House of Recovery Cork Street Fever Hospital

Annual Report and Physicians Report 1817

This report contains a very lengthy medical report. In this year the intake of patients soared to 3720 caused by poor crops and the lack of employment opportunities. The hospital described the medical situation in Dublin as an epidemic.


FEVER HOSPITAL
CORK STREET.

Reports

and other

Documents

relating to

The Fever Hospital

and

House of Recovery

Cork Street

Dublin

From the Commencement, to 4 January 1818

Collected by J. Lidwell

and when he is no more, let the Book

be sent to the Managing Committee.

A.D. 1819

J. L. Hague

ANNUAL REPORT

OF THE

MANAGING COMMITTEE,

AND

MEDICAL REPORT

OF

ONE OF THE PHYSICIANS

OF THE

FEVER HOSPITAL,

IN

CORK-STREET, DUBLIN.

DUBLIN:

PRINTED FOR THE COMMITTEE,

BY GRAISBERRY AND CAMPBELL, 10, BACK-LANE.

1818.

J. de Magueay

REPORT

OF THE

MANAGING COMMITTEE

OF THE

HOUSE OF RECOVERY

AND

FEVER-HOSPITAL,

IN

CORK-STREET, DUBLIN,

FOR ONE YEAR,

ENDING 4TH JANUARY, 1818.

DUBLIN:
PRINTED FOR THE COMMITTEE,
BY GRAISBERRY AND CAMPBELL, 10, BACK-LANE.

1818.

☞ *The Committee regret that the Reports of this year were delayed on account of the very crowded state of the House.*

ANNUAL REPORT

OF THE

MANAGING COMMITTEE

OF THE

House of Recovery and Fever Hospital,

IN

CORK-STREET,

For the Year ending 4th January, 1818.

THE Managing Committee of the Fever Hospital and House of Recovery; Cork-street, submit to the Public a statement of the accounts of the Institution for the year ending the 4th January, 1818.

During the early part of the year the wards were constantly crowded, to an extent that prevented their being occasionally vacated and thoroughly cleansed. The Committee stated in their Report for last year, that the New Building, capable of containing 72 additional beds for fever cases, was brought into a forward state, and that, if funds could be procured, it might be soon finished. The alarming increase of fever in the country parts of Ireland, joined to the continued pressure for admission into the Cork-street Hospital, induced the Committee to take active steps to complete the building, and to make it ready for the re-

ception of furniture and patients. Early in May they accordingly gave the necessary directions. In September a communication was made to the Committee from the Right Hon. Robert Peel, desiring them to ascertain what additional accommodation could be provided by the Cork-street Hospital, giving them to understand that funds would be forthcoming for such temporary accommodation as could be afforded.

The Committee felt happy that they had partly anticipated the wishes of Government, by having placed the new building in a state fit for immediate occupation; and represented, in their reply, that they could, at all events, provide 80 additional beds, and in case of pressure, perhaps a greater number. They further gave notice to the Public, that they found themselves enabled to increase their hospital accommodations. Within a week one ward was furnished and occupied; and in a fortnight the two other wards, with a large portion of the basement also, which it was not in their original contemplation to occupy with fever patients. This great extension of the hospital accommodation, and its consequent increase of patients, imperiously called on the Committee to take measures for procuring funds for the establishment of a new Laundry. In September the Committee determined to have recourse to a general meeting of Subscribers, that an opportunity might be afforded of laying the subject before the inhabitants of Dublin. From unavoidable circumstances the meeting was postponed until December. At the time it took place, and shortly after, a sum of money was subscribed, nearly sufficient to complete the proposed plan of a new Laundry, and to encourage the Committee to carry it into effect without delay. The Fever Hospi-

tal was originally laid out in small wards, intended to contain only two beds, but under pressing circumstances three beds were sometimes placed in them: the physicians, however, by no means wish this increase of beds in the rooms to become permanent. The new building has two wards on each landing, separated by the stairs, and two nurses' rooms. Each ward was intended to hold twelve patients, but during the present pressure on the hospital, this number has been necessarily increased. From the alterations which have lately taken place in the building, it may be conceived that the Committee and medical officers by no means approve of small wards: yet it is not wished that such a conclusion should be drawn from the above statement, which it has been thought expedient to lay before the public. With their deviation from their original plan the Committee have as yet no reason to be dissatisfied; both plans are now in operation, and the Committee will probably revert hereafter to this subject, which must be interesting at a period when increased hospital accommodation is so much wanted in the country parts of Ireland. To one point of improvement in the plan of the new building they wish to direct the attention of the public; the stairs are made sufficiently broad to allow three persons to go up abreast, and the ascent is easy; an advantage which small hospitals may possess as well as larger ones. It is unfortunately too often the case that patients put off applying for admission into an hospital until in an advanced stage of sickness, and when they are actually sinking under the weakness, of accumulated disease; it is therefore of great consequence, as well to the patient as the nurses, that the approaches to the wards should be easy and commodious. The great extension of the hospital has increased the labour and responsibility of the Managing Committee; they therefore feel themselves imperatively

called on to appeal to the public to co-operate actively and zealously with them in maintaining the rules laid down for the government of the Institution. Patients, and the friends of patients, are entreated not to give money to the servants, who have no right to any perquisite, and who are aware that when they take money it is at the peril of losing their situation. The committee now invite every patient, before his dismissal, to sign a certificate, recording his satisfaction or the contrary, with the treatment he has received during the progress of his cure; thus affording patients an opportunity of prefering immediately any well grounded complaint.

It has been found absolutely necessary to exclude visitors, except in peculiar cases, when a written permission is given by one of the physicians. Repeated instances have occurred of visitors to the hospital becoming patients; and it would be false humanity to admit a practice which tends to spread contagion and, to communicate disease to the healthy parts of the city.

The public, and particularly those charitable societies and individuals who are now active in endeavouring to ameliorate the condition of the poor, are earnestly requested to enforce, by all means in their power, habits of cleanliness amongst them, and to withhold relief where due attention is not paid to this necessary point.

The Committee conceive it necessary to call the attention of the public to the present state of the annual subscriptions. They have continued to fall off, which defalcation is the more alarming from the extension of the hospital, and increase of fever. It is hoped the

alarming increase of fever may be checked by the means now actively employed for that purpose; but it cannot be expected that pressure for admission into the Cork-street Hospital will considerably diminish, at least for many months.

The Committee will husband the funds of the Institution with the greatest care; but they cannot consent to involve the Institution in debt by maintaining an increased number of patients on diminished means. They therefore appeal to the public, not only to continue, but to increase their present subscriptions. They have a permanent claim on the rich, whose servants are admitted into the hospital, and whose families are thus freed from danger. And it is particularly hoped that housekeepers in affluent circumstances, whose servants, when infected with fever, are freely admitted into the House of Recovery, will acknowledge the comfort and safety they experience in the removal of infection from their dwellings, by their liberality to this most useful Institution.

10*th Sept.* 1818.

A

STATEMENT

OF THE

Number of Patients admitted into the Hospital in the Year 1817;

TOGETHER WITH

The aggregate Number of Days spent by the said Patients in the Hospital;

ALSO

The total Expense, and the Expense of Provisions in each Year;

By which is shewn the Average Number of Days each Patient remained in the Hospital, and the Average Expence of each Patient.

1817.

Patients admitted, - - - - -			3720
Aggregate number of days in the Hospital,			58790
Average number of days of each Patient, -			15⅞
Total expense of Hospital this year, exclusive of new Buildings, -	£4891	1	4
Total expense of Provisions, -	1768	7	7½
Average expense of each Patient, nearly,	1	6	3
—— of do. for Provisions daily, about,	0	0	5¼

A comparative View of the Number of Patients admitted from each Parish; also of Itinerants and Servants of the Hospital, in the four last Years.

PARISHES.	1814.	1815.	1816.	1817.
James,	128	125	73	140
Catherine,	491	678	476	664
Luke,	100	284	198	254
Nicholas Without,	221	440	390	369
Nicholas Within,	18	30	11	30
Audoen,	59	112	85	113
Michael,	33	37	22	41
John,	51	104	82	65
Werburgh,	23	28	22	46
Christ Church,	5	2	4	7
Patrick,	40	86	65	127
Bridget,	180	183	151	120
Peter,	172	239	211	319
Anne,	20	47	25	38
Andrew,	46	62	66	96
Mark,	88	161	83	168
Paul,	167	197	110	118
Michan,	204	389	220	156
Mary,	98	220	115	151
Thomas,	33	88	57	94
George,	16	22	23	39
* Itinerants,	190	235	266	552
Servants of the House,	9	11	8	13
	2392	3780	2763	3720

* Those under this Head wait at the Gate to be admitted by the Intern Physicians, and are supposed to reside beyond the Circular Road.

Admitted from 14th May, 1804, to 4th January, 1818, inclusive - - - -		26753
Discharged cured - -	24686	
Died - - - -	1807	
Remain in Hospital 5th January, 1818, - - -	260	
		26753
In the Hospital 5th January, 1817, -		138
Admitted from 5th January, 1817, to 4th January, 1818, inclusive, - - - -		3720
		3858
Discharged cured - -	3362	
Died - - - -	231	
Remain in Hospital 5th January, 1818, - - - -	260	
		3858

Account of Income and Expenditure of the House of Recovery and Fever Hospital, Cork-street, Dublin, for one Year, ending 4th January, 1818.

To rent and taxes of premises	£	77	2	0		
Maintenance of Patients and Servants		1768	7	7½		
House-bedding, Furniture and Clothing, wear and tear		397	9	5		
Salaries of Officers, Nurses and Servants,		1354	2	6½		
Fuel, Soap and Candles		464	14	7		
Printing, Stationary and Advertising		84	2	11½		
Medicines		208	8	5		
Wine and Spirits		210	5	0		
Incidental expenses, including expense of Horses		216	6	10½		
Whitewashing habitations of the Poor		86	8	9		
Repairs		28	13	2		
		4891	1	4		
New Buildings		1075	16	0		
		5966	17	4		
Excess of Income over Expenditure		1153	7	9		
	£	7120	5	1		

By Parliamentary Grant	£	5000	0	0		
Subscriptions		824	11	7½		
Donations		121	9	6		
Interest on Government Stock		39	6	0½		
Amount of Hay, Grass and Potatoes, deducting expenses		47	7	10		
Transfer by order of Government		1000	0	0		
Profit on sale of £419 7s. 2d. Government Stock		87	9	4		
	£	7120	5	1		

Account of Property of the Institution, exclusive of Buildings and Premises, 5th January, 1817.

To Furniture and House-bedding	£2188	13	0½	By nett Property of the Institution,	£3548	8	2½
Clothing	146	6	6	Collector, due to him	0	10	0
Government Stock	541	10	1	Ditto, ditto salary	8	6	8
Bank of Ireland	539	18	4½				
Treasurers	3	11	2				
Potatoes	45	10	0				
Purveyor in his hands	91	10	8½				
	£3556	19	10½		£3556	19	10½

COMMITTEE.

Edward Allen,
John Barrington,
Samuel Bewley,
Thomas Crosthwait,
William Disney,
Thomas Disney,
William English,
Arthur Guinness,
William Harding,
John Hone,
Joseph Hone,
John Hutton, jun.
John David La Touche,
Peter La Touche, jun.
W. P. Lunell,
Randal Mac Donnell,
George Maquay,
John Leland Maquay,
John Orr,
George Renny,
Luke White.

PHYSICIANS.

Francis Barker, M. D.
William Stoker, M. D.
George Hagan, M. D.
Samuel Robinson, M. D.
John O'Brien, M. D.
Richard Grattan, M. D.

TEMPORARY PHYSICIANS.

P. Harkan, M. D.
John O'Reardon, M. D.

SURGEON AND ACCOUCHEUR.

Patrick Rooney.

RESIDENT OFFICERS.

Register and Purveyor, James Clark.
Apothecary, John Hale.
Collector, Henry Harris.
House-keeper, Jane Leedom.
Head Nurse, Frances Barrett.

Servants at present employed at the Hospital.

4 Porters; 2 Whitewashers; 30 Nurses, and 11 Female Servants.

5th January, 1818.

LEGACIES

MAY BE BEQUEATHED IN THE FOLLOWING MANNER:

"I give and bequeath to the Treasurer of the "House of Recovery, in Cork-street, Dublin, the "Sum of £ (in trust) to "be applied towards the benevolent purposes of the "Institution."

MEDICAL REPORT

OF THE

HOUSE OF RECOVERY

AND

FEVER-HOSPITAL,

IN

CORK-STREET, DUBLIN.

By F. BARKER, M. D.

HONORARY FELLOW OF THE KING'S AND QUEEN'S COLLEGE OF PHYSICIANS, PROFESSOR OF CHEMISTRY IN TRIN. COL. DUB. AND SENIOR PHYSICIAN TO THE HOSPITAL.

DUBLIN:
PRINTED FOR THE COMMITTEE,
BY GRAISBERRY AND CAMPBELL,
10, BACK-LANE.

1818.

MEDICAL REPORT.

FOURTEEN years have passed over since the Fever Hospital in Cork-street was instituted for the cure and prevention of contagious fever. On its first establishment, sanguine hopes were entertained that its system would prove both remedial and preventive, affording relief to the poor, and protection to all classes, from the formidable consequences of infection: thus averting a calamity which reduces our population, promotes poverty and mendicity, and interferes in a high degree with the welfare and happiness of the community.

During several years those expectations did not appear to be ill founded; for although contagious fever seemed little, if at all diminished in its frequency, the failure of the means which had been adopted for its suppression, was attributed, not to any original imperfection in them, but to their too limited operation.

