

Report on the health of Dublin for the year 1865.

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Royal College of Surgeons of England

Publication/Creation

Dublin : Joseph Dollard, 1866.

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Dr. D. J. G. G. G.

REPORT

(2A)

ON THE

HEALTH OF DUBLIN

FOR THE YEAR

1865.

BY

E. D. MAPOTHER, M.D.,

Medical Officer of Health.

DUBLIN:
JOSEPH DOLLARD, 9 DAME STREET.

1866

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OF THE REIGN OF

CHARLES THE FIRST

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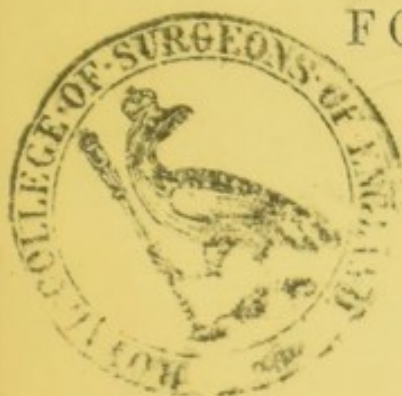
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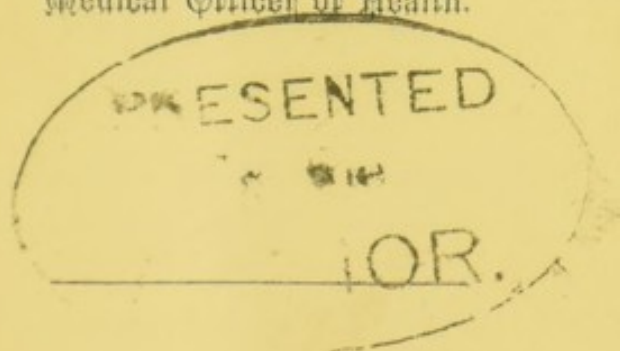
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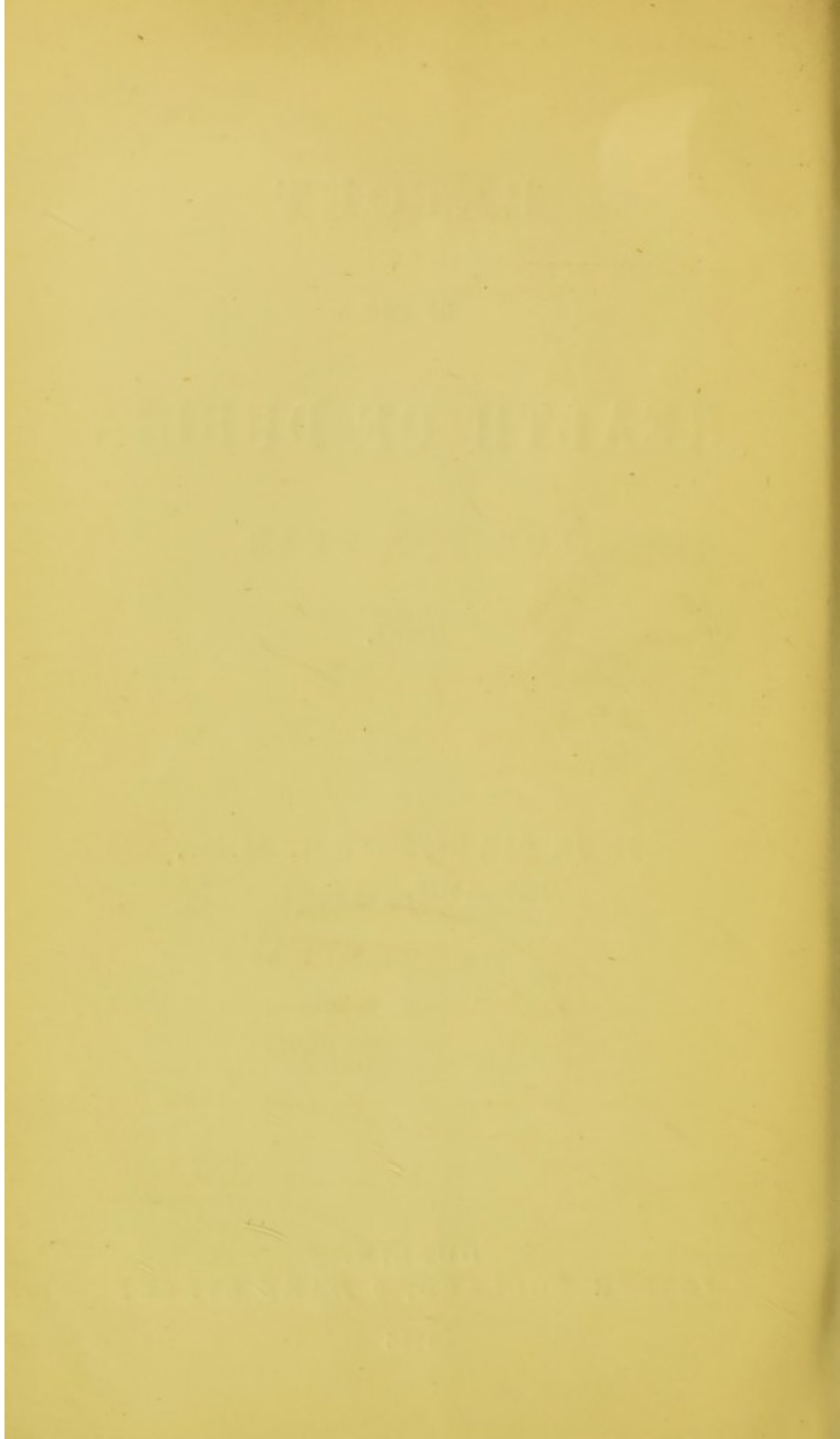
E. D. MAPOTHER, M.D.,

Medical Officer of Health.



DUBLIN:
JOSEPH DOLLARD, 9 DAME STREET

1866



DUBLIN CORPORATION, 1866.

COMMITTEE No. 2 (SANITARY.)

Right Honorable the Lord Mayor	Councillor MACLEAN
Alderman J. W. MACKAY.	RYAN, M.D.
" ATKINSON, J.P.	" WHELAN
" MOYLAN, D.L., J.P.	" BUTLER
" M'CANN	" GRAHAM
" L. REYNOLDS	" SWEETMAN
" M'SWINEY	" Sir JOHN GRAY, M.D.,
Councillor VEREKER, Hon. JOHN P.	M.P.
" O'BRIEN, J.P.	" MATHEWS
" MANNING	" KEATING
" CARROLL, M.D.	" MEAGHER
" WHARTON	

Secretary :

Sir D. J. DICKINSON.

Law Agent :

FRANCIS MORGAN, Esq., 35, Dawson Street.

Medical Officer of Health :

E. D. MAPOTHER, M.D., 125, Stephen's Green.

Public Analyst :

C. A. CAMERON, M.D., M.R.I.A., 35, Upper Leeson Street.

Inspector of Nuisances :

Mr. ROBERT ALCOCK.

Assistant Inspectors of Nuisances :

WM. HARWOOD and JAMES MAGAHAN

Sanitary Department of the Metropolitan Police,

Superintendent O'SULLIVAN

A Division.

Sergeant HENRY DEVLIN

" JOHN BYRNE

B Division.

Sergeant JAMES HALLIGAN

" DANIEL RYAN

C Division.

