[Report 1907] / Medical Officer of Health, Bath City & County Borough.

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1907.

FORTY-SECOND

Annual Report

TO THE

Bath Urban Sanitary Authority

BY THE

MEDICAL OFFICER OF HEALTH

AND

SANITARY INSPECTOR.

"SCIENCE IS MEASUREMENT."

BATH:
PRINTED BY FYSON & CO. LTD.,
19, UNION STREET & UPPER BORO' WALLS.
1908.

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BATH URBAN SANITARY AUTHORITY.

MAYOR :

Councillor T. H. Miller.

HOUSING OF THE WORKING CLASSES COMMITTE .

CHAIRMAN :

Councillor G. F. Powell.

Alderman W. F. Gould.

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J. Howard
R. W. Kirkus
J. W. Knight, J.P.
C. H. Long
M. St. John Maule
P. C. H. Ryan, M.D.
W. H. Sealy

Sub-Committee Insanitary Areas.

Councillors Kirkus, Knight, Long, Powell, Dr. Ryan, and Sealy.

SANITARY COMMITTEE.

Meeting every alternate Monday at 11 a.m.

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C. B. Oliver, J.P. T. Vincent, E. G. Peacock.

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W. Withers.

SUB-COMMITTEES

Appointed by the Sanitary Committee.

MIDWIVE'S ACT, 1902.

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J. W. PATON, M.D.
F. W. SPEAR
A. W. THOMAS, J.P.
H. J. THOMAS
W. WITHERS.

HEALTH DEPARTMENT STAFF.

Inspector of Nuisances—
W. A. CRAVEN, Kirkthorpe, St. Saviour's Road
(Certificates of Royal Sanitary Institute, as Inspector of Nuisances and as Meat Inspector)
Inspector of Canal Boats.
Inspector under the Food and Drugs Acts.
Inspector under Shop Hours Act.
Inspector of Dairies, Cowsheds and Milkshops.

General Assistants and Clerks in the Health Office—
SILAS D. HAWKINS, 19, Coronation Avenue.
HAROLD BURT, 15, Kingsmead Street.
WILLIAM GEORGE PYATT. 1, Harley Street.

Contractor for Ambulance—
SAMBOURNE WEEKS, 24. Upper Borough Walls.

Health Visitor—Miss DORA CAWS, Certificate of C.M.B.

Matron of Statutory Hospital—Miss MARY CROFTS.

Medical Attendant of the Statutory Hospital—
O. A. G. COLLINS, B.A., M.B. (Camb.) M.R.C.S., L.R.C.P., 5 Paragon.

Medical Officer of Health—
W. H. SYMONS, M.D. (Brux.), M.R.C.S., L.R.C.P., L.S.A.,
Diplomate in Public Health, University of Oxford.
Fellow of the Institute of Chemistry.
Fellow of the Royal Society of Medicine.
Fellow of the Royal Meteorological Society.
Medical Superintendent of the Statutory Hospital.
Medical Inspector under the Midwives Act.

Telephone Numbers: Office, 124; Hospital, 198; Dr. Collins, 1079.
After Office Hours—M.O.H., 39, Weston. I.N., 436, Bath.

SUMMARY OF STATISTICS, 1907.

City & County Borough of BATH.

Health Resort and Chief Town of Somerset.

Situation—Latitude 51° 23′ N.; Longitude 2° 21′ W.

Elevation—Varies from 50 feet above sea level on the lower banks of the Bath Avon to about 550 feet on either side, the hills rising to about 750 feet not far from the City.

Mean Elevation—285 feet above sea level.

Geological Formation—Oolitic clays, limestones and sands.

Rainfall—Average of 40 years, 1866-1906, 30·47 inches annually 1903, 42·57; 1904, 25·02; 1905, 22·79; 1906, 27·24; 1907, 32·32 inches.

Water—Constant service, Corporation Reservoirs, Moderately hard. Pure spring water. Average amount, 22 gallons per head.

Sewage disposal almost exclusively by water carriage.

House refuse removed and cremated by the Sanitary Authority.

Area of the Borough—3,338 statute acres land, 44 acres water.

Population—1901 Census, 49,839; Estimated 1907, 50,000.

Density of Population—Per acre, 15; per inhabited house, 5 persons

Number of Inhabited Houses—Census, 1891, 8,933;

" " " Census, 1901, 9,323;

Number of Occupied Houses—Census, 1901, 9,804;

" " " Rate-book, 1907, 10,364.

Assessable Value, October, 1907, £328,748.

Rateable Value. October, 1907, £331,252.

Rates—District Rate, 3/4; Poor-rate, 2/7; Total, 5/11 per £1.

One penny Poor Rate produces £1,261; 1d. District Rate £1,219.

Total Nett Indebtedness, £506,731.

Marriages Registered, 440 or 17·6 persons per 1,000 population.

Birth-rate—Average, 1891-1900, 20; 1907, 17·8 per 1,000.

Death-rate—Average, 1891-1900, 18·58.

Crude Death-rate, 1907, 15·7; Nett Death-rate, 14·3 per 1,000.

Recorded Death-rate reduced to standard age and sex for comparison with other districts 12·9 per 1,000.

Comparative Mortality Figure, 859.

Death-rate from seven principal "zymotic diseases," ·71 per 1,000.

Infantile Mortality—88 per 1,000 Births.

Deaths under 5 years of age, 124; or 2·5 per 1,000 of all ages.

Deaths between 5 and 60 years of age, 231; or 4·6 per 1,000 of all ages.

