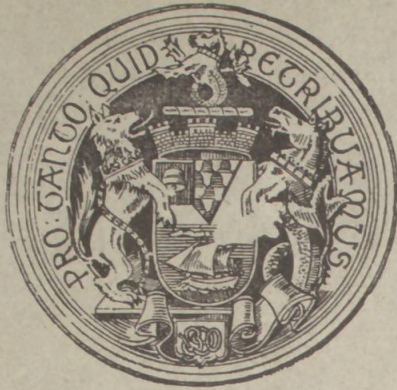


COUNTY BOROUGH OF BELFAST.



THE HOUSING OF THE WORKING OR WEEKLY
WAGE-EARNING CLASSES.

“Society is deeply indebted to the pioneers in this work, the late Prince Consort, Lady Burdett Coutts, and several others.”—
Vide page 8.

The late Earl of Shaftesbury in 1863 said—

“The condition of the dwellings of the labouring classes is the besetting sin and difficulty of the time, for it stands in the way of every good moral impression.”—Vide page 8.

His Royal Highness the Prince of Wales says—

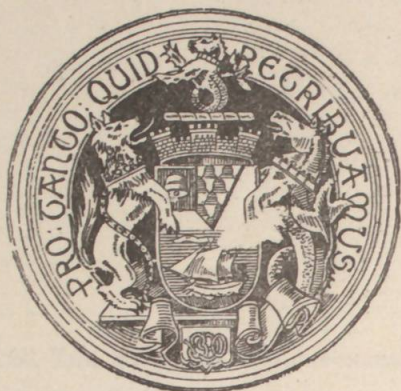
“There is no question at the present time of greater social importance than that of the Housing of the Working Classes. . . . I hope the Legislature will be able to deal with the case of those who are responsible for insanitary property.”—Vide page 16.

Lord Salisbury says—

“You cannot hope, do what you will, to meet this great evil without the help of private enterprise.”—Vide page 9.

The Government have never lost a single penny of the money advanced towards the construction of workmen's dwellings, but on the contrary have made a large profit.

COUNTY BOROUGH OF BELFAST.



REPORT I.

CONFERENCES

ON THE

HOUSING OF THE WORKING,
OR WEEKLY WAGE-EARNING CLASSES.

Held in London, on Monday and Tuesday, 30th and 31st July, 1900, under the auspices of the Sanitary Institute, and at the International Congress of Hygiene and Demography, held in Paris, from 10th to 17th August, 1900.

BEING

A REPORT

[ILLUSTRATED]

PRESENTED TO THE PUBLIC HEALTH COMMITTEE OF THE
COUNTY BOROUGH OF BELFAST

On 30th August, 1900.

BY

HENRY O'NEILL, M.D.,

Member of and Delegate from the Council of the said County Borough to the Sanitary Institute Conference, and to the 10th International Congress of Hygiene and Demography, Paris, 1900.

BELFAST:

PRINTED BY W. & G. BAIRD, LIMITED, ROYAL AVENUE.

To

THE MOST HON. THE MARQUESS OF LONDONDERRY, K.G.,
H.M. LIEUTENANT AND CUSTOS ROTULORUM FOR THE COUNTY
OF THE CITY OF BELFAST;

SIR JAMES HENDERSON, M.A., BARRISTER-AT-LAW, D.L., J.P.,
HIGH SHERIFF OF THE CITY OF BELFAST;

SIR ROBERT JAMES M'CONNELL, BART., J.P.,
THE RIGHT HONOURABLE THE LORD MAYOR;

THE FREEMEN;

THE MAGISTRATES;

MEMBERS OF THE COUNCIL;

TOWN CLERK;

AND OTHER

MUNICIPAL OFFICERS AND OFFICIAL ;

BY WHOSE UNITED CO-OPERATION THE CITY OF BELFAST
HAS ATTAINED ITS HIGH POSITION AMONGST THE
MUNICIPAL CORPORATIONS OF THE EMPIRE,
THESE REPORTS ARE

Dedicated by the Editor.



HIS EXCELLENCY THE LORD LIEUTENANT OF IRELAND, EARL CADOGAN,

K.G., P.C., J.P.

CITY MAGISTRATES.

RESIDENT MAGISTRATES:

FRANCIS G. HODDER, B.L.

Henry, R. B., Crumlin Road.
Herdman, Robert E., Rosavo, Cultra.
Hilton, R. J., Townhall Street.
Hollywood, J., Victoria Square.
Holmes, Arthur, Elmwood Avenue.
Heyn, Fritz, Strandtown.
Inglis, James, Eliza Street.
Jaffe, Alfred, 10 Donegall Square South.
Jaffe, Sir Otto, " " "
Johns, H. I., Belfast Bank.
Jenkins, James, Malone Road.
Johnston, Frank C., 48 University Rd.
Johnston, James, Adelaide Park.
Johnston, James, Donegall Street.
Keegan, E. W., Calender Street.
Kelly, Robert, Greenisland.
Kelly, William J., 26 Oxford Street.
Kerr, James King, M.D., Knock.
Lawther, S., Corporation Square.
Leahy, David, Castle Place.
Lindsay, J. A., Donegall Place.
Lytle, David B., Victoria Street.
Lytle, J. H., Lennoxvale.
M'Alister, Robert, 4 Glandore Park.
Macaulay, Joseph, Royal Avenue.
MacCormac, Sir Wm., M.D., London.
Maclaine, Alexander, Queen's Elms.
Malcolmson, A., Frederick Street.
Masterson, William, Victoria Street.
Meenan, Alexander, Corn Market.
Moriarty, T., Commissioner of Police.
Mulholland, J. R. T., Lisburn.
Murney, H., M.D., Hollywood

GARRET NAGLE, B.L.

Allen, David, 18 Corporation Street.
Andrews, George, Ardoyne.
Armstrong, R., Thronemount.
Atkinson, Robert, Beaumont.
Baird, R. H. H., Royal Avenue.
Bell, William, Belgravia.
Blackwood, J. T., Ulster Bank.
Browne, T. H., 10 Chichester Street.
Brown, Thomas, 54 Cliftonpark Avenue.
Burke, John, 75 Corporation Street.
Caffey, T. R., Smithfield.
Coates, W. T., Fountain Street.
Connor, C. C., Queen's Elms.
Crawford, A., Foxvale.
Davidson, J., Queen's Bridge Mills.
Dempsey, Alex., M.D., Clifton Street.
Dempsey, Patrick, Donegall Sq. East.
Dixon, W. H., Dunowen.
Dobbin, William, North Parade.
Doran, James A., 79 King Street.
Doran, George A., 35 Prospect Terrace.
Dunwoody, Robert, 81 Victoria Street.
Erskine, John, Dun-Conal, Antrim Road.
Ferrar, W. A., Dunmurry.
Finlay, Fred W., Ligoniel.
Gibson, Wm., M.D., M'pottinger House.
Glass, James, 6 Bedford Street.
Gregg, John, Antrim Road.
Hamill, A., Trench House.
Hanna, John A., Marietta, Knock.
Haslett, M.P., Sir James H., Princess
Gardens.
Henderson, Sir J., Oakley, Windsor Pk.

Murray, R. W., Fortwilliam Park.
M'Cann, James, Falls Road.
M'Connell, Sir R. J., Bart., Royal Av.
M'Cormick, William, Chichester Street.
M'Donnell, John J., C.E., Chichester St.
M'Gown, Jackson, Bedford Street.
M'Lorinan, Charles, Donegall Street.
M'Mullen, Robert, High Street.
M'Murray, W. R., Bedford Street.
O'Hagan, Felix, Victoria Street.
O'Malley, M. R., M.D., Clarence Place.
O'Neill, Henry, M.D., 5 Brenthamville,
Knock.
Patterson, Richard, High Street.
Payne, J. C. C., Oxford Buildings.
Pim, John, Bonavon, Antrim Road.
Pim, E. W., High Street.
Pirrie, Rt. Hon. W. J., D.L., Queen's
Island.

Preston, George J., Calender Street.
Reade, R. H., D.L., York Street Mill.
Ritchie, W. B., The Grove.
Robertson, William, Bank Buildings.
Ross, John, Brookvale Avenue.
Shaw, Thomas, Townhall Street.
Shillington, Thomas F., Dromart.
Sinclair, Rt. Hon. T., D.L., Hopefield.
The Officer Commanding B'fast District.
Thompson, John, Mountcollyer.
Wallace, J. Stewart-Stewart, Redhill,
Knock
Ward, F. D., Ivy Dene, Malone Park.
Ward, John, Lennoxvale.
Weir, William, Springfield.
Workman, John, Windsor.
Young, Samuel, M.P., Avonmore.
Young, Robert M., Donegall Sq. East.

Chief Clerk to Magistrates—Robert M'Henry, 6 Elmwood Avenue

ALDERMEN AND COUNCILLORS.

Alderman Sir R. J. M'Connell, Bart., Lord Mayor. Alderman Bell. " Bigger. " Dempsey. " Graham. " Sir James H. Haslett. " Sir James Henderson. " Harper. " Hutton. " Lawther. " T. E. M'Connell. " Wm. M'Cormick. " John M'Cormick. " Pirrie. " Wilson. Councillor Alexander. " Anderson. " Andrews. " Baillie. " Barron. " Bowman. " Browne. " Corr. " Corry. " Curley. " Davis. " Dixon. " Forsythe. " Gageby. " Sir Otto Jaffe.	Councillor F. C. Johnston. " James Johnston. " Robert Johnson. " Kerr. " Liddell. " Macartney. " Magee. " Malcolm. " Masterson. " Matthews. " Millar. " Moreland. " M'Caughey. " M'Clure. " M'Donnell. " M'Entee. " M'Innes. " M'Lorinan. " O'Connell. " O'Neill. " Reid. " Stewart. " Taylor. " Robert Thompson. " John Thompson. " Tougher. " Wheeler. " White. " Williamson. " Young.
--	--

ROLL OF THE HON. FREEDOM OF THE CITY OF BELFAST

(1) Alderman The Right Hon. W. J. Pirrie, D.L., LL.D., J.P., elected 1st January, 1898.