Such views appeared reasonable till the year 1810, when a considerable increase of the sufferers from fever took place, and continued progressively, with some fluctuation, up to the year 1815, when the admissions to the Hospital became much more numerous than at any former period. It was now evident to those who were most disposed to confide in the efficacy of such

preventive measures, that in whatsover degree these might have been beneficial, the causes of fever were still predominant.

As the number of beds in the Hospital had become insufficient for the reception of all applicants, and the increase of fever might proceed from this cause, the Managers of our Institution, with the aid of a parliamentary grant, erected a new building; and it might have been supposed with reason, that the Hospital thus enlarged, together with the extensive wards of the House of Industry, would have afforded sufficient accommodation for all such patients, and have served at least to restrain the further progress of disease.—But events were soon to prove unhappily that such means were inadequate to produce this effect; that ordinary preventives of the most approved efficacy, were insufficient: that the removal of the infected from their families, did not destroy infection: that Hospital accommodation, increased to an extent almost unprecedented, might equal, or even exceed the demand, and yet fever continue to extend its ravages: and that efforts directed by intelligence and information, aided by wealth and power, in whatsoever degree they might retard, were altogether incapable of stopping the progress of this formidable calamity. The epidemic fever, which had prevailed in most parts of Ireland for more than a year past, at length reached this city: hospital accommodation for the separation of the sick from their families, with other means tending to destroy infection, was liberally supplied; but the fever has made steady advances, and Patients now enter the Hospitals at the rate of at least *two thousand monthly*.

The Reporter of the Medical occurrences of this Hospital feels it incumbent on him to enter into a brief review of the circumstances which preceded, as well as attended the invasion of the present epidemic. Records of facts, on similar occasions become valuable: by reference to these, should the same evils visit us at any future period, we shall have it in our power to take advantage of former experience, adopt those means which have proved successful, supply deficiencies, and avoid error.

During the two last years, particularly in the year 1816, the crops had failed, owing to the unusual cold and moisture of the atmosphere. The spring of that year was remarkably late, rain fell on a majority of the days during the months of July, August, September and October, and the heavens were so generally obscured with clouds, that the influence of the Sun's rays upon the soil must have been much less than usual, and the mean temperature of the months of Spring, Summer and Autumn, was nearly 3½ degrees below that of the similar preceding period. From a registry of the weather, kept by the Reporter, it appears that the medium temperature of Dublin within the period commencing with February, and ending with October 1815, was 54.32°; and during the same time in 1816, it was only 50.9°, the difference amounting to 3.42°— In adjoining countries the difference of these seasons was equally remarkable. In the vicinity of London the medium temperature of the above mentioned months in 1815, was 53.9°; and in 1816, only 49.9°, the difference amounting to 4°. The depth of the rain which fell during the same time at this place, in 1815, amounted to 15.16 inches; and in 1816, to 23.87 inches. We are informed that in France the mean temperature

of the nine first months of the year 1816, was two degrees less than that of the nine first months of 1815;* and during the months of July and August 1816 there fell about three times, and in September about twice as much rain as in the corresponding months of 1815.† This unfavourable state of the atmosphere prevailed in many parts of Europe, and probably exerted its influence over a great part of the northern hemisphere.

The following year also, though in a less degree than 1816, was cold, moist, and unfavorable to the harvest. The consequences were most distressing; the grain ripened but imperfectly, much of it perished altogether, and the portion saved was of a bad kind. The bread made from grain thus imperfectly matured, was often bad tasted, and certainly defective in nutriment. Of this we have sufficient evidence in the projects which were framed, and successfully practised, to correct some of the bad qualities of the flour when made into bread. Potatoes also, the chief support of the poor in this country, were small and watery. When the failure of the harvest had become evident, scarcity of provisions commenced, and increasing with the approach of the following summer, arrived at its greatest height about the midsummer of 1817. Bread, for some time previous to this period, bore more than twice its usual price; and potatoes were at least equally dear in Dublin, and in many places were sold at more than three times their average cost. In several

* These French degrees converted into those of Farenheit, amount to 3.6°.

† A scale exhibiting a comparative view of the thermometer range, during the months and years above mentioned, in Dublin and London, has been constructed by the reporter from the registry of Mr. Howard, as kept in the neighbourhood of London, and from one kept by himself in Dublin, and is annexed to satisfy inquiry on this subject.

parts of Ireland, particularly in the north, the poor were seen gathering wild esculent plants to allay the pains of hunger; and I have been credibly informed that some unfortunate creatures died of want. In these distressing circumstances the interference of Government and of the richer classes was liberally exerted; provisions were purchased and sold out to the poor at moderate prices, and the contributors to the fund for this purpose had the gratificationof producing some mitigation of public calamity. But although the exertions of this kind were in many instances great and generous, the miserable consequences of scarcity were in Dublin strongly exemplified. Mendicants in unusual number were to be seen in every quarter; and many wretched country labourers, sometimes followed by wives and children, their pallid and emaciated countenances testifying the reality of their wants, resorted to the streets of the city in expectation of obtaining employment and escaping from the horrors of want. Although much was done both by public and private exertion to obviate the distress, yet alleviation only could be hoped for or attempted, as the change from war to peace had so lowered the value of land and price of labour, and caused such a stagnation of trade and manufactures, that employment and the means of buying food were as difficult to obtain as food itself.

In these circumstances Fever, which had prevailed epidemically in most parts of Ireland, and in Dublin since 1810 more frequently than in former years,* now increased in places remote from the city to a truly alarming degree; and reports of its prevalence and fatal consequences continually reached us from various parts

* See Report of the Fever Hospital in Dublin for 1816, by Dr. Stoker, and of the Fever Hospitals in Cork and Waterford for 1817, by Dr. Barry and Dr. Bracken.

of the country, particularly the northern, during a great part of the year 1817. But it deserves remark, that the nnmber of fever patients in Dublin did not at this time seem greater than during some previous years, especially 1815; and that during eight months at least of the year 1817, the epidemic fever did not appear to have reached Dublin, although in its vicinity it had existed for some time previously. According to the best accounts which the reporter could obtain by personal inquiry, it had commenced in the small neighbouring towns, Lucan, Leixlip, Dunboyne and Swords, about the end of July or beginning of August, and many persons, chiefly among the better ranks, became its victims; for in this class of society the fever has been observed to prove remarkably fatal. It also deserves notice, that during the time when provisions were most scarce, and the sufferings of the poor, from this cause, were at the greatest height, fever did not prevail in Dublin more than in some former years; nor did it make its appearance here until a more abundant harvest and the supplies obtained from abroad had produced a great reduction in the price of the necessaries of life, in that of bread amounting to one third, and potatoes still more; so that when the epidemic fever commenced in Dublin the price of these articles did not much exceed the usual rate.

In the autumn of last year the additional wards, which the encreasing demands of the city had obviously required, and the managers of this establishment so providently added to those already applied to receive fever patients, were, at this very critical period, completed, and by the aid of Government fitted out, so as to afford 260 beds for the reception of such applicants.

It is not easy to determine with exactness the time when an epidemic fever commences in a great city so constantly infested by fever as Dublin has been, more especially when its symptoms do not materially differ from those commonly observed in the disease. The only certain indication of such an event appears to me to be an increased number of patients, and in this view I would date its commencement in Dublin from the middle of last September (1817); for although cases of petechial fever had occurred in the early part of that month, and even toward the end of August, still no appearances were observed in the disease so distinctive as to warrant the opinion that a fever of any peculiar nature then existed, and the remarkable increase of patients did not commence till the time above mentioned. It deserves notice, that the increase in the number of fever patients in the hospitals of Dublin, Cork, Waterford and Edinburgh, was nearly simultaneous, and took place at the latter part of autumn, as will appear from the annexed table.

Number of patients admitted to the Hospitals in the following months.

1817 Months,	At Cork-st.	Do. at Cork,	Do. at Waterford,	Do. at Edinburgh,
July,	258	224	77	33
August,-	276	262	101	39
Septem.	372	265	84	49
October,	387	414	204	53
Novem.	442	425	100	59
Decem.	530	*	122	93

The increased prevalence of fever at the same time in places so distant from each other seems worthy of observation. In the year 1801—1802, when an epidemic fever of great extent prevailed in the south of Ireland, as proved by the admissions to the Waterford Fever Hospital, then newly established, the disease became very frequent in Manchester also, the hospital admissions of fever patients encreasing there from 454, the average number of five years, to 1000 and upwards.† The epidemic fever which visited Gibraltar in the years

* N. B. The coincidence of the numbers admitted in Cork and Dublin is greater than appears from the annexed scheme, as the numbers in the table of admissions at Cork are given in monthly periods commencing from the 8th of November, and the admissions have taken place chiefly in the month preceding that to which they are referred. This table terminates with November.

† Ferriar's Med. Histories and Reflections, Edit. 1810.

04, 1810, and 1818, commenced in autumn. These facts shew that of the different seasons autumn chiefly favours the spreading of epidemic fever, and also that in these countries it prevails in places very distant from each other at the same time.

In what quarter of this city the disease first shewed itself it is difficult to ascertain, as the contagion was probably introduced from external sources, and by the poor, whose lodging houses are situated in many parts of Dublin; but its first appearance caused much alarm, and great exertions were made to meet the coming danger. Differences of opinion as to the existence, nature, and extent of the fever took place on this as on almost every similar occasion on record. Whilst by some persons it was alleged to be neither dangerous nor contagious, by others it was denied to exist altogether. In the mean time the disease made steady progress, and it became expedient to adopt measures unusual in our hospital. The admissions of patients had been hitherto confined to a district bounded by the circular-road, but in consequence of the prevalence of fever in the immediate neighbourhood of the city, and the frequent applications from thence, as well as from the adjacent villages, the patients being sent in open carriages to the gates of the hospital, it was deemed prudent to admit all such febrile cases, as it was feared that if refused immediate admission they would enter lodgings, and spread infection through the city. The same views probably operated to induce the managers to receive all persons ill of fever on their *first* application to the hospital, and to dispense with the physician's visit at the patient's dwelling. In fact many either entered the city labouring under fever, or were seized with it immedi-

ately on their arrival; and instances have occurred of such unfortunate persons compelled to pass the night in the open air or in some miserable entry, the dread of infection overcoming those feelings which among the lower classes in this country are so peculiarly alive to the claims of the houseless stranger. The speedy admission to the hospital of applicants so circumstanced was prudent as well as humane, a source of infection being diverted from the city by this mode of prevention. Nor did any disadvantage arise from an admission of patients apparently indiscriminate; the proper symptoms of an attack of fever are so well known among thepoor, that mistakes have very seldom occurred; and patients so admittted have been found to be almost exclusively fit subjects for a fever hospital.—Here I cannot pass over unnoticed the advantages Dublin has derived from the very convenient situation of the Fever Hospital in Cork-street, contiguous to a quarter of the city so closely inhabited by the poorer classes, thereby facilitating early information of the first appearance of fever in a family, and hastening the admission of the sick; important objects in any system of prevention. At a crisis like the present, it may be said truly to be of *vital* importance that hospitals should be contiguous to those parts of a great city where fever is most likely to prevail. The applications for relief are in general too long delayed, often till the fifth, sixth, or a later day of fever. Many prefer remaining at home with their families, and never apply for relief. The listlessness and languor of poverty, the weakness of illness, favor delay, or prevent application. I have known patients in the lowest condition of life obliged to pay a messenger for carrying their application to the Fever Hospital in Cork-street, and some have refused to go to a distant hospital,

though willing to avail themselves of one in the neighbourhood if open for their reception. The Governors of the House of Industry stated publicly in the year 1801, "that for such a population two hospitals in the "western, and one in the eastern part of the metropolis "appear to be necessary;" this judicious opinion was given at a time when fever was not by any means so prevalent, and the wants of the city in no respect so pressing as at present. Yet some parts of the city, closely inhabited by the poor, and containing houses which have produced fever patients for months in succession, are from one and a half to two miles distant from the fever hospitals.*

With the increased temperature of the weather on the approach of summer, fever became more frequent; but, as usually happens in great epidemics, some fluctuation in the numbers attacked was observed both here and in other parts of Ireland, as well as in Edinburgh. When the weather became hot, the medium height of the thermometer exceeding 50°, the numbers encreased rapidly. This augmentation has continued up to the present period.† Whether the frequency of fever has yet arrived at its maximum and will soon decline, is difficult to determine. The great epidemic fever which prevailed in Dublin in 1741, and commenced in the autumn of 1740, did not terminate till the end of autumn or beginning of winter in 1742, lasting about two years;‡ and in most parts of this country, the present epidemic has continued for more than a year: but its duration in the capital cannot well be estimated from that of smaller towns. However, it is

* Whilst this Report was going to press, Sir P. Dunn's Hospital in the eastern quarter of the city, was, by order of Government, again opened for the reception of fever patients.

† September, 1818.

‡ See Rutty's History of the Weather, pp. 86 and 96.

consolatory to remark, that with the increase of the sick, the proportion of deaths to recoveries diminishes, agreeably with former experience in this hospital, and also in the Waterford House of Recovery, as noticed by Dr. Bracken, in a well-written and satisfactory report of that establishmet for the year 1817.

It has been remarked, that fever has not prevailed with uniform frequency through different parts of the city. From the reports of an association of physicians in Peter's parish, who undertook the duty of inspection for the purpose of sending the sick to hospitals, and obviating the concurrent causes of disease during the continuance of the present epidemic, it appeared that in the middle of the winter, fever was most prevalent in that quarter of the parish which is contiguous to the Fever Hospital in Cork-street; but after some time had elapsed, the more remote parts of the parish in the vicinity of Sir Patrick Dunn's Hospital, were chiefly infected, whilst the former became comparatively healthy. This migration of the disease has been observed in Dublin on other less extraordinary occasions, and has occurred during some great epidemics, as the plague, in other places.

