

**'Ticketed houses' of Glasgow : with an interrogation of the facts for guidance towards the amelioration of the lives of their occupants / by James B. Russell.**

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Glasgow Philosophical Society.

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PRESIDENT'S ADDRESS.

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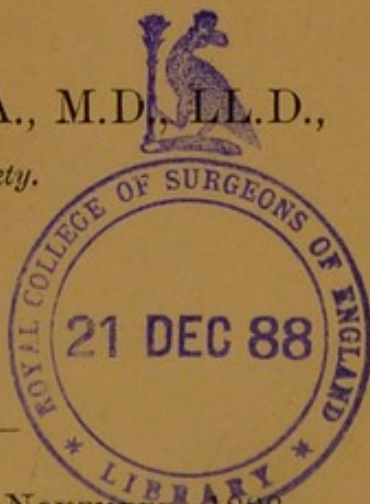
“TICKETED HOUSES”  
OF GLASGOW,

WITH AN INTERROGATION OF THE FACTS FOR GUIDANCE  
TOWARDS THE AMELIORATION OF THE LIVES OF  
THEIR OCCUPANTS.

BY

JAMES B. RUSSELL, B.A., M.D., LL.D.,

*President of the Society.*



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READ BEFORE THE SOCIETY, 7TH NOVEMBER, 1888.

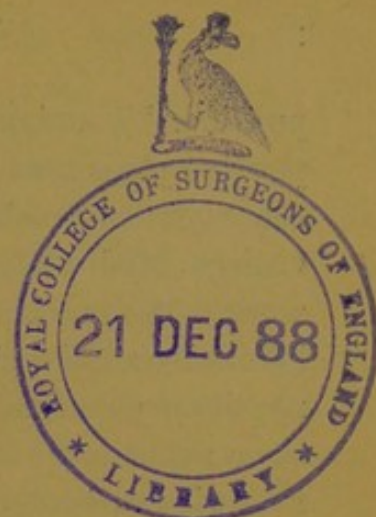
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GLASGOW:

PRINTED BY ROBERT ANDERSON, 22 ANN STREET.







PROCEEDINGS  
OF THE  
PHILOSOPHICAL SOCIETY OF GLASGOW.

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EIGHTY-SIXTH SESSION.

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PRESIDENT'S ADDRESS.

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[Read before the Society, 7th November, 1888.]

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*On the "Ticketed Houses" of Glasgow, with an Interrogation of the Facts for Guidance towards the Amelioration of the Lives of their Occupants.* By JAMES B. RUSSELL, B.A., M.D., LL.D., President of the Society.

WE open our new session under circumstances of peculiar sadness. It is only a few weeks since a distinguished member of this Society was removed from among us in the very heyday of his reputation. To-morrow some of us will follow to the grave the remains of a former occupant of this chair, equally distinguished in his own sphere. Both were friends of mine; and I shall only, on the present occasion, endeavour to express what I find in my own mind as the impression left by their contact with me, leaving to other and more competent hands the summing-up of what they were to the Society and to the professions which they adorned.

I had abundant opportunity of forming some estimate of Mr. Sellars as an architect, through occasions arising from my official



position. I assisted Mr. Carrick in adjudicating upon the competitive plans sent in for the Victoria Infirmary. As a director of the Sick Children's Hospital and Dispensary, and of Anderson's College Medical School, I made further acquaintance with his work. The outcome of these experiences was to convince me that Mr. Sellars had a singular grasp of the hygienic and administrative requirements of such institutions, and a wonderful facility in giving them satisfactory structural expression. The originality and boldness with which he encountered difficulties, such, for example, as a refractory site in relation to the functions to be performed in his building, bore all the marks of true genius. He seemed never to be trammelled by precedent or to exhaust his fertility of resource. Along with this eminently practical faculty there was a graceful and fastidious taste, which softened all his effects with a refined detail of artistic decoration. I shall not refer to his crowning work—the International Exhibition—excepting to remark upon the singularity of the fortune which led Mr. Sellars to expend the ripeness of his imagination, and exhaust his energies, upon a structure of so much beauty and delight which was yet to serve only a passing purpose. Usually between the transitory life of the architect and the duration of his works there is contrast and not similarity; but here the work passes away with its author, and both alike will remain to us only as a memory or a picture.

With Dr. William Wallace my intimacy was naturally, owing to our relative positions in the public service, much greater and of longer duration than with Mr. Sellars. In 1876, and again in 1879, we were together as members of deputations of the Town Council, visiting sewage works all over England, and in 1880 we travelled alone on the same errand. We were thus for weeks together in continuous friendly and professional intercourse. I may say that the reports of these deputations are practically the work of Dr. Wallace, and there is no part of the enormous literature of the sewage question which has more intrinsic value or is better known. The reason is not far to seek. These reports are remarkable for dealing with a subject which is ravaged by faddists, quacks, and speculators, in a dispassionate, plainly-practical, and common-sense way. This seemed to me to be Dr. Wallace's forte. He applied his knowledge of chemical science to practical purposes, whether industrial, or sanitary, or commercial, with a breadth of view which showed how profound was his knowledge of applied



chemistry, how intimate his acquaintance with industrial processes, and how, over all, there presided a sound and clear judgment. In questions of trade nuisances authorities could have no more trustworthy referee, and clients no more honest and skilful adviser. As a man Dr. Wallace was singularly unaffected in manner, equable in temper, and quietly genial and kindly in disposition. At the grave's mouth it is not qualities of intellect which come uppermost in our thoughts, but those of the heart, and I can say of our departed friend that all his relationships were sweetened by the gentleness of his heart.

But, gentlemen, although its members die, the Philosophical Society lives, and I now propose to tell you something about the "ticketed houses" of Glasgow, and to interrogate the facts for guidance towards the amelioration of the lives of their occupants.

The general relation between the size of the houses in which people live and the health they enjoy has been sufficiently established. Comparing the eight principal towns of Scotland on the basis of their death-rate in the ten years, 1871-80, I have elsewhere shown that they fall "into two well-marked sets of four, viz.:—Aberdeen, Leith, Perth, and Edinburgh, with death-rates below 24, and houses of three to five rooms; and Dundee, Greenock, Paisley, and Glasgow, with death-rates above 25, and houses below three rooms. In this group the death-rate rises *pari passu* with the diminution in size of the average house." Further, following the average number of inmates per inhabited room, it was found that in general the mortality rose step by step with that number in these towns, and, still further, that if we began with Aberdeen, which has 13·6 per cent. of its inhabitants living in one room and the lowest death-rate, we rose gradually, without a break, to Glasgow, with 24·7 per cent. living in one room and the highest death-rate. Again, comparing the twenty-four districts into which Glasgow is divided for statistical purposes, there also the same general relation was demonstrated. "Blythswood" stood at the top, with the lowest death-rate and the largest and most thinly-peopled houses; while "Bridgegate and Wynds" stood at the bottom, with the highest death-rate and the smallest and most crowded houses. In all these investigations I could only be said to work round the question—using such data as were available—arriving at results which were sound and unimpeachable, but still indirect.