Deaths over 60 years of age, 361; or 7·2 per 1,000 of all ages.

Deaths from Phthisis, 46, or ·92 per 1,000 population.

To HIS WORSHIP THE MAYOR, and to the ALDERMEN, and COUNCILLORS of the CITY OF BATH.

GENTLEMEN,

I have the honour of submitting to you the Forty-second Annual Report on the Sanitary Condition of Bath, counting from the first printed Report of a Medical Officer of Health, or the Twelfth counting only those which I have made personally.

The Death-rate for the year 1907 is slightly below that for any preceding year, except 1903. Including all deaths registered in Bath, the Crude Death-rate was 15·7 per 1,000. Excluding 70 deaths of non-residents, who had been brought into Bath for treatment, the Nett Death-rate was 14·32 per 1,000. The Nett Death-rate multiplied by the factor for correction 0.9 gives the Corrected Death rate 12·87 per 1,000 annually. The Corrected Death-rate is that which would obtain if the proportion of persons of different sex and age were the same as for England.

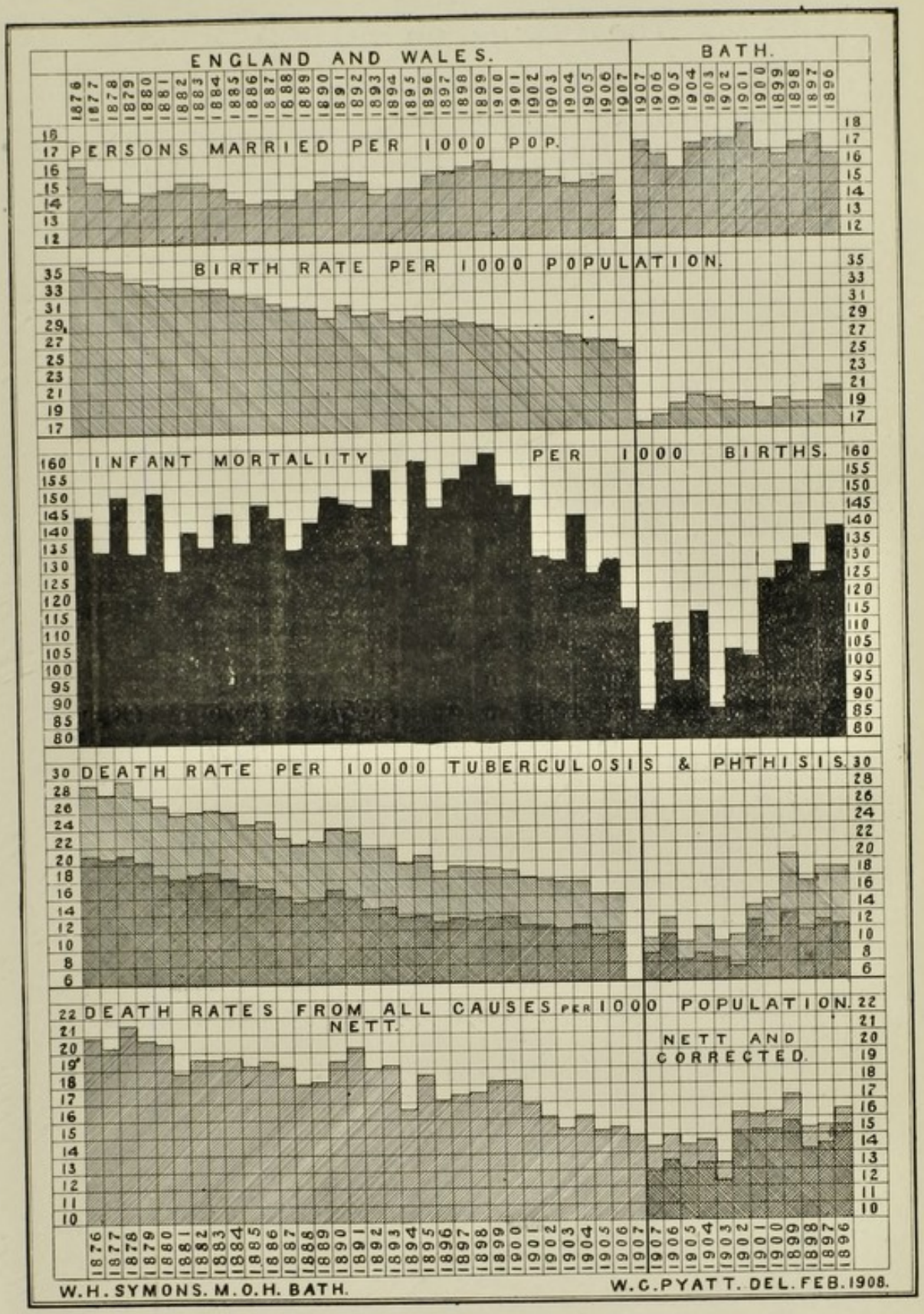
The Death-rate for England and Wales was 15·0 which is also slightly below the Death-rate of 1906. The Corrected Death-rate for Bath compared with that of England and Wales taken as 1,000 was 859, which is the Comparative Mortality Figure. For Rural England the Death-rate was 14·7, for 76 great towns 15·4, and for 142 smaller towns 14·5 per 1,000.

The Infantile Mortality was 91 per 1,000 births including all infants dying in the City, but excluding those brought into public institutions for treatment, the Nett Infantile Mortality was 88 per 1,000 births. Among the infants born in wedlock the mortality was at the rate of 86 per 1,000 legitimate births; among illegitimate infants the infantile mortality was 154 per 1,000 illegitimate births.