Sergeant THOMAS FITZGERALD

" CHRISTOPHER MORAN

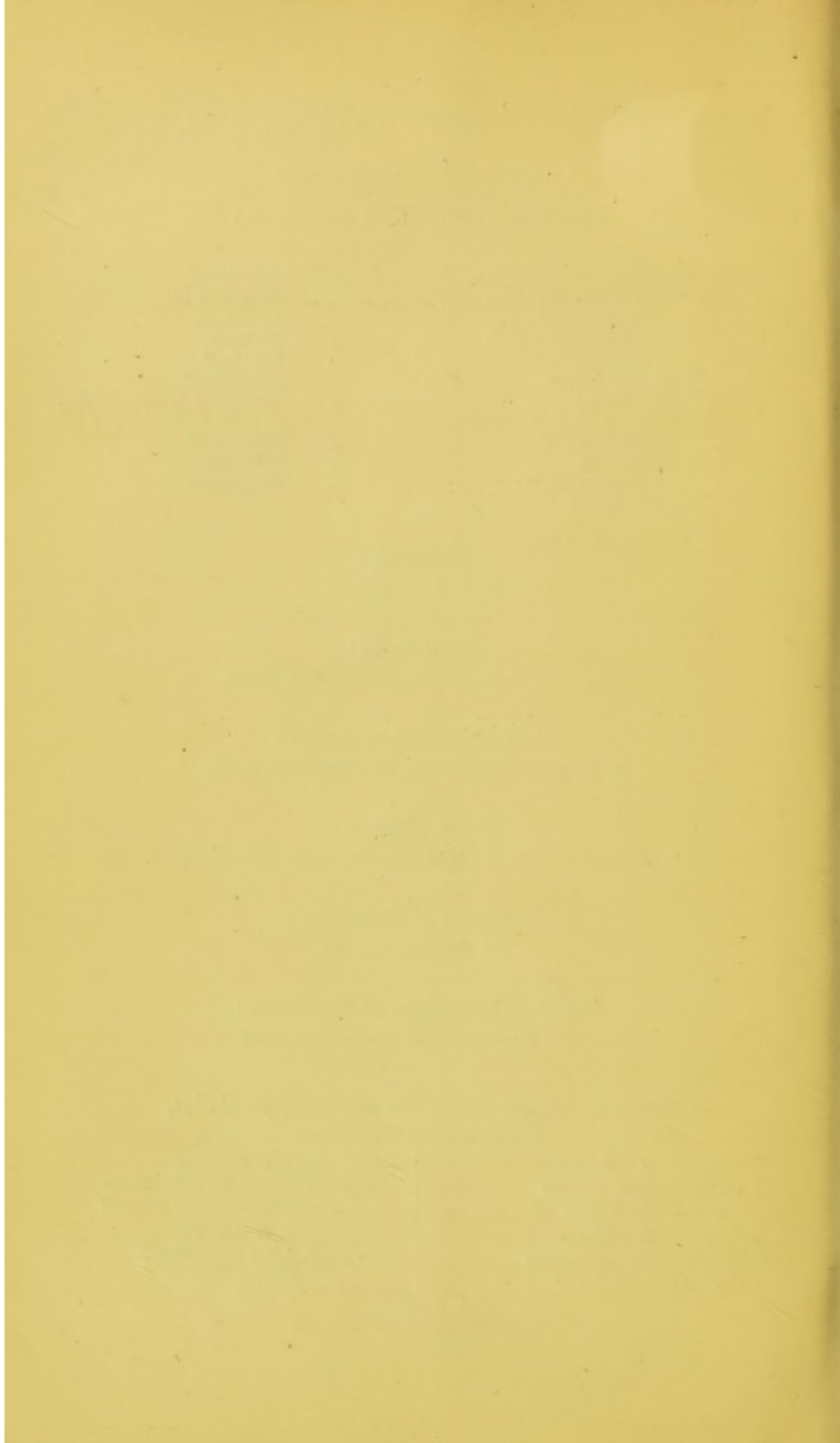
D Division.

Sergeant JOHN BRODERICK

" PETER WALSH

E Division.

Sergeant RICHARD CONLAN



TO
COMMITTEE No. 2 (SANITARY)
OF THE
MUNICIPAL COUNCIL OF DUBLIN.

MY LORD MAYOR AND GENTLEMEN,

I have the honor to lay before you a Report on the Sanitary condition of the City during the year 1865, and the means which have been adopted under your direction towards the prevention of disease.

As there was no report published for 1864, during which year I was appointed, it may be desirable that I should enumerate the officers of this department, and briefly explain the duties of each. The appointment of Officer of Health is under the 12th section of the Towns' Improvement Clauses Act (10 and 11 Vic., cap. 34), and the duties in it are described as follows:

“ To ascertain the existence of diseases within the limits of the Special Act, especially epidemics and contagious diseases, and to point out any Nuisances or other local causes likely to cause and continue such diseases, or otherwise injure the Health of the inhabitants, and to point out the best means for checking or preventing the spread of such diseases, within the limits aforesaid, and also the best means for the ventilation of Churches, Chapels, Schools, registered Lodging Houses, and other public Buildings within the limits aforesaid, and from time to time as required by the Commissioners to report to them upon the matters aforesaid, and to perform any other duties of a like nature which may be required of him.”

The Duties of the Public Analyst are set forth in the 23 & 24 Vic., cap. 84, under which that officer was appointed, and they include the microscopical examination and chemical analysis of all articles of food or drink purchased in the City, which may be presented to him, for a fee of Two Shillings and Sixpence.

The duties of the various officers are fully described in a Report of yours dated August 11th, part of which I take the liberty of quoting :—

The staff consists of an Officer of Health, who is, in addition, the director of the sanitary department, in conjunction with the public analyst. The duty of these officers shall be to see that nothing be left undone, which in any way relates to the promotion of the public health, the prevention of disease, and removal of nuisances in their respective departments.

They shall forward to the Committee weekly analyses of their proceedings, and see that their subordinates attend closely to their several duties, and forward a weekly report of each day's work for information of the Committee.

They shall occasionally visit bake-houses, lodging-houses, slaughter-houses, &c., &c., for the purpose, amongst others, of testing the efficient discharge of duty by their subordinates.

The Officer of Health shall harmonize with any arrangements of the Commissioners of Police in relation thereto, and shall act for the Committee in the intervals of their meetings.

Whenever the Committee direct a prosecution in any case requiring scientific or medical testimony, they shall make themselves conversant with the case, and attend court at the trial, to give evidence, &c.

The Public Analyst, besides making analysis of food, drinks, &c., when required, shall periodically visit factories, breweries, distilleries, gas houses, &c., with reference to smoke and other nuisances, and frequently test gas, water, &c., for the purpose of ascertaining whether same is supplied sufficiently pure for the health of the citizens, reporting results, in detail, to the Committee weekly.

The Inspector of Nuisances shall be the subordinate of the foregoing officers, and shall occupy himself under their direction jointly and severally, from 10 a.m. to 4 p.m. each day, in visiting

the different localities and premises within the borough where nuisances exist, or are likely to exist, observing and taking note, in writing, of their sanitary condition, forwarding measures for their prevention and removal, using the greatest promptitude in the discharge of such duty, reporting to the Officer of Health daily, and to the Committee weekly,

To visit the bake-houses, so that all may be inspected and reported on at least once every two months.

To inspect every nuisance complained of on the day upon which such complaint is made, and if well founded, to have same abated without delay.

To receive report of assistants every day, in writing, and frequently, by personal inspection, to test their accuracy.

When summonses are necessary, to see that same are correctly served, and attend court to watch the cases and give evidence.

To have own and assistants' work marked out for each day the evening previous, so that all may be at work not later than 10 o'clock. a.m.

To carry out all directions given by Officer of Health, and by Committee.

To foster and maintain cordial good feeling towards whatever assistance the Police Commissioners may think fit to give for the furtherance of sanitary work, and to give such every facility and assistance in his power.

The assistants of the Inspector of Nuisances shall obey and carry out all directions given by their superior officers, and shall, at least once in each week visit and report, from actual observation, the state of each slaughter-house and knacker's yard within the borough.

They shall diligently occupy themselves in the discharge of their several duties, at least from 10 a.m. to 4 p.m., each day.

They shall keep a record of each day's proceedings respectively, in a diary for inspection of superior officers and Committee.

The duties proposed to be assigned to the men (Sergeants) of the Police Force afforded by the Commissioners, four of whom are to be paid by the Corporation, the regulated wages of the Force payable to those of the rank they may hold, are as follows:—

It is proposed by the Commissioners that they shall tell off Eight Sanitary Inspectors, and the Committee propose that the following, with such modifications, additions, or alterations as the Commissioners may make, shall be their duties.

Two shall be employed in each of the four districts of the City. They shall be employed in visiting the licensed lodging-houses, and those which come under the operation of the Dublin Improvement Acts Amendment Act of 1864, and the Bye-Laws of the Corporation relating thereto.

They shall note in a book to be provided, of the form annexed, the particulars under the several headings, in relation to such houses as they may find same upon inspection thereof, as authorized by Bye-Laws.

To take the directions of the Commissioners as to proceedings for breach of, or non-observance of Bye-Laws, and carry out same by enforcing their provisions and procuring convictions for violations thereof.

To report to the Inspector appointed by the Commissioners, the particulars of proceedings on or before Thursday in each week, in order that he may forward same to Committee in time for their Meetings on Fridays at 12 o'clock, noon.