In 1877, in a paper "On the Comparative Prevalence of Filth Diseases in Town and Country," which I read to this Society, I said—"I believe that if you were to classify the whole population of the city according as they occupied houses of one, two, three, four, five, or more apartments, and then to ascertain the aggregate death-rate from all causes in each class . . . it would have its maximum in the population living in one-apartment houses, and fall in gradations to a minimum among those who inhabited the largest houses." In that paper I submitted the death-rates among the inhabitants thus classified from diphtheria, croup, enteric fever, and diarrhœa, calculated for three and a-half years. At that time no similar investigation had been made. The nearest was a classification of the inhabitants of Barmen according to income, which brought out a mortality of  $34\frac{1}{2}$  per 1,000 among persons having an income of less than £30; of 19 among persons whose income was from £30 to £75; of 18 among persons whose income was from £75 to £150; and of  $16\frac{1}{2}$  above £150. Recently the Medical Officer of Dundee has constructed a table of the mortality statistics of that town for 1884, which shows that the death-rate of the inhabitants of houses of one and two rooms was 23·3; of three-room houses, 17·2; of four-room houses and upwards, 12·3—while the general death-rate of Dundee was 20·7. This year, in Edinburgh, an investigation of the death-rate on the basis of rental has been commenced. The results for the first half of the year are as follow:—Under £5, death-rate per 1,000 inhabitants, 23; £5 and under £10, 21·34; £10 and under £15, 20·1; £15 and under £20, 15·86; £20 and under £30, 14·1; £30 and under £40, 18·8; £40 and under £50, 13·16; £50 and upwards, 14·76—the general death-rate for the same period being 19. It is premature to draw inferences from these data; but the basis of rental is not so good as that of size of house. Whatever hygienic meaning more extended statistics on this basis may possess must depend upon the relation of rental to the air-space or house-room which it represents, and, therefore, it would be better at once to take the house-room as the basis.

Before submitting the results of an investigation of the mortality statistics of the inhabitants of Glasgow for 1885, according to the size of the houses which they occupied, let me say a word on the difficulties of such investigations. It is necessary that the residence of every deceased person shall be



sought out and its size noted. If every address led the inquirer to a front door this would be an easy task; but when he finds himself at a close whose number serves for a front land and several back lands, with no end of turnpikes, stairs, flats, and lobbies, the task is anything but easy. The address then becomes something like this: Bridgegate, No. 29, back land, stair 1st left, 3 up, right lobby, door facing! But the description of Nineveh is true of Glasgow:—"That great city wherein are more than six score thousand persons that cannot discern between their right hand and their left hand." Mistakes in the addresses given are very frequent. You may find yourself at the door of a shop, or there may be no such number in the street, or no such person discoverable at the number given. In short, from a variety of causes, between 2 and 3 per cent. of the deaths registered cannot be traced, and their allocation therefore remains "unknown." Then there are the deaths in Institutions. These are traced as far as possible, but a large number, amounting to between 3 and 4 per cent. of the deaths in the city, cannot be so allocated: and if they represent Glasgow people they simply remain against the Institution. It is obvious that all those deaths of persons whose residence cannot be traced, whether they take place at their own houses or in Institutions, belong to the class of dwellers in small houses, and that we cannot simply set them aside if we wish to get a fair statement of the facts. This is the great difficulty of the inquiry. Our poorhouses in particular are filled with persons from our one- and two-room houses. They die there of pulmonary and other diseases, which reflect back whatever hygienic meaning they possess upon the locality where they lived. Yet they frequently cannot be referred to any special house. I shall subsequently explain how I propose to get over this difficulty. Having distributed the deaths, the next question is—What is the population of the various grades of house? This I have got by assuming that the proportion was the same in 1885 as in 1881, which I believe to be sufficiently correct in dealing with the city as a whole.

The results of this inquiry, when tabulated, assume very insignificant dimensions considering the time and trouble they represent, but statistical tables of any sort cannot profitably be submitted in speech, and I shall endeavour to put you in possession of their outcome as plainly and briefly as possible. The population of Glasgow in 1885 was 543,295, the number of deaths was 13,439. The distribution of population and the



deaths in the inhabited houses according to their size is as follows :—

|                      | Population. | Deaths. |
|----------------------|-------------|---------|
| 1 Room, - - -        | 134,728     | 3,636   |
| 2 Rooms, - - -       | 243,691     | 6,325   |
| 3 do., - - -         | 86,956      | 1,747   |
| 4 do., - - -         | 32,742      | 581     |
| 5 do. and upwards, - | 38,647      | 434     |
| Institutions, - - -  | 6,531       | 427     |
| Untraced, - - -      | —           | 289     |
| Whole City, -        | 543,295     | 13,439  |

Let us first consider the proportion of the total population who lived, as contrasted with the proportion of the total deaths which took place, in each size of house. The result is shown in the following table :—

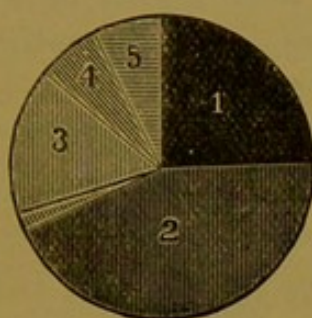
|                    | Population.    | Deaths.  |
|--------------------|----------------|--|
| 1 Room, -          | 24·7 per cent. | 27 per cent., or 2·3 per cent. <i>above</i><br>due proportion. |
| 2 Rooms, -         | 44·7 „         | 47 „ 2·3 „ „   |
| 3 do., -           | 16 „           | 13 „ 3 per cent. <i>below</i><br>due proportion.               |
| 4 do., -           | 6·1 „          | 4·3 „ 1·8 „ „  |
| 5 do. and upwards, | 7·1 „          | 3·3 „ 3·8 „ „  |
| Institutions, -    | 1·4 „          | 3·2 „  |
| Untraced, -        | —              | 2·2 „  |

I have constructed a diagram which will convey to your eyes the general meaning of this mass of figures, which is the excessive incidence of the mortality of the city upon the inhabitants of houses of one and two rooms. The inmates of our institutions are placed along with the inhabitants of one- and two-room houses

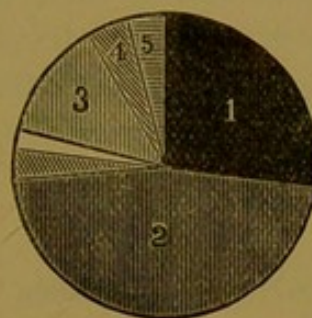


in the Population diagram, and the institutional and untraced deaths alongside the deaths contributed by one- and two-room houses in the Mortality diagram. The result is that those houses

Population.