(2) Thomas Henry Ismay, Esq., J.P., D.L., Dawpool, Thurstaston, Cheshire, elected 1st February, 1899; died 23rd November, 1899.

(3) The Most Hon. the Marquess of Londonderry, K.G., H.M. Lieutenant and Custos Rotulorum for the County of the City of Belfast, elected 1st March, 1900.

(4) The Most Hon. the Marquess of Dufferin and Ava, K.P., H.M. Lieutenant and Custos Rotulorum for the County of Down, elected 1st March 1900.

OFFICERS OF THE CORPORATION,

Town Clerk.
SIR SAMUEL BLACK.

Chief Clerk,
R. MEYER.

**Treasurer, and Registrar of Corporation
Stock.**
HENRY I. JOHNS, J.P., BELFAST BANK.

Surveyor
J. C. BRETLAND, M.INST.C.E.,

Assistant.
JAMES MUNCE, ASSOC.M.INST.C.E.,

Accountant.
C. E. DYER, F.S.A.A.,

Assistant.
WILLIAM BLACKBURN.

**Cashier, and Secretary to the
Lord Mayor.**
F. W. MONEYPENNY.

Registrar of Cemetery.
H. OSBORNE M'CORMICK.

Electrical Engineer.
V. A. H. M'COWEN, A.I.E.E.

Gas Works.
JAMES STELFOX, C.E., ENGINEER AND MANAGER.
ALEXANDER TURNBULL, CASHIER.

Public Health Department.
DR. HENRY WHITAKER, Medical Superintendent
Officer of Health.
CONWAY SCOTT, C.E., Executive Sanitary Officer.

District Lunatic Asylum.
WM. GRAHAM, M.D., Resident Medical
Superintendent.

JAMES HARPER, Clerk.

Clerk of the Markets.
FRANCIS ROBINSON.

Chief Librarian.
G. H. ELLIOTT.

Curator, Museum,
CHAS. ELCOCK.

Street Inspector.
SAMUEL MAHOOD.

Superintendent of Fire Brigade,
GEO. SMITH.

Assistant Superintendent,
JAMES STAFFORD.

Car Inspectors,
W. J. ADGEY. | J. BLACKBURNE, | ROBERT AULD,
R. YOUNG.

Superintendent of Cemetery and Falls Park,
GEORGE M'CANN.

Superintendent of Ormeau Park,
THOMAS DICKSON.

Superintendent of Botanic Gardens Park.
CHARLES M'KIMM.

Foreman Alexandra Park,
WM. SMITH.

Foreman Woodvale Park,
JAMES PATTON.

Foreman Dunville Park,
W. M'KINSTRY.

Sergeants-at-Mace.
JAMES MORROW. | ALFRED SHIELDS.

Sub-Sheriff.
H. H. BOTTOMLEY.



Recorder.
HIS HONOR JUDGE FITZGIBBON, Q.C.

Clerk of the Peace.
ALEXANDER M'DOWELL.

Analyst.
ROBERT BARKLIE, F.C.S., M.R.I.A.

H.M. Coroner.
E. S. FINNIGAN.

Petty Sessions Solicitors.
D. F. SPILLER AND ALBERT J. LEWIS

REPORT No. I.

ON "THE HOUSING OF THE WORKING OR WEEKLY WAGE EARNING CLASSES."

(Presented to the Public Health Committee of the County Borough of
Belfast, on 30th August, 1900.)

BY HENRY O'NEILL, M.D.,

Member of and Delegate from the Council of the said County Borough to
the Conference on the Housing of the Working Classes and
the 10th International Congress of Hygiene and Demography,
Paris, 1900.

By Resolution of the Corporation of the County Borough of Belfast, dated
the 2nd July, 1900, I was appointed a Delegate to represent them at the Con-
ference on the Housing of the Working Classes, held in connection with
the Sanitary Institute, in London, on the 30th and 31st July, and at the
Congress of Hygiene and Demography, held in Paris from 10th to 17th
August, 1900.

After consultation with Alderman James Graham, M.D., Chairman of
the Public Health Committee, and Alderman Hugh Bell, Chairman of the
Market Committee, Belfast.

I was requested to obtain information concerning

- I. The Housing of the Working Classes ;
- II. The Inspection of the Meat Supply ; and
- III. The Inspection of the Milk Supply of cities and towns ; and how
the supply of Meat and Milk is controlled by Municipal
Corporations so as to enable the citizens to obtain sound
Meat and pure Milk.

Besides attending the Conference on the Housing of the Working Classes and the Congress of Hygiene and Demography, I visited the principal Abattoirs and Meat Markets in Paris, Berlin, London, and Manchester.

In addition, I obtained from various sources, information of much value on these important subjects.

I take this opportunity of thanking all those who rendered me valuable assistance in my investigations. My thanks are specially due, and are hereby given to Sir Otto Jaffe, J.P., ex-Lord Mayor of Belfast; M. Henri Duprey, Deputy Veterinary Surgeon, Chief of the Veterinary Sanitary Service of Paris and the Department of the Seine, Paris; Dr. Shirley F. Murphy, Medical Officer of Health for the London County Council; Dr. W. Sedwick Saunders, Medical Officer of Health for the City of London; Dr. James Nevin, Medical Officer of Health for the City of Manchester; Bailie Jas. Pollard, Chairman Public Health Committee Edinburgh County Council; Dr. F. Drew Harris, Medical Officer of Health for St. Helen's; and Mr. E. White Wallis, Secretary of the Sanitary Institute, London.

CONFERENCE IN LONDON.

PROGRAMME.

MONDAY, 30TH JULY, 1900,

10 a.m. to 1 p.m.,

At 20 Hanover Square, W.

CHAIRMAN—R. MELVILL BEACHCROFT, L.C.C.

SUBJECT FOR DISCUSSION.

UNHEALTHY AREAS AND DISPLACEMENT OF TOWN
POPULATIONS.

SPEAKERS :

T. BLASHILL, F.R.I.B.A.

J. SPOTTISWOODE CAMERON, M.D., B.Sc.

R. LANGTON COLE.

E. W. HOPE, D.Sc. M.D.

COUNCILLOR W. HOLDER, M.R.C.S.

J. DOUGLASS MATTHEWS, F.R.I.B.A.

SHIRLEY F. MURPHY, M.O.H., L.C.C.

J. NIVEN, M.A., M.B.

E. H. PICKERSGILL, M.P.

SIR FRANCIS SHARP POWELL, BART., M.P.

JOHN F. J. SYKES, D.Sc., M.D.

and others.

At the close of the Discussion the Members visited the Exhibition of Plans and Models at the Parkes Museum, afterwards driving to the places arranged for the afternoon visit.

By the courtesy of the London County Council visits were made to the Dwellings erected on the Millbank Estate, Westminster, and on the Boundary Street area, Bethnal Green. (See Plan, Fig. 2.)

The Members were conducted over the Buildings by a representative from the Architect's Department.

Mr. Beachcroft, the Chairman, who is a member of the London County Council, in opening the proceedings, referred to the completion of the Boundary Street Scheme of the L.C.C., which dealt with a population of 5,400 of the poorest of the labouring class, and embraced an area of about fifteen acres of the lowest hovels, on which site a municipal colony of dwellings has been erected. He pointed out that the fears for its success which had been expressed at the inception of the scheme had not been realised, and that two other large schemes were being carried out, and three others adopted. The cost so far has been favourable, working out about £50 per head, whilst the average cost of twenty schemes by the late Metropolitan Board of Works, affecting 25,217 persons, worked out at £59 per head, the saving, he thought, being largely owing to the improved compensation clauses of the Housing of the Working Classes Act of 1890. The L.C.C. valuer has more than once stated that it does not pay to possess slum property which is required under the Act. It is not buying out the slum owner, but buying the trade interests which causes the expense to the ratepayers. The value of land as sites restricted to the erection of dwellings is much less than its commercial value, and he stated that sites so valued in London stood at £95,000 against £230,000, or roughly $\frac{2}{3}$ ths of the true value. The difference is the cost which has to be borne by the rates.

He also pointed out the fact, which had been carefully ascertained in London, that only a small proportion of those displaced occupy the new buildings when erected on the site, and could not agree with those who declare that the erection of improved dwellings means a general shift, and the raising of the standard all round.

The difficulty is how and where to provide for the people whilst the improvement is being carried out.

They cannot pay the high rents demanded, and consequently overcrowding elsewhere results. He expressed the opinion that when an area is so overcrowded as to be unsanitary, the public authority should step in

and insist that the occupation of the houses shall cease until the area has been reconstructed. In this way the local authority would not be compelled to purchase, but only to find accommodation for the people whose residence near the area was compulsory until the area had been reconstructed.

It is amazing how few of the people residing in an unhealthy area are compelled to reside there. In the case of the new street from Strand to Holborn only 774 out of 6,000 disturbed belonged to the class whose work compelled their residence there.

He did not mean that no case would hereafter arise where Part I. of the Act might not be a necessity, but as a rule Part III. would meet the case.