The state of the weather as to moisture, has been said to have affected the progress of this fever in other parts of Ireland. I cannot say that I have observed this in Dublin, although I have kept a registry of the weather during several years past,* but that it becomes more frequent on the approach of summer is well established, and may depend on various

* The plague at Grand Cairo is observed to diminish both in frequency and malignity about the 24th of June, at which time, according to Mr. Bruce, a heavy dew or Nukta falls in that country.—See Russel on the plague, p. 266.

causes, the increased heat or dryness, or a change which the human constitution undergoes at this time of the year. That low temperature will not prevent the spreading of fever, when contagion and the exciting causes co-operate, is fully proved by the commencement of an epidemic fever in Altona, which added greatly to the distress of the unfortunate inhabitants of that city, and proved very destructive in the winter of 1813-14, the most severe remembered for many years, when the the thermometer in that place fell to 34° below the freezing point, and the temperature did not rise much higher during a considerable time.*

But though epidemic fever may commence in winter, and continue through all the rigours of that season, still the fact seems well established, that the frequency not only of fever but also of the plague encreases in the summer and autumnal months. This will become more evident on comparison of a general table of the monthly admissions to the Fever Hospital in Cork-street, with a table given by Dr. Russel, in his treatise on the plague, p. 276, and with a similar one by Dr. Calvert, in his account of the plague at Malta in the year 1813.† It should be observed, that the progress of the mortality in the plague corresponds with its frequency so nearly as to allow the comparison between the tables referred to, and that of fever.‡

* See Steinheim ueber den typhus, in Jahr 1814 in Altona.

† See Med. Chirurg. Trans. v. 6. p. 64. See also appendix.

‡ The increase of febrile diseases during the summer and autumn in ancient times has been recorded by the Roman poet:

——dum ficus prima calorque
Designatorem decorat lictoribus atris:
Dum pueris omnis pater et matercula pallet;
Officiosnque sedulitas et opella forensis
Adducit febres et testamenta resignat.

The latent period of fever, or the time which elapses between the reception of infection by an individual, and the attack of his disease, has been a subject of inquiry with many authors. To ascertain this, during the present epidemic, when contagion is so widely diffused as to render its first reception a question of uncertainty, is not easy; but this period in several instances, seemed to amount to some weeks; and in one within the reporter's recollection, a whole family was attacked, and three or four weeks intervened between the illness of each individual: this occurred most frequently during the commencement of the epidemic, and probably contributed to favor the opinion that it was not contagious. As the epidemic advanced, many persons in a family were attacked about the same time; in such cases it was not easy to determine whether the infection originated from a domestic or a foreign source, and to trace its progress was almost impossible. A man who exercised the trade of a tailor was admitted to the hospital in the beginning of the present month (September 1818), from whom I had the following account of his illness: That he had lately engaged to work in a house where a blanket had been given him to sit on, which, as he afterwards learned, had been the covering of some of the sick tenants, of whom several had been affected with fever. On this he continued to follow his business, until the fourth day, when he was attacked with fever. If his illnes was attributable to infection received from the blanket, the latent period would, in this instance, amount to four days only.

At its commencement the fever appeared much less contagious than in its subsequent progress. At first, it extended through families so slowly and unfrequently,

that doubts of its infectious nature were entertained by several intelligent medical gentlemen. In last October minute inquiry was made from 90 patients, then in the Cork-street Fever Hospital, taken without selection, to determine by the previous illness in the families from which they had been removed or by their previous communication with any person labouring under fever, how far the disease was attributable to contagion; when it appeared, that in 24 instances only could infection be discovered; but in the remaining 76 it was not found, that such intercourse with fever patients had taken place, as to render it likely that their illness had originated from immediate communication with the sick. This, perhaps, arose from the length of the latent period which at the beginning of the epidemic seemed unusually great. But when some months had elapsed, the rapid extension of the fever through families gave sufficient evidence of its infectious nature. The experience of Dublin agrees in this respect with that of other places. When the epidemic fever appeared at Newcastle towards the end of June 1817, it was at first supposed not to be contagious, because it attacked individuals quite detached, and having no communication apparently with each other; but the opinion of the medical gentlemen of that town on the mode of its propagation changed during the progress of the epidemic.—See Edmonston on Fever at Newcastle. Edinb. Med. and Surgical Journal, v. 53. pp. 79 and 82. Similar observations have been made on the progress of the plague; thus Dr. Russel observes of the plague of Aleppo, which had commenced in the latter part of May, that "before the middle of June it was rare to "find more than one person sick in the same family, "even in the houses of the meaner class: and the at- "tendants employed immediately about the sick so

" often escaped the infection, that people were too of-
" ten led to believe the disease was not the true plague;
" but in the last fortnight of June, whilst a greater
" proportion of the sick recovered, the disease became
" manifestly more contagious."* The encreased quantity and concentration of the contagious effluvia, in this respect resembling other poisons, may be the cause of the more rapid diffusion of an epidemic disease in the advanced stages of its progress.

During the prevalence of some epidemic fevers, as of that at Altona, in the year 1814, it was remarked, that at first, children were the principal sufferers, but subsequently, persons of the middle age, and few children were attacked; and when the disease was on the decline it again became most frequent among the young.

The annexed tabular statements will show some facts of considerable interest. For the first of these tables I am indebted to Mr. Clarke, Register to the hospital, who, at my request, constructed it from the general registry. From this I have formed another, which is also annexed, and serves to render the conclusions deducible from the first table more evident.

* See Russel on the plague, p. 19.

Table commencing September 15, 1817, *ending May* 1, 1818, *exhibiting the ages of those admitted in monthly periods.*

Date.	Under 10 years.	From 10 to 20 years inclusive.	From 20 to 30 years inclusive.	From 30 to 40 years inclusive.	From 40 to 50 years inclusive.	From 50 years upwards.	Total.
From 15th Aug. to 15th September,	38	101	126	30	8	16	319
From 15th Sept, to 15th October,	30	139	97	51	28	10	355
From 15th Oct. to 15th November,	30	141	141	59	22	9	402
From 15th Nov. to 15th December,	34	176	183	59	32	12	496
From 15th Dec. to 15th Jan. 1818,	46	189	170	70	28	13	516
From 15th Jan. to 15th February,	43	207	176	74	30	18	548
From 15th Feb. to 15th March,	49	185	139	57	45	15	490
From 15th March to 15th April,	55	202	150	63	26	17	513
From 15th April to 15th May,	37	134	83	45	22	10	331
	362	1474	1265	508	241	120	3970

TABLE

Shewing the proportion which each of the preceding numbers bears to the total sum of admissions in each period, taken as 1000.

Date.	Under 10 years of age.	From 10 to 20 years inclusive.	From 20 to 30 years inclusive.	From 30 to 40 years inclusive.	From 40 to 50 years inclusive.	From 50 years upwards.
From 15th August to 15th September,	119 in 1000	316 in 1000	394 in 1000	94 in 1000	25 in 1000	50 in 1000
From 15th September to 15th October,	84 do.	414 do.	273 do.	145 do.	78 do.	28 do.
From 15th October to 15th November,	74 do.	350 do.	350 do.	146 do.	54 do.	22 do.
From 15th November to 15th December,	68 do.	354 do.	369 do.	118 do.	64 do.	24 do.
From 15th December to 15th January, 1818,	89 do.	366 do.	329 do.	135 do.	55 do.	25 do.
From 15th January to 15th February,	78 do.	377 do.	321 do.	135 do.	54 do.	32 do.
From 15th February to 15th March,	100 do.	377 do.	285 do.	116 do.	91 do.	30 do.
From 15th March to 15th April,	107 do.	393 do.	292 do.	122 do.	50 do.	33 do.
From 15th April to 15th May,	111 do.	404 do.	250 do.	135 do.	66 do.	30 do.
Total,	91 in do.	371 do.	318 do.	127 do.	60 do.	30 do.

On inspection of the last table it will appear, that persons between the ages of ten and twelve years constituted the largest number of the admitted; and the admissions according to the ages were in the proportion of the following numbers:

371	-	10 to 20 years of age.
318	-	20 to 30 do.
127	-	30 to 40 do.
91	-	0 to 10 do.
60	-	40 to 50 do.
30	-	50 and upwards.

At the beginning of the epidemic the proportional number of children attacked was greater than during the winter, and again increased towards summer. When the total number of admissions increased, this took place chiefly among young persons. These and other facts will appear on reviewing the preceding tables. In forming our deductions from them we should avoid the error so frequently committed, of inferring an exact correspondence between the prevalence of disease at different ages in society at large, and in the hospital. For though we knew with exactness the *total* number of the sick in society at the different ages, still the proportional number of persons *living* in society at these ages might be different from that of the sick. In the course of the epidemic I witnessed the disease in many children under the age of four or five years, and in its most exquisite form, that of petechial fever.

A Statement of admissions, &c. into Cork-street Fever Hospital from 5th Jan. 1817 to 30th April 1818, in periods of ten days.

	Admitted.			Died.	
1817.	Males.	Fem.	Total.	Males.	Fem.
Jan 5					
to 15	29	30	59	5	2
25	32	36	68	5	3
Feb. 4	29	34	63	7	1
14	35	22	57	7	2
24	32	39	71	2	4
Mar. 6	27	26	53	4	2
16	30	28	58	3	2
26	35	41	76	0	3
Apr. 5	42	55	97	5	3
15	39	29	68	2	2
25	38	49	87	1	2
May. 5	38	38	76	2	3
15	52	61	113	2	7
25	54	41	95	2	1
June 4	38	48	86	3	4
14	47	53	100	4	5
24	51	47	98	3	2
July 4	44	54	98	4	5
14	26	39	65	1	3
24	46	45	91	3	2
Aug. 3	40	52	92	2	2
13	47	37	84	6	1
23	47	63	110	2	1
Sept. 2	39	36	75	2	1
12	54	68	122	5	1
22	64	61	125	4	1
Oct. 2	68	57	125	4	4
12	67	48	115	6	1
22	75	57	132	4	1
Nov. 1	62	59	121	4	3
	1327	1353	2680	104	74

	Admitted.			Died.	
1817	Males.	Fem.	Total.	Males.	em.
Brt. up	1327	1353	2680	104	74
Nov. 11	68	52	120	7	3
21	86	64	150	3	4
Dec. 1	91	81	172	3	4
11	79	86	165	5	7
21	86	80	166	3	4
31	84	89	173	7	6
1818 to					
Jan. 10	92	82	174	9	6
20	72	79	151	5	1
30	93	79	172	5	2
Feb. 9	82	84	166	4	2
19	99	96	195	5	3
Mar. 1	89	92	181	2	3
11	88	72	160	2	5
21	93	89	182	3	6
31	91	84	175	4	1
Apl. 10	80	87	167	3	4
20	95	78	173	3	5
30	88	122	210	2	3
	2883	2849	5732	179	141

Proportion of Deaths,— Males 1 in 16—1-9th
Fem. 1 in 20—1-5th

Average of Males and Females 1 in 18 nearly.

The preceding tabular view will shew that men were the chief sufferers at the commencement of the epidemic in September and the months immediately following; this was the case with respect both to frequency and mortality.

This table gives the admissions in periods of ten days; and thus we have it in our power to ascertain the average number admitted daily during that time, by separating the last figure, and reading this as a decimal fraction.

As to the condition of life of those attacked, it may be truly said that the fever pervaded all ranks of society; and it is questionable whether at certain periods, particularly the commencement, it did not prevail equally among the rich and poor; and if we take into consideration the relative numbers of those classes in society, this will not appear improbable. Shopkeepers were frequently seized with this fever. This has been attributed, and apparently with good reason, to their exposure to the contagious effluvia proceeding from beggars, who, at the commencement of the epidemic, crowded their doors so as to prove both annoying and dangerous. Among the good effects likely to arise from the efforts now in progress for the suppression of mendicity, it is not the least, that a productive source of infection will be diminished at the present critical juncture, when an epidemic, in extent almost unparalleled in the annals of this country, prevails with increasing frequency in the capital of Ireland.

During the prevalence of great epidemics, the complete extinction of most other diseases has been noticed by many writers. This to a certain degree was observa

able on the present occasion. A few cases of small-pox came under the reporter's notice during the early months of spring; but this or any other disease did not become frequent, the epidemic fever appearing as it were to supersede all other acute diseases. A remarkable instance of this kind occurred to the reporter, during his attendance as clinical physician at Sir Patrick Dunn's Hospital. A female patient was received, labouring under small-pox; she passed through the disease in its regular confluent form, and recovered. In a few days after her dismissal, her sister, who had slept in the same bed with her for some days during the commencement of her illness, was attacked with febrile symptoms, for which she was admitted to the hospital, and as she had never had the small-pox the eruption was expected; but the attack proved to be the epidemic fever, which she passed through under its usual form.

As to the time this fever continued when it seized individuals, no remarkable peculiarity was observed. According to my experience, fevers are more protracted in winter than in summer: for this reason, with the same influx of patients, their number in hospital must be greater in the former than in the latter season. Convalescence is also less rapid, and patients are more inclined to remain in the hospital in winter than in summer; this must also contribute to crowd the hospitals in winter. In this respect the progress of of the epidemic did not differ from that of ordinary fever. It is evident also from these considerations, that the number of beds vacant in hospitals affords no precise information as to the decline or increase of the epidemic.

The causes which served to diffuse this fever, and render it epidemic, may be divided into two classes, *immediate* and *concurrent*.