Deaths.



contained 70.8 per cent. of the population, and contributed 79.4 per cent. of the deaths, or 8.6 per cent. more than their due proportion; while the remaining 29.2 per cent. of the population, living in houses of three rooms and upwards, contributed only 20.6 per cent. of the deaths, or 8.6 per cent. less than their due proportion.

Let us next compare the death-rates in these various classes of the population. Leaving out of consideration the deaths which could not be allocated, I find—giving the calculations in round numbers per 1000 of the population—that, while the general death-rate of the city in 1885 was 25, the death-rate in one-room houses was 27; in two-room houses 26; in three-room houses 20; in four-room houses 18; in houses of five rooms and upwards only 11. But this leaves 716 unallocated deaths unaccounted for. I have therefore divided the population into three classes, namely—(1) Those living in one and two rooms, with which I include the inmates of Institutions and those unallocated deaths; (2) those living in houses of three and four rooms; and (3) those living in houses of five rooms and upwards. The death-rate in the first class is then found to be 27.74 per 1000, in the second 19.45, and in the third only 11.23.

We now turn to the question—What is the comparative incidence of certain classes of disease upon these classes of the population? I take zymotic or infectious diseases; diseases of the lungs, including consumption; diseases special to children under five years of age, such as convulsions and other affections of the brain and nervous system, atrophy or wasting, and premature birth, which are all essentially connected with disordered or defective nutrition; and I have also selected deaths in children from accident and syphilitic disease, a small class, but one



pregnant with meaning.\* The results are exhibited in another diagram, the height of the columns in which, being on the same scale, will convey to your eyes both the comparative aggregate death-rate in the three grades of houses, and the comparative prevalence among their inhabitants of these classes of disease. The rates are per 100,000 inhabitants, thus converting the decimals in rates per 1000 into whole numbers:—

|  | 1 and 2<br>Rooms. | 3 and 4<br>Rooms. | 5 Rooms<br>and upwards. |
|--|-------------------|-------------------|-------------------------|
| Zymotic Diseases (including Diarrhœa),                           | 478               | 246               | 114                     |
| Acute Diseases of the Lungs (in-<br>cluding Consumption), - - }  | 985               | 689               | 328                     |
| Nervous Diseases and Diseases of<br>Nutrition of Children, - - } | 480               | 235               | 91                      |
| Accidents and Syphilis in Children, -                            | 32                | 11                | —                       |
| Miscellaneous Unclassified Diseases, -                           | 799               | 764               | 590                     |
| All Causes, - - - -  | 2,774             | 1,945             | 1,123                   |

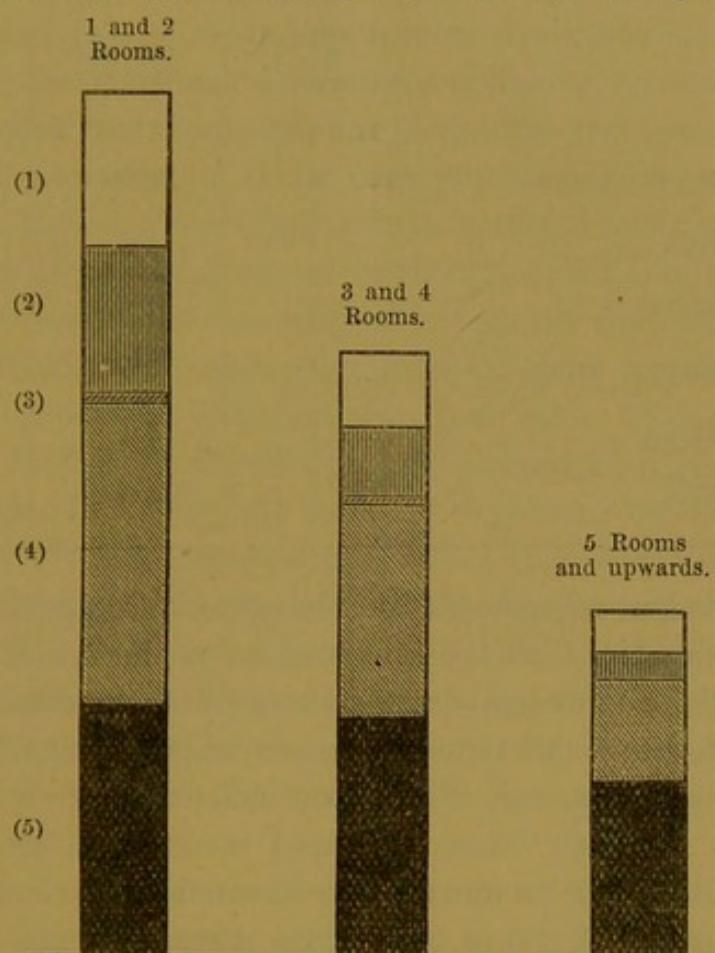
The general result may be summed up with sufficient accuracy in these numerical expressions. Taking the death-rates in the largest houses as unity, the death-rate from *zymotic diseases* was 2 in medium-sized houses and 4 in the smallest houses; the death-rate from *diseases of the lungs* was 2 in medium-sized houses and 3 in the smallest houses; and from *diseases of nutrition special to children* it was  $2\frac{1}{2}$  in medium-sized houses and fully 5 in the smallest houses. There were no deaths from *accident*

\* The following Table gives the actual numbers from which the death-rates are calculated:—

| Size of House.       | Zymotic. | Lungs. | Children. | Acci-<br>dents, &c. | Others. | Total. |
|----------------------|----------|--------|-----------|---------------------|---------|--------|
| 1 Room, - - -        | 666      | 1,324  | 657       | 63                  | 926     | 3,636  |
| 2 Rooms, - - -       | 1,118    | 2,244  | 1,138     | 51                  | 1,774   | 6,325  |
| 3 do., - - -         | 228      | 637    | 222       | 10                  | 650     | 1,747  |
| 4 do., - - -         | 67       | 188    | 59        | 3                   | 264     | 581    |
| 5 do. and upwards, - | 44       | 127    | 35        | —                   | 228     | 434    |
| Institutions, - -    | 32       | 132    | 24        | 5                   | 234     | 427    |
| Untraced, - - -      | 24       | 90     | 30        | 2                   | 143     | 289    |
| Whole City, -        | 2,179    | 4,742  | 2,165     | 134                 | 4,219   | 13,439 |



or specific disease in the large houses ; but, taking the death-rate in the medium-sized houses as unity, the death-rate from these causes in the smallest houses was 3. A flood of light is thrown



