of ailment are referable to neglected hygiene, including errors of diet, unsatisfactory or constricted clothing, and lack of free circulation of air in the home. In other cases, fatigue may be the source of trouble. If medical treatment is required, this may be given by referring the patient to a private doctor, or, failing this, treatment may be given at the Centre or at a hospital. In all cases, the midwife should be made acquainted with the state of matters. The work of the Centre succeeds in producing the best results attainable only when combined with judicious home visiting to see that the advice given has been thoroughly understood and is being carried out in the home. Such home visits usually lead, when this is needed, to improved cleanliness of the home, and to better preparation for the infant. The home visitation is continued after the birth of the infant, and the mother is induced to bring her infant for medical supervision at the Centre. The ante-natal visits may be made by the post-natal health visitor or by a special visitor appointed for this work. The visitor should previously have been present at the medical consultation at the Centre, and her training should be such as will make her home visits useful (page 2). It is most desirable that midwives should visit their clients before the confinement. It is also desirable that they should attend the Centre when they send a patient there. A practising midwife cannot be encouraged to visit the clients of other midwives, and this constitute a draw-back to their employment as health visitors. The kind of advice needed during home visits and at the ante-natal Centre is indicated in the following notes prepared by Dr. Janet Lane-Clayton:—

The *feeding* of the expectant mother is a point of considerable importance. She should be encouraged to provide nourishing food for herself, and directions as to the avoidance of unsuitable substances should be given; in this latter category, such things as alcohol in any form, vinegar, pickles, &c., will be included. The *clothing* of the mother is frequently of unsuitable type. No part of the body should be constructed by clothing, more especially in cases where there is any tendency to varicosity of veins or to œdema of the feet

and ankles. Constriction above or below the knee should be avoided. The presence of a septic focus of foci in any part of the mother's organism will be a source of danger to the infant. Decayed teeth or pyorrhœa alveolaris, even in a mild degree, will be liable to affect the child detrimentally. The care and condition of the breasts should be inquired into. The importance of cleanliness of the breasts is, perhaps, not sufficiently realised. The common practice of "hardening" the nipples with alcohol before the confinement is not desirable, and cracked nipples may best be avoided by strict attention to cleanliness and the application of some emollient. The difficulty attending breast-feeding, consequent on depressed nipples, may be diminished by pulling them outwards during the latter months of pregnancy. Constipation is a common trouble among pregnant women and should be carefully dealt with. The occasional dose of castor oil or of some other powerful aperient is not satisfactory. Efforts should first of all be made to relieve the condition by care as to diet. Fruit and vegetables (the latter mixed with oil) and a sufficient intake of fluid are necessary. Moderate exercise should be advised. If these measures fail, it may be necessary to resort to aperients, which should be taken in small daily doses, to ensure regularity of action, rather than in larger but less frequent doses. The actual drug recommended will vary with the individual.

*Sanitation.*—The sanitary condition of the home, its order and cleanliness, are matters of much importance, and should on no account be neglected by the health visitor in her ante-natal visiting, as well as later.

*Preparation for the Infant.*—The continued efforts of health visitors, both municipal and voluntary, to secure more suitable clothing for infants, have led to considerable improvement in most areas where this work is energetically carried on. It is not unusual, however, for little preparation to be made for the clothing of the expected infant, or the clothing, if made, may be of unsuitable type. There is a tendency to pay more attention to the clothing of the child after the early weeks of life. This is clearly erroneous, since the greatest care will be required immediately after birth. In many areas, a thin cotton shirt and garments which leave the arms bare are still supplied for newly born babies, as is also the heavy, but not warm, flannelette petticoat or dress, with cotton bodice or lining, for children after the first weeks of life. Suitable advice given before birth as to the clothing of the infant may secure great improvements, as the mother is generally more ready to provide satisfactory clothing than to change from unsatisfactory garments to those recommended by the health visitor after the confinement. It is

essential that advice as to the importance of breastfeeding should be given. The value of supplying the infant with the food designed for it by nature need hardly be pointed out. It has been shown by numerous observers that the mother's milk, while of great value throughout the whole period of suckling, is very specially so during the early days after birth. Even where circumstances may render it necessary for the infant to be weaned during the early weeks after birth, the mother should by all means be encouraged to give the infant the breast as long as possible. No difficulty is experienced in the subsequent early weaning, as is sometimes supposed. The need for regular feeding should also be explained to the expectant mother; if possible, she should be persuaded to accustom the infant from birth onwards to feeding intervals which should not be less than three hours, and the feeding should be entirely intermitted between the period from 10-11 p.m. to 5-6 a.m. Those who have practised these methods of feeding have found by experience that greatly superior results are obtained than by more frequent feeding. Breast-feeding, even if difficult, should not be entirely abandoned for three or four weeks. The difficulty is frequently owing to the infant being not sufficiently strong to supply the stimulus to the mammary gland which is necessary for the adequate fulfilment of its function. Only in comparatively rare cases can the deficiency of the mammary function be attributed to a real defect on the part of the mother.

*Still-births in relation the Centre.*

Still-births after the twenty-eighth week of pregnancy are required, under the Notification of Births Act, to be notified to the medical officer of health. Midwives are required to notify to the local supervising authority cases of still-birth, without this limiting period, where a registered medical practitioner is not in attendance at the time of birth. Careful inquiry is already made by some local authorities into the circumstances attending still-births, and the work of the Centre will lead to the diagnosis of conditions in the mother which tend to cause abortions, still-births, or premature births. In cases attended by a midwife, arrangements should be made for examination of the foetus. It is hoped that ere long it will be practicable to arrange for the pathological examinations required to ensure a more exact diagnosis of the cause of interferences with normal gestation. If a doctor has been in charge of the miscarriage, action will depend on his co-operation. Facilities should be offered for examinations as indicated above. It is important to ascertain whether the death of the child has occurred during, or prior to, parturition, as this fact has a practical bearing on the midwife's

work and on arrangements for avoiding the same accident at a subsequent confinement.

*The Provision of Medical Assistance at Confinements.*

The local authority may provide beds for patients suffering from complications arising during pregnancy or childbirth. These beds can be provided directly by the local authority or by arrangement between them and an existing hospital. (Arrangements with existing institutions are eminently desirable and practicable in Madras.) The necessity for reserving hospital beds for the treatment of puerperal fever and allied conditions must be borne in mind. A local authority is also empowered, with the Board's consent, to pay, in whole or part, the fees for the doctor or midwife attending the confinement at home of necessitous women, and one-half of such approved expenditure is paid by the Local Government Board.

THE POST-NATAL WORK OF A MATERNITY AND CHILD WELFARE CENTRE.

The general remarks as to accommodation, equipment, records, and staff apply to the post-natal, as well as to the ante-natal work of the Centre. *Procedure.*—The post-natal work of the Centre is concerned primarily with the medical supervision of infants and young children. As already pointed out, however, hygienic advice is commonly needed for the mother as well as for her child. For both mothers and children it should be remembered that the Centre is not an out-patient department, and that, as a rule, mothers suffering from definite disease, whether medical or gynæcological, and young children with more serious ailments, should be referred elsewhere for continued medical treatment. In addition to the general points mentioned on pp. 103 to 109, the following considerations have importance. The main object is to secure medical supervision and advice for the infants, with special reference to the nutritional disturbances caused by dietetic errors. The promotion of the continuance of breast feeding during the first six to nine months after birth is a chief object of the consultation. Although there is reason to conclude that about 99 per cent. of women can nourish their infants naturally, the proportion of infants thus fed is regrettably low. This is in part ascribable to the fact that both doctors and midwives, until recently, frequently advised breast feeding at intervals which were too short, with the result that the mother was wearied, her infant suffered from indigestion, and weaning followed. A more wholesome practice in this respect is becoming more general (*see also p.13*)

At some Centres, the question of material assistance to some of the mothers arises. Experience shows that this need arises only for

a relatively small proportion of the total cases. It is much oftener a question of advising the mother against unsuitable food, which costs no less than nourishing food. Voluntary workers can give valuable assistance in the exceptional cases mentioned above, as well as in arranging for the supply of dried milk when this is indispensable. No grant is available from the Local Government Board for expenditure on food. For details as to the weighing of children, see page 105. Only accurate weighing is of value, under exactly the same conditions as to absence of clothing on each occasion. The doctor should personally give detailed instruction as to the feeding of the infant, and as to its general hygiene and mode of life. Cod-liver oil and malt extract may be supplied at the Centre gratuitously or at cost price to those for whom they are medically prescribed. So also may other drugs of a simple character; but few drugs should be required; and every effort should be made to impress parents with the desirability of avoiding the use of drugs. In addition to the few drugs needed for internal administration, dusting powder and simple ointment will be useful.

The value of a Centre depends chiefly on the medical advice given in it. The late Professor Budin, the distinguished founder of Infant Consultations, said: "An infant consultation is worth precisely as much as the presiding physician." This is even more true for ante-natal work of the Centre.

But the value of the work of the Centre is not solely medical. The work of the staff of health visitors is improved by their contact with other workers and with the doctor. The efforts of the mother are reinforced by the counsel and help which she receives at the Centre and, incidentally, value attaches to the incentive derived from seeing other children well cared for, and in the appreciation of the fact that others, like herself, value the health and welfare of her child.

"To let a poor woman know that she is cared for and that her child is the object of all that medical skill and kindly consideration can give is to bring a new inspiration into her life. It is interesting to see with what gratitude and pride mothers come back to the institution to demonstrate by the actual condition of their children, the fidelity with which they have carried out the instruction given, and the happy results that have accrued."

From a study of the above, it will be obvious that compulsory notification of births is a *sine qua non* for the success of the scheme; for it is not until a birth is notified that the whole machinery of health-visitors can be set in motion. To secure the best results it is necessary that registration of births should

not only be compulsory but it should be prompt as well; for it is at the earliest period after birth that "(1) the greatest number of infant deaths occur (2) The mother's mind is then most receptive and (3) Breast feeding is of the greatest importance. If the visit be delayed the milk may be gone." In the city of Madras, registration of births is compulsory; but, the period of one week, within which births may be registered is too long to ensure that *promptness* in registration, which is so very essential for the success of infant welfare work; where-ever possible notification within 24 hours after birth upon may be highly desirable. Notification of pregnancy may be desirable from the standpoint of providing adequate ante-natal aid and as a logical extension backwards of the system of notification of births; but, the notification of pregnancy frequently raises such complex issues that, for the present at any rate, *compulsory* notification of pregnancy is unthinkable; and even *voluntary* Notification requires very great caution in its acceptance, and still greater caution, in taking action on information provided; there could however be no objection to receive and act upon informal information, freely and voluntarily tendered, (as, for example, during the visits of health visitors, or other similar agency) so long as such information will not be tantamount to formal notification of pregnancy. Another important consideration is that there should be adequate provision of maternity centres and infant clinics, where cases referred by health-visitors may receive suitable advice and treatment; or we may provide special maternity centres, or nursing homes where any Medical man or woman may send cases and treat them himself or herself.

But, there are certain section of community who are too proud or prejudiced to resort to hospitals and are yet too poor to pay for competent medical advice at their own homes; at present, the conditions of these so-called "middle-classes" is, in the matter of medical relief, pitiable in the extreme. The situation is particularly distressing in the case of the poor of certain so-called higher castes; they are born heirs to certain practices and beliefs, which prevent them from resorting freely to hospitals; as for obtaining the services of a competent doctor at their homes, they are too poor to pay for such services. It is very desirable that there should be an organisation (official or



non-official, but working in close co-operation with official health authorities) on which the health-visitors could rely, for providing competent medical aid in the homes of such persons as are willing to pay for it, on a scale of charges measured, not by the competency of the attending practitioner, but by the capacity of the person who is responsible for payment. This is essentially a scheme in which the services of private practitioners may well be utilised; those willing to serve would be assured of a decent remuneration at some fixed rate; patients would be attended at their own homes and be charged according to a graded scale; the poorest would perhaps get attendance gratis, while the members of the upper middle class would pay a higher fee than those of the lower. If any deficit accrues, it will have to be made good either by official agency or by contributions from the charitable rich or by both. But, more important than all, there is one thing, which is most essential for the success of any scheme of health-visitors; and that is, of course, the proper selection of the health visitor herself; for, it is on her personality that everything depends; if you are fortunate in getting the proper person, your success is assured; if not, it is better to follow the advice of Mr. Panch to the man in the street who was about to get married and wait till things improve. It is difficult to lay down with exactness what should be the general qualifications of a health visitor; but, it does not require great imagination to see that sympathy, urbanity, good manners, tact and a knowledge of the vernaculars, the customs, the habits and even prejudices of the people among whom her sphere of work lies are essential requisites for her success. As regards the professional qualifications, it is not necessary that a health visitor should have a pucca medical qualification; it is enough if she possesses a working knowledge of general sanitation and domestic hygiene and has undergone a course of training in nursing, midwifery and preferably First Aids also. Pucca medical qualifications may however be required of superintendents, whose duty would include, besides the general supervision of the work of health visitors, attendance on cases referred to them by the latter, arranging for the proper attendance of selected cases either in the patients' own homes or in proper institutions, and keeping

the health visitors in touch with recent developments in nursing, midwifery, infant and domestic hygiene and other matters having a bearing on their practice. As regards the question, whether they should be voluntary workers or paid ones, it is largely a matter of circumstances; in Madras, however, there is really no field for choice; voluntary workers of the right sort are yet to be born; Non-Indians, with requisite professional qualifications may be available and willing; but, without a satisfactory knowledge of the vernaculars, they cannot be of much service; and willing Indians with the requisite professional knowledge, and belonging to that stratum of society wherefrom recruitment of voluntary workers would be desirable, do not either exist in Madras or, if they do, they are apparently beyond the powers of ordinary vision; and instruments powerful enough to discover them are yet to be invented; in any case, there is little doubt that the question of having voluntary workers at Madras has no immediate practical significance.

It is sometimes suggested that provision need only be made for visits to the babies born in the poorer districts and not to all babies born in the locality. But, at a time when such 'visitations' are yet to overcome popular prejudice, the wiser course would perhaps be to visit all babies and mothers who would welcome us or at any rate, would not object to our visits. Dr. Moore of Huddersfield narrates his experience thus:—"The Medical officers entrusted with the visitation of the mothers and babies immediately after birth were given a discretion; they were allowed to omit visits, if they thought fit. (I may mention incidentally that they were instructed to behave exactly as they would in social life, not to enter a house—any house, however humble—without an invitation, not to seat themselves unless bidden to do so, and so forth.) Embarking on this work they acted diffidently, as was natural. The result was that I received complaints, not that they had visited unduly or improperly, but asking, "Why was not my baby visited?" "How is it since a visit was paid by the lady doctor to Mrs. ——'s baby, that she did not visit mine?" I think it is plain that assistance in these matters should be tendered to all, without distinction, and where it is declined it should not be pressed;" for anything savouring of irritating interference is fatal to the success of the scheme; the health visitors or the

superintendents, should, on no account, be invested with executive power to enter the houses if objected to; such a power may be necessary in the case of Health Officers and other members of the Health Executive; but in the case of our health visitors and superintendents, there should not be even the *suspicion* of their being armed with executive Bahadurism; the best results can be obtained only where our health visitors succeed in winning the confidence of the masses, by their sympathy, urbanity, tact and pleasant manners; many of you may well remember that, for lack of such confidence and even without any suspicion of vested executive authority, the scheme of health visitors inaugurated by the Corporation of Madras as long ago as 1907, was looked down upon merely as one of those inscurtable vagaries of a spendthrift Corporation, bent on paying handsome salaries to certain fortunate individuals, commissioned to wander and meddle as fancy took them, with the result that the scheme, as then conceived, had to be given up as a more or less complete failure.

A new scheme of midwife-visitors was recently adumbrated by the Corporation based, more or less on the model of the analogous Lady Wellington Scheme of Bombay (Vide Appendix) Let us hope that this scheme will soon come into operation and that it will meet with better success than its ill-starred predecessor; let us also hope that, in course of time this modest scheme of mere midwife-visitors will bloom out into a pucca scheme of full-fledged health-visitors, who in addition to their training in nursing and midwifery will also possess a working knowledge of domestic hygiene and sanitation and will therefore be better able to advise mothers regarding the health and hygiene of themselves and their babes.

This brings us naturally to the consideration of instituting  
**A Public Midwifery service.** a Public midwifery service, with a view to ensure that no mother or child need die a preventable death, from lack of adequate maternity aid, at or about the time of confinement. The more extended employment, by Local Boards and Municipalities, of fully qualified midwives is the urgent need of the hour; such a scheme would materially tend to reduce the menace to maternal and infant life resulting from the quack interference of our ignorant dhais and barber-midwives, whose meddlesome accouching

is always undesirable, frequently dangerous and sometimes disastrous. The number of trained midwives employed by the Local Boards and Municipalities at the close of the year 1915 was 427 while the total number of births registered in the Presidency during the the same year was 1,249,434; this makes it evident that there is a very great need for a a widely extended employment of trained midwives and that, for lack of them, a great majority of expectant mothers must either go unattended, or, attended only by the ignorant quack-midwives, known to fame as "barber-midwives." The difficulty lies, not in the unwillingness of Local Board and Municipalities to employ midwives on a more extended scale, but, in the dearth of sufficient number of trained midwives to take up posts that our Local Bodies are willing to create for them; as things stand at present, there is complaint from almost every Local Body that if, from any cause such as illness, resignation, leave etc., vacancies arise in the ranks of existing midwives, there is great difficulty in obtaining trained midwives to fill up even these few vacancies as they arise, with the result that the said Local Bodies are obliged to keep some of these posts vacant for varying periods of the year. It is with a view to meet this difficulty that the Government have now undertaken (Vide Appendix—G. O. No. 1133 Public—Dated 13th June 1916) to provide at Madras for the training of an increased number of midwives, viz., 100, instead of 64 as before.

But, even with the increase contemplated, it will be long before we will be able to train sufficient number of midwives to meet the needs of this vast Presidency. Another difficulty is that even where a trained midwife exists, many an expectant mother continues to patronise the barber-midwife, either because she is handy and less costly, or because, there is the unanswerable argument "this very hereditary functionary attended at all the confinements of my mother and there was no mishap; she has also attended at all the confinements of my neighbour and at the terribly difficult first confinement of the granddaughter of Mr. ——— in the next street; and there was no mishap either, in any of these cases; why then should I give up this inestimable family accoucher and patronise that fashionable coquet

of a costly, city-trained midwife, whose "Hand-virtue" (Hastha-Lakshanam) is not proved to be good; who is not only irreligious but also takes a fiendish delight in characterising "evil-eyes" and our religious parctices as superstition, and who, tho' young and unmarried, moves so freely with that libertine son of our good and rich Mr. ———; no, I would never like to call her in, even for my enemy's confinement." Now, this conservatism is not a feature peculiar to Indian women; even in the advanced United Kingdom, the ideal of abolishing the uncertified midwife is still far from being realised, as may be gathered from the following Editorial note in the British Medical Journal of June 17, 1916:—"The ideal put forward by Dr. Newsholme that there should be a proper supply of certified midwives in every area,..... is a long way from being realised either in country or town areas generally; a large percentage of mothers are still being unfortunately attended by handy women, either on the ground of expense, or because there is no certified midwife." When this is the state of affairs, even in the advanced United Kingdom, it does not really require much foresight to see that, to talk, as some have done, of *immediately* abolishing the institution of barber-midwives, is to betray a profound lack of knowledge and imagination. Traditional prejudices die hard; and it is by no means, an easy task for our qualified midwives to supplant their barber rivals; in any case, the institution of barber-midwives cannot be abolished by a mere stroke of the pen or by an Act of State or of Parliament or of our Legislative Councils. From a perusal of the G. O. already referred to, (G.O. 1133 Public Dated 13th June 1916. Vide Appendix) it is obvious that the Government have fully recognised that the best policy is not to end the institution but to mend it; that way alone lies our safety; the experience of the United Provinces holds out great hopes that the ignorant dhais are capable of being trained in the elements of surgical cleanliness and scientific midwifery; and that, when so trained, they form useful members of our midwifery service. Side by side with this "mending", we have to go on increasing the output of fully qualified midwives, so that, we will be able, in course of time, to circumvent and supplant the barber midwives altogether; till then, we may let them severely alone, without launching any crusade against such of those poor

barber-women as prefer to remain unenlightened, uninitiated and untrained.

**Pre-maternity  
care.**

"We are now beginning to appreciate the fact that our labours in the last fifteen years, fruitful though they have been, might have been rendered easier had we directed our energies to the welfare of the mother." So spake Dr. Allan, the President of the Society of Medical Officers of Health, in his Presidential address of Oct. 15, 1915. "The questions of rest and feeding of expectant mothers" he continued have not the same amount of attention given them here, as has been the case in France;...we know that many women whose conditions are not abnormal produce immature or defective children, through having to engage in heavy work almost up to their time of confinement." In India, the employment of expectant mothers in occupations involving great physical exertion is a Socio-economic problem that is perhaps even more complicated than in European countries; the domestic occupations in which some classes of our expectant mothers are habitually engaged are hardly less onerous, than the agricultural labour or industrial occupation in which certain other classes are obliged to engage themselves even till late in pregnancy. "We have seen" says Dr. Nair, from his experience as a member of the Factory Commission, "some women work for 17 hours a day in ginning factories for a daily wage of 3½ annas. Medical men might urge that women's work must be adopted to her specific sex limitations, and so ordered that rest during pregnancy, and leisure for homelife while the children are young, shall be imperative rules." "Of what avail" he continues bitterly "is such advice against the pressure of modern industrialism? Industrialism and commerce, instead of being adjusted to life, is practically killing all that constitutes living." Therein lies the rub. Many countries of the civilised world have enacted making abstention from work in factories etc. compulsory after confinement; but, Switzerland appears to be the only one in which pre-natal rest is legally required, but only for a fortnight. Many an expectant mother has unfortunately to earn her own living; and statutory enforcement of compulsory rest would work great hardship, unless the expectant mother is allowed some compensatory maternity

allowance during the period of rest. The lack of adequate food is another evil that is intimately associated with the lack of adequate rest; and both are ultimately tracable to the same cause viz. poverty. Prematernity wards are of the greatest service in meeting both these needs. In the Government Maternity Hospital at Madras, there is provision for the payment of batta to a certain number of expectant women, in the later months of their pregnancy, on their undertaking to keep themselves under the observation, and follow the advice of the medical officers of that institution. An extension of this plan may well be tried; but, there are obvious and distinct limitations in the way of any wide extension in this direction. Moreover, the domestic difficulties of a number of our expectant mothers, who richly deserve help in this direction are such that they will not be able to leave their homes and live in Prematernity centres. In certain European countries, the question of adequate food has been met to some extent by the institution of places where meals are provided for expectant and nursing mothers, either free, or at a cost, varying with the capacity of the expectant or nursing mother to pay for it. From time immemorial, we are being brought up under a tradition, which makes pregnant women and new born babes, the objects of our especial and most tender care. There is perhaps no country in the world whose scriptures give a higher, or more honoured place to women, than those of Ancient India; "Women" say the scriptures "should be honoured and worshipped like the Gods themselves. By their favour and soul power are the three worlds upheld."

तस्मात्साध्यः स्त्रियः पूज्याः सततं देववर्चरैः । सतीनांतु प्रसादेन धार्यते वै जगत्त्रयं ॥  
यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्रदेवताः । यत्रैतास्तु नपूज्यन्ते सर्वास्तत्राफलाः क्रियाः ॥

(Where women are honoured, there the Devas are pleased; but where they are not honoured, no sacred rite is fruitful).

How is it then that, in spite of scriptures and tradition, we have still to face the problem of pregnant and suckling mothers being employed in toil which is good neither for them nor for their babes? How is it that charity—and there is plenty of it in this land—has not been able to solve this problem? The answer is that our charities are mostly unorganised; and, a bright day will dawn for the needy mother and child, the

moment our several charities agree to work on an organised basis and in full co-operation with one another. To take a specific instance, if as your Health Officer suggested to me the other day, the numerous Annadana samajams (Feeding Societies) of our city would work in organised co-operation and not fritter away their resources, in spasmodic feeding-bouts, it may not be difficult to grapple with this problem of inadequate nourishment for the expectant and nursing mothers of our poorer sections.

“The abandonment of breast-feeding without adequate cause

**“Mothering” and  
Breast-feeding.**

is a most important factor of excessive infantile mortality” says Dr. Newsholme in his 43rd Annual Report to the Local Gov-

ernment Board. The best and the most natural food for the infant is undoubtedly the mother's milk; there is *life*, if one may say so, in the vitality-giving milk of the mother. One cannot too strongly condemn the alarmingly increasing fashion of cutting off the infant of its birth-right to being breast-fed for inadequate, trivial or even frivolous reasons. The warnings sometimes given by well-meaning medical advisers against too prolonged suckling—in India, *five year old babes* are sometimes • seen suckling at their mothers' breasts—have often served as excuses by certain ladies, especially in fashionable circles, of wearing the child for too early. The evils of the non-domestic employment of suckling mothers have already been considered in the section dealing with “the occupation of married women as a factor in the causation infant mortality;” it was there pointed out that these occupations frequently mean the lack of that individual care and attention which only a *mother* can bestow and which, in the best interests of the child, it is essential that she should not shirk from undertaking except for good and solid reasons; non-domestic employment of suckling mothers means that the infant is either not breast fed at all, or is not fed as frequently or as often as is desirable. Even where special creches are provided for this purpose, the hurry and worry of such occupations often results in insufficient or inadequate attention being paid to the all important factor of “mothering.” Now, this is good neither for the babe nor even for the mother herself; for there seems to be great truth in what the poets for countless ages have told us viz., that lactation excites or



increases "the mother love" partly by demonstrating the dependence of the babe on the mother and partly by inspiring the mother with the joy of self-sacrifice. In this connection, it may be interesting to read that where delivery is conducted without any pain to the mother (as, say, in Caesarian section) the maternal affection is not so strong as when she has delivered the baby herself after the usual pains. However that may be, there is no gainsaying the fact that it is best for babies that they should be mothered and breast-fed by their own mothers, as far as possible. In this connection the following story narrated by Dr. Moore is as instructive, as interesting; it is as follows:—

### Unwanted Infants.

"There is a painful and difficult phase of the infant mortality question which, however, may not be left out of account. In a certain definite number of cases it is placed beyond doubt by the action of the parents that the infants are unwelcome and unwanted. It is not too much to say that their deaths are desired, perhaps not deliberately and consciously, but the result is the same—these babies die. I could cite many examples, but perhaps the best is afforded by a case of triplets. They arrived in the family of a labourer earning some 25s. weekly, where there were already six young children, the eldest still at school. The mother (none will wish to blame her) was overwhelmed by the unexpectedly large accession of family. She and her newly born infants were removed to hospital where they were placed under hygienic conditions as nearly perfect as may be. They had a small ward to themselves. Two experienced nurses were provided, one for day and the other for night duty. The mother had nursed all her other children at the breast. The first untoward incident in the case was the expression of unwillingness on her part to continue that excellent practice. However, she was induced to do so. Then the breast milk commenced to fail, and notwithstanding every effort hygienic, dietetic, and therapeutic to promote its secretion, it continued to diminish until at length it failed altogether. The smallest of the infants died after a few days 'life', the next after a few weeks 'life' and the third after a few months' life. The mother remained in the hospital until within a month of the death of the last survivor. During the whole of the period I never saw her take any interest whatever in the babies. She constantly expressed a desire to go home. She never nursed them after her milk was stopped, showed no anxiety about them, nor even grieved at their deaths.

I would like, at this point, to mention a lesson that I learnt from one of the nurses in attendance, when, notwithstanding everything that was being done, the last baby seemed likely to die, I said to the nurse "Whatever is the matter? How is it that nothing seems to answer?". In a manner which showed that she had solved the problem, she replied, "The child has never been 'mothered' and babies need 'mothering'." I had frequently heard similar expressions of opinion, but there was something in the circumstances, or perhaps in the tone of the nurse's voice, or in her manner, which caused me to realise, as I had not formerly done, the importance and significance of what the nurse called 'mothering'. No doubt robust infants can survive in its absence; but, on the other hand, it is well to recognise the fact that there is an inherent instinct and appetite in the young mammal to huddle and nestle against its mother's body and to receive warmth and nourishment therefrom. This experience has, led me to believe that in all cases, these things are necessary for the well-being of infants, and that there may be certain cases where the lack of them determines the balance against the infant, even to the extent of causing its death.

In the case of the triplets I formed the opinion that the death of the first was probably inevitable, but that the other two would have survived had the mother been able to feed them in the natural way. I also came to the conclusion that the lack of milk was the result of the mother's mental condition.

The foregoing is an extreme example of a class. The lamentable fact may not be concealed that from time to time mothers are found who simply will not take the trouble to rear their infants. One recognises the fact with repugnance and expresses it with reluctance and regret. Yet it may not be gainsaid, Various excuses are made, but the truth is that the the motherhood in a very small percentage of women is so feeble that they will not be at the pains involved. Such incidents are not confined to harassed, overworked, underfed women, nor to cases of illegitimates. It cannot be a popular proceeding to point out such facts, but their recognition is necessary to a proper understanding of some of the problems of infant mortality."

One of the direct results of the neglect of breast feeding is the extended use of the so-called Infants' Foods. Medical opinion has more than once, expressed itself that these foods are a source of danger to infant life, save where they are used at the express direction of medical men who know when and how to use

### **Infant Foods and Milk-Depots.**

them. "I have no doubt that a breast fed baby living in unsanitary surroundings but cared for by its mother would have a very much greater chance of surviving than one, bottle-fed and neglected by its mother, however excellent might be the sanitation of the house and the district in which it lived." This is the deliberate opinion of Dr. Moore, who makes the following remarks on the sale and use of Infant foods :—" One would have supposed that it would have been a very serious offence for any person for the sake of profit to attempt to place starch on the market and call it Babies' food. One would suppose that there was no special need for advocacy on this point; but it is the case that to-day there is nothing to prevent such action on the part of any person, and this in face of the fact that serious formal representations have been made unavailingly to the Government department concerned, with a view to preventing this abuse, or rather this crime. Surely it is not too much to ask that an infant be not slowly starved to death by having administered to it a substance which does not nourish it. The mind reels before a contemplation of the number of infants who have been slowly done to death in this horrible fashion in this country during the past 50 years. No words can be too strong in condemnation of the system which permits the interests of commerce to stand in the way of the utter, ruthless uprooting--the total obliteration of this system." In this connection, it may be of interest to note that "at St. Helens, in 1911, the mortality rate of artificially fed babies was  $5\frac{1}{2}$  times greater than that amongst breast-fed children and during epidemics of infant diarrhoea at Liverpool, Birmingham and Bradford, the deaths of the hand-fed babies have been from 15 to 20 times greater than amongst infants fed naturally at their mothers' breast."

The breast-feeding of infants, highly desirable as it undoubtedly is, has sometimes got to be supplemented or replaced by artificial feeding. But, if infants are to be saved from the perils of impure or unwholesome milk or of inexpert hand-feeding, it is necessary to provide for them food as suitable as medical science could suggest. In Bradford, where the municipal milk depot is a special feature of their Infant welfare scheme, the medical staff prescribes for each bottle-fed infant, the food adopted to its individual needs and the prescription is modified

from time to time in accordance with varying requirements of the growing infant. In Madras the problem of milk-supply is becoming very acute; and all of you are, I daresay, quite familiar with the viles and juggleries, and the dramatic suddenness with which the Madras milk-vendor performs the miracle of converting in the twinkling of an eye, one measure of water into two or more of milk, the actual quantity so converted varying of course, with the ever varying requirements of his trade. Municipalisation of milk supply may well be thought of; well-equipped private dairies are certain to pay; private or co-operative enterprise may note that there is plenty of money in this business. In this land of charity, it may not be difficult to get money for schemes devised to benefit infants. M. R. Ry. Rao Sahab Cunnan Chettiar, ever on the search to find out new outlets for his inexhaustible stream of charity, has recently opened a free milk-depot at Triplicane, where milk is given gratis to infants; I do not know under whose supervision, the milking, the distributing etc., is conducted; but, it is the duty of you and me and all of us to offer if need be, our services voluntarily in the supervision of such work, as it requires some knowledge of medicine and hygiene to see that this milk-distribution is free from danger or peril.

An adequate provision of properly trained midwives and  
**Household-Helps.** properly equipped lying-in-homes should be considered as one of the primary duties of the Municipalities and Local Boards, and failing them, of the State itself. In some advanced counties of the West, specially trained women known as *Household or sick-room helps* undertake for a fee, the ordinary household duties, keep the home clean, prepare meals, get the children ready for school and do all the duties of the mother housekeeper, thus keeping the expectant or recently delivered mother, free from the need to supervise all this work, in cases where there are no friends or relatives to undertake this responsibility. The institution of a regular Service of Household Helps may well be tried here, on the lines of the existing Midwifery and Nursing Services.

Provision of 'schools for mothers', is another measure  
**Schools for mothers.** that is calculated to be of great use in spreading a knowledge of the hygiene of motherhood and infancy among prospective

mothers, nurses and others engaged or interested in the care of mother or infant or both. These schools are chiefly of two kinds. Some are for the benefit of those who intend taking nursing as a profession, while others are for the education of mothers and grown-up women, in the art of the proper upbringing of children. A number of nursery schools, colleges and training associations are started in the United Kingdom to meet the demand for women qualified in infant-nursing. What is needed in India is not perhaps so much this type of institutions as those of the second type, where women are taught the essentials of maternal and infant hygiene; in addition to the health lectures and homely talks by competent "mothers", some schools also provide for instruction in cookery, house-hold management, domestic economy, needle-work or other "home industry" which may enable the mother to provide necessities or comforts for the family without actually leaving the home for work in the field, factory or workshop. It is this type of "schools for mothers" that is eminently feasible for conditions obtaining in India at the present day.

The following is the description of the infant clinic at  
**Infant Clinics.** Bradford, England which may be taken as  
 the model of what an infant clinic should  
 be like :—

#### **The Infants' Department and Milk Depot.\***

"The Infants' Department, a new, three-storey building, opened by the Countess of Aberdeen, is at present unique in this country. Its clinic on the first floor consists of waiting, dressing, weighing and recording rooms, doctor's consulting rooms, an isolation room and a dispensary; and the staff includes three wholtime lady doctors, a qualified dispenser, and an adequate number of nurses and assistants. The infant is carefully examined by the doctor on its first visit, and thereafter periodically, which ensures the early detection of any abnormality in development or sign of disease. Special attention is given to the vital question of nutrition, to the instruction of nursing mothers and the investigations and supervision of all factors connected with lactation; and explanations as to the preparation of the food prescribed for bottle-fed babies (accompanied often by demonstrations) occupies a large part of the time of the staff.

\* *Maternity and Childwelfare* by E. J. Smith (1915).

The necessary treatment of the infants is undertaken in a room set apart for the purpose, and a very helpful system exists of lending to necessitous mothers such requisite appliances as ear syringes, etc. Drugs are prescribed, if necessary, but the treatment required is found to be very largely dietetic and hygienic. Over 600 babies attend weekly, on the average, and in view of the fact that about half the infants are found on registration to be suffering from some disease or defect (frequently unrecognised by the mother) the necessity of the supervision is obvious. A special effort is made to secure the attendance of infants as soon as possible after birth, and while healthy; for prevention rather than cure is the keynote of the work. Infant ailments are rife, and little lives are lost, not because of innate unfitness or lack of affection on the part of the mother but primarily because of the adverse environment in which both child and mother have too often been born. The Clinic comes to the rescue in these cases. Here the baby is under the care of a physician and nurses who have a thorough knowledge of its history (many of the record-cards supply the most complete life-histories of the first year) and who also know the history of mother, the home conditions and financial resources. But when the Clinic has done all it can do, more remains to be done. The work *must* be followed up by kindly supervision and instructions in the home itself, and this duty falls to the lot of a singularly capable and sympathetic staff of women health visitors. The purpose of all this is not to destroy home life nor to attempt to find a substitute for parental care, but by well-directed and timely helpfulness to elevate and strengthen these influences.

There are unmistakable proofs of the humanising power of the work. When another little mouth enters a home already poor, and the careworn and anxious mother takes her infant to the Clinic, a wonderful thing not infrequently happens. The mother sees fully qualified physicians and well-trained nurses taking an intense interest in the child that circumstances had lead her to regard rather as a burden than a blessing, and a revelation enters her life and a new love flows from her heart. If these strangers care for her child, if its well-being really matters to them, it must mean something to her; and she leaves the building with a treasure she did not bring and goes down the street a nobler woman.

Situated over the Clinic is the Infants' Hospital (with Open Air Balcony), containing twenty beds, devoted to the treatment of babies suffering from malnutrition of that severe kind which is frequently complicated by other troubles. No infectious cases are admitted.

If the infant is too ill to be treated at the Clinic, or the home is unfit for its proper care, an offer is made to take it inside. The curative results of this method of treatment are wonderful, alike in their completeness and their rapidity, and from the very first have more than justified the novel step of establishing a municipal infants' hospital. Indeed the hospital has already become indispensable to child welfare work, and is growingly appreciated by those who know from actual experience the magnificent service it is rendering to the City.

On the ground floor of the Infants' Department is the Milk Depot, which supplies a number of public institutions, including the hospital, sanatorium, school feeding centres, and the cooking kitchens in which meals for expectant and nursing mothers are prepared. The demand from these institutions is necessarily subject to considerable fluctuation. As the school feeding centres and those for expectant and nursing mothers are only open on five working days of the week, the milk delivered at the Depot on Saturdays, Sundays and to a less degree on holidays constitutes a surplus, which is converted on the premises into cream, butter and cheese for the use of such Health Committee institutions as the Fever Hospital, the Sanatorium, Convalescent Home, etc., where, on the average, 500 persons (patients and staff) are boarded daily. Adjoining the Depot is the Infants' Milk Laboratory, which is attached to the work of the Clinic and Infants' Hospital.

The breast-feeding of all infants, highly desirable as it may be—and its importance is hardly to be over-estimated—cannot, unfortunately, be ensured at present, particularly in cities where child-bearing women have to work in factories. Consequently, if the inevitable bottle-fed babies were not to be abandoned to the perils of inexpert hand-feeding, it was necessary to provide for them a food as suitable as medical science could suggest. For each bottle-fed infant, therefore, the medical staff prescribe the food adapted to its individual needs, and the prescription is modified from time to time in accordance with requirements. The milk preparations, dispensed in the Milk Laboratory, are sent to the homes in special bottles sealed with aluminium discs, each containing a sufficient supply for one meal. The bottle can be fitted directly with a suitable rubber teat which can easily be cleansed by the mother.

Among the latest developments of the work of the Infants' Department is a scheme for the training and certification not only of probationer nurses in the Hospital, but of student nurses in the institution. The student nurses will undergo a three years' practical

and theoretical training in all branches of the department—Clinic, Hospital and Milk Laboratory. This educational aspect of the work could not be overlooked in view of the growing recognition of the fact that the care of infancy forms an important field for specialised work, and is rightly demanding special equipment on the part of those engaged in it.

Speaking of this Infants' Department, Mr. Herbert Samuel said :—

I do not think I have ever seen any institution in any town or any country which struck me in a greater degree as being well-devised admirably organised and urgently needed by the population whom it serves."

It must not be imagined for a moment that an *immediate* reduction in infant mortality would occur as a necessary result of the inauguration of infant welfare schemes such as the ones mentioned above. Poverty and ignorance are at the root of the evil; and the measures so far discussed have no direct operation against these causes. The millenium is not yet, when ignorance, there would be none; and the distribution of the good things of the world would be guided by the socialist ideal of "From everyman, according to his capacity; to everyman, according to his needs." It is perhaps from considerations such as these that Health Officer of Calcutta, in adverting to the topic of Infant welfare schemes in his Health Report for 1915, struck a distinctly pessimistic note, when he said "I hardly felt justified in advising the Corporation to launch out a scheme of this nature and incur considerable expense with little or no prospect of any appreciable results for years to come" It is again from similar considerations that some good people say, "What can we do when there is so much of ignorance and poverty around us, except perhaps to fold up our hands and pray?" "Yes" I would rejoin "Do pray with all your power, if you can do nothing beyond praying; for verily, "There are more things wrought by prayer than the world knows of." But, who has condemned us, I pray, to everlasting poverty and ignorance? Who has robbed us for ever of our capacity to solve our problems of poverty and ignorance? Do we not all confidentially look forward to the dawn of a day when an awakened India will be able to find some solution for these pressing problems? Whether that day is far or near is difficult to prophecy; but when the day does come, as it is bound to come sooner or later,

**"Watchman, what of the night?"**



(let us hope, it shall be sooner than latter) let it not find us unprepared and unable to cope with causes of infant mortality other than poverty and ignorance; the inauguration of these infant welfare schemes may not be immediately productive of great results; but, there can be no manner of doubt that even the small proportion of preventable deaths which can be prevented by these means will represent, in the aggregate, the saving of thousands God's innocents; and this is no mean achievement. Moreover, these schemes cannot be perfected in a day; they take time to grow and develop; and it is necessary to warn enthusiasts not to expect that the inauguration of infant welfare schemes should necessarily lead to *immediate* reduction of infant mortality rates; for, even in London, the inauguration of these special schemes has not been followed by any striking or even appreciable decrease in infantile mortality. In Edinburgh, the infantile mortality has actually mounted up somewhat between 1913 and 1915; says the Health officer in his report for 1915:— "The death rate among infants under the care of voluntary Health visitors is higher for 1915 than for 1914 and was higher for 1914 than in 1913. Poverty cannot be said to have played any part in these higher figures; not in any previous year have so few applications for help been made to the Charity Organisation Society; only twelve were made during 1915. Not at any time have so many agencies been interested in the problem of the home." If this is the result in places where poverty and ignorance are not such serious factors as down here, it goes without saying that greater is the need here for not expecting immediate brilliant results. After all, so long as we have got the consciousness that we are doing a good work, it ought not really matter to us that the results are not *immediately* seen, or are not seen by us at all. "Thy business is with action only, never with its fruits"; neither may we behave like those "well-meaning, but thoughtless, up-grown children of the fable, who dug up the seed in order to ascertain how far the plant was justifying the money spent on it." Let us do our duty and all is well.

Ignorance, we know, stands in the way of many sanitary reforms, whether they relate to sanitation in general or infant-saving in particular. No sanitary reform, however well-meant, is likely to be of any real or permanent

**Education: "An aid to the doing of anything."**

value, unless it is founded on the solid bedrock of knowledge and intelligent co-operation, and not on the shifting sands of ignorance and forced compliance. Intelligent co-operation, presupposes of course Education, for all men and *women* too, and that of the right sort—education, not merely in the three Rs. but also in the elements of sanitation and domestic hygiene. With this latter object in view the Government of Madras have recently interested themselves in the organisation of Health Lectures, to be delivered to the Public, in English or Vernaculars according to Local requirements; whenever possible these are illustrated by Lantern slide Demonstrations. There is vast scope here for useful work by voluntary workers; it is a hopeful sign of the times that some are already doing very good work in this direction, others are showing a commendable zeal in the organisation of Health exhibitions, and yet others are interesting themselves in the publication and distribution of English and Vernacular pamphlets on Health topics. This is all very good, although the usefulness of these measures, especially of the last, is much restricted by our lamentable educational backwardness, especially among our women, 96 per cent. of whom are calculated to be illiterate. Of what avail is the distribution of Health Leaflets to such a population? Well may Dr. Nair compare this attempt at enlightenment, to the attempt of one of our good Irish brothers who sought to bring illumination to puzzled wayfarers by the following luminous sign-post:—“This way to Bally Hooley; any one who can't read, ask the Smith next door.” In a delicious literary dish, to which Mr. Molony, the President of your Corporation treated the fortunate readers of the November issue of the Mysore Economic Journal, he summed up the case for everybody's right to education in one preguant sentence viz. “Education is an aid to the doing of anything; a sweeper will sweep all the better if he is educated and if he brings his education to bear on sweeping”; and it is hard to believe that this same delightful apostle of education should be the author of the following statements that are found in Page 6 of last year's administration report:—“The Corporation has been *unable* to carry out the provision of *two* primary schools for each division of the city; but, when money is scarce and the claims of sanitation and primary education come into conflict, it is, I think, but right and

proper that sanitation should take precedence." To my mind, gentleman, there can never be any conflict between education and sanitation; they are but parts of an organic whole and have to develop in harmonious combination. For those of us who believe in the beauty of a sound mind in a sound body, the conflict between education and sanitation is as unthinkable as the conflict between a sound mind and a sound body; the inharmonious development of body alone or mind alone would mean a monster; even so, the development of education alone or sanitation alone is, I submit, an unjustifiable anomaly; the close inter-relation of Education and Sanitation is now acknowledged by all authorities, competent to speak on the subject; and as I pointed out on a previous occasion, it may not be by mere accident that when it was decided that the Government of India should have a separate Portfolio of Education, it was also decided that sanitation was to go, not with medicine as might have been expected, but with Education, thus virtually establishing a sort of Ministry of Public Health, the formation of which is being now enthusiastically and insistently urged in England and elsewhere; as I also pointed out on the same occasion, there are only two ways for ensuring the due observance of Sanitary Laws and Regulations, viz. either perpetual prosecutions, (a state almost akin to the declaration of Martial Law) or, universal education of the right sort. Obviously, Martial Law cannot be, a normal procedure; our only recourse is therefore universal education of the right sort. The way our ancients enforced the observance of sanitary practices was quite peculiar; with them, Religion included everything conceivable—Sanitation, Education, Legislation and all else that pertained to the affairs of this world, as well as of other worlds than ours. Suppose, for example, the ancient preceptor wanted to ensure that every person should keep his body cleansed every day, he would say to one of poor understanding, "if you do not cleanse your body regularly every day, you will go to a hell called——". If a person were of proper understanding, then, of course, he would know for himself why these rules of personal cleanliness were enforced. It might be just as well that our future or would-be reformers should know that in intelligent co-operation alone lies the way of safety and the path of least resistance, Advertising to the relation of Education to

"Baby-Saving," Dr. Moore makes the following interesting and instructive statement:—"Manifestly the best direct method of improving the health of the nation in general, and preventing the excess of infant deaths, is to teach personal, domestic and communal hygiene to the young; they might with propriety be regarded as essential subjects. I see nothing to prevent them being so dealt with that they would be equally educative, as more abstruse and less useful subjects." \* \* \* The following words of Herbert Spencer are so apposite that they might well have been written *a propos*:—If by some strange chance, not a vestige of us descended to the remote future save a pile of our school books or some college examination papers, we may imagine how puzzled an antiquary of the period would be, on finding in them no sign that the learners were ever likely to be parents. "This must have been the curriculum for the celibates," we may fancy him concluding. "I perceive here an elaborate preparation for many things especially for reading the books of extinct nations and co-existing nations (from which it seems clear that these people had very little worth reading in their own tongue), but I find no reference whatever to the bringing up of children. They could not have been so absurd as to omit all training for this gravest of responsibilities. Evidently, then, this was the school course of one of their monastic orders."

The history of sanitary reform has everywhere shown that  
**Co-operation :** nothing succeeds so well as the harmonious  
**"Yonder is the foe,** combination and co-operation of voluntary  
**shake hands."** agencies like yours, and official agencies  
 like the Health Department of the Corporation of Madras. A splendid opportunity for useful and uplifting service lies before you. As is well pointed out by the Editor of the *Lancet* (*March 18, 1916-P. 629*), "A review of actual results (of infant welfare schemes) shows that most has been achieved where municipal and voluntary enterprise have proceeded hand in hand. The somewhat soulless machinery of official beauracracy tends to become humanised by a leaven of irresponsible individualism, while the occasional impetuosity of voluntary enterprise may be sobered and chastened by the collective restraint of communal authority." A very full discussion of the respective role of voluntary and official agencies is contained in the following

masterly note from the pen of Dr. E. J. Smith, the Chairman of the Bradford Corporation—a Corporation which is taking a leading part “in fulfilling the Nation’s responsibilities to the Mother and Child :—

“Voluntary workers enjoy the proud distinction of being the pioneers in the great cause of maternity and child welfare, and are justly entitled to all the credit that belongs to those who have broken the difficult ground out of which has sprung the steadily ripening public opinion favourable to conceding to motherhood some of the consideration and care which have so long and unwarrantably been denied. But it must be obvious to all who put the work before the machinery by which it is done, that, in towns and cities at any rate, the task involved in so stupendous and urgent a problem must either outgrow the very best of which voluntaryism is capable, or fail. The finer spirits in every great forward movement, however, rejoice when the more generous outlook so far grips the community that it becomes willing to bear the standard of reform and reconstruction to higher altitudes than voluntary effort is able to reach and alternatively regret when the loftier vision fails to fire public imagination sufficiently to induce it to shoulder the sacred cause. \* \* \*

“Under a purely voluntary system the greater proportion of the well-to-do, contribute nothing, whereas if these burdens were borne through the rates and taxes all would help to carry a load for which collective responsibility cannot be denied, so long as we permit evils it is in our power to prevent. Indeed if the voluntary policy had been adopted to perpetuate instead of to remove the gross injustices involved in neglect, it could not have been better devised, while to leave such vital issues to precarious—however well-meaning—voluntary effort, when nations with which we have to compete in the world’s markets are adopting drastic and far-reaching measures for their solution, is to raise barriers against ourselves that are equivalent to digging our own graves. Money-making and the recognition of human needs do not usually run in harness, and those immersed in business prefer that our skeletons should be kept in their cupboards—that being out of sight they may be also out of mind—and until men are compelled to pay for the sin and folly of our present methods, the greatest offenders will never stop to think, much less to realise, that virtue is ultimately cheaper, as well as better, than vice, and that the proper care of the mother and her child is far less costly, and much more beneficial to the State, than the maintenance of prisons, workhouses, hospitals, and asylums, which constitute the alternative.

Before leaving this subject the writer is constrained to utter a long overdue protest against the unwarrantable assumption that in some way or another, never explained, municipal service lacks "the human touch" which voluntary effort claims.

"Kind hearts are more than coronets,  
And simple faith than Norman blood."

But, thank God, these priceless virtues are not the monopoly of well-intentioned people, whose circumstances and disposition enable them to give valuable assistance in ameliorating the condition of those less favoured, though not always less worthy than themselves. The writer is a voluntary worker who for some years, has devoted *the whole* of his time to promoting the public health of Bradford, but he would be ashamed to claim that for that reason his work is of a higher order than that done by the respective staffs at the Municipal Maternity and Child Welfare Centres, the Sanatoria, the Fever Hospital, the Convalescent Home, and the like public institutions for which the Health Committee of the Corporation is responsible. On the contrary, his experience compels him to record the fact that he has never seen, in any form of service, public or private, or, indeed, in any home, a finer standard of enthusiasm, devotion, patience, and love than characterise the daily round and the common task of those who in ministering to the poor and heavy-laden—through these channels that some would fain have us believe lack "the human touch"—substitute hope for despair, and resolution where failure has destroyed effort. And this is confirmed over and over again by the unsolicited testimony of those who, as patients, have been the recipients of the practical sympathy, generous service, and untiring loyalty to need, which salaries can neither buy nor pay for. Indeed, these jewels are the glory and pride of all that is best in the medical and nursing professions, and they render an ill-service to the sacred cause of healing who seek to magnify their own work by belittling that of others, and meanly inferring the absence of "the human touch" in institutions they have never seen and whose redeeming work will be found more easy to envy than to surpass. Not what we have, but what we are; not how much we possess, but how much we give in proportion to our means and opportunity, be it money, ability or service, is the true standard of measurement for voluntary and paid workers alike. In Bradford it was the failure of highminded and altogether excellent voluntary effort that compelled the municipality either to take over the four "Babies Welcomes," out of which our present scheme grew, or see their doors closed. The efficiency of our equipment is not

challenged, but whatever claim the city may have to distinction in maternity and child welfare work, is neither to be found in its buildings nor their machinery, indispensable as both undoubtedly are, but in the magnificent personnel, the elevating atmosphere, and the fine spirit which pervades them all. If the nation is to have a future, the tasks confronting us are too momentous and sacred to be prejudiced and impaired by internal dissensions; the cause is ever greater than the human instruments by which it is to be won, and in the meantime there is urgent need and ample room for voluntary and paid workers alike. Said Nelson to two officers not wholly congenial, on the eve of Trafalgar: "**Yonder is the foe, shake hands**" \* \*

The solution of the problem will involve not only the removal of social and economic error, but the eradication of ignorance and sin; for the two sets of forces have acted and reacted upon each other until they have become merged in one inextricable mass. And the fact must never be lost sight of that in the last analysis, the social problem is one of personal character. Social and economic readjustments will make sound personal character much more feasible, but they cannot create it. Character must ultimately come from within. It can never be attached from without.

Consequently in the great uplift that is coming, Parliament and public health authorities must not be left to storm the strongholds of human error and material wrong alone, but must be supported by every moral and religious agency; for abstract faith is on its trial and must either be reduced to concrete practice or die. We have been content to allow these brutal conditions to oppress the deserving poor, so long as the victims did not become a menace to our profit or comfort; and so the responsibility lies at our own door and cannot be delegated to others. The blood of these people is upon our heads and we must either deliver them or increase our guilt. If God has any children these are His; if there is good in all men there must be some in these. Nay, it is common knowledge that one of the miracles of poverty is the extraordinary kindness and consideration of the poor for each other. Their hearts are sound mother love is strong, and if Christian men and women believe in the Fatherhood of God and the Brotherhood of man, they will come out of their Churches and learn at first hand how the poor live. Once they have learned this by actual contact with the derelict conditions to which such people are consigned every day, every week, every month, every year of their lives, they will be compelled to recognise not only the weakness, but also the worth of these less fortunate brothers and sisters; and they will go and win them for God, that the New Man and the New

Kingdom may come together—for neither can exist alone. The opportunity constitutes the obligation.”

Perhaps it will be said that this is all sentiment and not science; may be it is so; but, let it be remembered that unless science is broad-based on noble sentiments and high principles of morality, it is likely to be more a curse than a blessing, as is amply testified to, by the recent history of Germany and her methods of War: Moreover to a Hindu, like me, Science is Religion and Religion is Science; the two are really one, with the one common aim of search after truth; and any real divorce between them both is, to my mind, inconceivable; furthermore, there is the ethical aspect of the question of infant mortality, which we can never afford to forget; in adverting to this aspect of the question, Dr. Moore makes the following remarks, peculiarly appropriate to these war-times:—

“Let us turn for a moment to the ethical aspect of the subject. It need but be stated. A civilised country, at this very time engaged in a war against the two greatest military Empires of all ages, which it joined because the territory of an ally was invaded and her freedom threatened, cannot permit, not by any possibility, “an army” of her own population to be destroyed annually—an ‘army’, moreover, composed of individuals who hold the right to protection from the State as well as from their parents, an “army” as helpless as innocent.”

Finally to conclude as I have begun, (i.e., with a passage

**In the service of the Mother and the Child.** from Charles Kingsley) may I respectfully commend to your earnest consideration the following fervent appeal which he made more than half a century ago, to the members of the Ladies’ Sanitary Association of England? The passage (with a few verbal alterations) is so apposite, even to the point of the fitting reference made to the chairman of the day, that it might well have been written *a propos* of the present gathering; says Kingsley:—  
 “It is in the power, I believe, of any member in this room to save three or four lives—human lives—during the next six months. It is in your power, friends; and it is so easy. You might save several lives apiece, if you choose, without, I believe, interfering with your daily business, or with your daily pleasure; or, if you choose, with your daily frivolities, in any way whatsoever. Let me ask, then, those who are here, and who



have not yet laid these things to heart : will you let this meeting to-day be a mere passing matter of two or three hours' interest, which you may go away and forget for the next book or the next amusement ? Or will you be in earnest ? Will you learn—I say it openly—from the noble chairman, how easy it is to be in earnest in life; how every one of you, amid all the artificial complications of society in the 20th century, can find a work to do, a noble work to do, a chivalrous work to do—just as chivalrous as if you lived in any old magic land, such as Spenser talked of in his “Faerie Queen;” how you can be as true a knight-errant or lady-errant in the present century, as if you had lived far away in the dark ages of violence and rapine? Will you, I ask, I learn this ? Will you learn to be in earnest; and to use the position, and the station, and the talent that God has given you to save alive those who should live? And will you remember that it is not the will of your Father that is in Heaven that one little one that plays in the kennel outside should perish, either in body or in soul ?”

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## APPENDIX I.

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### The Government and the Press on "Infant Mortality."

(G. O. No. 1133 Public, dated 13th June 1916.)

The papers read relate to certain schemes for reducing the large amount of mortality, both among mothers and infants, which occurs in this Presidency owing to the absence of adequate arrangements for attendance on women at and about the time of delivery. The first of these schemes relates to the more extended employment under local bodies of fully qualified and salaried midwives. The second is a scheme for giving a practical training in mufassal hospitals to hereditary midwives in private practice. The third covers proposals for the advising of mothers as to their own health and that of their children by official and non-official lady visitors.

2. As regards the first of these questions, the number of salaried midwives now employed, which does not much exceed 400, is insufficient to attend more than a very small proportion of the births which take place every year and an increase in the number of these midwives is thus urgently necessary. References have been made to local bodies as to their willingness to pay stipends to women who would undergo training in Madras and a committee of experts has been consulted as to the extent to which the teaching accommodation in Madras can be increased. The results show that the number of women to whom a thorough practical training can be given in the hospitals in Madras can be increased from 64 to 100. All the district boards and 27 municipal councils have expressed their willingness to pay stipends to pupil midwives under training and will provide salaried employment, after the completion of the course, for the majority, if not all, of these women. \* \* \* \*

9. The question whether similar arrangements should be adopted for giving a practical training in mufassal hospitals has also been considered by the Government who have come to the conclusion that, in view of the urgent need for medical help of this sort in this Presidency, it is desirable to take advantage of all really suitable teaching that can be given in mufassal hospitals. There are now in existence a number of mufassal hospitals for women and children, many of them under the direction of highly skilled medical women; and the Government think that it should be possible to arrange for the training of midwives at these hospitals

in an efficient manner. They desire that the Surgeon-General will communicate with the authorities in charge of such of these hospitals as he thinks most likely to be suitable for the purpose and will ascertain from them in which of these hospitals they would be ready to admit pupil-midwives and how many in each case.

10. The figures given in paragraph 2 above show that, even with the increase contemplated, the trained official agency available will be comparatively small in comparison with the needs of the country. It is, therefore, essential to secure the co-operation of the indigenous midwives who attend the great majority of the confinements in the Presidency and by giving them a simple training, more especially in matters of cleanliness and hygiene, and by bringing them into touch with the doctors who can assist in the more serious cases, to do something to combat the neglect and ignorance which are responsible for so much infant mortality. Work on these lines has for some time past been conducted in the City of Bombay and the Surgeon-General gives particulars of a scheme for lectures to Indian dhais which have been conducted with some success in the United Provinces and imitated on a very small scale in parts of Madras. The scheme includes a course of lectures to be given, preferably by women doctors, accompanied by practical training in a women and children's hospital, at the close of which a certificate is given to the women who have successfully gone through the training as well as some simple appliances. The expense is comparatively small, involving a fee to the lecturer, stipends or prizes to the midwives and batta to poor women in advanced pregnancy to induce them to come to hospital for delivery. The scheme appears to be worked out on sound lines and is commended to the notice of local bodies. It may not be possible to develop it on exactly the same lines in each case owing to varying conditions in different districts and the Government therefore leave it to District Boards and Municipal Councils to put it into effect in consultation with the District Medical and Sanitary officers in the manner which is best suited to local conditions. There will be some difficulty, in the first instance, in inducing both the midwives and the patients to come forward. The Government trust that the local bodies concerned, or at least those that control women and children's hospitals, will do their utmost to make the scheme a success. Special mention should be made of the progress effected in this matter in the annual administration reports.

11. A third method of dealing with the question of infantile mortality which has been considered is that which has now been

widely adopted in Europe as well as in Bombay of arranging for lady health visitors to visit women in their homes, to get into touch with prospective mothers, advise them as to care of their health and bring them into touch when necessary with qualified doctors. Some efforts in this direction have already been made by the Madras Corporation, but have not so far been attended with any great success. In 1907 three female sanitary inspectors were appointed in the three northern divisions of the city, but failed to win the confidence of the people and their posts were therefore abolished in April 1910. They have, however, been replaced to some extent by the malaria nurses, whose work has been very well reported upon. The Government desire that the Madras Corporation will examine the question again and consider whether the appointment of health visitors should not be reinstated. In so doing they should consider further whether it would not be preferable to require these lady health visitors to be qualified medical women, and further whether it is not desirable to entrust them with the supervision of the work of the salaried midwives, whose work appears at present to be largely uncontrolled. The Government will be glad to consider similar proposals from mufassal municipalities which employ medical women.

12. Under the Bombay Sanitary Association the work of the official lady health visitors is largely assisted by non-official ladies who work somewhat on the lines of district visitors in England. The Government are doubtful whether it would be feasible to organize any arrangements on this basis in Madras at present, but would be glad to have the question thoroughly examined. They would request the Surgeon-General to place the whole subject before the Committee of the Countess of Dufferin's Fund, which is an organization specially designed for the medical help of Indian women, and to report whether the Committee are prepared to make any proposals for work of this nature, whether in consultation with the official health visitors or independently of them.

Enclosure No. XCIX to the above G.O., contains the following extract from "*the Hindu*":—The causes of infantile mortality are ordinarily attributable to the low economic condition of people, insanitary surroundings, over-crowding, bad feeding, incompetent midwifery and ignorance of mothers, and it is clear that no measure of relief would prove really effective if it is not directed against all these causes. The problem is one which is not new to this country and the methods adopted in European cities to combat the evil, such for instance as the liberal provision of lying-in-hospitals, the house-to-house visits of specially trained midwives, the establishment

of homes for infants, the sale of pure milk at cheap rates to poor parents, could well be introduced in India, provided there is sufficient public spirit and a spirit of earnest endeavour on the part of those that are called upon to administer civic affairs. Lack of money is now the favourite cause alleged for long-deferred improvements, but more than that, lack of ideas and the want of that consuming passion for the uplift of the people among administrators constitute, in our opinion, as the stumbling block of many reforms.

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"The first week of July is to be "National Baby Week" in Great Britain [The programme of this week, as given in *New India*, is as follows:—Sunday.—Special sermons in all churches and special lessons in Sunday schools with reference to child welfare. At all the cinema houses one film relating to this subject. Monday.—Central Child Welfare Exhibition. Tuesday.—A meeting of Health Association at the Guildhall, speakers, Lord Rhondda (Chairman of the Committee) and Mr. H. A. L. Fisher. Wednesday.—Special cinema and theatre matinees. Thursday.—"Open day" at all schools for mothers, creches, and nursery schools. Friday.—A special day in all schools, with mothercraft classes open to the public. Saturday.—A large garden party meeting, probably at the Botanical Gardens. A similar programme will be followed in all the big cities. No flags will be sold.] We learn that the Prime Minister is President and Lord Rhondda is Chairman of the Council of an organisation which seeks to arouse public opinion to the fact that in 1916 there were for England and Wales 71,768 deaths of infants under twelve months which comes to about 9 per cent. of the number born. There is a widespread demand for provisions for maternity and food and medical treatment for children. Lord Rhondda in answer to a deputation urging the early establishment of a Ministry of Public Health, said that he was strongly impressed with the need for taking in hand the care of children at once. "I think," he added. "I can say this. Even if the Ministry is not established in the near future, as I hope it may be, we shall introduce a Bill to provide for the feeding and nursing of expectant mothers and to provide pure milk for children." In India the rate of infantile mortality is simply appalling, being so high as 250 per thousand and in some places the figure is greater still. In every town and Province in India the same miserable story is heard year after year. Such a huge waste of the most valuable asset of the country demands immediate attention at the hands of the authorities and the people. The problem of a pure milk supply and increased provisions for maternity are some of the questions to which

the attention of the various philanthropic associations might be diverted and very much also remains to be done by the local bodies and the Government. (*Ibid.*)

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### SURGEON-GENERAL W. B. BANNERMAN ON "INFANT MORTALITY."