The Infantile Mortality in Rural England was 106; for the 142 smaller towns 122; for the 76 great towns 127; and for England and Wales, including all towns, 118 per 1,000 births.

The Birth-rate for Bath was 17·76 per 1,000 population, and for England and Wales 26·3 per 1,000. These Birth-rates are the lowest recorded respectively.

The returns for England and Wales for the past thirty-two years are compared with those of Bath for the past twelve years in the following chart.



The Rates for England and Wales are from 1876 to 1907, and those for Bath in the reverse order from 1907 to 1896.

The Marriage rate and Death-rate from Phthisis for 1907 are not yet published for England and Wales.

The Population—50,000.

The population of Bath, as enumerated in 1901, was 49,839, and in previous census returns as follows :—

1801	1811	1821	1831	1841	1851	1861	1871	1881	1891
33,951.	38,090.	46,688.	50,800.	53,206.	54,240.	52,528.	52,528.	51,814.	51,844.

The Registrar-General, in estimating population for inter-censal periods, assumes that the increase or decrease of the previous decade has continued, and he estimates the population of Bath for the middle of 1907 as 48,885. I have many reasons for thinking this an under-estimate, and for the purpose of calculating the rates given in this report I take the population as 50,000, distributed among the various districts as follows :—Walcot 31,200 ; Lyncombe and Widcombe, 14,500 ; Bathwick, 4,300. (*Vide* A.R. 1905, p. 7).

BATH Population. Condition as to Marriage at various age periods. Birthrates:—	1881	1891	1901
Enumerated population	51,814	51,834	49,839
Married women aged 15 to 20 years...	36	24	17
" " 20 " 25 " ...	559	503	463
" " 25 " 35 " ...	2,190	2,154	2,104
" " 35 " 45 " ...	2,067	2,076	2,139
" " 15 " 45 " ...	4,852	4,757	4,723
Legitimate births	1,250	1,100	940
Births per 1,000 married women, Bath	258	231	199
" " " England	286	268	235
Births per 10,000 population, Bath ...	254	221	196
" " " corrected	301	271	241
" " " England	339	314	285

Births Attended by Midwives.

Age of Mother.	1906. Number & Sex.		1906. Percent of Births.	1907. Number & Sex.		1907. Perc't of Births
	Male.	Female		Male.	Female	
17 to 20 years ...	6	4	2	6	8	2
20 " 25 " ...	62	61	23	63	42	18
25 " 30 " ...	58	82	26	98	73	30
30 " 35 " ...	61	65	24	80	77	27
35 " 40 " ...	41	51	17	41	48	16
40 " 45 " ...	25	19	8	18	14	6
45 and upwards ...	...	...	...	4	2	1
All ages	253	282	100	310	264	100

Total Births Apl. 1st to Dec. 31st, 1905, 709 ; 1906, 929 ; 1907, 888.
Percentage attended by Midwives, " 53 ; " 58 ; " 65.

The Midwives Act, 1902.

The Midwives' Act is administered by a Sub-Committee of the Sanitary Committee, and the Medical Officer of Health is the Inspector of Midwives. There are 26 Midwives practising in Bath, 8 having qualified by examination. The Sub-Committee met nine times during the year; the principal events were as follows:—

January 9th.—A Midwife was called before the Committee and reproved for not having given information concerning the death of a woman she attended, until 48 hours after the death, and for sending a verbal message for medical aid, in a serious complication, instead of sending a written notice and keeping a copy.

February 1st.—The Sub-Committee recommended the Council to appoint a new Committee consisting of 14 members of the Council and 7 co-opted members from outside. This recommendation was not confirmed by the Sanitary Committee.

March 5th.—The expediency of giving a sufficient annual grant to an Institution to enable them to engage a nurse to live on the south side of the river, who would undertake midwifery work among the poor was considered, but it was resolved not to advise the Council to subsidise this work.

May 6th.—The new Rules of the Central Midwives' Board were considered, and it was decided to supply copies to all midwives practising and residing in Bath. The appointment of a temporary part-time Health Visitor, to commence work on June 3rd, was recommended, and the Sanitary Committee meeting the same day confirmed this resolution. The Notification of Births Bill was considered.

June 26th.—The appointment of Miss Dora Caws as Lady Health Visitor was confirmed, and a communication was read from the Secretary of State concerning married women employed in workshops; it was decided to collect information concerning the influence of employment upon married women. This report was considered on July 10th.

October 16th.—A circular from the Local Government Board, on the Notification of Births Act, was considered and it was decided to advise the Council to adopt the Act and to appoint a Lady Assistant to the Medical Officer of Health at a cost of £100 a year.

October 30th.—A Midwife was called before the Committee for neglecting to take the temperature of her patients and was reported to the C.M.B.

December 16th.—The form of advertisement and list of duties of the Lady Assistant to the Medical Officer of Health were formulated.