(1) Zymotic Diseases. (2) Nervous and other Diseases special to Children. (3) Accidents and Syphilis in Children. (4) Diseases of the Lungs. (5) Miscellaneous.

upon these facts by a paper which appeared in the *Transactions* of the Royal Society of London for 1887, on "The Carbonic Acid, Organic Matter, and Micro-Organisms in Air, more especially of Dwellings and Schools," by Professor Carnelley and Drs. Haldane and Anderson. We might safely interpret our figures on general principles as well as from the observations made by the senses of those who are familiar with the comparative cubic space and the prevalent atmospheric conditions of a large proportion of our small houses, that the prevalence of zymotic and pulmonary diseases was causally connected therewith ; but precise scientific observation and ascertainment of physical facts are always welcome, and these we have in this paper. "Taking the average quantity (in excess of outside air) of carbonic acid, organic matter, and micro-organisms, respectively, in houses of four or more rooms as unity, then in one- and two-roomed houses" the following table shows the results of chemical analysis and the application of Hesse's method



of determining the number and nature of the micro-organisms present in the air, in the case of selected houses in Dundee:—

|                           | Houses of<br>4 Rooms<br>and upwards. | 2-Roomed<br>Houses. | 1-Roomed<br>Houses. |
|---------------------------|--------------------------------------|---------------------|---------------------|
| Cubic space per person, - | 1                                    | 0·13                | 0·11                |
| Carbonic acid, - - -      | 1                                    | 1·5                 | 2·0                 |
| Organic matter, - - -     | 1                                    | 1·6                 | 4·4                 |
| Micro-organisms, total, - | 1                                    | 5·1                 | 6·7                 |
| Bacteria, - - -           | 1                                    | 5·1                 | 6·9                 |
| Moulds, - - -             | 1                                    | 5·5                 | 3·0                 |

Dr. Anderson contributes an elaborate "Comparison of the Mortality Statistics with the Composition of the Air of Dwelling-houses," perhaps more elaborate in respect of the classification of disease in minute detail than the smallness of the figures when so subdivided warrants, but his main conclusions agree in general with mine. He finds "that the rapid increase in the death-rate as we pass from four- to one-roomed houses is by far most marked in children under 5;" and that acute diseases of the lungs, and zymotic diseases in general, are also in excess.

Although I have classed consumption with other affections of the lungs, because of dubiety about the diagnosis in the case of people who receive so little medical attention as our Glasgow poor, as shown by the number of uncertified deaths, it is interesting to note that the death-rate from consumption is highest among the inmates of three-room houses in Glasgow, as it is in Dundee. Dr. Anderson's suggested explanation is probably correct, that the high infant mortality from other forms of tubercular disease returned as nervous diseases, atrophy, wasting, &c., prevents the growth of young adults in the smaller houses, these being most prone to the incidence of tubercle on the lungs.

Let me recall to you the fact that the mean death-rate was 27·74, 19·45, and 11·23 in the inhabitants of the three grades of houses. Now it is quite clear that if the whole city is divided into twenty-four districts, in which these three classes of inhabitants are mingled in different proportions, and we find that these districts produce death-rates ranging from 16 to 42, there must be vast



differences in the range of mortality even in the same grade of houses. If houses of one and two apartments, of three and four apartments, and of five apartments and upwards were homogeneous in their vital results we might account for death-rates below 28 but not for those above. It must be apparent, from the fact that 70 per cent. of the population live in the one- and two-room houses, and only 7 per cent. in the largest houses, that the secret of the health of Glasgow lies within the one- and two-room houses. That there are enormous differences in the vital results of the one- and two-room houses must be admitted when we find districts which have practically the same proportion of these houses returning death-rates separated by such a wide interval as 23 and 42. These were the death-rates in 1885 of the district of "St. Rollox," so called because it touches the works of that name on their southern border, and of "Bridgegate and Wynds." In the former 83 per cent., in the latter 84 per cent. of the houses are one- and two-roomed. The former had a mortality of 23, the latter of 42. What circumstances have fixed this great gulf between the inhabitants of the small houses of St. Rollox and of Bridgegate and Wynds? Is it a difference in the houses, or a difference in the people, or both?

I find in a "Report on the Operations of the Sanitary Department of Glasgow, for the year ending 31st December, 1887," data collected with great intelligence and labour by Mr. Fyfe, Sanitary Inspector, among which, supplemented from MS. records of the department, there is material which will help us to a solution of this problem. It is better to retire to one's study with this unpretentious pamphlet than with Karl Marx or Henry George. I may remind you that the Glasgow Police Act confers a discretionary power to regulate the occupation of houses of not more than three rooms, and not exceeding an aggregate capacity of 2,000 cubic feet, exclusive of lobbies and recesses. This is done by affixing tinplate tickets on the outer door, stating the cubic contents, and the proportionate inmates allowed, at the very low rate of 300 cubic feet per adult or two children under eight years. These are called "ticketed houses" and are all one- or two-apartment houses. A system of night-inspection over such houses is constantly maintained, and results in prosecution for overcrowding when the legal number is exceeded. It was under the guidance of Typhus Fever that this system was originally applied, and its extension still follows the discoveries of the



epidemic inspector. But, as you may suppose, the better class of tenants avoid such houses and even their neighbourhood. Consequently, landlords are always warned before tickets are put up in fresh localities, so that they may save the reputation of their property by getting rid of the overcrowding tenant. You will readily recognise that the inhabitants of ticketed houses form a distinct class within the general body of inhabitants of one- and two-room houses. Nor are they an inconsiderable class. The total number of ticketed houses in the city is 23,288—namely, 16,413 houses of one room, and 6,875 of two rooms. About 11 per cent. in each case were found empty, so that we have 14,642 inhabited houses of one room, containing 46,463 inmates, and 6,157 inhabited houses of two rooms, containing 28,704 inmates. It thus appears that 35 per cent. of the whole population of our one-room and 14 per cent. of the whole population of our two-room houses have their houses ticketed. Let us endeavour to understand how these people are differentiated from their neighbours. In doing so I shall make reference to those admirable model buildings recently erected by the Corporation in the Saltmarket, using them to furnish us with datum points in this social survey. They could not be ticketed, being far above the limit fixed by the Police Act, but I have had a census of the inmates taken, and have obtained measurements under the same restrictions as are applied to ticketed houses.