Its chief *immediate* cause, in my opinion, has been *Contagion*, and to this its origin and diffusion are principally or solely to be attributed. To enter into a disquisition on the laws of contagion would be foreign to the purposes of a report, more especially as this subject has been discussed by Dr. Stokes, professor of natural history in the University, so satisfactorily, as to bring conviction to the minds of all those who read his work with the attention to which it is entitled.* I shall only observe, that several analogies between it and other diseases, confessedly propagated by contagion, would lead us at least to suspect strongly that this fever was contagious. To some of these I have already adverted. Its increase during Summer and Autumn; its not appearing at first infectious; its not extending itself among those who were habitually exposed, and its spreading through families more frequently in proportion to the increased number of the sick in society at large, are strong analogies, even omitting those of the symptoms, between this and one of the most contagious of all known diseases, the plague.—But as the contagious nature of this epidemic fever has been called in question, and the most pernicious consequences may arise, I shall adduce a few examples of its spreading through families, the only proof of its contagious nature at present admissible. Such facts will also shew, that many of the evils existing previous to the establishment of Fever Hospitals, have been lately revived, and that fever gets possession of

* See his "Observations on Contagion."

houses which it does not abandon for months, and literally reduces the wretched inmates to a state of beggary.

In a house contiguous to Fitzwilliam-square, in Pembroke-lane, Leeson-place, at an early period of the epidemic, fever commenced in a family of the name of Nowlan, all inhabitants of the same room. A woman and three of her children were attacked in succession: for many weeks the husband resisted this exposure to infection, but at length he also was attacked. Of these, the majority remained at home during their illness, and refused to accept hospital relief.—In the same house, in a room opposite to that inhabited by the Nowlans, in a family of the name of Skelly, four persons were attacked with fever, and one of them died; of this family none had applied to an hospital, or received this relief. In another room in the same house, nine individuals of the name of Byrne have been attacked, not one of this family having escaped; they all remained at home during their illness. In this house eighteen persons were attacked in the course of a few months, and at present two persons from these families are in the hospital, suffering under fever; and although but one death resulted from their sickness, yet its consequences have proved most afflicting, as the sufferers have been so miserably impoverished as to have become objects of the Association for the suppression of Mendicity.

A house at the rere of No. 8, New-street, containing four miserable rooms, has for four months past been the receptacle of febrile contagion; it contained twenty-three inhabitants; of these every individual had been attacked by fever previous to the latter part of March,

and some who have since become tenants of these *fever beds*, as they may be justly named, have suffered equally with their fellow lodgers. This fact exemplifies the difficulty of purifying a house from contagion: for the walls of this house were whitewashed, as I believe, more than once; several of the sufferers were also removed to hospitals, the straw burned, and fresh straw provided: But as, until the opening of the cleansing-house in Peter's parish, the bedding and wearing apparel underwent no purification, these of course retained the contagious effluvia, communicating their pernicious effects to all persons who were so unfortunate as to come within the sphere of their influence.—The concentration of such effluvia must have been great in rooms containing from eight to ten lodgers, in horizontal dimensions about eight feet square, and in height about eight feet.

Infirmary yard in Francis-street, has afforded many examples of suffering from fever. I have been credibly informed that twenty-five persons have been attacked with fever in that place since the commencement of the epidemic.

As it might be objected to the supposed contagious origin and diffusion of fever in the instances here given, that the sufferers were in the lowest class of society, in extreme poverty, and for this reason that the disease should be attributed more to want of food and to other privations than to contagion, I shall adduce another example of the spreading of fever among persons whose circumstances, as to clothing, food and lodging, were comfortable. A Commissariat Barrack, which I have frequently visited, contained about 120 persons, in every respect well provided. At the beginning of the epidemic, a woman of

the name of Waters, was attacked with petechial fever. She was immediately removed to the Fever Hospital in Cork-street, and means employed to destroy the infection. Some weeks elapsed before the consequences of her illness appeared among her associates, but at length one of her children sickened with a fever similar in form to that under which she had suffered, and in the course of three months, four of the remaining children of her family were attacked. Now it should be observed, that the first sufferers in this instance were those who, from their connexion with Waters, had been most exposed to the contagion. In the course of the winter eight persons more, chiefly women and children, were attacked, and these had slept contiguous to that part of the barrack-room which had been occupied by Waters and her family. Of these fourteen fever patients, one only died. It is but justice to remark, that had it not been for the prompt and judicious exertions of those gentlemen who had the command of the barrack, the fever would have spread more extensively, and in its consequences have proved more fatal. These are a few instances of the spreading of fever through families, and many pages might be filled with similar details. Therefore, to avoid prolixity, I have collected into a tabular form the result of inquiry in 87 cases which lately came under my care. These had been received as patients into the hospital. Their numbers in the general registry are annexed, together with the number of persons who had been previously ill of fever in their dwelling. On reference to the table it will appear, that in two-thirds of the cases, some persons had suffered from fever within a short time previously, in the house or family from which the patient had been removed to the hospital. It should be observed, that no person is entered as

having been previously ill, whose sickness had not occurred within the period of two months. In many of the houses where fever appeared to have been frequent, the disease still exists, and will not, I fear, be soon eradicated. On the effects of such a fever prevailing epidemically, it is almost needless to dwell. The loss to society from the interruption given to productive labour; the expense incurred by providing for the sick; the debility and weakness of constitution induced by the disease; the mortality which must attend it, and is most frequent where it is most injurious, namely, among men advanced in life, who are often the heads and support of families; the increase of poverty and mendicity, together with the agonizing mental distress to which it must give rise, are consequences of this epidemic that must occur to every humane and reflecting mind.

No in Registry.	Name of patient admitted to Fever Hospital.	Date.	No. of persons ill of fever in their family previous to admission.	Remarks on those previously ill.
		1818		
29130	Bollard,	May 19	2	Of these occurred one, eight weeks previously, the
29996	Morrison,		3	other a fortnight, all ill 12 months ago.
29063	Burn,	20	1	Three weeks ago, who died.
29103	M'Guirk,	23	5	Three brothers previously.
29259	Robinson,	25	4	
29281	Harrold,	25	3	
29250	Colson,	25	2	Who *did not go* to an hospital.
29261	Fitzgerald,	25	1	Who died in three days.
29297	Walsh,	27	1	His sister.
29362	Connor, M.	28	2	
29356	Muns,	29	0	
29327	Austin, M.	29	0	
29364	Connor,	29	1	Three ill in the same family at same time.
29361	Henry,	29		

No. in Registry.	Name of patient.	Date.	No. of persons ill of fever in their family previous to admission.	Remarks.
		1818		
29396	Spratt, F.	May 29	2	
29409	Dodrell, M.	June 1	3	
29464	Kelly, F.	3	3	
29448	M'Garry,	do.	0	
29443	Quinn,	do.	2	
29460	Pender,	4	1	
29381	Bohan,	4	Several.	She came from a Commissariat Barrack, where she had slept near to an infected family.
29481	M'Daniel, relapsed.	5	1	
29495	Sheridan,	6	1	Three weeks previously.
29499	Donelly,	6	5	All ill at same time.
29508	Murray, M.	6	5	At No. 4, Blackhall-row, three Fenns, two Careys.
29505	Duffy,	6	4	At Binn's Court.

No. in Registry.	Name of patient.	Date.	No of persons ill of fever in their family previous to their admission.	Remarks.
		1818		
29496	Lowry, relapsed.	June 6	3	His sister took fever from her child who had been a patient in the hospital.
29501	Flood,	6	4	These were in hospital at same time with herself.
28518	Mahon,	7	11	The two last sickened about a month ago.
29550	Duffy,	9	6	
29540	Sbanly,	9	0	
29541	Lynch,	9	1	
29574	Taafe,	9	0	
29563	Byrne,	10	1	
29581	Dempsey,	11	2	
29622	Kenny,	12	0	
29601	Cullen,	12	4	
29613	Byrne,	13	3	
29628	Gahan,	13	1	
29612	Hamilton,	13	1	

No in Registry.	Name of patient.	Date.	No. of persons ill of fever in their family, previous to admission.	Remarks.
		1818,		
29625	Connor,	June 13	3	
29647	Hendrick,	14	1	
29648	Christian,	do.	3	
29643	Reilly,	do.	6	From Kane's-alley, Coombe; one relapsed twice.
29655	Hare,	16	1	
29663	Fagan,	do.	0	
29682	Gavagan,	do.	2	
29670	Dogheran,	do.	0	
29672	Clarke,	do.	0	
29661	Connor, F.	do.	0	
29659	Farrel,	do.	0	
29672	Clarke, M.	17	0	
29740	Delany, M.	19	0	
29737	Hickey, M.	do.	3	5 in same house.
29741	Shepherd,	do.	0	
29733	Malone,	do.	0	

No. in Registry.	Name of patient.	Date.	No. of persons ill of fever in their family, previous to admission.	Remarks.
29763	Fitzpatrick,	1818, June20	9	From 41, Rainsford street.
29769	M'Donald,	21	0	
29768	Conyngham	do.	3	
29787	Winter,	do.	0	
29817	Caffrey,	23	6	
29808	Corrigan, F	do.	1	
29858	Flanagan,	24	3	
29863	Smith, M.	do.	0	
29851	Bertram, M.	do.	0	
29859	Robinson,	do.	0	
29866	Reilly,	26	2	Not in the same room.
29872	M'Carrol,	do.	1	His wife.
29865	Reddy, M.	do.	1	
29862	Lee,	do.	2	
29563	Byrne,	do.	0	
29900	Rooth,	27	0	
29908	Power,	do.	2	

No. in Registry.	Name of patient.	Date.	No. of persons ill of fever in their family, previous to admission.	Remarks.
		1818,		
29896	Kavenagh,	June 27	0	
29906	Baker,	do.	0	
29907	Lamb,	do.	1	
29942	Stringer,	28	1	
29941	Byrne,	do.	1	
29940	Malone,	do.	1	
30064	Fannin,	do.	2	In an adjoining room, and many through the house.
29968	Hynes,	29	0	
29966	Cash,	30	1	
29967	Spratt,	do.	4	
29964	Dunn,	do.	1	
29968	Duffy,	July 1	8	Binns' Court.
29982	Connor,	do.	6	Fordam's-alley.
30047	West,	3	0	
30048	Pain,	do.	3	
	Carey,	do.	0	
	Total,	89	156	

And of the above 89 cases 29 only could not be traced to infection.

It might be supposed that a disease so manifestly contagious would have infected the medical attendants, and other persons connected with great Hospitals. But at the Fever Hospital in Cork-street, instances of this kind have not been more frequent than usual. It should be observed, that most of its medical attendants have, on some former occasion, laboured under fever;* and to this cause probably should be attributed their exemption during the present epidemic. Their being habituated to the contagion has, no doubt, also contributed to their immunity, together with their occupation in a duty requiring unusual exertion, both mental and bodily;† for it has been observed, even in the plague, that the inactive, desponding, and timorous, most frequently become sufferers; and many instances have been related to the Reporter, of persons under great apprehensions of an attack of this fever, who have been seized by it, and some of them carried off. Among the nurse-tenders and servants at Cork-street, thirteen have been attacked in the interval between September and May, and several since that period, but without any fatal occurrence. The total number of Nurse-tenders and Servants at the Hospital is forty-seven. The Medical attendants of Hospitals have, however, in other situations during this epidemic, caught the infection, and in several instances the disease proved fatal. Four cases of this kind, one of which the writer witnessed, occur to his recollection at present; in three of these, the disease terminated fatally.

The escape of medical and other attendants, when it occurs, does not by any means establish the non-existence

* See Medical Report of the Fever Hospital by Dr. O'Brien.

† Since the above was written, three of its Physicians have been attacked, one of them very severely.

of contagion, for the same exemption is observed in other epidemic diseases universally allowed to be contagious. Thus in the plague which prevailed at Dantzic in the year 1709, and carried off more than 24,000 persons, no Physician or Apothecary died, and only two Surgeons. See account of the plague in Dantzic by Dr. Gottwald, Phil. Trans. v. 28. p. 101.—When the plague raged at Malta in the year 1813, in many instances whole families escaped, after one or two individuals had been removed labouring under severe symptoms of the disease, children from their mothers, husbands from their wives; yet these families had used no precautions, not so much as attention to common cleanliness.—See account of the plague by Dr. Brooke Faulkner, Edinburgh Medical and Surgical Journal, v. 10. p. 140. The escape of Mr. West and his party, from continued exposure to the plague, as related by Dr. Stokes, in his Observations on contagion, already quoted, is a remarkable example of the same kind.—The peculiarity of constitution, or other causes which confer the power of resisting contagious influence, was remarkably exemplified in our hospital, in the case of a child of the name of Flood. Its mother had been admitted into the hospital, suffering under petechial fever in its worst form; the child had been suckled by her during a great part of her illness, but never took the disease.*

In this, as in most similar epidemics, it has been observed, that the sickness did not frequently extend through the families of persons in the better ranks of life. To this rule some exceptions occurred; of which a remarkable one is mentioned by Dr. Mills, in his cases

* On this subject, see Observations on contagion by Dr. W. Stokes,

of fever lately published, p. 32;—and the writer has heard a well attested instance of ten persons of twelve, in an opulent family, successively attacked. In several instances he has seen in a family in the better ranks of life, a case of fever of the worst kind, which never extended beyond the first sufferer. This must be attributed to superior cleanliness and ventilation, larger apartments, and the means of separating the sick from the healthy; as the susceptibility of fever appears to be equally great in every class of society. Pawnbrokers have been observed to suffer, during the continuance of epidemics; instances of this kind have come to the writer's knowledge.—The activity of contagion, when communicated by means of infected clothes, is well established. The importation of old clothes, which is said to take place to a considerable extent should, if possible, be prevented in the present awful circumstances of this country.

Among the concurrent causes of this epidemic I would place first, the miserable condition of the lower classes at this period.—In the privations arising from the failure of the crops over the greater part of Europe, Ireland largely participated; at the same time great numbers of the poor, who in this country are too generally destitute of the advantages to be derived from industry, were thrown out of all employment; the consequences were want, and many of the evils which follow in her train.