Infantile Mortality during the Year 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

	Cause of Death.	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
All causes	Certified	12	1	6	5	24	9	12	4	6	2	1	2	6	8	2	2	78
	Uncertified	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Common Infectious Diseases.	Small-pox	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Chicken-pox	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Measles	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Scarlet Fever	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Diphtheria: Croup	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough	..	..	..	..	....	1	1	..	1	..	..	..	1	..	1	..	5
Diarrhœal Diseases.	Diarrhœa, all forms	..	..	..	..	....	2	..	..	..	..	..	..	..	..	..	..	2
	Enteritis (*not Tuberculous*)	..	..	..	1	1	..	1	1	1	1	..	1	2	1	..	..	9
	Gastritis, Gastro-intestinal Catarrh	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
Wasting Diseases.	Premature Birth	7	..	3	3	13	..	..	..	..	..	..	..		..	..	..	13
	Congenital Defects	2	1	..	..	3	..	1	..	..	..	..	..	..	..	..	..	4
	Injury at Birth	..	..	..	..	....	..	..	..	..	..	..		..	..	..	..	....
	Want of Breast-milk	..	..	..	..	....	..	..	..	..	..	..		..	..	..	..	....
	Atrophy Debility, Marasmus	2	..	..	..	2	2	2	..	1	..	..	..	1	..	..	..	8
Tuberculous Diseases.	Tuberculous Meningitis	..	..	..	..	....	..	..	..	..	..	..	..	..	..	1	..	1
	,, Peritonitis: Tabes Mesenterica	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Other Tuberculous Diseases	..	..	..	..	....	..	..	..	.	..	..	..	..	1	..	..	1
	Erysipelas	..	..	..	..	....	..	1	..	..		..	..	..	..	..	..	1
	Syphilis	..	..	..	..	....	..	1	..	..		..	1	..	1	..	..	3
	Rickets	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Meningitis (*not Tuberculous*)	..	..	..	..	....	..	1	..	..	..	..		..	1	..	..	2
	Convulsions	..	..	1	..	1	3	2	2	..	..	..	..	..	2	.	..	10
	Bronchitis	2	..	..	1	3	..	..	..	1	..	..	..	..	..	..	1	5
	Laryngitis	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	....
	Pneumonia	..	..	1	..	1	1	1	..	1	1	1	..	2	2	..	1	11
	Suffocation, overlaying	..	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	3
	Other causes	..	..	..	..	....	..	..	1	..	..	..	..	..	..	..	..	1

Population, estimated to middle of 1907, 50,000.

Births { legitimate .. 849 ; illegitimate .. 39

Deaths { legitimate infants .. 73 ; illegitimate ,, .. 6

Deaths from all Causes at all Ages :—Residents, 716; Non-Residents, 70.

The Notification of Births Act, 1907.

This Act has been adopted with the approval of the Local Government Board, to come into force in Bath on February 10th, the date on which the newly appointed Health Visitor commences her work. There was some slight opposition to the adoption of the Act by a few medical men who justly felt annoyed that, through an apparent breach of good faith, the duty of notifying had been rendered compulsory without any acknowledgment by fee and violated confidence. Members of other callings are treated differently, for example in another Act passed the same Session, when a schoolmaster furnishes a list of his scholars, or a dairyman a list of his customers, at the request of the Authority, a small fee has to be paid. On the other hand the Midwives Act, which threw a great deal of work on midwives in book-keeping and sending certificates, provided for no payment for their compulsory duties. I have no doubt that both Acts will be loyally carried out, notwithstanding the injustice.

One of the principal advantages of the Notification of Births Act is information concerning still births, at present we have no reliable intelligence concerning the number of these, only twenty-four were notified by midwives during 1907. From the records of the Burial Boards I know that the average annual number of still births must be at least sixty, and that some children who have lived have been buried as still-born In some cases more stringent inquiry into the cause of death is needed and I think that in nearly all cases of death under one year of age, judicious inquiry as to the cause of death, mode of feeding, etc., should be made with due regard to the feelings of parents. Where there had been obvious carelessness further proceedings should be taken. We realize that something must be done to lessen infantile mortality, now such a large proportion of our populations live in towns. It will be some years before we know the full result of the work of Health Visitors, after only seven months work we know that many women have been induced to continue the breast feeding of infants, who would otherwise be giving them improper food. The total number of infants visited during this period was 271, out of 500 born, the total number of visits paid was 1149. Of these 80 per cent. were entirely breast-fed up to four months of age and sixty per cent. up to eight months. There is room for much improvement. Where permitted the infants were weighed from time to time and their gain in weight noted, the more intelligent mothers take a great interest in this weighing, but some consider it unlucky.

During the last three months of the year I arranged for fortnightly weighings at Milk Street Mission Room and at the Southern Dispensary, which had been kindly placed at my disposal. About 30 mothers attended with their infants and I think it was a useful object lesson, as Miss Caws found time to give some useful advice on the care of infants. I do not propose to continue this part of the work unless it can be done at several centres, but we hope to continue the home weighing. Weighing an infant from time to time is the only available method for ascertaining the normal progress of nutrition. "Much cheap satire may be applied to this part of the work" but nevertheless "the opinion of a man who does not weigh and measure things is only of value when he is quoting the opinion of one who does," and we can afford to put up with the satire. Under the new Regulations of the Board of Education every school child will have to be weighed at least once a year, it will be advantageous if their previous records are known, and possibly this work might be done at the schools on Saturday mornings by volunteers.

A branch of the Babies' Welcome Society has been recently inaugurated, and addresses are given by Miss M. Shickle to mothers and expectant mothers, on home management, nursing, etc. Miss Mabel Shickle is the Honorary Secretary.

When this chart is used for recording weights taken at short intervals, each square represents one pound and each column one week. It is thus used for recording the weights of infants and for recording variations in weight of adults. When used for recording weights taken annually each square represents ten pounds and each column one year. The weight in stones is recorded in the space at the base of the columns, and the date of weighing in the spaces above. One row of figures shows the age in weeks or years, the row not used being crossed off.

The Staff & Work of the Health Department.