NOTE—Inasmuch as the inspection, &c., now proposed to be carried out, and the other proceedings under the New Bye-Laws, include the sanitary work hitherto so effectively discharged by the police, and as few, if any, of the houses hitherto requiring sanitary inspection, have not at least one tenement therein which will come under the operation of the Act of 1864, herein referred to.

It is proposed that all be now consolidated in the new inspection, the isolated cases (if any) being proceeded with as formerly.

The Corporation to give the necessary authorization to the eight sergeants when told off for duty by the Commissioners. The payments to be made in such manner by the Committee as the Commissioners may point out.

The following is a list of the officers nominated :—

HENRY DEVLIN	...	...	} A, or South Western Division.
JOHN BYRNE	...	...
JAMES HALLIGAN	...	...	} B, or South Eastern Division.
DANIEL RYAN	...	...
THOMAS FITZGERALD...	...	...	} C, or North Eastern Division.
CHRISTOPHER MORAN	...	...
JOHN BRODERICK	...	...	} D, or North Western Division.
PETER WALSH	...	...
*RICHARD CONLAN	...	...	} E, or Southern Division.

The Clerk in the Sanitary Office, City Hall, shall attend from 10 a.m. to 4 p.m., and shall acquaint himself thoroughly with all sanitary matters and the laws thereto relating, so as to be able to give full and accurate information to all inquirers.

*This additional officer was appointed since, at the request of the Commissioners, and without expense to the Corporation.

To see that complaints are properly entered and Inspector's attention drawn thereto, and his report entered thereon. To file and preserve the returns of cattle slaughtered.

To attend assiduously to the prompt and effective discharge of the business of the office and the scrivenery thereof, so that the Inspector of Nuisances may devote his whole attention from 10 to 4 to his out-door duties.

To have all memorandums, reports, letters, &c., ready to be laid before Committee, whenever the Secretary shall appoint weekly or other meetings.

To have posted in office Copy of Bye-Laws relating to sanitary proceedings, and to see that the business of each day be fully discharged before leaving office.

The Secretary of Committee to communicate all orders of Committee to the several officers in writing, and to report any neglect carelessness, or omission, which may come under his notice, to the Committee without delay.

The Committee suggest that whilst the Secretary is the organ of communication of the Committee with the Commissioners, that the officer of Health might be in verbal communication, as occasion may require, with them, or such Superintendent or Inspector as they may appoint upon ordinary or routine matters.

All of which we submit as our Report, this 11th day of August, 1865.

J. RYAN, *Chairman.*

MORTALITY.

The Registrar-General recorded during the 52 weeks of 1865, 6,959 deaths, which gives on the population of Dublin, in 1861, namely, 254,808, a death-rate of 1 in 36, or 28 per 1,000.

During the same period the rate was as follows in other Cities :—London and Suburbs, 1 in 38 ; Central London, 1 in 38 ; Liverpool, 1 in 27 ; Glasgow, 1 in 30.

The City is divided into seven districts, which

may be named after the street in which the Dispensary Station is situated. North Side—No. 1.—Summer-hill District, containing the Mater Misericordiæ Hospital. No. 2.—Coleraine-street District, containing the Rotundo Lying-in Hospital, and Jervis Street Hospital. No. 3.—Blackhall Street District, containing the North Union Workhouse, Richmond Lunatic Asylum, and the Richmond, Hardwicke, and Whitworth Hospitals. South Side—No. 1.—Meath Street District, containing South Union Workhouse, Cork Street Fever, and Steevens' Hospitals. No. 2.—High Street District. No. 3.—Peter Street District, containing the Meath, Adelaide and Coombe Lying-in Hospitals. No. 4.—Grand Canal Street District, containing Sir Patrick Dun's and St. Vincent's Hospitals.

The death rates in these Districts has been as follows :—

Summer Hill,	1 in 55.
Coleraine Street,	1 in 50.
*Blackhall Street,	1 in 23.
*Meath Street,	1 in 22.
High Street,	1 in 49.
Peter Street,	1 in 46.
Grand Canal Street,	1 in 57.

During each of the Quarters the annual rate of Mortality was as follows :—

January, February, March, ...	1 in 29.
April, May, June, ...	1 in 39.
July, August, September... ..	1 in 42.
October, November, December, ...	1 in 37.

*Abstracting the deaths in the workhouses, the rates were : Blackhall Street, 1 in 32 ; Meath Street, 1 in 36.

Zymotic Diseases (so called from the idea that their several specific seeds ferment in the blood) produced 1483 deaths, and the most prevalent of them may be arranged in detail.

FEVER.

492 deaths were due to Fever distributed over the Districts as follows :—

Summer Hill,	...	32, or 1 in 1419.
Coleraine Street,	...	14, or 1 in 2502.
Blackhall Street,	...	109, or 1 in 263.
Meath Street,	...	172, or 1 in 192.
High Street,	...	24, or 1 in 1328.
Peter Street,	...	50, or 1 in 771.
Grand Canal Street,	...	40, or 1 in 1080.

During each of the twelve months the deaths by Fever were distributed as follows :—January, 55 ; February, 41 ; March, 49 ; April, 45 ; May, 36 ; June, 45 ; July, 28 ; August, 24 ; September, 27 ; October, 27 ; November, 41 ; December, 57. The neighbourhoods in which it was most prevalent were those placed in the following order :—

North Side—Church Street, Beresford Street, Greek Street, North King Street, Barrack Street, Lower Mecklenburgh Street, Cole's-lane. South Side—Coombe, Skinner's Alley, Meath Street, Patrick Street, West Essex Street, Townsend Street, Poolbeg Street, Wood Quay.

And 3245 cases, or 1 in every 78 of the population were received into the Hardwicke and Cork Street

Hospitals, from City dwellings. From these Hospitals a list of the addresses of each patient admitted during the previous week is forwarded to us on Tuesday, and on Monday night, by the favour of the Registrar-General we receive the address of every case of Zymotic or Preventable Disease, and those of Convulsions which have proved fatal during the previous week. On the following day the houses are visited by the Inspector of Nuisances or his Assistants. The state of the ashpit, privy and house-drain is examined, and, if necessary, orders are given to have them put in proper order ; the room where the case has arisen is aired and directed to be whitewashed. If any fresh case has occurred, the address and regulations of the nearest Dispensary are given, or the patient is urged to seek admission into Hospital, and it is to be regretted that there are no legal powers to compel them to do so. We do not, at present, obtain returns of cases of preventible diseases, attended by the fourteen Dispensary Physicians, but the Sanitary Sergeants call twice weekly at the Dispensary Stations, and these gentlemen point out to them any houses which, in their visits, they have observed in an unhealthy state. There are fever carts attached to the Cork-street and Hardwicke Hospitals ; but the street cabs must be used for conveyance to other Hospitals, which is much to be regretted.

SMALL-POX

Occasioned 70 deaths, according to months, as follows :
—January, 13 ; February, 6 ; March, 10 ; April,

15 ; May, 13 ; June, 5 ; July, 2 ; August, 3 ; September, 1 ; October, 1 ; November, 0 ; December, 1. The parents or other responsible persons in any house where a case had occurred were urged to bring their children, or all other unvaccinated persons, to the Dispensary of the district, the address and regulations being given; and they were informed that they subjected themselves to a penalty for not so doing. Information was also given to the Dispensary Medical Officers of any unvaccinated children.

SCARLATINA

Produced 43 deaths, and was most prevalent during August.

MEASLES

Caused 157 deaths, and prevailed most during July, August and September when 63 occurred. The airing of the rooms and of the bed-clothes and dress was insisted on by our Inspectors.

DIARRHOEAL DISEASES

Including Dysentery and British Cholera, occasioned 290 deaths apportioned to the months, as follows :— January, February and March, 36 ; April, May, June, 34 ; July, August, September, 131 ; October, November, December, 89. During September when

it was most prevalent, the average temperature was 60·7 degrees, and the rain-fall 10 tons per acre, while during April, when the fewest cases took place, the temperature was 49·4, and the rain-fall 128 tons per acre.

The rate of deaths by these complaints was 1 in every 878 of the population, while in Central London it was 1 per 857.

Besides the other cleansing and preventive measures before detailed, the flushing of the sewers and surface channels in the poorer streets and lanes was commenced on the 21st of April, and continued, during the dry weather, until October. In most of the streets this was done by a hose from the hydrant, but when the main pipe was too distant a water-cart had to be employed. In September the water-traps from the street sewers became dry, and had to be occasionally filled from the hydrants. I also publicly advised cold-boiled, and subsequently, filtered water, as our present supply is so impure.