That some connexion exists between famine and pestilential diseases, is universally acknowledged; and that epidemic fever is often an attendant on scarcity, will be allowed by those who will take the trouble of inquiring into the history of such epidemics.—An epidemic fever prevailed both in Ireland and in England, during the years 1740, 1741. Dr. Huxham, in his work "de

Aere et morbis epidemicis," mentions the years 1739, 1740, as years of scarcity, arising from continued rain and cold seasons; and adds, " jam maximè furit febris pestilentialis plurimosque demittit ad umbras, funera certè nunc sexies excedunt solitum numerum." This epidemic, according to his account, continued to the Autumn 1741. See Huxham, v. 2, p. 28 and 39.—He lived at Plymouth, and reports his observations on that quarter of England chiefly. Dr. Rutty, who was a practising physician in Dublin, informs us, that " in " Autumn 1740, there was a great dearth of provisions " in Ireland, which proceeded almost to a famine in " Winter, the potatoes having failed, whilst other pro- " visions bore double or treble their usual price. In " Autumn also appeared an epidemic continued fever, " which did not wholly cease in Winter." See " Rutty on the weather and diseases of Dublin," p. 83. In his account of the following year he says, " fever was com- " mon to this city, to Cork, Bristol and London, and " often eluded the skill of physicians. It raged through " the provinces of Munster, Leinster and Ulster, but " was most fatal to the first, where the poor were worse " provided for, from whom the disease spread to the " richer sort; and it was computed that one-fifth part " of the inhabitants died, though probably with ex- " aggeration. The mortality increased with the ad- " vancing season, and with us in Dublin arrived at its " height about the end of August; for on the 28th of " that month the article of fevers, in our weekly bills, " amounted to thirty, above double their late usual " number." Rutty, p. 86. This writer also mentions, that in the family of the celebrated Dr. Berkley, Bishop of Cloyne, twenty-five persons had been attacked with fever, p. 93.—It was computed that 80,000 persons died in Ireland of fever, dysentery and famine, in the years 1740, 1741.—*Ib.* p. 91.

In the year 1800 and 1801 also, a scarcity prevailed, and was attended by an epidemic fever of such extent in the South of Ireland, that the writer recollects to have seen unfortunate patients in fever lying by the road sides; and the Fever Hospital, then newly established in Waterford, was insufficient for the accommodation of all applicants. According to the report of Dr. Bracken, already quoted, the years 1801 and 1817, resembled each other in the prevalence of epidemic fever.—The fever which raged in Altona in the year 1814 was also preceded by famine. The author who describes it * informs us, that provisions were extremely dear, or were scarcely obtainable. The bread of bad quality, and adulterated often with sand. "Hunger was every where depicted in the hollow eyes of "the once happy inhabitants of this town, and in many "instances he who but a short time previously, had "enjoyed the comforts of a well supplied table, now be"came a beggar for a morsel of miserable black bread." The evil to be apprehended from such a state of things soon followed; a malignant fever broke out amongst the inhabitants.†—It is needless to multiply proofs that famine furthers the progress of fever, as the fact is sufficiently well established; but why this disease should spread epidemically in consequence of scarcity, may deserve attention. That famine has no direct influence in producing epidemic fever; that these evils are not necessarily connected as cause and effect, can scarcely be denied. Many instances might be adduced where famine had been suffered in an extreme degree without giving rise to infectious fever—the inhabitants of towns sustaining a siege; the crews of ships whose provisions

* Steinheim.

† Steinheim ueber den Typhus, p. 18.

failed, might afford abundant proof of this assertion.* Famine must therefore operate *indirectly*, and as a concurrent cause only, by promoting the spreading of contagion, and rendering the human system more liable to receive it. It diffuses contagion by causing the poor, from increased poverty, to crowd within narrower limits in small lodgings, and by bringing a number of persons within the infected circle, thus augments the risk of infection. Personal cleanliness and ventilation in such circumstances are more neglected, or become impracticable. Famine disposes the human system to receive infection by producing debility both of mind and body. Its effects in crowding the inhabitants, have been witnessed but too frequently by the physicians to the Fever Hospital, who have often found from eight to twelve persons occupying a room not exceeding from eight to ten feet square, and this most frequently in places where little or no rent is paid for lodging: in such cases the most miserable hovels, unfit even for the lower animals, become the abode of human beings; and of this, examples might be adduced in the vicinity of some of the most splendid parts of Dublin, inhabited by the most opulent of its citizens. As to neglect of personal cleanliness, this is a necessary consequence of poverty increased by famine. Changes of clothes, vessels for washing, even soap and hot water, are conveniencies of which the poorer classes are often totally destitude. These wants must have been greatly extended during the scarcity. I am not acquainted with any plan more likely to diminish the prevalence of contagious fever than a public wash-house for the poor, and therefore I have learned with much satisfaction that the Managers of the Fever Hospital have projected a plan of this kind connected with their Institution: for I believe that

* Fever did not begin to prevail epidemically in Dublin till the scarcity had nearly ceased.

every measure hitherto devised will be found insufficient to check completely the progress of fever so long as the neglect of cleanliness, now so remarkable, prevails among the lower orders. The introduction of body linen into England, which was not in common use till the eighteenth century, is supposed to have contributed towards the prevention of epidemic diseases. Although linen is generally worn in this country, yet too many derive little advantage from it. It is the opinion of most physicians, that contagion is more active when proceeding from clothes than from the human body: In how great a degree, therefore, must the activity of this poison be increased when it is collected and concentrated in apparel, worn night and day for a great length of time, without change or washing.—As to cleanliness in the dwellings of the poor, I shall only observe, that where many families occupy the same house, sometimes the same room, the feeling of a common interest on this subject can scarcely be expected from them, borne down as they are by the pressure of other more immediate wants.—Imperfect ventilation of their dwellings is in many instances obvious, and must contribute to the diffusion of fever. I have often observed the back windows of houses in which fever prevailed, closed up, to avoid the window-tax as I was informed by the inhabitants. In vain was it represented, that they would be indulged with exemption from the tax by making application to the Commissioners of the Revenue; it was evident, as they alleged, they could not afford the expense of a new window-sash. Many of the poor live in close lanes and alleys where ventilation is imperfect; and it is with regret I observe, the practice is now gaining ground of building ranges of houses in the form of a court,* which must interfere with ven-

* This fact was first remarked to me by my friend and colleague, Dr. Robinson.

tilation, more particularly where such tenements, as too frequently is the case, have no back windows: air thus confined must be injurious to health, and contribute to extend infection. Dr. Ferriar of Manchester has proposed that lodging houses should be built for the lower classes, and if it were possible to let them out under certain regulations conducive to cleanliness and ventilation, and to prevent the crowding of apartments, the adoption of the plan in Dublin would add greatly to the health of the city.

Poverty, aggravated by famine, encreases the susceptibility of fever, by causing despondency of mind. Persons reduced in their circumstances have been frequently observed to suffer from fever. With these effects of the scarcity, we should class a powerful cause for the spread of fever, the increase of mendicants, who coming from lodging houses and beds the perpetual receptacles of contagion in filthy and infected apparel, must have contributed greatly to this evil. In most places visited by contagious epidemics this has become a subject of particular attention: Beggars have generally been forbidden to go about in places visited by the plague, as at Malta, in 1813. At Altona, in 1814, they were supposed to have contributed greatly to the extension of fever; instances of this kind are adduced in the work already quoted.* But in what degree precisely mendicity has given rise to fever cannot be determined, although its effects must have been considerable. The converse of this, namely, the production of mendicity by fever, has been much more evident, as the heads of families advanced in life have been very frequently its victims. Thus fever and mendicity, like many other

* Steinheim.

evils, are reciprocally productive, and the suppression of either must tend to that of both.

Among the concurrent causes of this fever, the failure of fuel, in consequence of the preceding wet seasons, also deserves notice. Turf or peat is the chief fuel of the poor in the country parts of Ireland, and in those wet years was remarkably scarce and bad: hence must have arisen the crowding of apartments in order to obtain warmth: and diminished ventilation; since a fire in the room must constantly renew the air by means of the current up the flue, and with these consequences of the want of fuel must have been combined an increased difficulty of cleansing either wearing apparel or dwellings. So great was the scarcity of fuel, that in some parts of the country, twenty miles distant from Dublin, coals were cheaper than turf, though the price of the former was considerably enhanced by land carriage for several miles; and some benevolent gentlemen in the country drew the coals from the nearest sea port to supply those pressing wants of the poor which the failure of fuel had occasioned.

Such are the chief concurrent causes of this epidemic. That other causes of a more obscure nature operate to diffuse fever can scarcely be doubted when we bring to mind, that contagious fever is constantly present in Dublin, and the concurrent causes above mentioned are continually acting in various degrees without producing epidemic fever of the same extent. It is not improbable, that the human constitution may undergo changes which favour the spreading of disease, as frequently noticed in the small pox, previous to the introduction of vaccination.

As the causes of this fever did not differ materially, except in degree, from those which are constantly operating in this city, so the symptoms might be expected to afford no great deviation from the usual course. Cases, however, presenting a discordancy in their symptoms were more frequent than usual, constituting the fièvre ataxique of French authors. For example: the pulse either much slower or more frequent than is usually observed in fever, and this at an early period of the disease not indicated by other symptoms. The sensorium greatly affected, without great deviation from the appearances of health in other respects. The body covered with petechiæ, other symptoms mild, and vice versâ. The heat of the skin almost natural, whilst other febrile symptoms were present in a high degree: and the tongue clean and moist during a very severe illness. Irregular cases of this kind were most common at the commencement of the epidemic, and often terminated fatally. They were also most numerous among male patients and persons accustomed to better living than the lower classes generally enjoy in this country. With the occurrence, more frequently than usual, of irregularity in the symptoms of fever, the frequency of petechial eruptions was also remarkable. These were exemplified in persons of all ages, and that peculiar form of petechiæ in which the eruption resembles the measles, occurred much oftener than heretofore. This efflorescence, more frequently than any other kind of petechiæ, is attended by symptoms of danger, more particularly when it is dark coloured. It is by no means an appearance of recent date. I have occasionally witnessed it since the commencement of my practice; the mention of it occurs in many of the older writers both on plague and fever. Thus Dr. Gottwald, in his account of the

plague of Dantzic in 1713, describes a petechial eruption, resembling the measles, and spreading over the body. See Phil. Trans. for 1713. Art. 10. p. 101.— Sydenham, in his essay on the rise of a new fever, describes the eruption distinctly; he says "and sometimes "such spots as are termed miliary eruptions, come out "all over the surface of the body, appearing much "like the measles, only they are redder, and when they "go off do not leave branny scales behind them, as in "that disease."*

Dr. Rogers, in an account of an endemial epidemic which prevailed in Cork in the year 1731, also describes the eruption,† and gives the history of a case terminating fatally in which it had appeared.‡ Dr. Huxham, in his History of putrid malignant fevers, published in 1764, says, "he frequently met with an efflorescence also like "the measles in malignant fevers, but of a more dull and "livid hue, in which the skin, especially on the breast, "appears as it were marbled or variegated: this in ge-"neral is an ill symptom."‖ It must be evident from these quotations, that the eruption above mentioned is neither peculiar to the present epidemic nor to very modern times. From comparison of many cases in which it occurred at the commencement of the epidemic, I would infer that it generally makes its appearance between the fifth and seventh days inclusive of the fever. It is accompanied uniformly by suffusion of the eyes, the conjunctiva being affected in a manner similar to

* See Swan's Sydenham, Edit. 1749. p. 497.
† See Rogers on Epidemic Diseases, p. 7.
‡ Ibid. p. 74.
‖ Huxham on Fevers, p. 97.

that of the surface of the body, as happens in measles and scarlatina. It presents itself with very different degrees of distinctness, sometimes so faintly as to be scarcely discernible except on close inspection. On such occasions suffusion of the eyes is a pretty certain indication of its presence. It is generally attended by stupor or delirium in various degrees. In some cases it was so much elevated as to be distinctly felt on passing the finger over the surface.—The probable event of the case cannot be inferred from this eruption. I have seen it begin to disappear when the severe symptoms increased, though its fading is, I believe, generally attendant on convalescence. From the mere appearance of the eruption it would be sometimes difficult to distinguish between it and the measles; but its not occupying the face in the same degree as the measles, particularly at its commencement, the history of the mode of attack, and the concomitant symptoms, sufficiently distinguish it from that eruption. It does not disappear on pressure. When the eruption appeared in this form resembling measles, in a patient of the better class of society, the disease was generally dangerous: the same remark has been made in other places.* I have for some time entertained the opinion that sufferers from fever, attended with this eruption, if they are not altogether secured by it from a second attack, are not at least so liable to it as those who have had a fever of the ordinary kind. Though I have frequently made the inquiry, I have not found a patient in whom this symptom was distinct, who had suffered from the same fever on any former occasion. The analogy which this

* It was observed at Altona, that in every case among the better ranks originating from infection, petechiæ occurred, and patients of this description sunk more rapidly than others.

bears to other fevers, more especially to that which appeared at Gibraltar, and also to some exanthematous diseases, lend support to the opinion of its rarely occurring more than once in life. But whatsoever may be the result of more minute inquiry, it may be asserted that the chances of the recurrence of fever diminish in proportion to the continuance and severity of the first attack. The same observation has been made with respect to the plague: thus Russel observes, that although the plague may be taken twice by the same person, yet an attack of the disease is supposed to confer a certain degree of future security, particularly during the same epidemic.*

Another peculiarity in this epidemic, at its commencement chiefly, and during the winter season, was the occurrence of a livid or purple colour of the extremities, sometimes of the feet only, but generally of the hands also, not accompanied by coldness of these parts. It was mostly attended by great disturbance of the sensorial functions. It was a formidable, though not a mortal symptom, as formerly observed to be; on the contrary several patients recovered, whose hands and feet had been purple during a great part of their illness. It was observed in severe cases only, which constituted a small proportion of the whole number of patients.†

Within the last four years, mortification of the feet, at all times a rare occurrence, has, however, taken

* See Russel on the Plague, p. 195.