He called attention to a recent circular of the English L.G. Board, which pointed out to local authorities the very large powers they possessed regarding overcrowding and insanitary property, and showed that if these powers were enforced it would be insanitary houses and not insanitary areas that we would have to deal with.

Mr. Blashill, late Superintending Architect to the L.C.C., in his remarks argued that as rehousing schemes were costing £50 per head, and the people for whom they were intended did not occupy the new buildings, some other method must be devised.

His idea is that the tenants only should be dealt with; that no property or trade interests should be purchased; but that the money thus saved, or a portion of it, should be expended in removing the people, family by family, to other districts, as house room could be secured at the same rent as they were paying.

If the rents were higher, the Local Authority could enter into agreements to pay the difference for three or five years; and if the accommodation so provided was several miles away from the unhealthy area, the tenants should be compensated by payment of the man's railway fare for a time. Under such an arrangement he thought the cost could not reach £12 10s. per head, instead of £50 as at present.

NOTE.—Further details of Mr. Blashill's views on this question can be seen in *Journal San. Inst.*, vol. xxi., p. 1.

The representative of the Hull Corporation (Councillor Holder) pointed out the costly nature of improvements carried out under Part I. of the Act, and stated that it was not a matter of surprise that his Corporation preferred to work under Part II., and by its simpler and more reasonable machinery had more expeditiously cleared away both individual unhealthy houses, and areas of filthy and degenerate houses which had been a menace to both the public and moral health of the town.

The Hull Corporation were of opinion that land, when in single unusable plots, should be pooled by the Local Authority with other neighbouring and usable plots for the benefit of the owners—that the Corporation Surveyor should lay out the land in saleable plots and advertise it for sale by auction or tender as the Committee of the Local Authority might decide—the proceeds to be divided amongst the owners by mutual agreement, or, failing this, by a Joint Committee composed of equal numbers of the owners and the Sanitary Committee.

The Corporation were also of opinion that, once it had been decided to close a dwelling, no evasion of the subsequent demolition order should be permitted if the premises could not be made sanitarily safe as a dwelling-house.

Subsequent speakers called attention to the expense of the Inquiries, the benefit of houses in the outskirts of large towns with tram or rail accommodation, &c.

The Aberdeen representative, Mr. Cooper, showed that the period for which loans were granted might be extended with advantage.

The compulsory registration of slum property was advocated by a lady. Mr. Collins, of Paddington, deprecated the overcrowding caused by the erection of high buildings whereby large numbers of persons were housed on small areas.

The Lord Provost of Glasgow stated that whilst they had spent about £1,000,000 there in purchasing, demolishing, and erecting dwellings for about 1,000 persons, they found the Act too cumbrous and costly, and hence relied on their own local Acts. They would like some powers by which it could be determined locally and inexpensively whether an area

was unhealthy or unfit for habitation. Clearing one site did not mean the creation of another slum.

Mr. Lupton, of Leeds, described the procedure adopted in that city, which is much like what has been done in Belfast, and showed that the method of buying up property and selling the sites at a loss, for the erection of buildings, fixes the only loss sustained by the ratepayers, which is not the case where buildings are erected by the authority. Several other gentlemen having spoken, and the Surveyor of Cardiff having explained the reason no slums existed in that town was that an old bye-law provided that every dwelling must have in connection therewith an open space proportionate to the area it occupied, the following resolution was unanimously agreed to:—

“That this Conference is of opinion that the present method of dealing with unsanitary areas is extravagant and unsatisfactory, and urges Parliament to provide some less expensive and more expeditious mode of procedure.”

PROGRAMME.

TUESDAY, 31ST JULY, 1900,

10 a.m. to 1 p.m.,

At 20 Hanover Square, W.

CHAIRMAN—SIR SYDNEY H. WATERLOW, BART.

SUBJECTS FOR DISCUSSION.

- I. IMPROVED HOUSES FOR TOWN DWELLERS.
- II. IMPROVED MEANS OF COMMUNICATIONS.

SPEAKERS :

H. PERCY BOULNOIS, M.Inst.C.E.

E. BOWMAKER, M.D.

H. H. COLLINS, F.R.I.B.A.

C. J. HAIR, A.R.I.B.A.

MERVYN MACARTNEY.

J. PRIESTLEY, B.A., M.D., D.P.H.

W. E. RILEY, Superintending Architect L.C.C.

ALD. W. THOMPSON.

and others.

At the close of the Discussion the Members again visited the Exhibition of Plans and Models at the Parkes Museum, afterwards driving to the places arranged for the afternoon visit.

By the courtesy of the Richmond Town Council a visit was made to the Artizans' Dwellings erected by the Council.

HIS WORSHIP THE MAYOR received the Members, and afterwards kindly invited those attending to Tea at Asgill House, Richmond.

Mr. J. H. BRIERLEY, the Borough Surveyor, conducted the Members over the Dwellings.

At the second day's conference the address of the Chairman, Sir Sydney H. Waterlow, Bart., was a special feature owing to his long and faithful labours in providing working class dwellings. I cannot refrain from quoting a few sentences in full.

“Society is deeply indebted to the pioneers in this work, the late Prince Consort, Lady Burdett Coutts, and several others. The late Earl of Shaftesbury in 1863 said, ‘The condition of the dwellings of the labouring classes is the besetting sin and difficulty of the time, for it stands in the way of every good moral impression.’ I have never forgotten his words.”

“The question is not a new one to me. Nearly forty years ago I took the matter in hand, feeling then as I feel now that the best way to help the “weekly-wage class”—for I prefer those words to the words “working class”—to a happier and better life was to give them better family dwellings, together with homes in which the domestic virtues might be properly cultivated and developed—homes which would be sufficiently attractive to keep them away from the brilliant attractions of the palatial public house.”

He then went on to describe how, in 1862, he called a few friends together interested in the question, and as a result how a private company was formed, of which he has been chairman for thirty-seven years, during which time they have spent £1,250,000 in providing 5,600 tenements, occupied by about 30,000 persons. The results of that meeting show “what might be done by a few private individuals to help a movement which can only be adequately dealt with by public authorities responsible for the sanitary arrangements of any city.”

Lord Salisbury is of the same opinion, as he said recently, speaking on the question:—“You cannot hope, do what you will, to meet this great evil without the help of private enterprise.”

Sir Sydney then quoted figures showing costs, rents, taxes, &c., which I have collated as follows:—Costs per room—1862, £42; 1870, £45; 1875-1885, £55; 1885-1900, £70 to £75; the increase being chiefly due to shorter hours and higher wages to workmen.

During these years many improvements have been made in planning and execution.

Rooms let at three shillings each per week—the outgoings, amount to 56·3 per cent.

Rates—1884, £2,197; 1899, £2,587. One special case—1871, £117; 1899, £289; increase, 150 per cent. In another case the increase has been 160 per cent. in twenty-four years.

If there had been no increase in rates since the buildings were first erected, they would be £3,957 less per annum than they are. The in-

crease in local rates alone in 4 years has been £1,023 per annum on the same buildings.

He summed up his experience of rating by stating that all occupiers should pay the rates directly and not as part of rent. This would give them an interest in keeping down extravagance.

The increase in rates necessitated raising the rents from an average of 2s 8d per room per week to 3s.

The question of situation is almost as important to a weekly wage man as it is to a man of business. If he lives near his work he can afford to pay more rent, as he saves time in going and returning, and as he is paid by the hour, time is money, and if near a busy centre his family also are likely to obtain employment.

A recent act enables the L.C.C. to erect dwellings outside their district. The time lost in travelling will be a serious item, as house rents will be no cheaper.

The Government should be more liberal as regards loans. Thirty years ago the term was 40 years at 4 per cent.—£5 1s 0d per cent. per annum. Recently an Act reduced the rate to £3 2s 6d, but it also reduced the term to 30 years, so the rate is really increased to £5 4s per cent. per annum. The term should be made 80 years.

His experience was clear that the houses should be provided for those earning 25s to 40s per week, and then the pressure on the cheaper houses lessened, and so the poor migrated upwards until the houses of the worst class were left empty. In this way the very poorest reaped part of the benefits enjoyed by those above them.

The great effect of better houses was shown by the death-rate. In the dwellings of his company the death-rate was only 11·5 per 1,000, including 45 deaths in hospitals, whereas the average death-rate of London was 19·8, and low death-rate meant low disease rate.

In better dwellings a larger population could be housed on the same area under better hygienic conditions.

The average number of persons to the acre is 746, whereas the average of London is only 61.

A remarkable proof of the popularity of good dwellings is the fact that only $1\frac{1}{2}$ per cent. are vacant. The loss of rent during 1899 was only 2s 11d per cent., although the total rental is £115,361, this was owing to poverty and inability to pay, thus showing clearly that good sanitary property is appreciated by the poor and pays the owner.

Some interesting figures were quoted by the architect to the L.C.C. (Mr. Riley), proving that on the average $3\frac{1}{2}$ per cent. was the return for the capital expended.

He commended good external finish and good sanitation as the two items to be obtained first.

The discussion was carried on by Mr. Bond, M.P., who pointed out that there was no housing question by itself; it was really a question of wages and rent. The City Engineer of Glasgow described the efforts of the Glasgow Corporation under the Local Acts to deal with the question

Mr. Shaw, of St. Pancras, showed that the public man must look at the problem in a different light from the speculator. If the Local Authority rehoused the people decently, although they might not get a penny of profit directly, there might be a tremendous saving to the community. It did not pay to neglect the housing problem, and pay twice as much for police courts, infirmaries, and doctors' bills.

Mr. Boulnois, formerly City Engineer of Liverpool, now Engineering Inspector of the L.G.B., pointed out in a memorandum that an unsanitary house is as dangerous to the public health as an offensive trade and should be dealt with summarily.