(*From a Lecture delivered at Salem on 13th Feb. 1917*)

It was not many weeks ago that a conference of the Madras Medical Council was held to discuss the large infantile mortality in the metropolis. Government had sought advice in the matter, and, contrasting the figures both in India and in England, it was discovered that the worst infantile mortality was in the large manufacturing centres. Why was that? All the members of the Medical Council discussed the problem and he would give a *resume* of the conclusions arrived at. One conclusion reached was that the great mortality among infants in this country was due, in a large measure, to the early age at which girls became mothers. The Health Officer was strong on that point. Perhaps, in an audience like that, composed mainly of laymen, he must draw analogies from nature to bring home to their minds the terrible consequences of early and premature motherhood in Indian girls. Taking examples from both the vegetable and the animal kingdoms Surgeon-General Bannerman illustrated his points by telling the audience that the mango growers of Salem and the breeders of cattle and horses in England always took particular care to see that either the immature plant or the young animal did not impregnate and thereby produce weak offspring. The same arguments, he contended, applied equally to the human kingdom. Girl mothers were biologically incapable of bearing strong children, and their offspring could not have the same stamina as those born of healthy mature mothers. The girl mothers were immature themselves. They became exhausted by child-bearing and often died of consumption. At the meeting to which reference had been made, women doctors brought to their notice many cases in support of the terrible havoc wrought by child marriages. He would therefore, appeal to the educated men of the country to consider these points. Besides, the child-wife of twelve could not play the part of a mother and a household manager. It was for them to start a campaign against the continuance of such a system. He was told that the *Sastras*, correctly interpreted, did not countenance such a system. An Indian was admittedly not so long-lived as a European, and one suggestion made to account for this was that very many

Indians were born of immature mothers. That was one of the reasons why Indian lives did not come up to the expectations of Insurance Actuaries. If they agreed with him, then the only thing to do was to change a custom of the country, slowly gathering way as they proceeded. They had to have the old, orthodox people with them who were all powerful in the Indian homes. Surgeon General Bannerman advised his hearers to try to reason with them and convince them of the real dangers besetting the race. In England and in other advanced countries of the West marriage was put off until the girl was of sufficient age and education to undertake the burden of motherhood and the cares of the household. He would exhort them all to raise the marriageable age of Indian girls above the age of consent, and hoped that men like the Hon'ble Mr. Narasimha Iyer would introduce a Bill on these lines. The only way to get the feeling of the country with them was to start an agitation by men of light and leading and to bring pressure to bear on the community at large. Government would only be too ready to lend an ear to such a demand, and, so far as Government was concerned, it would be no controversial measure after the educated leaders had moulded public opinion in the matter. When the Government was convinced that this had been done, there would be no difficulty afterwards. Another thing needed was that the Educational Department must be approached to introduce in the schools lessons in domestic economy and child-welfare. Lastly, Surgeon General Bannerman touched upon the vexed question of training the indigenous barber midwife. (*The Madras Mail.*)

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## APPENDIX II.

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### Schemes of Infant and Maternal Welfare work in Presidency Towns.

BOMBAY: EXTRACTS FROM THE HEALTH REPORT FOR 1914—15.

*The Bombay Sanitary Association and the Lady Willingdon Scheme.*

The untrained midwife or Dai being one of the most important factors contributing to the high rate of infant mortality, the scheme seeks to bring her in touch with trained nurses and lady health visitors, so that her work could be supervised and the risk to mother and child minimised; and aims by degrees at bringing the dais under control. \* \* \* It was mentioned that, by way of a beginning and with a view to instructing the dais of the City how to deal with normal cases and to recognise early symptoms of complications, so

that they could send for skilled help, lectures and demonstrations were given to them by the District Registrars in the different municipal dispensaries; impressing on them the necessity for (1) the cleanliness of hand and person and surroundings, (2) the use of antiseptics, (3) the abolition of the crude and primitive methods in vogue and unnecessary interference with labour, (4) calling in trained aid and (5) reporting every case they attend. Further developments of the scheme during the year may now be mentioned without entering into the details, which, however interesting, do not fall within the scope of this report. In February, a meeting of prominent ladies of the City, interested in improving the condition of women during confinement and the care of infants, was held at Noorbag at which Her Excellency Lady Willingdon presided. The scheme was explained and outlined and evoked encouraging offers of support. It was decided to appoint for each district or section of the City a Ladies' Committee to supervise the work of the female health visitors who were to be provided to visit daily the homes of the poor and find out cases requiring advice and help and bring them to the notice of the committee to be dealt with.

Her Excellency Lady Willingdon was pleased to place herself at the head of the organisation and to invite subscriptions and definite offers of personal service in the shape of work as Lady Presidents and voluntary workers. Subscriptions to the amount of Rs. 20,000 were received during the year through Her Excellency with promises in some instances of further contributions. In August Her Excellency visited some of the chawls of the poor to personally acquaint herself with the conditions of life and surroundings of the people, especially their women and children. The ground-work having thus been prepared, early in January this year, a meeting of the ladies who offered to assist in working the scheme as Presidents and voluntary workers was held at Government House, and sections of the City in which they agreed to work were allotted to them. Ten lady health visitors have been appointed and with the two already working make up twelve: as part of their duty, they visit the homes of poor women daily and advise prospective others to go to the municipal maternity home for confinement. The voluntary workers of each section visit some part of their section daily with or without the health visitor and note on the conditions of the room and tenants, and ascertain what women would require assistance or whether these employ their own medical aid or nurse or dai and bring them to the notice of the health visitor for being further dealt with. Special cards are drawn up for this purpose. A record of the visits thus



paid is kept and the work done by the health visitor is supervised and a report made at the meeting of the workers presided over by the Lady President of the section. Already some good work has been done, thanks to the kindly efforts of the ladies who have interested themselves in the work of ameliorating the lot of the poor women of the City and it may be hoped that a proper co-ordination of these beneficent activities with the efforts of the health department and the attractive and comfortable maternity home provided by the Municipality will go a great way in reducing the waste of infant life in the City.

#### EXTRACTS FROM THE HEALTH REPORT FOR 1915—16

During the year under report, the Health Visitors paid 19,175 visits to houses and chawls and sent in weekly and monthly reports on the houses visited. The reports were seen by the Health Officer and action taken by the Health Department where necessary, 1,260 cards of inquiry were filled in by Lady Voluntary Workers. The work hitherto done has on the whole been beneficial and steps are being taken to extend it in other directions. It is now proposed to establish two Maternity Homes, on the lines of the Municipal Maternity Home at Bellasis Road, in the poorer quarters of City—one at Parel and the other at Colaba.

#### *Work of Municipal Nurses and Midwives.*

They have in their daily rounds in their respective Wards to find out prospective mothers among the poor and to induce them to go to the Maternity Home for being confined, and, in cases where such recourse is not sought, to attend on the women in their own homes and to repeat their visits even after the lying-in-period (every day for three days and then every alternate day for nine days); and advise mothers on the care and feeding of infants. They also visit once a week the women confined in the Maternity Home and report on the condition of mother and child to the Medical Officer in charge of the Home. Of the total number of 21,584 births (inclusive of still-births) registered in the City during the year under review, 13,571 or 62.8 were visited by the Municipal Nurses and Midwives, thus marking a decrease of 2.8 in the verification work compared with the preceding year; but this seems to have been made up for by the larger proportion of confinements attended, namely 10.5 which is 1.8 higher than in 1913 and 1914 and the highest since the appointment of Municipal Midwives in 1902. The proportion of still-births declined 1.3 since 1909 and .3 below that for 1914; the number of such births in 1915 (,1532) was the lowest since 1897 when the population

by the Census of 1891 was 8,21,764 and the number of live births registered 9,336 against 9,79,445 (population) and 20,052 live births in 1915. Compared with 1914, the proportion of births wholly unattended fell from 9·5 to 6·3 during the year under report; this is typical of the continued improvement recorded under this head in previous years and is equal to 11·7 since 1909. The proportion of confinements attended by unskilled women, which rose steadily from 58·3 in 1909 to 60·7 in 1911 and from 59·6 in 1912 to 63·1 in 1914, received an appreciable check during 1915 as it declined to 61·1. The explanation of this reduction viewed in conjunction with the simultaneous increase of 2·2 per cent. in the proportion of confinements attended by qualified nurses (which reached the highest ratio of 15·9 during the year) is to be sought probably in further facilities, provided since January 1915, for giving trained assistance to poor women, by the employment of ten qualified Midwives under the Lady Willingdon Scheme. The percentage of children born in Hospitals was also the highest during the year (16·6) showing an increase of 3·1 over 1914 and of 4·3 since 1909. This rise may be accounted for by the increasing number of Lying-in-Hospitals in the City and notably by the addition of the Municipal Maternity Home opened in February 1915 in which last 249 births occurred during the year under report. The percentage of children born in a healthy condition rose by 1·4 and the proportion of children fed at breast by 7·4 compared with the preceding year. The proportion of mothers who left home for work leaving their children to the care of others registered an increase of ·2. There was a further decline during the year in the percentage of children dying within thirty days from 10·6 in 1914 to 9·7 in the year under review. As in previous years, the ten Municipal Nurses and Midwives were busy morning and evening visiting the homes of the poor and ignorant to find out and report births and deaths and sickness and insanitary conditions, also give homely talks and advice on cleanliness of person and home—surroundings and the precautions to be taken against infectious diseases and on the care and up-bringing of Infants. During 1915, they paid 28,276 visits to houses, chawls and huts (against 27,660 in 1914, enquired into 3,872 cases of ordinary sickness (against 3,455 in 1914); reported 685 cases of infectious diseases and 1,821 deaths amongst the female population of the City (against 1,003 and 1,549 respectively in 1914); they also attended 1,425 confinements and ascertained 10,062 births against 1,214 confinements and 9,523 births in 1914.

*Relief to Poor Women during Confinement.*

In my last Annual Report, I referred to the scheme introduced in July 1913 for giving relief to poor women during confinement in the shape of necessaries and comforts such as milk, loaves, bed, blanket, charpoy, linen, &c. Relief was dispensed under this scheme in 452 cases during the year under report against 166 in 1914.

*Maternity Home for the Poor.*

The Municipal Maternity Home, initiated by the Lady Willingdon Scheme and taken over by the Municipality, come to be opened by Her Excellency Lady Willingdon on 21st February 1915 at No. 215, Bellasis Road, with Dr. Miss Mary Browne, L. M. & S., as the Resident Medical Officer in charge of the Home. The first confinement case was admitted on 22nd February. Confinement cases came to the Home from all Wards in the City and from among Hindus, Mussalmans, Jews and Native Christians. Of the total number of 249 cases, 129 or 51·6 per cent. belonged to E Ward, which is the most populous of all Wards with a population of 2,26,470 or over 23 per cent. of the City's entire population. The admissions increased as the Home came to be more widely known. It would appear that the success which has so far attended our efforts at bringing trained attendance at child-birth within the reach of the poorer classes has been encouraging and suggests the hope that increasing advantage will continue to be taken of the Home in the future. Mention must also be made of the efforts the Medical Officer has been making towards impressing, on the minds of Native Dais in the City, the value and necessity of proper precautions such as the cleanliness of hand and person and surroundings and the use of antiseptics—and of calling in trained help—by collecting them monthly at the Home and giving them practical instructions as to how confinements ought to be attended,

## CALCUTTA: EXTRACTS FROM HEALTH REPORT FOR 1915.

The spread of education and the constantly increasing scope of preventive medicine in other countries has resulted in the establishment of "ante-natal clinics." Lady Health-visitors visit expectant mothers and encourage them to visit the clinics, particularly if there are any suspicious symptoms such as albuminuria, oedema, etc. Philanthropic agencies co-operate and poor women are assisted to secure good nourishing food. Working on these lines, much could be done for the poor women of Calcutta if they could be induced to visit such a clinic. This branch of preventive medicine, however, is a comparatively recent development, and there is, I am afraid, little

or no hope of success for any such institution in Calcutta at the present time. As I pointed out last year, however, many infants might be saved if they were properly fed and looked after during the first few critical weeks. In view of what has been said of the mortality from tetanus neonatorum, obviously the first step is to see that women in labour are attended by qualified midwives. I congratulate the Health Committee on their recent decision to appoint a second Health Visitor, and additional midwives, and trust this is only the fore-runner of a complete scheme for the whole city with Health Visitors in each District and midwives in every ward. By that time I trust public opinion will insist on the total abolition of the *dhai*. Without some other organisation, however, a great deal of preventable infant mortality would continue unchecked. That is to say, whilst proper attendance at birth would save scores of mothers and hundreds of babies, there is no provision for trained supervision during the first few critical weeks. The remedy in a community with more advanced ideas on preventive medicine, is of course the establishment of "Baby Clinics" which have been so successful in Europe. These institutions are in charge of highly trained nurses and regular clinics are held by honorary physicians, usually specialists in diseases of children. Mothers are encouraged to bring their babies at regular intervals about once a week. A careful examination, of which weighing is an important part, is made and full and detailed instructions on the feeding, clothing and rearing of infants are given to the mother. A most essential part of the scheme is a milk-depot where not only pure sterilised milk can be obtained, but where carefully prepared, "humanised milk" graduated to meet the requirements of each individual case, is made up according to the physician's directions. Here again philanthropic societies join with the municipal authorities, and there is a fund for providing milk free of charge to the poor unable to pay for it. Such is a brief outline of the scheme adopted by nearly all municipalities at Home. Now what can be done in Calcutta? In view of the purdah system and the ignorance and superstition of the lower classes, it will be a very difficult matter to make a beginning on these lines. In fact although I have been thinking the matter over for a long time, I hardly felt justified in advising the Corporation to launch out on a scheme of this nature, and incur considerable expense with little or no prospect of any appreciable results for years to come. Discussing the question with the Lady Superintendent, Dufferin Hospital, however, Miss Webb made a very valuable suggestion. This was to open a small babies' clinic in connection with Dufferin

Hospital and try and induce mothers who had been confined in the Hospital to bring their babies for advice and treatment once a week, till they were a month or six-weeks old. Sickly babies would be admitted into Hospital and, where necessary, sterilised milk would be supplied free of cost. To induce mothers to bring their babies, a gharry would be sent for them and "backsheesh" given or a few sweetmeats distributed. Printed cards on which the condition and weight of the baby would be noted each week, together with a brief record of diet and treatment, would be distributed and a careful register kept. As Miss Webb pointed out however, she could only initiate the experiment and if it was successful, it would be necessary to staff and equip a separate baby clinic. I assured her of the hearty sympathy and co-operation of the Health Department, and the Chairman, on behalf of the Corporation, promised the financial support necessary. The following is a brief sketch of the kind of organisation which I hope to be able to build up if Miss Webb's experiment is a success. In order to utilise the existing staff as much as possible, the first step will be to try and induce the woman confined by the Corporation midwives to attend the baby-clinic. Cards will be distributed by the midwives and Health Visitors and the idea carefully explained. As inducements, gharries will be sent round to collect the mothers and babies, and a small sum, say 4 annas, paid for each attendance. At this stage if even a small proportion of our cases attend in addition to the Dufferin Hospital cases, it will be necessary to open a special clinic in a conveniently situated part of the town in charge of a trained nurse. A plentiful supply of pure milk would have to be provided with all necessary appliances for sterilising, modifying, bottling, etc. The only practicable method of doing this is to run a Municipal Dairy, and I propose to utilise the Model Cowshed for this purpose. Our health Visitors would attend the clinics and advise as to the feeding and treatment of infants who were not progressing on ordinary diet, but it would probably be necessary to arrange for expert advice in difficult cases. The experts would attend on one specified day, and the consulting physician, either the Superintendent of Dufferin Hospital or a specialist in diseases of children, would hold a special clinic. With the Dufferin Hospital, the Health Visitors, the midwives and the nurse in charge all sending cases, the institution would, I hope, soon justify its existence, and the medical profession and the general public would, I think, combine to make it a success. As the demand increased, similar clinics would be required in different parts of the town. By that time it is to be hoped a Municipal Dairy Farm on a large scale would be established up-country, so that the problem of supplying pure milk, at any rate to the children of Calcutta would present no difficulties.

MADRAS : EXTRACTS FROM THE PROCEEDINGS OF THE CORPORATION.

*Employment of Lady Health Visitors in the City.*

One of the methods of dealing with the question of infantile mortality which has been considered, is that which has now been widely adopted in Europe as well as in Bombay, of arranging for

Lady Health Visitors to visit women in their houses, to get into touch with prospective mothers, advise them as to the care of their health, and bring them into touch with qualified doctors, when necessary ; some efforts in this direction were made by the Madras Corporation in 1907, by the appointment of three female Sanitary Inspectors in the three northern Divisions of the City, but these Sanitary Inspectors failed to win the confidence of the people and their posts were, therefore, abolished in April 1910 ; subsequently the Government requested the Madras Corporation to examine the question again and consider whether the appointment of Health Visitors should not be reinstated, whether it would not be preferable to require these Lady Health Visitors to be qualified medical women and whether it would not be desirable to entrust them with the supervision of the work of the salaried midwives whose work at present appears to be largely uncontrolled. The recommendations of the Health Officer were to this effect:—"In place of the existing six malaria nurses, six plague nurses, and two female vaccinators, twelve qualified midwives be appointed for maternity work and to supervise their work two Lady Health Visitors be also appointed. The midwives should be posted to divisions where the infantile birth and death-rates are high and where there are large collections of poor people. Each midwife should be paid Rs. 30 a month, with a rickshaw allowance of Rs. 12 and house rent allowance of Rs. 8 per month. The midwife is to be under probation for one year and in case she proves satisfactory her pay might be graded as Rs. 40—2—50 (biennial). The system of granting a reward of Re. 1 for every maternity case undertaken by the midwife over and above the minimum fixed might be continued. As to Lady Health Visitors, if a lady Sub-Assistant Surgeon were appointed, she might be paid Rs. 100 per mensem, with a conveyance allowance of Rs. 30, and if a lady Graduate of Medicine were appointed she might be paid Rs. 200, plus a conveyance allowance of Rs. 50 per month." The President's note thereon was to the following effect:—"The scheme works well in Europe, where there is no language difficulty ; but in Madras, the Corporation will have to employ (1) Indian women who will know the language perfectly but who are extremely difficult to obtain or (2) Eurasians, who probably know the language well enough, but who may be very far from reliable, or (3) Europeans who, if paid well, or if recruited from the "religious" class, would doubtless be conscientious but whose utility would be much marred by ignorance of the language. The standing Committee that met on 3rd November 1916 recommended that the scheme be approved if the persons chosen be (1) Indians, (2) of the rank of Sub-Assistant Surgeons or above, and (3) paid sufficiently to keep them from any necessity of private practice. At a general meeting of the Corporation held on 20th November 1916, the recommendations of the standing Committee were approved.

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## APPENDIX III.

### Miscellaneous.

#### MALTHUSIANISM AND NEO-MALTHUSIANISM.

"Infantile mortality in India is not a sequence, as some people, erroneously think of the working of the immutable Law of Nature—the survival of the fittest, a check to over-population. \* \* It is not only the unfit that die. Toll is taken from all—both from the weak and from the strong. Even those who are left do not come out of the struggle unscathed. Perhaps their constitution is weakened for the rest of their life. And who can talk of over-population in such a vast country as India? (*Dr. Arora in the Lahore Health Report for 1916.*)

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It is probably safe to say that if Malthus could return, he would be the first to admit that his doctrine had operated at the wrong end of the social scale, been the victim of incredible perversions, and met with disastrous success. This singularly high minded man was afraid that the population would increase faster than the means of subsistence—a fear which subsequent experience has proved to be unfounded, and one that the stress of war is likely to still further remove, by compelling us to demonstrate the fact that our own land is capable of producing an infinitely greater supply of food than anything that has yet been got from it. Malthus's remedy, he it noted, was "moral restraint" which, by promoting self-control, would have proved as mightily a blessing as the all-too-common adoption of malpractices which undermine it have been an unqualified curse. Although his book was first published in 1798, and he died in 1834, before his doctrine had had time to percolate far through society, he lived long enough to say: "It is probable that, having found the bow bent too much one way, I was induced to bend it too much the other in order to make it straight." Indeed, like the grocer's licence, which has degraded many of those it was designed to protect, Malthusianism has proved how much easier it is for a man of lofty purpose to institute great social changes than to direct or control them once they have passed out of his hands. This truth is emphasised by the fact that some of Malthus's most influential successors actually opposed all social betterment on the ground "that an increase of comfort will lead to an increase of numbers, and so the last state of things will be worse than the first." Could the "moral restraint" which Malthus urged as the remedy have been developed in the slums, where the unfit keep on multiplying their offspring, much of what we now deplore would have ceased and the dawn of a better day been in sight; but, instead, it is in these very places where a high birth-rate remains and forms the most distressing feature of the child-welfare problem. \* \* Until pride of parentage can be developed in all individuals, and the nation is prepared to make the exercise of that priceless gift reasonably possible by endowing motherhood, it will have to rely upon child-life which comes from indifferent stock and is confronted by the destroying tangle

of adverse circumstances, in forging its way through which the helpless little one usually either succumbs or is permanently damaged. \* \* In the preceding article four suggestions have been made which the writer believes would bring the vital problem of maternity and child welfare very much nearer solution than all the voluntary and municipal schemes in the kingdom, however thoroughly equipped and administered; for if, as appears to be the case, those who are able to rear the best type of citizen are becoming increasingly unwilling, it is clear that those who are willing, but unable for economic reasons, must have that disability removed. First, the endowment of motherhood by the nation it maintains, including free antenatal supervision, free attendance on confinement and free after-care for both mother and child, subject to the protective conditions already outlined; second, the exclusion of mothers and young children from factory occupations, alike in their own interest and in those of industry, which must otherwise lose both the quality and quantity of labour without which its future must be fatally prejudiced; third, the remodelling of education till it is equal to the accomplishment of its supreme purpose, which should be to promote not only the material but also the moral and spiritual needs of the race whose emancipation ultimately depends upon character and conduct; and fourth, by organised religion consecrating its life to the all-round redemption of the poor by actually living in, and proving itself to be, the good Samaritan of the slums.—(Dr. E. J. Smith, Chairman, Bradford Corporation Health Committee.)

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#### *Overlapping and Departmental Confusion.*

In view of the increasing interest evinced in India in infant welfare and kindred schemes, it may be instructive to know that in the United Kingdom the organisation of these schemes has resulted in some overlapping, inefficiency, waste and departmental confusion and that, if we are to profit by the lessons of history, it should be our endeavour to avoid similar happenings in our organisations. In this connection the following statement from the pen of the Chairman of the Health Committee of the Corporation of Bradford, (Yorks) may be found interesting:—A reform Bradford sought to bring about was the abolition of the needless, wasteful, and irritating duplication of inspectorial staffs which no commercial enterprise would ever have allowed to grow up in its midst. The Education Committee has school attendance officers dealing with sickness in children or slackness in parents, and school nurses visiting scholars who are ill; while the Health Committee has health visitors attending



to notification of births, tuberculosis, the maternity and child welfare scheme, overcrowding, uncleanness, etc., and sanitary inspectors supervising housing, sanitation and structural defects. All these four sets of officials are employed by the one authority very largely to visit the same houses, whereas the duties of the first three, being kindred in character, could be discharged more effectively and with less annoyance to the sadly over-inspected people concerned, by one. Nothing more than organising ability and business aptitude are necessary to ensure that sanitary inspectors should concern themselves with structures and health visitors with occupants. These illustrations are typical of what is going on other cities and towns, and go far to prove the absence of clear thinking on the one hand, and the subordination of the public interest to departmental feeling on the other. (*Ibid.*)

*The evils of the factory system.*

In view of the fact that the accursed practice of employing expectant and nursing women in factories, workshops etc., is already making itself painfully evident in some of our big industrial centres the following remarks of Dr. Smith of Bradford may be found instructive, if only we know how to profit by the lessons which the history of the growth of the factory system in the inherent in the us:—The wealth-producing possibilities found to be inherent in the factory system transferred men's minds from the mutual helpfulness of service to the selfish occupation of money-making, and the shorter hours, better conditons, and higher wages to which a reasonable proportion of the large profits ought most certainly to have been applied were entirely neglected, if not ignored, except in so far as trades-unions—for which such indifference is responsible—were strong enough to extract them. It is here surely where commercialism breaks down, and if the moral and spiritual atmosphere has been rarefied, and altruism and brotherhood have eked out a precarious existence. no one can wonder, for until we recognise and reward service instead of wealth, we shall continue to enslave both ourselves and our children, however successfully we may delude each other into believing we are free men. It is, of course, true that the older captains of industry would say these were the very conditions in which they were reared, and point to their own success as the best possible proof of the soundness of the system; but though they were the type of supermen of their generation and in no sense a fair sample of the bulk, their actions constitute the best possible answer to their words, for, to their credit be it said, they kept their own wives at home and their children at school, and thus deprived them

both of the environment and experience they are so anxious other people should enjoy. We forget that in the old days the textile industries were carried on in the home, where comb pots, spinning jennies, and handlooms were part of the furniture of the house, and that consequently the children were always more or less subject to parental supervision and control. The introduction of steam power rendered domestic workshops obsolete, revolutionised the clothing trade, and helped to win for Britain the sobriquet of "The Workshop of the World;" but it not only eliminated the home influences of the earlier period, it actually introduced child slavery, and though, not because of, but in spite of, the people who were amassing fortunes out of the untimely labour of the little ones, philanthropists ultimately succeeded in humanising the system somewhat, it still lowers, in far too many instances, the standards of purity and clean living by substituting promiscuous social intercourse among young people who are neither fitted for nor able to protect themselves against the pitfalls of premature freedom. *Education.* \* \* \* It seems to be understood that such fundamentally supreme and vital questions as "self-knowledge, self-reverence and self-control" are more or less outside of the province, the modern system of teaching and so it fails to cultivate and develop those thoughtful, earnest, and elevating qualities in children which not only fortify them against evil, but enables them to become stalwarts for truth and honour and God. This unfortunate concatenation of circumstances puts a premium on precocity and boldness at the expense, and to the detriment, of natural and healthy growth, and results in an incredible number of children knowing far more about pernicious practices than their parents. The seeds of evil once sown in prepared soil, throw out roots like the tentacles of an octopus, and feed on unseemly conversation, street parades, and tainted amusements, producing in later years a harvest that lowers the moral tone of whole communities and expresses itself in rampant suggestiveness, low morality, and wicked living, which increases in intensity as the centres of great cities are reached. These in their turn form basic parts of the well-nigh inextricable tangle of problems involved in the falling birth-rate, infant mortality, and the damage rate, and help to constitute that vicious circle of menaces to child life which can never be destroyed by our playing with effects instead of taking our courage in both hands and abolishing causes. Indeed, our namby-pamby ways of approaching reform not infrequently give a new lease of life to the very evils we set out to suppress, because modifying them we appease the public opinion that would otherwise destroy them. *Veneral Disease* \* \* \*

If one were to ask, What is the cause of venereal disease, the answer would probably be that in the overwhelming number of cases it arises from sexual intercourse with infected persons, and in a very minor degree from contagion, and many well-meaning people have so far lost all sense of proportion that they would not hesitate to protect the innocent few by methods that would make it well-nigh impossible to reduce the number of the guilty many, and thus join hands with those who seek to bolster up and fortify the internal traffic by any and every plausible excuse that human ingenuity can devise or money buy. In ascertaining causes, however, it would be prudent to go very much further back and have regard to infinitely smaller beginnings. To say that an acorn when put into the ground is insignificant in size and appearance, but grows through storm and tempest until it becomes the monarch of the forest, would be to express the obvious; to apply the moral to venereal disease would be to incur the censure of worldly wisdom, which always regards such teaching as the work of cranks, for in their judgment it is soon enough to tackle evil when it has asserted itself sufficiently to become a public nuisance and danger. Yet it cannot be disputed that it originates in such mistakes as lack of parental control, liberty that is allowed to run to licence, indecent stories—often told by people who claim to be eminently respectable—suggestive posters and unwholesome plays that pander to and stimulate the animal passions which need exactly the opposite treatment and though the influence emanating from these destructive forces—which are strangely ignored—may in the first instance be like a snowflake that would melt on your hand in a moment, we must not forget that a multiplicity of snow-flakes both can and do create avalanches that sweep away villages and bring ruin and devastation in their train. In the same way drink, which is almost invariably the decoy upon which the profligate depends, does not undermine will-power and self-respect all at once, but, like the spring that trickles out of the mountain's breast, it gathers as it goes until it becomes the roaring torrent. If immortality is to be held in check we shall have to go back to child training and education, to better homes, moral teaching, and a factory system that has regard to the well-being of the children employed under it. "Our sin is not low achievement, but the absence of high aim. \* \* \* Before leaving the subject of education the writer would like to make two suggestions—first, that it cannot be less necessary to train older girls for domestic and maternal duties under a system of apprenticeship than it is to render a similar service to boys for the callings they are likely to follow, and that nothing short of such

tution, under something equivalent to half-time service divided between school houses, properly equipped with every domestic convenience, a carefully elected staff, and infants and young children, and the girls' ordinary occupation, can possibly meet the need. Second, that sex teaching to adolescent children has become imperative, but if it is to do good and not harm it needs more than knowledge and the faculty to impart it to others; it needs reverence that will create and maintain the atmosphere of purity. Many teachers possess the one who lack the other, and no greater misfortune could befall scholars than to come under the influence of strictly materialistic minds rather than the spell of those whose lives evolve the love they give. *Back to Endowment.*—But the factory and educational aspects of the problem are obviously dependent upon the endowment of motherhood, for until the obligation to work in the mill has been removed by such a grant neither are feasible; and when it is remembered that less money would be required to lift child life out of the conditions in which it must continue to perish than is spent on drink (the appalling incubus of which every country in the world seems more anxious to be rid of than ourselves), one of its greatest and most callous enemies, the way we neglect the one and respect the other is a pretty reliable index of the relative importance we attach to life and money. Yet until the State adopts an entirely new standard of values it will keep on driving the mother from home and the child from school to supplement the father's earnings by wages earned in the factory. When shall we be wise enough to throw off this economic subjection and learn that the type of wife and mother who alone can save Britain must not be sacrificed to money making, but be consecrated to the highest duty in the land in order that she may give her life, under the most favourable conditions, to the God-ordained and supremely patriotic duty of so caring for those whose little feet have still to come along the world's highway that they may grow into brave men and pure women? Whatever interferes with that divine purpose, be it unjust laws, industrial systems, ignorance, or sin, is not only a flagrant enemy of the State, but, what is still more terrible, a violator of the birthright of the unborn. Could the epoch of reconstruction that must follow the war be used for a more urgent, humane, or remunerative purpose than that of turning our minds to the great and abiding realities of love and service, that we, and those who come after us, may cease to mar, and begin truly to enjoy, the rich and glorious inheritance our Maker has bequeathed to us? (*Ibid*).

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# PRACTICAL HOUSING



# PRACTICAL HOUSING

BY

J. S. NETTLEFOLD

*With a Preface by the Right Hon. Alfred Lyttelton, K.C., M.P.*

POPULAR EDITION

*Chapter IX. explains the Housing and Town Planning  
Act, 1909\_\_*

T. FISHER UNWIN  
LONDON: ADELPHI TERRACE  
LEIPSIC: INSELSTRASSE 20

1910

GARDEN CITY PRESS  
LIMITED LETCHWORTH





TO MY EDITOR

“The problem of the last generation was to provide gas and water ; the problem of the next is to provide light and air.”

PROFESSOR MUIRHEAD.

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PREFACE TO SECOND EDITION BY THE  
RT. HON. ALFRED LYTTELTON, M.P.

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MY DEAR NETTLEFOLD,

The phrase is often misused—nevertheless, I am going without fear to say that I think it an honour to comply with your invitation to write a brief preface to this book. Ever since those days when you showed me in Birmingham the evidences of the work of the committee of which you were the chairman I had looked forward to the publication of "Practical Housing," for I knew that if you could set forth the methods which you have there pursued, the feet of many willing and ardent reformers would be set upon an ordered and well defined track. I for one would gladly traverse many dusty miles to achieve the ends to which you aspire; but there is no dust in the pleasant paths of this volume, which I read at a single sitting with absorbed interest and with general and cordial agreement.

In the problems of social reform presented by an old and complex civilisation such as ours we are often confronted by the pathetic spectacle of men so inflamed by the contemplation of evil and suffering that in their reforms they choose speed and violence in preference to patient persuasion. The strong hand is of course here and there necessary and must always be known to be in reserve. But good constructive workers in fields strewn with the débris of past mistakes must be cautious; must not enlist on the side of ancient abuses the sentiment of Justice which revolts against the sacrifice of the individual for those general errors for which the community is responsible, and must bear steadily in mind that impatience of financial burthen especially in the form of rates which, as we must all recognise, is a primary and powerful political motive among our people.

The student of your book will find illustrations of your firm grasp of these truths in your preference of the slower and far cheaper methods of Part II. of the Housing Act of 1890 (recently confirmed by a valuable and weighty report of the Mansion House Council, 1908), and in the general attitude you advocate as becoming in a public authority towards property owners; by your suggestion of careful and patient explanation of the precise improvements which owners are compellable to make, their specification and cost; by your

pleas for some reasonable elasticity in respect of bye-laws, and for time for making improvements so necessary in this sphere of business, and by your recognition of the value of conference and co-operation as distinguished from official decrees made without consultation and enforced without consideration.

As one who has had a fruitful practical experience of town planning at the Garden Suburb at Hampstead, I have naturally looked at the part of the book dealing with that subject with peculiar interest. No branch of the Housing problem more imperatively demands the application of the principles above set forth, which I believe we hold in common. If compulsion is looked to rather than persuasion as the rule, not the exception, in the acquisition of land, if hard and fast schemes are driven through against dissenting owners, if local opinion—even local prejudice—is not attended to, if conferences with local worthies accustomed to respectful audience in village gatherings are neglected or hurried, the machinery for bringing Town Planning Reform into prosperous operation will creak and groan from the first; the co-operative spirit will be damped, open spaces, recreation fields, public concert and reading rooms—the symbols of friendly association, good fellowship and civic sympathy—will lose their significance and will be started in a discordant environment, greatly impeding if not destroying their full opportunity of success.

But I am drawing nigh the perilous regions of the didactic, and must hasten to a close.

This popular edition should be read and digested by everyone who aspires to doing something for the greatest of all social causes. If my warrant can add anything to the just reputation of the book, here it is for what it may be worth under my hand and seal.

The book is good reading, lucid, is stamped with the hallmark of ripe experience, penetrated throughout by sense, knowledge, sympathy and rational enthusiasm. You are to be envied for having written it; soon I shall pity those who have not read it.

Yours very faithfully,

ALFRED LYTTTELTON.



## AUTHOR'S PREFACE TO FIRST EDITION

---

SINCE "A Housing Policy" was written, it has been my good fortune to discuss this question with leading public men and officials in various countries, and by correspondence to obtain information from many others. It is impossible to thank by name all who have helped in the production of this book. I have done my best to avoid taking credit to myself that is due to others.

Great pains have been taken to verify every fact and figure given. When these are used as the basis of an argument in favour of my own view, care has been taken to understate the case; whereas, with regard to opinions contrary to my own, an exactly opposite method has been adopted. While holding my own views strongly, I have endeavoured to be absolutely fair to opponents.

Many who disagree with the policy of self-help will yet accept some of the proposals made, while strenuously disagreeing with others. I hope it is possible for us to differ without quarrelling. Our object is the same; we are both striving for the social ideal. Our methods, not our motives, differ.

Differences of opinion amongst those genuinely desirous of reform are natural, and, indeed, essential to a successful solution; but quarrels amongst ourselves are merely waste of time.

On this, at any rate, we are agreed—that the present conditions are thoroughly bad. Not only are lives lost through insanitary housing conditions, but, worse still, a chronic condition of low vitality and ill-health is fostered in our towns.

This moves to compassion on the sentimental side, but it should also rouse to energy on the commercial side. That is the point of view I have endeavoured to put. I believe everything advocated here is commercially sound, and a sound economic basis is essential to reforms if they are to be permanently successful and generally acceptable to this hardheaded nation.

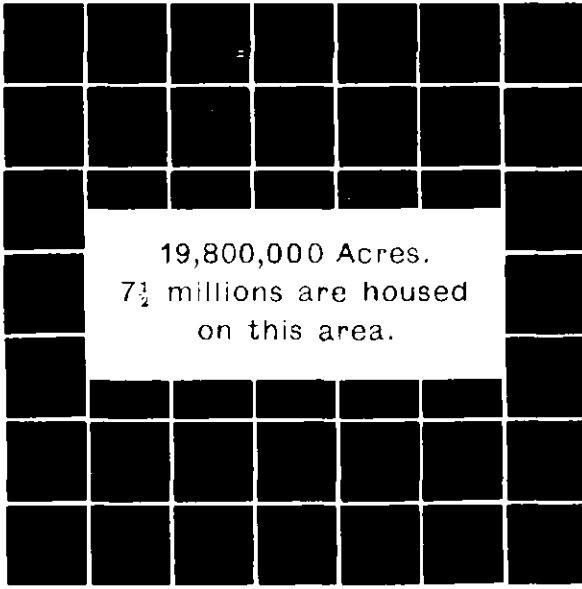
If business energy and business methods can be combined with a just compassion, then the Housing problem will be on the way to solution.

## AUTHOR'S PREFACE TO SECOND EDITION

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I HAVE to express my sincere thanks for the way in which "Practical Housing" has been received by the public. In this Second Edition an attempt has been made to cut down the size of the book so as to bring it within reach of an even larger public, and some parts have been re-written in order to bring them up to date. I have also endeavoured to explain what can be done under the 1909 Act.

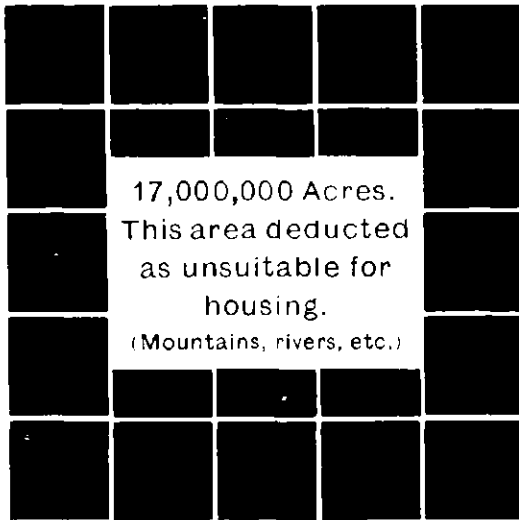




152,000.  
Acres



12 millions are housed  
on this area.



48,000  
Acres



13 millions are housed  
on this area.

DIAGRAM SHOWING DISTRIBUTION OF POPULATION IN ENGLAND  
AND WALES AT PRESENT.

AREA : 37,000,000 ACRES.  
POPULATION : 32,500,000.

# Practical Housing

BY

J. S. NETTLEFOLD

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## CHAPTER I

### A GENERAL SURVEY



**D**URING the last fifty years no fewer than twenty-eight Acts of Parliament have been passed dealing with the Housing Question, and for the last ten or twenty years a strenuous agitation in favour of Housing Reform has been steadily growing; yet up to the present little real improvement has been made, and England is only just realising how badly her people are housed, and that the house itself is only the beginning of the Housing problem. Surroundings, means of transit, open spaces, and light and air have an equally important part to play.

We have to-day comparatively few good houses and a mass of slums—a few wide main arteries for through traffic, and a network of unordered streets—a few large parks, but no playgrounds for the children of the gutter. Worst of all, our towns are being extended on unhealthy, unlovely, and expensive lines.

There is still another important point to be remembered. The Housing Question must be dealt with on broad lines as a national question. The result of leaving it to individual municipalities without direction, has been that they have done a little building here and there without regarding the wider issues.

Considered as an experimental stage, this policy has certain advantages, but it would be fatal to prolong it.

Those engaged in solving the Rural and the Urban Housing problem must join hands. The two are closely dependent upon each other, and whereas the details of each must be left to specialists, the same general principles must be brought to bear on both, and the land of England must be dealt with as a whole, and not, as now, in piecemeal fashion. The best must be got out of it, with benefit to the community as well as to the owner. The light and air essential to human health must not, as at present, be denied to a large proportion of the population by overcrowding on the ground space. The rights of private property in land, as in other things, must be recognised, but there should be no monopoly in light and air.

A general survey of the whole country shows that only a very small proportion of the poorest classes are properly housed, and a great many of those who are a little better off are not provided for as healthily as they ought to be for the rent paid.

The total area of England and Wales is about 37,000,000 acres, and in 1901 the population was just over 32,500,000, which means that if the population were evenly distributed over the whole country, each man, woman, and child in England and Wales would have just over an acre of land to live upon. Any suggestion to disperse the population in this manner would quite rightly be considered insane. It is equally insane to go to the other extreme, as we do at present. The diagrams at the beginning of this chapter illustrate the case. These diagrams have been arrived at in the following manner : When considering the question of housing the people of England on the land of England, we must not forget that a large quantity of this land is unsuitable for building. In order to be well on the safe side, let us deduct 17,000,000 acres ; there remains 20,000,000 acres, on which 32,500,000 people live and have to earn their bread ; that is, just under three-quarters of an acre per person, or about three acres per house.

These figures show that even in England, which is the second most thickly populated country in the world, there is plenty of room and space to live upon, if organisation and business principles were applied to the Housing problem.

It is useless to attempt to overcome the forces that result in forming large centres of population on comparatively small areas of land ; that is, we cannot abolish towns, but we might, by the exercise of foresight and co-operation, largely control their development and direct their growth on sensible lines.

Out of our total population of thirty-two and a half millions twenty-five millions live in County Boroughs, Boroughs, and

Urban Districts, whose area is rather less than 4,000,000 acres. The remaining 16,000,000 acres of rural building land provide housing accommodation for only 7,500,000 people.

The 4,000,000 acres which comprise our County Boroughs, Boroughs, and Urban Districts are divided into County Boroughs and Boroughs on 500,000 acres, and Urban Districts on 3,500,000 acres. We must deduct three-fourths from the 500,000 acres in County Boroughs as areas occupied by warehouses, manufactories, business premises, railways, etc., and also as areas of undeveloped land, and then we find that not more than one-fourth—that is, only 125,000 acres—are used for housing purposes. By the same method it has been ascertained from carefully prepared statistics that of the 3,500,000 acres comprising Urban Districts, not more than one-fiftieth is used for housing the people. One-fourth of 500,000 is 125,000 acres, and one-fiftieth of 3,500,000 is 70,000. Add these two results together and we get 195,000, say 200,000 acres, as the total amount of land on which 25,000,000, out of our total population of 32,500,000, are housed.

Thirteen millions of these 25,000,000 are living in 2,600,000 tenements of four rooms or less. Each of these tenements, including the air space round it, certainly does not, on the most liberal calculation, occupy more than 1,000 square feet. 2,600,000 tenements, at 1,000 square feet each, will together occupy about 60,000 acres, leaving 140,000 acres for the other 12,000,000 who live in County Boroughs and Urban Districts.

That is to say, two-fifths of the population of England and Wales are crowded together on just over one-eight-hundredth part of the total land of the country, another two-fifths occupy a little more than one two-hundred-and-fiftieth part, and the remaining fifth is scattered over the rest of the land. The first plate shows the proportions in diagrammatic form.

It is not suggested that diagrams of this sort can possibly be mathematically exact, but I am convinced after careful reckoning and checking that the diagrams give a correct impression of the way in which we “practical” Englishmen overcrowd dear land and leave cheap land vacant, regardless of the fact that it is much healthier and pleasanter to use cheap land, for the simple reason that for any given expenditure in rent much more of it can be obtained.

That is not all; those who have observed the existing Housing conditions in this country are aware that in the vast majority of cases poor people live on dear land and rich people live on cheap land, “which is absurd.”

The consideration of the question how to house properly the people of England on the land of England, reminds us that in theory the land of England all belongs to the Crown, and through the Crown to the people. In practice it belongs to a large number of individuals, whose object is (and under present circumstances, no fair-minded man can blame them) to get as much as possible out of their land. This is just what the business man does with his brains and the working man does with his labour; but all sorts of laws, from the Factory Acts onwards, have been enacted to prevent capitalists, brain workers, and hand-workers from making money by sweating their fellow-citizens, whereas no law has yet been enacted in this country to prevent land-sweating—that is the reckless overcrowding of human beings on the land in badly-planned towns. This omission has not only seriously injured the vitality, and therefore also the wealth-producing power of large numbers of English men and women, it has also resulted in the wasteful neglect of the food-producing possibilities of more than half the land in this country.

Town and country have been separated from each other, instead of being intermingled as they should be. Bring the producer and consumer of food nearer together by careful planning and organisation, and both would benefit. The producer would get more for his labour and the consumer pay less for his food, because the cost of transfer would be reduced. In addition to this, large tracts of land, now worth very little, would command a higher price.

Every patriot deplures the deterioration in the physique of our town dwellers, and every economist recognises that it will have to be stopped if England is to maintain her present high position among the commercial nations of the world.

By skilful organisation a man may get the most possible out of workshops and machinery without sweating his employees, and he thereby benefits the nation as well as himself; the man who gets the most possible out of land by putting fifty or sixty houses on the acre, does incalculable mischief to his fellow-citizens, and in the long run those who buy such houses find that it is very bad business. Sooner or later the Sanitary Authority is bound to come down upon them, and insist upon the heavy expenditure necessary to make the houses fit for human habitation.

The great energy already applied to the solution of the Housing problem by countless disinterested men and women has not, as yet, produced much tangible result, compared with what requires to be done; but it has made it possible



now to take a great step forward on more comprehensive lines, and Mr. Horsfall, of Manchester, has given to England at the psychological moment the inspiration required by his exposition of Town Planning.

We have been entangling ourselves with regulations as to the thickness of walls, the cubic contents of rooms, and the minimum width of roadways, without securing quality in the building material, and consequently sound houses. We also continue to allow disastrously excessive numbers of houses per acre, and we provide no playgrounds for the children or resting-places for the older people, except by private charity.

Mr. Horsfall has suggested how we can make our towns healthy, cheerful, and convenient, and careful consideration has shown that this suggestion can be carried out with material as well as moral benefit to all concerned.

Public opinion is more than ready for Housing Reform, and Town Planning will be found upon examination to be a sound business proposition for dealing with the difficulties in a comprehensive manner, instead of our present piecemeal fashion.

For the last century England has been developing her industrial possibilities with a rapidity unequalled in the history of the world, and at the same time has almost entirely neglected her agricultural opportunities.

Town Planning, together with cheap and rapid means of transit, now make it possible to combine the means of livelihood in our towns with the health-giving opportunities of the country.

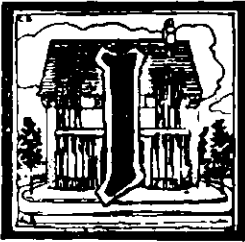
It is not only ridiculous, but obviously unfair, that land in our country districts should only be worth tens of pounds per acre when land in our towns, which in itself is worth no more if as much, should fetch as many thousands. Under capable administration this state of affairs could certainly be improved upon.

It is not suggested that the introduction of Town Planning would immediately, or, indeed, ever entirely adjust this irrational discrepancy, but it will be obvious to the most casual observer that, by restricting the number of houses to be built per acre, a much larger amount of land will be brought into use than is the case under present conditions.

It will be my endeavour in the following pages to convince my readers that Town Planning and the other remedies advocated will, if applied with patience and justice, achieve the end in view with the least possible present hardship, and the greatest possible ultimate benefit, to all concerned.

## CHAPTER II

### EXISTING EVILS AND THEIR CAUSES



IN the preceding chapter it has been shown by a general survey of the country as a whole how extravagant and thoughtless we English are in the matter of Housing. We overcrowd dear land and leave cheap land vacant, despite the fact that it is better to live upon cheap land, because you can get more of it, and therefore more space, light, and air.

This statement is just as true of our towns taken individually as it is of the country taken as a whole. There are very few, if any, towns of any size in England where there is not enough land for the people to live upon in health and comfort, if only they were evenly distributed over the area available for the purpose.

On the one hand, there is in every town a considerable acreage, especially near the boundary, free from buildings, and there is also a considerable acreage grossly overcrowded. If this population now overcrowded in the slums were evenly distributed over the whole area, there would be plenty of room for everyone. Such distribution would also benefit the landowners, who would be better off than at present, because there would be so much more land bringing in a reasonable income, instead of a small proportion earning high ground rents, and a large proportion earning practically nothing at all.

It is the fashion nowadays with a certain class of social reformers to ascribe the present unsatisfactory state of affairs to the selfishness of landowners and property owners. I venture to suggest that the real cause lies much deeper. Our unhealthy, unlovely, cheerless, and expensive towns are, in my opinion, due more to the faults of our system than to the shortcomings of any class or of individuals. I do not suggest that the individuals concerned are faultless: they are human like the rest of us, and naturally look to the main

chance; but those engaged in town development and house building are no worse than the rest of us.

Our present inelastic bye-law system harasses them unceasingly on all sort of details without preventing land speculation and jerry building, and it does not attempt the one thing which might be useful—a comprehensive control of town development.

Far from assisting, it actually discourages co-operation between those engaged in the work of developing our towns and those responsible for supervising the work; that is to say, it gives no power to Local Authorities to differentiate between a public-spirited landowner and the most unscrupulous land speculator and jerry builder.

Our present system often prevents the respectable landowner and housebuilder from laying out his land in the best way, but the land speculator and jerry builder manage to evade hampering restrictions.

The holding up of land near large towns is one of the causes of overcrowded suburbs. This is not always due to greed of gain: landowners sometimes withhold their land because under present conditions this is the only means of protection against the jerry builder.

Town extension is a most difficult and complicated problem, and without complete co-operation between those engaged in the provision and supervision of proper Housing accommodation for the people, we are doomed to utter failure. This has been too often the case in the growth of English towns.

Accurate foresight is a gift possessed by no human being, but many have foresight in a greater or lesser degree. In the matter of town extension, there is no faculty more desirable or more economical to the pockets of the ratepayers than foresight, and yet, in this "practical" country of ours, Local Authorities and others responsible for the important business under consideration have no powers or encouragement whatever to exercise it.

As an example, Local Authorities have no power whatever, unless they buy land at a prohibitive price, to insist upon an adequate width for roads that are already, or will evidently soon become, main arteries of busy traffic. This has cost the ratepayers of England a very large sum of money.

Statistics collected from the County Boroughs and Boroughs of the Kingdom show that at least thirty millions of money have been expended during the last quarter of a century on street widenings and other absolutely necessary improvements of that nature. A very large proportion of this expenditure—it is impossible to say exactly how much, but between twenty and twenty-five millions—has been spent

on compensation for the demolition of buildings which never ought to have been put up, and never would have been put up on such sites if Local Authorities had possessed the Town Planning powers now advocated by almost everyone who has given the slightest attention to the subject.

Modern means of communication have made more land available for Housing purposes than was the case when people were obliged by the exigencies of their occupations and the absence of cheap, quick means of transit to congregate in very restricted areas. This means that it should now be possible, with good management, to get land for purely Housing purposes much cheaper than formerly, because there is an infinitely larger supply at our command. But in order to avail themselves to the utmost of the possibilities of modern means of cheap, rapid transit, it is essential to have much wider main thoroughfares than are at present to be found, except in a very few of our English towns. Under the present system, this essential to healthy Housing at reasonable rents is never thought of until the cost of street widening is almost prohibitive.

Passing from the exercise of foresight and returning to the practice of co-operation, we find that, owing to the absence of co-operation, not only between Local Authorities and landowners, but also between neighbouring landowners, the town dweller (who eventually has to suffer for all the mistakes that are made) is called upon to find much more in rent and rates than would be necessary under proper organisation, and has to put up with all sorts of inconveniences and annoyances that might quite easily have been avoided.

Let us examine what now takes place when a landowner decides to develop his land for building. Our present regulations stipulate that every new street must be of a certain minimum width largely regardless of what traffic is likely to go along it. The sides of the streets must be curbed and channelled and the footpaths paved with flagstones in a most expensive manner. This entails a very heavy expenditure in estate development, which, on the average, is about equal to the value of the land that is going to be developed. The result of this heavy expenditure is that the landowner, in order to get a return on the capital invested, crowds just as many houses per acre on to his land as the bye-laws will allow. That is, the model bye-laws allow fifty-six houses to the acre, whereas, from the hygienic point of view, there should not be more than twelve, and this would be economically feasible on Town Planning lines.

At present, if a progressive landowner expresses his willingness to restrict the number of houses per acre to twelve,

instead of fifty-six as allowed by the bye-laws—provided the Local Authority will meet him in the cost of estate development by allowing him to make the roadways as wide as, and no wider than is required for the traffic that will pass over them, although maintaining the present distances between the houses—he is told at once that the bye-laws are prohibitive. The Local Authorities are not to blame for this, but only our short-sighted, narrow-minded bye-law system. If Local Authorities had more latitude allowed to them in the administration of their bye-laws, they could materially reduce the cost of estate development, and thereby obtain a reduction in the number of houses built per acre, and ensure the provision of open spaces.

It is fortunately becoming more and more recognised every day that open spaces are as necessary to the health of a town, as streets are to its traffic. The provision of allotments, as a counter-attraction to the public-house, could also be arranged for, if only these things were thought of beforehand. Under our present system, these boons to the self-respecting working-man and his wife and children are never thought of until it is too late to provide them at a price within the means of the ratepayers or the rent-payers of our large towns.

I hope I have said enough to show the necessity for co-operation between Local Authorities and landowners. There is also urgent necessity for more co-operation between adjoining landowners. It is obvious on the face of it, that the community would be greatly benefited if the land in any neighbourhood were developed as a whole, and not piecemeal; but this aspect of the question, as well as every other aspect, must be considered from the point of view of those who own the land, as well as from the point of view of those who use it.

More than one practical land agent of good standing has informed me that there is no greater loss to landowners under our present incoherent system, than the power of one landowner to seriously depreciate his neighbour's property. Each landowner develops his own little bit in his own little way, and very often purposely plans his roads, and makes his other arrangements so as to inconvenience and injure his neighbour.

This is no doubt partly due to our national love of independence, which in its proper place is a most useful trait, and is largely responsible for England's present position among the nations of the world, but which, in this matter of housing, has resulted in great inconvenience and expense to those who use and live upon the land, as well as in serious

loss to the owners of land. The time has come to substitute large-minded co-operation for small-minded independence. A sound Town Planning Act, administered with vigour and discretion, would put an end to the silly bickerings that have done so much harm in the past.

It should be possible to approximate the poor man's housing conditions more nearly to the present circumstances of the rich man, and to relieve the rich classes of the constant dread that their houses may be spoilt and the value of their property diminished by the erection near them of a jerry-built suburb. It should also be possible to save money for landowners, house-builders, rent-payers, and rate-payers. Town Planning is urgently required quite as much in the interest of public and private economy, as in the interest of public health and well-being.

The present unnecessary waste of public and private money in our large towns is almost, if not quite as bad as the thoughtless destruction of human life and human health.

There is still another aspect that claims our thought and care, and that is the influence of beautiful surroundings on the enjoyment of life. How can we expect people to be happy and contented unless we provide them with some means of rational enjoyment? The rich can provide their own, but the poor have little or no means at their disposal in our modern English towns.

I have already dealt with open spaces, playgrounds and allotments. There are many other important details that might be mentioned. I will only deal with one. Under present conditions, when a new estate is developed for building, the first thing done is to cut down trees that have taken fifty or one hundred years to grow, and which, if left standing, would be of great value to the health of the district, as well as greatly adding to the cheerfulness of the neighbourhood. This is done because no street must be of less than a certain minimum width, and because, as already explained, the largest possible number of houses must be crowded on to the land in order to repay the cost of street development.

This may seem a small thing to those who, without thought, can look at trees every day and do consciously or unconsciously enjoy the changes that come over them at the different seasons of the year; but those who have seen the keen delight of slum children in country sights and sounds, may realise what the entire deprivation of such influences in their lives must mean to their development.

There is no country in the civilised world so well wooded as England is in its rural districts. There is no civilised country where the towns are so badly off for trees.

The rich man sets his house as far back as possible from the road, and has a tree-planted drive or footpath to the front door. The poor man is forced to live right on to a wide and dusty road, and has to pay extra for doing so, instead of being allowed to have a narrower roadway, with trees on either side. The rich man gets peace and quiet when he gets home after his day's work is done. The poor man often lives in a noise, night and day, and is charged extra for it.

On the one hand, not only unnecessary but actually wasteful expenditure, such as the cutting down of well-grown trees, etc., is forced on landowners and housebuilders, and on the other hand, the housing accommodation provided is just what is not required from the hygienic or any other point of view.

The net result of all this waste is that in the rent of a 6s. 6d. house, about 2s. 6d. is due to local rates—the interest on the cost of land and of estate development—an item which could be considerably reduced by the adoption of common-sense business principles.

Our inelastic bye-law system is infinitely better than what went before it, but the time has come to take advantage of the experience of the past. The time has come for more co-operation between all concerned with the development of our towns, and the exercise of greater foresight, which can only be made possible by the introduction of comprehensive municipal control.

Just as in business the absence of foresight inevitably results in failure, so in Housing most of our difficulties are due to want of foresight and the absence of co-operation. Without foresight and co-operation we shall continue to be recklessly extravagant with public and private money, as well as criminally destructive of the national health and well-being. With foresight and co-operation, there are great economies to be effected, as well as great public improvements to be made. At present Local Authorities have little power to carry out these principles themselves, and still less to encourage them in others.

Another cause of the failure to solve the Housing Problem—and no one claims it is yet solved, in spite of stupendous efforts in that direction—is that for the last fifty years all legislation passed with the object of ensuring that new houses built shall be sanitary and not too expensive, has been inspired with the idea of encouraging and assisting semi-philanthropic Trusts or Companies and Local Authorities to build the houses. No serious attempt has been made to encourage and control in a comprehensive manner the very

much larger number of people engaged in house-building on ordinary business lines. The operations of this body of house-builders are at least ten times as large as those of all the philanthropists and Local Authorities put together, and must of necessity always be so.

The result of the omission to effectively control this large body of housebuilders has been, as was only to be expected, a very few good houses and a great many bad ones.

It is still open to Parliament to strike out a new line by introducing legislation to encourage, assist, and control all and sundry concerned in such an important native industry—the housing of the people. Opinions may differ—they do differ—as to the wisdom or unwisdom of Municipal House building, but all must agree that no Local Authority can raise enough money to build houses for more than a very small proportion of the population whose local affairs they are called upon to administrate.

It is therefore essential that Local Authorities should be given effective control over all the developments and building operations in their districts, and not merely, as at present, power to harass on details.

Finally, in considering the evils from which our towns are suffering, let us remember that they are the growth of ages. Other conditions have arisen comparatively recently, which have not only aggravated these evils, but have also called our attention to them.

We are distressed that we cannot find the right remedy at once, or that when found it would not at once alter the conditions we deplore. But nothing is truer than that Rome was not built in a day, nor will our towns be re-built in a day. But Rome *was* built, and with patience and persistence our towns may be re-built. Housing reformers must not expect to see the complete fulfilment of their wishes in their own lifetime. They must be content to lay the foundation of a sound policy which others will be able to carry on for the benefit of a future England.



## CHAPTER III

### REMOVAL OF EXISTING EVILS—I



THE last chapter dealt with the causes of existing evils in suburbs that have been built under the model bye-laws. These were designed to ensure that town populations should have healthy dwellings with cheerful surroundings, but they have failed dismally to achieve their purpose.

The present chapter and the next will deal with the removal of existing evils, more especially in the older parts of the towns. No one approves of the modern suburb, but at any rate it is better than what went before it.

The worst conditions are found in the centres of our towns ; but we already possess considerable power for dealing with them, which, as Mr. John Burns says, have not been used as fully as they might have been.

The causes of the fearful congestion of town houses may be summarised under the following heads :—

1. The necessity for working people to live close to their work, owing to the want of cheap, quick means of transit.
2. The absence in earlier times of proper police protection outside the city.
3. General ignorance concerning the vital importance of light and air.

These causes, coupled with the fact that the necessity for building bye-laws was not then recognised, are largely responsible for the hovels and dens which should be swept away as soon as possible. It is quite true that since these places were built there has been plenty of time to write off all the capital expenditure incurred, and in any well-managed business this would have been done long ago, but the owners of small house property have seldom had a sound business education, and therefore some allowance should be made for

their business inaptitude. This necessity is recognised by Section 38 of the Housing of the Working Classes Act, 1890, which gives Local Authorities power to pay compensation for the demolition of buildings that obstruct the light and air to adjacent dwellings.

Prudence and patience are essential to permanent success in this work. Those who try to undo in a year or two the evil results of centuries of ignorance, are doomed to failure before they start. I yield to none in feelings of distress at the present state of affairs in the central districts of our large towns, and I confess that my heart is often rent by the sufferings I have to witness, and can only hope slowly to alleviate; but those who allow their hearts to run away with their heads always do more harm than good. The heart is an excellent motive power, and without it little or no progress would be made; but when it is not governed by the head, the results are disastrous.

There are two forms of procedure for the improvement of bad housing conditions in large towns; (a) those who want to do everything at once adopt Part I. of the Housing of the Working Classes Act, 1890; and (b) those who prefer to hasten slowly take Part II. of the same Act.

The consideration of a few general principles should precede the explanation of these methods.

1. A policy of Housing Reform cannot be satisfactory unless it is capable of being applied to the whole district that requires dealing with. Some policies are so expensive in practice that all the available funds are exhausted long before one-tenth of the improvements have been executed. I am not one of those who vote against all expenditure of any kind; I have seen too many cases where this attitude of mind has resulted in saving a penny and spending a pound. Thoughtless economy—or, rather, parsimony—is often quite as expensive in the long run as thoughtless extravagance. We must, however, before advocating any policy of reform, consider whether it is possible to raise sufficient money to complete the work. This is just where so many housing reformers have failed; they see an unhealthy area and determine that at any price it must be re-built. It is impossible not to sympathise with their feelings, but municipal building is very costly, and such action has often committed reformers to huge expenditure on small areas, leaving them without sufficient resources to deal with the rest of the district.

The enormous expense incurred for the reformation of small areas has discredited Housing Reform with the general public, and driven the ratepayers as a whole into opposition. Useful members have lost their seats by the economy cry that

has not unnaturally arisen as the result of extravagant and unnecessary expenditure on this and kindred reforms.

2. Another most important matter for consideration is the general moral influence exerted upon property-owners by the policy adopted in the district. One policy will encourage owners to neglect their property in order that the Local Authority may buy it up, at a profit to the owner and a loss to the ratepayers. Another policy may be purely negative in its action. What is wanted is a policy that will encourage property owners to take care of their houses and make their tenants as comfortable as possible. In these days of rising rates it is of vital importance for the administrators of local affairs to strain every nerve to make the public money go as far as possible, and avoid using public funds for what can be done by private means.

3. A third important point to be remembered is to avoid inflicting hardship on those whom it is desired to help. The sudden demolition of a large number of houses on a small area must inflict great hardship on the tenants. If only a few houses at a time are dealt with in each district, the tenants have plenty of time and opportunity to look round for other accommodation, with the great advantage that no house famine is created.

It is also necessary to avoid as far as possible inflicting hardships on the owners of small house property. This entails great labour, but it is time well spent, because so much more work is done when those concerned are pulling together instead of different ways.