† This symptom was very common among the soldiers attacked with fever in our armies in Spain, during the winter of 1812, as noticed by Sir James Macgrigor in his Medical History of the Diseases of the Army, and leads to the true origin of the epidemic, as will be noticed in the sequel.

place in a few instances, but in this epidemic no case of the kind came under my observation, and mortification over the os sacrum, hips, or other parts of the body was by no means so common as heretofore. The increased determination to the brain, indicated by delirium, was remarkable during the commencement of the epidemic. Local inflammations in external parts of the head were also frequent. Thus inflammation of the eye, or behind the ear, or within its cavity, were not unfrequently noticed; but no example of swelling of the parotid gland occurred to my observation. In one case of fever, which extended through a family, the attack commenced with a pain in the right eye. In a few instances the disease terminated in mania, from which the patient in general recovered slowly. Examples of this kind occurred during last January, which are uncommon at that season, but frequently take place during the summer. In one instance a state of fatuity continued for a considerable time after the cessation of fever. Epistaxis or bleeding from the nose was occasionally observed, and often brought relief to the symptoms, particularly to the headach, and this happened when the quantity of blood thus discharged was very inconsiderable: no other hemorrhage, so far as I have observed, was frequent. The injury which the brain had suffered was indicated even during convalescence, many patients complaining during this period of distressing vertigo. Pectoral complaints were observed in a very small proportion of the cases that came under my inspection, and were uncommon throughout the greater part of the epidemic. In several instances, during the early months of the summer, the skin and tunica albuginea of the eye assumed a yellow tinge; this by no means indicated a severe disease, nor did the mortality among such patients ap-

pear to exceed the usual proportion. Diarrhœa was not uncommon about the same period, but generally yielded to the usual treatment.*

In a few cases retention of urine occurred; and it deserves remark, that the symptom was not so formidable as it generally is in fever. In such cases the catheter was employed, and the event of the illness was often favourable. I have not happened to witness any case of suppression of the excretion here mentioned, though, as I have been informed, this occurred frequently among the better ranks, and indicated great danger. Relapses took place in some instances more than once, and I have known a house to produce fever during several months, in consequence of the continued relapses of its inhabitants. On this, as on some former occasions, I have remarked the tendency to relapse to be in some proportion to the shortness of the first attack; and as fever is generally of longer duration in winter than in summer, relapses appeared to be more frequent during the latter than the former season.

In consequence of the unusual pressure of business at the hospital, the days on which fever began to decline have not been noted with the same exactness as formerly; and I regret it is not in my power to give accurate information on this head. I shall only observe, that among the better ranks, where I had an opportunity of making the observation, the progress of the symptoms was not regular, and the fever did not begin to decline on any fixed day in preference to another.

* It is now more frequent, and in a few instances in this hospital its symptoms approach to those of dysentery, which we are informed is now very prevalent in some parts of the country.

As the summer advanced, cases of fever, continuing but for five days, were more frequent than usual; and I recollect to have made the same observation during the great epidemic which visited the south of Ireland in the year 1801. Relapses from this kind of fever have been on both occasions very frequent.

In a judicious and well drawn up report on the Waterford House of Recovery, for the year 1817, by Dr. Bracken, it is observed in reference to a report of the Cork-street hospital, published in 1807, that it appears to the reporter "that crisis generally occurred earlier "than the day of convalescence; but whenever it was de-"cided and well marked, the patient was marked con-"valescent." Now, as it appears to me that the method of forming these deductions has been supposed to be less accurate than it really was, I shall explain the mode of keeping the cases, and ascertaining the first decline of symptoms. This can be done most satisfactorily by giving one of the tabular formulæ, in which the results of each day's observation on a patient, were regularly arranged, and classed under their proper heads.

Name and Age,	Day of Attack.	Cause.	Mode of Attack.	Habit of Body.	Mode of Life.
Mary—18.	July 1, 1807.	Cold.	Rigors, headach, general pains.	Full.	A Servant.

Date.	Sleep.	Previous symptoms.	Complaints.	Local affections.	Face.	P.	Skin.	Resp.	Th.	T.	App.	B.	Th.	Cat.	Strength.	Remedies
July 12, 1807	Bad,	Pain of side, cough.	Pain of side.	Petechiæ on chest and arms, eyes suffused,	Flushed.	120	Soft and hot.	32	Great.	Brown	0	3	Great.	Reg.	½	Vesicat interl. H. purgans Mist. mucil. urgente tussi.
13th,	Bad,	Pain less.	Less pain and cough.	As yesterday.	As yesterday.	120	Cooler.	30		As yesterday,	0	4 large.	Less.			Mist. mucil. ut heri.
14th,	Some.	Pain gone.		Petechiæ paler.	More natural.	103	Cooler.	26	Less.	Clean at edges.	½	3				
15th,	Good,		0	Petechiæ almost gone.	Improved.	100		22		Cleaner.	½	2				Middle diet.
16th,	Natural,		0	Petechiæ gone.	Almost natural.	96		20		Clean.						Middle diet.

According to this form, the reports on each patient were registered daily under their proper heads, and the case, when terminated, gave a distinct view of the whole progress of the symptoms, and enabled the reporter to ascertain with exactness the first appearance of recovery. Thus, in the example given, it will be evident on inspection, that the first appearances of recovery took place on the 14th of July, the 14th day of fever. From such documents, the table of critical days, as given in the first and second reports of this institution, was constructed, and the results were consequently deduced, not from mere opinion hastily formed, but from an induction of facts carefully observed and registered in some hundred instances.* I am not disposed to insist much on the doctrine of critical days, as in many cases no distinct crisis is discoverable: but I firmly believe that many febrile diseases have a disposition to terminate on certain days, dating from their commencement, and if observed accurately, the regularity will prove to be much greater than on a hasty view might appear probable; and in this case an advantage will result from the inquiry, that we shall be assisted in distinguishing between the effects of remedies and the natural course of disease. It should be mentioned that fever terminates on a certain fixed day, much more frequently at one time than at another. And the termination seems to be more irregular in winter than in summer.

The progress of this fever through the different

* It is but just to state, that in this registry of daily reports I was much assisted by my friend, and at that time colleague, Doctor Gamble, who undertook, in conjunction with me, to keep registered reports of his cases, and persevered in this laborious and useful occupation for some years.

seasons has not appeared to me to differ materially from that of former years; I have therefore little to add to the observations contained in preceding reports.

Happily for the inhabitants of this great city, the mortality has not kept pace with the frequency of this fever. If we take a portion of time antecedent to the commencement of the epidemic, and beginning from this, divide the whole time up to April 30th into periods containing each one hundred days, we shall have the following rate of mortality:

Dates.	Admitted Males.	Died Males.	Averaging nearly.
1817.			
From Jan. 5 to April 15.	330	40	120 in 1000
—— April 15 to July 24.	434	25	57 in 1000
—— July 24 to Nov. 1.	563	39	69 in 1000
1818.			
—— Nov. 1 to Feb. 19.	833	51	61 in 1000
—— Feb. 19 to April 30	723	24	33 in 1000
Total	2883	179	62 in 1000*

Dates.	Admitted Females.	Died Females.	Averaging nearly.
1817.			
From Jan. 5 to April 15.	340	24	73 in 1000
—— April 15 to July 24.	475	34	71 in 1000
—— July 24 to Nov 1.	538	16	29 in 1000
1818.			
—— Nov. 1 to Feb. 9.	776	39	50 in 1000
—— Feb. 9 to April 30.	720	28	38 in 1000
Total	2849	141	49 in 1000

* It should be observed, that the total mortality in the Dublin hospitals was greater than is here indicated, as the more severe cases must have given a preference to other hospitals, where admission was more speedily obtainable than at Cork-street, this and other causes quite independent of the medical treatment must have contributed to increase the mortality in these institutions. See Report by Dr. Cheyne.

It appears from the preceding table that the disease proved more fatal to the males than to females, particularly at the commencement of the epidemic, which is included in the period between July 24th and November 1st, and in the proportion of 69 to 29*. Men are generally more liable than women to suffer from the effects of fever. Their habits of life, their liberal indulgence in the use of spirituous liquors and animal food, may render them more susceptible than women of that species of fever which frequently has a fatal termination; but in the progress of the epidemic this mortality diminished more in proportion among the males than the females. It appears to me a very general law with respect to this consequence of fever in Ireland, that the numbers carried off by the disease do not increase with its frequency; on the contrary the mortality generally diminishes, as the fever becomes more provalent. This assertion, except with respect to the males, who suffered in a large proportion at the commencement of the epidemic, is exemplified in the following tabular view of the mortality by fever during different years since the opening of the hospital in Cork-street.

* The number of patients has encreased greatly with the advance of summer, and the proportionnal mortality has at the same time much diminished. In 1000 cases admitted in the period immediately preceding the 19th of last June the number of deaths was to that of the dismissed cured as 1 to 41 nearly. See Appendix.

Tabular View of the Mortality in the Fever Hospital in Cork-street since its opening, in two periods.

Years.	Admitted.	Died.	Average.	Average No. in 1000 nearly.
1814 From May 14	415	29	1 in 14 $\frac{9}{29}$	69 in 1000
1805	1024	67	1 in 15 $\frac{12}{67}$	65 in do.
1806	1264	103	1 in 12 $\frac{28}{103}$	81 in do.
1807	1100	92	1 in 11 $\frac{88}{92}$	83 in do.
1808	1071	94	1 in 11 $\frac{37}{94}$	83 in do.
1809	1051	83	1 in 12 $\frac{55}{83}$	78 in do.
1810	1774	154	1 in 11 $\frac{40}{77}$	86 in do.
1811	1471	115	1 in 12 $\frac{91}{115}$	79 in do.
Total. of 1st period	9170	737	1 in 12 $\frac{326}{737}$	80 in do.
1812	2265	166	1 in 13 $\frac{107}{160}$	73 in 1009
1813	2627	164	1 in 16 $\frac{3}{164}$	62 in do.
1814	2392	143	1 in 16 $\frac{104}{143}$	59 in do.
1815	3780	187	1 in 20 $\frac{40}{187}$	49 in do.
1816	2763	173	1 in 15 $\frac{168}{173}$	62 in do.
1817	3682	231	1 in 15 $\frac{217}{231}$	62 in do.
1818 to Oct 1	5403	168	1 in 32 $\frac{27}{168}$	31 in do.
Total of 2d period	22912	1232	1 in 18 $\frac{726}{1232}$	53 in do.

Thus it appears, that in the first seven years subsequent to the opening of the Fever Hospital, the mortality amounted to 1 in 12 or 80 in 1000 nearly, and during the last seven years it has scarcely amounted to 1 in 18 or 53 in 1000, but such has been the increase of fever in Dublin, that although the *proportional* number of persons dying in the hospitals has diminished considerably, the actual mortality of this, compared with former years, has greatly increased.*

Very few children became its victims. Among the numerous cases of children which came under my care, I recollect but one that terminated fatally, and this happened from the supervention of another disease. Accordingly as the condition of those attacked approached to that of the better ranks, their disease proved more dangerous. In a brewery in this city, remarkable for the superior comforts of all those connected with it, twelve of the draymen were attacked with fever at an early period of the epidemic, and of this number four died.—Many instances of the same kind might be given. It is impossible to exemplify the effects of this fever on the better ranks from hospital practice, but it has been ascertained that when persons in circumstances above those of the lower classes have been received into hospitals, the disease assumed an aspect more formidable than ordinary. The rich, as already observed, have suffered in a proportion greater to the number attacked than the poor;

* In the years 1813, 1814, 1815, about 1 in 18 died of fever in the Cork-street hospital, and the average number admitted annually to the different hospitals in Dublin exceeded 5000, therefore the average number dying annually of fever must have amounted to about 280 in these years, but within the last twelve months in the different fever hospitals, 1000 have become its victims.

and I have heard it asserted, that in some parts of the country at least one half of those seized with fever of this class, have died; but I suspect the estimate did not include all the slighter cases of fever: of these, many no doubt have been concealed, for during the prevalence of all such epidemics, there is a disposition to concealment, more especially in a commercial country. But the frequency of this malady does not appear to have increased so much among the rich as the poor, and it is also less fatal than at the commencement of last winter. How long this immunity may continue it is impossible to predict; the feeling of self preservation, were other better motives wanting, should therefore influence the upper classes of society to combine in rational and well-directed efforts to put down an evil, which, with daily advances, endangering their own lives and those of their dearest connexions, weakens and impoverishes their country.