I have to record the loss by death of a faithful servant of the Corporation, Mr. William Hayman, who for thirty-six years was the Contractor for Disinfection. He was most zealous in the discharge of his duties and always ready to help in any way when additional assistance was required during epidemics. He had witnessed many changes in the methods of disinfecting, having served under three Medical Officers of Health, and loyally fell in with the modern method of disinfecting by steam, spraying with formalin, and general cleansing.

I advised the Sanitary Committee not to appoint a special disinfector but to distribute the work among various members of the staff, with extra payment for overtime and extra work.

A Lady Health Visitor has been appointed, we were fortunate enough to secure the services of Miss Dora Caws to initiate the work. Miss Caws had been trained at a general hospital and also at a children's hospital. She is also qualified by examination of the Central Midwives' Board as a midwife. By her tactful methods Miss Caws made herself an acceptable visitor and it is impossible to overrate the value of her work. I am sorry we shall not have the continued advantage of her assistance, she did not feel strong enough to undertake the additional duties rendered necessary by the adoption of the Notification of Births Act.

There has been no other change in the staff, and the amount of work done is sufficient testimony to the whole-hearted service which is given. New duties are continually being added to an already full list, and it is impossible to give as much time as we could wish to house to house inspection and to the proper supervision of the food supply. I have previously drawn attention to these facts. Page 48, A.R. 1906.

We have been fortunately free from any serious epidemic, although scarlet fever has been more prevalent than for many years, our ample hospital accommodation has enabled us to deal effectively with all cases needing removal, out of 153 cases of scarlet fever, 141 were removed to hospital and there was only one fatal case. We have no means of estimating the prevalence of measles and whooping cough, but sixteen deaths were registered from these causes, a mortality much below our usual average.

The Duties of the Lady Health Visitor.

To act under the supervision of the Medical Officer of Health, and subject to his instructions, to carry out the following duties :—

(1) To visit houses in which births have recently occurred ; to offer advice concerning the feeding and care of infants ; to make notes concerning the condition of the infants and their surroundings ; where practicable to repeat these visits monthly or more often ; especially to urge the continuance of breast feeding, unless the medical attendants shall have given other directions.

(2) To ascertain as far as possible where diseases are prevalent among infants and young children. To give advice and help in the proper care of children, their training in good habits ; to urge the importance of fresh air, exercise, clean food, and general cleanliness. Where children are ill she must urge the parents to call in a medical man if they have not done so ; she must not name any special medical man, and she must never herself give advice as to medical treatment, nor in any way criticise the actions or methods of treatment adopted by medical men. She may point out the dangers of advertised nostrums, and of wrong treatment by untrained persons.

(3) To make inquiry concerning still-births and all deaths of infants, and in special cases concerning deaths of older children.

(4) To make inquiry concerning the influence of various employments upon child-bearing women.

(5) On special occasions she shall when requested assist in removing persons from one place to another.

(6) She shall take all possible precaution against personally carrying infection.

(7) She shall if required help in administering the Midwives Act, and in giving instruction to midwives and *others*.

(8) She shall keep records of her work in books provided for her, and make weekly summaries of her work, and generally assist in the preparation of Reports.

(9) She shall, as far as possible, endeavour to carry out any lawful commands of the Medical Officer of Health, and any duties, usually assigned to Nurses, which the City Council may see fit to require her to undertake.

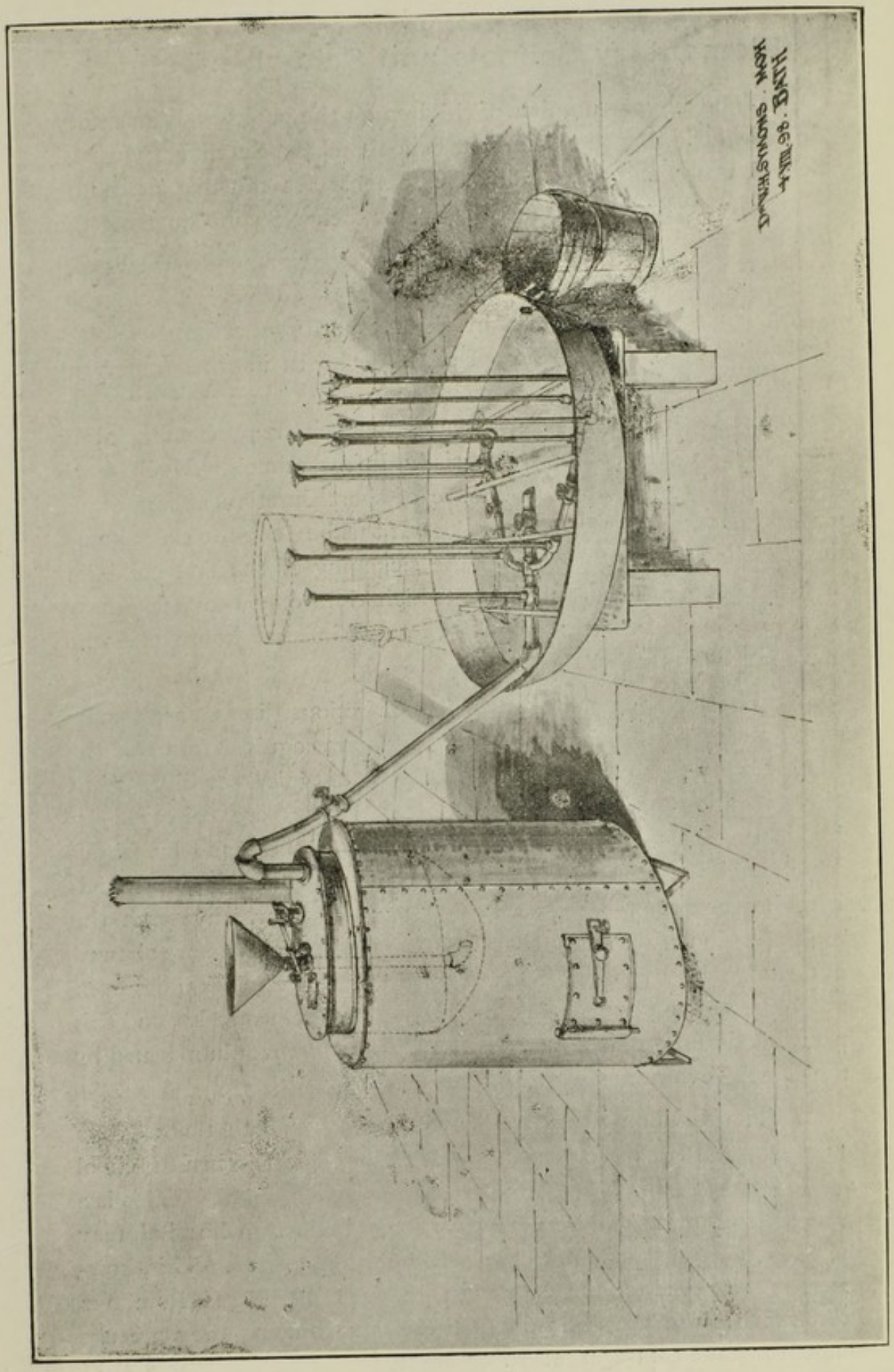
The Milk Supply.