He is of opinion that our houses for the poorest class should be of brickwork, limewhited, or coloured inside without plaster, as little wood work as possible, but what had to be used very strong. In short, the building must be healthy but unattractive, else a better class of tenant would be tempted to take it. The rooms not too large, or lodgers would be taken in. No larder is necessary, as the tenants live from hand to mouth, and purchase their food as required. A good water supply is necessary, but no lead pipes, or they might vanish.

After full discussion, it was resolved :—

“That, in the opinion of this Conference, the Local Government Board should at once extend the period of repayment actually granted to Local Authorities for building loans, under part 3 of the Housing of the Working Classes Act of 1890, to the full statutory period of 60 years, and that they should relax and vary the restrictions for building cottages, especially in the direction of enabling more rooms to be provided at a less cost per room where this can be done without prejudice to considerations of sanitation and safety, and that Parliament should be asked to extend the period for the repayment of housing loans to 100 years in the case of land, and facilitate the advance of money by the Public Works Loan Commissioners at the market rate of interest for the purpose of housing the working classes.”

PARIS MEETING.

TENTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY, PARIS, 10TH TO 17TH AUGUST, 1900.

At this Congress many important questions were discussed.

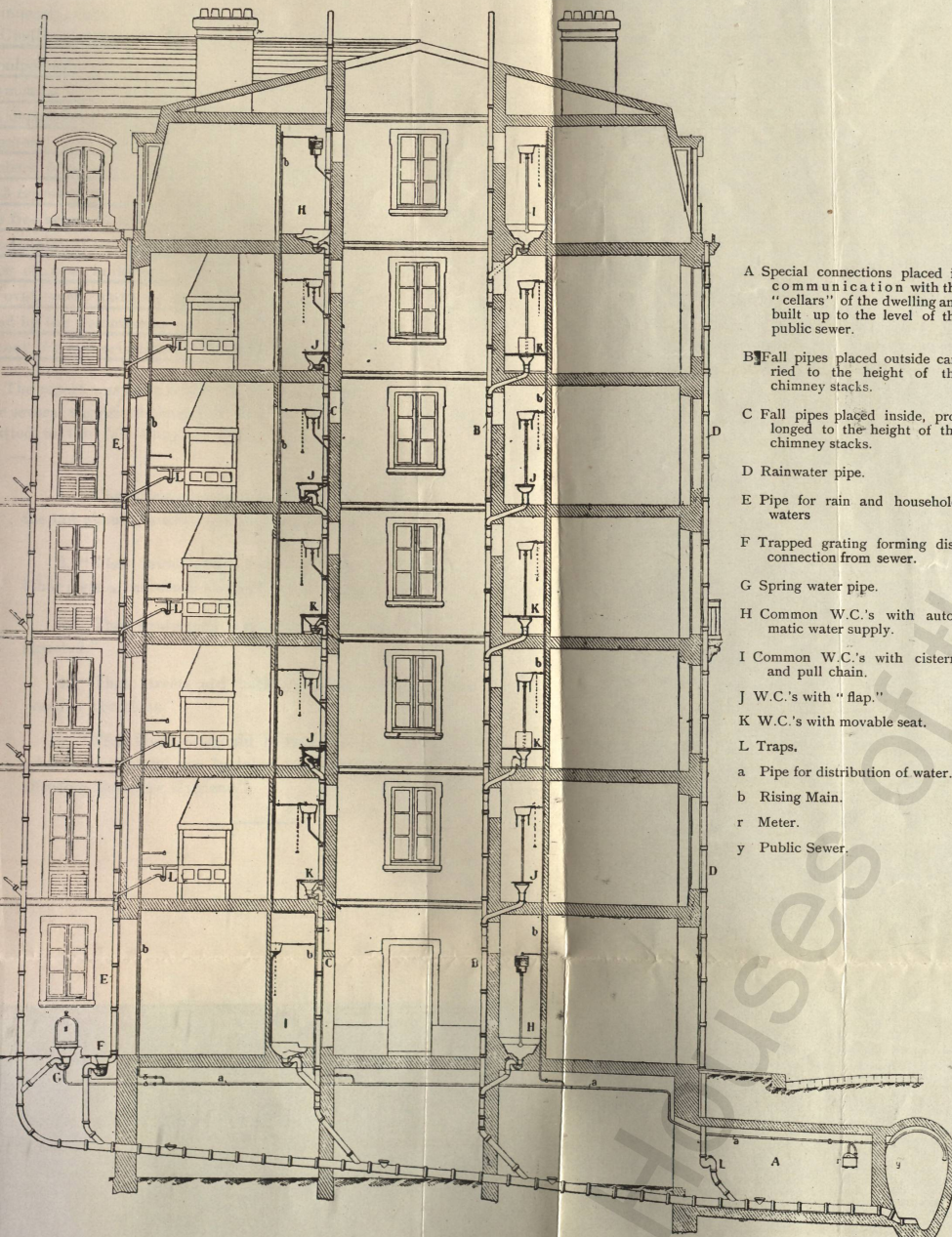
SECTION V.—INDUSTRIAL AND PROFESSIONAL HYGIENE—INSANITARY HOUSES.

(See Plan, Fig. 1.)

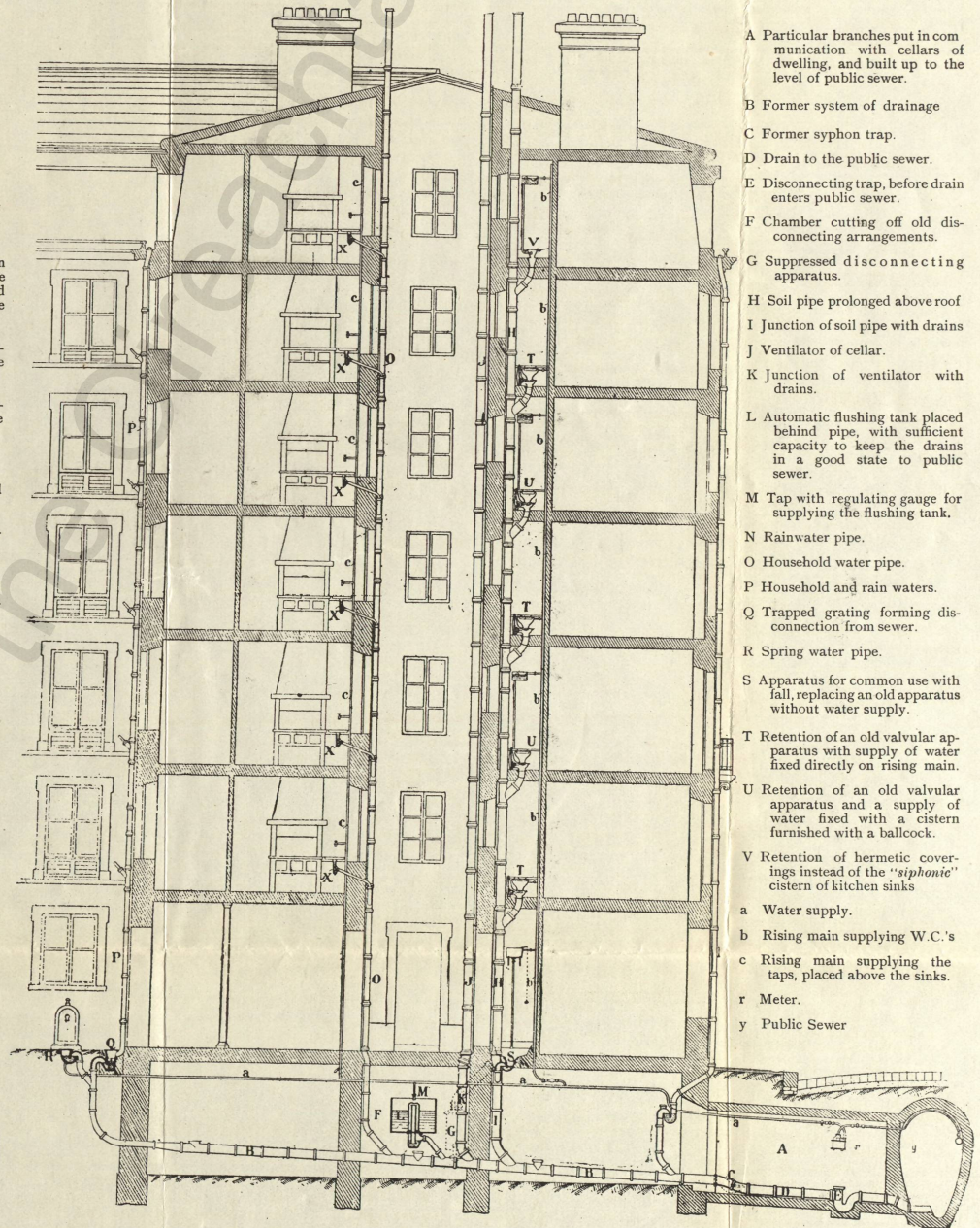
One of the reports of greatest interest presented in this section was prepared by Dr. Challamel, Advocate of the Court of Appeal, Paris. The slow progress made in France in carrying into execution the salutary legislation initiated by the law of April 13th, 1850, in favour of administrative supervision over the construction of dwelling-houses, is attributed in this report to the permissive character of the French sanitary legislation. The legislature has presumed too much on the enlightenment and independence of communities in making the adoption of legal remedies for sanitary evils optional instead of obligatory. It is the fact that only in five towns of France during the past 50 years have

FIG. 1.