4. Another main principle must be the preservation of low-rented houses, and the increase of the supply of good cheap houses. The best authorities all agree that it is unsound to reduce rents to meet low wages, and that it is far better from every point of view to raise wages to meet rents. It is further recognised by reliable authorities that, speaking generally, wages follow rents. Where rents are high, wages are high, and where rents are low, wages are low. At the same time, a sudden large rise in house rent in any district would inflict great hardship on the poorer classes; they could not suddenly get a rise in wages to meet the rise in rent. A small rise in rent for a sanitary house, instead of the former insanitary hovel, has been found by the tenants to actually pay them in the long run. In a good home they have not the same temptation to go out in the evening and lose their money.

An increase in the supply of good cheap houses can be obtained by steady pressure towards repairing houses unfit for human habitation, and by the policy of Town Planning

advocated in other parts of this book. This will make it impossible for landlords to charge tenants more than a fair rent.

5. That brings us to the next main principle. It should be the endeavour of every Housing Reformer to encourage and assist the people to spread themselves out over a larger area of land in order that they may get a proper amount of light and air. Do not, however, destroy insanitary town houses for the pleasure of doing so if by any means they can be made fit to live in, because a certain percentage of the poorer classes are obliged by their occupations to live in the centres of our towns, and good cheap houses must be provided for them. At the same time, there are a great many (the number is increasing every week) who are able to, and who would, move outside if they were encouraged and assisted. That being so, it is quite safe from the point of view of supply and demand, as well as necessary from the point of view of sanitation, to destroy those houses which, in the words of the 1903 Act, are unfit for human habitation, and incapable of being made fit. It is also sound to remove all houses that prevent the admission of light and the free circulation of air to other dwellings. This gradual reduction of living accommodation in the centres of towns, coupled with Town Planning on the outskirts, will exert a steady outward pressure into the fresher country air, that must have a beneficial effect on the national physique.

It is only quite recently that the necessity for a steady outward pressure has been recognised by housing legislators and administrators. The old idea, unfortunately not yet dead, was that if any small houses in a town were demolished, then new housing accommodation must be provided in the same place for the same number of people as those displaced by the demolitions. The effect of this has been to perpetuate the crowding of town dwellings, the very thing that ought to be slowly but surely discontinued.

6. It must never be forgotten that the structure of a house is but the beginning of a dwelling. Proper surroundings are essential to a home. The most important of these are open spaces, which could in new districts be provided on business lines, without the assistance of charity, if Local Authorities were given Town Planning powers; and these powers could also ensure the provision of the wide main arteries necessary to enable people to get in and out of town quickly and cheaply.

A most important item in our general programme is the provision of small open spaces in congested neighbourhoods, which is a more difficult and expensive business, but by no means impossible, if attacked on comprehensive lines. These

should slowly but surely work up to a complete scheme, carefully planned out beforehand. If this method is adopted, great good can be effected at very small cost to the ratepayers.

Passing now from policy to methods, there are, as I have already indicated, two distinct ways of dealing with insanitary property; one by means of Part I. of the Housing of the Working Classes Act, 1890, and the other by means of Part II. of the same Act. I will first give short explanations of these two systems, and the amount of work done under each, and then we will consider their advantages and disadvantages.

Under Part I. the Local Authority must satisfy itself that the sanitary defects of any area cannot be effectually remedied otherwise than by making an improvement scheme for the rearrangement and reconstruction of the streets and houses on the area. This entails heavy expense and great delay in the preparation and exhaustive reports and minute detailed maps and estimates. The scheme has to be advertised several weeks; notice has to be given to every owner and an answer obtained; the Local Government Board has to be petitioned, and names of dissenting owners have to be given. The Local Government Board has to hold an inquiry to ascertain the correctness and sufficiency of the scheme and to hear objections. An Act of Parliament has to be obtained to confirm the order of the Local Government Board, and either House of Parliament may refer the scheme to a Committee of the House. The costs of the Local Authority in promoting the scheme, the costs of the Local Government Board itself, and also the costs of any owners opposing the scheme, may be charged to the Local Authority by the Local Government Board.

In addition to all this, there is a probable obligation to provide accommodation in a congested district for a working-class population equal in number to that displaced. It is the almost invariable experience of these schemes that the population displaced does not return to the new houses, but finds accommodation elsewhere; while others move in who would be much wiser to live outside the town.

All the land and buildings have to be bought up by the Local Authority on the terms of compulsory purchase, which entails paying anything from 10 per cent. to 50 per cent. above the real value. All the old buildings must come down, good and bad together. Very often manufactories and public-houses have to be purchased and demolished. The worse the neighbourhood, the more the ratepayers have to pay for the public-houses; whilst the demolition of the manufactories deprives the inhabitants of their means of livelihood.

Most schemes under Part I. entail the construction by the Corporation of new roads, new sewers, and new water-mains. On the top of this comes the rebuilding of the houses, some of which—indeed, often many of which—were quite satisfactory.

The expenditure incurred is very large for the result obtained; but that is not the worst feature. Bad landlords are rewarded for neglecting their houses, whilst good landlords are often penalised.

Under Part II. the procedure is by no means as easy as it might be, but it is far simpler, fairer, and less expensive than Part I.

It is the duty of the medical officer of health to draw the attention of the Local Authority to any houses in his district that in his opinion are unfit for human habitation. The Local Authority considers the representation of the medical officer of health, and, if it is thought to be justified, then an order is made that notices shall be served on the owners to repair their houses at their own expense, and not as, under Part I., at the expense of the ratepayers. If the necessary repairs are not executed within a reasonable time, then the magistrates are asked to make a closing order, on the ground that the houses are unfit for human habitation. The object of applying for a closing order is to enable the Local Authority to prevent the owner from receiving rents for houses that are unfit to live in. If the closing order is granted, then the houses remain empty until the necessary repairs are executed, or until the time has elapsed (three months) which the Act allows the owner for doing what is required. If at the end of that time the owner has done nothing, then the case is again considered by the Local Authority, and, if circumstances justify such a course, a resolution is passed deeming it advisable that the houses shall be demolished. The owner is advised of the passing of this resolution and invited to attend a statutory meeting of those who have passed it, and state his reasons why the houses should not be demolished. If the Local Authority is satisfied with the reasons given, then the houses are allowed to remain standing. If it is not satisfied, a demolition order is made, against which the owner has a right of appeal to Quarter Sessions.

In my experience, which is now fairly long, this right of appeal has never been exercised, owing, perhaps, to the fact that demolition is not resorted to unless there are very strong grounds for doing so.

If a property-owner shows the slightest inclination to meet the authorities, it is always advisable to exercise patience, and give him a chance of carrying out his promises.

The object of Part II. is to ensure that houses that are unfit for human habitation shall be made fit to live in or demolished. It is generally impossible to achieve this end without removing one or more of the adjacent buildings, because the most insanitary houses of all are generally found in thickly-built neighbourhoods.

This necessity for the removal of obstructive buildings is specially provided for in Part II. Section 38 of the 1890 Act, which empowers Local Authorities to pay compensation in these cases. This power, carefully used with due consideration for the interests of the ratepayers, and sympathetic consideration of the wishes of property-owners, not only facilitates the work of slum reform, it also makes it possible to ensure thorough repair in place of the slum patching which is only too prevalent.

By dealing with individual houses in this gradual manner only bad property is repaired or demolished, whilst what is sound is left standing, thereby avoiding one of the causes of great waste under Part I., and also all danger of creating a house famine.

The procedure under Part II. is not only far less expensive than under Part I., it is also fairer, because it puts the cost of repairing insanitary houses on the right shoulders, and makes the neglect of small house property unprofitable. There are some who would amend Part I. in order to make it more workable, and no doubt the procedure might be improved in detail; but my contention is that Part I. is thoroughly unsound in principle, whereas Part II. is fair in principle, besides being efficient, and in practice very cheap.

Both Part I. and Part II. might be improved by amendment in detail, but the underlying principles would remain as they are. Part I. puts the burden of repairing insanitary houses on the ratepayers. Part II. puts it on the owners who are responsible for the bad conditions, which is a much fairer procedure, and which exercises an excellent moral effect on other owners. It is to be hoped that more attention will be given to Part II. With efficient administration this is much easier to work than may appear on the surface.

We now have to consider the tangible results of these systems.

The amount of work done under Part I. is so considerable and varied that space will not allow of giving it in detail. I shall therefore content myself with giving:—

1. The total amount of money spent on those houses of which the cost is ascertainable;
2. The number of houses provided for the money; and
3. The number of persons housed;

Up to 1907-8.

This will enable us to arrive at the cost per head of those provided for.

A very large number of houses provided by Local Authorities under Part I. have had to be omitted from these figures because, in spite of searching all the records published by those in favour of this policy, and also making special inquiries, it has been impossible to ascertain the cost.

So little has been done under Part II. dealing with individual houses, that fuller details can be given; but here again there is unfortunately no information as to cost, except in the case of Liverpool, Manchester, and Birmingham. It will, however, give a general impression as to the average costs of the two methods, estimates of such as will enable us to judge of the financial capabilities of Part I. for slum clearance. We can further consider whether Part II. is not worthy of a fairer and fuller trial.

My experience is that Part II., administered with vigour and discretion, is capable of doing what is required without putting any serious burden on the ratepayers, and it should be much more freely used. One thing, at any rate, is quite clear: Part I. has not failed for want of being tried.

It is probable that far better results would be obtained if Part II. were adopted all over the country instead of Part I.

To avoid confusion I will take only those houses provided under Part I., the cost of which is clearly given:—

10,805 houses have been dealt with;  
 £4,202,655 has been spent;  
 54,030 persons re-housed; giving an average of  
 £77 15s. per person.

The cost per head of re-housing varies from £40 19s. in some places to £197 4s. in others.

Very many more than 10,805 houses have been dealt with under Part I., and, of course, a great deal more money spent; but the data are not sufficiently clear and reliable to justify their inclusion in this calculation and comparison.

The London County Council have been very active under Part III.,\* which is less extravagant than wholesale schemes of purchase and reconstruction under Parts I. and II., which have also claimed a great deal of their attention. They give as the total amount spent to March 31st, 1906, as £4,115,890 under Parts I., II., and III., and they estimate their dwellings completed at that date accommodate 33,853 persons, which gives a cost of £121 11s. 7d. per person housed.

Since that date a great deal more has been done, and we

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\* Part III. enables Local Authorities to buy land and build houses in undeveloped districts.



are told that when all their schemes are completed, they will have housed 97,000 persons. We are not told what the total expenditure will be, and we notice in the accounts various ways of making things look better, such as taking the land—often bought at huge prices—into their accounts at what is called Housing Value, and putting the actual figure spent somewhere else.

WORK DONE UNDER PART II. (*see next page*).

*Sheffield* experimented with Part II. on their Scotland Street area, with the result that they rejected Part I. for that area, and completed the work under Part II.

*Birkenhead, Bury, Merthyr Tydfil, Northampton, Walthamstow*, have all worked under Part II., but no figures have been taken out.

WORK DONE UNDER PRIVATE ACTS, SIMILAR IN PRINCIPLE TO PART II., BUT GIVING THE LOCAL AUTHORITY POWER TO CLOSE INSANITARY HOUSES WITHOUT HAVING TO APPLY TO THE MAGISTRATES.

*Newcastle*.—Two hundred and forty-nine houses dealt with under their private Act, and only four under Part II.

*Liverpool* has demolished several thousand houses since the passing of their private Act of 1864. For some of these compensation was paid averaging £10 to £20 per house; for others no compensation was paid.

*Manchester*, up to 1901, had dealt with 8,000 insanitary houses, only finding it necessary to demolish 600. Average cost to the Corporation, £16 per house demolished.

*From 1901 to 1907*.—Represented, 5,573; repaired, 2,050; demolished, 711; pending lapse of notices, etc., 2,812.

*Blackburn* has closed 800 houses.

*Leeds* and other places have carried out schemes under Part II. that are similar in principle to Part I. Particulars of these schemes are not given, because in comparing Parts I. and II. I am only considering that portion of Part II. which enables Local Authorities to deal with individual houses. The portion of Part II. that provides for the carrying out of schemes is similar in principle to Part I., and therefore the same arguments apply, with the exception that the methods are less wholesale, and therefore less expensive to the ratepayers; but they are very much more expensive than the principle of dealing with individual houses, and calling upon the owners of insanitary houses to put them right at their own expense.

The cost per head of re-housing under Part I. averages

WORK DONE UNDER PART II.

	Represented.	Thoroughly Repaired.	Demolished.	Under Repair.	Pending lapse of Notices, etc.	Remarks.
Birmingham	4,111	1,446	981	342	1,309	Thirty-three houses were repaired under magisterial supervision.
From January 1st, 1902, to January 1st, 1908 -		334	24			
Without Representation		1,780	1,005			

One hundred and thirty-five obstructive buildings have been removed at an average cost for compensation of about £33, and amounting to £4,422 5s. The administrative expenses have been £6,370 6s. 6d., making in all £10,792 11s. 6d. for 1,780 good cheap houses, that is £6 1s. 3d. per house, or taking five persons to a house, £1 4s. 3d. per person housed. The total annual charge on the rates has averaged half a farthing in the pound.

	Represented.	Repaired.	Demolished.	Under Repair.	Pending lapse of Notices, etc.	Remarks.
Cardiff - - -	147	96	—		51	
Hull - - -	810	75	615		120	
Liverpool - - -	937	259	304		374	Cost £7 per house dealt with.
Since September, 1905						
Warrington - - -	134	47	59		28	
York - - -	335	174	62		199	



LIVERPOOL: HORNBY STREET AREA: A TYPICAL COURT.

£77 15s. all over the country; but let us for the purposes of this comparison take it at £50.

The cost of replacing hovels with good cheap houses under Part II. works out in Liverpool at £7 per house. Taking the usual average of five persons to a house, this works out at £1 8s. per head. The cost per head in Birmingham of similar work under Part II. comes to £1 4s. 3d.

Other towns ought to be able to show equally good results; but in order to be on the safe side, let us suppose that, if Part II. were generally adopted, the cost might amount to £3 per head.

It is, I think, understating the case to say that there are at the very least 5,000,000 people in this country living in houses that urgently require improvement either in their fabric or surroundings. If the tenants are relieved under Part I. at a cost of £50 per head, the total sum required will be £250,000,000 which is far more than the Local Authorities could possibly raise for Housing Reform, even if they and their constituents so willed. If relief were secured under Part II. at a cost of £3 per head, the total amount of money required over the next ten or twenty years would be only £15,000,000—a large sum, but not an impossible amount, divided amongst 300 or so boroughs and county boroughs, and spread over a number of years.

Under Part II. it is possible to remove all the existing housing evils. Under Part I. it is a financial impossibility, no matter how generous and enthusiastic the ratepayers might be.

There are many other arguments against Part I., such as the undesirability of substituting tenement dwellings for self-contained houses, etc., but inherent financial difficulties make further criticism superfluous.

As Liverpool gives the best example of work done under Part I., a short description of their Hornby Street scheme (for which I am indebted to Mr. F. T. Turton) will be interesting, and may be compared with what has been done in Birmingham, where Part II. has been used to a greater extent than anywhere else.

“When the Hornby Street area was scheduled as an ‘Unhealthy Area’ in 1902, under the Housing of the Working Classes Act, 1890, the number of insanitary houses which it contained was 511, in addition to which there were 23 sanitary houses, making a total of 534, representing a population of 2,431.

“The insanitary houses were of the back to back type, situated in narrow and ill-ventilated courts, each court containing from ten to twelve houses. The sanitary

arrangements were very defective, in many cases one convenience being used by the occupants of five or six houses.

“ The total contents of the area was 27,600 square yards, and the freehold of the land and buildings was acquired at a total cost of £56,000, or £2 per yard; but it must be mentioned that five licensed public-houses were included in the area. Excluding these public-houses, the cost of acquiring the area represents 33s. per square yard.

“ Hornby Street is thirty-six feet wide, but by setting the buildings back from the existing building line for a considerable length of the street, the width between the main line of the buildings is now about seventy feet.

“ The frontages to the dwellings in Hornby Street have been laid out as grass plots flanked with a low wrought-iron ornamental railing, and here and there strong seats are provided for the use of the tenants only; while at the rear of all the buildings, separate yards have been avoided, and the whole space thus available finished so as to form large playgrounds for the children, it being expected that by this means the children may have room to play their games away from the dangers of street traffic.

“ The whole of the area comprises, as previously stated, a total of 27,600 square yards. Of this amount 2,019 square yards have been voluntarily given up for street widening, and 3,200 square yards allocated for the provision of grass plots in front of the dwellings.

“ In addition, the scheme provides for a recreation ground of 1,633 square yards in the centre of the area, surrounded on three sides by shrubberies six feet wide, and provided with gymnastic apparatus and a sand-pit about forty feet by twenty feet. A large shelter is placed in one corner of the ground, and a drinking fountain near by for the use of the children.

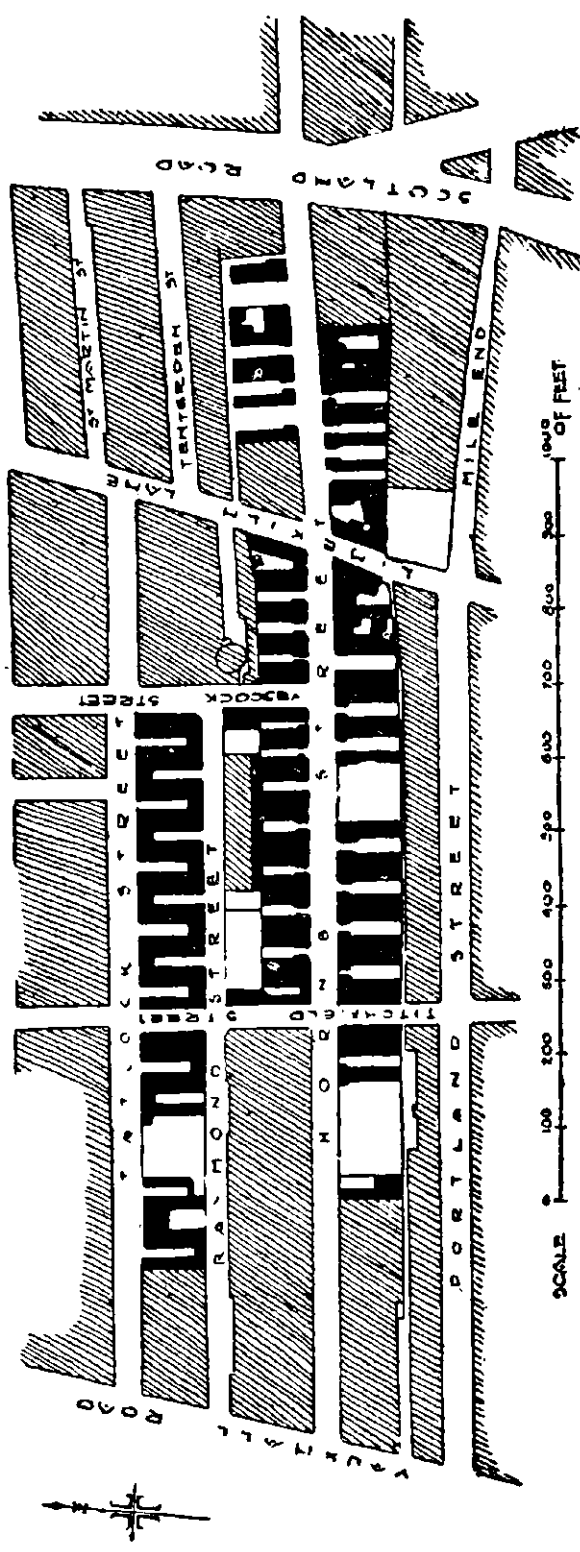
“ The new dwellings comprise twenty-three blocks containing 453 tenements, which it is estimated will accommodate 2,446 persons. There are 50 four-roomed, 221 three-roomed, 173 two-roomed, and 9 one-roomed dwellings, together with a superintendent's house, office, and stores, seven shops, a coalyard, and a recreation ground of about a third of an acre in extent.

“ The buildings, with the exception of the superintendent's house, are three storeys in height, the height from floor to floor being, generally speaking, nine feet ten inches.

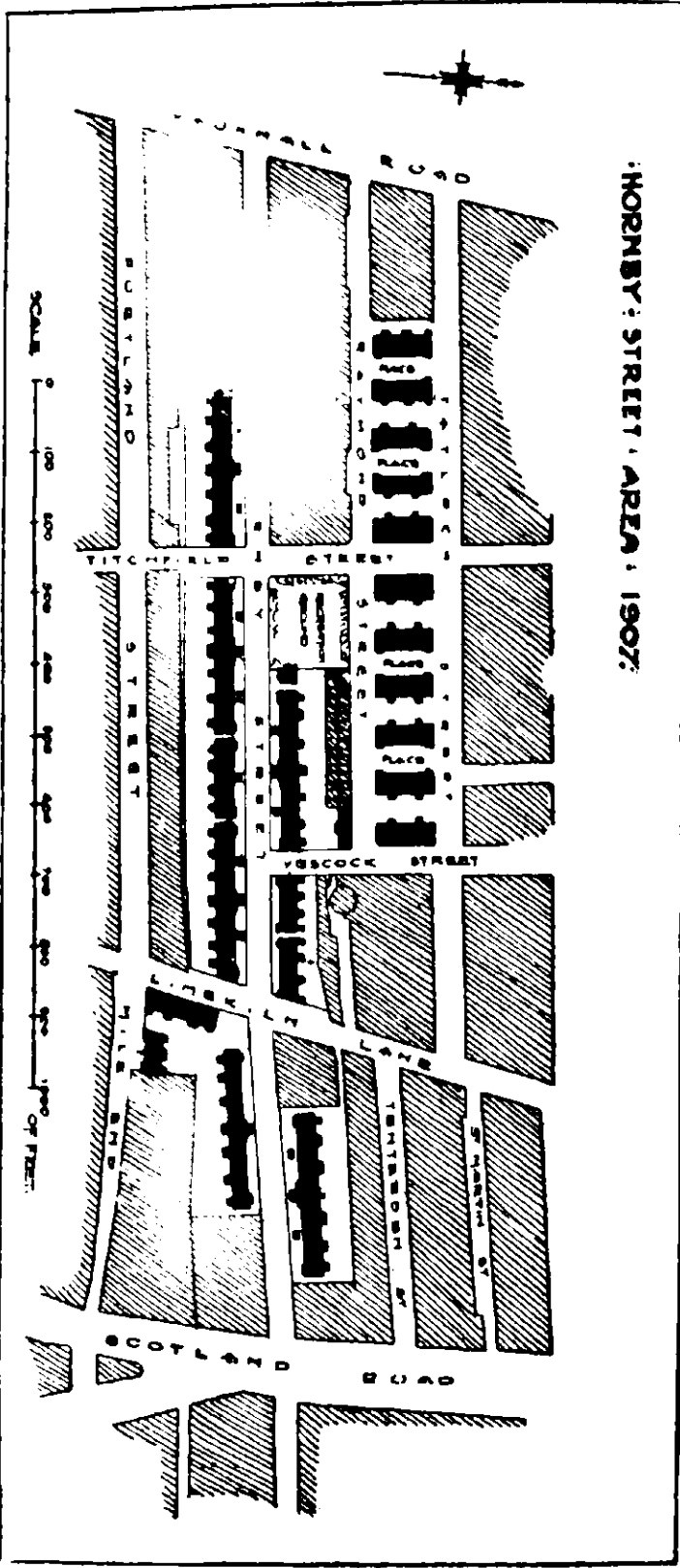
“ The construction of the buildings is of a fireproof character, the sub-floors consisting of rolled steel joists spaced about three feet apart and embedded all round in a thickness of seven inches of coke breeze concrete.

“ In the first place, a portion of the area was demolished

HORNBY STREET AREA : 1902.



HORNBY STREET AREA, 1907.



which contained a population of 724 persons, and on the site so cleared new dwellings were erected to accommodate 768 persons.

“ A second portion was then demolished, and the persons dispossessed, viz., 822, had the opportunity of inhabiting the new dwellings erected on the first portion rebuilt. In like manner a third portion was cleared, from which 885 persons were dispossessed, and were accommodated in the new dwellings erected on the site of the second portion cleared. The new dwellings to be erected on the third portion are in course of erection at the present time.

“ As is generally known, a special feature of the work in Liverpool is that the Corporation will only accept as tenants those persons who have been dispossessed through the demolition of insanitary property; and in this connection it may be mentioned that when the first portion of the Hornby Street area was demolished, 71 per cent. of the persons dispossessed became tenants of the Corporation in their various blocks of dwellings in the vicinity. ”

“ When the portion at present in course of erection is completed, the disposition and rents of the whole area will be as under, viz. :—

#### GROUND FLOOR.

15	four-roomed tenements at	5/3	per week each.
72	three-roomed	„	4/6
61	two-roomed	„	3/6
3	one-roomed	„	2/6

And six shops with tenements, one let at 14/-, one at 12/6, and four at 12/- respectively, per week, and coalyard at 7/6 weekly.

#### FIRST FLOOR.

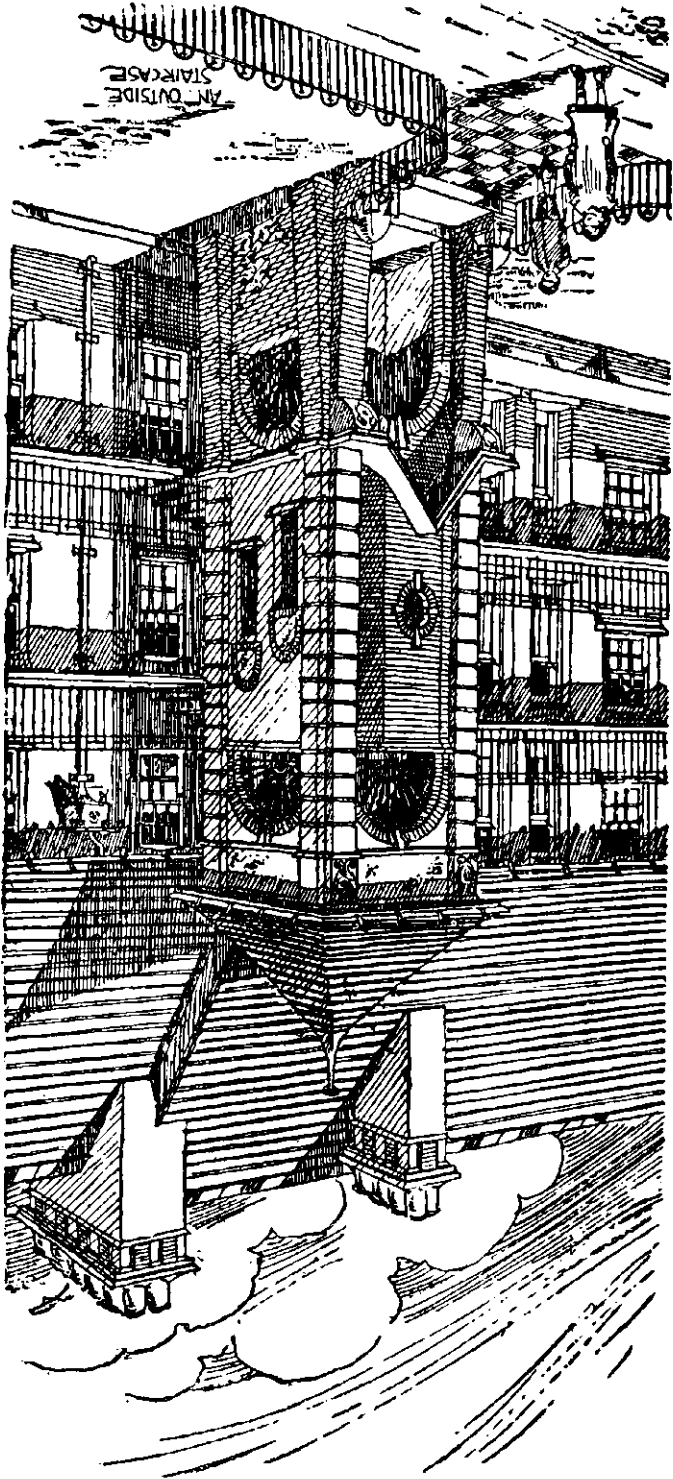
16	four-roomed tenements at	5/-	per week each.
76	three-roomed	„	4/3
56	two-roomed	„	3/-
5	one-roomed	„	2/-

#### SECOND FLOOR.

18	four-roomed tenements at	4/6	per week each.
72	three-roomed	„	4/-
48	two-roomed	„	2/9
1	one-roomed	„	1/9
“ Total gross rental per week		...	£89 9s. 6d.
“ Total gross rental per annum		...	£4,652 14s.

“ When the portion of the buildings at present in course of erection is completed, the total cost of the dwellings on the





whole of the area will be about £80,786, to which must be added £56,000, the total cost of the land, including Parliamentary and general expenses, which makes a total expenditure of £136,786, without counting a few odd extras which, I think, may fairly be omitted. The tenements provided are:—

49	with	4	rooms.
220	,,	3	,,
165	,,	2	,,
9	,,	1	room.

---

443 Total number.

“ These 443 tenements are allowed by the Local Government Board to provide accommodation for 2,446 persons. £136,786 total expenditure, divided by 2,446, gives an expenditure of just under £56 per head.

“ For building alone the cost represents 5.77d. per cubic foot; but taking into account the formation of back streets, passages, and open spaces, it represents 6.06d. per cubic foot, or £66 per room.

“ In granting the loans necessary for carrying out of this work, the Local Government Board allowed eighty years for the repayment of the loan for the purchase of the land, and sixty years for the repayment of the loan in respect of the buildings.

“ The rents charged are as high as the tenants can afford to pay, and approximate very nearly to the rents paid by them in their former insanitary habitations.

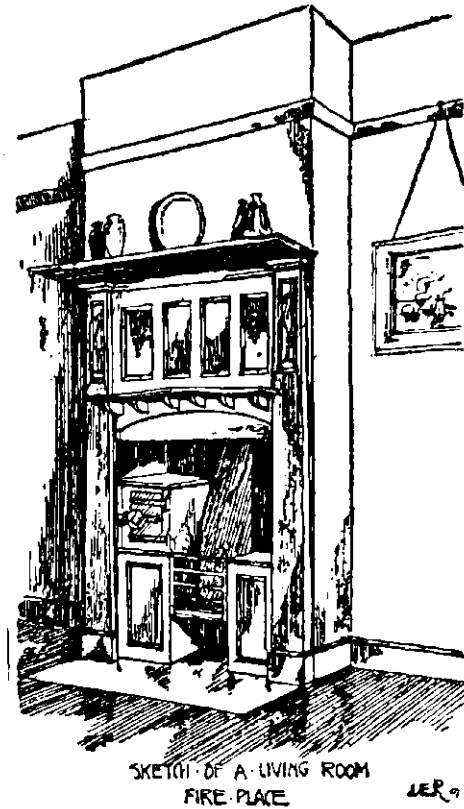
“ The poverty of the tenants generally can be imagined when it is stated that several thousand families in this city subsist on an average of less than 10s. per week, and a greater number on less than 15s. per week.

“ The improvement in the condition of the tenants in their new surroundings is very noticeable. The cleanliness of their houses has greatly improved, and in the general condition of the neighbourhood there is a distinct change for the better.

“ That these and other dwellings provided by the Corporation under similar conditions are appreciated by the tenants is best shown by the fact that there are rarely any to let, and that during last year 96 per cent. of the rent actually due was collected.”

The Birmingham work requires little description, as it has already been fully dealt with in “ A Housing Policy.” Photograph I. shows a row of houses when represented by the medical officer of health as unfit for human habitation.

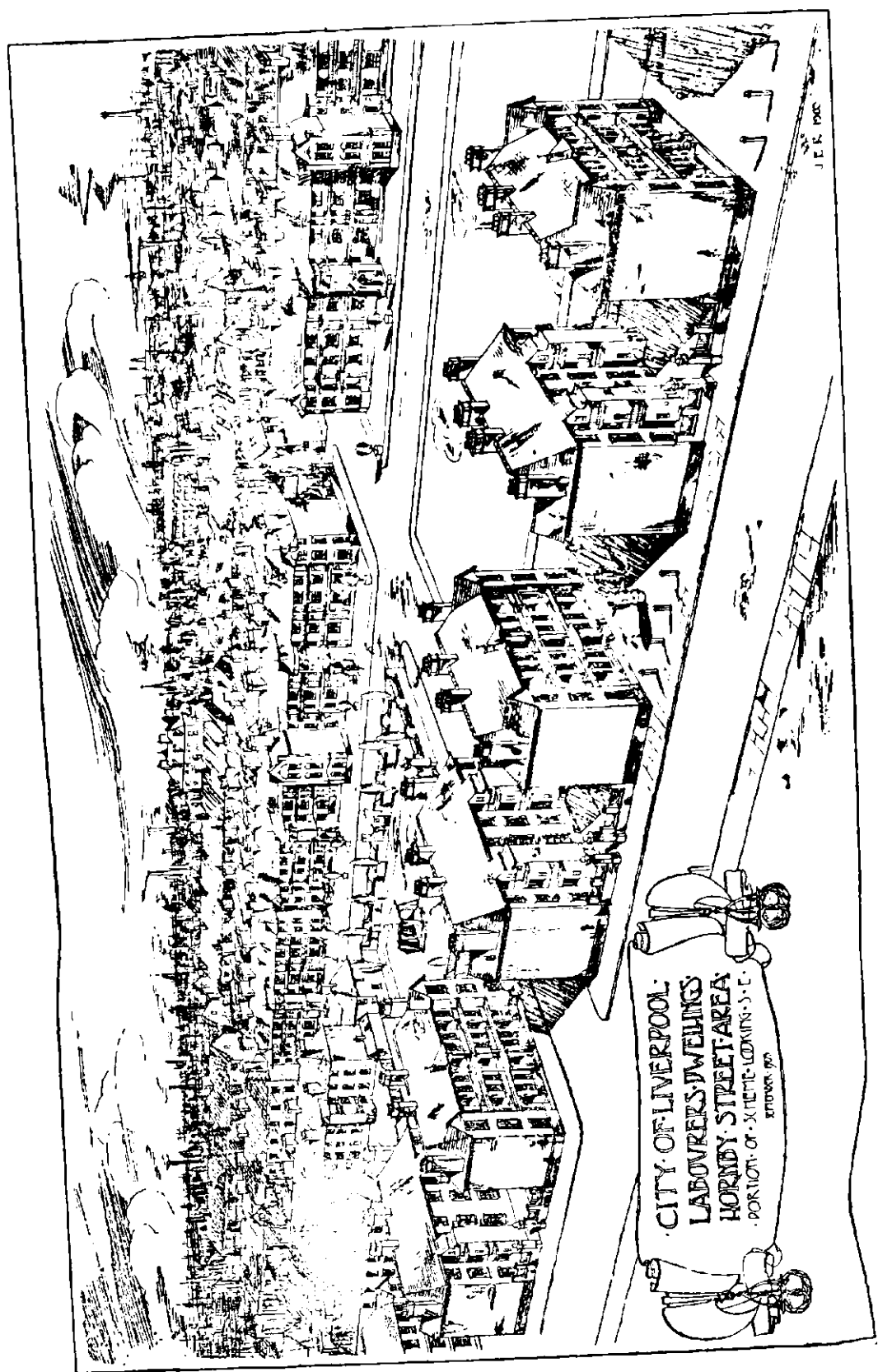
Photograph II. shows a row of houses built in place of those shown in Photograph I. Each house has its own sanitary convenience, washing accommodation, etc., and the rents are 5s. 3d. per week per house of four rooms. The whole of this work was carried out at the expense of the owner, and all the money the ratepayers had to find was a few pounds for administration expenses. It is true that this particular case cost one or two members of the City Council



a great amount of time and trouble, but if men are not prepared to take trouble they should not go into public life.

Photograph III. shows a court as we found it. The plan shows how this and two other courts that were quite as bad have been converted into terraces, and as much light and air provided as is obtainable in a large town. Photograph IV. shows a view of these three terraces from the street after the work has been completed. Photograph V. shows one of the terraces.

Each house has been provided with a proper sanitary sink. The pantries for food were cleaned and ventilated. Outouses were rearranged so that they should not ventilate into the houses, as is so often the case at present. The ceilings were



CITY OF LIVERPOOL.  
LABOURERS' DWELLINGS  
HORNBY STREET AREA  
PORTION OF 'X' TYPE - LOOKING S. E.  
KROHN 1910

LIVERPOOL : HORNBY STREET AREA. ONE OF THE NEW BLOCKS.





PHOTOGRAPH 1.—BEFORE REPAIR.



PHOTOGRAPH II.—AFTER REPAIR.



PHOTOGRAPH III.—A TYPICAL BIRMINGHAM COURT, BEFORE ENFORCING PART II. OF THE 1890 ACT.





PHOTOGRAPH IV. --FRONT ELEVATION, SHOWING HOW LIGHT AND AIR ARE LET INTO THE COURTS.

taken out and the cavities cleared of all filth. The walls were hacked and re-plastered, and bay windows provided. In short, the houses have been thoroughly repaired.

The rents are:—21 houses each containing three rooms, at 3s. 6d., and four front houses, of four rooms each, at 4s. 3d.

The total number of persons provided with good, cheap houses in the four terraces illustrated is 175, and the total cost to the Corporation in compensation for obstructive buildings, and in administration expenses, is £125, which, divided by 175, comes to just under 15s. per head. The cost of thorough repair has all fallen on the owners of the insanitary property.

The cost to Birmingham ratepayers, which in this case was only 15s. per head under Part II., compares very favourably with the cost of £56 per head to the Liverpool ratepayers for the same result arrived at under Part I. The Liverpool Housing Committee and officials have done as well as could be done under that system, and during my recent visit to Liverpool I was much impressed by the great care and attention given to the work. It must not, for one moment, be thought that I am attacking another Corporation, or, indeed, any individual; on the contrary, I sincerely admire the thoroughness of the Liverpool work. It is the system that in my opinion is at fault, and not any Corporation or any individual. I prefer the economy of Part II. to the expensiveness of Part I., and to my mind, the preservation of self-contained houses is far preferable to the erection of tenement dwellings.

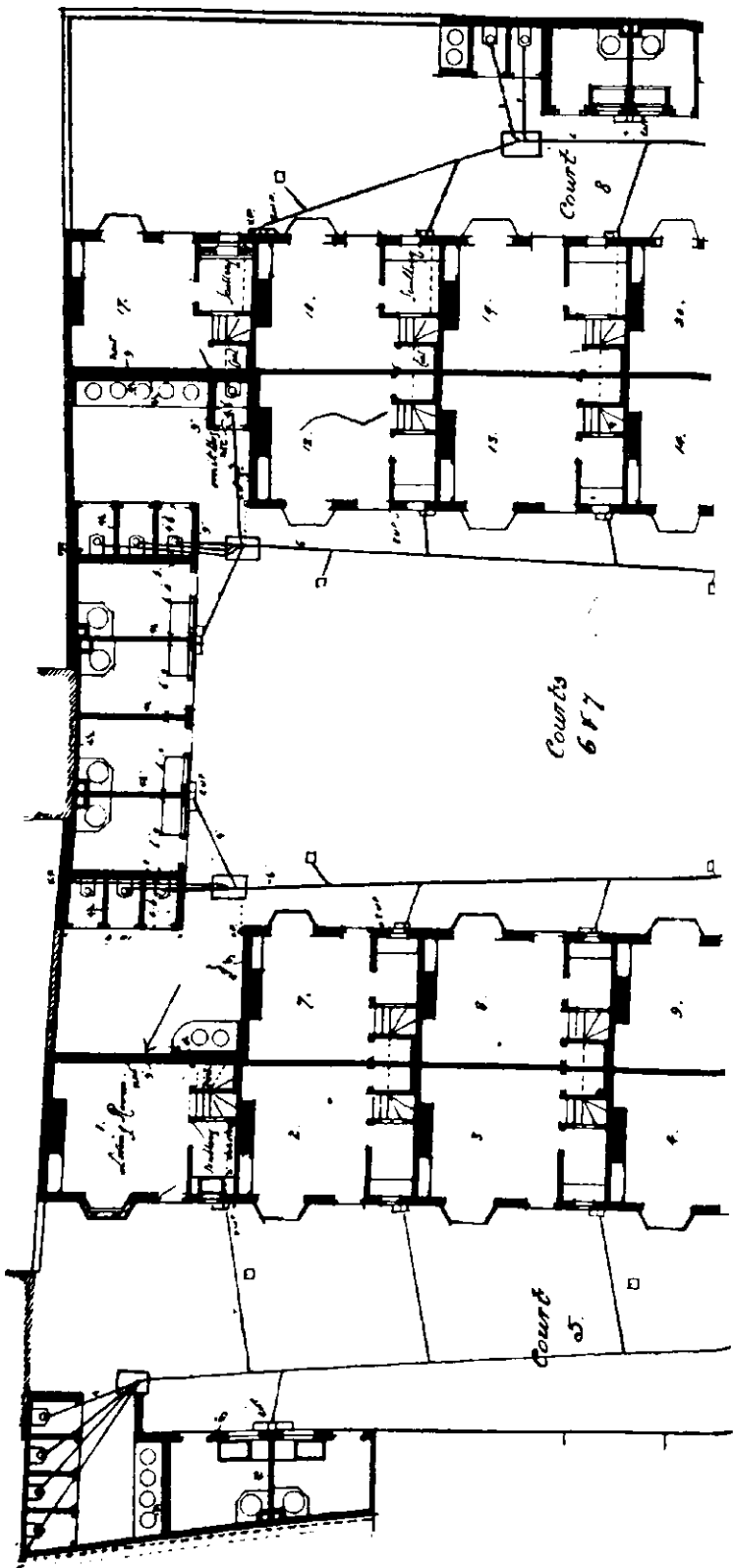
Municipal house-builders prefer Part I.; but although this system has had every opportunity, it is yet an indisputable fact that only the fringe of the problem has been touched, and its resources are obviously inadequate to the whole evil. One of their writers says:—"Our slums are gilt-edged securities. People who want to get rich quickly and who do not care very much what methods they adopt to attain that end, buy slums. The worse the slum, the better the owner's chances of realising huge profits on his investments." The same writer goes on to say, "The Local Authorities are helpless, and it is half-hearted, interested, and inadequate legislation that has made them so."

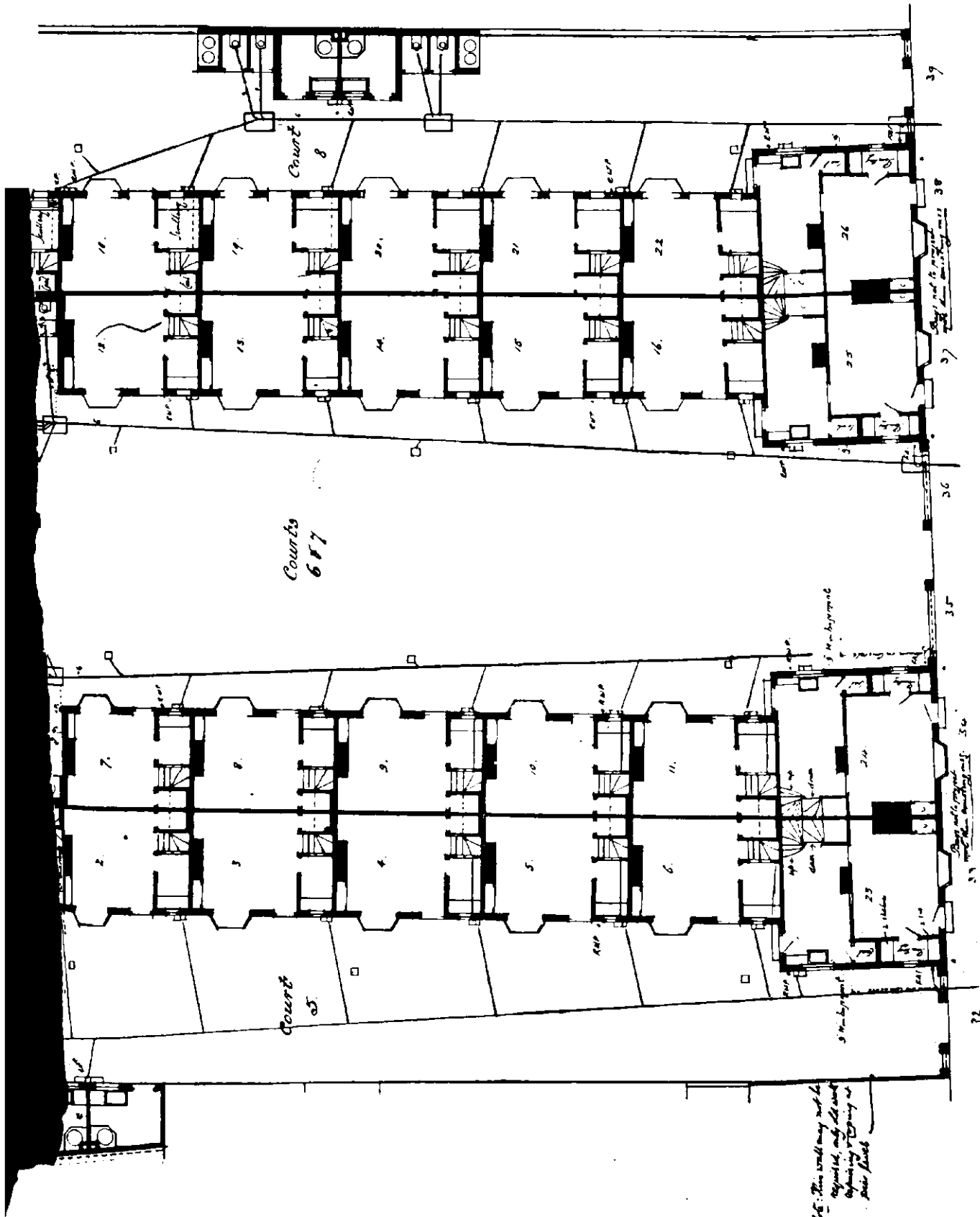
Information from various parts of the country corroborates this contention, that in many places where Part I. is enforced, slums are very profitable to their owners, but this is most certainly not the case where Part II., dealing with individual houses, is used.

It is unfair to attribute the result of adopting Part I. instead of Part II. to "interested and inadequate legislation."



PHOTOGRAPH V.—ONE OF THE TERRACES AFTER THOROUGH REPAIR.





GROUND PLAN SHOWING THE CONVERSION OF THREE COURTS INTO TERRACES.

Robinson & Robinson  
 Architects  
 Edmund Street  
 Birmingham  
 No. 467  
 May 19 1906

Part II. is far from perfect, but even as it stands is capable of effecting great improvements, as has been shown.

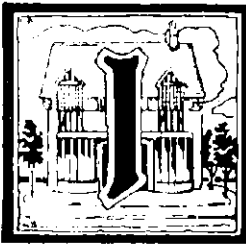
It is encouraging to hear that municipal house-builders are not satisfied with their present results. This gives ground to hope that some, at any rate, who have tried Part I. and discovered its weakness, will now try what they can do with Part II. This leads to a noteworthy point in the Housing question.

There have always been a small number of clever and unscrupulous property-owners who saw it was to their advantage to encourage local authorities to occupy themselves with municipal building, thereby diverting their attention from supervising private property in their district. This latter affects a wider area and benefits a larger population. It is, in fact, their primary duty, but is almost invariably neglected when large municipal building schemes enter into competition.

Municipal house-builders should take this into account before advocating a public building policy, and refuse to be made the catspaw of a few unscrupulous individuals. Local Authorities should not allow any proposal, however plausible and popular it may be at the moment, to divert their attention from the powers and possibilities for good that have been given to them by Part II. of the Housing of the Working Classes Act, 1890, dealing with individual houses.

## CHAPTER IV

### REMOVAL OF EXISTING EVILS—II



IN the previous chapter, Part II. of the 1890 Act was advocated in preference to Part I. It is of little use recommending a system without suggesting methods for putting it into practice. I will, therefore, explain as shortly as possible the Birmingham procedure.

For many years past the owners of small house property in towns have been allowed to make very comfortable incomes out of unhealthy dwellings. The prevailing conditions have not even obliged them to provide a sinking fund for the renewal of their property, as other business men have to do.

Public opinion is now far too strong to allow this state of affairs to continue. Some enthusiasts take the view that insanitary houses should be destroyed without compensation, in the same way that bad food is destroyed. This contention is not illogical, but public opinion is not yet ripe for such drastic action. Also it must be remembered that the erection of many of the unhealthy dwellings that now trouble us was tacitly, if not definitely, permitted by the Local Authority; and although there has been plenty of time "to write these dwellings off," yet such has not hitherto been the custom.

Every change in the public interest entails hardships on individuals, and nowhere is this more true than in slum reform. This is a point that must not be forgotten by those carrying out Part II. with regard to individual houses.

A Sanitary Authority must see that its constituents are properly housed; but in carrying out this duty they should remember that their work often entails hardships on individuals, and no pains should be spared to mitigate those hardships, as far as is consistent with their duty to the public.

1. In Birmingham, when notices to repair or close their houses are served on owners, a printed circular is also sent

expressing the willingness of the Corporation representatives to see them and explain what repairs will be considered satisfactory and what will not. This is done in order to avoid the owners' money being wasted in doing repairs that will afterwards be condemned by the Local Authority.

Sometimes property owners set to work at once on a little "slum patching," which they hope will pass muster, and when the Inspector pays his visit, he is obliged to condemn the work, which entails a considerable extra expense to the owner. The Birmingham Corporation, by means of their circular, try to prevent this unnecessary loss.

There is, of course, no legal obligation to take this extra trouble in order to save the pockets of property owners, but by this means other difficulties are avoided and better work is done.

2. For the same reason, specifications of the work required are supplied to the owners when they are asked for. These specifications are based on general principles, such as the stripping of wall papers, the provision of proper ventilation, the insertion of damp courses, the removal of filth from behind wainscoting, floors, and ceilings, etc.; but each case is a little different from the others, and it is one of our guiding principles that each case must be treated on its own merits. The Housing Committee always try to avoid red tape; such methods would be fatal to success in work of this nature.

The discussion with owners of the details in these specifications often costs the Committee and the Department a great amount of time and trouble. This is amply repaid by smoother working and better results.

3. When the specification is settled, the Housing Department are always ready, if requested, to assist in keeping the cost of carrying out the work as low as possible.

4. Another way in which the Corporation has often been able to assist owners of insanitary property, the lease of which has only a few more years to run, is by approaching the ground landlord and persuading him to grant an extension of lease, provided the property is thoroughly repaired.

The most painful and difficult cases to deal with are those where people with small means, often old people, have invested all their savings in some wretched property, and cannot by any means raise a penny for the necessary repairs (the property is often heavily mortgaged already). It is often very tempting to leave this property alone, but that cannot be done with justice to the town. The Visiting Committee make a practice of deciding on the repairs required before learning the financial position of the owner. Otherwise



stories of indigence would rapidly increase, and each fresh owner would claim special indulgence. In each house, whether owned by rich or poor, there are on an average five human beings, who have at least as much claim to our consideration as their landlord. It is a case of five to one in favour of carrying out the law. At the same time, it is often possible, by allowing a little extra time, and by taking special trouble, to considerably ease matters for poor owners, and no pains are spared in this direction. It is to be hoped that it will be found possible under the new Act to assist poor property owners by means of loans from the Municipality on easy terms.

5. Complaints are often made by property owners that they are continually being harassed by the Sanitary Authority no sooner has one repair been executed than another is asked for. In some cases at any rate, this complaint is fully justified by the facts, and is caused by insufficient repairs being passed as satisfactory. The Birmingham Housing Committee try to meet this difficulty, and never countenance slum patching, but ask that everything shall be done that is necessary to make the houses thoroughly fit for human habitation. There is so much to be done that they cannot afford the time to do things twice over, just as property owners, not unnaturally, object to spending money twice over.

From time to time there has been considerable controversy as to whether "slum patching" is sufficient, or whether "thorough repair" should be insisted upon. I am convinced that in the long run "thorough repair" is far cheaper for the landlord as well as better for the tenant.

6. If space permitted, many other details might be given as to how Birmingham property owners are conciliated by the Corporation, and considering the nature of the work, we have been remarkably successful in this direction. At the same time, there are still, and probably always will be, a few irreconcilables who prefer private gain to the public interest.

I hope I have said enough to suggest the general line of policy, which is that in every case the point of view of the landlord must be carefully considered as well as the interests of the tenants, and compromises must be agreed to wherever possible. That the Corporation's endeavours in this direction have on the whole been successful is proved by the fact that about one-sixth of the insanitary houses that have been thoroughly repaired during the last seven years have been dealt with by the owners without any notice whatever being served upon them. The owners have come voluntarily to the Housing Department and asked for advice. And even where notices have been served, the number of cases that it

has been necessary to take into court is very small compared with the total number of houses dealt with.

The Department has often been specially thanked by property owners for the trouble taken and consideration shown, than which there can be no more convincing testimony to the reasonableness of those responsible for slum reform in Birmingham.

The objections raised to these methods of slum reform come principally from a few private owners, and from the advocates of municipal house building. These objections must now be dealt with:—

1. The first difficulty raised is that public opinion in favour of Housing Reform is not strong enough to enable other Local Authorities to do what has been done in Birmingham.

Seven years ago there was no public opinion in Birmingham in favour of Part II. It was created by those who believed in the work which is now being successfully carried out. It is laborious and was at first unpopular, but what Birmingham has done others can do, provided they really want to. If they only want to say pretty things, and can bear nothing but praise, then by all means let them shelter themselves behind the excuse that public opinion is not strong enough.

2. The next objection raised is that if insanitary houses are closed without any provision of new housing accommodation by the Corporation, a house famine will be created. This bogey was raised in Birmingham, and much has been made of it by local municipal house builders, and also by owners of insanitary property, who have loudly asserted that a house famine and overcrowding have been caused by Birmingham's slum reform. Actual results are most unkind to these critics. There are to-day in Birmingham more void houses than when the Birmingham Housing Committee commenced its operations. The maintenance of a sufficient supply of small houses in the centre of the city is a matter that has been carefully watched throughout, and all the information available goes to show that the number of void houses in Birmingham has increased rather than decreased during the last eight years, with the result that "Housing Reformers" whose houses have been represented as unfit for human habitation have not been able, after repairs have been executed, to raise rents as much as they would have liked to do. This has led them to attack Housing Reform in Birmingham with all sorts of false accusations, such as the statement in question. As showing that there is ample small house accommodation in Birmingham, we can instance the experience of the Great Western Railway Company, who were quite recently able to satisfy the Local Government

Board that owing to the large number of void houses there was no call on them to rehouse the tenants displaced by their railway extensions, which were of considerable magnitude, and did away with a large number of small houses.

There was also a census taken in 1908 by the Education Committee, quite independently of the Housing Committee, which showed that a very large number of small houses in the city were empty, owing partly to cheap quick trams enabling the people to move into the suburbs, and also to other causes that need not be enumerated.

With regard to the statement about overcrowding, it is well known that at times of bad trade, however great the supply of houses is, two families often go into one house, because neither family can afford to pay the whole rent. No Housing Committee can be justly blamed for bad trade.

It is quite true that tenants of insanitary property often say they cannot find another house. In these cases the Corporation Authorities always undertake to find one for them, and if the offer is accepted there is never the slightest difficulty in executing it. Many tenants who say they cannot find another house have never made the slightest effort to do so.

3. The next accusation is that Part II. ruins property owners. A Medical Officer who has dealt with a few insanitary houses on this system says:—"One of the greatest difficulties in the way of action under Part II. is that it means financial ruin to certain thrifty people, who, attracted by the large return afforded while the houses are occupied, and knowing nothing of the risk of owning such property, have invested their life savings in purchasing them. On the closure of the houses the income of these people ceases, and they have no money to rehabilitate them. Some steps ought to be taken to warn people and deter them from buying decayed property, however large the immediate return from it."

This difficulty was touched upon earlier in the chapter, and will now be dealt with more fully. So far as warning people that it is not safe to expect a large return on their capital out of houses unfit for human habitation, I can conceive of no way that will be so effectual as the enforcement of Part II. This will very soon teach people the risks of owning insanitary property.

The suggestion that no action should be taken until the owners of such houses have been warned, seems to me futile. So long as Part II. is not enforced, and owners are allowed to make money out of insanitary property, no mere verbal or written "warning" will have the slightest effect.

The slow but steady enforcement of Part II. seems to me

not only the fairest but also the only effective warning that can be given. Those who administer these powers are in no way responsible for the condition of the houses represented to them as unfit for human habitation; all they are responsible for is to carry out the duties laid upon them by the Act of Parliament.

One of the causes why the slums of large towns give so much trouble to Local Authorities is that the slum landlords too often adopt the policy of taking every penny they can get out of their property and putting little or nothing in. They are, in fact, living on their capital. This is always a fatal policy.

A bankrupt who attempted to lay the blame for his failure on his creditors would be laughed out of court.

There is no valid reason for treating owners of small house property differently from other people. Part II. should not be condemned as unfair because a few individuals have mismanaged their business affairs.

At the same time, as already explained, no pains are spared in Birmingham to help landlords with small means who have got into trouble through ignorance. Fortunately for Housing Reformers, the number of those in such a position is very small in proportion to the total.

Those who sympathise with these people might do great good by forming Town Dwellings Improvement Trusts. These organisations could buy insanitary houses from needy owners at fair prices, and thoroughly repair them on lines similar to those of the Glasgow Workmen's Dwellings Company, of 137, West George Street, and administer them on Miss Hill's system.

Most of those owning the worst houses are quite able to take care of themselves, and the plea that they must not be interfered with does not deceive those who know the full facts. It is sometimes suggested that Local Authorities should be compelled to purchase condemned houses. Such a system would no doubt suit the speculators in small house property, but would be most unfair to the ratepayers.

These speculators in human misery complain that the action of the Birmingham Housing Committee has made insanitary small house property unsaleable. This is a testimonial to the success of the Birmingham Corporation's efforts, and is all the more valuable because it is quite unintentional. No impartial person would wish that owners of insanitary small house property should be able to pass it off on to some unsuspecting person whose capital is probably as small as their experience of "business" transactions. Those who are annoyed at no longer finding it so easy as it used to be

to get rid of insanitary property loudly complain that the fair but firm administration of Part II. has depreciated small house property 50 per cent. They ignore the fact that out of some 110,000 houses or thereabouts in Birmingham, only 5,000 or less than 5 per cent. of the total have been dealt with during the last eight years, which means that the "average landlord" who, in the words of a leading local solicitor, "seeks a decent house for his tenant and regular payment of rent" has not been touched, nor is there any necessity to interfere with him. At the same time, it is obviously impossible to penalise houses unfit for human habitation without depreciating their market value; but it is to life among such surroundings and in such conditions that the present national physical degeneration is largely due, and as a purely business proposition it is surely wiser and better to depreciate the market value of the houses rather than of the tenants, that is, of our national human assets. The latter proceeding is infinitely more serious and even dangerous.

So long as no one takes any notice of houses unfit for human habitation, and so long as the owners are allowed to collect rents for such places, so long, of course, will they be of much more value than when the Sanitary Authority steps in and forbids what is generally admitted by all impartial people to be the cause of serious national loss.

It is obviously impossible to condemn insanitary property without seriously depreciating its value. The question impartial people have to decide is, which is the lesser evil—to depreciate the property of those who own houses unfit for human habitation or to allow these gentlemen to depreciate the value of our human asset? The public must decide this point, and in making that decision, I would warn them not to be misled by the protestations of the owners of such property that they are in favour of Housing Reform. At a recent meeting in Birmingham summoned by these gentlemen, one of the leading architects moved a resolution: "That this meeting expresses its approval of a policy of Housing Reform in Birmingham so framed and administered that small house property may not be allowed to remain in a condition detrimental to the safety or health of occupants or the community." The "Housing Reformers" directly and indirectly interested in insanitary property, refused to have anything whatever to do with this resolution.

Reasonable men must see the wisdom of preserving material property as far as possible, but the "life capital" of the nation is in my opinion more important still.

4. Another objection raised is: "That the number of bad

houses is so great that the process of selection can only be arbitrary." In other words, there is so much to do that nothing ought to be done. Every administrator of Part II. will naturally do his best to take the worst first. There will be no difficulty in most of our large towns in finding plenty of houses where action ought to be taken; but, of course, it is difficult to make quite sure that the particular house represented is positively the worst in the neighbourhood. Administrators can only do their best, and so long as they are never convicted of proceeding against a house that is really fit to live in, they cannot justly be accused of being arbitrary or unfair.

There have in the past been many tussles in the Birmingham Police Court between the Corporation and owners of insanitary property, and the Corporation has not always got its own way; but never once has a magistrate even suggested that the house proceeded against was fit for human habitation.

5. The next objection has only been raised locally, but as it may occur in other places, it will be useful to mention it. The Birmingham Housing Committee is sometimes complained of for being too drastic,\* and some owners of insanitary property claim the right to repair it according to their own ideas. Defaulters are not usually allowed to be judges in their own cases. This duty must be left with the Local Authority, who ought to see that the work is well done.

Experience shows that slum patching is both expensive and unsatisfactory.

It is instructive to notice that these complaints come from those who consider that "houses are better without a clean well ventilated pantry for food"; that "damp-courses are mere fads"; that "proper washing accommodation is a luxury"; and that "dirt between the floors and ceilings is one of the necessities of things."

Professions in favour of "Housing Reform on proper lines" from this type of owner are of little value. Their practical worth is exemplified by the quaint admission overheard at a public meeting, that "they trust to luck not to be dropped on" for allowing their property to get into an insanitary condition. As superior landlords, the expensive repairs they exact from their lessees are often in striking contrast to what they consider reasonable demands on the part of the Corporation. It would appear that in the opinion of some slum-owners the protection of private property is far more important than the protection of the public health. Will the general public endorse this opinion?

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\* For the information of slum reformers in other places, the procedure and requirements of the Birmingham Housing Committee are given in Appendix A.

6. Those who consider municipal house-building the only satisfactory remedy, object to the Birmingham work because the houses dealt with are not all "brought up to the present bye-laws standard." In my opinion, what is done in Birmingham under Part II. is much better than the barrack dwellings built by municipalities elsewhere under Part I.; but that question cannot be settled by argument. Those interested are cordially invited to come and see for themselves.

As a matter of fact, the modern building bye-laws are not applicable to old houses that were built long before such regulations came into force. If bye-laws drawn up for controlling the erection of new buildings were applied to old buildings, there would be an unnecessarily heavy burden on the owners of property, which would result in many houses being demolished that can quite well be thoroughly repaired. Owners would lose property that need not be destroyed, and this large reduction in the supply of small houses would inflict great hardship on the tenants. The local property owners' champion who has advocated the application of Building bye-laws to Slum Reform will very seriously injure the interests of those whom he professes to represent if ever he should carry his view against the wiser and more considered judgment of the Housing Committee.

7. Another objection is the rise in rents consequent on repairs. In Birmingham, the average rise has been 7d. per week. (See Dr. Robertson's Report, 1905.)

Under Part I., which entails the erection of new buildings in accordance with the bye-laws, when there is no charge, direct or indirect, overt or covert (such as taking the land at "Housing value" instead of at its real value, etc.), the rise in rents is nearer 2s. 6d. than 7d., and, in consequence, very few of the tenants turned out of the old houses are able to go into the new ones, except in the special case of Liverpool, where this point has been particularly watched. Under Part I., therefore, slum reform is either a considerable charge on the rates, or else the rise in rents is prohibitive to the old tenants.

Under Part II., on the other hand, tenants have often been asked about this average rise of 7d. per week, and their general reply is that this small rise in rent for a "house" instead of a "hovel" pays them very well in the long run. As was said before, they have not the same temptation to spend the evening in the public-house.

Of course, everyone wants to get things as cheaply as possible, but a wise man knows that he cannot get a good article as cheaply as a shoddy one.

8. Another objection raised is that the property is so

thoroughly saturated with filth that no "so-called repair" can last more than a few years, and must therefore be unsatisfactory.