CONSUMPTION

produced 969 deaths, having been most fatal in the months January, February, and March. It is much to be regretted that there exist no powers to enforce ventilation, and prevent overcrowding in workrooms, especially those of the tailoring and dressmaking trades, as the state of many of them is such as to promote in a high degree consumptive maladies.

CONVULSIONS

destroyed the lives of 511 infants. As fresh air and sunlight are highly preventive of this and the preceding disease, it is to be hoped that mortality by them will be diminished, when, according to the new bye-laws for tenemental dwellings, the windows will be glazed and moveable, and cleanliness and proper sewerage insisted on. The deaths by this disease were nearly one-half less during November and December than during the preceding months or the corresponding period of last year, thus indicating that sanitary efforts have already produced effects.

LODGING HOUSES,

under the "Towns' Improvement Clauses Act, 1847," which was applied to Dublin by the "Dublin Improvement Act of 1849," the Corporation gained powers of inspection and regulation over Lodging-houses in which lodgings were let nightly or for less than one week. Bye-Laws were passed regarding the following matters:—Registration; inspection; number of lodgers; separation of male and female lodgers; airing and cleansing; notice of infectious disease and disinfection; water supply and domestic accommodation; exclusion of swine and other animals; and the keeping of a copy of the regulations in each room.

Ninety-five such houses were registered and regularly inspected, and one single fact will prove with

what advantage ; an average of only one case of fever in the year arose in all these houses, while there was scarcely a house set in tenements which had not produced a case. Such facts led the Corporation to seek from the Legislature powers to subject the tenement houses to a similar system of inspection and consequent improvement. They were granted by the "Dublin Improvement Acts Amendment Act, 1864," section 24, which is as follows :—

"That from and after the commencement of that Act, any and every house, or part of a house, usually or occasionally let in separate floors, rooms, or other tenements, for human habitation, for any shorter period than four weeks, at rents not exceeding Three Shillings per week, should be deemed a Public Lodging-House, irrespective of the valuation of such house, or part of a house, for assessment to the Relief of the Destitute Poor. And the person in the beneficial receipts of the rents of such house, or part of a house, should be deemed to be the keeper of such Public Lodging-House, and as such keeper, liable to the laws, rules, regulations, and penalties in that behalf."

The Council made the following Bye-Laws, a copy of which was directed to be posted in each Lodging-House :—

"Bye-Laws, to be the Rules and Bye-Laws applicable to the Public Lodging-Houses, specified in the said 24th Section of the Dublin Improvement Acts Amendment Act, 1864, and for promoting cleanliness and ventilation therein, and do fix that the pecuniary penalty not exceeding Forty Shillings shall be incurred by all persons who shall break or violate any of such Bye-Laws, that is to say:

"1st. That every keeper of such a Public Lodging-House, as is specified in said twenty-fourth section, shall, before such letting, cause the roof, walls and chimneys of such house, to be put and during such tenancy, kept, in proper repair, impervious to wet and damp, and shall also cause each window of such house to be made capable of being opened from the top or raised from the bottom,

to the extent of, at least, one-third of the height of each such window, and same shall be glazed, and be kept glazed, and in proper repair, and that the doors, floors, fireplaces and hearth-stones, shall also be put in good order, repair and condition, and kept in such like good condition during such occupation, under a penalty not exceeding Forty Shillings and costs, for every breach of any portion of this Bye-Law.

" 2nd. That every such keeper, of every such house shall also before such letting, cause the entrance and hall, walls, staircases, and lobbies thereof, to be put in good Repair, and in a cleanly state, and shall so keep same from time to time during such tenancy, and shall cause to be made attached to such house, a properly-constructed ashpit and privy, or privies or Water-closets, and a properly trapped house-drain to communicate with the main sewer (if any) within 100 feet from such house, and cause such ashpit, privies, or water-closets and house-drain to be at all times kept cleansed, and in proper repair, under a penalty not exceeding Forty Shillings and costs, for every breach of any portion of this Bye-Law.

" 3rd. That any occupant residing in any such house, or other person, who shall throw from any window to or upon any roof, shed, yard, or passage, any water, foul liquid, or other offensive matter or thing, or shall wilfully throw or drop same in or upon any common entrance, staircase, lobby, street, or place, other than that provided for the proper deposit thereof, shall, for the first of any such offences be liable to, and, on conviction, incur a penalty of not less than One Shilling, or more than Five Shillings, and costs, and for any subsequent offence, a penalty of not less than Five Shillings, nor more than Forty Shillings.

" 4th. Any person who shall wilfully damage, render ineffective, or wantonly destroy any matter or thing whatever to which any of the foregoing Bye-Laws relate, shall incur for every such offence, a penalty of not less than Five Shillings, nor more than Forty Shillings.

" 5th. Every officer of the Corporation, or other person duly authorized by it for that purpose, may at all times, between the hours of nine o'clock in the forenoon and four o'clock in the afternoon, enter upon, inspect, and make all necessary enquiries, relating to any such house for the purposes of the foregoing Bye-Laws."

Witness our common Corporate Seal hereto affixed this 21st day of November, 1864.

WILLIAM J. HENRY, *Town Clerk.*

I confirm the foregoing orders and regulations.

WODEHOUSE.

Dublin Castle, 15th July, 1865.

"It is hereby notified to the Keeper and Inhabitants of this House, No. _____ that the Corporation of Dublin and the Police Authorities will strictly enforce the observance of the foregoing Bye-Laws.

"All complaints addressed to the No. 2 Sanitary Committee of the Corporation, City Hall, Cork Hill, will meet with immediate attention."

The Council, by resolution dated December 18, have applied the rules for the prevention of overcrowding to the tenemental dwellings now under inspection, and the standard which has been adopted is 300 cubic feet for each person over eight years, and 150 for each person below that age.

The Bye-Laws came into action on the 15th day of September, and your officers forthwith proceeded to enforce them. Those neighbourhoods which from experience were known to be most filthy and unhealthy were first visited, a copy of the Bye-Laws was posted in each house, and a familiar explanation of their provisions (which was extracted from the *Freeman's Journal*) was given to each occupier of a tenement in it. In many instances the improvements which the Sanitary Sergeants suggested were carried out; in others they were resisted, and the owners were accordingly summoned. The Police Magistrates however adjudged that registration of each of these houses as a Public Lodging-House was necessary before conviction for any sanitary deficiency could be obtained. The registration of these houses, which number about 9,000, has caused considerable delay, and has occupied the time of your Staff for the past six weeks. I should mention that the visits of the

officers were always most gratefully received by the poor tenants. During the four months the Act has been in operation 4,962 houses have been visited, and 64,901 Sanitary defects discovered.

There are many courts and rows of small houses without any back-yards, and to which, heretofore, there were no privies attached. In such cases we have called on the owners to discontinue the letting of one house, and to construct upon it a suitable privy for males and females. As an example, I may mention Denmark-place, in which the proprietor has made this arrangement, and has also constructed a sewer from Denmark-street to Cole's-lane. This gentleman, the proprietor of a coach factory, uses the wood ashes to deodorize the night soil, which he carts away to his farm weekly.

THE CHEMICAL WORKS within the City are as follows :—

Messrs. KANE, North Wall.—Oil of Vitriol, Muriatic Acid, and Bleaching Powder are manufactured, and the Gases which are liable to escape are Sulphurous Acid, Muriatic Acid, and Chlorine. Complaints have been made of these disagreeably-smelling Gases by persons living around, and the iron of neighbouring works is rusted. On damp days, when the air is so light that these Gases do not ascend, and when the wind is blowing from the East, the smell from these works and the other similar ones just now to be mentioned, has been perceived

at least a mile distant. The smell is, no doubt, unpleasant, but I have had no evidence that the Gases have been so concentrated as to injure vegetation, and in small quantities they are not injurious to health, but, on the contrary, by destroying organic impurity, may be serviceable. Under the suggestions of Dr. Cameron and myself, Mr. Kane has had great care employed in the staunching of all his apparatus, and has originated a plan for condensing the waste Chlorine by drawing it through lime and water. His coal is burned so as to emit little smoke.

Mr. MORGAN MOONEY, Sir John Rogerson's Quay.—These works are exactly of the same nature as those last described, and the same remarks equally apply to them.

Messrs. PAUL and VINCENT, Sir John Rogerson's Quay.—Oil of vitriol is made and bones crushed for the manufacture of manure. I have never perceived odours beyond the area of the works.