TYPES OF INTERIOR FITTINGS OF A NEW HOUSE AND OF AN OLD HOUSE, FOR DIRECT DISCHARGE TO SEWER, PARIS.



- A Special connections placed in communication with the "cellars" of the dwelling and built up to the level of the public sewer.
- B Fall pipes placed outside carried to the height of the chimney stacks.
- C Fall pipes placed inside, prolonged to the height of the chimney stacks.
- D Rainwater pipe.
- E Pipe for rain and household waters
- F Trapped grating forming disconnection from sewer.
- G Spring water pipe.
- H Common W.C.'s with automatic water supply.
- I Common W.C.'s with cistern and pull chain.
- J W.C.'s with "flap."
- K W.C.'s with movable seat.
- L Traps.
- a Pipe for distribution of water.
- b Rising Main.
- r Meter.
- y Public Sewer.



- A Particular branches put in communication with cellars of dwelling, and built up to the level of public sewer.
- B Former system of drainage
- C Former syphon trap.
- D Drain to the public sewer.
- E Disconnecting trap, before drain enters public sewer.
- F Chamber cutting off old disconnecting arrangements.
- G Suppressed disconnecting apparatus.
- H Soil pipe prolonged above roof
- I Junction of soil pipe with drains
- J Ventilator of cellar.
- K Junction of ventilator with drains.
- L Automatic flushing tank placed behind pipe, with sufficient capacity to keep the drains in a good state to public sewer.
- M Tap with regulating gauge for supplying the flushing tank.
- N Rainwater pipe.
- O Household water pipe.
- P Household and rain waters.
- Q Trapped grating forming disconnection from sewer.
- R Spring water pipe.
- S Apparatus for common use with fall, replacing an old apparatus without water supply.
- T Retention of an old valvular apparatus with supply of water fixed directly on rising main.
- U Retention of an old valvular apparatus and a supply of water fixed with a cistern furnished with a ballcock.
- V Retention of hermetic coverings instead of the "siphonic" cistern of kitchen sinks
- a Water supply.
- b Rising main supplying W.C.'s
- c Rising main supplying the taps, placed above the sinks.
- r Meter.
- y Public Sewer

the Commissions charged with this supervision worked regularly and continuously, namely—in Paris, Lille, Le Havre, Roubaix, and Nancy. Dr. Challamel expresses the opinion that municipal action in carrying out this supervision leaves a good deal to be desired, and he proposes that a Commission on “Insanitary Houses” should be set up in the chief town in each department of France, with powers and duties not permissive but obligatory. He suggests that each such Commission shall consist of 15 members, 5 being medical men or sanitarians, 5 architects or engineers, and 5 representatives of landed proprietors. The Commissioners should have free access to all public buildings (in presence of representatives of the administration) as well as to private buildings and properties. All plans of new buildings should be submitted to the Commission for approval, such plans to be considered as approved if no objection be raised by the Commission within 20 days. No dwelling-house to be built without the authorisation of the Commission.

The report was fully discussed by the members of the section, and after several suggested changes in the terms, its recommendations were remitted to the full Congress for consideration, where it was resolved that:—

1. “That the overcrowding of dwellings should be illegal, and the law should sanction police measures against this offence.”
 2. “That municipalities should, by reducing taxation and other means, encourage the building of model artizan dwellings.”
 3. “That gratuitous bathing establishments should be constructed.”
 4. “That streets and back yards should be widened on all possible occasions.”
 5. “That Hygiene should be taught in primary and secondary schools, and special care be taken to educate young girls in matters affecting Domestic Hygiene.”
-

In Paris the reports of the Sanitary Officers engaged on the regular house-to-house inspection are considered at weekly meetings of the Board, corresponding somewhat to our Public Health Committee.

The most important work is perhaps the record of the Sanitary history of each of the 73,031 houses in Paris, which was decided on by the Municipal Council in December, 1893, and commenced on 1st January, 1894.

Each house has its own file of papers containing on six sheets of different colour the following information:—

Ward, District, Street, Number of the Dwelling, Plan (scale $\frac{1}{500}$), showing sewers, drains, shafts, cesspools, springs (water supply) manure pits, with detailed description in tabulated form.

Dates of cases and deaths [from infectious disease (each kind separately.)

Dates and sort of disinfection effected.

Reports on sanitary condition.

Measures prescribed by the Sanitary Dept. (Commission on Insanitary Dwellings).

Results of analyses—chemical and bacterial—of air, water, and dust collected in the dwelling.

A plan of each Ward to a scale of $\frac{1}{500}$ is also provided, compiled from the house records above referred to.

This ward plan shows clearly where deaths from consumption and other tuberculous affections have occurred.

A Table shows the streets and numbers of the houses in which deaths from infectious disease have occurred during five years. The streets classified to show the number of stories in the buildings.

The Department of Sanitary Works has charge of sewage, scavenging, and house cleansing.

Reports are issued from time to time with the object of instructing the public in sanitary knowledge, and a laboratory is provided for the purposes of research in such matters.

The museum of the Department contains a complete collection of models of the best appliances and apparatus relating to hygiene and public health, and the public are invited to examine and see for themselves the advantages of proper sanitary fittings and to learn how to use them.

Information on all matters affecting public health is supplied free of charge to those who apply at this museum, the object being to leave without excuse those who use or retain faulty systems.

The pamphlets supplied to applicants are very full, and contain specimen drawings showing various good arrangements of the sanitary work of dwellings. (See plans marked Fig. 1.)

There is no reason why the Public Health Committee of Belfast should not adopt similar methods of enlightening the public on what so materially concerns their health.

Most, if not all, the apparatus would be supplied by the manufacturers free of cost; the only expense would be that of its erection, and the rent of a room or rooms to contain it until the new City Hall is available.

A term of 5 years was fixed, ending on a specified date, during which period all houses had to be brought into "standard efficiency," and the public officers were required to prosecute those who made default.

Notable in Paris is the cleansing of the streets; the care exercised and the thorough nature of the work have a material effect on the public health.

If all our streets were impervious, as is now the rule in the best towns, the surfaces could be washed once or twice a week. What this would mean to some of the inhabitants of our narrow lanes and courts cannot be over-estimated.

The Water Commissioners having kindly offered all the water necessary for flushing and cleansing, it now remains for the Committee to take advantage of this offer and thoroughly cleanse the city, both streets and sewers. If the latter were all clean, complaints of smells would, to a large extent, cease.

The periodical flushing of the house drains should be carried out as in Liverpool, Birmingham, etc. The increased flow in the minor sewers caused by this work would improve them and prevent deposit.

One cannot help being impressed by the importance which is now attached to all measures tending to an improvement in the Public Health, and whilst Belfast is not last in the list of towns noted for progress in Public Health, it is still far from being first.

As is well known, a low death-rate implies a low disease-rate, and just as a reduction of 1 per 1,000 in the death-rate of the City means the saving of 380 lives per annum, it also means that over 1,000 persons have been saved from illness during the same period.

The great importance of the Housing of the Working or Wage-earning Classes is now recognised by the more intelligent of our Legislators. During the Session of Parliament just ended, the Government passed a Bill enabling Local Authorities to establish or acquire Lodging-houses for the Working Classes outside their respective districts. At a recent meeting of the Church Congress, held at Newcastle, the Rev. J. N. Hurley stated, amongst other matters, that in his civil parish 124,000 people live on less than a square mile. There are nearly half a million persons in London in whose case home consists of one room; of 4,575 one-roomed tenements in Spitalfields, 1,400 are occupied by from four to seven persons.

The large profits of slum landlords was well illustrated by referring to a six-roomed tenement house in the City which was inhabited by six families at 6 shillings a-week each, or £93 12s per annum for a cottage in an alley.

Recently His Royal Highness the Prince of Wales stated—

“There is no question at the present time of greater social importance than that of the Housing of the Working Classes. . . . I hope the Legislature will be able to deal with the case of those who are responsible for insanitary property.”

RECOMMENDATIONS.

After considering all the views expressed by the various speakers, it is quite clear to me that by a judicious application of the Housing of the Working Classes Act, 1890, and its amending Acts, a very great improvement might be effected in more than one district of our city.

As can be seen from some of the remarks referred to above, the danger to the health of a city lies chiefly in its densely populated areas, where sanitation is at a low standard.

The first thing to be done is to have a house to house inspection of each locality, note all defects, and if these are not remediable have the dwelling closed. In cases where large numbers of houses are so treated a scheme under the Act might be adopted and carried out. I believe, however, that if the owners found the Public Health Committee in earnest about their property they would combine to deal with it themselves, or private companies might be formed to take the matter up.

To improve the public health and save life is the paramount duty of the Committee, and I, therefore, make the following suggestions as to improvements which can be carried out from day to day, which improvements would, in a short time, produce good results:—

1. As each ashpit is cleansed it should be concreted on the floor, and the level raised so that moisture will leak above the yard level and not below it. This concreting will prevent any further pollution of the soil. In every case the soil below the ashpit should be dug out and clean filling put under the concrete.

2. The sides of all ashpits should be cemented, and where privies are connected with them they should (if permitted to remain) be treated like the ashpits.

3. The ashpit cleaners can report daily on the condition of each ashpit they cleanse, so that the sanitary officers need not go to the cases specially.

4. Each yard noticed by the same men as untiled, or imperfect, could be noted in the same way, and in repairing it a layer of concrete put all over the site.

5. The residents should, where necessary, be instructed in the advantages of cleanliness, and washing of their premises and persons regularly.

6. In the case of new buildings the bye-laws should be amended to require a layer of mastic asphalte over the whole site of every building under the ground floor. This will prevent the impure ground air being drawn into the building. It is well known that a large portion of the air in our living rooms comes from the floors, and this is specially unwholesome in the case of filled sites. Concrete alone is not efficacious for this purpose, as it cracks and allows air to pass through in large volumes.