No one who has inspected the work done under the Birmingham Housing Department can truthfully bring such an accusation against their work. There are houses in Birmingham that have been repaired by the owners "according to their own ideas" without the supervision of the Housing Department, and these are far from satisfactory, but they are a negligible quantity compared with the total amount of work done. Also it does happen that some of the houses that have been properly repaired soon revert to their former condition owing to the habits of the tenants. These results are due to causes beyond the control of the Housing Committee.

The relations between landlord and tenant are dealt with in Chapter X. For the present it is sufficient to point out that those landlords who complain of what they call the "scum" are largely responsible for the habits of their tenants. It is impossible for tenants to be clean unless proper washing accommodation is provided, and yet some landlords strenuously resist such expenditure.

9. Another objection which comes from outside is that the "Birmingham Bench of Magistrates will not enforce really adequate improvement of the dwellings." A well-known case is cited where houses were passed by a local Bench as fit for human habitation in which—

(a) The filth had not been removed from any of the cavities between the floors and ceilings;

(b) None of the houses had been provided with proper washing accommodation;

(c) The closets were, in the opinion of the medical officer of health, arranged in a most unsatisfactory manner;

(d) The sashes and frames of windows were decayed and broken;

(e) The matchboarding, which hides damp, harbours filth, and prevents thorough disinfection, had not been removed; and

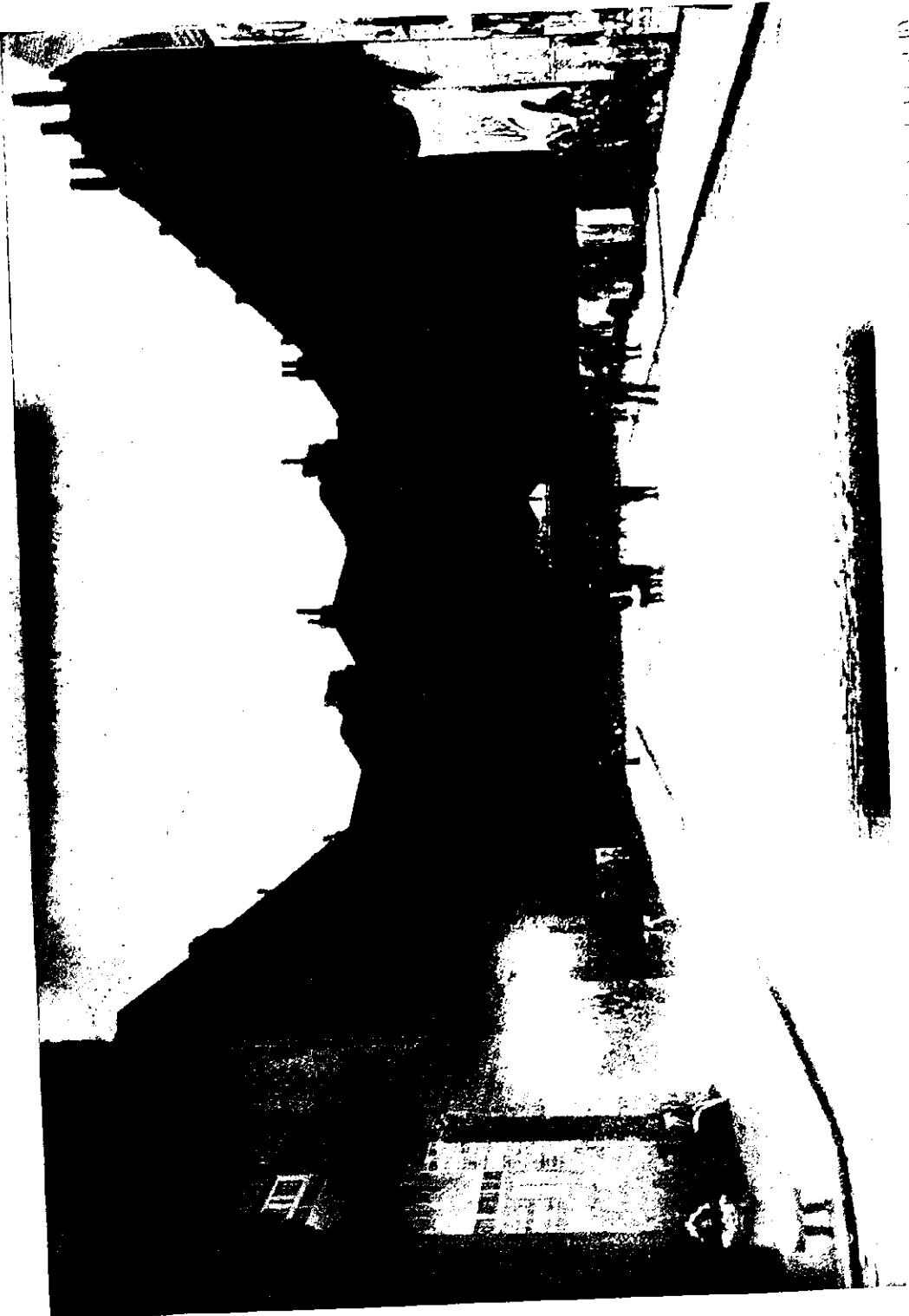
(f) The quarry floors had not been properly relaid.

This, however, was only an isolated instance, and the criticism in any case only applies to about fifty houses out of a total of 2,000 repaired during the last seven years.

The supervision of the repairs done to these fifty houses was taken out of the hands of those qualified and appointed to do the work, and put into the hands of those responsible for allowing the houses to get into such a condition.

This was merely a passing episode incidental to pioneer

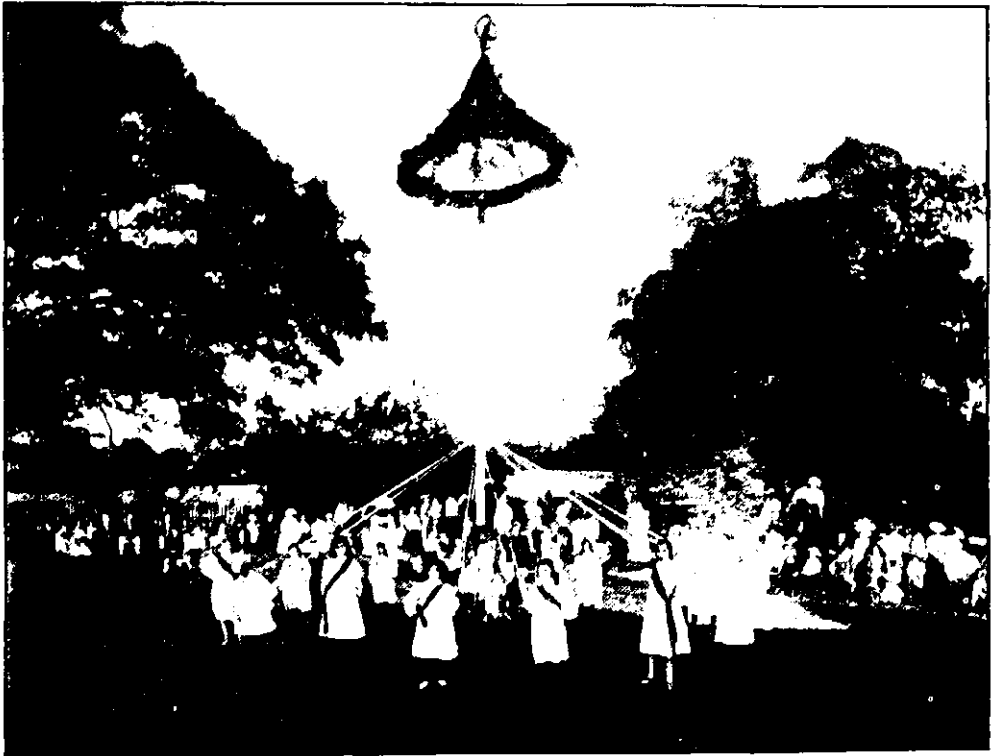




A STREET IN ONE OF THE LONDON SUBURBS RATHER BROADER AND MORE AIRY THAN USUAL. THE ONLY PLAYGROUND OF THE CHILDREN  
ADVERTISEMENTS AND UNTIDINESS.

work, and will probably not recur in Birmingham. Similar difficulties are sure to arise, but they must not be allowed to dishearten or weaken the Sanitary Authority. Whatever the temptations, the Department must steer a straight course, and maintain an uniform high standard. It will then eventually be rewarded by the confidence and support of the public. On no account must the public authority make itself responsible for shoddy work.

This explanation should make it clear that these difficulties



A CHILDREN'S PLAYGROUND IN A CO-PARTNERSHIP VILLAGE, EALING.

have not detracted from the soundness of the policy, or seriously interfered with the efficiency of the work done.

Other objections have of course been raised, but those dealt with above are the principal ones, and the answers given will, I hope, enable impartial persons to rate at its proper value the special pleading of those reformers who are also owners of insanitary property. It is naturally from this source that the greatest opposition comes, and the methods of obstruction are most plausible. They express approval of the policy, but object to its execution; they always sympathise and always oppose.

At the same time, it is only fair to say that a very large proportion of the Birmingham property owners and agents have worked most amicably with the Corporation, and the credit for the results achieved is due in no small degree to them. Work of this sort must be administered on business-like give-and-take lines. Those who are willing to give as well as take, have many times thanked the Corporation for the courtesy and consideration shown to them. No Local Authority can hope to satisfy those who want everything their own way, who take as much as they can get, and still ask for more.

*Open Spaces.*—No proposals for the removal of existing evils would be complete without suggestions for the provision of a large number of small open spaces in the congested districts of large towns. I will therefore conclude this chapter by sketching out a line of action by which this essential object can be achieved.

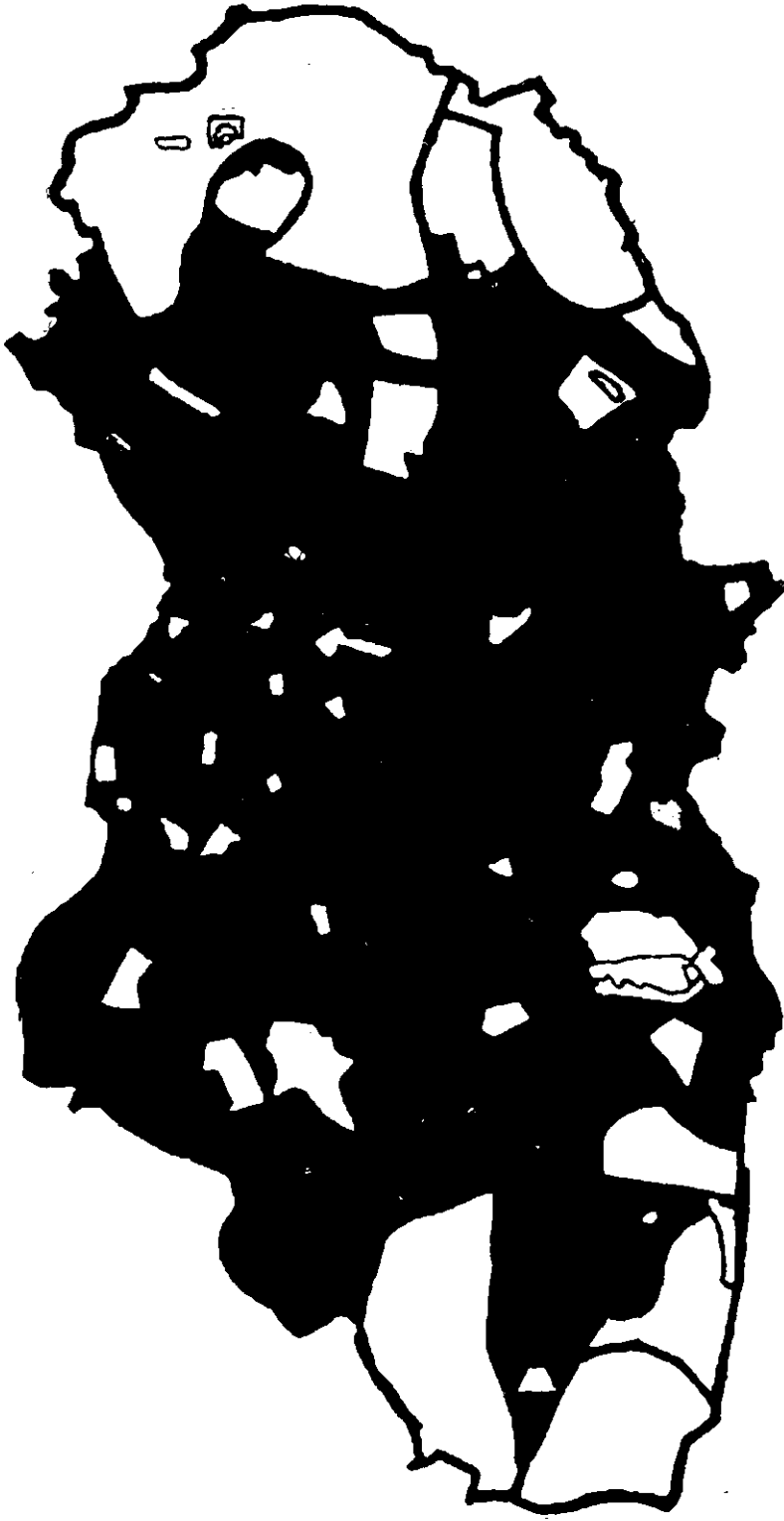
The first thing necessary is to educate public opinion, and obtain sufficient public support to carry the matter through to a successful conclusion. This pioneer propagandist work is best done through a few people in a more or less private manner. The more influential people who can be got to give their names to the movement, the more chance of ultimate success; but in the initial stages the actual work is better done by a small select circle than by a large number of popularly-elected representatives.

There is always at the beginning much to learn as to the best way to set about the work, and when the time comes for taking action, it is easier to work with a few.

The position must be made clear, and the necessary plain speaking is far better done by a pioneer society than by those who will afterwards carry on the work day by day and year by year.

The first business of the pioneer society should be to prepare an outline map of the district they are working for on some such lines as those of the map opposite, which shows the open spaces and the black deserts of house-covered land.

Maps like this will educate public opinion very quickly, and their influence will be greatly assisted by the collection of a few figures showing how many inhabitants there are to each acre of open space. These figures will strike home, and the map will complete the story by showing what long distances most of the people have to go before they get to any open space at all. Public parks on the outskirts are excellent for high days and holidays, but they are of no use for little children to go to by themselves on ordinary weekdays.



Black represents land built on and developed.  
White, inside boundary shown by black line, represents land at present uncovered or undeveloped.  
GREEN represents present parks. BLUE represents reservoirs and pools.  
Red represents playgrounds.



The next business for this pioneer society is to go about quietly and ascertain what land is available for their purpose, and at what price. They will probably be offered plenty of sites with all sorts of enticing suggestions, but when they come to close quarters the majority of these sites will have to be rejected because the price asked is much too high.

When suitable sites have been selected, a public appeal must be made for the total sum required to complete the various proposed purchases. When a large proportion of the total sum has been raised by voluntary subscription, the sites should be offered to the Local Authority, on condition that they complete the purchase, and find the money required to lay out and maintain the land as public playgrounds. Some Local Authorities are far too extravagant in their methods of fencing in and laying out small playgrounds. In such cases it will be necessary to demonstrate how the work ought to be done. Shrewd and patient bargaining must be exercised in the purchase of the necessary land, and the laying out must be done in the simplest possible manner. Little children will derive no benefit from handsome gates or expensive landscape gardening. When this policy has been established, then the movement should be handed over to a democratic organisation with branch committees in every ward of the town. These branch committees will supply information about available land; and, when the time comes for the Local Authority to do its share of the work, the organisation will provide useful support.

When the open spaces are laid out, the branch committee concerned will take a special interest in their being properly cared for, and can take measures that will make it impossible for hooligans to destroy what has been done for the good of the neighbourhood.

Housing Reform and Open Spaces Associations have great possibilities in all sorts of ways for the benefit of the people, and they should be founded on the sound principle of the people doing something for themselves, instead of, as is sometimes the case, leaving it all to be done by others.

## CHAPTER V

### THE PREVENTION OF FUTURE EVILS—TOWN PLANNING



MOST town dwellers have to earn their living in a factory or an office, where light and air is comparatively restricted, and they cannot lead such a life with the greatest advantage to themselves and to the community, unless they have means within easy reach for rest and recreation in fresh air, as well as for work.

The most insular of Englishmen will scarcely attempt to maintain that opportunities of this nature are in any sense adequately provided in our towns. Millions of English town children have no playground within practical reach except the streets. The young men find it extremely difficult to obtain suitable cricket and football fields. Miss Elliston's expression, "Ain't got nowheres to play," exactly describes the circumstances of an overwhelming proportion of our rising generation, on whom depends England's future strength and prosperity.

Each year makes it harder for men to get allotments on which they can not only get rational enjoyment, but also materially increase the family food supply. The women have no place to go out to where they can enjoy an odd hour, and often find no better choice than the front-door step, or the nearest public-house.

We cannot by legislation make people healthy and happy, but we can give our town dwellers fewer temptations to irrational excitement, and more opportunities for beneficial enjoyment than they have at present.

We can, if we will, let light and air into our towns; we can, if we will, make the most and not the least of the sunshine.

Far from assisting rational town development, modern means of communication are at present only spoiling the beautiful and life-giving country districts, whereas they might

be used to the great advantage of the whole nation, if only the rapid development and extension of our towns were carried out on a coherent and cohesive plan.

This unhappy state of affairs has drawn attention to our towns, and many clear-sighted cautious men are thinking that the remedy lies in giving Local Authorities comprehensive control over the development of the districts under their administration, with power to encourage and direct the numerous private agencies engaged in house-building rather than in encouraging them to undertake municipal house-building schemes, which can at the best only assist the very small proportion of the population directly provided for.

It has been already shown that existing legislation has resulted in a few good houses and a great many bad ones. It has discouraged instead of encouraged the provision of open spaces and playgrounds for the people, as part of the ordinary business of estate-development and house-building. No housing enterprise is generally useful unless it is carried out on sound business lines, which all and sundry can copy if they will.

In other countries the importance of town development has long been recognised, and some of their cleverest men have for many years past been engaged on the solution of the hundred and one difficult and complicated problems connected with such extension. Here in England, we have only just begun to realise the necessity for attending to the question at all, and yet there is none of greater national importance.

It has been thought by some that "Back to the Land" would solve all our difficulties, and with the underlying idea of this popular cry I confess considerable agreement; but as practical men we must realise the conveniences for production and distribution afforded by our towns, the concentration of population caused by the introduction of machinery, and the fact that man is a gregarious animal. We must seek some way by which to bring the country to the town, and the town to the country.

It is with this idea in their minds that those most intimately connected with the practical work of housing reform in England, are so earnestly and strenuously advocating the policy of Town Planning.

The primary objects of Town Planning are :—

1. To facilitate and encourage thorough *co-operation* between all concerned in the provision and supervision of housing accommodation for the people, in order to provide town populations with the light, air, and space essential to human health. Such co-operation would avoid the waste now caused by inelastic bye-laws, which give Local Authorities no



power to meet landowners in the cost of estate-development, even when they are willing to restrict the number of houses per acre, and provide open spaces for rest and recreation. Town extension is a business question, and should be dealt with on give-and-take business lines. Red tape is fatal.

2. To ensure the exercise of *foresight* in reserving plenty of room where eventually main thoroughfares will be required. During the last thirty years a vast expenditure has fallen on the ratepayers of England for the demolition of buildings which never ought to have been put up.

3. To take into account *everything* that helps to make life worth living, to consider the surroundings of a house as well as the house itself. Cheerful surroundings are quite as important as healthy homes.

Town Planning may be considered as an endeavour to do for a town what an architect does for a house, when he sits down to draw out the plans before digging his foundations. He considers what he wants, and then does his best to fit in his various requirements to a harmonious whole. It is only by this means that he obtains what is required at a reasonable cost.

The wise development of a town is of vital importance, not merely to one individual, but to a very large number of people, and the questions to be considered are much more numerous and complicated than the questions involved in the erection of a single house.

If it is necessary (and everyone recognises that it is) to plan out a house as a whole before starting to build, then a thousand times more it is necessary in the interests of public health, public convenience, and public economy, to plan out towns as a whole before new developments are allowed.

The first principle of Town Planning is to consider beforehand the constituent parts of a modern town, and then to arrange them in such a way that the result shall show an ordered harmony.

We cannot suddenly undo all the mistakes of the past, but at least we can try to prevent mistakes in the future by planning out in a comprehensive manner urban and suburban districts before the work of development is commenced. If we had power to consider first how existing towns ought to have been planned, and then year by year to make our town improvements in accordance with that plan, we might by degrees correct past mistakes, and on systematic economical lines gradually bring our centres of population up to the standard required by modern conditions of life. Instead of that we remedy a bit here and a bit there, in the piecemeal and extravagant fashion now accepted as satisfactory by those

Englishmen who do not know how much better things could be managed and in fact are managed, elsewhere.

The principle of Town Planning has proved of great assistance in other countries in the co-ordination of town improvements, and could be used in a similar direction in England. But there is a much larger possibility of usefulness in the planning out beforehand of new districts. It is so much casier, as well as so much cheaper, to prevent evils than to undo them.

The constituent parts of a town may be roughly divided under the following heads:—

1. Manufactories.
2. Warehouses.
3. Offices.
4. Shops.
5. Public parks, playgrounds, and small spaces.
6. Public buildings.
7. Private dwelling houses.
8. Public streets and other means of communication.

A town extension plan contemplates and provides for the development as a whole of every urban, suburban, and rural area likely to be built upon during the next thirty or fifty years. Wide avenues are provided for the main traffic between the centres and the outskirts, narrower streets for ordinary traffic, and again narrower and less expensive roads or drives for purely residential quarters. Parks and small open spaces and playgrounds are provided for beforehand, instead of waiting till the land required has risen to an impossible price, and in a sensible plan these "lungs" are located on back land, not on valuable frontage, as is so often the case to-day in this country. Districts are allocated for factories on the opposite side of the town to that from which the prevailing winds come, and here there are railway lines, and, where possible, water communications.

The future town is divided into districts, and these districts are graded. High buildings close to each other are allowed in the centre and on the main arteries; in residential districts buildings must be lower and more dispersed the further they are from the centre of the city or its main arteries. In those streets where traffic is light, and a sufficient distance is maintained between the opposite lines of houses, narrow and inexpensive roadways or drives are allowed in order to keep down the cost of estate development, which in modern English suburbs is responsible for at least 1s. per week on a 6s. 6d. house.

Warehouses should be placed in a convenient position for the factories and other consumers of the goods stored there.

Business offices should be in the centre of the town, where land is dear, because the heavy ground rent is more than met by the time and money saved by the convenience of this position.

Public buildings should also, as far as is convenient for the work they have to do, be placed in the centre of the town in commanding positions, not only for the sake of the time and money saved by the convenience of the position, but also as a reminder of the town's corporate existence, and a daily inspiration to local patriotism.

The natural position for shops is on the main thoroughfares, where customers are continually passing to and fro. The shop-keepers will have heavier rents and rates to pay in main thoroughfares than in side streets, but their position acts as an advertisement, and they will make more money with which to meet their increased liabilities.

This question as to how far shop-keepers benefit from wide streets is a controversial point. It is obvious that if there were two main thoroughfares running parallel to each other, the one wide and the other narrow, more people would use the wider street, assuming, as we must, that both streets provided an equally short route between different parts of the town. On the other hand, experienced shop-keepers in Bond Street, London, contend that they get more trade in a narrow street where customers can, from either footpath, see the goods displayed in any given shop. It is quite possible that the people who use Bond Street spend more money per head than the people who use Regent Street, but I venture to think that the total business done in a given length of Bond Street shopping, is very much less than in the same length of equally well-managed Regent Street shopping, because in the latter street so many more people are able to pass backwards and forwards. If this view is correct, then shop-keepers, as well as other business men, can afford to pay in their ground rents a great part, if not all the cost of the wide main avenues necessary for through traffic.

Public parks, playgrounds, and open spaces, on the other hand, should, as far as possible, be situated on cheap land—what is technically known as back land. It is a lamentable waste of money to use up valuable frontage with a park, which would be far more pleasant and healthful for those who frequent it, if placed as far as possible from the noise and bustle of the town. These places are required for rest and recreation, and therefore it is more efficient, as well as more economical, to put them in side streets or at the backs of houses.

This is specially important in the case of playgrounds for little children. A mother of the poorer classes has no time to take her babies to the park; they have to fend for themselves, and cannot go more than a very short distance from home, nor is it safe for them to cross main thoroughfares. One of the first essentials to an efficient town plan is to have dotted about at very frequent intervals, on cheap land, small plots of open ground, where the little ones can amuse themselves without being a nuisance to others, or in danger themselves, as they now are when playing in the streets.

The same principle applies with equal force to the situation of the houses themselves. Under present arrangements, a considerable item in the rent of small houses is the ground rent for the land on which they and their back yards stand, and this is due to the fact that poor men live on dear land, whereas rich men live on cheap land. The time has come for recognising this unfortunate anomaly, and redressing it to the utmost of the power of those responsible for the management of national and local affairs.

Landowners who at first opposed Town Planning are now, with very few exceptions, strong supporters of the policy, and frequently assist in drawing out the plans. They find in the long run that Town Planning *pays them*, besides benefiting the community.

That is a short description of Town Planning. It is not essential to the policy that Local Authorities should have power to make complete definite and unalterable plans of the undeveloped land within their boundaries; on the contrary, it would be far better in practice that the general plan should be more or less flexible. In Germany, the making and publishing of complete plans by the Local Authority has led to considerable trouble and expense to the ratepayers. As time goes on, and the work of development is carried out, if those responsible are efficient people, they are sure to see possibilities of improvement in detail. The general skeleton scheme must, of course, be adhered to, but it is often discovered, in carrying out the scheme, that greater convenience would be ensured, and less expense incurred by some change in detail in, for instance, the curve of a main thoroughfare, or the juncture of some side street. Perhaps this results in the reduction in value of land that in the original plan was front land, but after the alteration, is in a less advantageous position. If this land has already changed hands on the assumption that it was valuable front land, as has happened abroad, then heavy compensation will have to be paid by the ratepayers.

Another essential provision is that there must be full right of appeal to the Local Government Board for everyone interested in the development of new districts.

This chapter began by reminding my readers that while the places where town-dwellers work may be, and probably must be in clustered districts, where light and air are restricted, yet their dwellings should preferably be on the open outskirts, and therefore we now have to consider how to get the people from their homes to their work and back again.

For that purpose, the first requirement is wide main thoroughfares, and if forethought is exercised, it is comparatively easy and inexpensive to make these main thoroughfares pleasant and healthful; healthful, because they are wide, and therefore act as long ventilators for the town, and pleasant as well as healthful, by planting trees, which are most useful, by their property of absorbing noxious gases, as well as being pleasant to the eye.

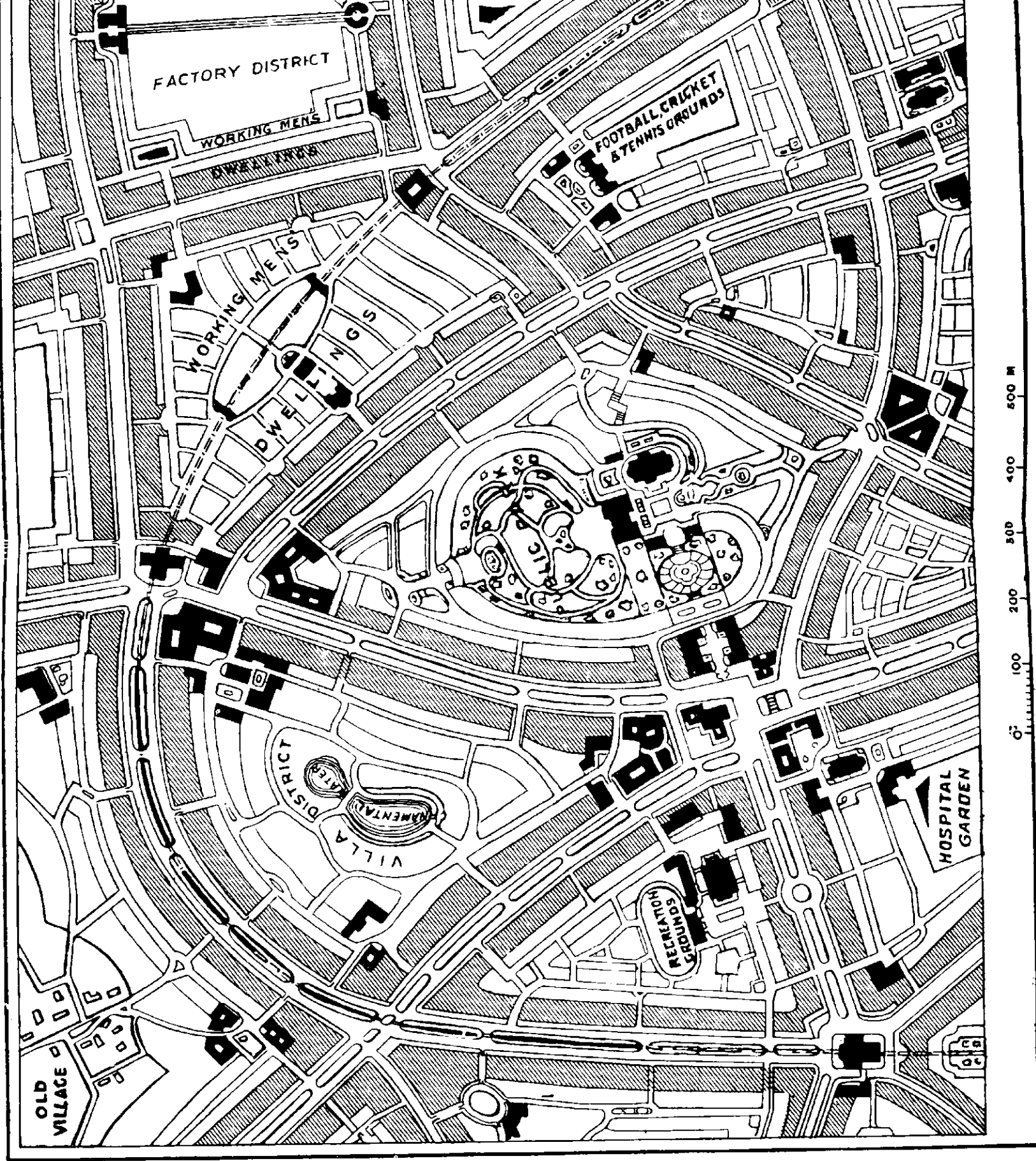
In London, the greatest city in the world, the necessity for wide main thoroughfares was not recognised by public opinion until it was too late to provide them, except at overwhelming expense, due to the enormous cost of compensating the owners of the buildings that had to be demolished. In provincial towns it is not yet too late to provide for the wider distribution of our population, because expensive buildings have not yet been erected very far from the centre.

Illustrations must assist written explanations, and I am much indebted to Dr. Ludwig Hercher for permission to reproduce his ideal town plan. This is an imaginary plan arranged to provide for all the requirements of town work and town life in a complete, harmonious, and economical manner.

Wide tree-planted avenues are provided for the convenience of main traffic, and here are located the shops and business premises of those whose commercial enterprises will be greatly benefited by the position of their establishments.

Narrower streets for ordinary traffic, and again narrower and less expensive roads or drives for purely the residential quarters of the poorer as well as of the richer classes, so that the weekly rents of small houses may not be artificially forced up by the interest on the money spent on road making, where a narrower roadway with trees and grass on either side would be all sufficient for the traffic, and infinitely healthier and pleasanter for the residents.

Parks and small open spaces and playgrounds are provided for beforehand, instead of waiting till the land required has risen to an impossible price, and these lungs are located on back land, not on valuable frontage.



IMAGINARY PLAN, SHOWING SOME OF THE MAIN PRINCIPLES OF TOWN PLANNING.

Prepared by Dr. Hertscher, a German Expert.



A special district is set aside for factories, presumably on the leeward side of the future town, and here are provided means for getting in cheaply and easily the raw materials required, and sending out the finished articles produced.

On this plan is also shown in skeleton the future town divided into districts according to the class of buildings allowed, and the various districts are carefully graded. High buildings close to each other are only allowed in the centre and on main arteries. In residential districts buildings must be lower and more dispersed, the further they are from the centre of the city or from main arteries.

In England, this dispersion of small houses, or, to use the current expression, the restriction of the number of houses per acre, cannot be carried out in practice without charging house rents beyond the means of the poorer classes, owing to the heavy cost of estate development caused by our expensive regulations. In Bournville, for instance, Mr. Cadbury's model village, the house rents might have been considerably lower if the Local Authority had been able and willing to allow narrower macadam, whilst maintaining the width between the houses, where nothing heavier than an occasional cart is ever seen.

The photographs on next page illustrate the point. No. 1 shows a road at Earswick, a model village founded by Mr. Rowntree. It is in a rural district, and subject to rural bye-laws. No. 2 shows a road at Bournville, which is in an urban district, and subject to urban bye-laws. The Earswick Road is quite wide enough for all the requirements of the tenants, and the rents of the houses are well within the means of working men. The Bournville road is much wider than necessary for the convenience of the frontagers, and great expense has been incurred in curbing and channelling, which expenditure was saved at Earswick. The result is that the rents of most of the houses at Bournville are above the means of the lower paid working man.

The difference between the rents at Bournville and Earswick must not be understood, or rather, misunderstood, to be in any sense a criticism of Mr. Cadbury's great work. There is, in my opinion, no one who has done more for housing reform by example as well as precept. His influence for good in this direction is not confined to England alone; it is widely recognised abroad, and by no means the least of the services he has rendered to the cause is his practical demonstration of the fact that our inelastic English bye-law system presses most hardly on the very people it was designed to help.

Mr. Cadbury saw at the very beginning of his work that





A VIEW OF EARSWICK, SHOWING ECONOMICAL ESTATE DEVELOPMENT.



A VIEW OF BOURNVILLE, SHOWING UNNECESSARY EXPENDITURE ON ROAD-MAKING.

nothing he did would be of any general use unless he did it on lines that any other individual or company could copy—that is, unless he insisted on a return for the Trust of 4 per cent. even if it devoted, as it does, the interest to public purposes or extension. It is his steady adherence to this sound business principle that has brought out the object-lesson I have endeavoured to explain.

I might have compared Bournville with the ordinary modern suburb, but that would have been misleading, and therefore I have purposely compared estates, both of which have been developed by public-spirited landlords, using all their brains and energy to do the best possible for their tenants, and the result shows the imperfections of our urban bye-laws. Earswick, under bye-laws suitable to small house districts, is much more satisfactory to the working man's pocket than Bournville, under what are commonly known as the model bye-laws. In both cases the capitalist has received 4 per cent. and no more.

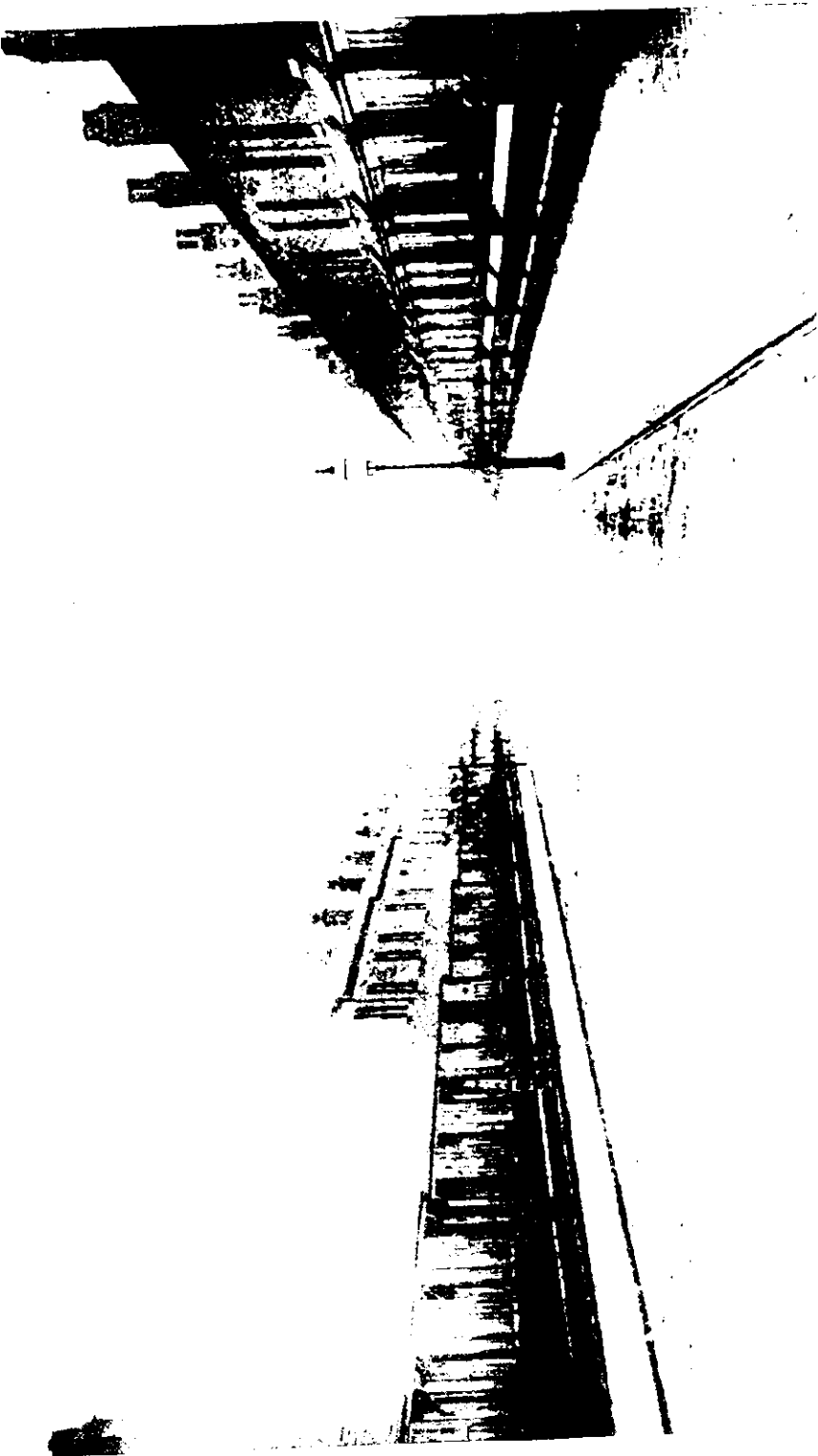
This comparison is certainly fair; I hope it may prove useful, but we must not forget that at least nine-tenths of the house-builders of this country are engaged in the business simply and solely to make a living, and we must consider how existing regulations and administration affect this body of men.

The heavy expense of estate development compels the ordinary landowner to put as many houses to the acre as the bye-laws allow, in order to earn interest on the capital invested.

The following photograph and plan illustrate the direful results of the present utter absence of co-operation between those engaged in the provision, and those engaged in the supervision of housing accommodation for the people. The photograph shows one of the many dreary deserts of macadam on which people of small means have to "feast" their eyes in the modern English suburb. The plan shows fifty-six houses to the acre, an arrangement which is not only not prevented, but is actually encouraged by the model bye-laws.

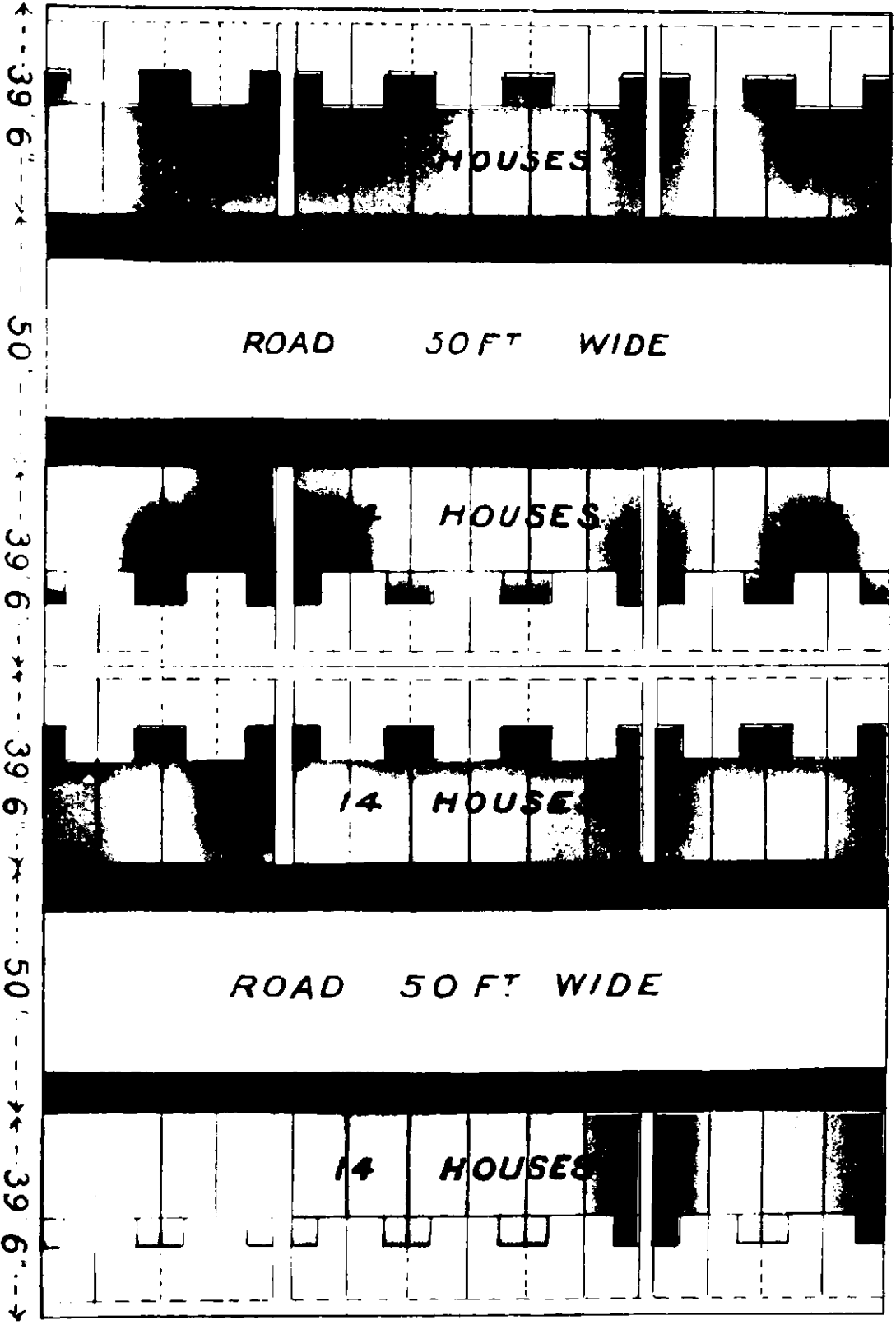
No thoughtful man will advocate the letting of houses below their economic rent, by means of subsidies from the rates, in one form or another, either overt or covert.

Wages follow rents, and therefore that policy would only result in providing capitalists with cheap labour at the expense of the general body of ratepayers. Capitalists, as a body, are quite able to take care of themselves without any outside assistance, and there is no reason for providing them with cheap labour at the expense of the general body of ratepayers.



"BYE-LAW" ROAD.

168' 0"



HOUSES

ROAD 50 FT WIDE

HOUSES

14 HOUSES

ROAD 50 FT WIDE

14 HOUSES

PLAN MADE IN CONFORMITY WITH THE BIRMINGHAM BYE-LAWS, SHOWING FIFTY-SIX HOUSES TO THE ACRE.



The object of housing reformers should be to level up, not to level down; we should endeavour to secure the best possible housing accommodation within the means of the people, and not to reduce rents by cutting quality or manipulating the local rates.

At the same time it must not be forgotten that if house rents are too high, owing to bad organisation or bad management, then either we shall not get the people we want to help into the houses provided, or if they do go in they will overcrowd them with lodgers in order to pay the rent.

Some may think that municipal inspection ought to prevent this evil; but practical men know that no amount of inspection will correct the results of a policy that is economically unsound. The driving forces behind unsound economic conditions are far too strong to be affected to an appreciable degree by any inspectorial arrangements, especially in this country, where we set so much store by the liberty of the subject.

## CHAPTER VI

### THE ECONOMIES TO BE EFFECTED BY TOWN PLANNING FOR LAND-OWNERS, HOUSE-BUILDERS, RENTPAYERS, AND RATEPAYERS



THE hygienic and æsthetic advantages to be obtained by Town Planning are now becoming more or less generally recognised, but the economic advantages obtainable have not been so often and so fully explained, and therefore I propose, even at the risk of some repetition, to gather together in one chapter the economies to be effected by Town Planning, and present them collectively, and I hope, convincingly before my readers.

Our two greatest national assets are the land and the people. I have shown in Chapter I. how wastefully the land of England is used for housing purposes. Our bad housing conditions are responsible for untold loss through the physical inefficiency of the people. The loss to the nation caused by large numbers of our wealth-producers always being in indifferent health, and therefore not able to do so much and such good work as they could if physically fit, is at least equal to the amount collected each year by the Chancellor of the Exchequer from the pockets of the people. The financial loss to the country—direct or indirect—through waste of human health, is largely caused by the conditions under which one-third of the population live.

There are many whose actions, both public and private, are based on the assumption that it does not matter to them what happens to the rest of the community. They forget that we are all members of one body politic, and injury or loss to any member is injury or loss to all.

Under our present system it is impossible to re-organise our towns because of the enormous expenditure that would be involved, nor is it possible without Town Planning to prevent the continuance of waste.

Those who have gone into the prime cost of providing houses for the people, are aware that healthy homes with cheerful surroundings cannot be provided at rents within the means of the poorer classes on land that costs more than £300 per acre. Millions of the poorer classes in this country are housed on land, the capital value of which is £3,000 per acre or more, and very large numbers\* of our town-dwellers are living upon land worth £10,000 and over. I have purposely taken £3,000, and not £10,000, in comparison with £300, because it is always wise to understate rather than overstate a case, especially when it is as strong as this one is.

While on the one hand, the life and strength of the people are being frittered away by overcrowding them on land at £3,000 an acre, there is a practically unlimited supply of land now available for housing purposes, which at £300 an acre would now show the owners a very handsome profit.

Just as I have purposely understated the value per acre of overcrowded housing land in our towns, so also I have overstated the value per acre of empty land available for housing purposes on the outskirts of our towns.

A shrewd and patient man, going the right way to work, would have no difficulty in finding plenty of land for this purpose at considerably less than £300 per acre. The £3,000 land could be used to far better advantage in other ways, and the use of vacant land for housing purposes would bring large profits to the owners.

These two great national extravagances, *i.e.*, the unmethodical use of land and the destruction of the people's health, are so large and at the same time, so common, that few people take any notice, and still fewer take the trouble to master the figures involved.

Attention is often drawn to the inhumanity and the barbarous ugliness of our national housing, but few reformers explain the enormous waste of money that is involved, and still fewer realise the magnitude of the sums that are wasted. It is a negligible proportion of our population that has had the opportunity of acquiring the habit of thinking in millions, and few even of these have applied the habit to the solution of social problems.

The unnecessary waste of human health and human strength in this country is stupendous, and cannot be expressed in figures, but by dint of taking considerable trouble, it has been ascertained that at least £30,000,000 of the ratepayers' money has been lost in about thirty years, through lack

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\* Some quite poor people still live in the City of London where land changed hands recently at just under one million pounds per acre.



of Town Planning powers. In the early part of 1907, the Association of Municipal Corporations sent out inquiries on this point to 300 county boroughs and boroughs. It is true that replies were only received from a comparatively small number of places, and a considerable proportion of those who sent no figures were just those who had spent the most money. No reply, for instance, was received from any Local Authority in London.

Even so, the total expenditure confessed to, amounted to no less than £12,147,336 during ten years alone. Since the Association issued their report in May, 1907, further information has been obtained, and it is clear that the total amount stated above, viz., £30,000,000 in thirty years, is certainly well within the mark, and explains to a considerable extent the reason of our ever increasing local rates.

The ways in which this wanton waste of health and wealth could be stopped by the introduction into public affairs of better organisation and more co-ordination may be summarised as follows :—

- (1) Reduction in the cost of estate development.
- (2) The bringing into the market of more land for housing purposes.
- (3) Co-operation between Local Authorities and land-owners, and landowners amongst themselves.
- (4) The pooling and redistribution of small plots of land.
- (5) Harmony between buildings located on adjacent sites.
- (6) Prevention of evils instead of heavy compensation for their cure later on.
- (7) The assistance of first-rate men in Town Planning, with business experience.

1. The various possibilities of reducing the cost of estate development have been so fully dealt with in other chapters that it is not necessary to explain them again here, but an interesting example of the expense and delay caused by our present system occurred the other day at Hull. The local bye-laws prevented the erection of a Garden Suburb. In order to get over the difficulty, the Local Government Board were appealed to, and they sanctioned the necessary change in the bye-laws. As a consequence, the Hull bye-laws are being specially altered to meet the case, which is excellent so far as it goes, but will take time, and occasions great delay. This is a serious matter to most men engaged in the business of house-building, because loss of time means loss of interest on capital.

Town Planning powers would enable Local Authorities to

co-operate with landowners without having to consider the exigencies of a central authority, in what is, after all, a purely local matter. These ought to be dealt with in a prompt and business-like manner, considering each case on its own merits. A cast-iron theory is disastrous.

The provision of main arteries for through traffic would, on the other hand, increase the cost of estate development, unless a change is made in our present practice. It has always seemed to me unreasonable that the cost of providing for main traffic should fall entirely on one set of people—that is, on those who suffer the annoyances, as well as benefit by the advantages of the site. This is inequitable.

One of the reasons why main streets in our towns, or on the outskirts are not now made as wide as they should be is, because the landowner has to pay the whole cost of road-making.

Impartial people will, I think, agree that the landowner ought not to be called upon to bear more than that proportion of the cost of a road or street that is necessary for the convenience or advantage of the frontagers. For instance, shop-keepers and other business men benefit materially from having premises on main thoroughfares—they do more business—they can afford to pay their share of the cost of road-making; but the tenants of private houses would, as a rule, much prefer to live away from the noise, dust, and motor smell of a main thoroughfare.

It is manifestly unfair, and therefore economically unsound, to make the tenants of private houses pay all the cost of a main road that is required by the Local Authority for the convenience of the general public. The frontagers on a main road ought to pay for what is clearly to their advantage; the general public ought to pay for what is done for their convenience. Those who call the tune should pay the piper.

If Local Authorities were able and willing to work with landowners on this principle, provided landowners would give up the land required free of charge, which, as far as I know, they are now willing to do, then foresight in Town Planning, combined with co-operation in town extension would undoubtedly result in saving the ratepayers' money, as well as reducing the cost of estate development.

Another way in which Town Planning pays the landowner, as well as providing the working classes with what they badly want, is by allocating for allotments back-land not required for public playgrounds. Allotments near a large town fetch as much as £10 per acre, and by the simple method just explained, the landowner gets, without any capital expenditure, about twice as much income from these

odd bits, as he could get even for accommodation agricultural land near a town. This immediate increase of income appreciably assists the financial position.

2. (a) The reduction in the cost of estate development would bring more land into the market for housing purposes, because it would help those owners who have some free capital, but not much. Under more favourable conditions they would be able and willing to develop their estates.

(b) There would still be left that large number of landowners who have no free money available. These at present hold up their land because they cannot develop it themselves, and they will not let the jerry-builder ruin the districts with which they may have many dear associations. Remove by Town Planning legislation the fear of the jerry-builder, and at once large blocks of land will come into the housing market all over the country.

(c) A third method is to bring land that is now inaccessible within easy reach of busy centres of population. The provision of main arteries for through traffic is one of the very first considerations of town planners.

(d) The result of such a policy, by increasing the supply, would, of course, be to increase competition among the owners of land rendered capable of being fully used by the nation. Free competition among sellers, or in this case it may be lessors, is always the best possible condition for consumers—that is, the public.

(e) Town Planning would also, as already explained in a previous chapter, suit the general body of landowners, for this reason: Town Planning would prevent land-sweating—that is to say, it would prevent a very small proportion of the landowning class overcrowding their land to such an extent with human beings, that there are no customers left for their neighbours.

This is exactly what is happening at the present time. Nor must it be forgotten that there is at present an immense majority of men who get very little from their land, compared with the few fortunate possessors of valuable urban estates.

3. There is at present too often a feeling of permanent antagonism between Local Authorities and landowners, no doubt based on the fact that whereas landowners, like every other class, are determined to get as much as they can for themselves, the duty of Local Authorities is to get as much as they can out of landowners for the benefit of the communities they serve.

It is not generally recognised that the expenditure of landowners in developing their land for building purposes, eventually falls on the community. The more a landowner

has to spend on developing his estate, the more he charges in rent. When this axiom is understood, then both Local Authorities and landowners will get much nearer what they are aiming at, because they will work together instead of pulling different ways.

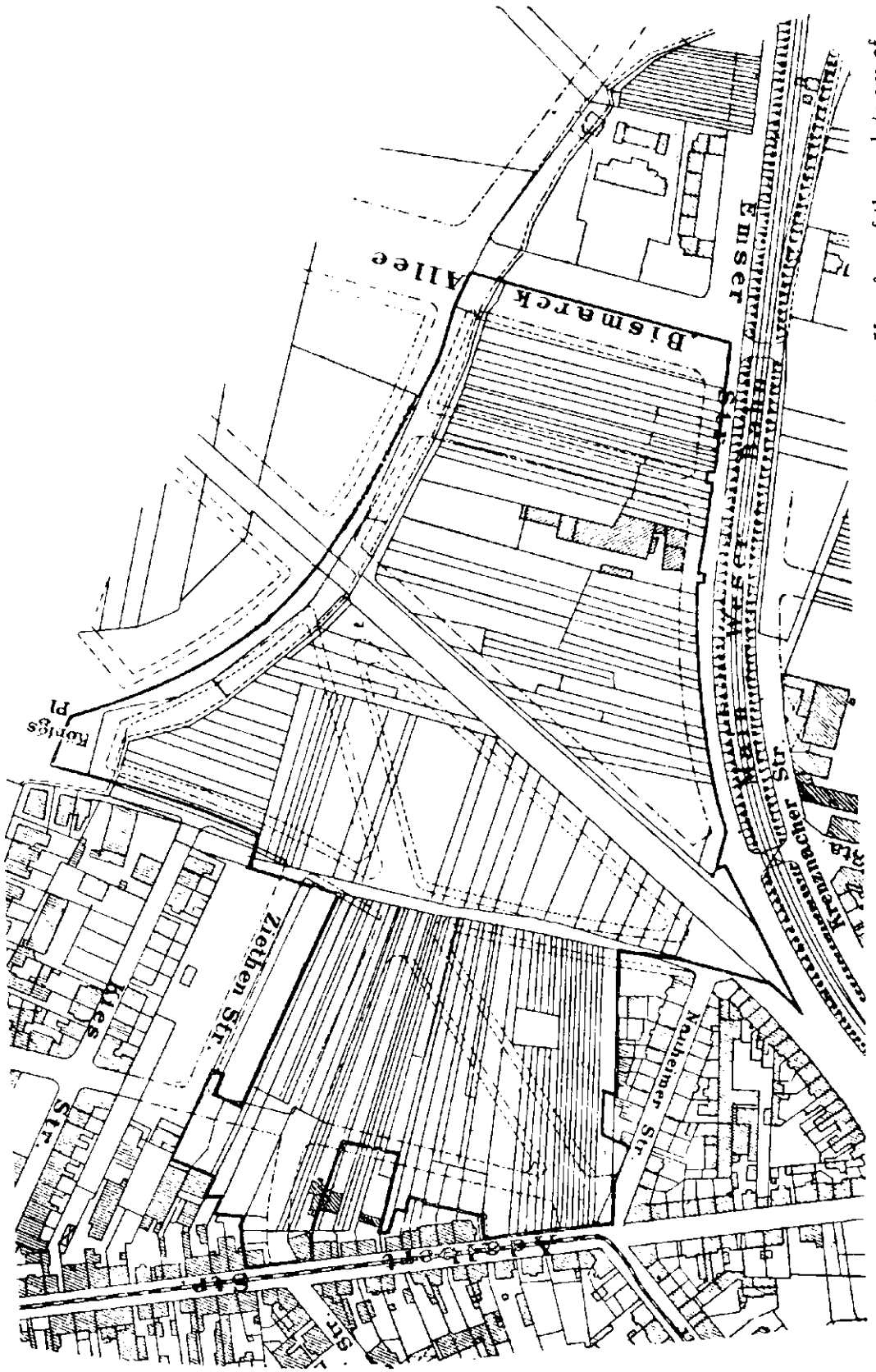
This principle has been followed in the administration of Part II. of the 1890 Act, already described in Chapter IV. of this book, with the eminently satisfactory result that the overwhelming majority of the property-owners of Birmingham are heartily assisting in the gradual reformation of our slums.

Town Planning would not only bring together Local Authorities, landowners, and house-builders to work for the same end—the good of all; it would also bring together neighbouring landowners, and avoid the loss described in Chapter II.

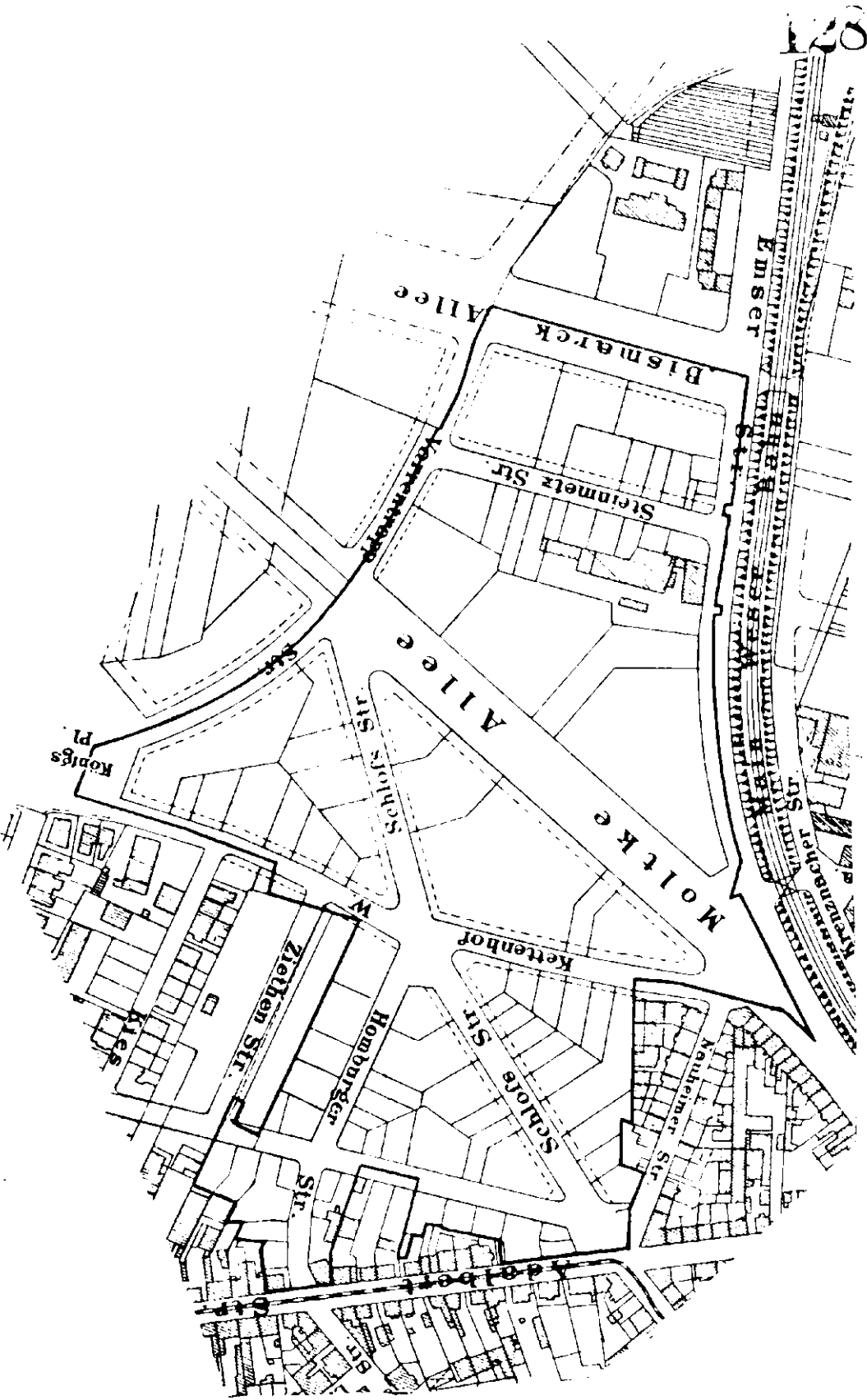
4. A method for attaining this object known as the redistribution method, works very well elsewhere, and could no doubt be adapted to English ideas and methods. A short explanation may prove interesting and suggestive.

Land, divided into plots among different owners, is considered as a whole, and planned out in a suitable manner, regardless of the difference in ownership, provision being made for the necessary streets and open spaces, etc. A calculation is then made to ascertain what percentage of the whole land involved is left available for building sites, and each landowner receives back a percentage of his original holding equal to the percentage of the whole area available for building. The new plot is given as near as possible to the old plot, and the question of corner sites, etc., is carefully considered and taken into account. It is invariably found that the smaller plot of land returned is more valuable than the larger plot originally held. The smaller plot is convenient for building—the larger was not.

The plans on the next two pages illustrate what happens. "A" shows the land inside the thick black line divided up into a large number of small ownerships, most of which are of little or no use for building purposes. The thin lines are boundaries between different ownerships. Plan "B" shows the land also divided into a large number of different ownerships; but now, owing to the redistribution that has taken place, each man's land is far more valuable than what he previously had. No wonder landowners approve of a system which in practice benefits, and indeed, protects them, as well as benefiting the rest of the community. There are, of course, points of detail, where one man's interests are inimical to another's, but on all important points, the things that really



PLAN A BEFORE REDISTRIBUTION. The thin lines are boundaries between different ownerships. Very few of these plots are of any use for building purposes.



PLAN B AFTER REDISTRIBUTION. Each man's plot is now available for building purposes.

count, the interests of those concerned, are identical, and the sooner this is realised the better.

At the same time, we must not forget that the argument of personal advantage to be obtained, does not always suffice to persuade everyone to come into an arrangement of this sort. There is generally the quarrelsome man who delights in cutting off his nose to spite his face, and is quite pleased to suffer considerable pecuniary loss himself, if only by so doing he is able to injure his neighbour. He does not put it quite like this to himself or to others, but this is what his actions amount to in practice. It is therefore necessary to give Local Authorities powers of comprehensive control, so that they may be able to compel the "odd men" of the landowning class to work with others.

5. Another way in which Town Planning would effect great savings is by fitting all the requirements of a city into one harmonious whole. These requirements are so numerous, and in many cases so inimical to one another, that unless everything is thought of beforehand, and carefully arranged in relation to other essentials, a great deal of the work of town-building has to be done over again, than which there is nothing more wasteful. For instance, a factory emitting noxious fumes, placed next to a park or dwelling-houses, will seriously injure the vitality of the human and vegetable life in its vicinity, with the result that the money spent on the park is largely wasted, or the dwelling-houses have to be pulled down at considerable loss to the owners.

There are plenty of examples of this wastefulness in England to-day.

A hospital placed near a park would derive great benefit for its inmates, without in any way interfering with those who use the park. Many of our hospitals on the other hand, are situated in busy thoroughfares, with tall buildings all round them.

