

SANITARY AND METEOROLOGICAL NOTES.

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VITAL STATISTICS

For four weeks ending Saturday, November 2, 1901.

IRELAND.

TWENTY-TWO TOWN DISTRICTS.

The average annual death-rate represented by the deaths—exclusive of deaths of persons admitted into public institutions from without the respective districts—registered in the week ending November 2, 1901, in the Dublin registration area and the twenty-one principal provincial urban districts of Ireland was 21·1 per 1,000 of their aggregate population, which, for the purposes of these returns, is estimated at 1,079,708. The deaths registered in each of the four weeks ended Saturday, November 2, and during the whole of that period, in the several districts, alphabetically arranged, corresponded to the following annual rates per 1,000 :—

TOWNS, &c.	Week ending				Average Rate for 4 weeks	TOWNS, &c.	Week ending				Average Rate for 4 weeks
	Oct. 12	Oct. 19	Oct. 26	Nov. 2			Oct. 12	Oct. 19	Oct. 26	Nov. 2	
22 Town Districts	19·4	17·2	16·8	21·1	18·6	Lisburn -	36·4	4·6	22·8	18·2	20·5
Armagh -	48·2	27·6	6·9	27·6	27·6	Londonderry	19·6	14·4	15·7	18·3	17·0
Ballymena	9·6	9·6	9·6	4·8	8·4	Lurgan -	17·7	13·3	8·9	0·0	10·0
Belfast -	19·6	18·0	15·3	22·7	18·9	Newry -	20·7	16·6	8·3	29·0	18·6
Clonmel -	46·0	15·3	15·3	15·3	23·0	Newtownards	17·2	11·4	28·6	5·7	15·7
Cork -	13·7	15·8	19·2	19·9	17·2	Portadown -	0·0	20·8	15·6	15·6	13·0
Drogheda -	16·3	8·2	20·4	32·7	19·4	Queenstown	59·5	39·7	19·8	0·0	29·7
Dublin -	19·7	19·9	19·3	22·7	20·4	Sligo -	43·2	4·8	9·6	19·2	19·2
(Reg. Area)						Tralee -	15·9	0·0	15·9	21·3	13·3
Dundalk -	16·0	8·0	8·0	8·0	10·0	Waterford -	17·5	3·9	19·5	15·6	14·1
Galway -	3·9	27·2	3·9	11·7	11·7	Wexford -	18·7	32·7	9·3	28·0	22·2
Kilkenny -	0·0	19·9	44·7	39·8	26·1						
Limerick -	16·4	5·5	6·8	15·1	11·0						

The deaths (excluding those of persons admitted into public institutions from without the respective districts) from the principal zymotic diseases registered in the 22 districts during the week ended Saturday, November 2, were equal to an annual rate of 2·5 per 1,000—the rates varying from 0·0 in fifteen of the districts to 4·1 in Newry. Among the 153 deaths from all causes registered in Belfast are 2 from scarlet fever, 3 from whooping-cough, 3 from diphtheria, 6 from enteric fever, and 10 from diarrhœa. The 29 deaths in Cork include one from whooping-cough and 2 from diarrhœa.

DUBLIN REGISTRATION AREA.

The Dublin Registration Area now consists of the City of Dublin as extended by the Dublin Corporation Act, 1900, together with the Urban Districts of Rathmines, Pembroke, Blackrock, and Kingstown. The population of the Area, estimated to the middle of 1901, is 375,076, being made up of the following:—City, 290,837; Rathmines, 32,589; Pembroke, 25,563; Blackrock, 8,727; and Kingstown, 17,360.

In the Dublin Registration Area the births registered during the week ended Saturday, November 2, amounted to 141—71 boys and 70 girls; and the deaths to 168—93 males and 75 females.

DEATHS.

The registered deaths represent an annual rate of mortality of 23·4 in every 1,000 of the population. Omitting the deaths (numbering 5) of persons admitted into public institutions from localities outside the area, the rate was 22·7 per 1,000. During the forty-four weeks ending with Saturday, November 2, the death-rate averaged 26·0, and was 0·3 under the mean rate for the corresponding portions of the ten years, 1891–1900, based on the estimated mean population of the Dublin Registration Area as then constituted.

Twenty-one deaths from zymotic diseases were registered during the week named. This number is 8 in excess of the number registered in the preceding week, and equal to an annual death-rate of 2·9 per 1,000 of the estimated population, the average rate for the 44th week of the last ten years being 3·5 per 1,000. These 21 deaths include 9 from diarrhœa, 5 from enteric fever, 4 from whooping-cough, one from scarlatina, and one from diphtheria.