Mr. ARNOLD JONES, Cook's-lane, Watling-street.—These works are of a similar nature to those described at the eastern end of the city. The porter of a neighbouring brewery having been soured by the acids emitted into the atmosphere, legal proceedings were entered into and an arrangement has been made, under which the chemical works are to be removed.

Mr. McKENNY, Ballybough-bridge.—This factory which is situated along the municipal boundary, namely, the River Tolka, produces the same chemicals

as those described above. Owing to the dilapidated state of the works gases escaped freely, and were occasionally very unpleasant to those passing over the neighbouring bridges, but at present they are being repaired. The Inspector under the Alkali Act reports that but 2 per cent. of the muriatic acid made in the Irish works escapes.

Mr. RYAN, Blackpitts. Manure was formerly made in this factory, by adding oil of vitriol to blood, fish refuse and other animal matter, and a most noxious vapour escaped, which injuriously affected the health of a large religious community, living in the next premises. By your directions he was obliged to abandon this manufacture. He makes, also, Glauber's salts, wood charcoal, and other chemicals, the processes, however, do not produce any nuisance.

Mr. WONFOR, Hanover-quay. During the earlier months of the year manure was made on the premises, by adding oil of vitriol to fish-refuse, coprolites, and other animal matters, and a very disgusting and injurious vapour escaped. It had given great annoyance to the congregation of the Mariner's Church, which is immediately opposite, but as the vapour is very dense it is not wafted to any considerable distance. Dr. Cameron and I have frequently visited the works, and chloride of lime having been freely used about the yard, at our suggestion, the nuisance was somewhat abated. The owner is under promise to mix the materials in covered vessels, and to draw

the vapour into a tall chimney, and unless these precautions are adopted before he re-commences the manufacture this season I shall feel it my duty to advise prosecution.

Mr. HOLDEN, Hanover Quay, distils the tar from the Gas Works, and obtains oils, creosote, and pitch from them. Dense fumes occasionally escape from the melted pitch, but they do not extend far, and I cannot regard them as very deleterious.

Mr. KURTZ, Sir John Rogerson's Quay.—In these works the ammoniacal liquor from both the Gas Works is received by pipes, and treated with oil of vitriol to obtain sulphate of ammonia. Sulphuretted hydrogen escapes, and until Dr. Cameron and I visited the premises, this most pernicious and abominably stinking gas was sent into the air through a high chimney, and under certain atmospheric conditions, it occasionally descended to the serious detriment of the citizens. At our suggestion Mr. Kurtz has made arrangements by which this gas is carried through a fire and thus destroyed.

GAS-WORKS.

In both the Hibernian and Alliance Works, the mode of purification is by the wet lime process, and the resulting refuse, technically known as the "blue Billy water," is conveyed into open tanks for the purpose of allowing the undissolved lime to settle from

it. This lime is afterwards used as luting for the retorts, and the water is pumped under the furnaces where it is consumed. At the open part of the sewer in Benson-street, which has been recently covered in, about 30 yards from where the boy was suffocated in July, 1864, this refuse water might have been often seen. I believe that sulphuretted hydrogen escapes from the tanks while the refuse is exposed to the air, from the luting of the retorts, and from the water while being dried upon the furnace pans, and I have the strongest opinion that such escape is most injurious to the health of the workmen and surrounding population. My opinion was painfully verified by the suffocation of three men by sulphuretted hydrogen in a pit dug in the premises of the Alliance works in September. The lime refuse must have percolated from the tanks into the surrounding earth.

Unwilling that so great, and in the beginning so expensive a change should be urged upon the companies without my opinion being supported by London and other authorities, I wrote to the Medical Officers of Health of the City of London, Holborn, Islington, Poplar, Southwark, Whitechapel, St. Martin's, and Liverpool districts, and to Dr. Odling, formerly Medical Officer of Health for Lambeth. All condemned the lime process, and approved of the iron process, except Drs. Letheby and Odling who stated that, with proper precaution, the wet lime process need not be a nuisance injurious to health

I also consulted several eminent gas engineers, and quoted such authorities as "Muspratt's Chemistry," "Barlow's Chemistry of Gas Lighting," "Hughes" Treatise on Gas Works," &c., and thus produced much evidence upon the noxious character of the wet lime process in a populous town. In order to determine the matter by personal inquiry, you commissioned me to examine the works in London and other English towns during October, and I accordingly visited the London, City of London, Phoenix, Equitable, Chartered, Imperial, York, and Scarboro" Works, and found that in all the lime process had been found to produce nuisance, and that therefore the oxide of iron process had been substituted.

It may not be out of place if I briefly sketch the oxide of iron process, as I saw it carried out in London. Oxide of iron, or ferruginous clay, mixed with saw-dust, is exposed to the gas, from which it takes the sulphur, and the carbonic acid is taken afterwards by a little dry lime, and the resulting chalk is in no way injurious. The iron mixture containing the sulphur is exposed in thin layers to the atmosphere, when some of the sulphur is discharged, in a perfectly harmless state, and the remaining iron is again ready for use or "revivified." After being used several times, too much sulphur is retained, and it is, therefore, sent to the oil of vitriol maker, who burns the sulphur into that acid. These manufacturers are glad to supply the oxide of iron

ready for use, on the condition of getting it back charged with sulphur, but the Gas Companies might sell the sulphur charged with iron to them, at a profit. In some London Works the ammonia of gas is very perfectly fixed by Dr. Odling's mixture, which is saw-dust steeped in oil of vitriol. In none of the works I visited did any odour exist, and, further, the gas was very free from sulphur, ammonia, and carbonic acid. In the Phœnix Works the wet lime process was, for some years, conducted with the additional step of burning the spent water in a special chamber, but it was found difficult to manage, and occasionally the great quantity of sulphurous acid proved a great nuisance.

The dry lime process, while it does not catch the impurities as well as the wet lime, produces a solid refuse so noxious that it is necessary to carry it away to sea in air-tight barges.

The Alliance Company has entered into a contract for the erection of purifying chambers by the iron process, and during summer, when alone extensive changes can be made in Gas Works, they will be in action, and the Hibernian Company has promised to abandon the wet lime process ; but as changes are in contemplation by which this Company may cease, no steps have been, for the present, adopted.

TRADE NUISANCES.

As an example of the mode of procedure in cases of injurious trades being carried on in populous

neighbourhoods, the following case against a chandler and fat-boiler, at the request of persons living in the vicinity, may be reported.

I visited the premises, and issued the following form of certificate :—

125, STEPHEN'S GREEN.

I certify, that upon the 5th day of May, 1865, I inspected the candle house or factory of Michael Fegan, situate at the rere of the house, No. 63, Upper Dorset-street, in the Borough of Dublin, and said candle house or factory, is in my opinion a nuisance very injurious to the health of the inhabitants of said Borough, who reside in the immediate neighbourhood of said candle house or factory—which I certify this 13th day of May, 1865.

E. D. MAPOTHER, M.D.,

Officer of health for said Borough.

The case was tried at the Capel-street Police Court, on June 13, before Mr. Stronge and Mr. O'Donnell. Evidence was given as to the nuisance by residents of the neighbourhood and by me. I also deposed that the premises were so small, and in so densely populated a place, that it would be very difficult to carry on the trade inoffensively and that the proper remedies were as follows :—The erection of a chimney ten feet higher than any of the houses around, the placing of a copper funnel over the boiler, glazing the windows, and hanging cloths wet with potash through the premises. The Magistrates made an order to discontinue the boiling of fat until these steps were completed, under a penalty of £5 per day. The owner subjected himself to this penalty on two occasions, but afterwards relinquished the boiling of fat, and

has since merely melted pure tallow, which does not create nuisance.

SLAUGHTER-HOUSES.

The Council has issued no license for the slaughtering of oxen or sheep, and only one for slaughtering of pigs, namely, that to Patrick Cremer, of Mill-st., where there is ample ventilation, water supply, and sewerage.

The following is a list of the slaughter-houses at present licensed :—

TRINITY WARD.

58 Thomas street
16 City quay
30 Boyne street
5 Poolbeg street
Rath row
21 Shoe lane
41 Townsend street
Bracken's lane
Rere 9, Townsend street
Rath row
7 Townsend street

SOUTH CITY WARD.

13 & 14 Copper alley

ROYAL EXCHANGE WARD.