Dwelling-houses would be cheaper, as well as pleasanter, if situated on minor streets, and business premises would greatly benefit by positions on main thoroughfares.

Under our haphazard English practice, the various constituent parts of a large town are dumped down anywhere, instead of all being carefully fitted in together; and perhaps, worst of all, no adequate provision is made for getting easily, quickly and cheaply, from one part of a town to another, not only from the centre to the outskirts, but also from one point to another on the outer circle. Suppose, for instance, that someone wants to get from A to B (see plan, p. 77), he will have to walk or else go right into the centre and out again, and lose time changing conveyances at the centre, unless he



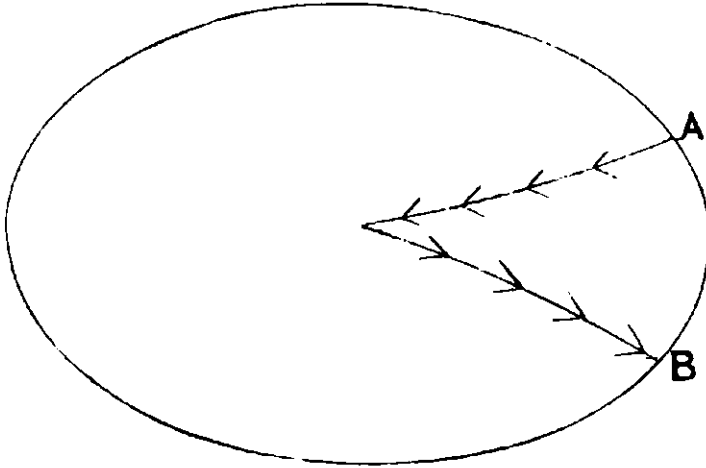
*By kind permission of the Editor of "Progress."*

[See back for particulars.]



Cologne furnishes, perhaps, the best example of Town Planning to be found. It serves as the model on which many other German cities are now acting. It has what is known as the "zone," or district building system. Under this system the whole city area is mapped out in zones, for each of which special building regulations are made. On a large map (from which our diagram is taken), these several zones are coloured black, blue, red, and green, with certain portions uncoloured, indicating that those areas are as yet unplanned. On the *black* zone—which is the centre and business part of the city—25 per cent. of all land built on must be left free from any buildings; on the *blue*, which immediately surrounds the black, 33 per cent. free, but buildings may have four storeys; on the *red*, if the building is not more than 29.5 feet (9 metres) 33 per cent. only need be free, if higher, 50 per cent.; on the *green*, which is the zone of villa residences, the buildings must be detached, with about 33 feet between each, with gardens in the front, and 50 per cent. of the site must be left free. But this green zone is not separate and apart, like the wealthier villa suburbs of an English city; it is cut up into sections, and so interspersed with the blue and red, that the dwellers in the poorer districts are always within reach of beautiful surroundings, and in touch with their richer neighbours.—*Progress*.

belongs to the favoured few who possess a vehicle of their own. In Germany this is got over by a system of "ring" streets, with trams, like that shown on the plan on page 75. The white ring round the central portion coloured blue is a wide main artery, constructed like the radial main arteries, with plenty of room for a quick service of trams.



6. It is quite impossible to put into figures the waste of money and the waste of time (nowadays as valuable as money) that is caused by our reckless want of method. The total loss is so large, as to be quite beyond our comprehension. The ratepayers are now groaning under the cost of Town improvements, which would not have been necessary if things had been properly arranged at first. The great Birmingham Improvement Scheme of 1875, for instance, consisted in the removal of large blocks of small house property from the centre of the city, in order to make room for a business street which ought to have been arranged there in the beginning. It is still costing the town nearly £20,000 per annum.

7. The savings enumerated in this and other chapters will not be effected unless we are able to enlist the help of first-rate men in the work of administration. This could be done by co-opting on Town Planning Committees a certain proportion of experts, who have the necessary knowledge and experience to enable them to take into full consideration the legitimate interests of all concerned, as well as arranging for all the modern necessities of populous districts.

The more I go into the details of this Town Planning proposal, the more convinced I become that with the assistance of such experts it would effect large economies for land-owners, house-builders, rentpayers, and ratepayers.

Town Planning has been advocated as a philanthropic scheme, but the fact has been rather overlooked that its economic possibilities are equally great.

No reform is permanently successful unless founded on a sound economic basis. You may find an enthusiast here and there, who will provide good cheap houses for the people; but unless Town Planning pays, as it will if properly carried out, it will not really help the solution of the general housing problem, nor shall we secure to any general extent the hygienic and æsthetic advantages it is undoubtedly capable of giving us. When I advocate Town Planning for its economic advantages, I must not be misunderstood to mean by this term the 10, 20, or 50 per cent. profit of land speculation and jerry-building. I am referring to a sound, safe, permanent 4 per cent. investment. I am considering what is generally described as the long view of business as opposed to the short view.

The economic soundness of Town Planning is due to the fact that union is strength, and division spells disaster. Here in England we are all at sixes and sevens, without foresight and without any attempt at general control of town development, whereas there is no business in which comprehensive control is more essential to success.

8. Town Planning is not only capable of preventing waste of health and wealth; it can, and in fact has, in other countries enormously increased the national wealth by encouraging and assisting industry and commerce. Mannheim, for instance, has provided for railways along certain streets from the works to the depôt, thereby relieving those streets of the wear and tear of heavy railway waggons, and enabling manufacturers to load and unload straight into and from railway trucks, which saves the cost of transshipment. She has also provided magnificent docks for canal boats, and so improved her canal communications as to greatly reduce the cost of transport of raw materials and finished goods. Not satisfied with her past achievements in this direction, she has also reserved sites for future docks to be constructed as and when required. In England this work is left to private enterprise, with the result that in Birmingham, for instance, our principal canal wharves are quite near the centre of the city, where land is expensive, and there is no room for expansion as the trade of the city and district increases; instead of being located as they should be, at various spots on the outskirts, where there would be room for extensions.

I am indebted to an article by Mr. Ramsay MacDonald, which appeared in the *Daily Chronicle* of June 2nd, 1909, for an example of what can be done by town planners to increase

the wealth of their community. Twenty years ago the population of Duisburg was 40,000, to-day it is 200,000. First one canal was made to an adjoining river, and then another. Fields were turned into harbours. The State stepped in. It united municipalities to begin with, and then took over their harbours. It spent 20,000,000 marks in building new ones, and it did it all in two and a half years. The work was only finished in 1908, but it is paying already. 26,000,000 tons of goods, mostly coal, are handled every year, and the trade is very nearly half as much again as the Port of Hamburg. In England, the canals are largely owned by the railway companies, whose objection to competition lays a heavy burden on wealth production and distribution. The Manchester Ship Canal is a striking example of what might be done for British trade if the State and our Local Authorities were to take in hand the reorganisation of our canal system.

What Town Planning is meant to do is, firstly, to consider the problem of the town, its present position and requirements, and the probabilities of its extension in various directions within some fifty years; and secondly, to make the best possible provision for present and future development.

## CHAPTER VII

### ENGLISH EXAMPLES OF TOWN PLANNING



THE Garden City idea, that is to say, the restriction of the number of houses to be built per acre, and the provision of open spaces where the children and young people can play and the older people can rest and enjoy themselves in a rational manner, has undoubtedly captured the imagination of the British people, unimaginative as we admittedly are. This feeling has been made manifest in the large number of attempts that have been made in this direction during the last very few years. Bournville, Coryndon, Ealing, Earswick, Hampstead, Hull, Leicester, Manchester, Oldham, Port Sunlight, Sevenoaks, Sheffield, Warrington, and Wolverhampton Garden Suburbs, to say nothing of Garden City itself, and three proposed garden suburbs in the immediate neighbourhood of Birmingham, are overwhelming proof that the Garden City idea is no longer a mere dream; it is already a practical reality.

In all these new settlements the same practical common-sense objects are being striven for, but in only one of these—viz., in Garden City itself—has the courageous attempt been made to found a new city on what was previously merely agricultural land. No one hopes more earnestly than I that the First Garden City may prove so successful that many others may be started in its wake. It is so infinitely easier to achieve the hygienic, artistic, and economic objects of Town Planning when starting with a clean slate, that one would like to see our overgrown towns done away with, and new ones built in their stead, if only this were possible. But our task is to improve existing towns as they are, and gradually, with infinite patience and perseverance, bring them up to what they ought to be. This will be an expensive and laborious, but not an impossible undertaking. But one of the most urgent questions of the moment is to prevent the repetition of mistakes due to haphazard methods.

At present I would only remind my readers that each succeeding year new streets are being made and new buildings are being erected on the outskirts of every town that has the slightest pretension to prosperity. It is our business to see that these town extensions are properly carried out, and the attempts already made in this direction, although very meagre compared with those in other civilised countries, owing to the absence of Town Planning legislation, are yet sufficient to supply us with many valuable lessons as to how best to set about our task in this country.

So much has been written, and so well written, about the hygienic and artistic advantages of Town Planning, that I will in this, as in other chapters, confine myself chiefly to the economic advantages to be obtained.

Garden City, which is not hampered like urban districts, with extravagant and unsympathetic bye-laws, meets the economic ideas of town planners in many important respects. It is pioneer work, and therefore of necessity mistakes have been made, but the total result is most encouraging and instructive.

The beauties of Port Sunlight are too well known to require description, but Mr. Lever makes no secret of the fact that the rents received do not cover the charges incurred. Bournville is equally beautiful, and has this great advantage from the all-important economic point of view, that Mr. Cadbury has from the very first always insisted that the rents received should show a 4 per cent. return on the capital employed. The weak point here is that very few of the houses in Bournville are let at rents within the means of the poorer working man; this is largely due to an extravagant bye-law system that insists upon unnecessarily wide and expensive roadways, involving a very heavy expenditure on estate development. The interest on this extravagant expenditure has to be paid by the tenants, and by this means large numbers of respectable working men are deprived of the benefits which Mr. Cadbury has been at such pains to provide them with.

The Town Council of Hull have been confronted with the same difficulty in the case of Mr. Reckett's garden suburb on their outskirts. They applied to Mr. John Burns for assistance, and the Local Government Board is now modifying the building bye-laws of Hull, in order to help the working men in that area.

Of the other schemes enumerated above, I propose to deal with only five:—Earswick, Fallings Park, Coryndon, Hampstead, and Harborne, one of the three Birmingham schemes. The remaining schemes are either so little advanced, or have been so hampered and hindered by

extravagant bye-laws, that they are of little use to the main purpose of this book, which is to show the economic advantages of Town Planning.

EARSWICK is laid out on strictly economical lines, so far as road-making and estate development are concerned. In that district the bye-laws do not insist upon more than eighteen feet roadways of macadam, where it is obvious that no greater width is required.

Plan A, with its references, needs little explanation. The village is governed by a Trust similar to the Bournville Trust, but owing to the absence of extravagant bye-laws Mr. Rowntree has been able to provide labourers' cottages with a living-room 20 feet by 12 feet 6 inches, a larder, and scullery on the ground floor, and three bedrooms upstairs, at a rent of 5s. per week, exclusive of rates. Attached to each house, is a garden of not less than 350 square yards, which is considered to be as large as a man can easily and profitably work by spade cultivation in his leisure time. Semi-detached cottages are rented at 5s. 9d. per week, and parlour houses at £16 to £20 per annum, all exclusive of rates. The houses do not occupy more than one-seventh of the sites on which they are built.

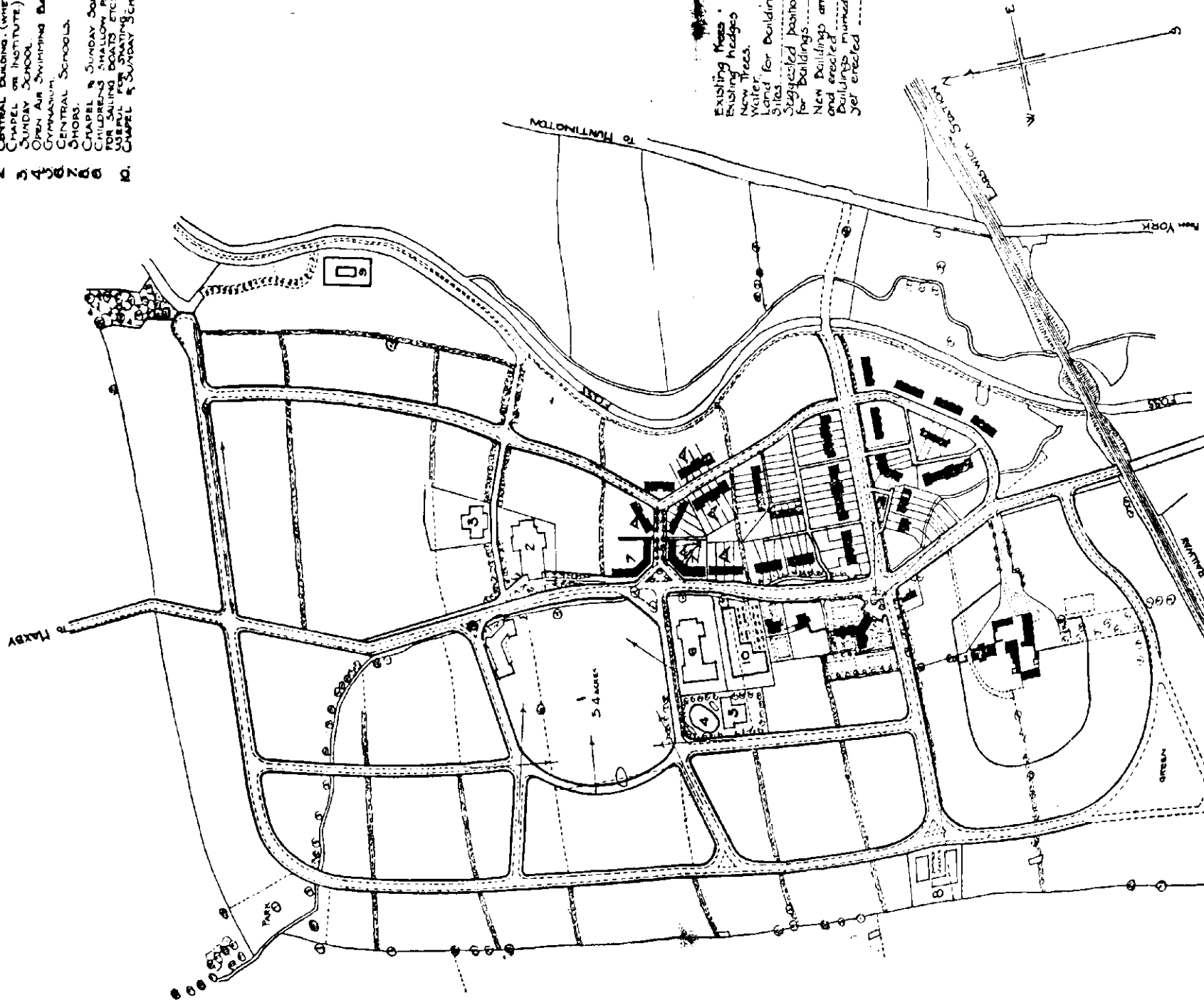
The 120 acres comprising the estate have been planned out as a whole by Messrs. Barry Parker and Raymond Unwin, Architects, Garden City and Hampstead. The roads vary considerably in width. The main roadways are 18 feet, with about 6 feet of grass between the roadway and the footpath on each side of it. There are other roads in which there is a roadway of 16 or 18 feet, and a grass margin without any footpath. The distance between the houses on either side of these roads is more than 50 feet. In Station Avenue the distance is over 100 feet. Trees are planted in the grass verges. The trees and hedges that were found upon the estate have been worked into gardens, instead of being cut down as always happens in the ordinary modern suburb. The references on the plan show that everything has been provided for in the way of quiet rest, healthy recreation, and the public institutions necessary to the rational desires of such a community. 10 or 12 acres out of the 120, have been reserved as open spaces. The houses are so placed or designed that the main living-rooms of the house get a sunny aspect, and when this cannot be otherwise attained, the living-rooms are put at what would ordinarily be the back of the house.

THE FALLINGS PARK GARDEN SUBURB, near Wolverhampton, has not been favoured by any special legislation, but it has been fortunate in coming under the jurisdiction of a sympathetic and sensible local authority. They have recognised the

PLAN of PROPOSED VILLAGE  
 at FADSWICK NEAR YORK  
 FOR MESSRS. DOWNTREE & CO.

REFERENCE.

1. CENTRAL GREEN & RECREATION GROUNDS.
2. CENTRAL BUILDING (WHETHER CHURCH  
 CHAPEL OR INSTITUTE)
3. SUNDAY SCHOOL
4. OPEN AIR SWIMMING BATH.
5. GYMNASIUM
6. CENTRAL SCHOOLS.
7. CHORUS.
8. CHAPEL & SUNDAY SCHOOL.
9. CHILDREN'S SHALLOW PADDLING POND  
 FOR SAILING BOATS ETC. ALSO  
 FOR SQUASHING.
10. CHAPEL & SUNDAY SCHOOL.







great economic benefits to be obtained for their constituents, by the public-spirited and business-like policy of meeting the landowner, Sir Richard Paget, half way in the give-and-take spirit that he has adopted towards the community and its representatives.

The estate consists of 400 acres laid out as a whole, with wide main roads where they are required for through traffic, and narrower side streets for ordinary traffic. There is a fine central feature to lend dignity to the suburb, and inspire those feelings of local patriotism without which good government is impossible. Open spaces are preserved where they are of most value to the people—namely, in close proximity to their homes.

One of the greatest needs of modern times is the provision of playgrounds for the children, which shall be so near to their homes that they will not have to cross busy streets. A considerable portion of these open spaces are located on back land, thereby avoiding the waste of valuable frontage. The open spaces on this estate would have cost an impossible sum unless they had been planned out beforehand, and in the long run this cost would have fallen on the tenants of the houses.

Plan B shows on a larger scale the arrangement of a triangular piece of land abutting on the Cannock Road. Two interesting features of this plan are the location of the playground and allotments away from the main roads, and the narrow inexpensive pathways leading to the houses. These provide all the means of access that are required, and do not unnecessarily increase the rents of the houses. The dreary deserts of macadam in our modern suburbs are more often than not far wider than is necessary for the traffic that goes along them, and the payment of interest on this extravagant expenditure falls on the tenants of the houses.

The Fallings Park scheme is unique among what are known as Garden City and Garden Suburb movements, in that it is not promoted by a Local Authority or society of public utility, nor did the promoter have to buy land for the purpose.

The landowner saw that in the long run he would get a better investment by having his estate properly planned, and getting decent property erected on it. By the exercise of foresight, he will be able to provide all the amenities essential to a healthy happy community, at a low cost. He will be able to choose his tenants, and therefore get good ones. The Local Authority, on the other hand, saw that it was well worth their while, in the interests of the community, to meet Sir Richard Paget in the cost of estate development, in order to enable him to carry out his far-sighted policy. If Sir Richard Paget had held up his land, as so many do, until he could secure a

big price per acre, he might, by waiting, have got his price; but meanwhile interest on the value of his land would have been piling up against him, and it is doubtful whether he would in the end have been so well off as he will eventually be under this scheme. He has grasped two business principles on which so many concerns have been built up:—

1. "Small profits and quick returns."
2. "Always maintain good quality."

The Local Authority on the other hand, have seen that the supervision of estate development is a business question.

Some complaints have been made that Sir Richard Paget has been treated too leniently by the Local Authority concerned, and a fear has been expressed as to the state of affairs that would come to pass if all builders of small house property were treated as he has been. There need not be the slightest fear on this score. It will be quite safe under Town Planning legislation to allow Local Authorities to make concessions to landowners giving such advantages. The land speculator and the jerry-builder will not touch this sort of business. It is steady, safe business, showing a permanent return, which is just what they do not want. They want a gamble at the expense of the lives and strength of the people.

There are many who think that nothing serious can be effected towards the solution of the Housing problem without municipal land purchase. I have strong leanings myself towards land purchase, and shall discuss this question in another chapter; but at the best, municipal land purchase must be a very slow process, and meanwhile unhealthy suburbs rapidly increase. If this can be prevented by the co-operation of landowners and Local Authorities in the promotion of schemes like Fallings Park, then surely practical men should accept such help and be thankful. I have already expressed a strong opinion in favour of municipal land purchase, but much can be done before having recourse to such a policy. If landowners all over the country come forward with their help, land purchase may not be necessary.

The example of Sir Richard Paget has already taken effect. Three or four other landowners in various parts of the country are considering how to develop their land for building without destroying the amenities of the district. Some of these are only small properties, but the fact that Mr. Thomas Adams, of Wolverhampton, an expert on this question, is being asked to assist in laying out these properties, shows the progress which this idea is already making with English landowners.

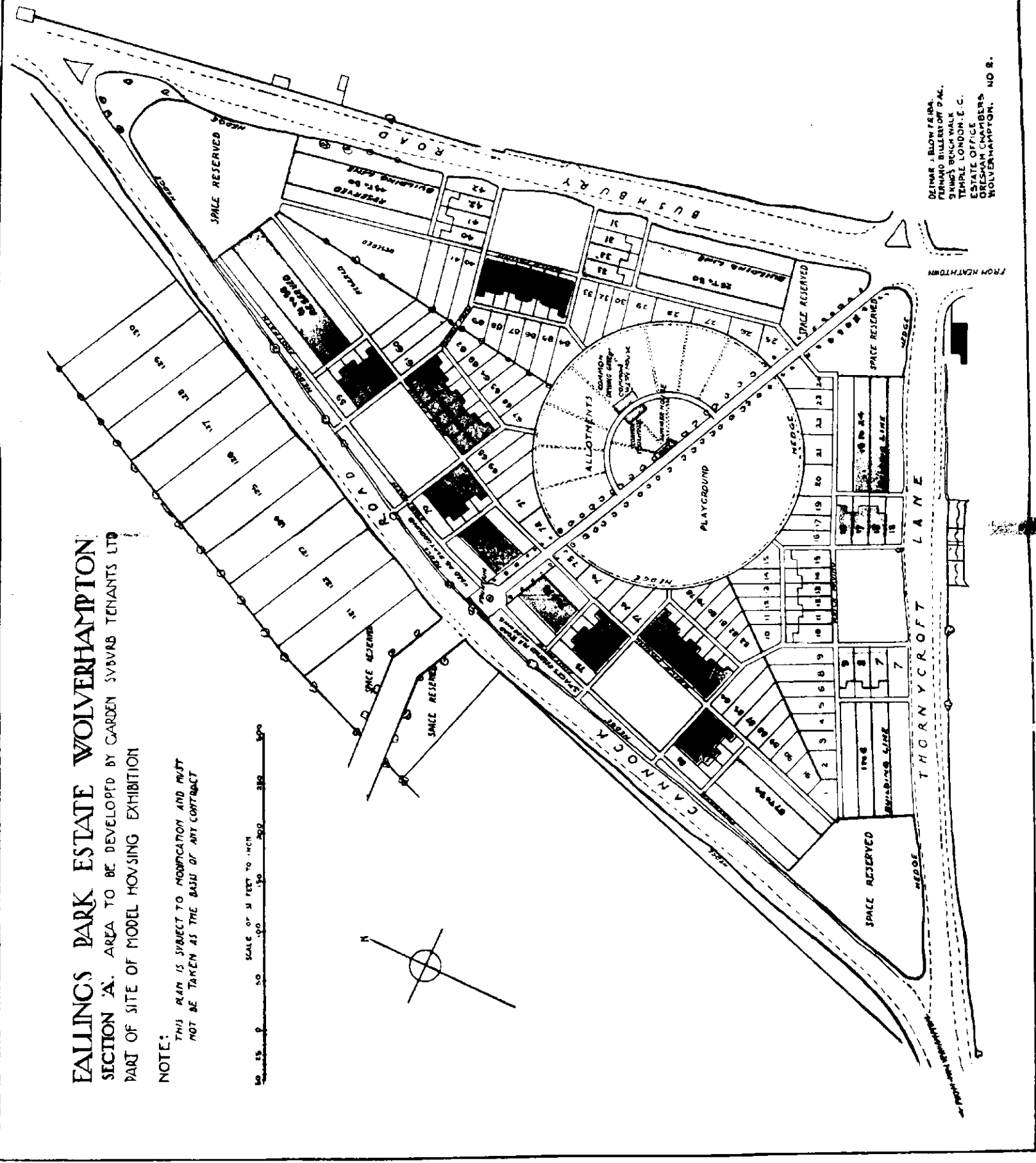
Social reformers have a stiff fight before them in contending against the evils of overcrowding and insanitation. In this fight they can have no more useful allies than the landowners.

**FALLINGS PARK ESTATE WOLVERHAMPTON**  
**SECTION 'A'. AREA TO BE DEVELOPED BY GARDEN SUBSIDIARY TENANTS LTD**  
**PART OF SITE OF MODEL HOUSING EXHIBITION**

**NOTE:**

THIS PLAN IS SUBJECT TO MODIFICATION AND MUST  
 NOT BE TAKEN AS THE BASIS OF ANY CONTRACT

SCALE OF 1/4 INCH TO 1 FOOT



DEINAR J. BLOW F.R.B.A.  
 FERNAND BULLERY O.T.A.C.  
 SIMON BENCH WALK  
 TEMPLE LONDON E.C.  
 ESTATE OFFICE  
 GRESHAM CHAMBERS  
 WOLVERHAMPTON, NO 8.



We stand on the threshold of a great conflict, but there is fair hope that landowners begin to see what opportunities lie before them, and that by the adoption of Town Planning they may confer a great boon on the community without loss to themselves.

A short description of one of these properties will not be out of place :—

CORYNDON.—(*The Garden Village at Peterston-Super-Ely*).—A scheme proposed to be carried out by John Cory, Esq., J.P., D.L., of Duffryn St. Nicholas.

The present scheme does not involve the establishment of a new industrial town, such as is now being realised at Letchworth. The aims of the promoters of Coryndon are to provide a model village at an accessible distance from Cardiff, where all the advantages of town and country life can be obtained.

*Situation.*—The site chosen is on the sloping ground forming part of the Duffryn St. Nicholas Estate, adjacent to Peterston Station, seven miles from Cardiff.

The land nearest the river will be laid out for parks and allotments, and as far as possible, buildings will not be permitted on a lower level than twenty feet above the River Ely.

The estate is situated in the rural district of Llandaff and Dinas-Powis, and is subject to its sanitary regulations and bye-laws. The population of the district has largely increased in recent years, and there seems every prospect of still more rapid growth in the future.

*Area.*—It is proposed to set aside an area of about 275 acres for the scheme; of this about 150 acres will be for building development, 60 acres for golf course and playing field, and 65 acres for allotments and small holdings. The building area will accommodate about 1,000 houses, and provide for a population of between 4,500 and 5,000 people.

*Railway Facilities.*—There is a good service of trains to Peterston Station, which adjoins the estate, but it is hoped that the G.W.R. Company will considerably improve this service as soon as there is any sign of development. The present third class season ticket costs £5 16s. per annum but an effort will be made to get this reduced to £5. The first class season is £9 19s. 6d., and the second class £7 16s.

The plan is so arranged that the road from Peterston Station will lead straight to the centre of the village. The existing road is slightly curved, and will require to be diverted to secure a straight line, as well as slightly raised and widened. A new bridge will be constructed, as soon as possible, across the River Ely, leading from this road to the Main Avenue, which will be 100 feet wide, and will form the principal artery of the village. The avenue will be set out

with trees and grass margins, and only about one-fifth of the width will be laid down with macadam. The public buildings will centre round the upper part of this thoroughfare, including a Church, Chapel, Village Institute, Inn, etc. The Church will fill up the vista at its southern end. From this avenue the three principal crescents will run in semi-circular form towards the River Ely. Sites for all classes of houses will be provided along the two crescents which will be the first to be developed. A third crescent will afterwards be created further south. The three crescents are indicated on the plan as Pwllmyn Crescent, Cory Crescent, and Duffryn Crescent.

*Class of Houses.*—Provision will be made for all classes of houses ranging in price from £150 to £1,000 or more with rentals of 5s. per week upwards.

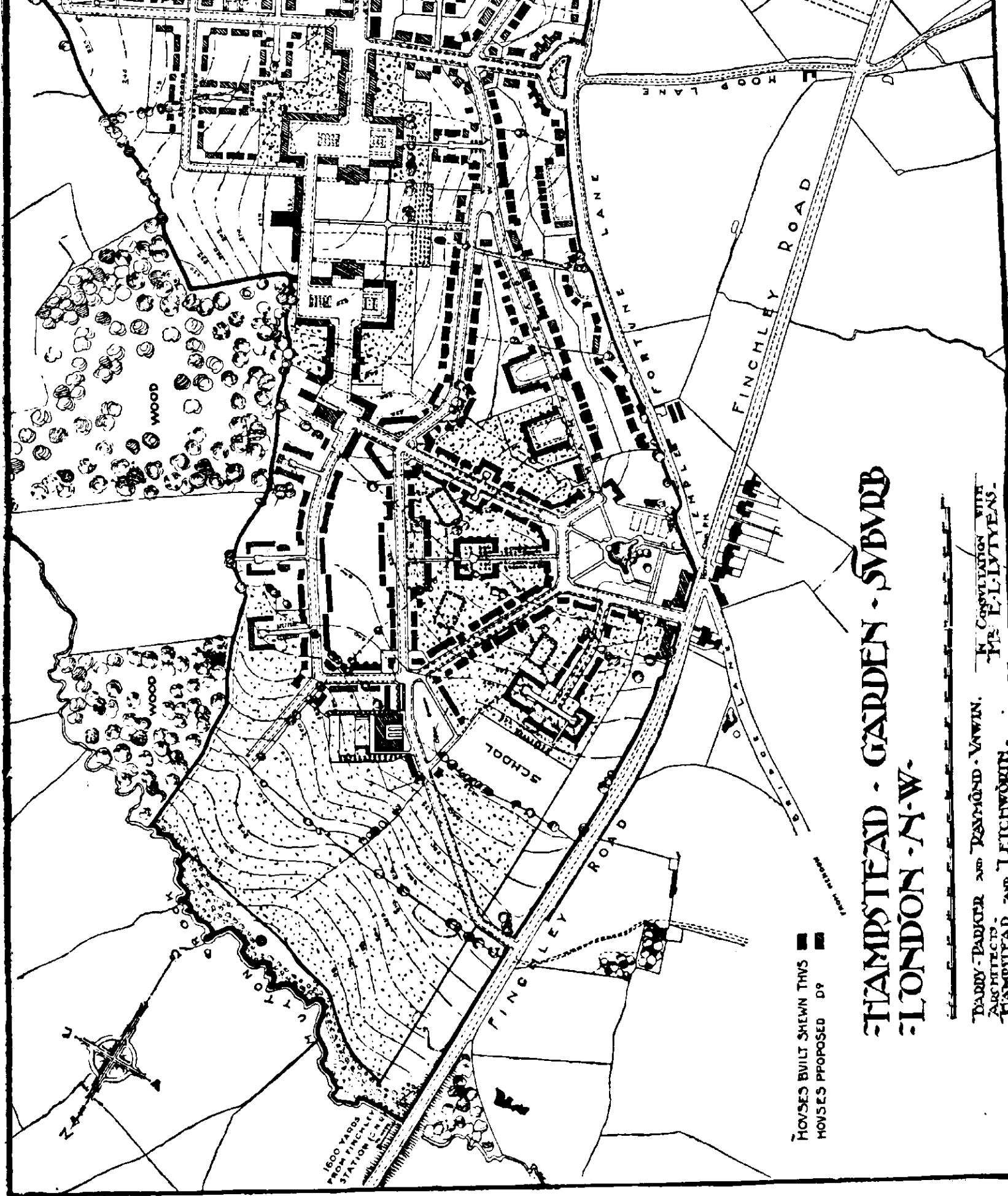
*Rates.*—Rates in Peterston are much lower than in Cardiff. It will be possible therefore to show a considerable saving to intending tenants of a comparatively small house in the matter of rates, representing from £5 to £6 a year to the tenant. Apart from other economies and advantages it will thus be seen that cost of the railway journey will be met from the saving in rates alone.

*Ground Rent.*—The ground rent will be calculated on the low basis of charging only about £50 for the land. Any addition to this will be for interest and sinking fund to cover cost of public services and roads. The first sites will probably be let at from £12 to £15 per acre, representing £1 to £2 each for the smaller houses—or about 6d. per week for one-tenth of an acre of ground, *i.e.*, 480 square yards. This ground rent will cover the cost of land, roads, sewers, laying out and provision of parks, capital charges for other public services, etc.

*Allotments and Small Holdings.*—Every encouragement will be given to the creation of allotments and small holdings on the outer fringes of the estate and any low-lying lands adjoining the river to be set aside for this purpose. It is proposed to keep building operations, as far as possible, above the 90-feet contour so as to secure a healthy and bracing elevation, and the land beneath this altitude will be set aside for intensive culture and recreation.

*Preservation of Existing Features and Open Spaces.*—Every effort will be made to preserve the timber now growing upon the estate, and as much as possible will be made of the existing features. Trees will also be planted along the new roads, and grass margins provided where possible.

Open spaces will be reserved for public buildings such as Schools, Village Hall, Gymnasium, Village Inn, Church, Reading Room, and Lecture Hall, etc. It is not proposed to



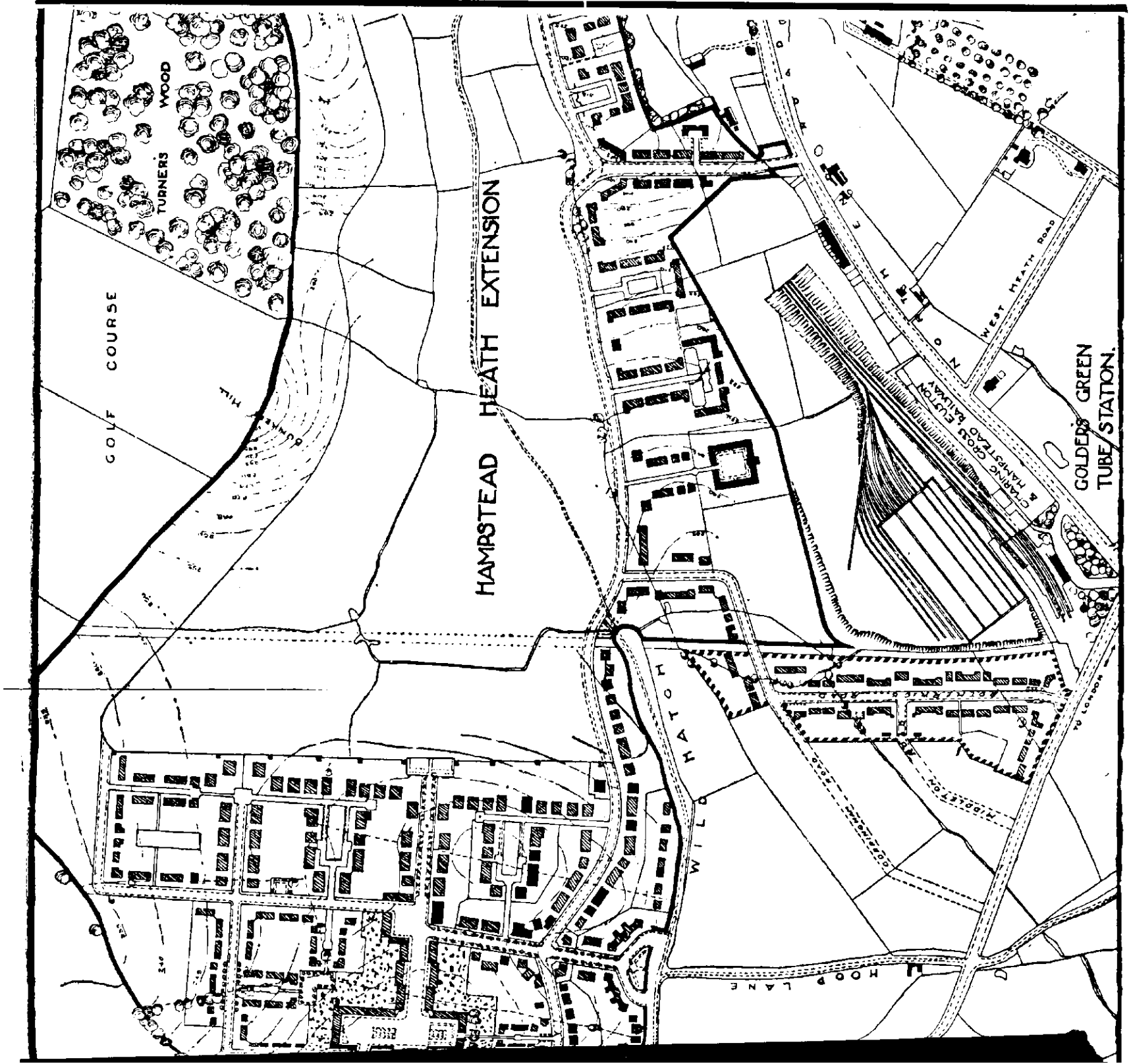
HOUSES BUILT SHOWN THUS ■  
 HOUSES PROPOSED DP ■

# HAMPSTEAD · GARDEN · SUBURB LONDON · N.W.

BARRY · PARKER and RAYMOND · VAVIN. IN CONSULTATION WITH  
 ARCHITECTS MR. E. L. LYONS.  
 HAMPSTEAD and LETCHWORTH.

PLAN C.—THE DOTTED SECTIONS SHOW THE LAND TAKEN UP BY OR OVER WHICH OPTIONS HAVE BEEN SECURED TO





BEEN SECURED TO THE HAMPSTEAD TENANTS LTD. AND THE SECOND HAMPSTEAD LTD.

allow any licensed premises on the estate, but beyond this restriction the management of the village will be in the hands of the residents. Such questions as the provision of Churches, Chapels, etc., will be determined by the people of the village. The parks and open spaces will be laid out by Mr. Cory, and no direct charge will be made for these, as it is hoped that the cost of laying out the parks, etc., and of making the roads and sewers, will be met by the ground rents.

*Financial Assistance, etc.*—A scheme is being prepared to enable individuals who desire to erect their own houses, but who have not the capital for the purpose, by which 70 to 85 per cent. of the money required to build a house will be provided at a reasonable interest. By this means any individuals having £30 or £40 can erect his own house and obtain the balance on loan at 4 per cent., to be repaid over a period of ten or twenty years. All classes will be provided for, and the arrangement of the plan permits of the erection of large and small houses either in different parts of the estate, or together.

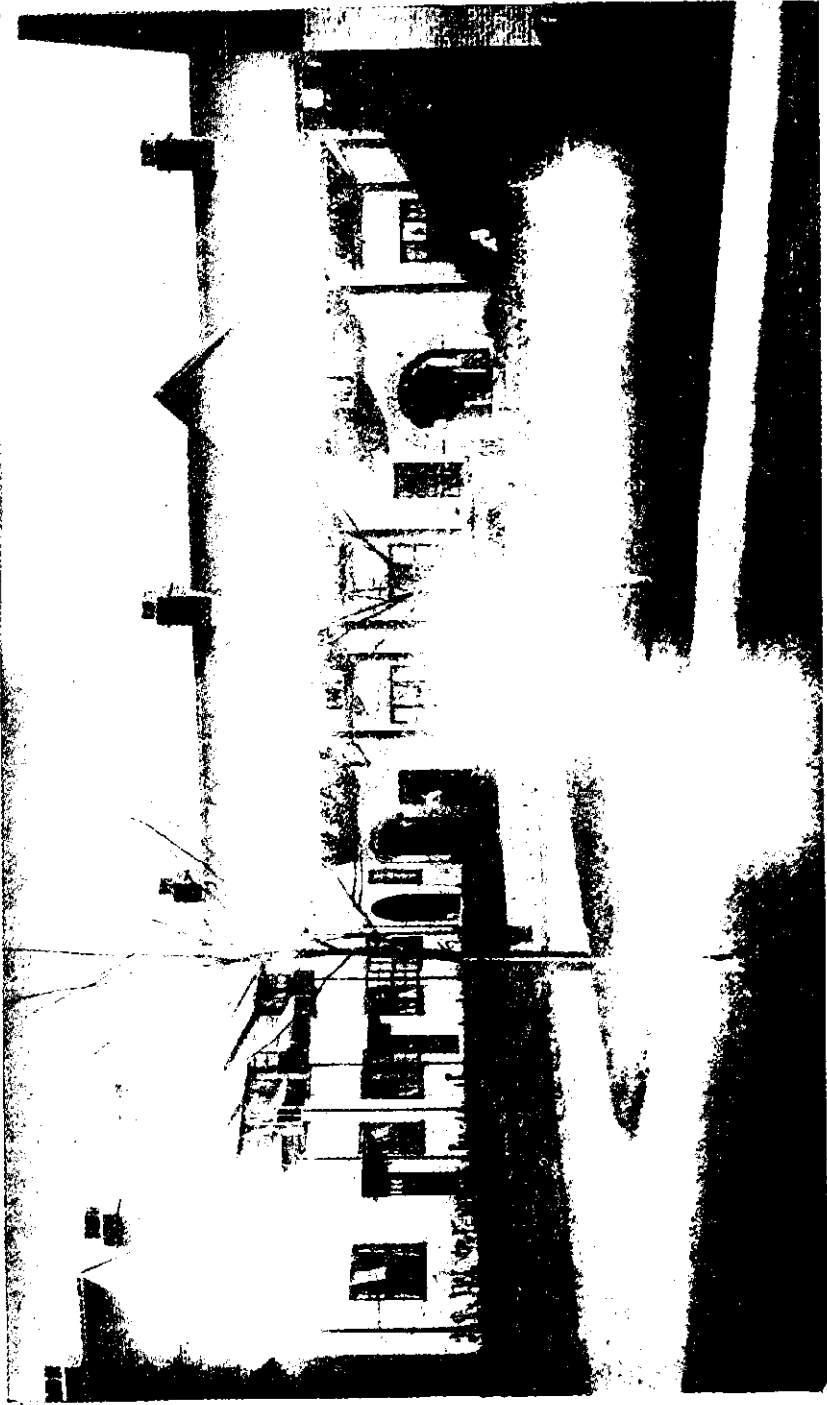
Some of the higher and more isolated sites are excellently adapted for the erection of large detached villas. The size of the plots will vary from one-twelfth of an acre to an acre, except in the small holdings area, where larger plots will be provided. The land will be let on leases of ninety-nine years at low rents, and provision will be made for renewal of leases at the end of this term subject to certain conditions, so that the leases will practically be continuous.

THE HAMPSTEAD GARDEN SUBURB was freed from hampering bye-laws by special Act of Parliament.

Plan C shows the latest proposals for dealing with the 240 acres reserved for housing. For this plan I am indebted to Mr. Raymond Unwin, who informs me that they are continually altering their proposals in detail, and improving upon their original ideas as to how best to deal with each part. Experience and study show them how to reduce capital expenditure, and at the same time improve the general result from both the artistic and hygienic points of view. This experience illustrates the necessity for elasticity in town plans.

Negotiations are now in process to arrange a certain amount of Town Planning conjointly with the neighbouring owner. If these negotiations are successful, the roads on the eastern side of the estate will be affected.

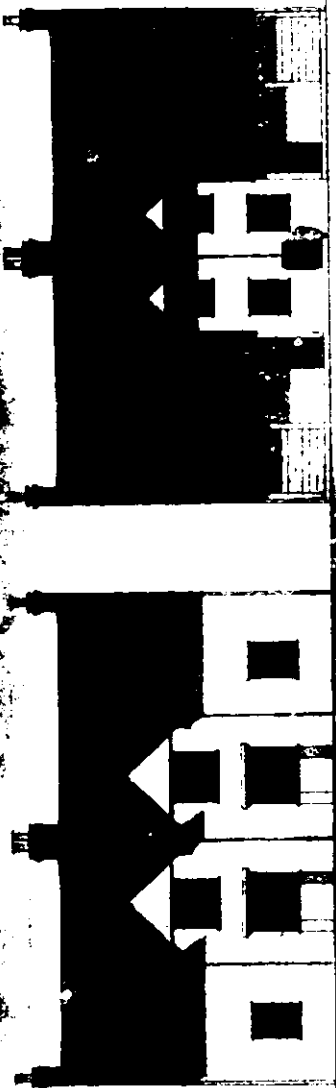
Another interesting feature in this Hampstead scheme is the handing over to the public of 80 acres, out of 320, to be added to Hampstead Heath, purchased by the joint action of



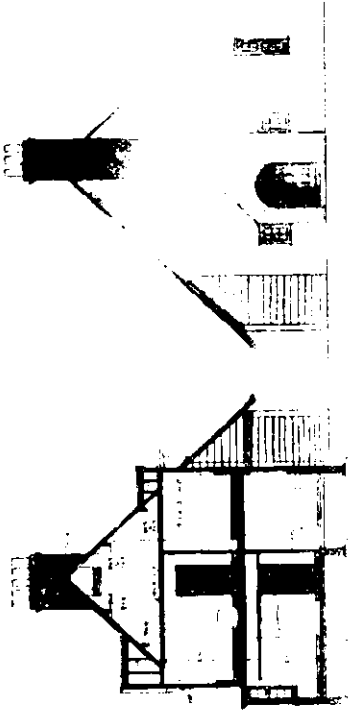
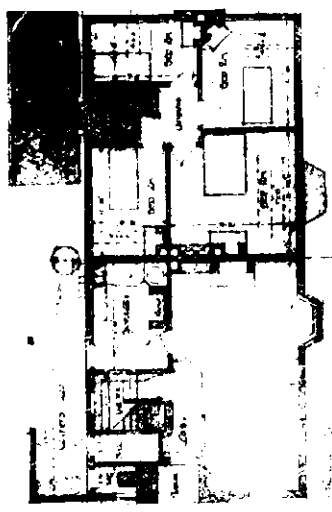
COTTAGES ARE BUILT ROUND GREENS OR SMALL OPEN SPACES AS SHOWN IN THIS ILLUSTRATION OF ASMUNS SQUARE (HAMPSTEAD TENANTS ESTATE), SO THAT THE INHABITANTS MAY HAVE A COMMON GAME GROUND AND ALSO SMALL PERSONALLY-CARED FOR GARDENS. RENTS IN ASMUNS SQUARE BEGIN AT 6s. A WEEK.

**HAMPSTEAD TOWNERS.  
PAIR OF COTTAGES IN  
HAMPSTEAD WAY.**

RESIDENTIAL COTTAGES, 30-32, HAMPSTEAD WAY, HAMPSTEAD, MIDDLESEX. (SEE PLAN FOR DETAILS.)



ENTRANCE



private generosity and the municipal authorities, inspired, of course, by Mrs. Barnett, the fairy godmother of Hampstead Garden Suburb.

This was a generous thing to do, and all the more useful because business methods were not forgotten. Generosity governed by sound business principles is ten thousand times more helpful than thoughtless charity, no matter how kind-hearted. The business side of this transaction was that a strip of land all round the open space was reserved by the suburb trust for building purposes. This strip will provide valuable building sites for well-to-do people, who will undoubtedly be pleased to pay a good figure for situations that can never be spoiled owing to the permanent open space in front of them. The return from these valuable building sites must prove of great financial assistance to the rest of the scheme.

It will be noticed from the plan that small open spaces and playgrounds have been dotted about all over the suburb, and no money is being wasted on unnecessarily expensive roadways. These essentials to Town Planning have been so often referred to that I need not emphasise them further than here.

This great scheme is due to the genius and energy of Mrs. S. A. Barnett, of Toynbee Hall, Whitechapel. Many others have helped in the work—some in big positions—many in small; but it was Mrs. Barnett who had the first inspiration, who enlisted the interest of those whose help was essential to success and who by steadfast faith and splendid enthusiasm carried to a successful issue the first example of Town Planning in this country that observes the economic requirements of the Housing problem, as well as the hygienic and artistic ideals.

This scheme is in no sense a purely local matter, benefiting only the people who are housed in this particular suburb. It is of great national importance, because it is founded on sound business principles; and until the Housing problem is dealt with on these lines it will never be solved. Housing reformers, to be successful, must have the sense to avoid unnecessary expenditure, while cherishing a feeling for the beauties of nature, appreciation of the importance to health of a liberal supply of light and air, and sympathy with the social needs and desires of human beings.

The following extracts from a speech by the Right Hon. Alfred Lyttelton are instructive and impressive:—

“The growth of our great cities present the most formidable and the most pressing problem to all those

who wish for the welfare of our race. It is to this problem that this company has addressed itself, and I think we are able to put through the plans we have in view.

“ We wish in the first place to have pretty and wholesome dwellings, with gardens and open spaces at hand.

“ We wish in the next place to have an orderly and well-designed plan of the estate so that each house may be placed with a regard to every other house.

“ We wish to make the life of the Hampstead Suburb a life in which men shall have understanding of each other, in which the poor shall teach the rich, and in which the rich, let us hope, shall help the poor to help themselves.

“ I should like publicly to acknowledge the good feeling and co-operation which we have received at the hands of the Hendon Local Authority, in whose district this estate is situated.”

These extracts give a clear and concise explanation of the main objects of the Hampstead and other garden suburb schemes, and especially important is the help given by the Local Authority. Without co-operation between landowners and Local Authorities, success in this Town Planning movement would be very difficult, if not impossible.

I am fortunately able, by the kind permission of Mrs. Barnett, to reproduce some illustrations which draw attention in a most striking manner to many of the evils we are all trying to put an end to.

In an article which appeared in the *Contemporary Review* of February, 1905, Mrs. Barnett draws attention to the fact that however excellent in intention Part III. of the Housing of the Working Classes Act, 1890, may be, enabling Local Authorities to purchase land outside their town boundaries for the purpose of “ increasing the number of workmen’s dwellings,” it has in practice the great disadvantage of limiting a neighbourhood entirely to persons of one social class. She refers to a London suburb where, with a population of 63,000, there are only 123 houses with a rental that exceeds £50 a year. Rates are very high in these working-class districts as compared with rates in richer neighbourhoods. We all know how well-to-do people leave a neighbourhood when small houses are erected near them on the ordinary jerry-building lines. This is contrary to the feeling of the British Constitution, which presupposes that there is in every district a leisured and cultivated class able to give time and

thought to municipal and other public duties; and when such a class is absent the community suffers both financially and ethically.

Working-class districts are unfortunately familiar to all of us, where there are no gardens, no trees, no open spaces, and no children's playgrounds, and where the houses are built fifty or sixty to the acre.

I am much indebted to Mr. Unwin for permission to publish plans of cottages built on this estate by Hampstead Tenants Ltd.

Our next and last example of the economies to be effected by wise Town Planning is HARBORNE TENANTS LIMITED, Birmingham.

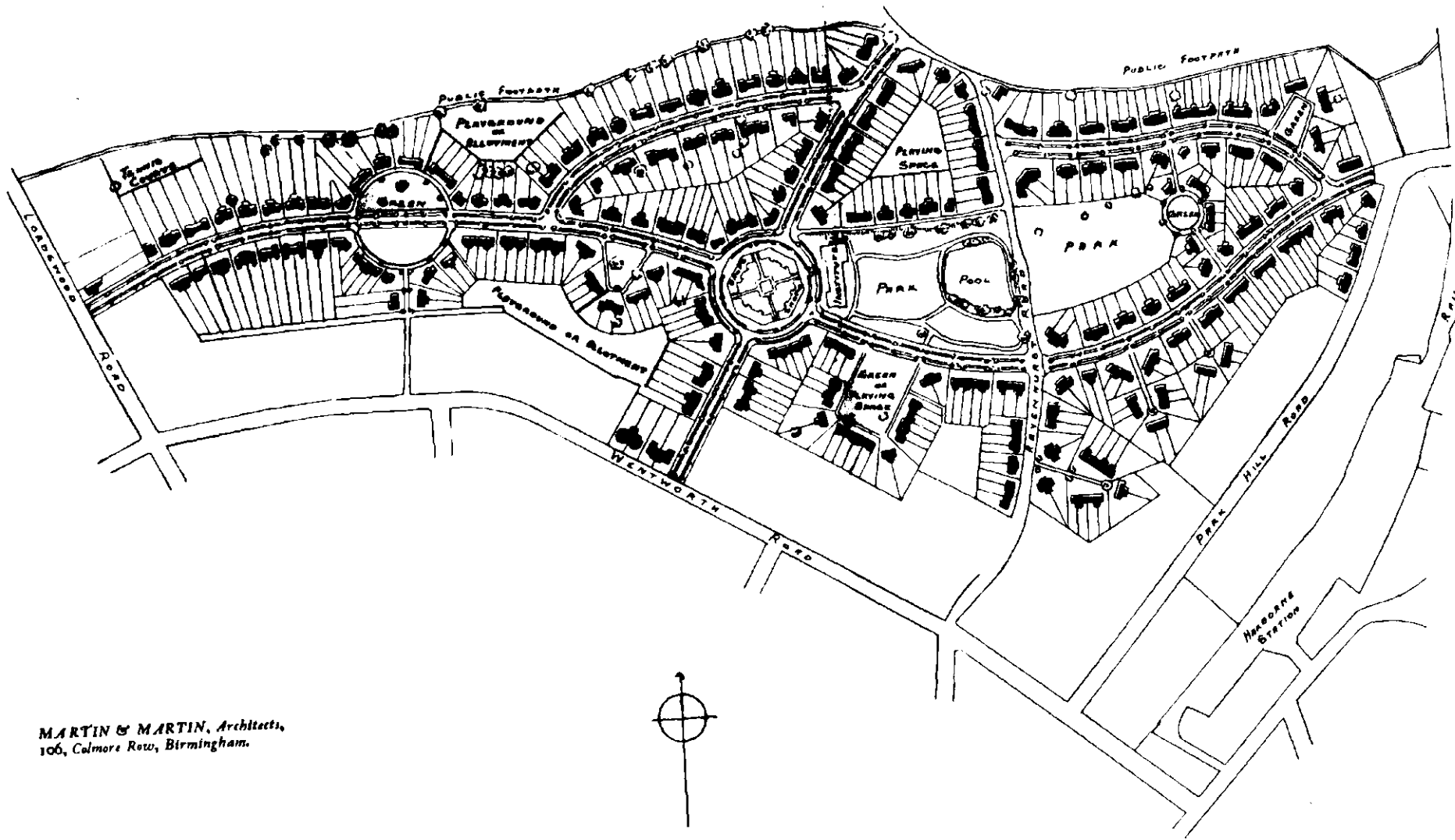
Part of the land shown on Plan D had been laid out with roads and cross roads in the usual style, entailing very heavy expense in estate development, and arrangements had been made for far too many houses per acre.

That scheme fell through for reasons that it is unnecessary to explain now, and the land came into the hands of Harborne Tenants Ltd., who decided to deal with it on the combined principles of Town Planning of the land and co-partnership in the building of the houses.

The first step was to secure an option on some adjoining land in order to complete the scheme. The architects then had a survey made showing the position of all existing trees, with a view to preserving them as far as possible, instead of ruthlessly cutting them all down in accordance with the usual practice.

Several experienced people took for granted that the pool on the left of Ravenhurst Road would be filled in by tipping, so as to make room for more houses. We thought it better from every point of view to preserve this beauty spot as part of a park leading up to our central feature—the institute and shops.

The next question to be considered was how to approach the houses to be built with the least possible expense in road making, etc. In this respect we were more fortunate than some, owing to the fact that no main road was required for through traffic. Parkhill Road, Wentworth Road, and Lordswood Road provide the means of communication from east to west, and Ravenhurst Road, when it is widened, will provide communication between north and south. The traffic along our roads will therefore be of a light nature, necessitating no more than 16 feet roadways. While observing the economic idea of Town Planning, we have not forgotten the hygienic and artistic ideas. We save money on road making, which means lower rents for our tenants, and we give 72 feet



MARTIN & MARTIN, Architects,  
106, Colmore Row, Birmingham.

HARBORNE TENANTS LIMITED, BIRMINGHAM.  
Area, fifty-three acres.

PLAN D.





between the houses, as against 50 feet required by the bye-laws. Our parks, open spaces, playgrounds and allotments have been, as far as possible, located on back land, in order that valuable frontages shall not be wasted.

The circular green towards the west end of the estate is an instructive example of the economy to be effected by Town Planning. If we had been allowed by the bye-laws to put narrow roadways or pathways round this green, in the manner originally planned, which would have been quite sufficient approach to the houses, the return earned on our expenditure would have been actually greater than if we had no green at all and had placed our houses on the road. We should have been able by this arrangement to get rather more houses for a given amount of road making; and as the capital invested is restricted to 4 per cent. interest, our tenants would have reaped the benefit in lower rents. It would be a distinct loss to the general effect from both the hygienic and artistic points of view, if this green were to be done away with and the houses placed straight along the road, which means that our tenants will be forced by the bye-laws to pay extra rent for an inferior house.

The average number of houses per acre on the whole estate is just under ten, and about ten acres of land out of fifty-three have been reserved as open spaces, playgrounds, and allotments.

Another important object of town planners is to prevent one man's land being injured by the manner in which neighbouring land is laid out. On this estate we have had an instructive example of how this mutual injury, which so often happens under present conditions, can be prevented by mutual co-operation, and greatly to the advantage of both the parties concerned.

When our plans were nearly completed it was found that in one part of our estate a small piece of land belonging to someone else was required in order to make the whole scheme thoroughly satisfactory. The owner was approached, and by a process of mutual give and take, both parties were benefited.

Another important feature of this scheme—as also of the Fallings Park and Hampstead schemes, is the adoption of the principle of co-partnership in the ownership of the houses. The methods by which this is carried out will be fully described in a later chapter.

The promoters of Harborne Tenants Ltd. intend to get a fair return on their investment—that is, 4 per cent. or 5 per cent. Herein lies one of the most interesting features of this

particular experiment. Those responsible for raising the capital required are determined to pay 4 per cent. on the loan stock. It will therefore make no difference whatever to the capitalist partners in the venture how much expenditure is required to develop the estate; they will get their interest whatever happens. But it will make a great difference to the tenant partners if there is an excessive or unnecessary expenditure on making the roads, etc. The rents of the houses erected will be fixed in accordance with the expenditure involved. It will be interesting and instructive to see how the experiment works out. If it is shown, as I am sure it can be, that in the long run the development of land on Town Planning lines pays the landowner, as well as, or better, than the present haphazard extravagant fashion, then we may hope that some day land speculation and jerry building will be a thing of the past.

Since the above was written an article has appeared in "The Survey" of New York, which will be found in Appendix C 2.

The latest society to be started is HEREFORD CO-OPERATIVE HOUSING LTD. (inaugurated January, 1909), which is managed on lines very similar to those above described. In one most important respect this society has an exceptional advantage, for the Corporation of Hereford has bought the land and is developing it—that is, constructing roads and sewers on the Town Planning lines described above. The rent charged to the Co-operative Housing Society, although putting no burden on the ratepayers of Hereford, is nevertheless very moderate, owing to the low price paid for the land, and the savings effected in road and sewer construction.

This scheme is in many ways the most instructive and inspiring experiment that has yet been made towards complete co-operation between all those engaged in the provision and supervision of housing accommodation for the people.

One of the great difficulties that these co-operative housing societies have to face is the raising of sufficient working capital. The action of the Hereford Corporation has very greatly assisted the Hereford society in this important respect. Another way in which the Hereford Corporation has helped not only the local society, but also housing reformers all over England, is by itself adopting the policy of common sense estate development on economical Town Planning lines. This admirable example will, it is to be hoped, before long be followed by other Local Authorities, because until Local Authorities get out of the "bye-law rut" working men will not get satisfactory housing accommodation at reasonable

rents. The present cast-iron bye-law system results in considerably increasing the rents of small houses, and at the same time giving the tenants what they do not want, indeed would rather be without.

It goes without saying that co-partnership garden suburbs, like all new things, have incurred criticism, more especially from the creators of the ordinary bye-law suburb, with whose business they are already interfering. These gentlemen are not satisfied with a safe 4 per cent. ; they want a great deal more, and are therefore doing their best to discredit co-partnership housing in the public mind. One writer in a Birmingham paper recently asserted that Harborne Tenants had not touched the fringe of the real housing problem; his complaint was that the poorest of the poor had not been provided for. The fringe of the problem has been touched by Harborne Tenants, and it is this work on the fringe of the slum problem which is more likely than anything else to bring about the ultimate solution of the housing problem, by providing cheerful, healthy houses on the outskirts of big towns at reasonable rents.

The complete success of this policy depends upon an efficient tramway system. Given good houses on the outskirts of large towns at reasonable rents, and quick, cheap trams from the centre to the outskirts, a considerable proportion of those who now live in congested districts can move outside where land is cheaper and the air fresher. That means that for many working men the town will be brought to the country and the country to the town. How to deal with those who remain in the slums is too long a story to go into now, but by removing large numbers from congested city districts there will undoubtedly be more room for those who are left behind.

The right policy is to aim upwards, not downwards. The levelling-up process may possibly take longer than the policy referred to at the beginning of this article, of providing houses at low rentals in order to meet low wages, but permanent success in the solution of the housing problem is only to be achieved by those who are patient; those who are wise enough to hasten slowly. The housing problem is not merely a question of building houses—it is also a question of building up character.

Co-partnership housing, which is founded on two great principles, association and self-help, will, if combined with common-sense estate development, do more than provide better housing conditions at reasonable rents: it will make for better men and women, for healthier and happier children,

The children of to-day are the citizens of to-morrow, and nothing is of greater national importance than that our future citizens should grow up in healthy environment with every opportunity for sensible recreation.

In Appendix D 5 will be found an abstract of the lease, and other particulars, concerning the Hereford Housing scheme.

## CHAPTER VIII

### OBJECTIONS TO TOWN PLANNING, AND THE ANSWERS



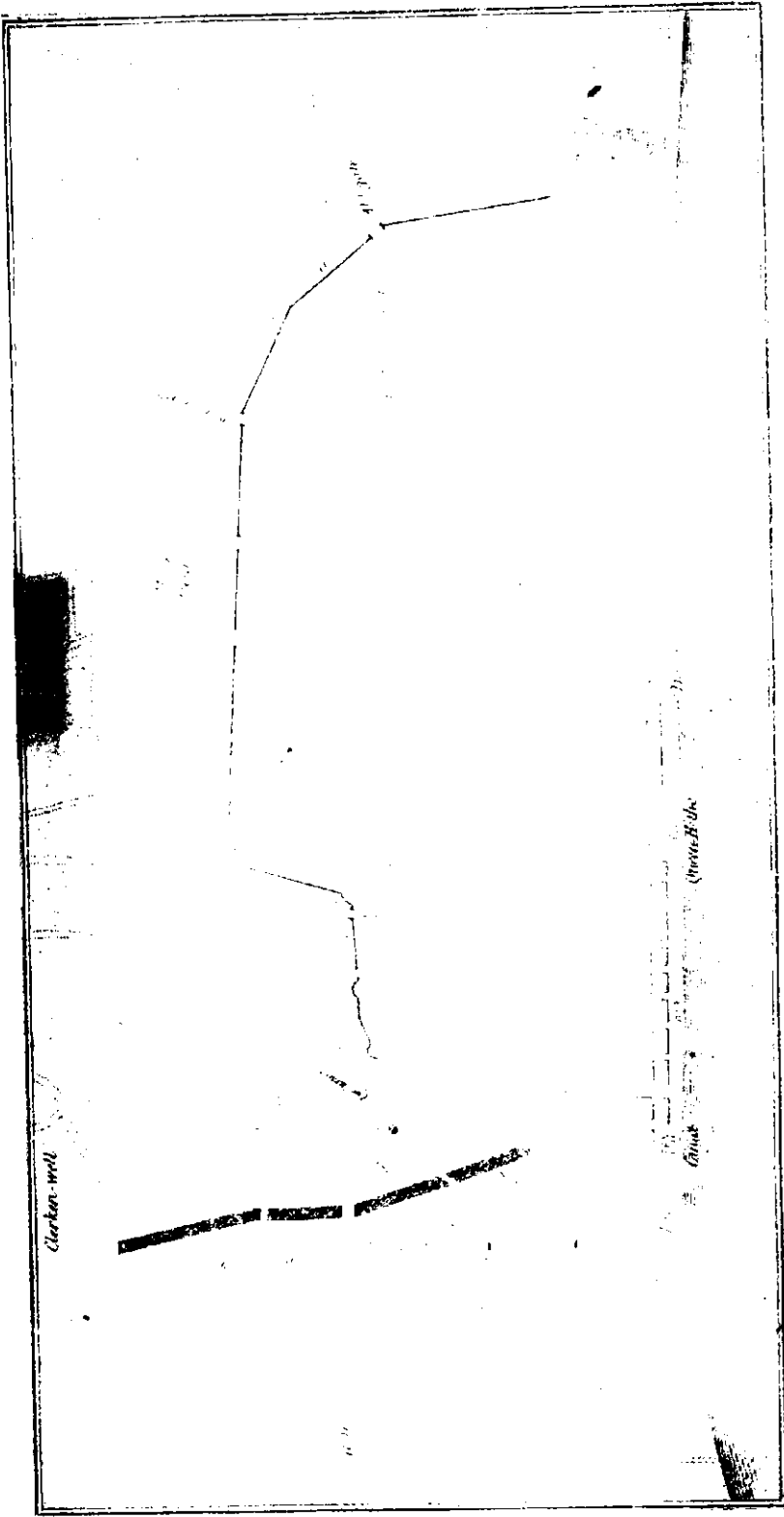
THE policy of Town Planning is so new to this country and has been received with such general approbation and applause wherever it has been properly explained, that this chapter of objections, and the answers thereto, should be a very short one. A new policy, however, demands the most careful criticism from practical and experienced men. It is only thus we can judge whether it is likely to prove a sound business proposition for those who provide the houses as well as for those who live in them.