I. Observe first that almost without exception those ticketed houses are what we call "made-down houses." No plans of these houses were ever submitted to the Dean of Guild Court. They may be either, as in the older parts of the city, in tenements erected long before the Police Act of 1866 for the gentry of old Glasgow, or in tenements which have passed the Court recently as houses of three, five, eight, or ten rooms. In short, these houses have all been parts of houses of larger size; often parts of single rooms of houses of larger size, divided by partitions, sometimes of mere wood, run across the floor of those large rooms. This means defective ventilation, defective light, dark lobbies, crowded stairs, and disproportion in the conveniences provided. The proprietor may of his own motion have done something to add to those conveniences. The Sanitary Department may have compelled him to do more. Something may have been done to improve the light and ventilation when disease has brought the inspector upon the scene. But, after all, there remains the fact that tenements of



small houses which demand the greatest architectural care and skill to make them physically wholesome, are evolved from structures designed for occupation under totally different conditions. I need scarcely point to the Saltmarket houses as illustrations of the application of foresight and thought to adapt structure to mode of occupation. These aim at the highest standard. The small houses which are not ticketed were either designed as such, or belong to the best class of made-down houses, where a necessary process has been intelligently and conscientiously carried out before occupation, and this is all that is wanted.

II. So much for defective surroundings and accessories: let us now go inside the ticketed house. We find that the average air-space of a one-room house is 1,058 cubic feet; the average number of inmates is 3.17, so that the average air-space per inmate is 334 cubic feet. I make no distinction between adults and children, because it is one which is not physiologically justifiable, and besides it would involve more complicated calculations. The average air-space of a one-room house in the Model Buildings is 2,213 cubic feet, the average number of inmates 2.92, and the average air-space per inmate 758 cubic feet. This is also a high standard. The ordinary non-ticketed one-room house ranges in capacity between 1200 and 1350 cubic feet, and is never crowded down to the legal minimum per inmate. Turning to the ticketed two-room house, we find that the average total air-space is 1,725 cubic feet, the average number of inmates 4.66, and the average air-space per inmate 370 cubic feet. In the Model Buildings the average air-space of a two-room house is 3,158 cubic feet, the average number of inmates 4.29, and the average air-space per inmate 736 cubic feet. The non-ticketed two-room house is simply a duplication or a little more than a duplication of a one-room house, and is always occupied so as to keep far above the legal minimum. The ticketed house, then, is small of its kind to begin with, and owes its ticket to the constant disposition to overcrowding of its inmates. In fact, 13 to 14 per cent. of the one-room houses are found overcrowded when inspected during the night, and 6 to 7 per cent. of the two-room houses. Of the inmates of the ticketed one-room houses, 5 per cent. are lodgers; of the inmates of the two-room houses, 6 per cent.

III. What do these people pay for this accommodation? These houses are taken by the month or by the week. I therefore give monthly rents. These vary slightly in different districts.



A ticketed one-room house reaches the lowest average rent in the "Calton," namely, 6s. 1d. ; and the highest average, in the small district of "Brownfield," is 9s. 9d. A ticketed two-room house reaches the lowest average in a bad part of the district we call "Monteith Row," namely, 7s. 9d. ; and the highest, which is in "Anderston," is 12s. 6d. But if I were to go into the details of the districts I should weary and puzzle you. Let us discuss the average for the whole city. The rent of a one-room house is 7s. 11d. This is 29·96 pence per inmate, and at the rate of 90 pence per 1000 cubic feet of air-space. The rent of a two-room

| COMPARATIVE RENT AND AIR-SPACE<br>IN<br>TICKETED HOUSES AND MODEL BUILDINGS. |                          |                               |                                  |               |                      |                      |  |
|--|--------------------------|-------------------------------|----------------------------------|---------------|----------------------|----------------------|--|
| ONE ROOM.  |                          |                               |                                  |               |                      |                      |  |
|  | Total<br>Cubic<br>Space. | Average<br>No. of<br>Inmates. | Cubic<br>Space<br>per<br>Inmate. | RENT.         |                      |                      |  |
|  |                          |                               |                                  | Per<br>Month. | Per<br>Inmate.       | Per 1000<br>Cub. Ft. |  |
| MODEL, - - -   | 2,213                    | 2·92                          | 758                              | 13/4          | <sup>D</sup><br>54·8 | <sup>D</sup><br>72   |  |
| TICKETED,  |                          |                               |                                  |               |                      |                      |  |
| Whole City, - -  | 1,058                    | 3·17                          | 334                              | 7/11          | 29·96                | 90                   |  |
| " Bridgegate," -   | 1,130                    | 3·12                          | 362                              | 6/11          | 26·6                 | 73                   |  |
| " Cowcaddens," -   | 930                      | 2·82                          | 330                              | 8/            | 34·0                 | 103                  |  |
| " Calton," - -   | 976                      | 2·85                          | 343                              | 6/1           | 25·6                 | 75                   |  |
| " Brownfield," -   | 1,044                    | 3·04                          | 343                              | 9/9           | 38·5                 | 112                  |  |
| Two Rooms.   |                          |                               |                                  |               |                      |                      |  |
| MODEL, - - -   | 3,158                    | 4·29                          | 736                              | 16/4          | 45·7                 | 62                   |  |
| TICKETED,  |                          |                               |                                  |               |                      |                      |  |
| Whole City, - -  | 1,725                    | 4·66                          | 370                              | 10/3          | 26·39                | 71                   |  |
| " Bridgegate," -   | 1,777                    | 4·77                          | 373                              | 9/6           | 23·9                 | 64                   |  |
| " Cowcaddens," -   | 1,752                    | 4·83                          | 363                              | 10/3          | 25·5                 | 70                   |  |
| " Monteith Row," -   | 1,659                    | 3·61                          | 460                              | 7/9           | 25·8                 | 56                   |  |
| " Anderston," -  | 1,615                    | 4·67                          | 346                              | 12/6          | 32·1                 | 93                   |  |



house is 10s. 3d. This is 26·39 per inmate, and at the rate of 71 pence per 1000 cubic feet of air-space. If, therefore, we look to the inmates accommodated, the inmate of a two-room house pays 3·57 pence less for 36 cubic feet more air-space than the inmate of a one-room house. If, again, we regard the rent as coming from one pocket, the tenant of a two-room house pays fully 29 per cent. more rent for 63 per cent. more air-space than the tenant of a one-room house. He pays 71 pence per 1000 cubic feet, while the one-room tenant pays 90 pence. We shall be better able to discern the full meaning of these points if we turn to the Model Buildings and consider the whole facts together. There the rent of a one-room house is 13s. 4d. This is 54·8 pence per inmate, and at the rate of 72 pence per 1000 cubic feet of air-space. The rent of a two-room house is 16s. 4d. This is 45·7 pence per inmate, and 62 pence per 1000 cubic feet of air-space. There the inmate of a two-room house pays 9·1 pence less for 22 cubic feet less air-space than the inmate of a one-room house; but the tenant of a two-room house pays  $22\frac{1}{2}$  per cent. more rent for 42 per cent. more air-space. He pays 62 pence per 1000 cubic feet, while the one-room tenant pays 72 pence.