Tuberculosis caused 19 deaths, 11 from pulmonary tuberculosis, 5 from tabes mesenterica, one from tubercular meningitis, and 2 from scrofula (tuberculosis).

Diseases of the respiratory system caused 29 deaths, a number which is 2 above that recorded in the preceding week, and equal to an annual rate of 4.0 per 1,000 of the estimated population, the average rate for the corresponding period of the past ten years being 5.3 per 1,000. Bronchitis caused 18 deaths, 8 deaths were caused by pneumonia, 2 by pleurisy, and one death was due to laryngitis.

Twelve deaths were registered as being due to "convulsions." Four of these were of children under one month old, 7 were of children over one month but under one year old, and one child who died was between the ages of one and 5 years.

Two deaths were due to apoplexy and 10 to other diseases of the brain and spinal cord (exclusive of convulsions).

Diseases of the circulatory system caused 17 deaths, and 7 deaths were caused by cancer.

Eight deaths from violence were registered—this number includes 6 cases of accidental death and 2 of suicide.

In 8 instances the cause of death was "uncertified," there having been no medical attendant during the last illness. These cases comprise the deaths of 5 children under one year of age (including 4 infants under one month old) and the deaths of 2 persons aged 60 years and upwards.

Fifty-four of the persons whose deaths were registered during the week were under 5 years of age (43 being infants under one year, of whom 15 were under one month old), and 43 were aged 60 years and upwards, including 18 persons aged 70 and upwards, of whom 6 were octogenarians, and one (a man) was stated to have been aged 94 years.

STATE OF INFECTIOUS DISEASE IN DUBLIN.

(1.) CASES OF INFECTIOUS DISEASES NOTIFIED TO THE PUBLIC HEALTH COMMITTEE OF THE CORPORATION.

Sir Charles Cameron, C.B., Medical Superintendent Officer of Health for the City of Dublin, has furnished information regarding the number of cases of Infectious Diseases in the City of Dublin, notified under "The Infectious Diseases (Notification) Act, 1889," as follows:—

Week ending October	12, 1901...	...	52 cases.
"	October 19, „ ...	...	41 cases.
"	October 26, „ ...	...	81 cases.
"	November 2, „ ...	...	78 cases.

Of the 78 cases notified in the week ended November 2, 12 were

erysipelas, 33 enteric fever, 19 scarlatina, 9 continued fever, one diphtheria, one measles, 2 rubella.

(2.) CASES OF INFECTIOUS DISEASES IN RATHMINES URBAN DISTRICT.

Mr. Fawcett, Executive Sanitary Officer for Rathmines Urban Council, has furnished information regarding the number of cases of infectious diseases in the Urban District of Rathmines, notified under "The Infectious Diseases (Notification) Act, 1889," as follows :—

Week ending October	12, 1901...	...	6 cases.
"	October 19, ,, ...	...	1 case.
"	October 26, ,, ...	...	11 cases.
"	November 2, ,, ...	...	7 cases.

Of the 7 cases notified in the last week, 4 were scarlet fever, one diphtheria, and 2 enteric fever.

(3.) CASES OF INFECTIOUS DISEASES IN PEMBROKE URBAN DISTRICT.

Mr. Manly, Executive Sanitary Officer for Pembroke Urban Council, has furnished information regarding the number of cases of infectious diseases in the Urban District of Pembroke, notified under "The Infectious Diseases (Notification) Act, 1889," as follows :—

Week ending October	12, 1901...	...	7 cases.
"	October 19, ,, ...	...	28 cases.
"	October 26, ,, ...	...	13 cases.
"	November 2, ,, ...	...	15 cases.

Of the 15 cases notified in the last week, 3 were scarlet fever, 2 diphtheria, 5 measles, and 5 whooping-cough.

(4.) CASES OF INFECTIOUS DISEASES UNDER TREATMENT IN DUBLIN HOSPITALS.

Twenty-one cases of enteric fever were admitted to hospital during the week ended Saturday, November 2 ; 16 patients were discharged, and 67 remained under treatment at the close of the week.

Seventeen cases of scarlatina were admitted to hospital, 10 patients were discharged, and 87 remained under treatment at the close of the week. This number is exclusive of 10 convalescents under treatment at Beneavin, Glasnevin, the Convalescent Home of Cork-street Fever Hospital.

Twelve diphtheria patients were admitted, 3 were discharged, and 31 remained under treatment at the close of the week.

One case of measles was admitted to hospital, 6 cases were discharged, and 4 cases remained under treatment at the close of the week.

Two cases of typhus fever were discharged from hospital, leaving one case still under treatment.