It is, after all, the great bulk of our population who live in houses let at weekly rents, and it must be most important from the national point of view that this class shall be housed in such a way as to give them a fair chance of living healthy, hopeful lives. At the same time, this cannot be done on philanthropic or charitable lines. The provision of housing must be a self-supporting undertaking.

I have, time after time, been astonished at the amount of approval, often quite spontaneous, that has been expressed by leading lawyers and surveyors. They, as a body, have to consider the matter from the point of view of their clients, and English business men are generally recognised as being slow and cautious in their methods. This approval is of good augury.

At the same time, I have managed at public meetings and in private conversations, to get together a fairly long list of objections to Town Planning, which shall now be dealt with *seriatim* :—

1. "Too late" is perhaps the most usual criticism; it is certainly the weakest. So far as existing towns are concerned, it is very difficult and expensive, although by no means impossible, to apply the principles of Town Planning, but the rapid extension of most large towns makes the time very opportune for dealing with our suburbs.



SIR CHRISTOPHER WREN'S TOWN PLAN FOR LONDON.

*By kind permission of the Editor of "Public Works."*

With patience and perseverance, Town Planning could effect great improvements in what already exists by drawing up a general plan of the alterations required, and obliging all future demolition and building to conform to it. This would entail many years of careful work, but would bring its own reward in time.

No doubt it was the croakers saying "too late" who prevented the execution of Sir Christopher Wren's great town plan for London, made in 1668 after the great fire. This was the great chance which came to London for creating grand thoroughfares—a chance which improved means of communication are now giving in a different way to our provincial towns. The missing of that great opportunity more than 200 years ago has cost Londoners collectively untold health and wealth and time. This wanton waste has become so familiar, that we are only slowly realising that it is entirely unnecessary, and ought to be avoided.

Foresight and courage might have prevented a great deal of the extravagant congestion of traffic from which London still suffers, in spite of all the remedies applied.

Sir Christopher Wren's plan of reconstruction "to remedy the deformity and inconveniences of the old town" anticipated many of the ideas of present-day town planners. There were to be streets of three widths. The Exchange was to stand free in the middle of a piazza, and to be the centre of the town, from which the sixty-foot streets were to radiate to all the principal parts, the buildings to be contrived after the style of the old Roman Forum, with double porticos, "all churchyards, gardens, and unnecessary vacuities, and all trades that use great fires or yield noisome smells to be placed out of the town."

I do not suggest that this plan would meet all modern requirements, but it is infinitely superior to what was done, and is a striking example of a great opportunity lost.

Provincial towns are fortunate in having this object lesson before their eyes, and it is most earnestly to be hoped that they will be able and willing to profit by it before it really *is* too late. In my opinion there is yet time.

2. Some fear that Town Planning will interfere with the liberty of the subject.

The existing model bye-laws already interfere with the liberty of the subject in the most irritating manner, which is exactly what all legislators and administrators should strive to avoid.

The present building bye-laws:—

(a) Harass landowners on details, without giving Local Authorities any general control.



(b) They handicap and hamper honest builders, and do not stop jerry-building.

(c) They not only do not prevent overcrowding per acre, they actually incite landowners to overcrowd their land in order to earn a return on the money spent on unnecessarily expensive estate development.

Town Planning powers will not interfere more, and should irritate less. But in this connection the liberty of the subject is by no means the only consideration. We must also consider how far the liberty of the individual may prove the injury of the community. Land and housing speculation has had too much licence in this direction.

3. Some fear that land speculation and jerry-building will be stopped.

I sincerely hope they will be. Manufacturers are already prevented by law from making profits out of unhealthy workshops, and the legislature endeavours to prevent the sweating of individuals at their work. It is high time a well considered attempt was made to prevent individuals being sweated in their homes. This sweating of the people in their homes is largely due to land speculation, which is really nothing more nor less than land sweating.

4. It is often said that improved means of communication and the taxation of land values will solve the housing problem without other assistance.

The taxation of land values will, in the opinion of many thoughtful Progressives, inevitably result in the privately-owned open spaces in our towns being largely built upon in order to earn money with which to pay the tax, unless our urban and suburban "lungs" are protected by special legislation, as they might be on the lines advocated in this book. Town "lungs" open to the public, are, of course, the most valuable, but land uncovered by buildings, such as private gardens, are of great value from the point of view of ventilation, and it would be seriously detrimental to the health of large towns if these "private lungs" were covered with buildings in consequence of a heavy impost on land values.

The opponents of the taxation of land values, who are by no means negligible from the intellectual standpoint, and who fear many dangers and much injustice from the passing of this measure, cannot do better than use all their influence to support Town Planning. By this means it would certainly be possible to safeguard the country against many of the dangers of taxation of land values, and it might even turn out that at any rate, so far as housing is concerned, the latter measure would no longer be required.

Those who put their faith in better and cheaper trams and trains for the complete solution of the Housing problem must have gone about our modern suburbs with their eyes shut. One beautiful country district after another has been utterly ruined by this boasted panacea. True, we want good means of communication in order to make it possible to spread the people out, but experience has abundantly shown that without Town Planning this spreading out process will be carried out most unsatisfactorily. The rapid strides made in recent years by those concerned in the business of carrying people about has rendered Town Planning a desperately urgent question.

5. Some irreconcilable municipal house builders say that Town Planning cannot increase the supply of good cheap houses.

They revolt at anything so steady-going and businesslike as the proposal we are considering. Our policy is broader and more far-reaching, and may swallow up their well-meaning but shortsighted methods, which after many years of trial have resulted in the provision of a very few good houses for the poorer classes, and a great many neglected slums, with the added injury that in most cases those who live in the bad houses have to help pay the rents of those who live in the good ones. It may be that Town Planning will show municipal house building to be unnecessary.

Municipal house builders do not condemn Town Planning; they only consider it insufficient. But surely it cannot be wise of them to hinder all progress on any line but their own. There is, however, nothing in Town Planning incompatible with municipal house building, and the latter may be carried on in conjunction with it if found desirable.

There is to-day abundant proof of the possibilities of Town Planning in the direction of facilitating the erection and reducing the cost of small houses; and when with this is combined the policy of co-partnership building and ownership, I am convinced there will be no proposal before the country that will do more to increase the supply of good cheap houses. Town Planning is to housing what new machinery is to manufacturing—it assists in producing better houses at less cost from which it follows that the supply of good, cheap houses will be increased.

I do not pretend that, under this policy, a 7s. 6d. house will be obtainable at 2s. 6d. per week—which is the confessed aim of some housing experts—that is not sound business, and the policy is therefore incapable of general application, and even if it were would only result in providing cheap labour for the capitalist. It would merely be a rate in aid of lower wages.

One of the most prominent municipal house builders has often said that the housing problem is all contained in the question of how to get lower rents. They are, in fact, always trying to level down, whilst I want to level up.

A working man who has risen from a fitter's labourer to be a Master of Arts, puts it very well. He says: "It is thoroughly unsound to reduce rents in order to meet low wages; the working man's best friends are those who raise wages to meet rents." This man is a devoted worker for the social ideal.

6. Some English critics maintain that Town Planning tends to increase the price of land available for housing purposes. Those who have worked out an actual experiment in economical Town Planning, and thereby reduced the cost of estate development, will not accept this dictum.

Their opinion is founded on actual experience; the opinion of their critics is only based on theory. It is impossible to say exactly what will happen in every case, for so much depends upon administration, and this is bound to vary; but it is safe to say that it is quite possible to draw up legislation on this subject, so as to put money into the pockets of the landowning class, and at the same time to bring into the market a plentiful supply of building land, at reasonable prices.

Under present conditions, as already explained in a previous chapter, working men too often live upon land worth anything from £3,000 to £15,000 an acre. These prices make proper housing impossible.

7. Many careful observers of local affairs are afraid that the introduction into our building bye-law system of the policy of give-and-take will increase corruption. Their views are founded on bitter experience of the past.

Corruption is an extremely difficult thing to check: the ways of its votaries are so devious; but all must agree with these critics that local procedure should afford as few temptations as possible. There is no reason why these proposals should increase their number. On the contrary, if proper arrangements are made, the danger should be diminished. While it is important that the Local Authority should have wide powers in the detailed administration of their district, it is essential that they should not be supreme. A twofold check should be provided. In the first place, they should have no power to grant concessions as to width of road, etc., without receiving concessions in regard to the number of houses per acre, and provision of open spaces. In the second place, there should be a right of appeal against their decision, to the Local Government Board. This would

protect either party against undue pressure. This right of appeal is of the utmost importance, and is, indeed, the crux of the situation.

8. Some critics object to allow landowners to make the metalled part of roadways no wider than is sufficient to meet the convenience of the frontagers, for fear that at some later date the ratepayers may be called upon to spend money on road-widening in order to carry through traffic. This point has been argued to a considerable extent in Chapter V. But it should be noticed here that Town Planners always insist on full road width being left between houses, whether metalled, turf, or forecourt. In the event of having to turn a side road into a main road at some later date, the conversion will be easy, and no large sums will have to be paid for compensation of demolition of buildings as at present. Of course, a Town Plan presupposes that reasonable precautions are taken at the beginning to consider the probable direction of main traffic.

Another point to remember is that main traffic sometimes follows a residential road, and the consequent expense often falls entirely on the frontagers.

This is hard measure on them, as they are injured rather than benefited by the constant noise and dust, and therefore should be compensated for the nuisance, instead of being called upon to pay for what they would rather be without.

In the case of small house property on main streets, it is very hard on the poor man that he should be forced to live upon a noisy, dusty street without trees, or any other amenities, and be called upon to pay extra for the privilege, whereas the rich man has his drive with trees and grass, which costs him far less in proportion to what he pays.

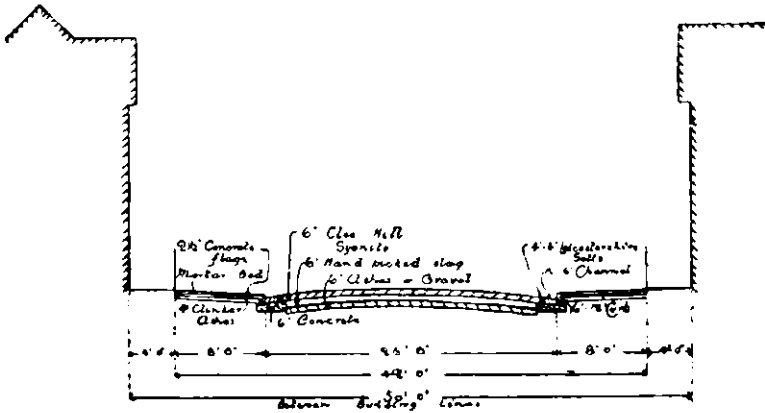
What we want to do by means of Town Planning is to bring the living conditions of the poor man nearer to the living conditions of the rich man, and I hope I have shown that this can be done, at the same time giving the poor man far better value for his money.

The following is an interesting example of the working of our present system. A road 72 feet wide between the houses and grass margins was offered, and the regulation road, leaving only 50 feet between the houses and no grass margins, was preferred. Section 1 on the plan overleaf was actually preferred to Section 2.

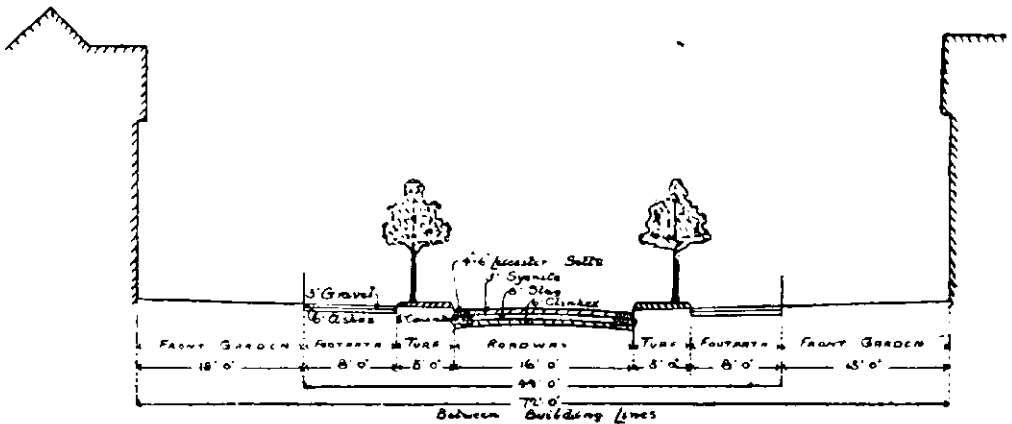
Photograph 1 (p. 103) is a fair example of the 50 feet type of road. Photograph 2 shows what those are aiming at who advocate the 72 feet width, and less expense in road-making.

Comment is needless on the hygienic, artistic, and economic characteristics of the two roads as originally constructed, but

some administrators of our present system are afraid that the tree-planted roads, with grass margins, will soon become untidy, unless a considerable sum is spent per annum on maintenance, whereas the bye-law roads will cost much less in upkeep. That is all a question of management, and, of course, it will take time for those used only to maintaining macadam to accommodate themselves to the new order of



BYE-LAW ROAD, FIFTY FEET WIDE.



TOWN PLANNING ROAD, SEVENTY-TWO FEET WIDE.

things, and it may cost a little extra while those responsible are learning their new jobs. Transition periods are never quite easy, but I venture to think that eventually the cost of upkeep of the new roads will not exceed that of the old, while their appearance and influence will be infinitely preferable. Then we shall all wonder why we put up so long and so patiently with the dreary monotonous streets, which make our modern English towns so hideous.



PHOTOGRAPH I.—THE RESULT OF INELASTIC BYE-LAWS.



PHOTOGRAPH II.-----“TOWN PLANNING” ROAD.

9. Another objection that has been raised to Town Planning is that in Germany it has resulted in huge blocks of tenement buildings being erected on the land immediately adjoining town-planned districts. I am informed by Dr. Stubben, of Berlin, one of the greatest authorities on this subject, that this is not in any way due to Town Planning, but is due to the very rapid unforeseen developments that took place after the war of 1870, and to the fact that German working men are accustomed to flats, and do not object to them as Englishmen fortunately do. He also informs me that this close, high building has caused German town-planners to turn their attention to this evil, and introduce into their Town Planning regulations powers to grade districts, and restrict the number of houses per acre, with a view to introducing the English system of self-contained houses, and providing a sufficient supply of light and air.

This matter of overcrowding per acre depends more upon administration than legislation. England has a great advantage over Germany and other countries in that the tenement system is little in vogue compared with the self-contained house. Town Planning legislation, wisely administered, should facilitate the provision at reasonable rents of self-contained houses with decent surroundings.

10. Those who have only read or heard of the hygienic and artistic advantages to be obtained by Town Planning, are apt to look upon it as a "beautiful ideal," but no use in practice. They think it will not pay; and I admit at once that it will not pay the land speculator and jerry-builder. I am clear that it will pay well the far-sighted man who wants to be engaged in a safe and permanent business that will bring in a regular and reliable income, and give him something to depend upon when he is no longer able to work.

In Chapter II. reference was made to the complaint that Sanitary Authorities who enforced Part II. of the Housing of the Working Classes Act, 1890, inflict great financial losses on persons ill able to afford them. Local Authorities are not responsible for the insanitary condition of houses, which in accordance with that Act have to be made fit for human habitation, or demolished.

The Local Authorities are merely carrying out the duties laid upon them by Parliament, and no blame can be justly attached to them. The fault lies with those who take the short view instead of the long view of business in the management of their affairs.

There are numberless poor people in this country who have been persuaded to put their savings into rotten property, and live on their capital: that is to say, take all they can out of the property and put nothing in.



No one can expect that house property, after ten years of neglect, will be as valuable as before. House property is a favourite and wise investment with men of small means. Town Planning and sound building will, in the long run, pay them very much better than buying one or two of the gimcrack brick boxes with slate lids now being built in our suburbs, which are sure, in a very few years' time, to cost them a large sum in repairs.

## CHAPTER IX

### HOUSING, TOWN PLANNING, ETC., ACT, 1909

(For full text of Act see Appendix E.)



R. BURNS'S Housing and Town Planning Act, 1909, has not come too soon, for it is recognised on all hands that the housing question is urgent and cannot be solved on the lines our legislation has hitherto provided. A greater elasticity in the administration of bye-laws is urgently required in purely residential districts where the number of houses per acre should be severely restricted, and where a liberal amount of open space is wanted for gardens, playgrounds, allotments, etc. This elasticity, which should enable Local Authorities to discourage jerry-building and encourage better-class building, is provided for in Part II. of the new Act. Slum reform and slum prevention, which are questions of absorbing importance for all our big towns, are facilitated by provisions in the new Act which form a great improvement on past legislation.

The economy for the community of adopting a wise system of Town Planning is often lost sight of, but the benefits of such a policy are at last brought within our reach by the passage of this new Act.

The need of healthy housing accommodation for the people, well and pleasingly arranged with a sufficiency of open space, is generally acknowledged, but has hitherto been found impossible of attainment in urban districts, especially when it is remembered that unless it can be done on a sound commercial basis at reasonable rents, the result is of comparatively little use towards a general solution of the Housing Problem. Work in this direction will now receive a great impetus from Mr. Burns's Act.

The Act is divided into four parts :—

- I. Housing of the Working Classes.
- II. Town Planning.
- III. County Medical Officers, and Health and Housing Committees.
- IV. Supplemental.

It is usual when explaining Acts of Parliament to take them section by section and explain the meaning of each section in its proper order. That method suits the expert, but does not seem to me so convenient to the layman interested in this or that branch of the subject. For his convenience I have analysed the new Act under six heads, and picked up the various sections as they bear on the particular head under consideration, entirely regardless of their consecutive order in the Act.

1. Municipal House Building.
2. Slum Reform.
3. Slum Prevention.
4. Financial.
5. General.
6. Rural.

#### 1.—MUNICIPAL HOUSE BUILDING.

Up till now, Part III. of the 1890 Act was only in force in those districts where it had been adopted by the Local Authority. Clause I. of the new Act makes it effective without the necessity of its having first been adopted. Some reformers may fear that this will force the policy of municipal house-building on Local Authorities whether they approve of it or not. This need not be so. Under Part III., assisted by the procedure explained in Appendix D<sub>2</sub>, Local Authorities are able to buy land and lease it to building societies of public utility. This policy is further facilitated by *Clause 6* of the new Act empowering Local Authorities to lay out or contribute towards the cost of laying out streets or roads on any such land, provided they are to be dedicated to the public.

*Clause 32*.—Clause 32 gives Local Authorities power to use the proceeds of sale of land not required under Part III. for the repayment of borrowed money.

*Schedule I.* of the new Act lays down new regulations which greatly facilitate the purchase of land by Local Authorities. These regulations simplify the form of arbitration to be adopted concerning land in rural districts, and very much reduce the costs of any inquiries that may have to be held. Any question of disputed compensation is to be determined by a single arbitrator appointed by the Local Government Board, who shall have power to disallow as costs in the arbitration, any costs which he considers to have been unnecessarily "caused or incurred." Another important point is that "no additional allowance shall be made on account of the purchase being compulsory."

When land in towns or urban districts is under consideration, the House of Lords has insisted that an "impartial person" shall be appointed by the Local Government Board to hold an inquiry, and if he reports that the land is not suitable or cannot be acquired without undue detriment to the owners, etc., etc., then the L.G.B. order is to be only provisional and subject to confirmation by Parliament. This "safeguard" also applies to land comprised in a town-planning scheme. (See explanation of Clause 62 on page 115 in this chapter.)

Those who believe in Municipal House Building will find their work simplified and cheapened by these amendments to existing legislation, and so also will those who believe in municipal land purchase and land leasing to building societies of public utility or to individuals acting in the general interest.

*Clause 3.*—Clause 3 increases under certain conditions the periods for which loans may be granted to Local Authorities by the Public Works Loan Commissioners, and in such cases a higher rate of interest is not to be charged.

*Clauses 10 and 11.*—Clauses 10 and 11 supplement Clause 4 of the Housing Act, 1903, and together they enable the Local Government Board, who may be set in motion by any four inhabitant householders, to call upon Local Authorities to exercise their powers under Parts I., II. or III. of the 1890 Act. Orders made by the L.G.B. under Clause 10 are to be laid before both Houses of Parliament, but merely for the purpose of "giving information," and all these orders can be enforced by the courts.

*Clauses 12 and 13.*—Clauses 12 and 13 give County Councils power to act under Part III. of the 1890 Act in cases where Rural District Councils have not done so.

*Clause 22.*—Clause 22 enables an improvement scheme to be made under Part I. of the 1890 Act, when that is the most satisfactory method of dealing with insanitary houses. Under this clause, those Local Authorities who consider that portion of Part II. of the 1890 Act which deals with individual houses more satisfactory than reconstruction schemes in congested districts, will have to convince the Local Government Board of the wisdom of their opinion if they want to save their ratepayers unwise expenditure and put the burden of slum reform on the right shoulders: that is, on the owners of houses "unfit for human habitation."

*Clauses 23 to 28.*—Clauses 23, 24, 25, 26, 27, and 28 make the procedure under Part I. of the 1890 Act, which refers to reconstruction schemes for congested areas, far simpler and cheaper than it is at present, but do not of course affect the

question whether the policy itself is right or wrong. An improvement scheme sanctioned by the Local Government Board no longer requires the confirmation of Parliament. The Local Government Board may give permission for the modification of schemes. It may also sanction the compulsory purchase of land, and allow the inclusion in the scheme of any "matter for which it seems expedient to make provision."

## 2.—SLUM REFORM.

*Clause 14.*—Clause 14 provides that in any contract made after the passing of the Act, *i.e.*, after December 3rd, 1909, for the letting of a house under a certain value which value has been raised by the Act to about twice what it was in the Act of 1890, Sec. 75, there shall be implied a condition that "at the commencement of the holding" the house is "in all respects reasonably fit for human habitation"; and Clause 15 lays it down that the house shall, "during the holding," be kept in such condition by the landlord. If in the opinion of the Local Authority these regulations have not been complied with, and if a closing order is not made, written notice shall be served on the landlord to make the house in all respects reasonably fit for human habitation within a reasonable period; and if the landlord refuses the Local Authority may do the work and charge him with the cost. The landlord has a right of appeal to the Local Government Board.

*Clause 17.*—Clause 17 gives Local Authorities all over the country power to close any house that is not fit for human habitation until it has been rendered fit. Notice of this closing order to be served on every owner and every occupying tenant. The closing order to be determined when the house has been rendered fit. The Local Authority may make reasonable allowance to tenants on account of moving expenses. The landlord has a right of appeal to the Local Government Board, who shall not dismiss any appeal without having first held a public local inquiry.

Clause 17 also enacts that after July 1st, 1910, cellar dwellings shall be deemed unfit for human habitation.

*Clause 18.*—Clause 18 strengthens the regulations with regard to the demolition of houses that are unfit for human habitation and which the owner has refused to render fit. Here again there is a right of appeal to the Local Government Board.

*Clause 21.*—Clause 21 restricts the power of Courts of Summary Jurisdiction to extend the time allowed for the execution of repairs or the demolition of insanitary houses.

*Clause 36.*—Clause 36 gives any person authorised in

writing by a Local Authority or by the Local Government Board the power of entry into a house for the purpose of examining its condition and determining whether any powers under the Housing Acts should be exercised in respect of such house. This will greatly facilitate the work of slum reform, as till the passing of this Act obstructive owners or occupiers had the right to refuse to allow medical officers of health or sanitary inspectors to enter insanitary houses.

### 3.—SLUM PREVENTION.

*Clause 2.*—Clause 2, Subsection 3, enables Local Authorities to “acquire land by agreement for the purpose of Part III. of the 1890 Act, notwithstanding that the land is not immediately required for those purposes.”

*Clause 4.*—Clause 4 enacts that the Public Works Loans Commissioners shall advance to public utility societies up to two-thirds of the value of the property in such societies.

*Clause 6.*—Clause 6 enables Local Authorities to lay out and construct public streets or roads on any land acquired by them for the purposes of Part III. of the 1890 Act, on condition that such “streets or roads are to be dedicated to the public.”

*Clause 54—Town Planning.*—Town Planning schemes may, subject to the approval of the Local Government Board, be prepared by (1) the Local Authority, (2) land-owners “as respects any land likely to be used for building purposes and of any neighbouring land.” The Local Government Board’s decision to be final as to what land is likely to be used for building purposes. The expression “likely to be used for building purposes” to include the purpose of providing open spaces, roads, streets, parks, pleasure or recreation grounds, or for the purpose of any work incidental to a Town Planning scheme whether in the nature of building work or not. Schemes may be varied or revoked by subsequent schemes. A notice of any scheme approved by the Local Government Board is to be published in the *London Gazette*, and if within twenty-one days any person or authority objects the draft order confirming the scheme is to be laid before both Houses of Parliament for thirty days, and if either House presents an address against the draft, no further proceedings thereon shall be taken.

*Clause 44.*—Clause 44 gives the Local Government Board power to revoke unreasonable bye-laws.

*Clause 57.*—Any building or other work contravening a scheme may be removed, pulled down, or altered. Expenses incurred under this head by a Local Authority may be recovered from persons in default.

*Clause 61.*—If the Local Government Board are satisfied that Local Authorities have failed to take the requisite steps for a Town Planning scheme, the Board may order one to be prepared. Landowners who have prepared a scheme and failed to get it adopted by the Local Authority have the right of appeal to the Local Government Board.

*Clause 60.*—The Local Authority may be authorised for any purpose of the scheme to purchase compulsorily any land comprised in a Town Planning scheme in the same manner and subject to the same provisions as land in an urban district may be purchased for the purposes of Part III. of the 1890 Act. (See explanation of Schedule 1 on page 110 in this chapter.)

*Clause 56 and Schedule 5.*—The Local Government Board may make regulations governing the procedure to be adopted with respect to Town Planning schemes. These regulations shall provide: (1) For the co-operation between Local Authorities, owners and other persons interested, by means of conferences; (2) for securing that notice of the proposal shall be given at the earliest stage to any other Local Authority interested in the land; (3) for the submission of plans and estimates, publication of notices, submission of scheme to the Local Government Board, hearing of objections and representations by persons affected, notice of approval of scheme, inquiries and reports as to beginning, progress, and completion of the works.

Sec. 55. Schedule 4.—The Local Government Board may prescribe general provisions with regard to:—

1. Streets, sewerage, and lighting.
2. Water supply.
3. Buildings.
4. Open spaces.
5. Preservation of objects of historical interest and natural beauty.
6. Extinction or variation of private rights of way.
7. Application and adaptation of statutory enactments.
8. Disposal of land.
9. Power of entry.
10. Power to remove obstructions.
11. Limitation of time for operation of scheme.

Special provisions may be inserted in a scheme suspending statutory enactments, bye-laws, and regulations; but if the enactment suspended is contained in a public general Act, the scheme must be laid before Parliament for forty days, and either those may present an address against the suspension, and if so the scheme must not be proceeded with, but a new scheme may be made.

*Clause 58, Subsections 1, 3.*—Any person whose property is injuriously affected by a Town Planning scheme shall be entitled to compensation under certain conditions, and where by the making of a Town Planning scheme any person's property has been increased in value then the responsible authority shall be entitled to recover one-half the amount of that increase.

*Clause 59.*—No compensation shall be paid in respect of provisions such as could reasonably have been inserted in local bye-laws. Property shall not be deemed to be injuriously affected so as to give rise to any claim for compensation by reason of any provisions inserted in a town planning scheme with a view to securing the amenity of the area, prescribing the space about buildings, limiting the number of buildings per acre, or restricting their height.

*Clause 58, Subsections 2, 4.*—No compensation shall be paid on account of any building erected after the time at which the application for authority to prepare the scheme was made. The amount of compensation due to owners or to Local Authorities in this Act shall be determined by an arbitrator appointed by the Local Government Board, unless the parties agree on some other method of determination. Amounts due may be recoverable summarily as a civil debt.

*Clauses 62, 63, 64.*—Provision is made for the determination of matters by the Local Government Board, as arbitrators or otherwise, and for the holding of local inquiries, and the Board are also required to lay all general provisions made by them before Parliament.

#### FINANCIAL.

*Clause 8.*—Clause 8 allows a Local Authority to accept money or other property for the purpose of the Housing Acts without restriction under Mortmain.

*Clause 9.*—Clause 9 facilitates the working of Trusts for housing purposes.

*Clause 7, Subsection 2.*—Clause 7, Subsection 2, enacts that provision of dwellings for the working classes by a tenant for life at his own expense "shall not in any case be deemed to be an injury to any interest in reversion or remainder in that land" provided he has first obtained the written approval of the trustees of the settlement.

*Clauses 19 and 20.*—These are directed towards making it easier for poor owners to borrow from a Local Authority on the security of their property, money required for repairing insanitary houses.

There are several other financial clauses reducing the cost of housing reform, the details of which would not interest the general public.



## GENERAL.

*Clause 37.*—This gives the Local Government Board power to obtain a report on any crowded area.

*Clause 38.*—Arranges for joint action by Local Authorities the practical working of which is not likely to be easy or very satisfactory. No matter what the general public interest may be, the interests of neighbouring Local Authorities nearly always conflict with each other.

*Clause 40.*—Does away with the obligation upon a Local Authority to sell and dispose of any land or dwellings acquired or constructed by them for the purposes of the Housing Acts. It also makes it unlawful to “*erect*” back-to-back houses.

*Clause 44.*—Prohibits the future erection of back-to-back houses.

*Clauses 46 to 51.*—Deal with minor amendments and definitions.

## RURAL.

*Clause 68.*—Provides for the appointment by County Councils of whole time Medical Officers of Health. They shall not engage in private practice nor shall they hold any other public appointment without the express consent of the Local Government Board; nor shall they be removable without the consent of the Local Government Board.

*Clause 69.*—Provides that these County Medical Officers of Health shall be supplied with all necessary information by the Clerks and Medical Officers of Health of Rural District Councils. Any disputes or differences that may arise between County Council and District Council officials to be referred to the Local Government Board, whose decision shall be final and binding.

*Clause 71.*—Orders that every County Council shall establish a Public Health and Housing Committee.

*Clause 72.*—Enables County Councils to “assist Societies that are working on a co-operative basis, one of whose objects is the erection or improvement of dwellings for the working classes,” and enables the County Council to make grants or guarantee advances to the extent of two-thirds of the value of the property belonging to such Societies.

## LIVERPOOL TOWN PLANNING ACT, 1908.

The Liverpool Town Planning Act of 1908 is on different lines to Mr. Burns’s Act. It does not deal with many points in that Act, but it does confer upon Liverpool many powers not at present possessed by any other Local Authority.

Under this Act Liverpool has very large powers with regard to the determination of the width of new streets, the fixing of building lines and frontages, intersecting streets, adjustment of boundaries on exchange of lands, the laying out of streets by the Corporation, demolition of buildings and the sale of materials and recovery of expenses. It also enables the Corporation to make concessions in the cost of estate development to landowners willing to dedicate one-tenth of their estates as gardens, open spaces, or public recreation grounds. They are also able to insist upon streets likely to become main arteries being made eighty feet wide, and if in their opinion any streets should be still wider, they have the right to purchase the necessary land at the value of that land previous to the development of the estate. The Corporation also has power to require owners of adjacent land to enter into agreements with each other for adjusting boundaries, etc., in order to facilitate the development of all the estates concerned in combination with each other, thereby preventing what so often takes place at present: one landowner seriously injuring another.

## CHAPTER X

### LANDLORD AND TENANT

1. *The Maintenance of Improvements effected in old houses*
2. *The preservation of better conditions provided in new houses*



SERIOUS aspect of the Housing question is the constant complaint that tenants do not value the improvements made by the landlord. Town Planning itself is not more important than house maintenance, and all that it involves. Our difficulties here are due to the absence of house-pride among some tenants of small houses. There is too much truth in the small boy's answer to his friend, who said, "Hullo, Bill! where are you living now?" "Oh, we're still in the same house, but we shan't stay long. Father's used all the doors for firewood, and now he's starting on the stairs."

At the same time, there is a certain number of those who live in the slums who do take a wonderful pride in their houses, and do keep them marvellously clean and neat, in spite of the most adverse and depressing circumstances. To those who know how the poor live, it is nothing short of a miracle that any are able to sustain sufficient courage to enable them to stick at the daily drudgery of such housework. There are many housewives in the slums who are patient and uncomplaining heroines.

I am often told by property owners or their representatives, that it is grossly unfair to call upon them to repair their houses, and not to punish their tenants for the wanton damage they commit. It is difficult enough to stir up public opinion in the one case, and it would be still more difficult to get a conviction in the other. We must admit there are many cases where dirty and destructive tenants deserve punishment, but I feel bound to remind students,

of the Housing problem that landlords are, as a class, infinitely better off than their tenants, and are, or ought to be, better educated. They must first meet the responsibilities of their position. I have always found that it is those landlords who treat their tenants badly who complain most about them. For instance, not once or twice only, but many times have I heard landlords who had refused to provide proper sanitary convenience and washing accommodation call their tenants "dirty pigs."

Miss Octavia Hill has shown by the splendid work she has done in London, that landlords who recognise their responsibilities, do in the long run, benefit financially from their consideration for others. The owners of property managed by Miss Hill always get a steady 4 per cent. and sometimes 5 per cent. on their investment, which to my mind is far better business than to get 20 or 30 per cent. for a few years followed by a closing or demolition order. Miss Hill gives her tenants a direct personal interest in taking care of their homes. A certain sum is set aside each year for repairs, and if less than this amount is required to be spent, then the tenant gets the benefit in some tangible form, such as some household necessity or treasure on which he has set his heart. By this means, and in many other sympathetic ways which I have described at considerable length in "A Housing Policy," Miss Hill makes the interests of landlord and tenant identical with immense advantage to both. Miss Hill's wonderful success, in spite of great difficulties, is due to the fact that she recognises what so many fail to see, viz. :—that the Housing question is very largely a personal question, and cannot be successfully dealt with in the wholesale fashion which is the only way possible when Local Authorities insist upon themselves building the actual houses required, instead of being content, and wisely content, to encourage others to build houses on proper lines, keeping themselves free to supervise and control what is done, which is after all their first and most important function.

The duty of Local Authorities is to lay down the main policy, giving all their energies to encouraging others to carry out details and taking the utmost pains to see that what is done is well done. Experience shows this work is better done by individuals, provided always that the Local Authority supervises it with courage and discretion.

The successful solution of the Housing problem depends more than anything else upon the relationship between landlord and tenant. Miss Hill, as landlord, or representative of the landlord, treats her tenants as human beings, and not as mere rent producing animals. Her sympathy and practical

common sense are more successful than Police Court summonses, and lead the tenants into taking care of their houses, with the result that her tenants enjoy comparative comfort, and the landlord gets better permanent returns on his investment than is the case under the usual thoughtless, heartless system.

Miss Hill was one of the first Housing reformers to draw attention to the unsoundness of the policy of Municipal House-building, but her opinions have been fully justified by results. Her principles are patience and caution, and, above all, help the people to help themselves instead of attempting to be a "*deus ex machina*," and do everything for the people without calling upon them to do anything for themselves. It is often very difficult to refrain from rushing in and trying to put an immediate stop to the misery we see, but bitter experience teaches the hopelessness of this policy.

It is very hard to stand by and wait until improvement is gradually evolved after one has done as much as one can do without the risk of destroying character. It is extremely anxious work for public men who are convinced that the only permanently successful policy for them is to follow Miss Hill's example and be content to hasten slowly.

A public man has to justify his position by some piece of work that all can see and understand, or it will go hard with him at his re-election.

Those who reject Municipal House-building and adopt Part II. of the Housing of the Working Classes Act, 1890, for the removal of existing evils will probably have to go through some such experience; but if they persevere, they will enjoy the great satisfaction of having done something really useful.

Miss Hill's principles of patience, caution, and self-help, have undoubtedly succeeded where the attempt to do everything at once has utterly failed. It is only necessary to inspect the London County Council's barracks, and then Miss Hill's happy homes, in order to see that she has succeeded where the slapdash municipal house-builder, who sets to work without first thinking out general principles, has utterly failed.

Miss Hill has stuck to sound business principles and fair dealing between man and man. The proof of the pudding is in the eating, and the great development of her work is the best testimony to her success. The Ecclesiastical Commissioners are large property owners in London, and as they are in the position of Trustees they cannot deal with their property on philanthropic lines; they have to do the best they can for their trust. The management of their property is committed to Messrs. Clutton (their agents and receivers),

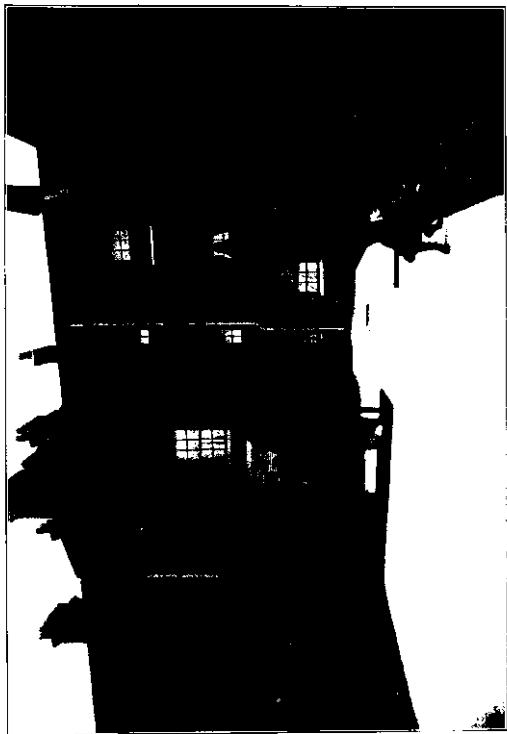
but an arrangement has been made by which the actual supervision and collection of the rents has been delegated to Miss Octavia Hill and other ladies trained by her to deal with this class of property. Miss Hill's ladies collect the rents, select the tenants, order the necessary repairs, keep order and provide against the abuse of privileges and just rights among the tenants. The average return to the Commissioners is about 4 per cent.

The results of this arrangement were so satisfactory that in 1903, when the lease of their Walworth estate, comprising twenty-two acres and entirely covered by small houses and shops, fell in, the management was handed over to Miss Hill, who put it under Miss Lumsden, retaining for herself an advisory position. The houses were not so constructed or in such a condition that they could be permanently retained as dwellings for the poorer classes. On the other hand, the neighbourhood was one in which, owing to the industries carried on within it and the proximity of a tram route, there is a great demand for workmen's dwellings, and a great shortage would have been created if the houses had been done away with. In these circumstances, the Commissioners determined themselves to build upon the greater part of the estate, cottages, cottage flats, and three-storeyed tenement houses, similar to the buildings already erected by them in other parts of London. About £200,000 was spent, and rents were fixed on the basis of a 4 per cent. return. Just over one acre has been given up as an open space in the midst of the dwellings, and four drink licences have been suppressed. A site has been leased to the Hon. Maude Stanley, on which she has built a club for working girls. In the cottage flats are two quite distinct three-roomed cottages with sculleries and separate entrances and yards, making use of the same site, foundations and roof, and little gardens have been provided in most of the yards. The tenants were of the poorest class.

Miss Hill and her ladies took the matter in hand on October 5th, 1903, and succeeded during the first fortnight in persuading all tenants, except one, who was a regular scamp, to pay their rents without any legal process. "They collected some £250, most of it in silver, and got it safely to the bank. Then came the question of repairs; there were written in the first few weeks 1,000 orders for these, although, as the whole area was to be re-built, they were only doing really urgent repairs and no substantial ones." Very little time was allowed to elapse before the reconstruction of the whole area was undertaken on lines already partly described. Four new wide streets were substituted for



BACKS OF HUTS, 1903.



BACK YARD IN NARROW STREET ELEMENTS, MAY, 1906.

*Walworth Estate, New Property.*



three narrow streets, but the clearing of old houses was done gradually, so as not to displace all the old tenants until some of the new houses were ready for them.

In planning the new cottages and tenements, the Commissioners have given a large allowance of light and air between the buildings; none are more than three storeys high, and all have yards at the back, which serve as a drying ground for the washing, *and give the children room to play.*

In the interior of the houses every effort has been made to enable a working-class family to live healthily, tidily, and in comfort. All the rooms are light and have large windows, which open both at top and bottom. The accompanying photographs are more eloquent than any words could be of the marvellous transformation that has been effected in three short years by the thoughtful, careful, persistent attention to all the little details that go to make a healthy happy home.

Miss Hill's idea of employing ladies to collect the rents is so simple and so natural, that one wonders why it has not been copied all over England. It is, in 99 cases out of 100, the wife who is given the money to pay the rent; and if women pay the rent, why should not women collect it? A woman has so much more sympathy, and therefore can do so much more with the housewife than a mere man, who knows nothing about all the little details and difficulties of housekeeping. House agents have often told me that this class of property is a great nuisance to look after, and hardly repays their trouble. It is difficult to understand why some of them do not copy the example set by Messrs. Clutton.

Those who wish for more information on this subject can obtain "A Housing Policy" from Messrs. Cornish Bros., New Street, Birmingham.

Miss Hill's principles are, in my opinion, the only method for surmounting the difficulties between landlord and tenant, and removing existing slums in a manner that will be permanently satisfactory and successful. The same general principles have been applied by the Corporation of Stuttgart.

Their method may be shortly described as the application of the Elberfeld system to the Housing question. The Elberfeld system is now being tried in England, and it might be advisable to include a system of Housing inspection similar to that carried on under the Stuttgart Housing Bureau by 100 or so Voluntary Housing Inspectors.

Poverty is largely due to bad housing. Put an applicant for relief under better housing conditions, and his health will in most cases much improve, enabling him to earn more and taking him off the hands of the charitable. Housing inspection goes deeper down than the doles of charity.



## CO-PARTNERSHIP IN HOUSING.

In regard to houses yet to be built, the simplest and surest way of reconciling the interests of landlord and tenant is to provide means by which the tenant of a small house can, if he is willing (and there are a great many who are willing), gradually acquire the value of, or a substantial interest in the house he lives in. This is not so difficult a task as the maintenance of old houses. We start with a clean slate. We have not to contend with the results of past mistakes, and we can learn from the experience of others. There have been, and still are, innumerable ways by which a man with small means is enabled to build a house for himself, and gradually pay for it. Building societies, some organised both by working men and capitalists, have attempted this task, and while some have achieved a certain measure of success, many have proved a great disappointment. One aspect of these failures, that is, "individual ownership," will be dealt with in the last chapter of this book; meanwhile this chapter is concerned with the successes.

Foremost among these must be noted the Co-partnership Tenants' Housing Council, which is a propagandist organisation, and Co-partnership Tenants Limited (6, Bloomsbury Square, London, W.C.), which is a business organisation for putting into practice the principle of co-partnership in house-building and house-ownership. Mr. Henry Vivian, M.P., is the chairman of both these organisations.

No work on Housing Reform would be complete without a description of their system and procedure.

1. The first step is to secure an option to purchase or lease suitable land on the outskirts of an industrial centre, at a capital value of £300 per acre, or less if possible.

2. When the option has been secured, but not before, a meeting of possible members of the future society is called together, and details are fully explained. The names are then taken of those willing to join the society, and anxious to get healthy houses with cheerful surroundings, the value of which they can gradually acquire by small monthly payments. The promoters of the scheme are able to judge whether the demand for respectable housing accommodation is sufficient to justify them in proceeding with their scheme.

3. The land on which an option has been secured is then planned out as a whole in accordance with the hygienic, artistic, and economic principles of Town Planning, as far as the local bye-laws will permit.

4. Rules are prepared and must be passed by the Registrar of Industrial and Provident Societies before the prospectus

is issued. A prospectus is then issued explaining the objects of the society, to which subscriptions for loan stock and share capital are invited, and also the terms on which share capital and loan stock will be issued.

The share capital is raised in shares of £1 to £10 each, payable in full, or as to the first share £2 to £5 on allotment, and the remainder by instalments of 2s. 6d. per month. Under the rules no dividend greater than 5 per cent. may be paid. If any further profit is made it is applied in furthering the objects of the society, and in payment of a bonus to the tenants of the society, who are also shareholders. No member may hold more than twenty £10 shares.

The building up of capital by means of monthly instalments of 2s. 6d. is a very slow process, and therefore in order to get to work at once on building the houses required, loan stock is raised, on which 4 per cent. is paid from the date of receipt of the money. It will be obvious that no interest can be earned until the houses are built and tenanted, but the societies have powers to pay interest on loan stock out of capital for the usually short period erection takes, in the same way that a railway company is allowed to pay interest on its debentures for a certain fixed period, until their line is in working order. This loan stock has a prior claim to shares on the assets of the society, and is transferable only.

The houses built are simple but substantial, and include proper sanitary and other arrangements. It is not considered fair, as some landlords suggest, to deny the tenants proper accommodation for washing, and the other essentials to clean living, and then condemn the tenants for being dirty. Special attention is also given to the surroundings, which are really quite as important as the houses themselves. In short, the houses are built for use, and not merely for sale. They are let at ordinary rents, to pay a moderate rate of interest on capital, and the surplus profits (after providing for expenses, repairs, depreciation, etc.) are divided among the tenant members in proportion to the rents paid by them. Each tenant member's share of profits is credited to him in shares instead of being paid in cash.

1. This system has many advantages over that of an ordinary building society. In the latter case the member makes himself liable for the purchase money, and if he leaves the neighbourhood the house may be a burden on his hands. In nine cases out of ten, a working man living in his own house, has to face a heavy loss on the investment of his savings when he has to choose between unemployment and removal to a neighbourhood where his labour is in demand. The mobility of labour, which is one of the working man's

most valuable assets, is seriously interfered with, if not destroyed. Under the co-partnership system, on the other hand, the mobility of labour is encouraged, not destroyed. When a member leaves the neighbourhood, the society, not the tenant shareholder, possibly has a house on its hands. The tenant of the house has his shares in the society equal in value to the value of his house, which he can, if he likes, realise without any loss; or if he leaves his savings where they are, he will receive his interest as usual.

So far there has not been a single failure in this system, and from what I know of the management, I am not afraid of expressing the opinion that there is not at all likely to be one.

The system is thoroughly sound, and the details of administration are carefully attended to by experienced men, whose past successes are their best testimonials.

2. Another advantage is that no tenant is in danger of having his property injured by the careless and untidy way in which his neighbour's house is kept. No member can say, "This house is mine." They can all say, "These houses are ours." One of the results of this is that public opinion on the estate is far too strong in favour of cleanliness and order for it to be possible that any tenant should neglect his house and garden, without being called to order by his partners. This sounds like interfering with the liberty of the subject. We already send people to prison for being drunk; why should not firm but friendly pressure be kept on individuals to enjoy the benefits that they have secured by co-operation with their neighbours, without injuring those who have helped to make these enjoyments possible? Vexatious interference with the way a man manages his own house and garden would be stopped by the public opinion of the neighbourhood quite as quickly as the neglect and untidiness that injures the neighbours.

3. Everyone ought to put by something for a rainy day. The difficulty that confronts working men and others with small means, is to find an investment at 4 or 5 per cent. that is safe and permanent. Small house-property is a very favourite and very sensible investment for people in this position. It cannot run away, but unfortunately the flimsy structures so often palmed off on thrifty but unsuspecting poor people have a habit of coming to pieces very soon after they are built.

There is a story of a builder who complained of people for leaning against the wall he had built, and another of the draught being so great that someone had to sit on the tablecloth to prevent it being blown off the table. This palming

**TWO STREETS BUILT IN THE SAME PARISH, BUT NOT BY THE SAME METHOD.**



**A STREET OF HOUSES OUTSIDE THE HAMPESTEAD GARDEN SUBURB—WIDTH ACROSS ROAD FROM WALL TO WALL 20 FEET. AVERAGE RENTAL ABOUT EQUAL TO THAT OF ASMUNS PLACE.**



ASMUNS PLACE, HAMPS TEAD TENANTS LTD.

BUILT ON THE CO-PARTNERSHIP SYSTEM, RENTALS FROM 6s. TO 9s. 6d. PER WEEK.

WIDTH ACROSS ROAD FROM WALL TO WALL, 71 FEET 9 INCHES.

*Reproduced with Mr. Raymond Unwin's permission from "Town Planning in Practice."*





off of rotten property on the thrifty poor is not only ruinous to the health of the people—it is also seriously discouraging to national thrift.

The co-partnership societies give the poorer classes an opportunity of gradually acquiring the value of the houses they live in on easy terms, and at the same time guard them against all risks.

Many other advantages might be mentioned, such as the enjoyment of social intercourse, without which the gregarious instincts of human beings remain unsatisfied. Space will not admit of mention being made of all the advantages to be obtained by tenant members of these societies; but I hope I have said enough to show that for the poorer classes there is no sounder proposition from the purely business, as well as every other point of view, than Co-partnership Housing, as advocated and administered by Mr. Henry Vivian.

Capitalists, on the other hand, are provided with a safe sound 4 per cent. investment.

1. The greater the surplus profits, the greater the security for the regular payment of the interest on capital. It is to the interest of the tenant members, who receive the surplus profits, to make those profits as large as possible:—

- (a) By taking care of the property, and so lessening the expenditure on repairs;
- (b) By helping to find tenants for the houses;
- (c) By the punctual payment of rent.

2. The share capital of the tenant member provides a fund upon which the society can, if necessary, draw, in order to pay any arrears of rent. Loss by arrears of rent is therefore reduced to a minimum.

There is no better investment than well-built, well-let house-property, and the very fact that this system confers great benefit on the tenant members, ensures an exceptional security to the loan-stock holders.

This system also solves the question of “unearned increment” without the slightest unfairness to any individual. The increased security caused by this goes to the ordinary shareholder and the loan-stock holder; but after 4 per cent. has been paid on the loan stock, and 5 per cent. on the shares, the surplus profits due to unearned increment go as they should do to the tenant members of the societies, in the shape of increased bonuses on their rentals.

Each society is managed by a committee elected by the shareholders on the lines usually adopted by industrial and provident societies. Many of the individual societies all over the country are now joining Co-partnership Tenants Limited, which is a federation of branch societies, with headquarters

in London. There are many details in connection with the work that can be far better carried out by a central body like this for the provincial societies, than by these societies for themselves. Official business with Government offices can be transacted more quickly and cheaply; the expense and loss of time caused by frequent journeys to London being avoided, as well as the delay caused by inexperience in matters of this sort.

Materials for road-making, house-building, and house-fitting can be bought in very large quantities, thereby considerably reducing the purchase price. The combined knowledge and experience of each individual society is all collected at headquarters, and is at the service of all the others. Co-operation saves money, individual effort results in waste. Without the assistance of some such organisation as this federation, the starting of new societies in other parts of the country would be very difficult and very slow. With this federation to do the pioneer work, everything becomes comparatively easy. The federation knows exactly what to do, and (what is equally important) what to avoid, in order to get to work quickly and cheaply on sound lines that will ensure speedy and permanent success.

The Co-partnership Housing Movement has spread with remarkable rapidity during the last few years, and will undoubtedly spread much faster still. It is founded on the thoroughly sound principle of mutual self-help. Its promoters recognise that the poorer classes in this country are no exception to the rule—that people do not really value anything they get without effort or self-sacrifice of their own. That is one of the many points on which co-partnership house-building has an immense advantage over municipal house-building. Under the latter system the tenants have themselves taken no part in the undertaking; they have not been called upon to make any special effort to get into the houses built (which was purely a question of luck, or worse still, favouritism), and they have no sense of possession.

It is of great importance that the poorer classes of Great Britain should be provided with respectable housing accommodation in place of the disgusting hovels in which so many of them now exist. It is of equal, if not greater importance, that this should be done on lines which will ensure that the houses are properly cared for by those who live in them. This all-important object is more or less successfully obtained in the case of municipally-built houses, by a stringent system of inspection by corporation officials; but official inspection is instinctively repugnant to our people, and for this reason

the great majority of those who deserve assistance in the matter of housing, and would repay many times over any wise assistance given to them, refuse to go into municipal houses. Co-partnership house-building on the other hand gently leads the tenants into taking care of their houses by giving them the sense of possession.

Another advantage of co-partnership building societies is that the houses are not all built to one pattern, and therefore more easily suit the different requirements of different tenants.

House-building by the municipality must necessarily be an official system, and carries with it the disadvantages of officialdom. There is no scope for imagination and initiative. We have had municipal house-building for twenty years, and its own supporters complain that no serious improvement has been effected in our large towns. In any case, a comparatively small proportion of the community can build houses on the philanthropic or semi-philanthropic lines adopted by municipal house-builders.

All those who want a sound 4 per cent. investment can safely follow the lines of the Co-partnership Tenant Societies. Amongst their supporters are many men well known, and rightly respected in the highest business circles.

I am by no means the first to recognise the unsoundness and the actual failure of municipal house-building; but that is not enough. It is necessary to present and give practical support to an alternative policy. Many of those who see the danger of the unsound socialism that has of late years been gradually gathering force in this country, merely meet it with a policy of simple negation, or a policy of pure selfishness that is even more harmful. They do not seem to realise the general condition of affairs in our great industrial centres, which is at the root of the mischief. It is useless to meet Socialistic fallacies by mere exposure of their unsoundness, without attempting to remedy the social evils. The evils are there, and they must be alleviated by one means or another.

Municipal land-purchase and land-leasing would, in my opinion, be of great service towards the end in view; but as I have already explained in other chapters of this book, it is wiser to attempt less first. The cautious man looks before he leaps. Let us first try what a combination of Town Planning of the land and co-partnership in house-building will do, before we ask for strong powers of compulsory public land purchase.

Those who help to get Town Planning powers, and start such societies all over the country, will be actively helping to solve the problem.

The success of Town Planning depends in the first place upon Parliamentary influence; the success of co-partnership building depends on hard cash being invested at 4 per cent. in order to start the societies. Create all over the country a strong body of small house-owners, and you will do more than the most eloquent speeches to combat unsound socialistic pretensions.

Co-operation has achieved miraculous results in the production and distribution of all sorts of commodities for general consumption. The general principle has far greater possibilities in the matter of housing the people than in any other direction, for reasons that I have endeavoured to explain in this chapter; and by no means the least of these is the complete conciliation of the interests of landlord and tenant.

Lord Brassey, Sir John Brunner, Mr. Rothschild, and many other financial and commercial leaders, have already approved these methods; and these names are a guarantee that Mr. Vivian's methods have been conceived, and are being carried out, on thoroughly sound business principles. No one need therefore hesitate about investing capital in co-partnership loan stock. They are taking up a perfectly safe 4 per cent. investment, as well as helping forward a thoroughly sound solution of the Housing problem.

NOTE.—A description of Ealing Tenants Ltd., the pioneer co-partnership village, will be found in Appendix C 1, and a table showing the growth of the federated co-partnership estates in Appendix C 1a.

## CHAPTER XI

### MISCELLANEOUS

#### MUNICIPAL HOUSE-BUILDING. RURAL HOUSING. COLLECTIVE VERSUS INDIVIDUAL OWNERSHIP



ANY of the arguments against municipal house-building have already been given in "A Housing Policy,"\* and others have been mentioned in this book. My present task is a comparatively short one. We are continually being told that municipal house-building is not a charge on the rates, and yet rising rates are generally coincident with increased activity in this direction, and it is instructive to note that no municipal house-builder writes on the Housing question without advocating some fresh means for "relieving their burden," such as exempting their undertakings from rates, etc. It is difficult to see how it can be fair that those who do not live in municipal houses should pay rates for those who do. This latest proposal for "manipulating" municipal house-building accounts reveals the unsoundness of the policy, and practically amounts to a confession of failure by those who make it.

I have examined a good many municipal house-building accounts, and, so far, have not found a single set of figures that told the public the whole truth. In addition to which, private interviews with officials engaged in the work have more than once provided me with information very different to that furnished to the ratepayers.

The insurmountable difficulty between those who advocate municipal house-building and those who oppose it is that they cannot agree on the facts.

In a recent publication we are told that the three Birmingham Corporation housing schemes give net returns of 4.35 per cent., 4.66 per cent., and 2.46 per cent. on the outlay. It is now some years since this mistake of local municipal house-builders was corrected. To-day, every Birmingham

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\* Published by Cornish Bros. Ltd., New Street, Birmingham.

man who has followed the matter at all closely is aware that the houses referred to as making a profit are in reality a charge on the rates, varying from 1s. 3d. to 2s. 8d. per tenement per week.

Another error into which municipal house-builders fall is in thinking that their policy encourages the private builder, and thereby increases housing accommodation; while we contend that the action of the municipality competes unfairly with and deters private enterprise. The case of Bournville is cited in the publication already mentioned, and it is suggested that Bournville was started as the result of a threat to build municipal dwellings. Mr. Cadbury's letter of December 18, 1907, entirely refutes this veiled attack: "The idea of Bournville arose from my visits to the poor, when I was impressed with the great difficulty of a man living in the back streets of one of our towns bringing up children vigorous in mind and body. It was an ideal from my boyhood of fifty years ago, which I never then expected to have the privilege of realising. I have been an Adult School teacher in Birmingham for forty-nine years, so you will see I have had an exceptional opportunity of knowing the conditions of its people."

Those who want Local Authorities to devote their attention to the provision of housing accommodation do not yet realise that this results in neglecting their primary duty of supervision.

There are two points of agreement as to facts which may be usefully considered. Part III. is generally recognised to be the least extravagant form of municipal house-building. There are no figures available giving the costs of these operations all over the country, but the *Municipal Year Book* tells us that the London County Council, which has more experience in municipal house-building than any other public body, had up to November 30th, 1906, spent £3,342,542 on land and buildings for housing 70,491 persons. This works out at £47 8s. 4d. per person, which is very nearly the same figure as that taken in Chapter III. for urban re-housing.

These figures show it to be financially impossible for Local Authorities to build on an adequate scale themselves, and should persuade them to attend to the work of supervising others. The other point of agreement is the fact that every pound spent in land purchase, which would give Local Authorities complete control over the houses built, would go just seven times as far (more than one leading municipal house-builder says ten times) as a pound spent in house-building. This brings us to the policy of municipal land purchase and leasing to societies of public utility, or to

individuals willing to observe the conditions laid down by the authorities.

I am in favour of the policy of municipal land purchase, but this is not the case with all Housing reformers.

Practically speaking, all are agreed on Town Planning, but on municipal land purchase they are not, and therefore the two policies ought to be kept separate.

The question of "Unearned Increment" raised by John Stuart Mill some forty years ago, presents a problem that will never be solved until the land is owned by the people. The difficulty is how to attack this problem on lines that will be just and fair to all existing interests, and at the same time capable of attaining the end in view.

Some suggest that by taxation of land values the landowners of England might be gradually taxed out of their inheritance. "Valuation" is too large a subject to be dealt with here. The principle that seems most likely to succeed is to give public bodies, national or local, some such power as this: "When land is required for any purpose in the public interest, the public authority concerned should have the power to take the land required and give in return public stock secured on the land taken that will bring in the same income as the land is earning at the date of transfer."

Various safeguards would, of course, be required. The landowner would not lose income, and he would gain in security, because he would have added to his original possession the guarantee of the national taxes or the local rate.

There has been a great deal of talk recently about Socialism on public bodies, but no public body has failed to meet its obligations, nor is there ground for expecting this will happen. Popular election can be relied upon to check over-enthusiastic public representatives.

The leading idea of English land legislation has always been to frame laws to protect the owner against the community. Is it unreasonable to suggest that the time has now come to give some little thought and attention to protecting the community against the owner? The present conditions can scarcely be considered satisfactory, when it is the general experience that land bought publicly for public purposes costs from 10 per cent. to 50 per cent. more than land bought privately.

Public land ownership would be of very great assistance in stopping private land and building speculation, than which nothing has done more to injure the national health and empty the national purse.

An interesting example of how this theory works in practice

is supplied by Birmingham's pioneer scheme—leasing corporation land to a building society of public utility for the construction of a model village under the supervision and control of the Corporation and the Local Government Board.

If this land had been developed on the usual lines, it would no doubt have yielded a comfortable profit to the speculator; but the Corporation, by placing various restrictions on it, were not able to obtain what jerry-builders describe as the "actual present value."

The first object was to ensure that people living on this land should be properly housed, and the scheme provides for this without putting any charge on the ratepayers. Owing to circumstances over which the Housing Committee had no control, there is a small charge on the rates during the early years of the lease, but this will be more than wiped out before its termination. In future schemes it ought to be possible to avoid loss even in the early years; meanwhile it is an important step forward to have actually started experimenting with a policy that has great possibilities.

An abstract of the lease between the Birmingham Corporation and the Ideal Benefit Society will be found in Appendix D, 2; also one of that granted by Mr. Cadbury to Bournville Tenants Ltd. This is specially interesting, because it was carefully drafted on lines that Local Authorities can follow if they so wish.

The lease between Hampstead Garden Suburb Trust and Hampstead Tenants Ltd. was also drafted with the same object.

*Rural Housing.*—At the beginning of this book I pointed out that the urban and rural Housing problems are dependent on each other. I claim no detailed knowledge of rural conditions, but as spectators sometimes see most of the game, a few general remarks may not be without interest.

It has long been recognised that country people crowding into the towns greatly increases the difficulties of urban housing, as well as competing in a full labour market. It is also an accepted fact that one of the chief causes of this immigration is the lack of sufficient and of sanitary houses in country districts.

In July, 1906, Lady Gwendolen Cecil read a most instructive paper on this subject to a meeting of the Christian Social Union at Garden City. She believes it to be one of the main causes of the present difficulties that while the commercial rent is that which can alone be obtained by a free offer in the open market, yet the rent charged in many parts of the country is an eleemosynary rent and not a remunerative one. The same opinion was clearly expressed by the Select



Committee on Rural Housing, presided over by Sir John Dickson Poynder.

Lady Gwendolen goes on to point out how generous landlords, with the best possible intentions, housed the tenants on their estates "on a standard of comfort and sanitation far above the then demands of the occupying class themselves, and established a system of customary rents which were not only below the then value of the cottages, but which are fixed and purely artificial in their character. These landlords have now for the most part finished their work; and economic laws are avenging themselves. Within a certain radius of such properties building enterprise is killed."