Most of the milk consumed in Bath is brought in from farms which are in immediate vicinity but are not under our control or subject to our inspection. There are nine dairy farms within the city boundary, these are inspected from time to time. The cowsheds for the most part conform with the Regulations made under the Dairies, Cowsheds and Milkshops Order. I should like to see the yards better paved, the manure removed to a greater distance from the cowsheds, the milk vessels sterilized by steam daily and the general standard of cleanliness raised. A cheap and simple form of steamer is shown on the opposite page.

At all the city farms the cows are for the greater portion of the year grazed on grass land, and when not so grazed, are habitually turned out during some portion of the day. Therefore we should not expect to find many tuberculous cows, as a matter of fact I have never seen a cow which was obviously tubercular on a Bath farm. A special inspection was made during the month of July, Mr. H. Eve, M.R.C.V.S., the Inspector under the Diseases of Animals Act, examined all the cows on these farms, 158 in all, "the udders and glands were specially examined for symptoms of tubercular disease. None of the cows shewed tuberculous lesions either generally or in their udders."

The milk is not artificially cooled at any of our farms, the dealers to whom it is sold stipulate that it shall be delivered warm. This is a great mistake, milk coolers are cheap and easily worked, it would be a great advantage if the milk were cooled as soon as possible instead of being kept for two or three hours above 80°F. I have found milk on sale in a shop, some time after delivery, with a temperature of eighty degrees, but some dealers reduce the temperature to 50° or 55° as soon as they can. Clean milk which has been cooled at the farm will keep good for twenty-four hours at least, even in summer weather, and when no preservative is added this is a very good test for freshness of milk.

Cows milk is normally slightly acid, fresh cow's milk requires half its volume of lime water to neutralise its acidity, when it has been kept a few hours in a warm place it often requires as much as its own volume of lime water to make it neutral and fit for the use of young children The infant has a right to expect its mother's milk and this is always quite free from acidity, and when the mother is healthy the milk is also free from germs of all kinds.



Elementary Schools and School Infection.

The average number of children on the books of Elementary Schools, including the Blue Coat School and the Sutcliffe Industrial School, was 7,290, practically the same as for the two preceding years, the average attendance was 6,522, being 77 in excess of the attendance in 1906. The percentage of attendance was for all children 89·5, for boys and girls 92·4 and for infants 83·5 per cent.

No school was closed by the Authority on account of infectious disease, and the futility of closing schools, in order to prevent the spread of diseases of common occurrence, seems now generally recognised. Under special circumstances it may be absolutely necessary to close schools, especially Infant schools. Much more good is likely to follow class closure of short duration after a single case of measles has been observed. "If this be done the class should be closed on the ninth day after the sickening of the first child, for a period of five days only, after which time only those who have sickened should be excluded, with those of infected households who have not had measles."

It is now generally known that infectious diseases are usually conveyed by persons suffering from mild unrecognised forms of the disease or by persons incubating for disease of typical severity. With the exception of small pox, very few diseases are conveyed by inanimate objects, unless it be by feeding utensils and by fabrics which have received the discharges from the patient, such as handkerchiefs or pillow cases, or by food and water which permit the multiplication of some organisms. More latitude is therefore allowed in dealing with "contacts"; we no longer exclude whole families from school because a younger member is suffering from measles, and this principle is now officially recognised in a Memorandum issued by the Local Government Board, January, 1908.

The London County Council Rules stipulate that :—"No child who has been in an infectious hospital should return to school for at least a fortnight after discharge from the hospital." This is a wise precaution, as children, however long detained in hospital, may become infectious again by changed conditions of life. This, however, is very seldom the case with children discharged from our hospital, because the atmosphere there is so bracing they are not liable to "take cold" on returning home.

Recent Legislation.