In addition to the above-mentioned zymotic diseases recognised as such, 11 cases of pneumonia were admitted to hospital, 11 cases were discharged, and 28 cases remained under treatment at the close of the week.

STATE OF INFECTIOUS DISEASE IN BELFAST.

Dr. Whitaker, Medical Superintendent Officer of Health, has furnished information regarding the number of cases of infectious diseases in the City of Belfast, notified under "The Infectious Diseases (Notification) Act, 1889," as follows:—

Week ending	October	12, 1901...	... 104 cases.
„	October	19, „ ...	... 82 cases.
„	October	26, „ ...	... 102 cases.
„	November	2, „ ...	... 126 cases.

Of the 126 cases notified in the week ended November 2, 55 were enteric fever, 9 erysipelas, 11 diphtheria, 27 continued fever, 19 scarlet fever, 4 membranous croup.

ENGLAND AND SCOTLAND.

The mortality in the week ended Saturday, November 2, in thirty-three large English towns, including London (in which the rate was 17·4), was equal to an average annual death-rate of 17·6 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·9 per 1,000, the rate for Glasgow being 21·5, and for Edinburgh 16·7.

METEOROLOGY.

Abstract of Observations made in the City of Dublin, Lat. $53^{\circ} 20'$ N., Long. $6^{\circ} 15' W.$, for the Month of October, 1901.

Mean Height of Barometer, - - -	29·880 inches.
Maximal Height of Barometer (31st, at 9 a.m.),	30·394 „
Minimal Height of Barometer (18th, at 7 30 a.m.),	29·090 „
Mean Dry-bulb Temperature, - - -	48·7°.
Mean Wet-bulb Temperature, - - -	46·7°.
Mean Dew-point Temperature, - - -	44·7°.
Mean Elastic Force (Tension) of Aqueous Vapour, -	298 inch.
Mean Humidity, - - - - -	86·8 per cent.
Highest Temperature in Shade (10th and 28th),	61·9°.
Lowest Temperature in Shade (22nd), - - -	35·7°.
Lowest Temperature on Grass (Radiation) (22nd),	27·8°.
Mean Amount of Cloud, - - - - -	53·7 per cent.
Rainfall (on 21 days), - - - - -	2·396 inches.
Greatest Daily Rainfall (29th), - - - - -	·572 inch.
General Directions of Wind, - - - - -	S.W., W., N.W.

Remarks.

Like October, 1900, this was a changeable, rainy, damp month. Atmospheric pressure was in very unstable equilibrium over North-Western Europe, deep depressions existing over the Norwegian sea and Scandinavia from the 5th to the 9th, and again from the 27th to the 29th. On the last-named day a sudden change in atmospheric conditions occurred, the barometer rising in the N.W. and N. with great speed, so that strong easterly winds and fine dry weather set in suddenly throughout the British Isles. The weather was cold until the 27th, when it became remarkably warm for the time of year. A good deal of thunder and lightning occurred on the 21st and 22nd.

In Dublin the arithmetical mean temperature ($49·8^{\circ}$) was very slightly above the average ($49·7^{\circ}$); the mean dry-bulb readings at 9 a.m. and 9 p.m. were $48·7^{\circ}$. In the thirty-six years ending with 1900, October was coldest in 1892 (M. T.= $44·8^{\circ}$) and in 1896 (M. T.= $45·0^{\circ}$). It was warmest in 1876 (M. T.= $53·1^{\circ}$). The M. T. in 1898 was $52·8^{\circ}$. In 1900 it was $50·4^{\circ}$.

The mean height of the barometer was 29·880 inches, or 0·040 inch above the corrected average value for October—namely, 29·840 inches. The mercury rose to 30·394 inches at 9 a.m. of the 31st, having fallen to 29·090 inches at 7 30 a.m. of the 18th. The observed range of atmospheric pressure was, therefore, 1·304 inches.

The mean temperature deduced from daily readings of the dry-bulb thermometer at 9 a.m. and 9 p.m. was 48.7° , or 7.9° below the value for September, 1901. The arithmetical mean of the maximal and minimal readings was 49.8° , compared with a twenty-five years' average of 49.7° . Using the formula, *Mean Temp.* = *Min.* + (*Max.* - *Min.* $\times .485$), the mean temperature was 49.6° , or 0.1° above the average mean temperature for October, calculated in the same way, in the twenty-five years, 1865-89, inclusive (49.5°). On the 10th the thermometer in the screen rose to 61.9° —wind, W.; the same reading was recorded on the 28th—wind, S.W.; on the 22nd the temperature fell to 35.7° —wind, W. The minimum on the grass was 27.8° on the 22nd. The thermometer did not sink to 32° in the screen, but frost occurred on the grass on 3 nights.