House-builders dependent on their business for a livelihood are unable to let their houses below cost, and therefore only a very small proportion of the total accommodation required has been provided.

If the money and energy devoted by generous landlords to this unhappy policy had been devoted to showing farmers and other employers that it is sound business to pay good wages, and see to it that they are earned, and bad business to pay the smallest possible wage, good might have resulted instead of harm. In the event of failure to establish the doctrine of better wages, better results, then these landlords might have provided the tenants on their estates with allotments and small holdings on commercial lines, and so enabled them to earn enough to pay the rent of a decent home. This method would have had another advantage in giving the landlord more income from his land, and so mitigated, if not entirely prevented, the slump there has been of late years in the value of rural land.

As in the dispensing of charity, it is sound policy to help people to help themselves, and unsound to give doles: so with housing. Those who attempt to nurse the poor are inevitably doomed to ultimate failure, no matter whether it be done by Local Authorities, philanthropic trusts or companies, or by private individuals. The policy of helping people to help themselves may be slower, but it is far surer; and Housing reformers must not allow present conditions and immediate results to divert their attention from the future.

The commercial value of allotments and small holdings to the nation, as well as to individuals, is fortunately being more and more widely recognised. The ethical value is quite as important, and it assuredly reacts for good on the commercial value. Those at work on their own plots, whether owned or only leased on a secure tenure, have an interest in life that no dole affords.

*Collective versus Individual Ownership.*—How often we

hear of tenants of small houses who have paid enough to buy every brick in their house two or three times over, but do not own one!

This condition has received a considerable amount of attention for many years past, thereby enabling us to profit by experience. Building societies have done a great deal of good, and also some harm. There have been too many failures, and these have deterred many cautious people from investing their savings in the gradual purchase of the house they live in, which provides, from every point of view, an excellent investment for the poorer classes. Everyone wants a house, and one of the advantages of this business enterprise is that the investor is his own customer. He does not depend on the requirements or caprices of others.

Collective ownership should be the poor man's safeguard. Rich men can afford the principle of individual ownership; they can afford to pay for their fads; but even they would undoubtedly be better off in many ways under the conditions of collective ownership.

In house purchase, as in other business matters, collective operations are infinitely more economical than individual action; it is just the difference between buying wholesale or retail. Another advantage is that the owner of a house on a co-partnership estate is protected against injury to his property by selfish or careless neighbours. Those conversant with what has so far been achieved in the direction of occupying ownership are aware that many a man with small means has paid far more than he need have done by taking individual action with only the financial help of a building society. Not only has he paid more, he has also obtained a worse article for his money.

The houses purchased with the help of an ordinary building society are not nearly so good in themselves or their surroundings as those to be found on the estates of Hampstead Tenants, Garden City Tenants, and many others rapidly developing all over the country.

A third, and in many cases the most important, advantage of all is the fact that collective ownership, as carried out by Co-partnership Tenants Ltd., enables a man to go from one district to another in search of work without any anxiety or loss in connection with his house.

The greater the mobility of labour, the larger its share in the profits of commerce.

This comparison between collective and individual ownership, in favour of the former, must not be taken as a want of appreciation of the great work done by ordinary building societies in persuading and assisting the poorer classes to

gradually acquire the houses they live in. That was a great step forward, and I have ventured to express my views on collective ownership in the hope that some of the older, and at the same time progressive, building societies may be induced to inquire into the methods of Co-partnership Housing, and consider the advisability of reviewing their methods.



## APPENDICES



## APPENDIX A

### THE BIRMINGHAM CORPORATION'S METHODS OF DEALING WITH INSANITARY HOUSES.

#### *Procedure.*

IN the first place no house is dealt with until it has been represented, under Sections 30-31 of the Housing of the Working Classes Act, 1890, as unfit for human habitation. Secondly, instructions are given, either to call on the owners to at once have the houses thoroughly repaired, and failing that, to apply for Closing Orders, or the property is referred to the Visiting Sub-Committee to inspect, and report upon what alterations are necessary. In order to avoid any possibility of favouritism or prejudice, the owner's name is never communicated to this Sub-Committee unless an interview or other negotiations become necessary. In every case when notices are served on an owner a printed circular is sent with the notices for repairs, inviting him to confer with the Department or the Committee before he spends any money. This is in order to avoid the risk of expenditure being incurred on work not required by, or not satisfactory to, the Authorities. Although it is not stipulated by the Housing of the Working Classes Act, 1890, that owners should be supplied with specifications of repairs required, as is the case under the Public Health Act, 1875, nevertheless specifications are supplied when asked for. This is found to be a great convenience to owners in the majority of cases. As an additional safeguard, there is an Interviewing Sub-Committee to whom owners may come if they are unable to arrive at an agreement with the officers of the Department concerning the specifications.

Before a specification is supplied the house or houses are visited, generally in company with the owner or his representatives, in order to obtain full details of defects, and the specification is then prepared to suit the particular needs of the property.

#### *Requirements.*

1. Where houses are too close together and there is no current of air in front of them, one or more houses are removed in order to let light and air into the remainder.

When outhouses are found within a few feet of the front doors and windows of dwelling houses, they are removed, and if necessary, a house is demolished to make room for new outhouses. Compensation is paid for the removal of obstructive buildings under Section 38 of the 1890 Act.

2. Unpaved common courtyards are paved, except in a few cases where the gardens are appreciated and kept tidy and wholesome.

3. With regard to the houses themselves:—

(a) When quarry floors have to be taken up because quarries are broken or the floor is damp the floor is relaid on concrete.

(b) Dampcourses are inserted except when a house is evidently dry.

(c) All dirty wall papers are removed, no matter how many layers there may be, and the plaster where necessary made sound and good.

(d) Insanitary brick settles or sinks, which always cause damp and bad smells, are removed, and an earthenware sink with water supply provided, so that tenants may be able to wash without having to go to the yard tap.

(e) Handrails are provided to staircases.

(f) Filth, when found between floors and ceilings, where it is always highly dangerous to health, is removed, and floors and ceilings thoroughly repaired.

(g) Roofs are repaired in such a manner that unless some accident occurs they will keep out the rain for some years to come.

(h) Windows are made to open top and bottom, and the woodwork made weatherproof.

(i) Matchboarding is removed from walls where it is found to hide damp or harbour filth.

(k) Where fresh paint is required, two coats are put on.

(l) Brickwork is raked and pointed where necessary, and where unsafe pulled down and rebuilt.

(m) Ventilated food cupboards or pantries are provided.

(n) Cellars are filled in where it is found impossible to prevent them being a cause of damp and bad smells.

Other repairs are sometimes asked for in special cases, but the above list includes the more general repairs required.

An opinion has been expressed that it would be easier for the property owners if all the repairs necessary were not asked for at the same time. This would oblige the Committee's Inspectors to be constantly harassing owners to do the next thing required. This method was tried before the Housing Committee was appointed, and resulted in putting property owners to a great deal of unnecessary inconvenience and extra expense. Complaints were made of constant harassing, and it was to remove this cause of complaint that the method of thorough repair was adopted by the Corporation, so that once a house had been repaired it would not be necessary for their Inspectors to trouble its owner again about that house for many years to come.

#### *Opening out of Courts.*

A number of congested courts, where the houses were not sufficiently bad to be declared unfit for human habitation, have been opened to the street, thus admitting more light and ventilation to the court houses. This has been done by means of friendly negotiations which have also brought about many reparations and improvements to houses in the courts so converted. In these cases compensation has been paid to the owners under Section 38 of the 1890 Act for the removal of obstructive buildings.

*Work done from January 1st, 1902, to December 31st, 1908—seven years.*

No. of houses represented	...	...	...	...	4,630
„ repaired	...	...	...	...	1,846
„ converted to workshops	...	...	...	...	45
„ under repair	...	...	...	...	321
„ demolished	...	...	...	...	1,457
„ pending lapse of notices	...	...	...	...	961
„ repaired without representation	...	...	...	...	334
„ demolished without representation	...	...	...	...	24
No. of obstructive buildings removed	...	...	...	...	258
No. of courts opened	...	...	...	...	110

#### *Total Cost to the Ratepayers.*

Administration expenses	...	...	...	£8,076	14	3
Compensation for obstructive buildings	...	...	...	6,187	10	0
				<hr/>		
				£14,264	4	3
2,280 houses repaired—cost per house	...	...	...	<hr/>		
				£3	10	10
258 obstructive buildings removed—cost per building	...	...	...	<hr/>		
				£24	0	0
				<hr/>		



## APPENDIX B

MR. HORSEALL ON ADMINISTRATION.

[Reprinted from the "Municipal Journal," Jan. 10th, 1908]

MANY English social reformers desire that town councils in this country shall have and use the power to make extension-plans for their towns. They advocate this change because they believe that it would remove or lessen evils from which our towns now suffer. It is, however, well known that some German towns, in which extension-plans are used, suffer severely from the evils resulting from the existence of a large number of tall barrack-dwellings, the rooms in which are dear, and therefore much overcrowded, and Mr. Aldridge seems, by what he said in a recent issue of the *Municipal Journal*, to believe that it is possible that the exercise by an English town council of the power to make town-extension plans might perhaps promote the building of barrack buildings here, and increase the evils from which we already suffer. It may therefore be well to try to call attention to the fact that the growth of barrack buildings in German towns is not due to the use by German town councils of any powers which a Town Planning Act would give to our town councils, but to the use, in the interests of speculators in land and holders of barrack dwellings, of those powers to make building bye-laws which our town councils already possess.

*German Conditions.*—The right to make a town extension plan only places a town council in the position in which the private owner of a large estate finds himself when he wishes to lay it out as the site for a town or part of a town. We know the absolute certainty that he may lay it out in such a way, and enforce such building regulations on it, as shall ensure that every house built on it shall be too large and costly for persons of small income, but that he need not take that course. We shall find, if we study the relation of a German town council to new districts of their town, that it has the same freedom of choice which is possessed here by the owner of a large estate, and can use its power to make a town extension plan, either in a way which will ensure that land shall be dear, methods of building costly, and consequently rents high and dwellings overcrowded, or in a way which will ensure that land shall not be dear, that cheap but sound methods of construction shall be used, and that consequently there shall be an abundant supply of dwellings at moderate rents. We shall find also that a large proportion of the members of town councils in those German towns in which dwellings are dearest have motives for desiring that the rents of existing houses shall continue to be very high, which would not be felt by many members of English town councils, and therefore have motives for so using their powers as to ensure that the rents of new houses shall be too high to lower those of existing houses.

*Factors in Fixing Rent.*—It may be useful before we examine German methods to remind ourselves of the nature of some of the conditions which have a large part in deciding whether the rents of houses shall be high or low. That which most effectually prevents any given person from being compelled to pay a high rent for any given house in his possession

is the power to obtain another house which would suit him as well at a low rent; in other words, an abundant supply of cheap houses. If we go a step further back and ask how an abundant supply of cheap houses can be ensured, we see that this can be done only by measures which ensure that every part of the whole process of obtaining land and erecting a house on it shall be so cheap and simple that not only can houses be provided cheaply, but also that a large number of persons shall know that, without very much trouble, they could, if necessary, build houses for themselves. If land is so dear that interest at the current rate on the cost of the smallest site that can legally be used for a house would make the rent high, or if a large quantity of even cheap land must be used for each house, or if bye-laws enforce costly modes of construction, or if each house must pay for half the width of a costly street, not only will the supply of houses be made scantier than it would otherwise be, and the cheapening influence of abundant supply be lost, but the cost also of every house which is built will be enhanced, and rents will be raised by the interaction of the two causes of dearness—a smaller supply of dwellings and increased cost of each dwelling.

*German Municipal Institutions.*—The institutions of Berlin and those of other German towns which suffer most from overcrowded dwellings are so different from our municipal institutions that it is impossible to explain both shortly and clearly why it is that German town councils, although they have the power to make town plans, have failed to give their towns all the advantages which we expect our town councils, when they can make town plans, to give to our towns. In the first place the representation in the elected part of the governing body of many German towns of persons whose interest it is that the rents of old houses shall not be lowered by the competition of cheaper new houses is extremely great. In Prussia, Saxony, and Lippe the so-called "Three-Class" system is in force. In this system those persons who pay one-third of all the rates and taxes paid in a town in the largest amounts elect one-third of the members of the town council; those who pay one-third in the next largest amounts elect another third of the members; and all the other payers of rates and taxes, who always form a very large majority of the whole number, elect the third third. In one town the first of the three classes once contained only one man, the owner of large works, who therefore elected one-third of the members of the town council. The interests peculiar to owners of houses are protected by German law which decrees that one-half the number of seats in the town council must be occupied by house-owners.

*The "Magistrat."*—The members of the town council elect the executive part of the municipal government—the "Magistrat," which consists of the *Bürgermeister* and Adjoints, who in Prussia are elected for periods of twelve years, and are generally re-elected when their first term of office is completed. Under this system many men of great intelligence and of much public spirit are elected to both parts of the municipal government, but it is obvious that the town council as a whole must be strongly influenced by desire to protect the interests of the well-to-do classes, and especially those of house-owners. Two well-established German institutions can be used for this purpose—the wide street and the barrack dwelling.

*The Origin of the Wide Street.*—Two causes seem to have co-operated in the production of the wide street. During the Middle Ages and till the close of the Napoleonic wars a large proportion of German towns were surrounded by walls, and most of their streets were very narrow. During the nineteenth century old methods of fortification rapidly became obsolete, and many towns had some, or all, of their old encircling walls removed. There was naturally a general desire that the streets in new districts should be much wider than the inconvenient streets in the old

central districts, and as many of the principal towns were the residences of Grand Dukes and other Sovereigns, who loved splendour and took a leading part in the control of the towns, towns vied with each other in creating magnificent streets. Streets of the kind must, of course, be separated from each other by deep plots of building land. Even when land was as cheap as it was in most German towns seventy years ago, and even when streets could be as cheaply constructed as the simple streets of that time could be, a man who built a house on a large plot of ground and had to provide the land for, and bear the cost of constructing, half the width of a street sixty or seventy feet wide, knew that only a tall house containing a considerable number of dwellings would enable him to obtain a fair amount of interest on his outlay.

*The Builder's Burden.*—Houses of five storeys, the largest number of storeys allowed by the bye-laws, were therefore built in large number in Berlin and some other large towns. At first some of these houses had gardens behind them. But as sanitary arrangements and paving were improved, as water was brought from a distance, and gas-pipes were laid, the construction and maintenance of a wide street became a heavier and heavier burden. Then, too, German municipal authorities have a very strict building police which sees that staircases and other parts of houses are so solidly constructed as to keep the risk of collapse and of the spread of fire as small as possible, and, as the carefulness of the authorities increased, construction became more costly both because more material and more labour were required and the prices of material and labour were continually increasing.

Under the influence of these changes many house-owners build on the ground intended for gardens, side and back-blocks of tall dwellings as additions to the blocks standing by the streets, the new blocks and the dwellings at the back of the old front blocks getting an insufficient supply of air and light from courts and other air-shafts.

*Influence of Landowners.*—When these changes were made by house-owners in one part of a district, the results, by showing how large an amount of money could be obtained from the full use of the ground, gave all other owners of land in the district strong pecuniary reasons for covering their ground in the same way, and, by greatly raising the price of all the land in the district, they made it necessary for everyone who bought land there to cover it as closely as the law allowed with tall buildings. When land had thus been made very costly in one district, naturally owners of land in other districts desired that their land should have its price raised in the same way. It is to the interest of the owners of the dear land and of the owners of dear houses in the districts of close tall buildings that land in all other districts shall be dear, because, should there be a large supply of cheap, small houses provided on cheap land in accessible positions, the prices of land and the rents of the tall unwholesome houses would, of course, be greatly and rapidly reduced. All the great influence of the owners of land and houses is therefore exercised to compel or induce the town councils, who, under the Lines Act of 1875, have the power to create building districts in which houses of various heights and covering various proportions of their sites are allowed, to allow buildings of five storeys, arranged in long rows, to be built in every district.

*Prussian Government and Barrack Dwellings.*—Nor is it only on town councils that the influence of owners of dear land and highly-rented houses and the influence of landowners who desire that their land shall rapidly become dear are exercised. In the year 1892, in order to prevent the evils caused in Berlin by the prevalence of five-storeyed barrack dwellings from extending to the suburbs, building bye-laws, in the preparation of which the Prussian Government was a party, were issued for a very large area round Berlin. These bye-laws allowed buildings

of five storeys in some districts, buildings of four and of three storeys in other districts, while in others, generally chosen because the prevalent winds pass over them before reaching the central districts, only detached or semi-detached buildings of two storeys were allowed. The owners of land in the districts from which five-storeyed buildings were excluded by the bye-laws of 1892 knew so well that the exclusion involved the certainty that their land would not reach such high prices as land in the other districts would rise to, that they used their great influence to get the restriction removed, and, most unfortunately for everyone but themselves, they succeeded in obtaining a fresh set of bye-laws which allow the erection of five-storeyed houses in at least some of the districts from which the 1892 bye-laws excluded them. There is another German institution which has co-operated with the wide street to promote the production of barrack dwellings, and to make the owners of such dwellings use all their power to influence town councils and other authorities to the utmost for the protection of the barrack dwelling from the competition of cheaper and more wholesome forms of dwelling. This is the *Land-book*. In Germany an entry in the *Land-book* is the legal proof of ownership of land, and no mortgage or other encumbrance on land is valid unless it is entered there; and as the *Land-book* can be consulted by everyone, it is very easy to ascertain in what degree any given property is burdened.

*Land as a Security.*—Hence it is very easy in Germany to borrow money on the security of land. Under the influence of the wide, costly street, of this facility of borrowing, and of the great and rapid growth of German towns, a remarkable state of things has been created in Berlin, and, in a lower degree, in some other large towns. A very lucid description of this state of things will be found in a book by Dr. Rudolf Eberstadt, "The Influence of Speculation on the Construction of the Modern Town."\* Except in the open country in East Germany land in both town and country, till a few years ago, was held by a far larger proportion of the population in Germany than in England, and therefore the average size of the holding was much smaller there than here, and the average wealth of each holder lower. Hence it was much easier there than it would have been here for speculators, either individuals or land companies, to buy large tracts of land round rapidly-growing towns at prices which, while so much higher than the value of agricultural land as to induce the original agricultural holders to part with their holdings, were very much below the prices to which speculators knew that the erection of five-storeyed barrack dwellings would at once raise the land. The power of the strong purse has been very fully used, and many of the German towns are now enclosed by deep rings of land held by speculators, many of whom have borrowed their money from banks. These rings of land prevent the healthy growth of the towns as effectually as did the fortifications of the Middle Ages. All the unbuilt-on land round Berlin is said to be owned by 73 land companies, some of which are so closely interconnected that there are in reality not more than 20 or 30 separate companies, so that common action for the good of the companies and the harming of all the rest of the community is comparatively easy.

*The German Building Plan.*—The difference between the price paid for the land and that which it will be worth in the market when it is used as the foundation for five-storeyed barrack dwellings cannot be obtained till barrack dwellings are actually erected. Before houses can be built the authorities have to prepare a building-plan for that part of the suburbs and to decide on the bye-laws. The full influence of the owners of the land is brought to bear on the generally sympathetic town

\*"Die Spekulation im Neuzeitlichen Staedtebau." Von Dr. Rudolf Eberstadt. (Jena: Gustav Fischer.)

council, and, as I have already stated, too often the building bye-laws fix a width for all the streets which makes the five-storeyed barrack dwelling the only form of house that can pay interest on its cost, and formally allow that form to be erected.

*Course of the House Market.*—In the great majority of cases the houses are built by the individuals and companies who own the land by the help of money borrowed from banks. When the houses are finished, the owners must get rid of them and of the land on which they stand to realise their profit, and a process takes place which is called selling the house and its site. But very few persons have money enough for the purchase of so large a property, and as a rule a barrack dwelling is sold to a man who pays in cash, sometimes nothing at all, and generally not more than 10 per cent. of the whole price, the unpaid part of the price being secured to the seller by a mortgage, which is duly entered in the Land-book and has priority in relation to all other encumbrances on the property. The so-called "house-owners" of the German towns, for whom half the seats in the town councils are reserved, instead of being persons of assured pecuniary position, who may be trusted always to guard all the respectable interests of respectable people, are, therefore, really, as a class, men who are in a very dangerous financial position, which creates for them strong interests adverse to those of all their fellow-citizens. If rents can be maintained, they obtain good interest on the small capital which they have invested in the property, ostensibly theirs; if they can obtain a slight advance of rent the rate of interest they receive is much augmented; but if rents fall, then they lose all their income, and if the fall is considerable they are unable to continue to pay interest on the mortgages on their houses and become bankrupts. Hence they have the strongest possible reasons for combining with landowners to induce or compel town councils and central governments to restrict the supply of new buildings as far as possible to barrack buildings.

*The Cause of Evil Conditions in Germany.*—It will be seen by this account of what has taken place in German towns that the cause of the existence of unwholesome dwellings, high rents, and overcrowding is not at all the possession by the German town councils of any powers which could be given to English town councils by a Town Building Act, but simply the wrong use of building bye-laws for the advantage of persons interested in the maintenance of high prices for land and high rents for dwellings. The true nature of the cause of the evils from which German tenants suffer was clearly revealed by a fact mentioned lately by Mr. Damaschke in an admirable address to a meeting of representatives of the towns in Posen, held in June last, which all housing reformers should read.\* When it seemed probable that only detached and semi-detached houses, of not more than two storeys in height, would be allowed in the small town of Teltow, which forms part of Greater Berlin, the prices of shares in the companies which owned land there fell at once 37 per cent.!

*How to Effect a Fall in Rents.*—Undoubtedly, if the Prussian Government passed a law allowing only ten or twelve two-storeyed houses per acre to be built on any part of the ring of land round Berlin which is held by land companies, and were to enforce the construction of tram lines to all parts of the ring, not only would the price of land in that ring fall very low, but rents of all the houses, large and small, throughout Berlin, would be soon greatly reduced. The fall in rents would be due not only to the bringing into the market of much cheap land and the creation of houses of a cheaper type, but also to the facts that far more professional builders would be able to buy the new type of small house than can build barrack dwellings, and that each of a great many private

\* "Jahrbuch der Bodenreform," 3 Band, 3 Heft, p. 168. Jena: Gustav Fischer, 1907.)

citizens would then be able to employ a small builder to build him a house. In considering the differences between our English system and the German system of housing, German students of housing seem to me always to leave out of account the difference in the amount of supply between a country where only a small proportion of the population can undertake the work of building a house, and a country in which, as is the case here, a large proportion of those who desire to obtain houses can build for themselves.

*Excessive Width of Street.*—All the German Governments now see that the too-wide street is the chief cause of the great increase in the number of tall barrack dwellings, and the introduction to the new Prussian Housing Bill recommends that residential streets shall be made narrow, that streets through which there will be much traffic shall be wide, and that streets respecting which it is uncertain whether much traffic will pass through them shall be made wide in the cheapest way by having gardens in front of the houses, which can, if necessary, be added later to the width of the roadway.

It is not to be wondered at that some English observers have been misled into the belief that Town Planning is the cause, or one of the causes, of high prices of land and high rents in German towns, as building only being allowed in and near towns on areas for which plans have been made, it is only on those areas that any rents can be charged, and it is there chiefly that the high prices of land attract attention. It is, however, not only on those areas that prices of land are raised by the excessive use which the bye-laws allow to be made of land, but everywhere where it seems probable that a similar excessive use will be allowed in the near future. In a valuable report to his town council which has recently been published, the Oberbürgermeister of Mannheim states that near that town the influence of tall buildings has raised the prices of land far beyond the limits of the areas for which town plans exist.

*What Germany has gained.*—From the powers given to their town councils to make town plans, other than the often-misused power to have all streets made wide, from the powers to control the direction of streets, to have streets of various widths, to have many of the streets planted with trees, to have sites reserved for public buildings, to have an adequate provision of playgrounds, shrubberies, and parks, German towns have derived nothing but good; and they have derived so much good that, in spite of higher rents and more overcrowding of houses, their large towns are much pleasanter places for poor and rich to live in than are our towns. Dr. Adickes, the very able Oberbürgermeister of Frankfurt, who knows England well, says that "a large part of the evils existing in English towns is due to there not having hitherto been building police regulations, in the German sense of the words, in existence there," and Professor Fuchs, of Freiburg, i.B., one of the highest German authorities on Housing, said recently that there is less need for garden cities in Germany than in England, partly because, thanks to the general use of public town plans, they have in Germany "no English slums."

## APPENDIX C, 1

### THE PIONEER CO-PARTNERSHIP VILLAGE

BY HENRY VIVIAN

EALING TENANTS LIMITED had its origin amongst a number of the members of the General Builders Limited, who resided in the Ealing district. Nearly all these were connected with the building trade, but not all. They had been schooled in the co-partnership faith at the various meetings and conferences of the General Builders, and some of them were readers of the journal, *Labour Co-partnership*. Their knowledge of this principle, which aims at harmonising the interests of labour and capital, by equitably distributing the profits made, and encouraging labour to acquire capital to share in its administration, suggested that the idea might be extended to tenants in a house-owning society.

*Members' Responsibilities.—Rules.*—(1) That the tenants should invest a small sum to begin with, and undertake to gradually increase it; (2) that the interest on capital should be fixed at a moderate rate; (3) that each individual tenant's share of any profit realised over this rate, after providing for certain necessary charges, should be capitalised as accumulated shares. This means that the shareholders as such give up what they are usually entitled to—viz., all the profit which might arise from their investment, but as some compensation they stand the chance of getting the added security arising from the capitalisation by the tenant of any profit he may become entitled to, plus the security arising from the tenant increasing his ordinary share capital.

*Advantages.*—The tenant's position is as follows:—

(1) He gets a house at a rental which, if accommodation and other things are compared, is not higher, and is probably less, than he would have to pay elsewhere.

(2) He can invest in the society, of which he is a tenant, any savings he finds it possible to make out of his earnings, at 5 per cent.

(3) Should values go up he gets the benefit either by way of a dividend on the rent, or by paying a rental which is below the market value.

(4) He secures practically all surplus profits after the fixed charges have been met.

(5) He secures a social atmosphere which awakens new interests, and creates a collective friendship unknown under the individual system of ownership.

(6) He secures freedom from loss, should circumstances require him to leave the neighbourhood.

(7) The capital for building his house is provided at a cheaper rate than it could be obtained on any other system that is commercially sound.

(8) The tenants as a whole can relieve themselves of dependence on outside capital altogether by acquiring through investment or by accumulated capital, the value of the property.

*Ultimate Ownership.*—By gradual process, therefore, it lies with the tenants to transfer the ownership from non-tenant shareholders, who take the main risk to begin with, to the tenant shareholders who, it is hoped, may become the ultimate owners. This follows the policy adopted by Godin with his employees in the co-partnership iron-foundry at Guise.

It will be seen that the division of risks is a varying one as between the non-tenant shareholders and the tenant shareholders. The proportion of non-tenant shareholders' capital is large to begin with, declining as the tenant shareholders' proportion grows.

*Careful Spending.*—The continuous growth of share capital and loan stock is the measure of the confidence investors have in the society. If care and economy in the expenditure of money justifies confidence, then it is thoroughly justified in this case.

With regard to the financial results of the society's operations, it is encouraging to know that the revenue, after meeting all fixed charges and sinking fund, enables 4 per cent. on loan stock and 5 per cent. on shares to be regularly paid, with a margin to spare. A dividend on rents has been declared amounting last year to 1s. 6d. in the £.

There is on the estate a social club and institute, a boy's club, and a sewing circle.

Mr. Cadbury and Mr. Lever have shown that the average boy or girl living in healthy surroundings such as are obtainable on the Ealing Tenants' Estate are considerably bigger and stronger than the average working-class children. Under modern conditions the education and upbringing of the children of the poorer classes cost the community a considerable sum of money, and it is only ordinary business to take every possible step to ensure that the health of the rising generation should repay the community for the money now being spent on it. Ealing Tenants provide many ideas of great interest to Housing Reformers.

## APPENDIX C, 1A

### CO-PARTNERSHIP TENANTS LIMITED

*Table Showing Growth of Property of the Affiliated Societies.*

NAME OF SOCIETY.	1906	1907	1908	1909
	£	£	£	£
Ealing Tenants Ltd. ... ..	36,765	71,197	97,166	138,600
Garden City Tenants Ltd. ...	37,670	72,357	81,000	81,000
Sevenoaks Tenants Ltd. ...	14,500	16,550	16,550	16,950
Leicester Anchor Tenants Ltd.	—	1,500	4,555	10,480
Manchester Tenants Ltd. ...	—	8,660	23,500	43,500
Hampstead Tenants Ltd. ...	—	16,674	65,672	120,000
Harborne Tenants Ltd. ...	—	16,501	49,933	97,760
Fallings Park Garden Suburb Tenants Ltd. ... ..	—	1,200	8,138	14,160
Stoke-on-Trent Tenants Ltd.	—	—	—	6,550
Second Hampstead Tenants Ltd.	—	—	—	2,000
Wayford Tenants Ltd. ...	—	—	—	3,000
Derwentwater Tenants Ltd. (only recently affiliated)	—	—	—	2,300
	<u>£88,935</u>	<u>£204,639</u>	<u>£346,514</u>	<u>£536,300</u>



## APPENDIX C, 2

### BRINGING COUNTRY TO TOWN

#### HARBORNE TENANTS, AN EXAMPLE OF ENGLISH CO-OPERATIVE ESTATE DEVELOPMENT

*(Reprinted from "THE SURVEY," New York, U.S.A.)*

That the Housing problem is all a question of how to build cheap houses, is, in my opinion, a dangerous half-truth. It is necessary to provide small houses at rents within the means of the wage-earners, but it is not in their interests to cut down quality with a view of charging low rents in order to meet low wages. In the long run, wages follow rents; and therefore the policy enunciated above would eventually result in reducing wages; and that that there is nothing worse for employers as well as employed. The far-sighted housing reformer prefers a policy of levelling up rather than levelling down. On the one hand, we must endeavour to give the poorer classes (being content to go by steps), better houses, and on the other hand we must not increase costs to such an extent as to oblige us to charge higher rents than the people can pay. This policy of slowly but surely levelling up is now being put into execution in Birmingham by Harborne Tenants Limited. It is carried out on the lines of helping the people to help themselves, instead of doing everything for them as some impatient enthusiasts prefer to do.

About fifteen months ago, fifty-three acres of land were purchased at an average price of rather less than £300 an acre. The land was carefully and economically planned out. The average number of houses on the whole estate works out at ten to an acre. The garden to each house is quite small because many tenants object to being bothered with a large plot of land. For those who want more garden land, allotments are provided. Numerous small open spaces, as well as good-sized recreation grounds, are provided on the estate. The houses on either side of the roads are seventy-two feet apart, and between them runs a sixteen-foot roadway, bordered with turf margins and trees, and then gravel footpaths, which abut on the front gardens of the houses. This arrangement gives more than the usual distance between the houses, and that means more light and air to each house; while the cost of construction is less than that of ordinary bye-law roads, with the great advantage that tenants have something cheerful to look out upon, instead of the usual "dreary deserts of macadam."

As the interest on the cost of road-construction has to be paid by the tenants, it will be seen that these modern town-planning roads mean a considerable saving in weekly rents.

Another important item in the cost of estate development is the construction of the sewers. At Harborne, this is done on what is known as the "combined drainage system." That is to say—there is not a separate connection from each house direct to the main sewer; the drainage from several houses is gathered up and all conveyed to the main sewer through one connection. The modern system of road and sewer construction, as carried out by Harborne Tenants, results in

a saving of something between sixpence and a shilling a week for each house, in spite of the fact that at present the society has to pay for the up-keep of these tree-planted roads, whereas in the case of ordinary bye-law roads, this upkeep is borne by the general body of ratepayers.

The houses themselves are built in blocks of two, four, six, and eight, according to circumstances, and the positions of the houses. The total rents, including rates, etc., vary from six shillings to twelve and sixpence a week. Building was begun on January 1st, 1908. There are now nearly a hundred houses completed, and another thirty or so on the way. The applications for the houses are 50 per cent. in excess of the number of houses available.

The inside accommodation provided is on the whole not quite so roomy as can be obtained for equal rents in houses provided on the old-fashioned lines, forty or fifty to the acre. The tenants have to pay something for the surroundings of their houses as well as for the houses themselves. At first they did not quite realise the wisdom of doing this, but now they are thoroughly satisfied with the value they get for the rent they pay, a result achieved by adopting the principles of estate development on town-planning lines, together with co-partnership house building and owning.

The capital required is raised by means of 4 per cent. loan stock, the shares limited to a 5 per cent. dividend, in addition to which, as houses are built, the Public Works Loan Commissioners, an English Government department, lend at 3½ per cent. half the money spent on construction, which loan has to be repaid within a period of thirty years.

It is necessary to find some means of raising working capital at the outset because at this experimental stage the poorer classes are not able to raise immediately the money required for developing an estate. This is why capitalists are invited to take up loan stock. Tenant members pay down a small sum at first and then make weekly contributions until their holding in the Society amounts to £200, the limit any one member of a Friendly Society is allowed by English law to hold in shares of such societies. There is no limit to the amount of loan stock any individual may hold. As the shareholders' money comes in, the Public Works Loan Commissioners' money, and the loan stock holders' money is paid out. Co-partnership housing loan stock is a thoroughly safe 4 per cent. investment, but although for a new form of investment money has come in remarkably well, Harborne Tenants could at present use more than they have secured. At the same time, the practical success achieved is so great that there is no doubt that in a very few years unlimited capital will be at their disposal.

At the present time, the capital at Harborne taken altogether cost the society an average of 3.65 per cent. .50 per cent. on cost at 3½ per cent. interest is set aside in order to build up a sinking fund that will write off the houses in about sixty years. Repairs will cost not more than .35 per cent. on capital outlay, owing to the fact that tenants are already partly, and will eventually become entirely, their own landlords, which means that they will take care of the property; administration and general charges are not more than .5 per cent, owing to the fact that various public-spirited men give their services free until the society they are connected with is an assured success:

Cost of capital	...	...	...	...	...	3.65 per cent.
Sinking fund	...	...	...	...	...	.50 "
Repairs	...	...	...	...	...	.35 "
Administration, etc.	...	...	...	...	...	.50 "
Total						5.0 per cent.

Harborne Tenants is only one of some dozen or so co-partnership housing societies scattered all over England, some of which have been going for some years, and none of which have failed.

## APPENDIX D, 1

*Powers under which Local Authorities may lease land acquired under Part III. of the Housing of the Working Classes Act, 1890.*

SECTION 5 of the 1900 Act, and Section 11 of the 1903 Act, enable Local Authorities to lease to public utility societies land that has been acquired under Part III. of the 1890 Act in the following manner:—

*Section 5, 1900 Act.*—The Local Authority may, with the consent of the Local Government Board, lease land acquired by them under Part III. of the 1890 Act, to any lessee who will carry the Act into execution by building and maintaining on the land lodging-houses within the meaning of the Act.

*Section 11, 1903 Act.*—Any power of the Local Authority under the Housing Acts to provide dwelling accommodation, shall include a power to provide and maintain with the consent of the Local Government Board, and if desired jointly with any other person in connection with such dwelling accommodation, any building adapted for use as a shop, any recreation grounds or other buildings or land which in the opinion of the Local Government Board will serve a beneficial purpose in connection with the requirements of those for whom the dwelling accommodation is provided.

Clause 6 of the 1909 Act enables Local Authorities to lay out and construct streets or roads on any land acquired by them under Part III. of the 1890 Act, provided such streets or roads are dedicated to the public.

As a matter of common law, when any person owns land with the power to lease it, he can put what terms he likes into the lease, and may adjust his rent and other conditions accordingly.

## APPENDIX D, 2

### MODEL LEASES

#### BORDESLEY GREEN LEASE

This is a lease by the Corporation of Birmingham to the trustees of the Ideal Benefit Society for the leasing of about seventeen acres of land, and is made, with the sanction of the Local Government Board under the powers of Section 5 of the Housing of the Working Classes Act, 1900, and Section 11 of the Housing of the Working Classes Act, 1903. The land demised was acquired by the Corporation under Part III. of the Housing of the Working Classes Act, 1890.

The following are some of the principal features of the lease :—

The land is let for the first year at a peppercorn rent; the second year at £200, and after that at £400 per annum, reducible on punctual payment to £400 per annum. The object of the rent being fixed at the higher figure is that if the lessees made default, and the Corporation re-entered, they would have a balance to meet cost of collection, etc.

In addition to the usual lessees' covenant for payment of rent, taxes, painting, insurance, etc., and other covenants incidental to long building leases, the lease comprises special covenants with regard to—

(a) Precluding the sale of interests on the estate.

(b) The construction of roads. The Corporation have discretion under their bye-laws to allow narrow roads subject to the distance between the frontages of the houses being maintained.

(c) The erection of houses. The lessees undertake not to erect more than twenty-two houses to the building acre, either on the land leased, or on the land adjoining, which they are going to acquire.

(d) The terms of the lease, which are that it is for one hundred and nine years, that the term of development is ten years, the latter provision enabling the lessees to grant their sub-lessees a full term of ninety-nine years.

(e) To facilitate elasticity in development, and yet ensure general harmony, a sketch plan of the whole was prepared, but this was not fixed and definite. The building covenant followed the wording of the Housing Acts, 1890, 1900, and 1903, as closely as possible, reserving the right to the Corporation to approve the positions, specifications, plans, sections, and elevations of all houses and gardens on the estate.

(f) The houses to be separate, self-contained lodging-houses, not being flats or other dwelling-houses adapted for occupation by more than one family, within the meaning of the Housing of the Working Classes Act, and suitable for habitation by persons of the working or artizan class. Not more than twelve shops to be erected on the estate.

(g) The sum to be expended on the estate is spread over the ten years allowed for development.

(h) That the houses or shops shall not be used except for persons of the working or artizan class, or for lodging-houses, or for shops respectively within the meaning of Section 53 (1) of the 1890 Act,

as read with Section 5 (1) of the Act of 1900, and Section 11 of the Act of 1903.

(i) The lessees in granting any underlease or assignment not to reserve any greater rent than so much of the total annual rental as can be reasonably apportioned upon the premises comprised in such underlease or assignment, and that every underlease and assignment shall contain covenants by the underlessee or assignee as to keeping all garden ground properly planted, etc. There is also provision preventing subleasing at increased rents by any assignee or sublessee of the lessees.

(j) All sub-demising or assigning is to be subject to the previous consent of the lessees, and provision is made for forfeiture in the case of breach of any covenant by sublessees or assignees. The lessees not to give any such consent except on terms consistent with the provisions of the head lease.

(k) Lessees to preserve all trees, etc., on the estate. The Corporation reserve all their usual powers under statutes, bye-laws, etc., as though they were not lessors.

(l) In addition to the usual powers of re-entry and distress for non-payment of rent, the lease contains a proviso that when the lessees shall have apportioned so much of the total annual rental of £600 as may be fair and reasonable upon any dwelling-house or shop, then as between the Corporation on the one hand and any assignee or sublessee (as distinct from the lessees themselves) on the other hand, only the rent or apportionment shall be deemed to be charged upon and issuing out of such premises to which such apportionment relates, as if such premises had been comprised in a separate lease and subject to the apportioned rent, covenants, etc. This proviso prevents the lessees from being handicapped in getting their plots taken up, as the objection that the whole of the rent issues out of any part of the land demised, cannot be raised.

(m) Plans to be submitted to the Local Government Board if required, and the lessees to conform to certain conditions as to the methods to be adopted and materials to be used in constructing the houses. There is also an open space to be provided, about  $2\frac{1}{2}$  acres in extent, which is to be laid out by the lessees to the satisfaction of the Corporation, the Corporation paying a fixed sum towards the cost. This is the subject of a special agreement.

(n) The Corporation on their part covenant to pay certain sums towards the cost of road-making, and the cost of erecting the shops.

## APPENDIX D, 3

### BOURNVILLE TENANTS' LEASE

The lease granted by the Bournville Village Trust to the Bournville Tenants Limited, establishes a precedent in leasing to public utility societies, and has been carefully prepared with a view to its form being adaptable to leases granted by municipalities for the same purpose.

Its essential features, shortly summarised, are :—

Area of land to be leased, about twenty acres, and rent to be £11 10s. an acre. Two acres are to be left as open spaces, and in respect of these no rent will be paid.

Lessees may develop the land in portions of not less than one acre. They may have a separate lease of each portion as they appropriate it for development.

Rent in respect of each portion does not become payable until twelve months after it has been appropriated for development.

At three stated points in the development of the whole estate, the lessors will lease free of rent a "recreation ground," a "children's recreation ground," and a "village green." The leases of these are to be co-terminous with the leases granted in respect of the land, the development of which has been a condition of the leases of these open spaces.

Neither lessees nor lessors to cut down trees.

Lessees not to erect more than twenty-two houses on any two building acres.

All houses to have the use and enjoyment of a garden at least three times the area of the actual site of the house, except that for the purpose of utilising frontage in corner sites, one-eighth of the houses may be built with gardens or yards having an area which need not be more than equal to the site of the house.

No intoxicants to be sold on the estate.

Lessees to preserve and maintain the open spaces.

Lessees not to take any action which will preclude the lessors from being represented in the management or control of the lessee society.

Lessees not to assign or underlet, except for short terms, without lessors' consent, and first making proffer for the sale or disposition of their estate or interest to the lessors.

## APPENDIX D, 4

### HAMPSTEAD LEASE

Hampstead Garden Suburb Trust Limited have, by Act of Parliament, secured special powers which enable them to deal with their land in an exceptional manner.

They have, in particular, unique powers in regard to the laying out of their streets and roads, which take them somewhat outside the restrictions of the local bye-laws relating to these matters.

In their building leases there are, in addition to the usual covenants, some provisions of special interest.

These shortly are :—

That the lessee shall lay out an open space to be reserved for the common use and enjoyment of the tenants of the houses erected by him.

The lessee is not restricted to a certain sum per house, but the total amount spent on the erection of the houses which he covenants to build, is apportioned amongst the different houses to the satisfaction of the lessors' surveyor.

The lessee has to submit a full description or specification of the materials to be used by him, and the lessor has power to condemn any materials.

The houses may be detached, semi-detached, or in terraces, if approved by lessors.

The lessee is to protect and maintain all existing trees and hedge-rows, and is not to cut down any tree or hedge without written permission.

The lessee may select how many houses he will have included in any one lease.

The lessee is not to permit any building to be occupied by such a number of persons as shall reduce the air space available for each individual over ten years of age below 500 cubic feet, or for each child under that age, below 250 cubic feet.

Term of lease ninety-nine years, with a proviso for extension, as shown in the Bournville Tenants lease.

Term of lease ninety-nine years, and lessees on expiration of original leases to have option of renewal for a further term of ninety-nine years. The annual ground rent to be reserved on any such extended lease, to be deemed equivalent to the annual sum at which, on the occasion of the granting of such extended lease, the surface of the land might be expected to let on a lease similar to the original lease, or any extended lease (save as to rent), and for purposes similar to those for which the demised land may be used under the original lease or any extended lease clear of the buildings situate on the land, or any improvements made by the lessee since the granting of the original lease or any extended lease.

## APPENDIX D, 5

### HEREFORD LEASE

The lease by the Corporation of Hereford to the Hereford Co-operative Housing Limited, follows much the same lines as the lease granted by the Corporation of Birmingham to the Ideal Benefit Society at Bordesley Green, and the power to lease is obtained under the same sections of the Housing of the Working Classes Acts.

The land leased is about  $8\frac{1}{2}$  acres. The Co-operative Society are to erect within the space of two years from the date of the lease, not less than 30, nor more than 100, self-contained houses suitable for persons of the working classes, the plans to be approved by the Local Government Board.

The ground rent charged by the Corporation is fixed at the amount disbursed annually by that body for interest and sinking fund of the loan raised by them for the purchase and development of the site.

The first year it will be £132, equal to 26s. per annum on each of the 100 houses allowed to be erected, but it decreases annually as the loan is paid off, and at the end of 80 years the land becomes the freehold of the Co-operative Company, if not acquired earlier.

#### *Rents.*

- 15 at 5s.
- 4 at 5s. 3d.
- 2 at 5s. 6d. (corner range and bath).
- 5 at 5s. 8d.
- 5 at 6s. (corner range and bath).
- 4 at 6s. 3d. (corner range and bath).
- 8 at 8s. 3d. (hot and cold bath-room upstairs).

None of these houses have less than three bedrooms. Rent includes rates, garden, and a sum added to return as profits.

The Hereford Co-operative Housing Society intends to build thoroughly sanitary houses, with such regard to appearance as is consistent with low cost. A proportion will be erected to let at rents which will bring them within the reach of unskilled working men earning from 18s. to £1 per week; but in order to avoid the evils which result from the too exclusive separation of classes in our communities, it is also proposed to erect some houses for working men earning from 25s. to 30s. per week, who, it is hoped, will take a leading part in the social life of the estate.

To prevent overcrowding, and escape the creation of slums in the future, open spaces for the recreation of young and old will be provided, and not more than twelve houses per acre will be erected. This will enable every tenant desiring it to have a good garden or allotment near his house. That this will be a boon to working men is proved by the fact that there are some 400 allotment gardens in Hereford, many of which are at a distance, and often a considerable distance, from the homes of their cultivators.

Every tenant, before occupation, will be expected to take up at least one to three fully paid ordinary shares of £1 each according to his rent,



and opportunities will also be given to tenants to invest savings in the company by weekly payments made when paying rents.

Ordinary rents will be charged. A moderate rate of interest paid on capital, and the surplus, after payment of expenses, repairs, depreciation, etc., divided among the tenant members in the shape of shares in proportion to the rents paid by them.

These shares are not withdrawable, but a tenant leaving the neighbourhood can either transfer his shares with little cost or hold and draw dividends on them, the system in this way being more convenient than an ordinary building society.

Moreover, the co-operative ownership gives the tenant members an interest in the whole property, and though each cannot say "This is my land," everyone can say "This is our estate." The system solves the question of unearned increment, which goes to the tenant members.

The society is managed by a committee elected by the shareholders on the lines usually adopted by industrial and provident societies, and it is hoped that the committee will comprise at least one of the tenants.

A Tenants' Council will be formed, which, though without spending authority, will be able to make representations to the committee, and will undertake the management of, for instance, a bowling green and children's playground, and organise co-operation in as many forms as possible. A cottage already exists on the estate which, at moderate cost, might be made available for a committee and reading room.

It is hoped by methods such as these to bring into the lives of the tenants more and healthier interests than are usually to be found in the ordinary city street.

A site comprising 9 acres 1 rood 6 poles of land has been purchased, and is now being developed with roads and sewers by the town council at an estimated cost, including the purchase of land, of £2,300.

The capital of the society consists of ordinary shares paying a dividend of not more than 5 per cent., and loan stock paying 4 per cent. The loan stock has priority to the ordinary shares, and is transferable, but not withdrawable. But the society reserves the right to repay the whole or any part (to be chosen by lot) at par, on giving six months' notice. The ordinary shares are £1 each, payable not less than 1s. on allotment. No member may hold more than £200 ordinary shares. The loan stock shares are £5, payable not less than 5s. on allotment. A member may hold an unlimited amount of loan stock, but only ordinary shares confer votes.

## APPENDIX E

### HOUSING, TOWN PLANNING, ETC., ACT, 1909.

#### (ARRANGEMENT OF SECTIONS.)

#### PART I.

#### HOUSING OF THE WORKING CLASSES.

##### *Facilities for Acquisition of Lands and other Purposes of the Housing Acts.*

##### SECTION

1. Part III. of the principal Act to take effect without adoption.
2. Provisions as to acquisition of land under Part III. of the principal Act.
3. Loans by Public Works Loan Commissioners to local authorities.
4. Loans by Public Works Loan Commissioners to public utility societies.
5. Payment of purchase or compensation money (which would otherwise be paid into court) on direction of Local Government Board.
6. Provision of public streets in connexion with exercise of powers under Part III. of the principal Act.
7. Expenditure of money for housing purposes in case of settled land.
8. Donations for housing purposes.
9. Provisions with respect to money applicable under trusts for housing purposes.

##### *Powers of enforcing Execution of Housing Acts.*

10. Power of Local Government Board on complaint to enforce exercise of powers.
11. Power of Local Government Board to order schemes, etc., to be carried out within a limited time.
12. Powers of county council to act in default of rural district council under Part III. of the principal Act.
13. Power of county council to exercise powers of rural district council under Part III. of the principal Act.

##### *Contracts by Landlord.*

14. Extension of section 75 of the principal Act.
15. Condition as to keeping houses let to persons of the working classes in repair.
16. Extension of power of making bye-laws with respect to lodging-houses for the working classes.

##### *Amendment of Procedure for Closing Orders and Demolition Orders.*

17. Duty of local authority as to closing of dwelling-house unfit for human habitation.
18. Order for demolition.
19. Power to redeem annuities charged by charging order under section 36 of the principal Act.

## SECTION

20. Provision as to priority of charges under section 37 of the principal Act.
21. Restriction on power of court of summary jurisdiction to extend time.

*Amendments with respect to Improvement and Reconstruction Schemes.*

22. Amendment of section 4 of the principal Act as to official representation.
23. Amendment of the principal Act as to contents of schemes.
24. Amendment of 3 Edw. 7. c. 39 s. 5.
25. Modification of schemes.
26. Inquiries by Local Government Board inspectors as to unhealthy areas.
27. Amendment as to the vesting of water pipes, etc.
28. Amendment of section 38 of the principal Act as to distribution of compensation money and as to betterment charges.
29. Explanation of sections 21 (2) and 41 (3) of the principal Act.

*Amendments with respect to Financial Matters.*

30. Amendment as to application of money borrowed for the purpose of the Dwelling-house Improvement Fund.
31. Expenses of rural district council under Part III. of the principal Act.
32. Application of proceeds of land sold under Part III. of the principal Act.
33. Mode in which contributions by London borough councils to the county council or *vice versa* may be made.
34. Exemption from section 133 of 8 and 9 Vict. c. 18.
35. Exemption of lodging-houses for the working classes from Inhabited House Duty.

*General Amendments.*

36. Power of entry.
37. Power of Local Government Board to obtain a report on any crowded area.
38. Joint action by local authorities.
39. Appeals to Local Government Board.
40. Sale and disposal of dwellings.
41. Power to prescribe forms and to dispense with advertisements and notices.
42. Provision as to publication in *London Gazette*.
43. Prohibition of back-to-back houses.
44. Power to Local Government Board to revoke unreasonable bye-laws.
45. Saving of sites of ancient monuments, etc.
46. Minor amendments of Housing Acts.

*Definitions.*

47. Provisions of this Part to be deemed to be part of the appropriate Part of the principal Act.
48. Amendment of definitions in Part I. of the principal Act.
49. Amendment of definitions for purpose of Part II. of the principal Act.
50. Definition of cottage.
51. Definition of Housing Acts.

*Application of Part I. to Scotland.*

## SECTION

- 52. Extension of 63 and 64 Vict. c. 59 and 3 Edw. 7 c. 39 to Scotland.
- 53. Application of Housing Acts to Scotland.

## PART II.

## TOWN PLANNING.

- 54. Preparation and approval of town planning scheme.
- 55. Contents of town planning schemes.
- 56. Procedure regulations of the Local Government Board.
- 57. Power to enforce scheme.
- 58. Compensation in respect of property injuriously affected by scheme, etc.
- 59. Exclusion or limitation of compensation in certain cases.
- 60. Acquisition by local authorities of land comprised in a scheme.
- 61. Powers of Local Government Board in case of default of local authority to make or execute town planning scheme.
- 62. Determination of matters by Local Government Board.
- 63. Inquiries by Local Government Board.
- 64. Laying general provisions before Parliament.
- 65. Definition of local authority, and expenses.
- 66. Application to London.
- 67. Application of Part II. to Scotland.

## PART III.

## COUNTY MEDICAL OFFICERS, COUNTY PUBLIC HEALTH AND HOUSING COMMITTEE, ETC.

- 68. Appointment, duties and tenure of office of county medical officers.
- 69. Duty of clerk and medical officer of health of district council to furnish information to medical officer of health of county council.
- 70. Extent of Part III.
- 71. Public health and housing committee of county councils.
- 72. Formation and extension of building societies.

## PART IV.

## SUPPLEMENTAL.

- 73. Provisions as to commons and open spaces.
  - 74. Provisions as to land in neighbourhood of royal palaces or parks.
  - 75. Repeal.
  - 76. Short title and extent.
- SCHEDULES. . .

## HOUSING, TOWN PLANNING, ETC., ACT.

An Act to amend the Law relating to the Housing of the Working Classes, to provide for the making of Town Planning schemes, and to make further provision with respect to the appointment and duties of County Medical Officers of Health, and to provide for the establishment of Public Health and Housing Committees of County Councils. [3rd December 1909.]

**B**E it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

## PART I.

## HOUSING OF THE WORKING CLASSES.

*Facilities for Acquisition of Lands and other Purposes of the Housing Acts.*

1. Part III. of the Housing of the Working Classes Act, 1890 (in this Part of this Act referred to as the principal Act), shall, after the commencement of this Act, extend to and take effect in every urban or rural district, or other place for which it has not been adopted, as if it had been so adopted.

2.—(1) A local authority may be authorised to purchase land compulsorily for the purposes of Part III. of the principal Act, by means of an order submitted to the Local Government Board and confirmed by the Board in accordance with the First Schedule to this Act.

(2) The procedure under this section for the compulsory purchase of land shall be substituted for the procedure for the same purpose under section one hundred and seventy-six of the Public Health Act, 1875, as applied by subsection (1) of section fifty-seven of the principal Act.

(3) A local authority may, with the consent of and subject to any conditions imposed by the Local Government Board, acquire land by agreement for the purposes of Part III. of the principal Act, notwithstanding that the land is not immediately required for those purposes.

3. Where a loan is made by the Public Works Loan Commissioners to a local authority for any purposes of the Housing Acts—

(a) The loan shall be made at the minimum rate allowed for the time being for loans out of the Local Loans Fund; and

(b) If the Local Government Board make a recommendation to that effect, the period for which the loan is made by the Public Works Loan Commissioners may exceed the period allowed under the principal Act or under any other Act limiting the period for which the loan may be made, but the period shall not exceed the period recommended by the Local Government Board, nor in any case eighty years; and

(c) As between loans for different periods, the longer duration of the loan shall not be taken as a reason for fixing a higher rate of interest.

4.—(1) Where a loan is made by the Public Works Loan Commissioners under section sixty-seven, subsection (2) (d), of the principal Act, to a public utility society, the words "two thirds" shall be substituted for the words "one moiety."

(2) For the purposes of this section a public utility society means a society registered under the Industrial and Provident Societies Act, 1893, or any amendment thereof, the rules whereof prohibit the payment of any interest or dividend at a rate exceeding five pounds per centum per annum.

5.—(1) Any purchase money or compensation payable in pursuance of the Housing Acts by a local authority in respect of any lands, estate, or interest of another local authority which would, but for this section, be paid into court in manner provided by the Lands Clauses Acts or by paragraph (20) of the Second Schedule to the principal Act may, if the Local Government Board consent, instead of being paid into court, be paid and applied as the Board determine.

(2) Any such decision of the Board as to the payment and application of any such purchase money or compensation shall be final and conclusive.

6. Any local authority in connexion with the exercise by them of their powers under Part III. of the principal Act may lay out and construct public streets or roads on any land acquired or appropriated by

them for the purpose of that Part of that Act, or contribute towards the cost of the laying out and construction of any streets or roads on any such land by other persons on the condition that those streets or roads are to be dedicated to the public.

7.—(1) The following paragraph shall be substituted for paragraph (b) of subsection (1) of section seventy-four of the principal Act:—

(b) The improvements on which capital money arising under the Settled Land Act, 1882, may be expended, enumerated in section twenty-five of the said Act and referred to in section thirty of the said Act, shall, in addition to cottages for labourers, farm servants, and artisans, whether employed on the settled land or not, include the provision of dwellings available for the working classes, either by means of building new buildings or by means of the reconstruction, enlargement, or improvement of existing buildings, so as to make them available for the purpose, if that provision of dwellings is, in the opinion of the court, not injurious to the estate or is agreed to by the tenant for life and the trustees of the settlement.

(2) The provision by a tenant for life, at his own expense, of dwellings available for the working classes on any settled land shall not be deemed to be an injury to any interest in reversion or remainder in that land; provided that the powers conferred upon a tenant for life by this subsection shall not be exercised by him without the previous approval in writing of the trustees of the settlement.

8. A local authority may accept a donation of land or money or other property for any of the purposes of the Housing Acts, and it shall not be necessary to enrol any assurance with respect to any such property under the Mortmain and Charitable Uses Act, 1888.

9.—(1) If in any case it appears to the Local Government Board that the institution of legal proceedings is requisite or desirable with respect to any property required to be applied under any trusts for the provision of dwellings available for the working classes, or that the expediting of any such legal proceedings is requisite or desirable, the Board may certify the case to the Attorney-General, and the Attorney-General, if he thinks fit, shall institute any legal proceedings or intervene in any legal proceedings already instituted in such manner as he thinks proper under the circumstances.

(2) Before preparing any scheme with reference to property required to be applied under any trusts for the provision of dwellings available for the working classes, the court or body who are responsible for making the scheme shall communicate with the Local Government Board and receive and consider any recommendations made by the Board with reference to the proposed scheme.

#### *Powers of enforcing Execution of Housing Acts.*

10.—(1) Where a complaint is made to the Local Government Board—

(a) as respects any rural district by the council of the county in which the district is situate, or by the parish council or parish meeting of any parish comprised in the district, or by any four inhabitant householders of the district; or

(b) as respects any county district, not being a rural district, by the council of the county in which the district is situated, or by four inhabitant householders of the district; or

(c) as respects the area of any other local authority by four inhabitant householders of the area;

that the local authority have failed to exercise their powers under Part II. or Part III. of the principal Act in cases where those powers ought to have been exercised, the Board may cause a public local inquiry to be held, and if, after holding such an inquiry, the Board are satisfied that

there has been such a failure on the part of the local authority, the Board may declare the authority to be in default, and may make an order directing that authority, within a time limited by the order, to carry out such works and do such other things as may be mentioned in the order for the purpose of remedying the default.

(2) Before deciding that a local authority have failed to exercise their powers under Part III. of the principal Act, the Board shall take into consideration the necessity for further accommodation for the housing of the working classes in such district, the probability that the required accommodation will not be otherwise provided, and the other circumstances of the case, and whether, having regard to the liability which will be incurred by the rates, it is prudent for the local authority to undertake the provision of such accommodation.

(3) Where an order originally made under this section on the council of a county district is not complied with by that council, the Local Government Board may, if they think fit, with the consent of the county council, instead of enforcing that order against the council of the county district, make an order directing the county council to carry out any works or do any other things which are mentioned in the original order for the purpose of remedying the default of the district council.

(4) Where the Board make an order under this section directing a county council to carry out any works or do any other thing, the order may, for the purpose of enabling the county council to give effect to the order, apply any of the provisions of the Housing Acts or of section sixty-three of the Local Government Act, 1894, with such modifications or adaptations (if any) as appear necessary or expedient.

(5) An order made by the Local Government Board under this section shall be laid before both Houses of Parliament as soon as may be after it is made.

(6) Any order made by the Local Government Board under this section may be enforced by mandamus.

11.—(1) Where it appears to the Local Government Board that a local authority have failed to perform their duty under the Housing Acts of carrying out an improvement scheme under Part I. of the principal Act, or have failed to give effect to any order as respects an obstructive building, or to a reconstruction scheme, under Part II. of that Act, or have failed to cause to be made the inspection of their district required by this Act, the Board may make an order requiring the local authority to remedy the default and to carry out any works or do any other things which are necessary for the purpose under the Housing Acts within a time fixed by the order.

(2) Any order made by the Local Government Board under this section may be enforced by mandamus.

12.—Where a complaint is made to the council of a county by the parish council or parish meeting of any parish comprised in any rural district in the county, or by any four inhabitant householders of that district, the county council may cause a public local inquiry to be held, and if, after holding such an inquiry, the county council are satisfied that the rural district council have failed to exercise their powers under Part III. of the principal Act in cases where those powers ought to have been exercised, the county council may resolve that the powers of the district council for the purposes of that Part be transferred to the county council with respect either to the whole district or to any parish in the district, and those powers shall be transferred accordingly, and, subject to the provisions of this Act, section sixty-three of the Local Government Act, 1894, shall apply as if the powers had been transferred under that Act.

13.—(1) Where the council of a county are of opinion that for any reason it is expedient that the council should exercise, as respects any

rural district in the county, any of the powers of a local authority under Part III. of the principal Act, the council, after giving notice to the council of the district of their intention to do so, may apply to the Local Government Board for an order conferring such powers on them.

(2) Upon such an application being made, the Board may make an order conferring on the county council as respects the rural district all or any of the powers of a local authority under Part III. of the principal Act, and thereupon the provisions of the Housing Acts relating to those powers (including those enabling the Public Works Loan Commissioners to lend, and fixing the terms for which money may be lent and borrowed) shall apply as if the council were a local authority under Part III. of the principal Act: Provided that the expenses incurred by the county council under any such order shall be defrayed as expenses for general county purposes.

(3) Where, under any such order, the county council have executed any works in a rural district they may transfer the works to the council of that district on such terms and subject to such conditions as may be agreed between them.

#### *Contracts by Landlord.*

14. In any contract made after the passing of this Act for letting for habitation a house or part of a house at a rent not exceeding—

- (a) in the case of a house situate in the administrative county of London, forty pounds;
- (b) in the case of a house situate in a borough or urban district with a population according to the last census for the time being of fifty thousand or upwards, twenty-six pounds;
- (c) in the case of a house situate elsewhere, sixteen pounds;

there shall be implied a condition that the house is at the commencement of the holding in all respects reasonably fit for human habitation, but the condition aforesaid shall not be implied when a house or part of a house is let for a term of not less than three years upon the terms that it be put by the lessee into a condition reasonably fit for occupation, and the lease is not determinable at the option of either party before the expiration of that term.

15.—(1) The last foregoing section shall, as respects contracts to which that section applies, take effect as if the condition implied by that section included an undertaking that the house shall, during the holding, be kept by the landlord in all respects reasonably fit for human habitation.

(2) The landlord or the local authority, or any person authorised by him or them in writing, may at reasonable times of the day, on giving twenty-four hours' notice in writing to the tenant or occupier, enter any house, premises, or building to which this section applies for the purpose of viewing the state and condition thereof.

(3) If it appears to the local authority within the meaning of Part II. of the principal Act that the undertaking implied by virtue of this section is not complied with in the case of any house to which it applies, the authority shall, if a closing order is not made with respect to the house, by written notice require the landlord, within a reasonable time, not being less than twenty-one days, specified in the notice, to execute such works as the authority shall specify in the notice as being necessary to make the house in all respects reasonably fit for human habitation.

(4) Within twenty-one days after the receipt of such notice the landlord may by written notice to the local authority declare his intention of closing the house for human habitation, and thereupon a closing order shall be deemed to have become operative in respect of such house.

(5) If the notice given by the local authority is not complied with, and if the landlord has not given the notice mentioned in the immediately preceding subsection, the authority may, at the expiration of the time



specified in the notice given by them to the landlord, do the work required to be done and recover the expenses incurred by them in so doing from the landlord as a civil debt in manner provided by the Summary Jurisdiction Acts, or, if they think fit, the authority may by order declare any such expenses to be payable by annual instalments within a period not exceeding that of the interest of the landlord in the house, nor in any case five years, with interest at a rate not exceeding five pounds per centum per annum, until the whole amount is paid, and any such instalments or interest or any part thereof may be recovered from the landlord as a civil debt in manner provided by the Summary Jurisdiction Acts.