7. Under no circumstances whatever should a drain be permitted to pass under a dwelling, school, workshop, or building where people assemble or are employed unless it be an iron pipe with lead joints embedded in concrete at least 6 inches in thickness all round laid at a level to permit the whole of the ordinary floor, asphalte, etc., being laid over it. The permission for each such drain should only be given by a special resolution of the Corporation after a report of the facts.

8. A disconnecting chamber should be placed at each end of such drain, outside the building.

9. The w.c.'s in yards should be made high enough to permit the flushing cistern to be placed at least 7 feet above the w.c. basin, and no flushing cistern should discharge less than 3 gallons per flush.

10. The yards should be made larger, as is clearly intended by the Local Act, that more air space may be found at the rear of houses from which fresh air can be drawn, this space to be regulated by the height of the building.

11. It is also an important thing to consider whether the time has not arrived for defining a greater minimum width for new streets between the buildings. Although the Local Acts enable the Corporation to require the width of new streets to be 70 ft. as a maximum whilst 30 ft. is defined as the minimum, it is a remarkable fact that not a new street of the maximum width is to be seen now.

12. The Improvement Committee might be asked, in reporting from month to month, to specify the length, and width, and space between the frontage lines, of each new street for which a plan is approved.

13. We should decide that each street is to have say 60 feet between the frontage lines, of which 40 feet is to be devoted to street and the remainder to areas. The improvement in the ventilation would benefit the health of the people. There could not be any objection to making this standard for the "added area," as it is called.

14. No street should be adopted until the back passages belonging to it are completed, and the whole street and passages could be adopted at the same time. The effect of this rule would be to ensure the paving of the passages at the earliest possible moment. Of course there are difficulties in the way, but they would vanish in most cases.

15. Where an architect is not employed to superintend the erection of dwellings, a fee should be charged by the Corporation for the special attention of a Building Inspector, and a similar charge should be made in the case of new streets where an Engineer is not in charge during construction.

16. Owners might be asked to allocate small areas for the purposes of playgrounds—they need not be very large—sites for public conveniences, &c. A few drinking fountains of an ornamental character judiciously placed would be of service, and if a spray were added would be a source of pleasure to children.

17. Junctions of streets might be more liberally dealt with as regards open spaces, and one or two like Carlisle Circus and Shaftesbury Square to be named after the donors, would prove great boons, and form lungs or air spaces.

18. In the older portions of the City many desirable improvements might be made from time to time as opportunity offers, and I have no doubt if plans showing such schemes were prepared and left open for public inspection, many owners would be induced to fall in with such proposals and avoid the necessity of compulsory purchase.

The annexed plan of the Boundary Street scheme of the L.C.C. illustrates what has been done in London, and our own schemes in the neighbourhood of Carrick Hill are familiar to the members. (See Plan, Fig. 2.)

A suggestion for a scheme in the densely-populated area, bounded by King Street, Divis Street, Barrack Street, and College Square N., is given herewith, also for an open space at junction of Crumlin and Oldpark roads. (See Plans, Figs. 3, 4, and 5.)

IN CONCLUSION.

The principal object I have in view in placing before the Members of the Corporation of the County Borough of Belfast these Reports on

- I. The Housing of the Working Classes;
- II. The Inspection of the Meat Supply; and
- III. The Inspection of the Milk Supply of cities and towns, and how the supply of Meat and Milk is controlled by Municipal Corporations so as to enable citizens to obtain sound Meat and pure Milk,

is to assist the Corporation and the citizens to have good food and live in healthy houses, so as to increase the health and comfort of the people and lessen the sickness and death rate.

Life is the most precious gift to the human race.

The preservation of the body in health is the duty of each individual.

“What good is it to a man to gain the whole world and forfeit his life? Indeed, what could a man give that is of equal value to his life?”

PERSONAL HEALTH.

In order to enjoy life in good health each person must (1) breathe pure air; (2) drink and use pure water; (3) eat good food; (4) keep the body clean; (5) wear warm clothing; (6) work regularly; (7) live in a healthy house; and (8) avoid mental anxiety.

Obedience to these simple laws of HEALTH is a personal matter, and is essential for the health and comfort of each individual.

PUBLIC HEALTH.

The PUBLIC HEALTH of the City of Belfast is under the care of the Corporation, whose duty it is to preserve the health and prolong the life of the citizens in comfort and safety.

THE MONETARY VALUE OF HUMAN LIFE.

The monetary value of human life to the State has been estimated by the late Doctor Farr, who states the value to the nation of a Norfolk agricultural labourer is £246 at the age of 25.

The child at birth is worth	...	...	...	£5
„ at 5 years „	...	...	...	56
„ at 10 years „	...	...	...	117
„ at 15 years „	...	...	...	192
„ at 20 years „	...	...	...	234
„ at 25 years „	...	...	...	246
„ at 30 years „	...	...	...	241

THE VALUE OF THE FUTURE WAGES OF AGRICULTURAL LABOURERS AND OF PROFESSIONAL INCOMES, WITH INTEREST AT 3 PER CENT.

At the age of 30 years the cash value of a labourer at low wages is	...	...	...	...	...	£459
At the age of 50 years the cash value of a labourer at low wages is	...	...	...	...	...	253
The cash value of a person in a Profession on a moderate income at the age of 30 years is	...	...	...	...	...	5,700
And at the age of 50 years is	...	...	...	...	...	5,584

By making careful calculations it is possible to state approximately the saving of money to the State that may be obtained simply by saving human life. We may calculate the number of persons who die from

PREVENTIBLE CAUSES.

This calculation has been made with great care by Dr. Farr and Sir John Simon, formerly Medical Officer of Health to the Privy Council. By comparing the deaths that occurred in unhealthy towns with those which took place in healthy districts, they concluded that more than 100,000 deaths occurred every year in Great Britain that might, with proper care, have been prevented.

Sir Spencer Wells takes the average cash value of human life of each person at about £150.

The average duration of human life in Great Britain 60 years ago has been reckoned at about 30 years. According to Mr. Humphrey's recent life tables it is now about 49 years.

The population in less than 50 years has increased by over eight millions without counting those persons who have left the country, each individual being worth to the State at least £150. Should we calculate only 2 out of 8 millions of increased numbers as the result of sanitary work, their economical value would thus not be less than 300 million pounds sterling, and that amount a clear gain to the country. To this we may add that the productive powers of the population depend upon labour, and labour depends upon HEALTH. When sickness comes, men are disabled, work ceases, and the produce of labour is lost. It was formerly calculated that the $\frac{1}{3}$ rd part of the population was constantly sick, and the products of all their labour was for the time withdrawn.

By estimating the actual diminutions which have taken place during the past 20 years in the death rate from CONSUMPTION—a disease which occurs chiefly between the ages of 15 and 55—at this time of life £200 is a fair value to take of each life saved. The Registrar-General's tables state that from 1863 to 1883 the mortality from CONSUMPTION has been reduced 750 for each million of the population, or a total of more than 20,000 lives each year, with a saving to the nation in money value every year of over four million pounds sterling.

The population of the City of Belfast for 1899 has been calculated by the Registrar-General as consisting of 350,000 persons. Of this number 7,933 persons died.

Including deaths from consumption of 1,112 persons.			
„	diarrhœa,	285	„
„	typhoid fever,	263	„
„	whooping cough,	215	„
„	measles,	146	„
„	diphtheria,	61	„
„	scarlet fever,	24	„
„	simple fever,	10	„
	typhus fever,	1	„

Making a total of 2,117 persons

Who have died from PREVENTIBLE DISEASES because of DISOBEDIENCE TO THE ORDINARY LAWS OF HEALTH; WHILE OBEDIENCE TO THE LAWS OF SANITARY SCIENCE BY THE CITIZENS, UNDER THE GUIDANCE OF OUR MEDICAL GENTLEMEN AND CITY CORPORATION (WHO ARE THE GUARDIANS OF THE PUBLIC HEALTH OF BELFAST), WOULD HAVE THE EFFECT OF COMPLETELY STAMPING OUT ALL PREVENTIBLE DISEASE.

Dr. Farr states—"By the laws of life no man can be certain that he shall continue in existence a single year, much less any definite number of years; but, with an average constitution, he may justly expect his days to be long in the land if he keeps the Divine commandments brought down and proclaimed by Science."

The monetary loss to the City of Belfast during 1899 caused by the death of 7,933 of our fellow-citizens has been considerable. With reference to the value of the agricultural labourers and professional men, I have already stated that Dr. Farr, Sir John Simon, and Sir Spencer Wells calculate the worth to the State of each individual to be at least £150. By this method of reckoning the loss to the City of Belfast by the death of 7,933 of the residents during 1899 is equal to a loss of money value of at least £1,189,950 sterling.

A serious question for each of our people is—How can we prevent death from these preventible diseases in the present?