The past year will be memorable in sanitary records as the name year of two Acts of Parliament that must be, if rightly administered, of immeasurable eugenic importance, they must influence for good the great national questions of "Good Birth" and "Race Culture." The Notification of Births Act, 1907 (page 11) provides for early information of the birth of a child—that most helpless product of evolution. The adoption of this Act implies a willingness on the part of the Sanitary Authority to take up certain duties, principally the duty of spreading knowledge as to laws of health, through a Health Visitor who will visit the homes of young mothers and give them the advantage of knowledge she has gained by scientific training and by constant intercourse with mothers. The Health Visitor to be successful must be animated by the true missionary or altruistic spirit, she must preach the gospel of the open window, the advantage of regular habits in early life, and the obvious truthfulness of the old saying "Whatsoever a man soweth that shall he also reap." She will pay visits monthly during the infancy and afterwards, where practicable, she should visit at some date near each birthday until the child goes to school, when her duties will be taken over by the officials of the Education Authority. Of course this advice and attention will only be given where the mothers are sufficiently intelligent to appreciate the services rendered, the system will therefore help the "survival of the fittest."

The Education (Administrative Provisions) Act, 1907, which has been aptly called the Children's Charter, is the other Act to which I refer, its power for good can as yet be only dimly realised. It is of course possible that well conceived and well meaning legislation may be abused, instead of helping persons to help themselves, too much may be done by the State, some individuals may lose the power or the will to provide for themselves and those dependent on them, it will be our duty to guard against this abuse and to see that as far as possible the child of the future does not lose its self reliance, but is armed fairly for the battle of life, and not handicapped too much by the misfortunes of its parents, on the other hand we must be careful not to give a fictitious power to those who are really degenerate or preventive medicine will cease to be beneficial to the race.

Dr. Lewthwaite's Report on Winsley Sanatorium.

Winsley Sanatorium has now been opened three years, and during this time 570 patients have been admitted for treatment.

During the year ending Dec. 31, 1907, 194 were admitted and the same number discharged, the latter showing the following results: 113 had the disease "arrested" or very considerably improved, so that a large proportion of them were enabled to resume their work again; 47 showed some improvement, but would require more prolonged treatment, and 34 showed no improvement at all; included in these latter are those cases who were found after admission to be too advanced for the treatment. There was no death in the Sanatorium.

During January, 1908, an attempt was made to communicate with all the patients who had been admitted prior to Dec. 31, 1906, and 270 replies were received. It was found that 111 patients were well and able to follow their several occupations, the period of discharge in these cases varying from 33 months to 8 months; 50 cases were found to have relapsed and either unable to work at all or only undertake very light duties; 109 patients had died, but it should be stated that many of these were very advanced on admission and in some cases remained less than a month. Many patients have been lost sight of, some of these are known to have emigrated and were well when last heard of.

Since the Sanatorium was opened the Bath City Beds have been occupied by 22 patients (including two under treatment at present). Of these 9 are known to be well and able to work, three though able to do a little work are not so well (including one who was re-admitted). Six are known to have died, all of whom were admitted prior to June, 1906, since which time the class of case seems to have improved, especially from Bath. There is still, however, much room for improvement in the selection of cases, though it seems almost impossible to obtain patients in the early stages, since the disease is of such an insidious nature that it has made great progress before the patient realizes that there is anything seriously the matter with him and so does not seek advice.

A. Lewthwaite,

March 7th, 1908. *Resident Medical Officer.*

Record of cases of Consumption treated in the Bath Maintained Beds.

No. of Case.	Sex & Age in years.		Date of Admission.	Duration of Treatment.	Subsequent record to Dec. 31st, 1907.
2	M.	30	Dec. 16, '04.	18 weeks.	Died June 1st, 1005.
6	F.	19	Dec. 26, '04.	17 ,,	Disease not completely arrested, but still in full work.
6	F.	20	Jan. 16, '06.	16 ,,	
62	F.	38	April 26, '05.	15 ,,	Died August 26th, 1906.
65	M.	15	April 26, '05.	15 ,,	Disease arrested, now in full work as under gardener.
114	M.	38	Aug 19, '05.	16 ,,	Died December 12th, 1905.
117	F.	14	Aug. 26, '05.	7 ,,	Died March 25th, 1907.
141	M.	11	Oct. 28, '05.	12 ,,	Disease arrested, attending school.
187	M.	23	Jan. 19, '06.	11 ,,	Disease arrested, now at work.
241	F.	27	April 14, '06.	8 ,,	Died January 2nd, 1907.
252	M.	41	May 10, '06.	16 ,,	Doubtful arrest, but at full work.
272	F.	19	June 16, '06.	20 ,,	Died in another district.
310	M.	29	Aug. 31, '06.	16 ,,	Disease arrested, now at full work.
335	M.	26	Oct. 10, '06.	16 ,,	Disease arrested, not working.
349	F.	17	Nov. 12, '06.	8 ,,	Disease arrested.
389	M.	47	Jan. 12, '07.	12 ,,	Improved, but disease not arrested, compelled to be at work.
410	M.	39	Feb. 4, '07.	16 ,,	Disease arrested and health still improving ; has light work.
436	F.	23	April 12, '07.	16 ,,	Do. do.
462	F	20	May 29, '07.	29 ,,	Disease arrested, but since renewed under heavy work.
495	M.	30	Aug. 2, '07.	12 ,,	Much improved, now in work.
535	M.	37	Oct. 17, '07.		Improving under treatment.
559	F.	25	Dec. 3, '07.		Much improved.