Observe, in the first place, that both in the ticketed houses and the Model Buildings the tenant of a two-apartment house gets better value for his money than the tenant of a one-apartment house. In the ticketed house he gets 1000 cubic feet of air-space for 19 pence less; in the Model house for 10 pence less. It is evident that in the Model Buildings the design has been to be generous to the tenant of the one-room house both in air-space and rent. Still, both cases illustrate the economic law that the greater the number of transactions necessary to dispose of the same quantity or amount of a commodity, the greater the margin which must be allowed to cover risk and outlays. The more a customer takes, he may expect to get the commodity at a diminishing rate per unit of that commodity. The larger the house, the less it will cost per unit of space, so that the man who lives in one room pays much more for his space than the occupant of the self-contained house. Poverty, instead of receiving discount, has to pay interest. But what shall we say about the other fact, that the tenant of the Model house pays less per 1000 cubic feet of air-space than the tenant of the ticketed house? Well, he takes more of it, he takes it for a year and he pays quarterly, and this ought to give him some advantage. A man who buys a quarter of an ounce of tea



and pays it by instalments cannot expect to have it at the same rate per ounce as the man who buys a pound. But what if, after all, his quarter-ounce of tea is chiefly sloe-leaves? This is precisely the position of the man who rents a ticketed house. He pays 18 pence more per 1000 cubic feet in his one-room house and 9 pence more per 1000 cubic feet in his two-room house than he would in the Model Buildings, and yet, compared with the article he would get in those buildings, that which he accepts is but as sloe-leaves to the finest product of China. Just cross the street from those buildings and you find yourself in the district of "Bridgegate and Wynds," where the rent of a ticketed one-room house averages only 6s. 11½d., and of a two-room house only 9s. 5½d.—the most wretched houses in the city, although in cubic space they are above the average of the ticketed class, because they are so often fragments of the houses of the old gentry. Even there the tenant pays 74 pence per 1000 cubic feet of his one room, and 64 pence per 1000 cubic feet of his two rooms, which is in each case 2 pence above the Model Buildings' rate. If we include the sculleries in the Model Buildings, the rent per 1000 cubic feet is reduced to 64 pence and 54 pence, respectively, which is in each case 10 pence below the rent across the street, where there are no enclosed sculleries, or water-closets, or, indeed, any of the elements of health or comfort.

There is something more than poverty in the problem of the high rent paid by the tenant of the ticketed house—high absolutely, and still higher relatively to the quality of the article obtained. He not only pays interest on his poverty, but on his character. Those 75,000 people comprise not only the criminal class, but the whole social *debris* of this large city; some who are bravely struggling with poverty, and far more who are alike bankrupt in character and in fortune. They are the nomads of our population. If we could see them in their constant movements from place to place the sight would resemble nothing so much as that which meets our eye when we lift a stone from an ant's nest. The City Assessor will tell you that they change their location in hundreds every month. They

"Fold their tents, like the Arabs,  
And as silently steal away,"

leaving, too often, their public and private obligations behind them. Yet their flittings cause no stir in the street. You may see the woman with her gown turned up over her shoulders, so as



to enclose a few pots and pans and articles of crockery, while the man carries one of those skeleton-like grates on his back, and the children a chair or a stool, or a meat-can with a string fastened across the mouth to serve as a handle to this improvised pitcher. The more luxuriously furnished can transport their whole property in detachments, with the help of a neighbour or two, in an evening. Poor things, their condition illustrates the old proverb, that "beggars cannot be choosers." If you look in upon them and remark on the discomforts of their house, your sympathy makes them eloquent at once. They are sure to say, "It is not fit for a dog to live in;" but, when you ask them why they stay there, they are silent. You ask what is their rent, and they tell you. You say, "Dear me! you will get a nice little house for the same money at such a place." Their immediate reply is, "Ah, sir! they won't take the likes of us there," which means that there they must pay their rent regularly, be cleanly, have no riotous outbreaks on Saturday nights, and, in short, reform their habits and their lives. So they are thirled to their ticketed house, and become the bond-slaves of their landlords—afraid to complain—paying dearly for a bad article. What can be done for these people? Does the erection of the Model Buildings bring any advantage to them? I must answer, No! You will not receive them there; and why? You have provided wholesome houses, and you feel you have a right to select your tenants; that commercially you can do so. If every landlord had provided himself with a sound article—sound in a much more moderate sense than the Model Buildings—he would, both morally and commercially, be in a position to select his tenants, even the humblest of them, and so put a universal premium on good living. But just cross the Salt-market again, and ask yourself how the owner of such property could select his tenants? Even if morally a man could convince himself that he had a right to pick and choose, commercially it is impossible; and for commercial reasons it is not done, and cannot be done. You might as well try to sell butterine as fresh butter in the West-End, or offer sloe-leaves for tea or sand for sugar, and insist that your customers shall be well-dressed and intelligent, pay ready money, and always say grace before eating your rubbish. After you have done your best to provide a fairly-honest house, you *may* select your tenants; and when you have an honest intention to keep your property in repair and keep down nuisances, you *may* appoint a care-taker to see to the conduct of your tenants,



but not before. The housing of bad tenants involves morally the inner consciousness that you deserve no better, and, commercially, the knowledge that you dare not look for better.

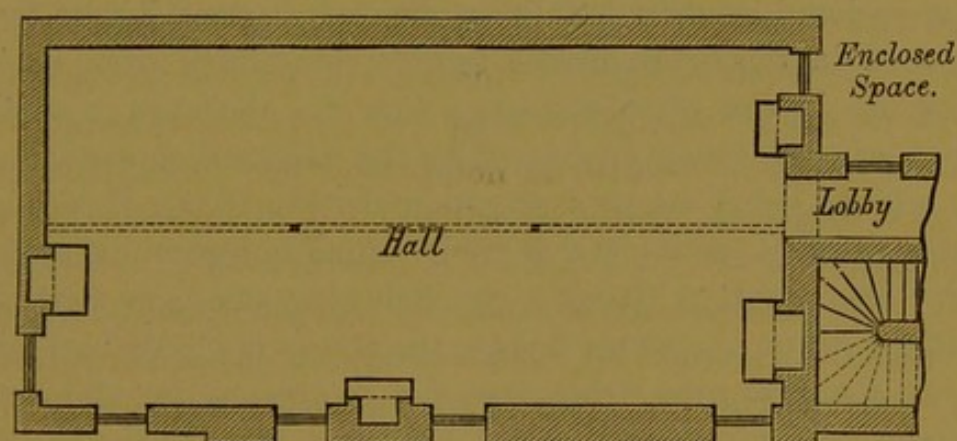
Looking at this problem of house-accommodation calmly in the light of reason, common-sense, and morality—What is the duty of public authorities and of the community in a private capacity?