(6) A landlord may appeal to the Local Government Board against any notice requiring him to execute works under this section, and against any demand for the recovery of expenses from him under this section or order made with respect to those expenses under this section by the authority, by giving notice of appeal to the Board within twenty-one days after the notice is received, or the demand or order is made, as the case may be, and no proceedings shall be taken in respect of such notice requiring works, order, or demand, whilst the appeal is pending.

(7) In this section the expression "landlord" means any person who lets to a tenant for habitation the house under any contract referred to in this section, and includes his successors in title; and the expression "house" includes part of a house.

(8) Sections forty-nine and fifty of the principal Act as amended by section thirteen of the Housing of the Working Classes Act, 1903 (which relate to the service of notices and the description of owner in proceedings), shall apply for the purposes of this section, with the substitution, where required, of the landlord for the owner of a dwelling-house.

(9) Any remedy given by this section for non-compliance with the undertaking implied by virtue of this section shall be in addition to and not in derogation of any other remedy available to the tenant against the landlord, either at common law or otherwise.

16.—(1) The power of making and enforcing bye-laws under section ninety of the Public Health Act, 1875, and section ninety-four of the Public Health (London) Act, 1891, with respect to houses or parts of houses which are let in lodgings or occupied by members of more than one family, shall, in the case of houses intended for the working classes, extend to the making and enforcing of bye-laws imposing any duty (being a duty which may be imposed by the bye-laws and which involves the execution of work) upon the owner within the meaning of the said Acts, in addition to or in substitution for any other person having an interest in the premises, and prescribing the circumstances and conditions in and subject to which any such duty is to be discharged.

(2) For the purpose of discharging any duty so imposed, the owner or other person may at all reasonable times enter upon any part of the premises, and section fifty-one of the principal Act shall apply as if for the reference to the provisions of Part II. of that Act there were substituted a reference to the provisions of such bye-laws, and as if the person on whom such duty is imposed were the owner and any inmate of the premises were the occupier of a dwelling-house.

(3) Where an owner or other person has failed to execute any work which he has been required to execute under the bye-laws, the local authority or sanitary authority, as the case may be, may, after giving to him not less than twenty-one days' notice in writing, themselves execute the works and recover the costs and expenses, and for that purpose the provisions of subsection (5) of the last foregoing section, with respect to the execution of works and the recovery of expenses by local authorities, shall apply as if the owner or other person were the landlord, and with such other adaptations as may be necessary.

*Amendment of Procedure for Closing Orders and Demolition Orders.*

17.—(1) It shall be the duty of every local authority within the meaning of Part II. of the principal Act to cause to be made from time to time inspection of their district, with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and for that purpose it shall be the duty of the local authority, and of every officer of the local authority, to comply with such regulations and to keep such records as may be prescribed by the Board.

(2) If, on the representation of the medical officer of health, or of any other officer of the authority, or other information given, any dwelling-house appears to them to be in such a state, it shall be their duty to make an order prohibiting the use of the dwelling-house for human habitation (in this Act referred to as a closing order) until in the judgment of the local authority the dwelling-house is rendered fit for that purpose.

(3) Notice of a closing order shall be forthwith served on every owner of the dwelling-house in respect of which it is made, and any owner aggrieved by the order may appeal to the Local Government Board by giving notice of appeal to the Board within fourteen days after the order is served upon him.

(4) Where a closing order has become operative, the local authority shall serve notice of the order on every occupying tenant of the dwelling-house in respect of which the order is made, and, within such period as is specified in the notice, not being less than fourteen days after the service of the notice, the order shall be obeyed by him, and he and his family shall cease to inhabit the dwelling-house, and in default he shall be liable on summary conviction to be ordered to quit the dwelling-house within such time as may be specified in the order.

(5) Unless the dwelling-house has been made unfit for habitation by the wilful act or default of the tenant or of any person for whom as between himself and the owner or landlord he is responsible, the local authority may make to every such tenant such reasonable allowance on account of his expense in removing as may be determined by the local authority with the consent of the owner of the dwelling-house, or, if the owner of the dwelling-house fails to consent to the sum determined by the local authority, as may be fixed by a court of summary jurisdiction, and the amount of the said allowance shall be recoverable by the local authority from the owner of the dwelling-house as a civil debt in manner provided by the Summary Jurisdiction Acts.

(6) The local authority shall determine any closing order made by them if they are satisfied that the dwelling-house, in respect of which the order has been made, has been rendered fit for human habitation.

If, on the application of any owner of a dwelling-house, the local authority refuse to determine a closing order, the owner may appeal to the Local Government Board by giving notice of appeal to the Board within fourteen days after the application is refused.

(7) A room habitually used as a sleeping place, the surface of the floor of which is more than three feet below the surface of the part of the street adjoining or nearest to the room, shall for the purposes of this section be deemed to be a dwelling-house so dangerous or injurious to health as to be unfit for human habitation, if the room either—

- (a) is not on an average at least seven feet in height from floor to ceiling; or
- (b) does not comply with such regulations as the local authority with the consent of the Local Government Board may prescribe for securing the proper ventilation and lighting of such rooms, and the protection thereof against dampness, effluvia, or exhalation: Provided that if the local authority, after being required to do so

by the Local Government Board, fail to make such regulations, or such regulations as the Board approve, the Board may themselves make them, and the regulations so made shall have effect as if they had been made by the local authority with the consent of the Board :

Provided that a closing order made in respect of a room to which this subsection applies shall not prevent the room being used for purposes other than those of a sleeping place ; and that, if the occupier of the room after notice of an order has been served upon him fails to comply with the order, an order to comply therewith may, on summary conviction, be made against him.

This subsection shall not come into operation until the first day of July nineteen hundred and ten, and a closing order made in respect of any room to which this subsection applies shall not be treated as a closing order in respect of a dwelling-house for the purposes of the next succeeding section.

18.—(1) Where a closing order in respect of any dwelling-house has remained operative for a period of three months, the local authority shall take into consideration the question of the demolition of the dwelling-house, and shall give every owner of the dwelling-house notice of the time (being some time not less than one month after the service of the notice) and place at which the question will be considered, and any owner of the dwelling-house shall be entitled to be heard when the question is so taken into consideration.

(2) If upon any such consideration the local authority are of opinion that the dwelling-house has not been rendered fit for human habitation, and that the necessary steps are not being taken with all due diligence to render it so fit, or that the continuance of any building, being or being part of the dwelling-house, is a nuisance or dangerous or injurious to the health of the public or of the inhabitants of the neighbouring dwelling-houses, they shall order the demolition of the building.

(3) If any owner undertakes to execute, together with the works necessary to render the dwelling-house fit for human habitation, and the local authority consider that it can be so rendered fit for human habitation, the local authority may, if they think fit, postpone the operation of the order for such time, not exceeding six months, as they think sufficient for the purpose of giving the owner an opportunity of executing the necessary works.

(4) Notice of an order for the demolition of a building shall be forthwith served on every owner of the building in respect of which it is made, and any owner aggrieved by the order may appeal to the Local Government Board by giving notice of appeal to the Board within twenty-one days after the order is served upon him.

19. Any owner of or other person interested in a dwelling-house on which an annuity has been charged by a charging order made under section thirty-six of the principal Act (which relates to the grant of charges) shall at any time be at liberty to redeem the annuity on payment to the person entitled to the annuity of such sum as may be agreed upon, or in default of agreement determined by the Local Government Board.

20. The charges excepted in subsection (1) of section thirty-seven of the principal Act (which relates to the incidence of charges) shall include charges on the dwelling-house created or arising under any provision of the Public Health Acts, or under any provision in any local Act authorising a charge for recovery of expenses incurred by a local authority.

21. Subsection (3) of section forty-seven of the principal Act (which gives power to a court of summary jurisdiction to enlarge the time for certain matters) shall cease to have effect as respects the time allowed

for the execution of any works or the demolition of a building under a closing order or under an order for the demolition of a building.

*Amendments with respect to Improvement and Reconstruction Schemes.*

22. In section four of the principal Act (which relates to an official representation), the words "that the most satisfactory method of dealing with the evils connected with such houses, courts, or alleys, and the sanitary defects in such area is an improvement scheme" shall be substituted for the words "that the evils connected with such houses, courts, or alleys, and the sanitary defects in such area cannot be effectually remedied otherwise than by means of an improvement scheme."

23.—(1) Section six of the principal Act (which relates to the contents of an improvement scheme) shall be read as if in subsection (1) the words "for sanitary purposes" were omitted in paragraph (a); and as if the following paragraph was inserted at the end of that subsection:—  
"and

(e) may provide for any other matter (including the closing and diversion of highways) for which it seems expedient to make provision with a view to the improvement of the area or the general efficiency of the scheme."

(2) Provision may be made in a reconstruction scheme under Part II. of the principal Act for any matters for which provision may be made in an improvement scheme made under Part I. of that Act.

24.—(1) Paragraphs (a) and (b) of subsection (2) of section five of the Housing of the Working Classes Act, 1903 (which limit the cases under which an order confirming an improvement scheme takes effect without confirmation by Parliament), shall cease to have effect.

(2) An order of the Local Government Board sanctioning a reconstruction scheme, and authorising the compulsory purchase of land for the purpose shall, notwithstanding anything in section thirty-nine of the principal Act, take effect without confirmation.

25. The Local Government Board may, in the exercise of their power under section fifteen or subsection (9) of section thirty-nine of the principal Act, permit the local authority to modify their scheme, not only by the abandonment of any part of the scheme which it may appear inexpedient to carry into execution, but also by amending or adding to the scheme in matters of detail in such manner as appears expedient to the Board.

26. Any inspector or officer of the Local Government Board, or any person employed by the Board, may be directed to make any inspection or inquiry which is required for the purposes of section sixteen of the principal Act (which relates to inquiries made on the default of a medical officer), and section eighty-five of that Act (which relates to inquiries by the Local Government Board), as amended by this Act, shall apply as respects any inspection or inquiry so held as it applies to local inquiries held under that section.

27. An improvement scheme under Part I. of the principal Act may, with the consent of the person or body of persons entitled to any right or easement which would be extinguished by virtue of section twenty-two of the principal Act, provide for any exceptions, restrictions, or modifications in the application to that right or easement of that section, and that section shall take effect subject to any such exceptions, restrictions, or modifications.

28.—(1) The amount of any compensation payable under section thirty-eight of the principal Act (which relates to obstructive buildings) shall, when settled by arbitration in manner provided by that section, be apportioned by the arbitrator between any persons having an interest in the compensation in such manner as the arbitrator determines.

(2) The power of the arbitrator to apportion compensation under the foregoing provision and to apportion any part of the compensation to be paid for the demolition of an obstructive building amongst other buildings under subsection (8) of the said section thirty-eight may be exercised in cases where the amount to be paid for compensation has been settled, otherwise than by arbitration under the principal Act, by an arbitrator appointed for the special purpose, on the application of the local authority, by the Local Government Board, and the provisions of that Act shall apply as if the arbitrator so appointed had been appointed as arbitrator to settle the amount to be paid for compensation.

29. For removing doubts it is hereby declared that a local authority may tender evidence before an arbitrator to prove the facts under the headings (first) (secondly) (thirdly) mentioned in subsection (2) of section twenty-one and subsection (3) of section forty-one of the principal Act, notwithstanding that the local authority have not taken any steps with a view to remedying the defects or evils disclosed by the evidence.

*Amendments with respect to Financial Matters.*

30. No deficiency in the Dwelling-house Improvement Fund shall be supplied under subsection (2) of section twenty-four of the principal Act out of borrowed money unless the deficiency arises in respect of money required for purposes to which borrowed money is, in the opinion of the Local Government Board, properly applicable.

31.—(1) The expenses incurred by a rural district council after the passing of this Act in the execution of Part III. of the principal Act shall be defrayed as general expenses of the council in the execution of the Public Health Acts, except so far as the Local Government Board on the application of the council declare that any such expenses are to be levied as special expenses charged on specified contributory places, or as general expenses charged on specified contributory places, in the district, in such proportions as the district council may determine, to the exclusion of other parts of the district, and a rural district council may borrow for the purposes of Part III. of the principal Act in like manner and subject to the like conditions as for the purpose of defraying the above-mentioned general or special expenses.

(2) The district council shall give notice to the overseers of any contributory place proposed to be charged of any apportionment made by them under this section, and the overseers, if aggrieved by the apportionment, may appeal to the Local Government Board by giving notice of appeal to the Board within twenty-one days after notice has been so given of the apportionment.

32. Where any land vested in a local authority for the purposes of Part III. of the principal Act is sold under section sixty of that Act (which relates to the sale and exchange of lands), the proceeds may be applied not only as provided by that section, but also for any purpose, including repayment of borrowed money, for which capital money may be applied, and which is approved by the Local Government Board.

33. Any payment or contribution agreed or ordered to be made under subsection (6) or (7) of section forty-six of the principal Act, as amended by section fourteen of the Housing of the Working Classes Act, 1903 (which relate to payments or contributions by borough councils towards the expenses of the county council, or by the county council towards the expenses of borough councils in London), may be made either by means of the payment of a lump sum or by means of an annual payment of such amount and for such number of years as may be agreed upon or ordered.

34. Section one hundred and thirty-three of the Lands Clauses Consolidation Act, 1845 (relating to Land Tax and poor rate), shall not apply

in the case of any lands of which a local authority becomes possessed by virtue of the Housing Acts.

35.—(1) The assessment to Inhabited House Duty of any house occupied for the sole purpose of letting lodgings to persons of the working classes, at a charge of not exceeding sixpence a night for each person, shall be discharged by the Commissioners acting in the execution of the Acts relating to the Inhabited House Duties, upon the production of a certificate to the effect that the house is solely constructed and used to afford suitable accommodation for the lodgers, and that due provision is made for their sanitary requirements.

(2) The provisions of subsection (2) of section twenty-six of the Customs and Inland Revenue Act, 1890, in relation to the certificate mentioned therein, shall, so far as applicable, apply to the certificate to be produced under this section.

#### *General Amendments.*

36. Any person authorised in writing stating the particular purpose or purposes for which the entry is authorised, by the local authority or the Local Government Board, may at all reasonable times, on giving twenty-four hours' notice to the occupier and to the owner, if the owner is known, of his intention, enter any house, premises, or buildings—

- (a) for the purpose of survey or valuation, in the case of houses, premises, or buildings which the local authority are authorised to purchase compulsorily under the Housing Acts; and
- (b) for the purpose of survey and examination, in the case of any dwelling-house in respect of which a closing order or an order for demolition has been made; or
- (c) for the purpose of survey and examination, where it appears to the authority or Board that survey or examination is necessary in order to determine whether any powers under the Housing Acts should be exercised in respect of any house, premises, or building.

Notice may be given to the occupier for the purposes of this section by leaving a notice addressed to the occupier, without name or further description, at the house, buildings, or premises.

37. If it appears to the Local Government Board that owing to density of population, or any other reason, it is expedient to inquire into the circumstances of any area with a view to determining whether any powers under the Housing Acts should be put into force in that area or not, the Local Government Board may require the local authority to make a report to them containing such particulars as to the population of the district and other matters as they direct, and the local authority shall comply with the requirement of the Local Government Board, and any expenses incurred by them in so doing shall be paid as expenses incurred in the execution of such Part of the principal Act as the Local Government Board determine.

38. Where, upon an application made by one of the local authorities concerned, the Local Government Board are satisfied that it is expedient that any local authorities should act jointly for any purposes of the Housing Acts, either generally or in any special case, the Board may by order make provision for the purpose, and any provisions so made shall have the same effect as if they were contained in a provisional order made under section two hundred and seventy-nine of the Public Health Act, 1875, for the formation of a united district.

39.—(1) The procedure on any appeal under this Part of this Act, including costs, to the Local Government Board shall be such as the Board may by rules determine, and on any such appeal the Board may make such order in the matter as they think equitable, and any order so made shall be binding and conclusive on all parties, and, where the

appeal is against any notice, order, or apportionment given or made by the local authority, the notice, order, or apportionment may be confirmed, varied, or quashed, as the Board think just.

Provided that—

- (a) the Local Government Board may at any stage of the proceedings on appeal, and shall, if so directed by the High Court, state in the form of a special case for the opinion of the court any question of law arising in the course of the appeal; and
- (b) the rules shall provide that the Local Government Board shall not dismiss any appeal without having first held a public local inquiry.

(2) Any notice, order, or apportionment as respects which an appeal to the Local Government Board is given under this Part of this Act shall not become operative, until either the time within which an appeal can be made under this Part of this Act has elapsed without an appeal being made, or, in case an appeal is made, the appeal is determined or abandoned, and no work shall be done or proceedings taken under any such notice, order, or apportionment, until it becomes operative.

(3) The Local Government Board may, before considering any appeal which may be made to them under this Part of this Act, require the appellant to deposit such sum to cover the costs of the appeal as may be fixed by the rules made by them with reference to appeals.

40.—Notwithstanding anything contained in the principal Act it shall not be obligatory upon a local authority to sell and dispose of any lands or dwellings acquired or constructed by them for any of the purposes of the Housing Acts.

41.—(1) The Local Government Board may by order prescribe the form of any notice, advertisement, or other document, to be used in connection with the powers and duties of a local authority or of the Board under the Housing Acts, and the forms so prescribed, or forms as near thereto as circumstances admit, shall be used in all cases to which those forms are applicable.

(2) The Local Government Board may dispense with the publication of advertisements or the service of notices required to be published or served by a local authority under the Housing Acts, if they are satisfied that there is reasonable cause for dispensing with the publication or service.

(3) Any such dispensation may be given by the Local Government Board either before or after the time at which the advertisement is required to be published or the notice is required to be served, and either unconditionally or upon such conditions as to the publication of other advertisements or the service of other notices or otherwise as the Board think fit, due care being taken by the Board to prevent the interests of any person being prejudiced by the dispensation.

42. Where under the Housing Acts, any scheme or order or any draft scheme or order is to be published in the *London Gazette*, or notice of any such scheme or order or draft scheme or order is to be given in the *London Gazette*, it shall be sufficient in lieu of such publication or notice to insert a notice giving short particulars of the scheme, order, or draft, and stating where copies thereof can be inspected or obtained in two local newspapers circulating in the area affected by the scheme, order, or draft, or to give notice thereof in such other manner as the Local Government Board determine.

43. Notwithstanding anything in any local Act or bye-law in force in any borough or district, it shall not be lawful to erect any back-to-back houses intended to be used as dwellings for the working classes, and any such house commenced to be erected after the passing of this Act shall be deemed to be unfit for human habitation for the purposes of the provisions of the Housing Acts.

Provided that nothing in this section—

- (a) shall prevent the erection or use of a house containing several tenements in which the tenements are placed back to back, if the medical officer of health for the district certifies that the several tenements are so constructed and arranged as to secure effective ventilation of all habitable rooms in every tenement; or
- (b) shall apply to houses abutting on any streets the plans whereof have been approved by the local authority before the first day of May nineteen hundred and nine, in any borough or district in which, at the passing of this Act, any local Act or bye-laws are in force permitting the erection of back-to-back houses.

44. If the Local Government Board are satisfied, by local inquiry or otherwise, that the erection of dwellings for the working classes within any borough, or urban or rural district, is unreasonably impeded in consequence of any bye-laws with respect to new streets or buildings in force therein, the Board may require the local authority to revoke such bye-laws or to make such new bye-laws as the Board may consider necessary for the removal of the impediment. If the local authority do not within three months after such requisition comply therewith, the Board may themselves revoke such bye-laws, and make such new bye-laws as they may consider necessary for the removal of the impediment, and such new bye-laws shall have effect as if they had been duly made by the local authority and confirmed by the Board.

45. Nothing in the Housing Acts shall authorise the acquisition for the purposes of those Acts of any land which is the site of an ancient monument or other object of archæological interest, or the compulsory acquisition for the purposes of Part III. of the Housing of the Working Classes Act, 1890, of any land which is the property of any local authority or has been acquired by any corporation or company for the purposes of a railway, dock, canal, water, or other public undertaking, or which at the date of the order forms part of any park, garden, or pleasure ground, or is otherwise required for the amenity or convenience of any dwelling-house.

46. The amendments specified in the second column of the Second Schedule to this Act, which relate to minor details, shall be made in the provisions of the Housing Acts specified in the first column of that Schedule, and section sixty-three of the principal Act (which relates to the disqualification of tenants of lodging-houses on receiving poor relief) shall be repealed.

#### *Definitions.*

47.—(1) Any provisions of this Act which supersede or amend any provisions of the principal Act shall be deemed to be part of that Part of the principal Act in which the provisions superseded or amended are contained.

(2) Any reference in the Housing Acts to a closing order or to an order for the demolition of a building shall be construed as a reference to a closing order or an order of demolition under this Act.

48. The expression "street" shall, unless the context otherwise requires, have the same meaning in Part I. of the principal Act as it has in Part II. of that Act, and shall include any court, alley, street, square, or row of houses.

49.—(1) The words "means any inhabited building and" shall be omitted from the definition of "dwelling-house" in section twenty-nine of the principal Act.

(2) For the definition of owner in the same section the following definition shall be substituted:—



“ The expression ‘ owner,’ in addition to the definition given by the Lands Clauses Acts, includes all lesses or mortgagees of any premises required to be dealt with under this Part of this Act, except persons holding or entitled to the rents and profits of such premises under a lease the original term whereof is less than twenty-one years.”

50. For the definition of cottage in section fifty-three of the principal Act the following definition shall be substituted :—

The expression “ cottage ” in this Part of this Act may include a garden of not more than one acre.

51. In this Part of this Act the expression “ Housing Acts ” means the principal Act, and any Act amending that Act, including this Act.

*Application of Part I. to Scotland.*

52. Subject as hereinafter provided, the Housing of the Working Classes Act, 1900, and the Housing of the Working Classes Act, 1903, shall as amended by this Act apply to Scotland.

53. In addition to the provisions of the principal Act respecting the application of that Act to Scotland, the following provisions shall have effect in the application of the Housing Acts to Scotland :—

- (1) The Local Government Board for Scotland (hereinafter in this section referred to as the Board) shall, except as otherwise provided, be substituted for the Local Government Board, and shall also in Part III. of the principal Act as amended and in section five of the Housing of the Working Classes Act, 1900, be substituted for the county council :
- (2) The Lord Advocate shall be substituted for the Attorney-General :
- (3) The expression “ Public Health Acts ” means the Public Health (Scotland) Act, 1897, and any Act amending the same. References to the Public Health Act, 1875, shall, unless the context otherwise requires, be construed as references to the Public Health (Scotland) Act, 1897, a reference to an order under section eighty-three of the Public Health (Scotland) Act, 1897, shall be substituted for a reference to a provisional order under section two hundred and seventy-nine of the Public Health Act, 1875, and a reference to section seventy-two of the Public Health (Scotland) Act, 1897, shall be substituted for a reference to section ninety of the Public Health Act, 1875 :
- (4) The reference in section fifty-seven of the principal Act to sections of the Public Health Act, 1875, relating to the purchase of lands, shall be construed as a reference to the corresponding sections of the Public Health (Scotland) Act, 1897 : Provided that for the purposes of Part III. of the principal Act the procedure under section 60 of this Act for the compulsory purchase of land shall be substituted for the procedure for the compulsory purchase of land under section one hundred and forty-five of the Public Health (Scotland) Act, 1897 :
- (5) The district and the local authority for the purposes of the Public Health (Scotland) Act, 1897, shall respectively be the district and the local authority, and the public health general assessment shall be the local rate, for the purposes of the Housing Acts ; provided that such local rate shall not be reckoned in any calculation as to the statutory limit of the public health general assessment ; and provided further that a local authority not being a town council may, where so authorised by the Board in terms of the Housing Acts, assess and levy such local rate upon all lands and heritages within one or more of the parishes or special districts comprised in their district, to the exclusion of other parishes or special districts within the district :

- (6) A local authority may, with the consent of the Board, borrow money for the purposes authorised in the Housing Acts on the security of the local rate in the same manner, and subject to the same conditions as nearly as may be, as they may borrow for the provision of permanent hospitals under the Public Health (Scotland) Act, 1897; provided that all money so borrowed shall, notwithstanding the terms of section one hundred and forty-one of the said Act, be wholly repaid together with the accruing interest within such period not exceeding eighty years from the date of the loan as the Board may determine in each case :
- (7) The expressions "urban sanitary authority" and "rural sanitary authority" or "rural district council" mean respectively the local authority (for the purposes of the Public Health (Scotland) Act, 1897) of a burgh and of a district not being a burgh, and the expressions "urban district" and "rural district" shall be construed accordingly :
- (8) The Acts relating to nuisances mean as respects any place the Public Health (Scotland) Act, 1897, and the Local Government (Scotland) Act, 1889, and any Act amending the same or either of them, and any local Act which contains any provisions with respect to nuisances in that place :
- (9) Except so far as inconsistent with the provisions of sub-section (1) of section eighty-five of the principal Act, sections seven, eight, nine, and ten of the Public Health (Scotland) Act, 1897, shall apply for the purpose of local inquiries ordered by the Board under the Housing Acts :
- (10) Section one, sub-section (1) of section four, and section ten of the Housing of the Working Classes Act, 1903, shall not apply. In the last-mentioned Act sections three and twelve shall apply with the substitution of the date of the passing of this Act for the date of the passing of that Act, and the Schedule shall apply with the modifications specified in the Third Schedule to this Act :
- (11) Where a complaint is made to the Board—
- (a) as respects the district of a local authority not being a town council, by the county council, or by the parish council or landward committee of any parish comprised in the district, or by any four inhabitant householders of the district ; or
- (b) as respects any other district by any four inhabitant householders of the district ;
- that the local authority have failed to exercise their powers under Part II. or Part III. of the principal Act in cases where those powers ought to have been exercised, the Board may cause a public local inquiry to be held, and if, after holding such an inquiry, the Board are satisfied that there has been such a failure on the part of the local authority, it shall be lawful for the Board, with the approval of the Lord Advocate, to apply by summary petition to either Division of the Court of Session, or during vacation or recess to the Lord Ordinary on the Bills, which Division or Lord Ordinary are hereby authorised and directed to do therein and to dispose of the expenses of the proceedings as to the said Division or Lord Ordinary shall appear to be just. Section ten of this Act shall not apply :
- (12) Where it appears to the Board that a locality authority have failed to perform their duty under the Housing Acts of carrying out an improvement scheme under Part I. of the principal Act, or have failed to make, or, if made, to give effect to, any order as respects an obstructive building, or any reconstruction scheme, under Part II. of that Act, or have failed to cause to be made the inspection of their district required by this Act, it shall be lawful for the

Board to apply by summary petition to either Division of the Court of Session, or during vacation or recess to the Lord Ordinary on the Bills, which Division or Lord Ordinary are hereby authorised and directed as in the immediately preceding subsection. Section eleven of this Act shall not apply :

- (13) Section twelve and section thirteen of this Act shall not apply :
- (14) Sections fifteen, seventeen, eighteen, and thirty-nine of this Act shall apply with the substitution (except as regards the making of or consenting to regulations) of the sheriff for the Local Government Board and of the Court of Session for the High Court; provided that the reference to a public local inquiry shall not apply, and provided further that where an appeal is competent under any of these sections, an appeal shall not be competent under section thirty-five of the principal Act, and provided also that the power to make rules under section thirty-nine of this Act shall be exercised by the Court of Session by act of sederunt. Section one hundred and forty-six of the Public Health (Scotland) Act, 1897 (prescribing the procedure if a local authority neglect its duty), shall have effect as if the duties imposed upon a local authority by sections seventeen and eighteen of this Act were duties imposed by that Act :
- (15) In the application to Scotland of section fourteen of this Act the limit of rent shall be sixteen pounds :
- (16) References to special expenses shall not apply :
- (17) "Overseers" means parish council, "paid into court" means "paid into bank," "as a civil debt in manner provided by the Summary Jurisdiction Acts" means in a summary manner.

## PART II.

### TOWN PLANNING.

54.--(1) A town planning scheme may be made in accordance with the provisions of this Part of this Act as respects any land which is in course of development or appears likely to be used for building purposes, with the general object of securing proper sanitary conditions, amenity, and convenience in connexion with the laying out and use of the land, and of any neighbouring lands.

(2) The Local Government Board may authorise a local authority within the meaning of this Part of this Act to prepare such a town planning scheme with reference to any land within or in the neighbourhood of their area, if the authority satisfy the Board that there is a *prima facie* case for making such a scheme or may authorise a local authority to adopt, with or without any modifications, any such scheme proposed by all or any of the owners of any land with respect to which the local authority might themselves have been authorised to prepare a scheme.

(3) Where it is made to appear to the Local Government Board that a piece of land already built upon, or a piece of land not likely to be used for building purposes, is so situated with respect to any land likely to be used for building purposes that it ought to be included in any town planning scheme made with respect to the last-mentioned land, the Board may authorise the preparation or adoption of a scheme including such piece of land as aforesaid, and providing for the demolition or alteration of any buildings thereon so far as may be necessary for carrying the scheme into effect.

(4) A town planning scheme prepared or adopted by a local authority shall not have effect unless it is approved by order of the Local Government Board, and the Board may refuse to approve any scheme except with such modifications and subject to such conditions as they think fit

to impose. Provided that before a town planning scheme is approved by the Local Government Board notice of their intention to do so shall be published in the *London or Edinburgh Gazette* as the case may be, and if within twenty-one days from the date of such publication any person or authority interested objects in the prescribed manner the draft of the order shall be laid before each House of Parliament for a period of not less than thirty days during the Session of Parliament, and if either of those Houses before the expiration of those thirty days presents an Address to His Majesty against the draft, or any part thereof, no further proceedings shall be taken thereon without prejudice to the making of any new draft scheme.

(5) A town planning scheme, when approved by the Local Government Board, shall have effect as if it were enacted in this Act.

(6) A town planning scheme may be varied or revoked by a subsequent scheme prepared or adopted and approved in accordance with this Part of this Act, and the Local Government Board on the application of the responsible authority, or of any other person appearing to them to be interested, may by order revoke a town planning scheme if they think that under the special circumstances of the case the scheme should be so revoked.

(7) The expression "land likely to be used for building purposes" shall include any land likely to be used as, or for the purpose of providing open spaces, roads, streets, parks, pleasure or recreation grounds, or for the purpose of executing any work upon or under the land incidental to a town planning scheme, whether in the nature of a building work or not, and the decision of the Local Government Board, whether land is likely to be used for building purposes or not, shall be final.

55.—(1) The Local Government Board may prescribe a set of general provisions (or separate sets of general provisions adapted for areas of any special character) for carrying out the general objects of town planning schemes, and in particular for dealing with the matters set out in the Fourth Schedule to this Act, and the general provisions, or set of general provisions appropriate to the area for which a town planning scheme is made, shall take effect as part of every scheme, except so far as provision is made by the scheme as approved by the Board for the variation or exclusion of any of those provisions.

(2) Special provisions shall in addition be inserted in every town planning scheme defining in such manner as may be prescribed by regulations under this Part of this Act the area to which the scheme is to apply, and the authority who are to be responsible for enforcing the observance of the scheme, and for the execution of any works which under the scheme or this Part of this Act are to be executed by a local authority (in this Part of this Act referred to as the responsible authority), and providing for any matters which may be dealt with by general provisions, and otherwise supplementing, excluding, or varying the general provisions, and also for dealing with any special circumstances or contingencies for which adequate provision is not made by the general provisions, and for suspending so far as necessary for the proper carrying out of the scheme, any statutory enactments, bye-laws, regulations, or other provisions, under whatever authority made, which are in operation in the area included in the scheme :

Provided that, where the scheme contains provisions suspending any enactment contained in a public general Act, the scheme shall not come into force unless a draft thereof has been laid before each House of Parliament for a period of not less than forty days during the session of Parliament, and, if either of those Houses before the expiration of those forty days presents an Address to His Majesty against the proposed suspension no further proceedings shall be taken on the draft, without prejudice to the making of any new scheme.

(3) Where land included in a town planning scheme is in the area of more than one local authority, or is in the area of a local authority by whom the scheme was not prepared, the responsible authority may be one of those local authorities, or for certain purposes of the scheme one local authority and for certain purposes another local authority, or a joint body constituted specially for the purpose by the scheme, and all necessary provisions may be made by the scheme for constituting the joint body and giving them the necessary powers and duties :

Provided that, except with the consent of the London County Council, no other local authority shall, as respects any land in the county of London, prepare or be responsible for enforcing the observance of a town planning scheme under this Part of this Act, or for the execution of any works which under the scheme or this Part of this Act are to be executed by a local authority.

56.—(1) The Local Government Board may make regulations for regulating generally the procedure to be adopted with respect to applications for authority to prepare or adopt a town planning scheme, the preparation of the scheme, obtaining the approval of the Board to a scheme so prepared or adopted, and any inquiries, reports, notices, or other matters required in connection with the preparation or adoption or the approval of the scheme or preliminary thereto, or in relation to the carrying out of the scheme or enforcing the observance of the provisions thereof.

(2) Provision shall be made by those regulations—

- (a) for securing co-operation on the part of the local authority with the owners and other persons interested in the land proposed to be included in the scheme at every stage of the proceedings, by means of conferences and such other means as may be provided by the regulations ;
- (b) for securing that notice of the proposal to prepare or adopt the scheme should be given at the earliest stage possible to any council interested in the land ; and
- (c) for dealing with the other matters mentioned in the Fifth Schedule to this Act.

57.—(1) The responsible authority may at any time, after giving such notice as may be provided by a town planning scheme and in accordance with the provisions of the scheme—

- (a) remove, pull down, or alter any building or other work in the area included in the scheme which is such as to contravene the scheme, or in the erection or carrying out of which any provision of the scheme has not been complied with ; or
- (b) execute any work which it is the duty of any person to execute under the scheme in any case where it appears to the authority that delay in the execution of the work would prejudice the efficient operation of the scheme.

(2) Any expenses incurred by a responsible authority under this section may be recovered from the persons in default in such manner and subject to such conditions as may be provided by the scheme.

(3) If any question arises whether any building or work contravenes a town planning scheme, or whether any provision of a town planning scheme is not complied with in the erection or carrying out of any such building or work, that question shall be referred to the Local Government Board, and shall, unless the parties otherwise agree, be determined by the Board as arbitrators, and the decision of the Board shall be final and conclusive and binding on all persons.

58.—(1) Any person whose property is injuriously affected by the making of a town planning scheme shall, if he makes a claim for the purpose within the time (if any) limited by the scheme, not being less than three months after the date when notice of the approval of the

scheme is published in the manner prescribed by regulations made by the Local Government Board, be entitled to obtain compensation in respect thereof from the responsible authority.

(2) A person shall not be entitled to obtain compensation under this section on account of any building erected on, or contract made or other thing done with respect to, land included in a scheme, after the time at which the application for authority to prepare the scheme was made, or after such other time as the Local Government Board may fix for the purpose :

Provided that this provision shall not apply as respects any work done before the date of the approval of the scheme for the purpose of finishing a building begun or of carrying out a contract entered into before the application was made.

(3) Where, by the making of any town planning scheme, any property is increased in value, the responsible authority, if they make a claim for the purpose within the time (if any) limited by the scheme (not being less than three months after the date when notice of the approval of the scheme is first published in the manner prescribed by regulations made by the Local Government Board), shall be entitled to recover from any person whose property is so increased in value one-half of the amount of that increase.

(4) Any question as to whether any property is injuriously affected or increased in value within the meaning of this section, and as to the amount and manner of payment (whether by instalments or otherwise) of the sum which is to be paid as compensation under this section or which the responsible authority are entitled to recover from a person whose property is increased in value, shall be determined by the arbitration of a single arbitrator appointed by the Local Government Board, unless the parties agree on some other method of determination.

(5) Any amount due under this section as compensation to a person aggrieved from a responsible authority, or to a responsible authority from a person whose property is increased in value, may be recovered summarily as a civil debt.

(6) Where a town planning scheme is revoked by an order of the Local Government Board under this Act, any person who has incurred expenditure for the purpose of complying with the scheme shall be entitled to compensation in accordance with this section in so far as any such expenditure is rendered abortive by reason of the revocation of the scheme.

59.—(1) Where property is alleged to be injuriously affected by reason of any provisions contained in a town planning scheme, no compensation shall be paid in respect thereof if or so far as the provisions are such as would have been enforceable if they had been contained in bye-laws made by the local authority.

(2) Property shall not be deemed to be injuriously affected by reason of the making of any provisions inserted in a town planning scheme, which, with a view to securing the amenity of the area included in the scheme or any part thereof, prescribe the space about buildings or limit the number of buildings to be erected, or prescribe the height or character of buildings, and which the Local Government Board, having regard to the nature and situation of the land affected by the provisions, consider reasonable for the purpose.

(3) Where a person is entitled to compensation under this Part of this Act in respect of any matter or thing, and he would be entitled to compensation in respect of the same matter or thing under any other enactment, he shall not be entitled to compensation in respect of that matter, or thing both under this Act and under that other enactment, and shall not be entitled to any greater compensation under this Act than he would be entitled to under the other enactment.

60.—(1) The responsible authority may, for the purpose of a town

planning scheme, purchase any land comprised in such scheme by agreement, or be authorised to purchase any such land compulsorily in the same manner and subject to the same provisions (including any provision authorising the Local Government Board to give directions as to the payment and application of any purchase money or compensation) as a local authority may purchase or be authorised to purchase land situate in an urban district for the purposes of Part III. of the Housing of the Working Classes Act, 1890, as amended by sections two and forty-five of this Act.

(2) Where land included within the area of a local authority is comprised in a town planning scheme, and the local authority are not the responsible authority, the local authority may purchase or be authorised to purchase that land in the same manner as the responsible authority.

61.—(1) If the Local Government Board are satisfied on any representation, after holding a public local inquiry, that a local authority—

- (a) have failed to take the requisite steps for having a satisfactory town planning scheme prepared and approved in a case where a town planning scheme ought to be made ; or
- (b) have failed to adopt any scheme proposed by owners of any land in a case where the scheme ought to be adopted ; or
- (c) have unreasonably refused to consent to any modifications or conditions imposed by the Board ;

the Board may, as the case requires, order the local authority to prepare and submit for the approval of the Board such a town planning scheme, or to adopt the scheme, or to consent to the modifications or conditions so inserted :

Provided that, where the representation is that a local authority have failed to adopt a scheme, the Local Government Board, in lieu of making such an order as aforesaid, may approve the proposed scheme, subject to such modifications or conditions, if any, as the Board think fit, and thereupon the scheme shall have effect as if it had been adopted by the local authority and approved by the Board.

(2) If the Local Government Board are satisfied on any representation, after holding a local inquiry, that a responsible authority have failed to enforce effectively the observance of a scheme which has been confirmed, or any provisions thereof, or to execute any works which under the scheme or this Part of this Act the authority is required to execute, the Board may order that authority to do all things necessary for enforcing the observance of the scheme or any provisions thereof effectively, or for executing any works which under the scheme or this Part of this Act the authority is required to execute.

(3) Any order under this section may be enforced by mandamus.

62. Where the Local Government Board are authorised by this Part of this Act or any scheme made thereunder to determine any matter, it shall, except as otherwise expressly provided by this Part of this Act, be at their option to determine the matter as arbitrators or otherwise, and, if they elect or are required to determine the matter as arbitrators, the provisions of the Regulation of Railways Act, 1868, respecting arbitrations by the Board of Trade, and the enactments amending those provisions, shall apply as if they were herein re-enacted and in terms made applicable to the Local Government Board and the determination of the matters aforesaid.

63. Section eighty-five of the Housing of the Working Classes Act, 1890 (which relates to inquiries by the Local Government Board), as amended by this Act, shall apply for any purposes of this Part of this Act as it applies for the purpose of the execution of the powers and duties of the Local Government Board under that Act.

64. All general provisions made under this Part of this Act shall be laid as soon as may be before Parliament, and the Rules Publication Act,

1893, shall apply to such provisions as if they were statutory rules within the meaning of section one of that Act.

65.—(1) For the purposes of this Part of this Act the expression "local authority" means the council of any borough or urban or rural district.

(2) Any expenses incurred by a local authority under this Part of this Act, or any scheme made thereunder, shall be defrayed as expenses of the authority under the Public Health Acts, and the authority may borrow, for the purposes of this Part of this Act, or any scheme made thereunder, in the same manner and subject to the same provisions as they may borrow for the purposes of the Public Health Acts.

(3) Money borrowed for the purposes of this Part of this Act, or any scheme made thereunder, shall not be reckoned as part of the debt of a borough or urban district for the purposes of the limitation on borrowing under sub-sections (2) and (3) of section two hundred and thirty-four of the Public Health Act, 1875.

66.—(1) This Part of this Act shall apply to the administrative county of London, and, as respects that county, the London County Council shall be the local authority.

(2) Any expenses incurred by the London County Council shall be defrayed out of the general county rate and any money may be borrowed by the Council in the same manner as money may be borrowed for general county purposes.

67. This Part of this Act shall apply to Scotland subject to the following modifications :—

- (1) The Local Government Board for Scotland (hereinafter referred to as the Board) shall be substituted for the Local Government Board, and shall for the purposes of this Part of this Act have the same powers of local inquiry as for the purposes of the Housing Acts as defined in Part I. of this Act.
- (2) Sub-section (1) and sub-section (3) of the section of this Part of this Act which relates to the definition of local authority and expenses shall not apply.
- (3) The local authority and the area of such authority for the purposes of this Part of this Act shall respectively be the local authority for the purposes of the Housing Acts as defined in Part I. of this Act, and the district of that authority.
- (4) References to the Public Health Acts shall be construed as references to the Housing Acts as defined in Part I. of this Act.
- (5) Any local rate for the purposes of this Part of this Act (including the purposes of any loan) shall not be reckoned in any calculation as to the statutory limit of the public health general assessment.
- (6) The Board shall not themselves make an order under section sixty one of this Act on any authority, but in lieu thereof it shall be lawful for the Board, after holding a local inquiry at which the authority shall have had an opportunity of being heard, and with the approval of the Lord Advocate, to apply for such an order by summary petition to either Division of the Court of Session, or during vacation or recess to the Lord Ordinary on the Bills, which Division or Lord Ordinary are hereby authorised and directed to do therein and to dispose of the expenses of the proceedings as to the said Division or Lord Ordinary shall appear to be just.
- (7) In any proceedings under this Part of this Act the Board shall have regard to the powers and jurisdiction of the dean of guild court in burghs.
- (8) The provision respecting the Rules Publication Act, 1893, shall have effect as if section one of that Act applied to Scotland, with the substitution of the "Edinburgh Gazette" for the "London Gazette."



## PART III.

COUNTY MEDICAL OFFICERS, COUNTY PUBLIC HEALTH AND HOUSING  
COMMITTEE, ETC.

68.—(1) Every county council shall appoint a medical officer of health under section seventeen of the Local Government Act, 1888.

(2) The duties of a medical officer of health of a county shall be such duties as may be prescribed by general order of the Local Government Board and such other duties as may be assigned to him by the county council.

(3) The power of county councils and district councils under the said section to make arrangements with respect to medical officers of health shall cease, without prejudice to any arrangement made previously to the date of the passing of this Act.

(4) The medical officer of health of a county shall, for the purposes of his duties, have the same powers of entry on premises as are conferred on a medical officer of health of a district by or under any enactment.

(5) A medical officer of health of a county shall be removable by the county council with the consent of the Local Government Board and not otherwise.

(6) A medical officer of health of a county shall not be appointed for a limited period only ;

Provided that the county council may, with the sanction of the Local Government Board, make any temporary arrangement for the performance of all or any of the duties of the medical officer of health of the county, and any person appointed by virtue of any such arrangement to perform those duties or any of them shall, subject to the terms of his appointment, have all the powers, duties, and liabilities of the medical officer of health of the county.

(7) A medical officer of health appointed after the passing of this Act under the said section as amended by this section shall not engage in private practice, and shall not hold any other public appointment without the express written consent of the Local Government Board.

(8) An order under this section prescribing the duties of medical officers of health of a county shall be communicated to the county council and shall be laid before Parliament as soon as may be after it is made, and, if an address is presented to His Majesty by either House of Parliament within the next subsequent twenty-one days on which that House has sat next after the order is laid before it praying that the order may be annulled, His Majesty in Council may annul the order and it shall thenceforward be void, but without prejudice to the validity of anything previously done thereunder.

69.—(1) The clerk of a rural district council shall forward to the medical officer of health of the county a copy of any representation, complaint, or information, a copy of which it is the duty of the district council to forward to the county council under section forty-five of the Housing of the Working Classes Act, 1890 (which relates to the powers of county councils).

(2) The medical officer of health of a district shall give to the medical officer of health of the county any information which it is in his power to give, and which the medical officer of health of the county may reasonably require from him for the purpose of his duties prescribed by the Local Government Board.

(3) If any dispute or difference shall arise between the clerk or the medical officer of health of a district council and the medical officer of health of a county council under this section, the same shall be referred to the Local Government Board, whose decision shall be final and binding.

(4) If the clerk or medical officer of health of a district council fails to comply with the provisions of this section, he shall on information being laid by the county council, but not otherwise, be liable on summary conviction in respect of each offence to a fine not exceeding ten pounds.

70. The foregoing provisions of this Part of this Act shall not apply to Scotland or, except sub-section (4) of section sixty-eight, to the administrative county of London, and, in the application of the said sub-section to London, the reference to a medical officer of health of a district shall be construed as a reference to the medical officer of health of a metropolitan borough.

71.—(1) Every county council shall establish a public health and housing committee, and all matters relating to the exercise and performance by the council of their powers and duties as respects public health and the housing of the working classes (except the power of raising a rate or borrowing money) shall stand referred to the public health and housing committee, and the council, before exercising any such powers, shall, unless in their opinion the matter is urgent, receive and consider the report of the public health and housing committee, with respect to the matter in question, and the council may also delegate to the public health and housing committee, with or without restrictions or conditions as they think fit, any of their powers as respects public health and the housing of the working classes, except the power of raising a rate or borrowing money and except any power of resolving that the powers of a district council in default should be transferred to the council.

(2) This section shall not apply to Scotland or the London County Council.

72.—(1) The county council may promote the formation or extension of and may, subject to the provisions of this section, assist societies on a co-operative basis, having for their object or one of their objects the erection or improvement of dwellings for the working classes.

(2) The county council, with the consent of and subject to the regulations made by the Local Government Board, may for the purpose of assisting a society make grants or advances to the society, or guarantee advances made to the society, upon such terms and conditions as to rate of interest and repayment, or otherwise, and on such security, as the council think fit, and the making of such grants or advances shall be a purpose for which a council may borrow :

Provided that the regulations of the Board shall provide that any such advance made on the security of any property shall not exceed two-thirds of the value of that property.

#### PART IV.

##### SUPPLEMENTAL.

73.—(1) Where any scheme or order under the Housing Acts or Part II. of this Act authorises the acquisition or appropriation to any other purpose of any land forming part of any common, open space, or allotment, the scheme or order, so far as it relates to the acquisition or appropriation of such land, shall be provisional only, and shall not have effect unless and until it is confirmed by Parliament, except where the scheme or order provides for giving in exchange for such land other land, not being less in area, certified by the Local Government Board after consultation with the Board of Agriculture and Fisheries to be equally advantageous to the persons, if any, entitled to commonable or other rights and to the public.

(2) Before giving any such certificate the Board shall give public notice of the proposed exchange, and shall afford opportunities to all persons interested to make representations and objections in relation thereto, and shall, if necessary, hold a local inquiry on the subject.

(3) Where any such scheme or order authorises such an exchange, the scheme or order shall provide for vesting the land given in exchange in the persons in whom the common or open space was vested, subject to the same rights, trusts, and incidents as attached to the common or open space, and for discharging the part of the common, open space, or allotment acquired or appropriated from all rights, trusts, and incidents to which it was previously subject.

(4) For the purposes of this Act the expression "common" shall include any land subject to be enclosed under the Inclosure Acts, 1845 to 1882, and any town or village green; the expression "open space" means any land laid out as a public garden or used for the purposes of public recreation, and any disused burial ground; and the expression "allotment" means any allotment set out as a fuel allotment or a field garden allotment under an Inclosure Act.

74.—(1) Where any land proposed to be included in any scheme or order to be made under the Housing Acts or Part II. of this Act, or any land proposed to be acquired under the Housing Acts or Part II. of this Act, is situate within the prescribed distance from any of the royal palaces or parks, the local authority shall, before preparing the scheme or order or acquiring the land, communicate with the Commissioners of Works, and the Local Government Board shall, before confirming the scheme or order or authorising the acquisition of the land or the raising of any loan for the purpose, take into consideration any recommendations they may have received from the Commissioners of Works with reference to the proposal.

(2) For the purposes of this section "prescribed" means prescribed by regulations made by the Local Government Board after consultation with the Commissioners of Works.

75.—The enactments mentioned in the Sixth Schedule to this Act are hereby repealed to the extent specified in the third column of that schedule.

76.—(1) This Act may be cited as the Housing, Town Planning, etc., Act, 1909, and Part I. of this Act shall be construed as one with the Housing of the Working Classes Acts, 1890 to 1903, and that Part of this Act and those Acts may be cited together as the Housing of the Working Classes Acts, 1890 to 1909.

(2) This Act shall not extend to Ireland.

## FIRST SCHEDULE.

## PROVISIONS AS TO THE COMPULSORY ACQUISITION OF LAND BY A LOCAL AUTHORITY FOR THE PURPOSES OF PART III. OF THE HOUSING OF THE WORKING CLASSES ACT, 1890.

(1) Where a local authority propose to purchase land compulsorily under this Act, the local authority may submit to the Board an order putting in force as respects the land specified in the order the provisions of the Lands Clauses Acts with respect to the purchase and taking of land otherwise than by agreement.

(2) An order under this schedule shall be of no force unless and until it is confirmed by the Board, and the Board may confirm the order either without modification or subject to such modifications as they think fit, and an order when so confirmed shall, save as otherwise expressly provided by this Schedule, become final and have effect as if enacted in this Act; and the confirmation by the Board shall be conclusive evidence that the requirements of this Act have been complied with, and that the order has been duly made and is within the powers of this Act.

(3) In determining the amount of any disputed compensation under any such order, no additional allowance shall be made on account of the purchase being compulsory.

(4) The order shall be in the prescribed form, and shall contain such provisions as the Board may prescribe for the purpose of carrying the order into effect, and of protecting the local authority and the persons interested in the land, and shall incorporate, subject to the necessary adaptations, the Lands Clauses Acts (except section one hundred and twenty-seven of the Lands Clauses Consolidation Act, 1845) and sections seventy-seven to eighty-five of the Railways Clauses Consolidation Act, 1845, but subject to this modification, that any question of disputed compensation shall be determined by a single arbitrator appointed by the Board, who shall be deemed to be an arbitrator within the meaning of the Lands Clauses Acts, and the provisions of those Acts with respect to arbitration shall, subject to the provisions of this schedule, apply accordingly.

(5) The order shall be published by the local authority in the prescribed manner, and such notice shall be given both in the locality in which the land is proposed to be acquired, and to the owners, lessees, and occupiers of that land as may be prescribed.

(6) If within the prescribed period no objection to the order has been presented to the Board by a person interested in the land, or if every such objection has been withdrawn, the Board shall, without further inquiry, confirm the order, but, if such an objection has been presented and has not been withdrawn, the Board shall forthwith cause a public inquiry to be held in the locality in which the land is proposed to be acquired, and the local authority and all persons interested in the land and such other persons as the person holding the inquiry in his discretion thinks fit to allow shall be permitted to appear and be heard at the inquiry.

(7) Where the land proposed to be acquired under the order consists of or comprises land situate in London, or a borough, or urban district, the Board shall appoint an impartial person, not in the employment of any Government Department, to hold the inquiry as to whether the land proposed to be acquired is suitable for the purposes for which it is sought to be acquired, and whether, having regard to the extent or situation of the land and the purposes for which it is used, the land can be acquired without undue detriment to the persons interested therein or the owners

of adjoining land, and such persons shall in England have for the purpose of the inquiry all the powers of an inspector of the Local Government Board, and, if he reports that the land, or any part thereof, is not suitable for the purposes for which it is sought to be acquired, or that owing to its extent or situation or the purpose for which it is used it cannot be acquired without such detriment as aforesaid, or that it ought not to be acquired except subject to the conditions specified in his report, then, if the Local Government Board confirm the order in respect of that land, or part thereof, or, as the case may require, confirm it otherwise than subject to such modifications as are required to give effect to the specified conditions, the order shall be provisional only, and shall not have effect unless confirmed by Parliament.

Where no part of the land is so situated as aforesaid, before confirming the order, the Board shall consider the report of the persons who held the inquiry, and all objections made thereat.

(8) The arbitrator shall, so far as practicable, in assessing compensation act on his own knowledge and experience, but, subject to the provisions aforesaid, at any inquiry or arbitration held under this schedule the arbitrator, when holding the inquiry or arbitration shall hear, by themselves or by agents, any authorities or parties authorised to appear, and shall hear witnesses, but shall not, except in such cases as the Board otherwise directs, hear counsel or expert witnesses.

(9) The Board may, with the concurrence of the Lord Chancellor, make rules fixing a scale of costs to be applicable on an arbitration under this schedule, and an arbitrator under this schedule may, notwithstanding anything in the Lands Clauses Acts, determine the amount of costs, and shall have power to disallow as costs in the arbitration the costs of any witness whom he considers to have been called unnecessarily, and of any other costs which he considers to have been caused or incurred unnecessarily.

(10) The remuneration of an arbitrator appointed under this schedule shall be fixed by the Board.

(11) In construing for the purposes of this schedule or any order made thereunder, any enactment incorporated with the order, this Act together with the order shall be deemed to be the special Act, and the local authority shall be deemed to be the promoters of the undertaking.

(12) Where the land is glebe land or other land belonging to an ecclesiastical benefice, the order shall provide that sums agreed upon or awarded for the purchase of the land, or to be paid by way of compensation for the damage to be sustained by the owner by reason of severance or other injury affecting the land, shall not be paid as directed by the Lands Clauses Acts, but shall be paid to the Ecclesiastical Commissioners to be applied by them as money paid to them upon a sale, under the provisions of the Ecclesiastical Licensing Acts, of land belonging to a benefice.

(13) In this schedule the expression "Board" means the Local Government Board, and the expression "prescribed" means prescribed by the Board.

(14) The provisions of this schedule, except those relating to land belonging to an ecclesiastical benefice, shall apply to Scotland, subject to the following modifications:—

- (a) for the reference to section one hundred and twenty-seven of the Lands Clauses Consolidation Act, 1845, there shall be substituted a reference to section one hundred and twenty of the Lands Clauses Consolidation (Scotland) Act, 1845, and for the reference to sections seventy-seven to eighty-five of the Railways Clauses Consolidation Act, 1845, there shall be substituted a reference to sections seventy to seventy-eight of the Railways Clauses Consolidation (Scotland) Act, 1845;

## PRACTICAL HOUSING

- (b) for references to an arbitrator there shall be substituted references to an arbiter ;
- (c) for the references to the Lord Chancellor there shall be substituted a reference to the Lord Advocate ;
- (d) for the reference to the Local Government Board there shall be substituted a reference to the Local Government Board for Scotland, and for the reference to a borough or urban district there shall be substituted a reference to a burgh.

## SECOND SCHEDULE.

## MINOR AMENDMENTS OF HOUSING ACTS.

Enactment to be amended.	Nature of Amendment.
Housing of the Working Classes Act, 1890 (53 & 54 Vict. c. 70).	
Section 23 -	After the word "displaced" the words "in consequence of" shall be substituted for the word "by."
Section 34 -	The words "the order becomes operative" shall be substituted for the words "service of the order."
Section 35 -	The words "if he is not entitled to appeal to the Local Government Board against the order" shall be inserted after the word "may" where it first occurs.
Section 38 (1) (a) -	The words "or impedes" shall be inserted after the word "stops."
Section 38 (7) -	The words "house or other building or manufactory" shall be substituted for the words "house or manufactory" wherever they occur in that subsection.
Section 39 (8) -	The words "as amended by any subsequent Act" shall be inserted after the word "Act" where it first occurs, and the words "to the power of the Local Government Board to enforce that duty" shall be inserted after the word "execution."
Section 40 -	After the word "displaced" the words "in consequence of" shall be substituted for the word "by."
Section 85 -	The words "powers and" shall be inserted before the word "duties."
Section 88 -	The words "or Part III." shall be inserted after the words "Part II."
Section 89 -	After the word "Act" where it first occurs the words "or any person authorised to enter dwelling-houses, premises, or buildings in pursuance of this Act" shall be inserted; the words "authority or person" shall be substituted for the words "or authority," and the word "he" shall be substituted for the words "such person."

## THIRD SCHEDULE.

## MODIFICATIONS OF THE SCHEDULE TO THE HOUSING OF THE WORKING CLASSES ACT, 1903, IN ITS APPLICATION TO SCOTLAND.

In the above-mentioned schedule, as applying to Scotland, the expression "district within the meaning of the Public Health (Scotland) Act, 1897," shall be substituted for the expressions "borough," "urban district," and

“ parish ” respectively ; “ Local Government Board for Scotland ” shall be substituted for “ Local Government Board ” ; “ every such appropriation of lands shall be recorded as a real burden affecting such lands in the appropriate register of sasines ” shall be substituted for “ every conveyance, demise, or lease of any such lands shall be endorsed with notice of this provision ” ; “ sub-sections one and three (with the substitution of the Local Government Board for Scotland for the Secretary for Scotland) of section ninety-three of the Local Government (Scotland) Act, 1889 ” shall be substituted for “ sub-sections one and five of section eighty-seven of the Local Government Act, 1888 ” ; “ Court of Session ” shall be substituted for “ High Court ” ; “ order of the Court of Session on the application of the Board ” shall be substituted for “ mandamus ” ; and “ local authority for the purposes of the Public Health (Scotland) Act, 1897, in whose district ” shall be substituted for “ council of any administrative county and the district council of any county district ; or in London the council of any metropolitan borough, in which.”

#### FOURTH SCHEDULE.

##### MATTERS TO BE DEALT WITH BY GENERAL PROVISIONS PRESCRIBED BY THE LOCAL GOVERNMENT BOARD.

1. Streets, roads, and other ways, and stopping up, or diversion of existing highways.
2. Buildings, structures, and erections.
3. Open spaces, private and public.
4. The preservation of objects of historical interest or natural beauty.
5. Sewerage, drainage, and sewage disposal.
6. Lighting.
7. Water supply.
8. Ancillary or consequential works.
9. Extinction or variation of private rights of way and other easements.
10. Dealing with or disposal of land acquired by the responsible authority or by a local authority.
11. Power of entry and inspection.
12. Power of the responsible authority to remove, alter, or demolish any obstructive work.
13. Power of the responsible authority to make agreements with owners, and of owners to make agreements with one another.
14. Power of the responsible authority or a local authority to accept any money or property for the furtherance of the object of any town planning scheme, and provision for regulating the administration of any such money or property and for the exemption of any assurance with respect to money or property so accepted from enrolment under the Mortmain and Charitable Uses Act, 1888.
15. Application with the necessary modifications and adaptations of statutory enactments.
16. Carrying out and supplementing the provisions of this Act for enforcing schemes.
17. Limitation of time for operation of scheme.
18. Co-operation of the responsible authority with the owners of land included in the scheme or other persons interested by means of conferences, etc.
19. Charging on the inheritance of any land the value of which is increased by the operation of a town planning scheme the sum required to be paid in respect of that increase, and for that purpose applying, with the necessary adaptations, the provisions of any enactments dealing with charges for improvements of land.

## FIFTH SCHEDULE.

1. Procedure anterior to and for the purpose of an application for authority to prepare or adopt a scheme :—
  - (a) Submission of plans and estimates.
  - (b) Publication of notices.
2. Procedure during, on, and after the preparation or adoption and before the approval of the scheme :—
  - (a) Submission to the Local Government Board of the proposed scheme, with plans and estimates.
  - (b) Notice of submission of proposed scheme to the Local Government Board.
  - (c) Hearing of objections and representations by persons affected, including persons representing architectural or archæological societies or otherwise interested in the amenity of the proposed scheme.
  - (d) Publication of notice of intention to approve scheme and lodging of objections thereto.
3. Procedure after the approval of the scheme :—
  - (a) Notice to be given of approval of scheme.
  - (b) Inquiries and reports as to the beginning and the progress completion of works, and other action under the scheme.
4. Duty, at any stage, of the local authority to publish or deposit for inspection any scheme or proposed scheme, and the plans relating thereto, and to give information to persons affected with reference to any such scheme or proposed scheme.
5. The details to be specified in plans, including, wherever the circumstances so require, the restrictions on the number of buildings which may be erected on each acre, and the height and character of those buildings.

## SIXTH SCHEDULE.

## ENACTMENTS REPEALED.

Session and Chapter.	Short Title.	Extent of Repeal.
51 & 52 Vict. c. 41.	The Local Government Act, 1888.	Section seventeen, from "who shall not hold" to end of the section.
53 & 54 Vict. c. 70.	The Housing of the Working Classes Act, 1890.	The words "for sanitary purposes" in paragraph (a) of subsection (1) of section six. Subsection (6) of section eight, and section nine. Subsection (5) of section twelve. Subsection (2) of section fifteen, including the proviso thereto. Sections seventeen, eighteen, and nineteen. In section twenty-five, the words at the end of the section "such loan shall be repaid within such period, not exceeding fifty years, as may be recommended by the confirming authority." Sections twenty-seven and twenty-eight. In section twenty-nine, the words "means any inhabited building and" in the definition of "dwelling-house."



Session and Chapter.	Short Title.	Extent of Repeal.
53 & 54 Vict. c. 70.	The Housing of the Working Classes Act, 1890— <i>cont.</i>	<p>Sections thirty-two and thirty-three.</p> <p>In section thirty-nine, the words "by agreement" in subsection (4) where those words first occur, and all after the word "sanctioned" to the end of that subsection; subsections (5) and (6); the words "to costs to be awarded in certain cases" by a Committee of either House of "Parliament" in subsection (8); and subsection (9) from "Provided that" to the end.</p> <p>In subsection (3) of section forty-seven, the words "the time allowed under any order" for the execution of any works or the "demolition of a building, or."</p> <p>In section fifty-three, subsection (2)</p> <p>Section fifty-four, so far as unrepealed.</p> <p>Section fifty-five, so far as it applies to Scotland.</p> <p>Section sixty-three.</p> <p>Section sixty-five, from "and (iii)" to the end of the section.</p> <p>In section sixty-six, the words "or special."</p> <p>Section seventy-seven.</p> <p>Section eighty-three.</p> <p>In section eighty-five, the words "not exceeding three guineas a day."</p> <p>Section ninety-two, from "but in" to the end of the section.</p> <p>Subsection (3) except paragraph (c), and subsection (4) of section ninety-four.</p> <p>Subsections (1), (2), (7), (8), and (14) of section ninety-six.</p> <p>In subsection (3) of section ninety-seven the words "the time allowed under any order for the execution of any works" or the demolition of a building or."</p> <p>The First Schedule, so far as it applies to Scotland.</p> <p>The Third, Fourth, and Fifth Schedules.</p>
59 & 60 Vict. c. 31.	The Housing of the Working Classes Act, 1890, Amendment (Scotland) Act, 1896.	Section three.
63 & 64 Vict. c. 59.	The Housing of the Working Classes Act, 1900.	Sections two, six, and seven. In section eight the words "Scotland or."
3 Edw. 7. c. 39.	The Housing of the Working Classes Act, 1903.	<p>Paragraphs (a) and (b) of subsection (2) of section five, sections six and eight, in section ten the words "in the manner" provided by subsection three of section "thirty-two of the principal Act," and section sixteen.</p> <p>In section seventeen the words "Scotland or."</p>

## APPENDIX F

## A LIST OF LITERATURE.

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