The rainfall was 2.396 inches, distributed over 21 days—the rainfall was below, while the rainy days was decidedly above, the average. The average rainfall for October in the twenty-five years, 1865-89, inclusive, was 3.106 inches, and the average number of rainy days was 17.6. In 1880 the rainfall in October was very large—7.358 inches on 15 days. In 1875, also, 7.049 inches fell on 26 days. On the other hand, in 1890, only .639 inch fell on but 11 days; in 1884, only .834 inch on but 14 days; and 1868 only .856 inch on 15 days. In 1900 the October rainfall was 3.469 inches on 21 days.

Lightning was seen on the night of the 21st-22nd. High winds were noted on 11 days, and attained the force of a gale on two occasions—the 6th and 8th. The atmosphere was more or less foggy in Dublin on the 1st, 11th, 13th, 14th, 16th, 21st, 22nd, and 29th. Lunar halos were seen on the 1st and 24th; solar halos on the 13th and 26th. The duration of bright sunshine was estimated at 115.25 hours, compared with 127.25 hours in October, 1900.

The rainfall in Dublin during the ten months ending October 31st amounted to 20.466 inches on 145 days, compared with 12.366 inches on 123 days during the same period in 1887 (the dry year), 27.863 inches on 177 days in 1900, and a twenty-five years' average of 22.840 inches on 160.4 days.

At Knockdolian, Greystones, Co. Wicklow, the rainfall in October amounted to 2.925 inches on 16 days. Of this quantity .850 inch fell on the 17th, and .655 inch on the 29th. From January 1st, 1901, up to October 31st, rain fell at Knockdolian on 135 days to the total amount of 28.030 inches. In 1893 the rainfall in the corresponding ten months was 17.801 inches on 133 days; in 1894, 32.221 inches on 154 days; in 1897, 32.730 inches on 171

days; in 1898, 24·177 inches on 140 days; in 1899, 30·000 inches on 150 days; and in 1900, 33·311 inches on 155 days.

At Cloneevin, Killiney, Co. Dublin, the rainfall in October was 2·520 inches on 21 days, compared with ·710 inch on 14 days in 1893, 6·460 inches on 17 days in 1894, 2·830 inches on 17 days in 1900, and a sixteen years' average (1885–1900) of 3·158 inches on 15·8 days. On the 17th, ·57 inch fell. Since January 1, 1901, 23·000 inches of rain have fallen at this station on 151 days.

Dr. B. H. Steede reports: At the National Hospital for Consumption, Newcastle, Co. Wicklow, the rainfall in October was 3·200 inches on 21 days, compared with 3·175 inches on 13 days in 1897, 4·385 inches on 17 days in 1898, 1·484 inches on 11 days in 1899, and 3·551 inches on 14 days in 1900. The heaviest falls in 24 hours were ·922 inch on the 17th, and ·724 inch on the 29th. The highest temperature in the screen was 61·1° on the 2nd and 10th, the lowest was 36·0° on the 13th. At this Second Order Station the rainfall from January 1 to October 31, inclusive, amounted to 24·953 inches on 142 days, compared with 26·479 inches on 139 days in the corresponding ten months of 1898, 27·643 inches on 140 days in 1899, and 28·599 inches on 150 days in 1900.

At the Railway Hotel, Recess, Co. Galway, the rainfall was 7·222 inches on 27 days, 1·310 inches being measured on the 7th and ·920 inch on the 17th. On the 6th, 7th, and 8th there were severe S.W. gales. The rainfall for the month was 8·307 inches on 24 days in 1900, and 3·261 inches on 17 days in 1899.

Dr. Arthur S. Goff reports that at Lynton, Dundrum, Co. Dublin, rain fell on 21 days to the amount of 2·40 inches, the greatest measurement in 24 hours being ·66 inch on the 29th. The mean temperature in the shade was 50·0°, the range being from 65° on the 1st to 36° on the 22nd.

In the City of Cork, rain fell in October on 22 days to the amount of 2·82 inches, or 0·40 inch less than the average. The greatest day's rainfall was 0·44 inch on the 3rd.

At the Ordnance Survey Office, Phoenix Park, the rainfall was 2·790 inches on 20 days, ·825 inch being registered on the 29th.

Dr. J. Byrne Power, D.P.H., Medical Superintendent Officer of Health for Kingstown, Co. Dublin, reports that the rainfall in October at that health resort was 2·64 inches on 21 days. The mean temperature was 50·9°, the extremes being—highest, 63·0°; lowest, 34·5°; and the mean daily range, 11·6°. The mean sea temperature at Sandycove Bathing Place was 55·0°. The duration of bright sunshine was 116·5 hours.