Drury lane
37 & 38 Castle market
Royal row, Castle market
9 Clarendon market
Castle market
Royal row
Drury lane
Joseph's lane
46 William street
11 Chatham street
Tangier lane

Royal-Exchange Ward—*Continued*

14 Drury lane
Joseph's lane
King's head court
Joseph's lane
Clarendon market
Ditto
35 Drury lane
Clarendon market
Joseph's lane

FITZWILLIAM WARD.

Stable lane off Pleasant st.
1 Charlotte street
Harcourt road
Liberty lane
Camden row

USHER'S QUAY WARD.

Byrne's alley
73 James's street
42 Thomas street
40 James's street
19 Thomas street
30 Thomas street
Rere 19 and 20 Meath street
8 Belview
16 Basin lane

Ushers-quay Ward—*Continued.*

22 and 23 Thomas street
 Swan alley
 8 Mount Brown
 Meath row

WOOD QUAY WARD.

33 Bull alley
 100 Francis street
 75 Patrick street
 81 Ditto
 79 Ditto
 78 Ditto
 6 West Park street
 6 Wall's lane
 35 Bull alley
 15 Ditto
 6 Carman hall
 62 Patrick street
 1 Carman hall
 96 Francis street
 19 Carman hall
 Rere 30 Bull alley
 12 Ditto
 11 Garden lane
 1 Draper's court
 61 Patrick street
 4 Carman hall
 Rere 5 Blackhall row
 13 Spittalfields
 6 Walker's alley
 2 Blackhall row
 68 Patrick street
 73 Ditto
 Rere 30 Bull alley
 14 Garden lane
 5 Ditto
 3 Ditto
 Rere 4 & 5 Blackhall row
 56 Patrick street

MERCHANTS QUAY WARD.

Neill's yard, Blackhall row
 Ditto

Merchants' Quay Ward—*Continued.*

Neill's yard, Blackhall row
 Ditto
 Engine alley
 Hunt's alley, Brabazon street
 8 Mountbrown
 Blackhall row
 Ditto

NORTH DOCK WARD.

27 Mayor street
 Queen's Mews
 Old Castle Forbes
 Annesley Bridge, Nt. Strand

NORTH CITY WARD.

32 Cole's lane
 20 Moore street
 6 Sampson's lane
 Ditto
 13 Riddles Row
 10 Sackville lane
 Market place
 Ditto
 Ditto
 Sampson's lane
 3 Market place
 Market place
 14 Sackville lane
 14½ Cole's lane

MOUNTJOY WARD.

136 Summer hill
 Cumberland lane
 Ditto
 72 Summer hill
 125 Great Britain street

ROTUNDO WARD.

172 Great Britain street
 48 Upper Dorset street

INNS' QUAY WARD.

6 Beef row, Ormond market
 Bradogue Alley (Fisher's lane)
 Fisher's lane
 Bradogue alley
 Ditto
 Ditto
 Charles row
 Rere of House No. 1 Boot lane
 Bradogue alley, Fisher's lane
 94 Upper Dorset street

ARRAN QUAY WARD.

56 Barrack street
 12 New Church street
 54 Bow street
 157 North King street
 16 Barrack street
 17 Hendrick street
 3 Manor street
 42 Phibsboro' road
 Rere of 50 Barrack street
 Stable lane, off West Arran st.
 53 Barrack street

About 20 of the foregoing have not sent in returns of cattle slaughtered for over 12 months, and if this be sufficient evidence of their being disused, I would suggest that steps be taken to recall their licenses.

The ownership of the following licensed slaughter-houses has been transferred during the past year :

7 Townsend-street,
 Harcourt-road,
 8 Market-place,
 Camden-row,
 Henrietta-lane.

Proceedings have been in some instances taken for slaughtering in unlicensed places, and convictions have been obtained.

The position of the 129 slaughter-houses scattered through the densest parts of the city is a subject which demands the earnest attention of the Council.

Notwithstanding the best water supply and sewerage, the earth in the neighbourhood of these places becomes imbued with the blood and refuse of the

animals, and the air becomes polluted, much to the injury of the health of the surrounding residents. A vigilant inspection of them is very difficult, on account of their scattered position, and a reliable or constant examination of the meat is impossible. In order to prevent the sale of unwholesome meat, whether rendered so by decomposition, parasitic animals, or other diseases, a careful examination with the aid of the microscope of every carcase is much to be desired, but at present is quite unattainable. The driving of animals through the streets, and afterwards the carrying of their carcasses on men's backs, is much complained of. The erection, therefore, of 2, 3, or 4 abattoirs and meat markets in different quarters of the city is, for such reasons, most desirable. The Clerks of the Markets have conducted the examination of unsound meat, and in August their attention was drawn to the fish markets, decomposed fish having caused some cases of diarrhœa.

The slaughter-houses have been on 1,519 occasions visited by the Inspector of Nuisances.

The two knackers' yards situated in Red Cow-lane and Mill-street have been 13 times inspected.

The houses and sheds in which cows are kept have been inspected repeatedly by the sanitary Sergeants.

There are, however, no legal powers to remedy such evils in them as overcrowding, the want of sewerage and water-supply, and it would be very desirable that the provisions of the Metropolitan

Management Act on this matter should be extended to Ireland, the more so, as there is reason to fear the invasion of the cattle plague.

OTHER NOXIOUS TRADES.

The following may be noted as examples :—

A letter having been received from the Commissioners of Police, drawing attention to an occasional nuisance along the quays, arising from basil skins, imported from Liverpool in a decomposing state, I inquired into the matter, and found that they were imported by only one firm, who promised to have them shipped in water-tight casks, or to discontinue the importation altogether, if such could not be done without causing nuisance.

The trade of cleaning and drying the guts of oxen, sheep and pigs is carried on in a few establishments, mainly situated along the Poddle River, and as water-supply and sewerage are therefore abundant, nuisance need not arise. When, however, regular inspection has been omitted, these premises have been found afterwards very filthy.

Size factories, such as those in Patrick-street, emit during warm weather a disagreeable and hurtful odour ; our Inspectors have prevented this by compelling the owners to cleanse their vats frequently.

RAG AND BONE STORES.

The boiling of bones to extract the fat in these places, produces hurtful odours. In one instance, the

erection of a funnel over the boiler, and the raising of the chimney, has abated the nuisance.

As the rags are often infected with contagious diseases, or filled with vermin, it is most desirable that they should be cleansed and disinfected, and the most ready way of so doing would be a chamber heated to 212 degrees, such as I shall afterwards allude to.

THE EMISSION OF SMOKE

from factories is most injurious to health by obstructing sun light, by the entrance of sooty particles into the lungs, and by compelling the room-keepers in the vicinity of these factories to keep their windows closed, so that they suffer from a total want of airing. It is also injurious to the general appearance of the City. 113 such establishments, including breweries, distilleries, foundries, printing offices, malt-houses, and many others, were noticed to take steps for the consuming of the smoke of their furnaces, according to the 108 sec. of the Towns' Improvement Clauses Act, 1847. A special apparatus for this purpose entailing great expense, and not being always effectual, the following simple directions to managers and stokers were issued :—

INSTRUCTIONS FOR THE PREVENTION OF SMOKE.

Issued by Committee No. 2 of the Corporation of Dublin.

Unconsumed smoke in the atmosphere having been shown to be detrimental to the health and property of the citizens, and otherwise injurious to the City, and, moreover, its prevention having

been proved to be very feasible, the Committee are determined to exert the powers conferred on them under 10 and 11 Vic., cap. 34, Sect. 108, for the prevention of smoke; but, before doing so, they have had prepared the following simple instructions for the direction of the owners, managers, and stokers of all establishments where fuel is burned in places other than ordinary fire-grates.

1.—The complete combustion of fuel depends on the admission of just enough air to the furnace. Too small a quantity allows some of the fuel to pass off in smoke, or in an imperfectly burned condition, producing GREAT WASTE; but if the amount of air admitted be too great, the heat will be reduced to an ineffective degree. When black Smoke is seen to issue from the chimney, let the door of the furnace be opened. The draught entrance must be kept free of fuel or ashes at all times.

2.—The furnace should never be choked up with fuel.

3.—Before adding fresh fuel, most of the red coal at the front of the furnace should be raked to the back, and the fresh fuel placed upon the remnant in the front, so that all the matter issuing from the fresh fuel shall be burned by the bright fire at the back.

4.—Large coal should be broken into pieces the size of the hand when shut, before being added to the furnace.

5.—The quantity of red coal on the floor or bars of the furnace should be equally distributed, and never less than three inches deep.