On the morbid changes caused by this disease, information may no doubt be acquired by anatomical examination of the body after death. To supply the want of this information at Cork-street, I have obtained from my friend and colleague in Trinity College, Doctor Macartney, the professor of Anatomy, a most satisfactory account of the appearances which he has observed in those who have died of this disease. I had put to him the following query: Are the appearances after death from this fever those of genuine inflammation, or are they of any peculiar kind?---He has favoured me with the following answer, which I have much pleasure in publishing, convinced as I am, of the extent and accuracy of his observations. He informs me that "having

" reviewed his notes on the anatomical examination of " persons who have died of typhus fever, he can state " as the result of his experience, that the morbid ap- " pearances in typhus fever are not those of common " visceral inflammation. A great proportion of the " subjects for anatomical lectures in Trinity College " during last winter, appeared to have been of the " present epidemic, as they had petechiæ on the sur- " face; and his late observations on these have enabled " him to confirm the above conclusion, which he had " deduced many years ago.---The morbid appearances " that strictly belong to typhus are the following, ac- " cordingly as the head, lungs, or abdominal viscera " are engaged in the disease.---1st. Fulness or disten- " tion of the vessels of the brain, especially the veins, " some water effused on the surface and into the cavities " of the brain. 2d. The same species of congestion " in the lungs, and different degrees of effusion in the " cavities of the pericardium and pleura. 3d. Venous " congestion in the liver, spleen, or alimentary canal, " sometimes a blood-shot appearance or spots of ex- " travasation in the mucous coat, more particularly in " the stomach and first coils of the intestines.---In some " instances a more general pulpy or swollen and dis- " coloured state of the mucous coat of the alimentary " canal.---These congestions were always of a purple " or venous colour, and the blood throughout the body " appeared to be accumulated in the venous system, " and had little tendency to coagulate.—Such were " the appearances attendant on the congestions ob- " servable after typhus fever. The morbid appear- " ances in real and pure inflammation are these:—1st. " in the head.—The minute branches of the arteries " appear more numerous than usual from carrying

" florid red blood.—The effusion which takes place " is more consistent than in the former case, and " appears like whey; or pus is secreted on the " membranes---the arachnoid coat is thickened and " opaque.---2d. In pleuritis and pericarditis, there is " the same distribution of the arteries, and a wheyish " looking fluid, pus or lymph thrown out. In inflam- " mation of the substance of the lungs there is always " venous congestion, but the small arteries also are in- " creased, and the lungs feel more firm than in typhus. " 3dly, In gastritis and enteritis the inflamed parts are " denser, the redness is brighter than in typhus. The " peritoneum is liable to be involved, and the termina- " tion is slough or ulcer after a certain time. In cases " where general fever is combined with real local in- " flammation, as sometimes occurs in dysentery, or when " pneumonia is combined with typhus, or the latter with " permanent and violent delirium, the peculiar morbid " appearances of each disease are to be observed in " combination.

" Two facts deserve to be recollected, 1st. That the " duration of general fever and visceral inflammation " are not the same. 2d. That internal inflammations " are very common in hot blooded animals, but idio- " pathic fever is peculiar to the human kind. It may " be added that processes of an inflammatory nature " are fitted for repairing parts that have their functions " interrupted or their structure injured, but the effects " of typhus fever have no such power."

The coincidence between Dr. Macartney and some of the best modern observers on this subject is such as to prove satisfactorily that the congestions remarked after typhus fever differ from those of genuine inflammation;

and the question of treatment, as founded on these appearances, remains pretty nearly as before, to be determined by experience only.

To enter minutely into the medical treatment which I pursued at the hospital would be inconsistent with the objects of this report, but a few general observations may not be misplaced. All patients, on their admission, were washed and cleansed, their clothes removed, and fresh clean clothing provided. This is no unimportant part of the general plan of cure; it refreshes and produces a new state of the surface with which the whole system so remarkably sympathizes. In many or most instances the hair was cut, or the head shaved. I have been informed that this practice was adopted with all fever patients at Steeven's Hospital, and with excellent effects. That the hair must act as a fomes of contagion can scarcely be questioned; its removal must on this account be serviceable, and by affording relief to headach, which is an attendant on most febrile cases. Shaving the head also prepares the patient for the use of topical applications to that part, and recommends itself for these reasons, and for its promoting cleanliness. The cool and pure air of the wards, clean bed clothes, abundant supply of drink, attention of nurses, are no small part, and should not be omitted in a statement of the curative means adopted in this hospital. In cases of delirium, cold applications to the head were often beneficial: these were made by dissolving some of the soluble salts, such as nitre and sal amoniac in water, and applying the mixture immediately, whilst the salt is undergoing solution. When the determination to the head was great, the detraction of blood, either by means of leeches applied to the temples, or by section of the tem-

poral artery, often gave relief to the headach, and was followed by sleep. In such cases also a blister to the nape of the neck or to the head was useful. When much local congestion was present, relief was obtained by general blood letting, more especially if the symptoms indicated inflammation, and in such cases the principle laid down by J. P. Frank, about twenty-eight years ago, was observed. "In petechiis cum inflammatoria febre incedentibus, "non posse modo sed et debere sanguinem pro impetûs "febrilis ratione educi jam diximus." The recent publications of different practitioners on blood-letting in fever, have contributed to dispel the apprehension, sometimes groundless, respecting the use of this remedy in petechial fever.—The cold affusion was sometimes employed with advantage; but patients were generally admitted at a period of their illness so far advanced that the full benefit of the remedy could not be expected. The circumstances of the hospital for some time past, arising from the great pressure of business there, have interfered with that minute attention in the use of this remedy which is required to give it full effect. Tepid affusion in some instances appeared to allay heat and irritation. Its effects also in promoting cleanliness and diminishing contagion recommend it in a fever hospital. In every case the alvine evacuations were attended to, and purgatives directed to procure a sufficiently lax state of the bowels. Mercury given to such extent as to manifest its proper action on the system has been recommended: I have tried the remedy in some severe cases, but my experience has not yet been sufficient to justify any positive assertion as to its efficacy. In some cases where the patient's life appeared in imminent danger, in consequence of apparent congestion in the brain, small doses of calomel given conjoinly with antimonial powder,

at short intervals of one or two hours, seemed to have produced a favourable result. Wine is given in this hospital more sparingly than it formerly was, and so far as I can judge the change is beneficial. In cases of debility consequent to fever some wine appeared occasionally useful. Within the last two months* I have witnessed the recovery of one hundred and forty patients who did not, get a quantity that would have amounted to two ounces of wine for each patient. The purple colour of the extremities already noticed, in a few cases appeared to be diminished by detraction of blood from the head, hence it would seem that this symptom arose from, or was connected with, congestion in the brain.

No evil of great extent can exist without giving rise to some benefit; and it may result from the present epidemic that, witnessing many cases of recovery under very different modes of treatment, we shall cease to be dogmatically tenacious of system: and finding that induction on a scale more extensive than hitherto deemed requisite, can alone furnish just conclusions, we shall gradually attain truth.

With much regret I have to state that fever makes rapid progress among the poorer classes, and the extraordinary number of 1230 beds which have been so providently fitted up in different hospitals in the city for the accommodation of fever patients, though lately increased, has scarcely proved sufficient for all the applicants who at present enter the hospitals, at the rate of more than 2000 monthly.†

* May and June 1818.

† From the *admissions* alone to all the hospitals or the number of those discharged can we judge correctly as to the progress of fever. The num-

It is certainly most satisfactory that the mortality, though considerably exceeding that of former years, has not increased in the same proportion with the number attacked; but the consequences of such an epidemic as that now prevalent are not to be estimated by the mortality alone: The debility and languor which succeed this illness, and often continue for weeks or months, the interruption to industry, the expence of supporting the sick, or relieving those whom fever has reduced to beggary, are surely evils of enormous magnitude, although a single patient should not fall a victim.

On reviewing the progress of fever in this city, it becomes an interesting question, to ascertain the causes which have led to the increase of this disease in Dublin within the last seven years. That the operation of these causes has been extensive will be evident on examination of the reports of the hospitals of Dublin, Cork and Waterford, from which it will appear that the increase of fever in these places has been nearly simultaneous, and has continued with some fluctuations up to the present time.

Two causes may be supposed to have given origin to the augmented prevalence of this malady, either an increase of the concurrent causes, or a more active contagion. Much has been attributed to the operation of the concurrent causes, which no doubt have had some share in extending this disease; but that

ber of vacant beds in hospitals will depend altogether on the balance between admitted and dismissed. Of course in summer, when patients remain in the hospital for a shorter time than in winter, a smaller number of beds is required to accommodate the same number of patients than in the latter season, when illness and convalescence are more protracted; and vice versâ.

contagion of more than usual activity has been its principal source since the year 1810, is rendered probable by the following considerations:—New contagion appears more active than that to which the human system has become habituated, and the more general spreading of fever in this country coincides as to time with the increase of communication with the Continent, by means of our armies, during the last war, in circumstances notoriously productive of typhus and other species of fever. The expedition to the island of Walcheren took place in the autumn of 1809, and it is stated by Sir G. Blane, in his facts and observations on the Walcheren fever, * that typhus was remarkably prevalent at Flushing. Consequently among the 26,000 who sickened there, many must have laboured under infectious fever, and have conveyed it to these countries, to which they returned sick or convalescent, in great numbers. † In the year 1810, the records of the Dublin, Cork, and Waterford Fever Hospitals, exhibit a very considerable increase of fever, the admissions, which in 1809 amounted to 1500, in 1810 exceeding 2500.

Subsequent to this period our intercourse with the continent became more constant and extensive; particularly during the year immediately preceding the great increase of fever in this city in 1815: and as typhus fever is well known to follow the course of great armies, such, more especially as of late years, have moved over a great part of Europe, its introduction from this source becomes highly

* Med. Chirurg. Observations, v. 3. p. 21, 12.

† According to Sir G. Blane's Report, already quoted, 12,863 sick, including a small number of wounded, returned from the 21st Aug. to the 16th of December. This, I suppose, does not include the various followers of an army.

probable. This connection between war and pestilential fever may be proved to exist by a variety of evidence deducible in regular succession from remote periods to the present time. Some of the facts I shall, state as collected from various German writers by the editor of the Edinburgh Medical and Surgical Journal; others I shall supply from different sources, and the whole will, I think clearly establish this point. In 1516 the war which Maximilian II. waged against the Turks gave rise to an epidemic which laid all Germany waste. In 1683 a similar petechial disease followed a war in Hungary. The French war in 1740 and 1750 produced another epidemic. The seven years war again excited it.* It prevailed to a great degree in Austria in 1805, after the battle of Austerlitz, and in some subsequent years during the war between France and Austria. See Edinburgh Medical and Surgical Journal, v. 13, p. 13. Of late years petechial fever has been remarkably prevalent in many parts of Europe, and in North America. Great numbers of the French army perished from it in their return from the invasion of Russia. I possess documents which prove that fever prevailed epidemically to a great degree in Leipsic in the year 1813, where it was said to have been introduced from East Prussia, and to have followed the course of the French armies.† At Dresden it prevailed about the same time; and at the fortress of Torgau, when besieged by the Prussians im-

* It is named by the German writers *Krieg's pest*, or war plague, and the existence of such a name would prove it to be a familiar consequence of war in that country. It is the "pestis bellica" of their Latin writers.

† Baron Larry in his Memoires de Chirurgie Militaire, gives frequent descriptions of the fever which prevailed among the French troops at this time, and extended from them to the inhabitants of Germany. In its symptoms is strongly resembled the fever that prevailed in this country, particularly in the frequent appearance of purple extremities.

mediately after that 10,000 men and 5000 horses had been thrown into it, with all the sick of Dresden and the neighbouring country, the disease assuming great malignancy, and carrying off at least one third of those attacked, with many of the French physicians and surgeons.—From Saxony the disease advanced westward. In October it first appeared at Hanau and on the Banks of the Rhine; in December in the south of Germany, at Wirtemberg first in the north and then in the south. At Altona it prevailed in the beginning of 1814, when 17,000 fugitives from Hamburgh and other parts of the neighbourhood crowded into the most miserable habitations, and were there exposed to the greatest suffering and privations. Thus it spread by degrees from Prussia and that quarter of Germany which the wretched fugitives from the invasion of Russia had first entered, over the greater part of Germany, affording, in its gradual progress, a strong proof of its being extended by contagion.* It reached Paris in the month of February 1814, and many of the attendants on the patients in hospitals were infected during the subsequent months, particularly in May. About the same period it is well known to have been exceedingly prevalent and fatal in our armies in Spain. From the returns published by Sir James MacGrigor in his excellent sketch of the diseases of the army in Spain, it appears, that of continued fever there were admitted to the regimental hospitals†

* Baron de Larrey, chief of the medical staff of the French army, mentions the fever which prevailed on the return of that army from Russia, in the following terms—Cette Maladie a fait les plus grands ravages dans les premieres villes de la Pologne ou un grand nombre de nos compagnons avaient etè obligès de s'arreter pour cause de fatigue ou de congelation aux pieds.—See his Memoires, Tome 4, p. 147.

† See Sketch by Sir J. MacGrigor, Med. Chir. Trans. v. 6, p. 412.

	Patients.
In 1812.....	16,923
1813.....	18,294
1814 to June 24	5,007

And of this number about one-tenth died.

At Ciudad Rodrigo one-fifth of the inhabitants died of misery and fever in 1812.