The duty of authorities is to get the power, if they have it not, and to exercise it if they have, to improve the dwellings which exist by reforming and weeding out the bad, and seeing that the small houses which are being provided are up to a reasonable standard of wholesomeness. This is a wide general statement, and I wish to give it practical point by specifying shortly some powers which the authorities here do not possess, but which I trust will seem so reasonable that they will commend themselves to your approbation.

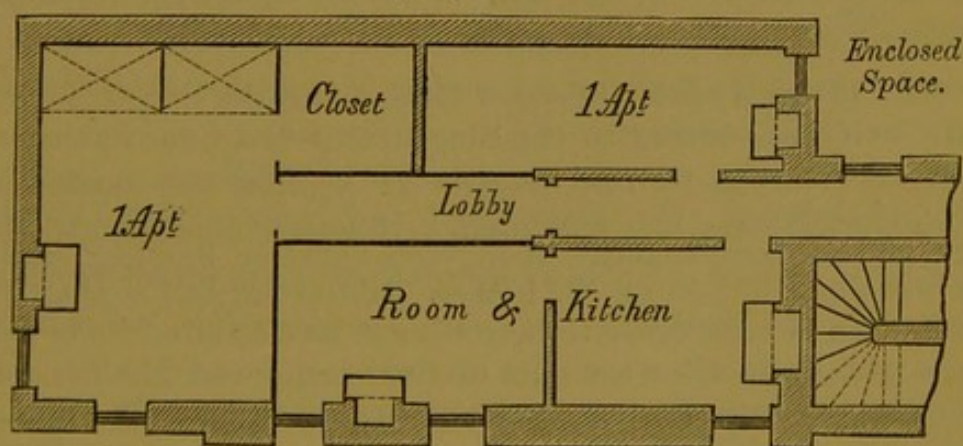
There is this process of "making down" houses. We have seen that one- and two-room houses are not bad *per se*, but only when bad houses and indifferent people are brought on inevitable commercial principles together. Is it reasonable that a man should be compelled to submit plans of new buildings to a responsible court, and yet not be compelled to submit plans when he proposes to alter the mode of occupancy and therefore the whole previous careful arrangement and adaptation of structure and convenience, light, and ventilation to the number of families and inhabitants? Why wait until the thing is done and disease appears, and then, by a tedious process, with an array of experts, compel, or endeavour to compel, alterations which can only prevent future mischief, but cannot restore broken health or revive lost lives? The process of "making down" houses is a lucrative one to the original owner. I may mention two of the most recent illustrations which have come under my notice. In one case a tenement containing six houses of six apartments, which stood one year at a rental of £175 on the valuation roll, was subdivided into 12 houses of three apartments, and was returned next year at a rental of £222. In another case a tenement containing six houses of four apartments, which stood one year at a rental of £78, was sub-divided into 21 houses of one room, and was returned next year at a rental of £134. Neither case is an example of the worst forms of "making down," but there was no expenditure incidental to the change at all equivalent to the profit of the transaction, still less adequate to the requirements of health. It is the owner who makes this change who ought to



bear the cost of alterations. When the property is sold it is sold at the increased rental. Not uncommonly the first effect of the intervention of the Sanitary Department is to lead to such a sale; and then, of course, any expenditure becomes a loss to the new owner. I do not object to "making down" houses. The "made-down" house is as necessary as a second-hand clothes market. I say it must be regulated, and until it is regulated all our efforts to raise the standard of the small dwellings of Glasgow will only resemble the labour of Sisyphus.



*Property as it was.*



*Property as it is.*

I show two plans which illustrate well the liberty which may be taken by proprietors in the way of manufacturing small houses by this process, so long as they do not interfere with the external walls, and thus bring their operations under the review of the Dean of Guild Court. This alteration was effected a year ago, and was only discovered when an epidemic inspector came upon some suspicious cases of disease which I was asked to see. One plan shows a hall or workshop which had ceased to bring in a satisfactory rent to the owner. He accordingly subdivided it as shown in the other plan, producing two houses of one apartment



and one of two apartments. The thick hatched lines show the portions of the necessary partitions which were built of brick, the remainder, in thin lines, being merely wood. It will be observed that the back main wall is a "dead wall," that is to say, it contains no windows or other apertures. There can be no ventilation of the large single apartment, so that the end occupied by the beds and the room called a "closet" are filled with stagnant air, which there is no possibility of renewing. The single room against the dead wall has only a small window opening into a "well" or space enclosed by other buildings. So long as small houses can be produced in this irresponsible fashion, insanitary dwellings will spring up in one place as fast as they are abolished in another. This glaring case was discovered by the incidence of disease, and can only be remedied by a process under the Public Health Act, expensive to all parties, and possibly ending in a poor compromise.

We also want in Glasgow the following summary method of dealing with unwholesome houses, the steady application of which during the last nine years goes far to account for the almost unexampled improvement which has taken place in the health of Edinburgh. I quote from the Edinburgh Police Act (1879), section 206 :—

" 206. If the Medical Officer of Health and the Burgh Engineer shall certify in writing to the Magistrates and Council that any house or building, or part of a house or building, is unfit for human habitation, the Magistrates and Council may, by their order, affixed conspicuously upon such house or building, declare that the same is not fit for human habitation, and it shall not, after a date in such order to be specified, be inhabited ; and every person who shall, after the date or time mentioned in such order, let or occupy, or continue to let or occupy, or suffer to be occupied, such house or building, or part of such house or building, shall be liable to a penalty not exceeding five pounds, and a further penalty not exceeding forty shillings for every day during which such occupation is continued, provided always that before pronouncing any such order the Magistrates and Council shall call upon the owner to show cause against the said certificate within such reasonable time as they consider proper, and shall give such owner an opportunity of being heard before them, and, if he appear, shall hear him and such evidence as he may adduce ; provided, also, that if at any time after such order has been made, the Magistrates and Council shall be satisfied that such house or building, or part of such house or building, has been rendered fit for human habitation, they may revoke the said order, and the same shall thenceforward cease to operate. The Magistrates and Council shall also, at such



times as they shall fix, hold open courts for the consideration and disposal of appeals against such certificates, and it shall not be necessary that a majority of the Magistrates and Council be present to constitute such courts; provided, further, that the preses of such court shall have a deliberative as well as a casting vote."