It is quite evident to my mind that a remedy for this lamentable condition of matters existing in our City is urgently required. Under the guidance of our medical gentlemen and City Corporation, and with the co-operation of the more intelligent of our citizens, a much greater degree of improvement would be practicable in the lives and comfort of our people than can be expected to result from isolated effort; and such co-operation for the public welfare, whilst relieving the condition of the sick and lengthening the term of life, would also add much to the happiness

and wealth of the citizens, **and make our great, enlightened, and prosperous City of Belfast THE NORTHERN HYGEIA, a City of Health on the Island of Saints.**

The Editor's thanks are especially due, and are hereby tendered, to Sir R. J. M'Connell, Bart. (Lord Mayor); Sir Samuel Black, Town Clerk; R. Meyer, Chief Clerk; Henry I. Johns, J.P.; J. C. Bretland, M.Inst.C.E., City Surveyor; James Munce, Assoc.M.Inst.C.E., Assistant City Surveyor; C. E. Dyer, City Accountant; F. W. Moneypenny, City Cashier, Secretary to the Lord Mayor; H. Osborne M'Cormick, Registrar of Cemetery; Dr. H. Whitaker, Medical Superintendent Officer of Health; Conway Scott, C.E., Executive Sanitary Officer; F. Robinson, Clerk of Markets; and other friends, for their valuable assistance in supplying information and in the revision of proofs.

(Signed)

HENRY O'NEILL, M.D.,

Member of and Delegate from the Council of the County Borough of Belfast to the Congress of Hygiene and Demography, Paris, 1900.

30th August, 1900.

APPENDIX.

LIST OF SANITARY AUTHORITIES APPOINTING DELEGATES
TO THE CONFERENCE.

Aberdeen.	Farnham.
Barking.	Faversham.
Bath.	Finchley.
Batley.	Flint C.C.
Beckenham.	Gillingham.
Belfast.	Glasgow City Improvements Department.
Bermondsey.	Glasgow Health Department.
Birkenhead.	Hackney.
Birmingham.	Halstead.
Blackrock.	Hammersmith.
Bradford.	Hampton.
Brentford.	Hanwell.
Brighton.	Harrow.
Camberwell.	Hendon.
Cardiff.	Hereford.
Cardiganshire C.C.	Holborn.
Carlisle.	Huddersfield.
Caterham.	Hull.
Chatham.	Kesteven C.C.
Chelmsford.	Kingston-on-Thames.
Cheshunt.	Lambeth.
Colne.	Leeds.
Croydon.	Levenshulme.
Denbigh.	Limehouse.
Doncaster.	Liverpool.
East Ham.	Maidenhead.
East Sussex C.C.	Maidstone.
Edinburgh.	Manchester.
Esher and Dittons.	Mile End Old Town.
Essex C.C.	

Montgomery C.C.	St. Pancras.
Neath.	Shipley.
Nelson.	Southall Norwood.
Northampton C.C.	Southampton.
Northumberland C.C.	Stanley.
North Riding, Yorks C.C.	Strand.
Nottingham.	Tonbridge.
Oldbury.	Tottenham.
Ossett.	Tunbridge Wells.
Plumstead.	Twickenham.
Portsmouth.	Tynemouth.
Prestwich.	Ventnor.
Rhondda.	Walthamstow.
Richmond.	Walton-on-Thames.
Rochester.	Warrington.
Salop.	West Bromwich.
Scarborough.	West Ham.
Scunthorpe.	West Suffolk C.C.
Sevenoaks.	Whitechapel.
St. Albans.	Whitstable.
St. James and St. John, Clerkenwell.	Wigan.
St. Marylebone.	Willesden.
St. Mary, Battersea.	Wilts C.C.
St. Mary, Islington.	Woking.
St. Mary, Newington.	Wolverhampton.
St. Mary, Stoke Newington.	Wood Green.
St. Olaves.	Worthing.

COUNTY BOROUGH OF BELFAST.



REPORT II.

MEAT INSPECTION,

AS CONDUCTED BY THE MUNICIPAL CORPORATIONS OF PARIS, BERLIN, LONDON
AND MANCHESTER.

BEING

A REPORT

[ILLUSTRATED]

PRESENTED TO THE MARKET COMMITTEE OF THE COUNTY
BOROUGH OF BELFAST

BY

HENRY O'NEILL, M.D.,

Member of and Delegate from the Council of the said County Borough
to the Tenth International Congress of Hygiene and
Demography, Paris, 1900.

1st September, 1900.

BELFAST :

PRINTED BY W. & G. BAIRD, LIMITED, [ROYAL AVENUE.

COUNTY BOROUGH OF BELFAST.



REPORT III.

THE INSPECTION AND STERILISATION
OF MILK,

AS CONDUCTED BY SEVERAL MUNICIPAL CORPORATIONS,
THE OBJECT BEING TO ENSURE A SUPPLY OF
PURE MILK FOR THE USE OF INFANTS, THE
AGED, SICK, AND POOR PERSONS.

BEING

A REPORT

[ILLUSTRATED]

PRESENTED TO THE PUBLIC HEALTH COMMITTEE OF THE
COUNTY BOROUGH OF BELFAST

BY

HENRY O'NEILL, M.D.,

Member of and Delegate from the Council of the said County Borough
to the International Congress of Hygiene and Demography,
Paris, 1900.

30th August, 1900.

BELFAST:

PRINTED BY W. & G. BAIRD, LIMITED, ROYAL AVENUE.

LONDON COUNTY COUNCIL.

BOUNDARY STREET AREA
BEFORE REBUILDING

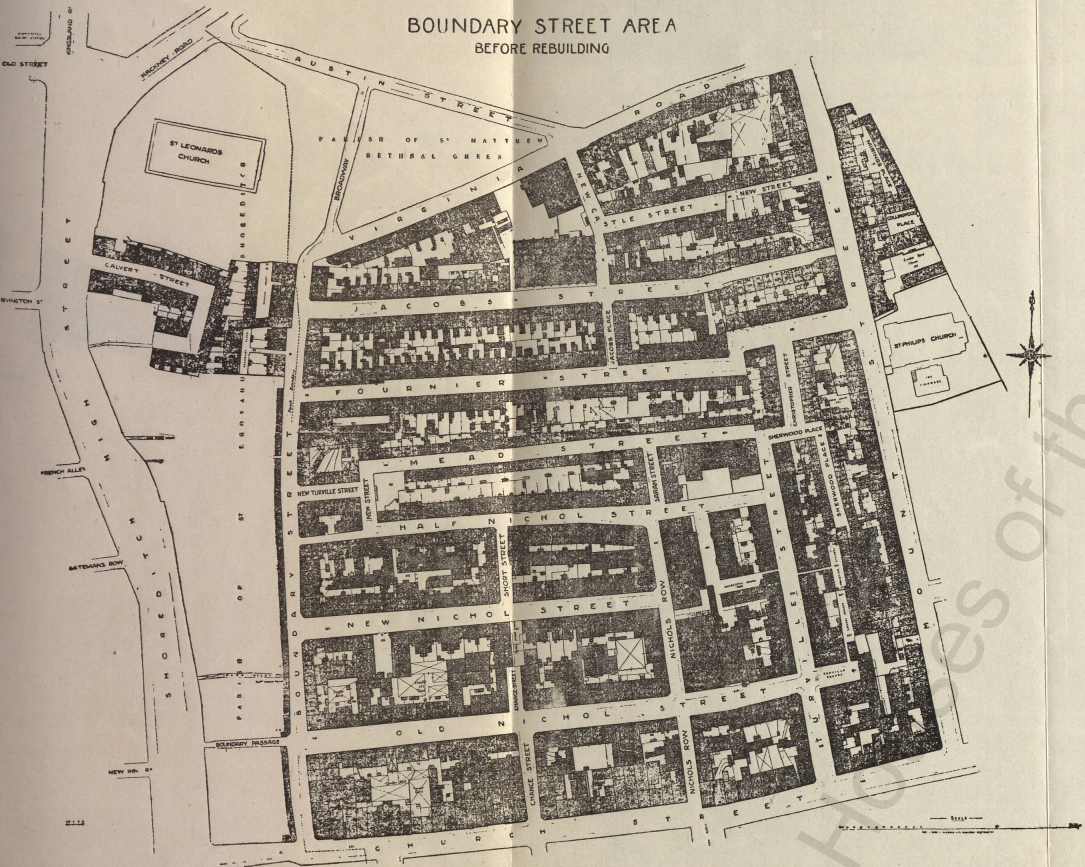


FIG. 2.

LONDON COUNTY COUNCIL.