6.—All furnaces and boilers hereafter to be erected, shall be constructed under the superintendence of a competent Engineer, and with a view to the Prevention of and the exit of unconsumed Smoke.

DIRECTIONS FOR STOKERS.

1.—No black Smoke ought to issue from the chimney of the furnaces.

2.—To prevent this, (when charging the furnace) push most of the red coal to the back of the furnace, and spread the remainder evenly to a depth of not less than three inches, and *place the fresh fuel upon the red fire nearest to the door.*

3.—The pieces of fresh fuel must not be larger than the hand when shut; nor added in such quantity as to choke the furnace.

N.B.—The furnace should never be choked with fuel, as this prevents a sufficient quantity of air from entering, and thereby wastes the fuel, and causes smoke.

4—If black Smoke should issue from the Chimney of the furnace, *it must be your fault*, and a fine will, therefore, be inflicted. When, however, it does not occur, open the furnace door, stir up the black coal, and bring it in contact with the red fire.

By Order of Committee,

D. J. DICKINSON, *Secretary*.

N.B.—The Committee issue these Instructions as suggestions only, and the Owners or Managers of Furnaces are not thereby relieved in any way whatever, from the obligation to use all other means for the like object, for from their legal liability in regard to Smoke issuing into the atmosphere from their Furnaces, or in any way to prejudice the legal rights of the Corporation to enforce observance of the Statutes.

These suggestions have been very generally followed, and the atmosphere has been thereby rendered much less murky ; very constant supervision is required. As an instance of more complicated machinery for consuming smoke may be mentioned the chain furnaces employed at Mr. Guinness's Brewery, where many tons of coal are daily burned, and yet the amount of smoke is less than that of some factories, where not one-tenth the amount is used.

BAKEHOUSES

were placed under the inspection of our officers, by the 26 and 27 Vic., cap. 40, and the 68 which exist in Dublin have been examined, and occasionally revisited during the year. This Act seems to me to require some slight alteration. Thus entry is only granted during the hours of baking (nine p.m. to 5 a.m.)—a period so inconvenient that inspection can scarcely be constant or effective. Lime-washing

once in six months is too seldom, as the plentiful evolution of carbonic acid rapidly destroys its efficacy, and rooms above the bakehouse without abundant ventilation should not be used as sleeping-places, as the heated noxious gases ascend. The Act only concerns sleeping rooms on the same level as the bakehouse.

THE LIFFEY NUISANCE.

During the year there have been many complaints before your Committee as to the stench from the river by residents along the quays, and others ; the drought of the past Summer having made it almost intolerable. According as the sewerage of the City is improved, the filthiness of the river will increase. It was referred to your Law Agent to report as to whether it was the duty of the Council or of the Ballast Board to take steps for the prevention of the nuisance. It was his opinion that such duty was incumbent on the Ballast Board, which body, at present, occasionally employs men at low tide to throw the mud from the sides to the centre of the river. He was also of opinion that the Council was authorised to apply remedies on its being certified as a nuisance injurious to health. I may say that I would have no difficulty in so testifying, as I have traced a great frequency of diarrhœa and of fever along the quays, and the streets leading from them.

Some plans for preventing the exposure of sewage at the edges of the river, having been submitted to your Committee, they were referred to the Ballast Board; that body, however, by letter dated Nov. 12, 1864, had repudiated the care of the river in this respect. Two of the plans may be noted:—First, to place blocks of wood at each of the arches of the bridges, so as to hold back enough water to cover the mud to the Quay walls; and second, to attach pipes to the mouth of each sewer, which would carry the sewage to the centre of the river, where the current would force it onwards.

It is stated that this plan was tried by the Ballast Board, at Upper Ormond-quay, at the sewer leading from the slaughter houses, and did not succeed. It may be doubted if any plan short of intercepting sewers would, effectually or permanently, prevent pollution of the river. To this subject, as well as to the subsequent utilization of the sewage, I have given some consideration, and may offer some observations on another occasion.

RIVER CAMAC.

At the request of the President of the Military Sanitary Committee and Dr. Evory Kennedy, I visited, on several occasions the River Camac, which receives the sewage of the Richmond Barracks at Golden Bridge. From this point to Kilmainham Bridge, the city boundary, it is, during dry weather a most dan-

gerous nuisance, there being scarcely any current and the sewage putrefying in this open drain.

As the part of the river which is injurious is outside the Municipal boundary, the matter was referred to the county authorities.

VENTILATION OF BUILDINGS.

The only public building to the ventilation of which my attention was called during the year was the Council Chamber. This was referred to the City Engineer and me, and the improvements which have been made under his direction seem satisfactory.

PUMP WATER.

It has been proved that diarrhœa and cholera are frequently spread by the water of superficial wells and pumps, which in a city is apt to become polluted with sewage and with gas-products escaping from leaky mains. Dr. Cameron and I have for such reasons visited very many places in which pumps are publicly used, and obtained some of the waters.

The results of his analyses are already very important, but, as the subject is larger than at first supposed, we have thought it better to postpone our report on the pump and well waters, until a future occasion. Our investigations will include also the composition of the canal waters, and that of the vartry, as well as that of various pumps and springs under variety of rainfall and other circumstances.

THE COMPLAINT BOOK

is open daily at the City Hall, from 10 to 4 and entries of such complaints as want of sewers, filthy cesspools and privies, the emission of smoke, the keeping of pigs, &c., are made by me, by dispensary or other physicians, the police sergeants, householders, or other persons aggrieved. Anonymous letters are also received and attended to. The entries have been 304 during the past year, a number more than three times as numerous as any former year, and which indicates the increased activity of the Sanitary Department. The Inspectors have visited 4,037 premises complained of, or in which fever had been discovered.

As an example of the partly unavoidable tardiness of the process for the removal of nuisances, the following case from my report book may be noted :—

The Rev. Mr. Maturin, of Grangegorman Glebe, having drawn the attention of the Lord Lieutenant to the slow manner in which the removal of nuisances is effected, his Excellency transmitted his communication to your Committee. It referred to a heap of decaying vegetables, situated in a large open field. He had made an application to the police, and to your Inspector of Nuisances, on Saturday the 5th of August, According to your direction I reported as follows :—

Having received a letter from the Rev. Mr. Maturin on Monday night, the 7th instant, I examined on the following morning, at about 100 yards from his residence, and 50 from any other habita-

tion a heap of turnips in a decayed state, but covered for the most part with clay. The effluvia from it was disagreeable at a distance of 10 yards, but as the heap was entirely vegetable, and was surrounded by 50 yards of free-air space in every direction, I considered it very slightly injurious to health.

The Inspector of Nuisances afterwards informed me that having received a complaint from Rev. Mr. Maturin on Saturday, August 5th, he had visited the place (in accordance with the 9th sec. of 11 and 12 Vic., c. 34) on the 7th, the day before I was aware of the nuisance, and had allowed 7 days for the removal of the heap.

At the next meeting of your Committee, on the 11th, the days allowed by the Inspector had not expired, and as the owner had promised to abate the nuisance, but up to that time had been unable to get labourers to do so, I did not offer any certificate of its being injurious to health, and resolved to wait till the next meeting on the 18th, to urge the issuing of a summons if the heap had not been removed.

On that day, however, the Inspector informed me that the heap had been removed and deposited in the earth through the field, and in carrying out such removal there was necessarily a further stench aroused, of which Mr. Maturin complains. I have visited the place this morning, and find that the refuse is now so disposed of in such a way as prevents all chances of injury arising.

Although I feel confident that no injury to health occurred from the slowness of the steps in this instance, I am strongly of opinion that the Towns' Improvement Act, 1847, under which your Committee act, and the Nuisance Removal Act, 1848, which the police authorities carry out, do not offer remedies sufficiently expeditious in their operation, and that many nuisances have expended their worst effects before effective steps can be taken for their abatement.

I would therefore urge your Committee to petition the Government to cause such Acts as the 11th and 12th Vic. cap. 63 (under the 59th section of which a most speedy remedy is provided), or the Nuisance Removal Act of 1855, to be extended to Ireland, or that a comprehensive Public Health Act for this country, or for the entire kingdom, should be enacted.

August 26th, 1865.

Swine have been removed from some localities by the magistrates' order, on my certificate that their being kept was a nuisance injurious to health.

DROWNING.

As public attention has often been called to the want, in this City, of appliances for the recovery of drowned persons, it may not be out of place to insert the following

MEMORANDA ON RECOVERY FROM DROWNING,

Made by direction of Council, April 3, 1865.