Soon after these periods the registries of the Dublin hospitals shew a great increase of the disease in this city, and a similar increase took place in some other parts of Ireland. Fever being thus extended over a great part of Europe by means of war, the augmented operation of the concurrent causes diffused it in every direction. Political events have prevented the attention to this subject at present so desirable: dazzled with the splendors of war, we have overlooked its miseries; hence probably it arises that histories of the progress of fever have either not been published, or the accounts have not reached us, and that an interval less productive of fever than usual appears between the years 1815 and 1817; although we have no reason, from the experience of this country, to suppose that fever had abated on the continent, for this is not its usual course. But in the spring of 1817 it prevailed in many parts of Europe. Thus it was present at Turin in the spring of that year, and to a considerable degree, although the physician from whom we have the account,* written at the time when the fever prevailed, seems unwilling to allow any alarming prevalence of fever; yet he admits it to be petechial, and states, that

* Dr. Guillard, see Journal General de Medicine, tom. 49, p. 401,

from eighteen to twenty persons died of it daily in a population of about 89,000. The wish of this writer to prove the non-existence of any contagious fever in Savoy, to which also his enquiries extend, arises, as he states, from the apprehension "lest the *French government should interrupt communication and prevent commerce.*"—Fever was also extremely prevalent at Rome. From an account which I have before me from a friend who visited that city in the spring of 1817, it appears that within a few days before the end of Easter, fever had increased to such a degree that it became necessary to open new wards for the reception of fever patients. The mortality was great, many of the attendants, including priests, being carried off. It extended among the upper orders, and some of the physicians of the town fell victims to it. The number of deaths was so great that the physicians became greatly alarmed, and the attention of the government was attracted. In this case also scarcity of food had contributed to further its progress. The crop of the preceding year had failed, and the unfortunate inhabitants were so reduced by famine that the most disgusting articles of food were eagerly sought after to satisfy the cravings of hunger. At Venice also, fever was observed to prevail in a great degree, and was attributed by Dr. Arietti, principal physician in that city, to prisoners brought into the north of Italy; but it was evident that the malady had existed there for some years previously, though not in the same degree.* The preceding facts prove sufficiently that fever, originating in war, and diffused principally by its agency, aided by famine, has spread over a great part of the Continent. It is the same evil which has ex-

* Private Communication.

tended to this country, and has reached Glasgow* and Edinburgh, where it has been found necessary to employ extraordinary means to resist its progress. England has also experienced its effects. It has shewed itself at Newcastle, and along the sea coast of that quarter, previous to its commencement in Dublin. It has visited Liverpool, and some other parts of England, and has lately, it is said, made its appearance in the metropolis.

From the preceding statement it is evident, that an extensive war scarcely fails to produce fever; and it is highly probable that the fever thus excited on the continent has been introduced into these countries, where, from the operation of various exciting causes, it has become thus extensively epidemic. To pursue this inquiry further would lead me beyond the limits of this report. It is very desirable that the subject should be taken up by some one whose opportunities for acquiring information have exceeded mine.

Great efforts have no doubt been exerted to put a stop to the present epidemic. The condition of this city would have been truly deplorable but for the hospital accommodation afforded to the sick, and the other preventive measures so liberally adopted. But as these have proved insufficient to prevent the increase of fever, I hope I shall not be deemed obtrusive, but on the contrary discharge my duty as a physician and a citizen, if I communicate such views as occur to me on this very important subject. In the first place I would advert to the great length of time, in most instances six or seven

* Accounts of the epidemic fever in Glasgow and in Edinburgh have been published by Dr. Millar and Dr. Duncan.

days, which generally elapses before patients make application to, or are received into an hospital. Several causes contribute to this delay, particularly the distance of the hospitals from some parts of the town which are very productive of fever. The establishment of fever wards in different quarters of the city is the chief remedy for this evil.* A vigilant and active system of inspection would also contribute to its removal, and would further, not only the speedy admission of patients to hospitals, but also the cleansing of dwellings and other measures of purification tending to destroy contagion. It is evident also that fever patients from the country, coming into the crowded population of Dublin, must contribute to spread disease. When refused admission, as country patients, they sometimes take a lodging in town for the purpose of obtaining a claim to be admitted, and thus perhaps communicate infection in a healthy family; or if received into an hospital on their first coming into the city, on quitting the hospital after recovery, they delay in town, and still carrying contagion in their persons, they extend disease.† The establishment of small hospitals in the neighbourhood of the city, as proposed by Dr. Stokes, in his Observations on Contagion, whilst it afforded that relief which has appeared so necessary, would intercept this source of infection, and prevent its influx among our crowded population. The speedy adoption of this measure is called for by every consideration of prudence and humanity.‡

* Since this was written Sir P. Dunn's Hospital, which had been opened in the spring for fever patients, to be supported by government, but closed during the summer, has been again opened for such applicants.

† Of this spreading of disease by a patient who had returned from an hospital, instances have come to my knowledge.

‡ Three new and extensive wards, capable of containing, in their crowded state, above eighty patients, were finished at Cork in two months and a half.—See Report by Dr. Barry, p. 18.

The wearing apparel or bed clothes of the sick, where these undergo no purification, as generally happens in the dwellings of the poor, must act as a *fomes*, and contribute to extend disease. In some hospitals the patient's wearing apparel, as brought in on his admission, undergoes a purificative process, by which any infectious property must be completely destroyed: but the bed-clothes and wearing apparel of the family often remain untouched, and must prove a fertile source of disease. From this cause probably we find the same houses to produce fever patients for months in succession, although the sufferers have been speedily removed to hospitals. The infection sometimes appears to adhere to the floors and walls of such rooms; for I have observed lodgers, on coming into such places, soon attacked with fever, and in circumstances that led me to suppose the clothes of the other inhabitants had not given origin to the sickness: Similar observations have been made respecting the propagation of the plague.* To destroy the infection adhering to bed-clothes and wearing apparel, a plan was adopted in St. Peter's parish deserving attention on the present occasion. A house was taken, furnished with vessels and utensils for washing the clothes and persons of all applicants, and with a stove for exposing to a high temperature capable of destroying contagion, such articles of wearing apparel as cannot be washed without injury. It was opened on the 15th of April, since which time 1077 persons have had their clothes and bedding purified from infection; 3571 rooms have been whitewashed, and straw has been supplied to their inhabitants. The amount of its outset, was about £37. and the current expenses did not exceed £12. per month. The pub-

* See Russel on the plague, p, 298.

lished account, from which these extracts have been made, concludes by stating that " The people seemed " to enter into the plan with sufficient readiness ; in- " duced, no doubt, in some degree by the expectation " of a comfortable meal ; but we have had proofs of " of their strong desire to have their clothes washed, " with the view of cleansing them from contagion, and " for this purpose incurring an expense they could " hardly afford: *they find that appearing clean facili-* " *tates their getting employment.* The most usual dif- " ficulty in the removal of a family to the cleansing- " house arises from fear of losing possession of their " lodging, yet this has been removed by application to " the landlord, who is interested in freeing the house " from contagion." From the above extract we may form an opinion of an establishment which attains its objects without display, and with little expense. So far as I can ascertain, this house is sufficient for the wants of it's parish ; and as the population of this parish amounts to about 1-11th of that of Dublin, it follows, that eleven such houses would serve for the whole city. Their outfit would not cost more than £400. and their annual expense would not much exceed £1300 ; and it seems probable, that if expense merely were considered, the public would be gainers.

It is a strong argument in favour of the general adoption of this plan, that some parts of the city, chiefly in that called the Liberty, are but indifferently supplied with water, and as cleanliness is impracticable where this want exists, contagious diseases must prevail. London has improved greatly in salubrity within the last fifty years ; this has been attributed by Dr. Heberden, in a paper on the mortality of London, among

other causes, " to the universal diffusion of water pipes, " which, like the vessels of a living body, being multi- " plied by innumerable branches, carry away the im- " purities of life, and impart new health and animation " to every district."*

Doctor Haygarth, to whom we are indebted for many valuable suggestions on the prevention of fever, in a letter to the physicians, &c. published in the Reports of the Society for bettering the condition of the poor in the year 1809, has proposed the distribution of clothes, as rewards to such families as could produce a certificate of their having thoroughly cleansed and ventilated their dwellings. The adoption of the measure here proposed would, no doubt, produce the most beneficial results. Such plans now force themselves on our attention, when experience fully demonstrates that, according to the opinion of Dr. Percival of Manchester, " Houses of Recovery are in truth of subordinate consideration; being only subsidiary aids."

Much has been attributed to the effect of putrid effluvia and want of ventilation; but it seems well established that the agency of such causes is indirect, and that they do not give origin to fever, but merely increase the susceptibility of the human system, and by inducing debility, render it liable to receive the contagion. That putrid effluvia, unaided by typhus con-

* The abundant supply of fuel in London is supposed also to have contributed much to its immunity from contagious disease within the same period. The use of fuel may act as a preventive by facilitating the means of obtaining cleanliness, but chiefly by promoting ventilation; for a fire within the flue of a chimney must cause a perpetual current of air through the apartment. The disuse of fires in summer may contribute, in this way to extend infection.

tagion, are not productive of fever, many facts concur to demonstrate. In schools of Anatomy, long continued exposure to putrefying animal substances, is borne without injury; nor is it found that Students in such places are more subject to fever than other persons of the same age in society; and Dublin affords extensive opportunities for observation on this head.

The putrid emanations from many thousand bodies buried in the neighbourhood of Seville, when the yellow fever raged there in the year 1800, did not give rise to any disease, although the offensive smell was perceptible in the burying ground, which was the constant resort of many thousands of the inhabitants—(Bancroft on the yellow fever, p. 115.)—Many other instances might be adduced where the putrid effluvia from thousands of bodies did not produce typhus fever, although such effluvia, no doubt, are unwholesome, and so far prepare the human system for its reception.——That the exhalations of many persons confined within the same inclosed space, are incapable of giving origin to infectious fever, is also highly probable, although the contrary opinion has been frequently maintained. In some countries bordering on the Arctic circle, the inhabitants bury themselves under ground, during their long winter, in the midst of effluvia and putrefying matter, which could scarcely fail to give rise to infectious fever, were such causes capable of producing it. No one who has heard the forcible description of a Greenlander's hut, during the winter, given by Sir Charles Giesecke in his lectures at the Dublin Society, can suppose that confined air and putrid effluvia have the power of giving origin to fever, although such causes must, no doubt, greatly contribute to diffuse it, when the contagion has been introduced.

It is of much consequence that just views should be entertained on these subjects; for so long as fever is supposed to arise from confined air, putrid effluvia, want of food, and other indirect causes, contagion, its real source, is neglected, and the evils thence originating and imperfectly contracted, are suffered to extend progressively their noxious influence. Here I would disclaim any intention of depreciating the value and importance of those active and well-directed efforts which have been employed, particularly since the commencement of summer, to cleanse the city, and free it from nuisances. Putrid animal and vegetable effluvia, though incapable of giving rise to fever, promote its diffusion by debilitating the human system, and thus increasing its susceptibility: the removal of nuisances must, therefore, be salutary and preventive.

I do not know that any regular and well-conducted experiments have been instituted to shew the inefficacy of various modes of fumigation, so strongly recommended by different observers. The chief objection to their use is, that too much reliance may be placed on these to the neglect of other more approved means of destroying infection by cleansing and ventilation; but in cases of extraordinary infection the fumes of chlorine or of the muriatic or nitric acids, seem to deserve a trial; and if employed, intelligent persons should direct their application in the first instance, for otherwise they may appear inefficacious, and a valuable preventive fall into disuse in consequence of mismanagement.

From the facts and arguments contained in the preceding pages, the following inferences are deducible:

1st. That the epidemic fever of these countries has originated on the Continent of Europe, and has been produced by war.

2d. That it has been diffused by contagion, and has extended to these countries in consequence of their constant and unusually great intercourse with the Continent, at the time when contagious fever prevailed there.

3d. That its progress in Ireland has been promoted by the peculiar circumstances of this country, occasioned by scarcity of provisions and want of employment among the lower classes.

4th. That it is to be subdued by opposing its direct and remote causes, namely, by removal of the sick to hospitals, by preventing communication between the infected and healthy, by instituting measures of cleansing, and generally improving the condition of the poor by giving them employment.

Previous to concluding this Report, I feel it incumbent on me to do justice to the Committee entrusted with the management of the Fever Hospital in Cork-street, by stating, that when ordinary minds might have shrunk from the duties of this office, from apprehension of its danger, their active superintendance has not been relaxed; and this institution, hitherto serving as a model for similar establishments, in the midst of the difficulties and embarrassments by which it has of late been encumbered, preserves the order and arrangement for which it has been so distinguished, and which, in these times more peculiarly, establish the claim of its managers to the title of public benefactors.

In the preceding Report I have dwelt, perhaps too long, on the evil consequences of the present epidemic. I should not quit the subject without adverting to the benefits also which are likely to arise from this event. The wants of the poor have become known at a time and under circumstances of great urgency. The humanity of the upper classes has been called into action, and most benevolently exerted. Legislative interference has been obtained to aid the public in putting a stop to the present calamity, and preventing its future recurrence. Enlarged views have been acquired respecting the progress and prevention of fever, and an evil which threatened formidable consequences has been at least comparatively mitigated. If such effects of the epidemic should gradually lead to an improvement in the habits, feelings, and condition of the whole community, that which to our narrow conceptions appears a calamity, may thus become a signal benefit, and prove the means of introducing health and happiness in the place of disease and misery.

F. BARKER,

Oct. 1. 1818. 22, *Bagot-street.*

APPENDIX.

EXPLANATION OF THE TABLES.

TABLE I,

Is intended to give a view of the range of the mean heights of the thermometer in those months of the years 1815 and 1816, which, according to their temperature, have most effect on the productions of the earth. The height of the curved lines under each month, by reference to the degrees marked at the side, indicates the mean temperature of that month in London and Dublin during the years 1815, 1816. It is evident on inspection that the mean temperature in 1816, was lower than in the former year: the rate of this variation is also apparent.—Dublin appears on this, as will probably be found on other occasions, to have the advantage of a more equable temperature. The observations were made in Dublin by the Reporter, from a self-registring thermometer on Six's construction.

TABLE II,

On a plan borrowed from the preceding is intended to shew the progress of the epidemic fever, both as to frequency and mortality, as determined by the numbers discharged from hospitals. The greatest height of the curved line under each month at the head of the column when referred to the numbers marked at the side, shews the total number of patients discharged

from all the fever hospitals in Dublin in that month;—and in the lower scale of the plate, the progress of the mortality is also indicated. The average of some former years is also exhibited. Thus it becomes at once evident, that the epidemic fever has been steadily progressive. That the numbers attacked by it, have greatly exceeded those of former years, and that it has been also more fatal, though not in proportion to its frequency. The periods of greatest increase and mortality appear on inspection, together with the rate at which these have varied.

Such information is at once acquired by a view of the scale: thus it may serve to remove some erroneous notions which have prevailed respecting this epidemic.

END.