BOUNDARY STREET ESTATE
AS REBUILT

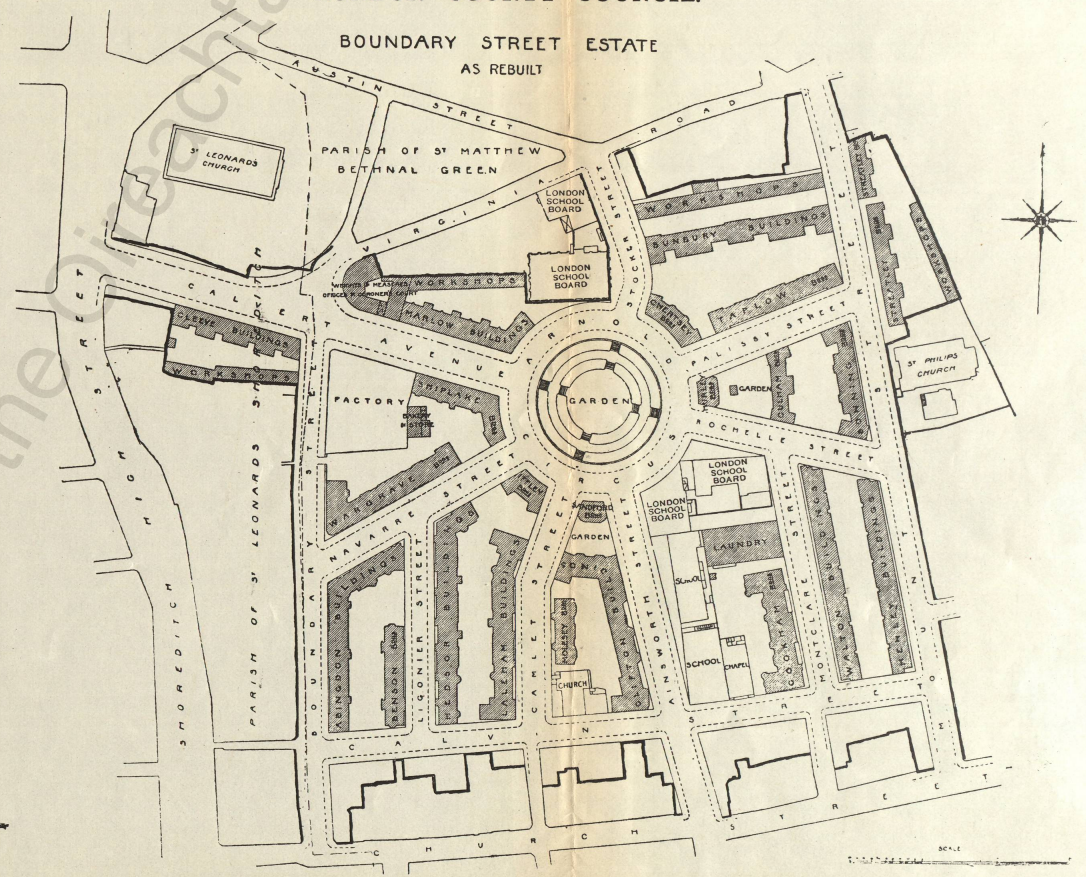


FIG. 3.

Diagram Shewing a Congested Area in the County Borough of Belfast as now existing.



FIG. 4.

Diagram Shewing the Suggested Improvement of
Congested Area in the County Borough of Belfast.

As the premises surrounding the new streets
they can be brought into harmony with
the scheme.

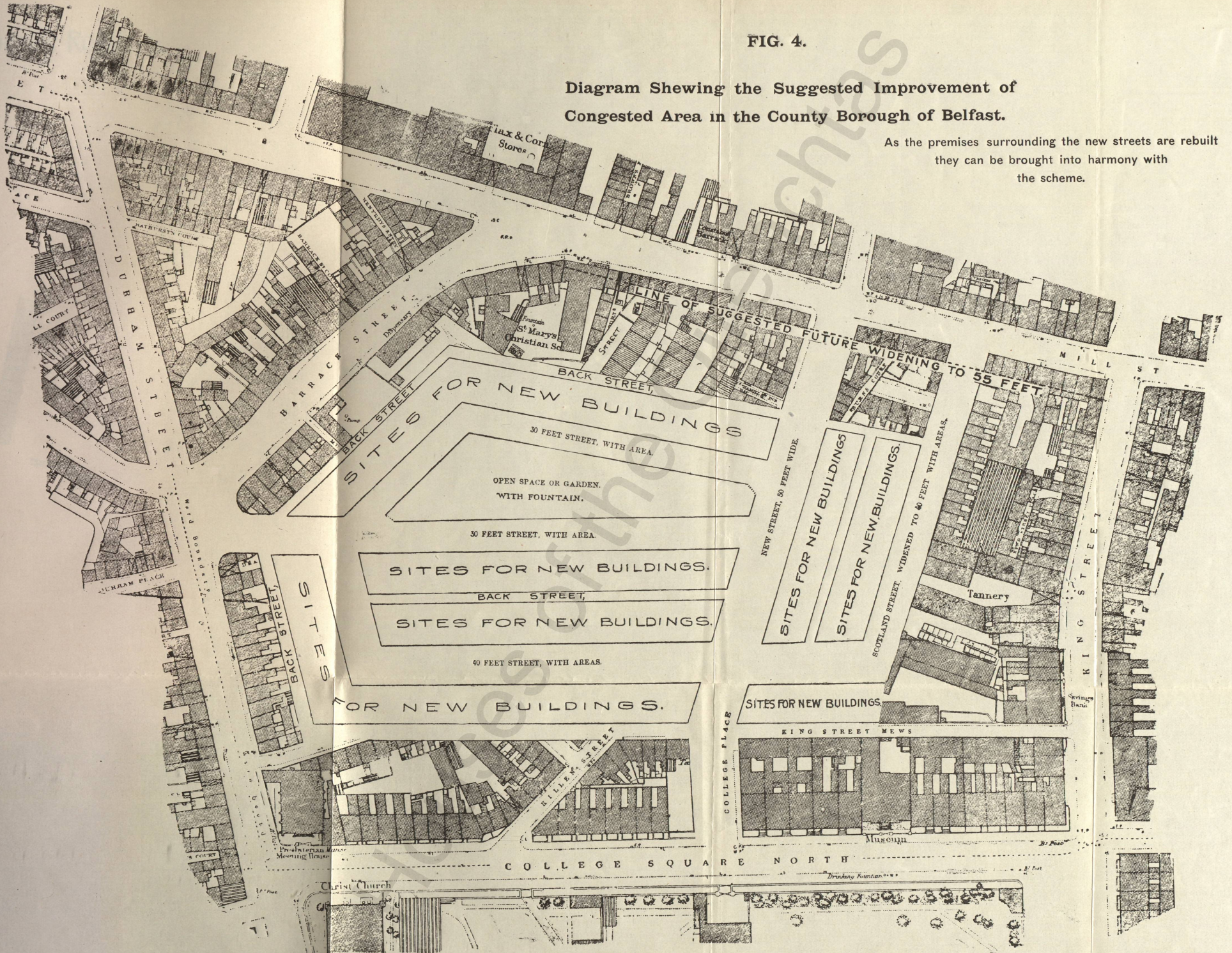
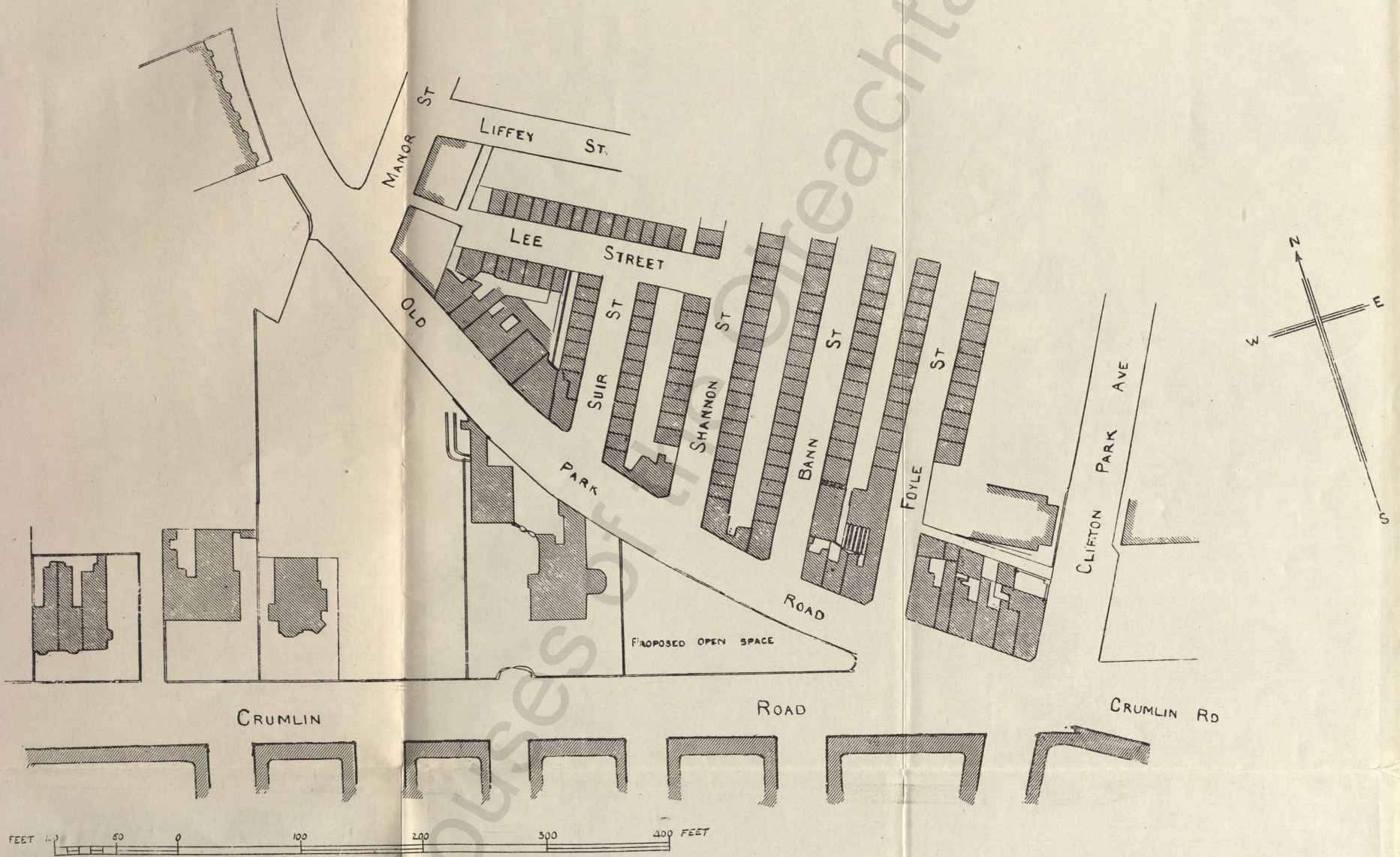


FIG. 5.

PROPOSED OPEN SPACE AT JUNCTION OF CRUMLIN AND OLDPARK ROADS, BELFAST.



SCALE—88 FEET TO ONE INCH.

Houses of the Oireachtas