I have recently visited several Stations of the Royal Humane Society, including the chief Station on the Serpentine, and have communicated with the Secretary and Surgeons, and I submit a copy of their Annual Report, and copies of their Notices. It is of the utmost importance to instruct the public on the best means of reviving the person immediately on being rescued from the water, and while being carried to the nearest hospital or recovery-house, upon any car, cab, cart, door or stretcher, which may be first procured. For this purpose I would suggest that notices, such as the enclosed (which are slightly altered from those of the Humane Society), should be posted in conspicuous places, especially in the vicinity of waters.

The plan pursued by the Royal Humane Society in London would be the most suitable for Dublin, and the most economical. It is, that a tavern at about every quarter of a mile along the river, or as near as possible to other waters, should be a station, where a drag, pole, and ropes should be kept in readiness for use by the porter of the establishment and the police. The porter and the assistants of the establishment should be fully instructed in the method of reviving the drowned, which I have described, and a warm bed and other appliances for restoring warmth should be always available. The proprietor should be paid £1 for every drowning case treated in his house.

A general medical practitioner should be chosen as medical officer, for a limited district, and his services, or those of his assistants, would be always available. In London they act gratuitously, and are selected solely on the grounds of proximity to the water. I would willingly give my aid in the after treatment of every case.

Such of the hospitals as are near to waters might in certain cases be still resorted to; but the drowning case on Monday last proved how dangerous it is to convey patients to them from long distances. The unfortunate woman shewed signs of returning life

while being carried, but was beyond hope when the hospital was reached. After the drags were purchased, the only annual expense would be the reward of £1 in each case, the total number of which is about 40 in the year.

The notices containing the instructions for recovery might also give the address of the Stations and of the Medical Officers, and they should be posted extensively.

Medals and Certificates would be awarded by the Royal Humane Society, as is stated in the Secretary's letter.

The following might be adopted as a form of Public Notice :--

<p>MAP OF DUBLIN,</p> <p>Shewing the Recovery Stations.</p>

TREATMENT OF DROWNING.

1. Convey the patient, *at once*, on any available vehicle, to the nearest hospital or recovery-house, after having placed the body for a minute on the face, to allow water to escape.

2. Place the body on the back, with the head and shoulders slightly raised ; free the mouth and nostrils, and draw forward the tongue, and keep it so, if necessary, by a band round the head.

3. Draw in air, by pulling the arms quietly and steadily above the head, and after keeping them so for two seconds force out air, by folding them down, and pressing them against the sides for two seconds, according to Dr. Silvesters' method, approved of by the Royal Humane Society, &c. These movements are to be repeated regularly fifteen times a minute, until spontaneous breathing occurs, when circulation and warmth may be promoted by means hereafter mentioned.

4. While the above means are being used, apply snuff or smelling-salts to the nose, or tickle the throat with a feather, and rub the limbs and face briskly in the direction of the heart.

N.B. — Notice should be sent immediately to the nearest hospital or recovery house.

TREATMENT AFTER BREATHING IS RESTORED.

1. Promote warmth and circulation by ⁽¹⁾ a warm bath for five minutes; ⁽²⁾ by rubbing the surface briskly towards the heart; ⁽³⁾ by warm blankets or flannels, and bottles of hot water, or heated bricks to the pit of stomach, armpits, thighs, calves, or soles of feet.

2. When the patient can swallow, small quantities of wine or spirits, with warm water or coffee, may be given, and if difficulty of breathing is complained of, mustard poultices will give relief.

A Mortuary House, to which the bodies of drowned persons and others accidentally killed, may be conveyed for identification and subsequent inquest, has been erected in Fishamble-street through the exertions of the Sub-Committee appointed by you for the purpose—namely, Councillors Ryan, Whelan, Carroll and Durdin.

SUGGESTIONS.

Under this head I propose to enter a few suggested improvements, to which this department might apply itself with the greatest benefit to the city.

1. Sanitary survey of the city. In New York, the health officers have ascertained the existence, or non-existence of sewers in every part of their districts, the position of slaughter houses, piggeries, and of all factories where noxious trades are carried on, and the number of cases of fever which during the previous year had occurred in each house. These particulars, as well as the geological features, and all other sanitary circumstances they have had marked down on a large map constructed for that purpose, and the value of such a record can be easily conceived. Professor Gairdner,

the Medical Officer of Glasgow, has adopted a similar plan for that city, and during the coming year I propose to do so. In a few months a new map of the city, on the scale of five feet to the mile will be published, as the surveys for the purpose have been completed.

2.—DISINFECTING HOUSE.

It has been found that no means for destroying contagious poisons is so effectual, yet so simple, as an exposure to a temperature of 212 degrees—that is, a dry heat equal to that of boiling water. No injury is done to clothes or furniture by such a heat.

Large chambers have been erected in Liverpool where this plan is adopted, and the clothes, bed-clothes, and other fabrics in which fever poison might lurk, are purified, gratuitously, for the poor.

Such an institution, connected with a public bath or wash-house, would be inexpensive in Dublin, and would achieve a vast deal of benefit.

3. In Glasgow there is legal power for the establishment of houses where the families of persons struck down with fever may take refuge during their treatment, or the purification of their dwellings, and such have been erected with the most signal advantage. If similar steps were taken by the benevolent of this City, the spread of fever would be much checked, and the misery which falls on a family when the head of it is removed to hospital, greatly relieved.

4. Much bronchitis and other inflammatory diseases arise from the wet state of the flags during winter. If the owners of houses can be compelled to carry the water-spouts under the flagway to the street channel, I am sure it would be a useful preventive measure. Such power is given in the Building Acts of other cities.

WORKROOMS.

5.—The workrooms of trades not yet regulated by law, especially those concerned with clothing, are ill-ventilated, which evil, combined with the excessive length of the working time, irregular meals, and inducement to drink, produces among the men great proneness to diseases, especially those which are contagious and consumption, and lowers their power to bear up against them. With regard to sempstresses, I have often verified the statements of my friend, Mr. J. Edward White, the Childrens' Employment Commissioner, who describes their workrooms as follows :—

“The general appearance of the houses in which these needlewomen live is very miserable.” Speaking of manufacturing establishments, he says, “Some of their rooms are so filled with workers without the admission of sufficient fresh air as to make the air in them sensibly unpleasant, and some, as I have noticed in Dublin, are in a rough and dirty state. One gloomy room about 14 feet by 15 or 16 feet, rough measurement, though not low, with twenty females in it, and the fire place carefully blocked up, had a very close smell. In another factory, the employer said that they had no need of fires as so many sat together in each room.” He was sparing of coals while lavish of human health and life, through ignorance of the laws of these blessings, or perhaps from want of direct legislative interference. In one room in Stephen's-street, twelve or more shirt-makers worked, and it was also used as the

sleeping place for the employer, her son, two grown daughters, and grandchild. Similar instances are numerous. From Dr. Letheby's statistics it appears, that more than twice as many deaths by consumption and fever (of all diseases the most accurate sanitary tests) occur among needlewomen, as among other females of corresponding ages in the City of London, and that while the mean age at death of the latter is 29·6, that of the former is but 24·7.

The effect of such unhealthy conditions on tailors is even worse, for intemperance is often super-added.

6.—LEGISLATIVE AMENDMENTS.

The powers conferred by the Bye-Laws under the Dublin Improvement Act, 1864, are ample, and the greatest benefit is to be hoped for ; there are, however, a few other matters which we have found in the working of them not quite satisfactory. In case opportunities should occur for amending or altering the Act, I have noted these points :

1. The repeal of the clause obliging registration of the tenement houses, which number 9,000, as it is found that much delay and legal action is necessary.

2. Power to temporarily close a house infected with fever, as contained in the English Act.

3. Power to permanently close houses which are unfit for human habitation, as contained in the Scotch Health Act. Some wretched Sheds in Lower North Cumberland-street, exemplify the need for such a power.

4. The extension of the powers of the Act to small cottages and stables used as human abodes, which are

often greatly overcrowded and otherwise unhealthy, yet if they are let for over 3s. per week we have no control.

5. Provision for the burial of paupers, as since the Vestry Abolition Act, there is no authority for the purpose.

6. The codification of the Nuisances' and other Sanitary Acts, the wording of which should be most clear and simple.

I remain, My Lord Mayor and Gentlemen,

Your faithful servant,

EDWARD DILLON MAPOTHER.