You will observe that this constitutes the representatives of the people of Edinburgh, advised by their officials, the final judges when a house is "unfit for human habitation," and they are clothed with the most effective means of compelling the owner to make it fit for habitation—namely, the power to make it cease to be a rent-producing subject until the requisite improvements are effected, if improvement is possible. By a general clause in the Act the Town Council may devolve their functions on committees. This function is therefore vested in the Health Committee, sitting as a court, presided over by its chairman. This is an illustration of a principle which is applied throughout the States of America: that the Board of Health, elected by the people, shall be clothed with summary power to protect the health of the people. It would certainly open the eyes of some folks to read the "Manual for the use of Boards of Health of Massachusetts, containing the statutes relating to the public health, and the decisions of the Supreme Courts of Massachusetts relating to the same." One of these decisions, for example, is to this effect:—"The adjudication of the Board that a nuisance exists is conclusive, and no appeal lies therefrom." All the City Boards of Health in this State have the same summary powers as the Edinburgh Health Committee over house property, but embracing any and every condition or circumstance which is "a cause of nuisance or sickness to the occupants or the public." Still more worthy of the study of the people of this country is the "Tenement House Act,"\* passed last year by the "People of the State of New York, represented in Senate and Assembly." I shall quote only one clause, in the hope that it may

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\* A tenement-house is thus defined in this Act:—

"Every house, building, or portion thereof which is rented, leased, let or hired out to be occupied or is occupied as the home or residence of three families or more, living independently of each other, and doing their cooking upon the premises, or by more than two families upon any floor, so living and cooking, but having a common right in the halls, stairways, yards, water-closets, or privies, or some of them."

Various specific provisions with reference to houses so occupied are worth noting, for example:—



attract attention to the unexhausted resources of legislation for the amelioration of the social difficulties of the day, if only the people will wake up to the fact that health has proprietary rights as well as heritable property :—

“ § 659. Whenever it shall be certified to the Board of Health of the Health Department of the City of New York, by the Sanitary Superintendent, that any building or part thereof in the City of New York is infected with contagious disease, or, by reason of want of repair, has become dangerous to life, or is unfit for human habitation because of defects in drainage, plumbing, ventilation, or the construction of the same, or because of the existence of a nuisance on the premises, and is likely to cause sickness among its occupants, the said Board of Health may issue an order requiring all persons therein to vacate such buildings, or part thereof, for the reasons to be stated as aforesaid. Said board shall cause said order to be affixed conspicuously in the building, or part thereof, and to be personally served on the owner, lessee, agent, occupant, or any person having the charge or care thereof; if the owner, lessee, or agent, cannot be found in the City of New York, or do not reside therein, or evade or resist service, then said order may be served by depositing a copy thereof in the post office in the City of New York, properly enclosed and addressed to such owner, lessee, or agent, at his last-known place of business, or residence, and prepaying the postage thereon; such building, or part thereof, shall, within ten days after said order shall have been posted, and mailed as aforesaid, *or within such shorter time, not less than twenty-four hours*, as in said order may be specified, be vacated; but said board, whenever it shall become satisfied that the danger from said building or part thereof has ceased to exist, or that said building has been repaired so as to be habitable, may revoke said order.”

I cannot better illustrate the difference between this sort of legislation and ours than by quoting an instance in which a single-apartment house had an open drain beneath the floor. The mother complained to us because the rats, walking in and out of this hole, alarmed her lest they should bite the children. Weeks

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Water-closets, privy-sinks, or other similar receptacles, to be provided at the rate of not less than one for every two families.

Each occupant of a tenement-house must have not less than 600 cubic feet of air-space.

Whenever more than eight families live in any tenement-house, in which the owner thereof does not reside, there shall be a janitor, housekeeper, or some other responsible person, who shall reside in the same house, and have charge of the same, if the Board of Health shall so require.



were spent in serving notices, inspecting, certifying, and again notifying, before the proprietor removed this abominable nuisance.

After everything has been done by Parliament and by Local Authorities which can be done to exterminate unwholesome houses, and banish adulterated property from the market as resolutely and successfully as adulterated food, there will still be a necessity for the assistance of private effort. The public of Glasgow trust too much to authorities and officials for the solution of their social difficulties—more, I think, than any other community. Where are the "Open-spaces and Playgrounds Associations," the "Artizans' Dwellings Companies," and the like, which unite the business capacity and Christian sympathy of the citizens of so many other cities in successful labour for the common good? Why have we not an Octavia Hill in Glasgow? There are various ways in which private associations might help to elevate the 75,000 inhabitants of the ticketed houses of this city. They might attack the question of building new tenements of small houses, to be let at monthly rents, to return a modest interest on the outlay, and yet be within the means of those who could be tempted to try to lead orderly lives if they had the chance of physical circumstances which would help them up and not help them down, or keep them down. They might buy a tenement here and there which could be "made-down" in an honest fashion, and yet yield a reasonable return on the money invested. They might acquire a poor tenement, and try to acquire the poor tenants also, and make them feel the elevating influence of the introduction into the relation of landlord and tenant of friendly interest and moral responsibility. Or they might undertake the factorage of such properties held by private individuals, administering them on the principle that the maintenance of the property shall be the first charge on the rental. These last are undoubtedly the best directions which private enterprise can take. They are the methods of Miss Octavia Hill and those who work under her. They are far better than building model houses, selecting the good and casting the bad away, even if the good belong to the class for whom they were intended, which they seldom do. It is the people you reject who require your help. If you go on selecting you merely leave somewhere in the city a more utterly hopeless and homogeneously bad residuum. Read Miss Hill's book on the "*Houses of the London Poor*," in which she relates her practical experiences. You will find that she is no soft sentimentalist,



spoiling the poor by shutting her eyes to their frailties, and subverting the order of the universe by making intemperance and vice comfortable. She first convinces them that she will do her duty by them as their landlady, and then exercises the moral right which she has thus acquired, and which they do not fail to recognise, to make them pay their rents regularly, and otherwise do their duty by her. If the relationship between landlord and tenant is of this nature, no more powerful influence exists than that which the landlord possesses over the poor, unless it be that which exists where the relationship is commercial and not moral. The difference is that the former makes for the good, the latter for the evil. In the one case the eyes of both meet on rent day, with a consciousness of mutually-unfulfilled duty. The one winks at the derelictions of the other. In the other case the landlord's eye is friendly but firm with a sense of rectitude, and there is no flaw in his relations to which the tenant may appeal for excuse or defence.