It will be seen that the proportion of deaths among the patients sent in from Bath is greater than the average of the Institution, but four out of the six who died were known to be more advanced cases than we wish to accept for treatment at the Sanatorium, but we wished to give them the chance as early cases are difficult to find. I have recently seen all the other cases, except one boy, and I am much impressed with the need of an after-care association. One girl in whom the disease appeared to have been completely arrested, had no chance of keeping well under the conditions in which she was placed. The same remark applies to one of the men, and to another, who was improved by his short stay at Winsley, but had to take up very injurious work again to support his family.

WEEKLY NOTIFICATION OF INFECTIOUS DISEASES FOR THE YEAR 1907.

WEEK. No.	Date of Ending.	Small Pox.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Chicken Pox.	Puerperal Fever.	Erysipelas.	Total.
1	January 5 ..	—	1	1	—	7	—	—	9
2	12 ..	—	3	—	1	5	—	—	9
3	19 ..	—	1	—	—	1	—	2	4
4	26 ..	—	—	1	—	3	—	1	5
5	February 2 ..	—	—	—	1	2	—	1	4
6	9 ..	—	—	—	—	—	—	—	—
7	16 ..	—	2	—	—	—	—	—	2
8	23 ..	—	6	1	—	2	—	—	9
9	March 2 ..	—	3	2	—	3	—	1	9
10	9 ..	—	2	1	—	4	—	—	7
11	16 ..	—	—	1	—	—	—	1	2
12	23 ..	—	1	—	—	5	—	—	6
13	30 ..	—	—	1	—	2	—	—	3
14	April 6 ..	—	—	1	—	—	—	1	2
15	13 ..	—	3	2	—	4	—	1	10
16	20 ..	—	1	2	—	—	—	—	3
17	27 ..	—	—	1	1	1	—	1	4
18	May 4 ..	—	1	1	—	—	—	—	2
19	11 ..	—	4	2	1	—	—	—	7
20	18 ..	—	2	—	—	2	—	1	5
21	25 ..	—	2	—	—	2	—	—	4
22	June 1 ..	—	3	—	1	2	—	2	8
23	8 ..	—	4	—	—	1	—	2	7
24	15 ..	—	1	—	2	3	—	1	7
25	22 ..	—	2	2	—	—	—	—	4
26	29 ..	—	—	2	—	—	—	1	3
27	July 6 ..	—	—	—	—	2	—	1	3
28	13 ..	—	4	—	—	—	—	—	4
29	20 ..	—	2	2	1	10	—	—	15
30	27 ..	—	3	—	—	2	—	—	5
31	August 3 ..	—	—	—	—	3	—	1	4
32	10 ..	—	1	—	—	2	—	—	3
33	17 ..	—	1	1	—	—	—	1	3
34	24 ..	—	3	1	1	4	—	1	10
35	31 ..	—	12	—	1	2	—	1	16
36	September 7 ..	—	4	2	—	2	—	1	9
37	14 ..	—	6	4	—	—	—	1	11
38	21 ..	—	8	5	—	—	—	1	14
39	28 ..	—	4	—	—	—	—	1	5
40	October 5 ..	—	7	4	—	1	—	—	12
41	12 ..	—	10	2	—	1	—	—	13
42	19 ..	—	7	1	—	2	—	1	11
43	26 ..	—	5	2	—	2	1	2	12
44	November 2 ..	—	8	2	1	1	—	1	13
45	9 ..	—	2	3	—	1	—	2	8
46	16 ..	—	7	1	—	3	—	1	12
47	23 ..	—	1	1	—	2	—	1	5
48	30 ..	—	4	1	2	3	—	1	11
49	December 7 ..	—	2	6	—	1	—	1	10
50	14 ..	—	6	—	—	2	—	—	8
51	21 ..	—	1	—	1	2	—	—	4
52	28 ..	—	1	—	—	—	—	—	1
	Totals ..	—	151	59	14	97	1	35	357

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1907.

January 1st to December 31st, 1907.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.													TOTAL CASES NOTIFIED IN EACH LOCALITY.								NO OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.											
	At all Ages.	At Ages—Years.												BATH.		WALCOT.		LYN. & WID. W.		BATHWICK.		BATH.		WALCOT.		LYN & WID. W.		BATHWICK.		BATH RURAL.		OUTSIDE DISTRICTS	
		Under 1.		1 to 5		5 to 15		15 to 25.		25 to 65.		65 and over.																					
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	F.		M.	F.
Small-pox																																	
Cholera																																	
Diphtheria	59	1		14	1	15	10	1	8	2	7			33	26	13	14	12	8	8	4	15	18	7	10	6	7	2	1	1			
Membranous croup																																	
Erysipelas	36	1					1	1		13	14	2	4	17	19	10	10	7	9														
Scarlet fever .	153		2	22	23	44	54	1	5		2			67	86	47	54	20	30		2	64	77	47	53	17	23		1	15	15		
Typhus fever ..																																	
Enteric fever ..	14				2		1	5	1	5				10	4	2		7	4	1													
Relapsing fever ..																																	
Continued fever ..																																	
Puerperal fever ..	1								1						1		1																
Plague																																	
Chicken Pox ..	98	6	6	20	17	23	20	2	2	1	1			52	46	33	30	14	14	5	2												
Totals	361	8	8	56	43	82	86	10	17	21	24	2	4	179	182	105	109	60	65	14	8	79	95	54	63	23	30	2	2	16	15		

City Isolation Hospital—STATUTORY HOSPITAL, CLAVERTON DOWN, BATH RURAL DISTRICT

Distant 2½ miles from Guildhall. Situation—N. Latitude 51° 21′ 52″, West Longitude 2° 19′ 10″ Elevation—520 feet above sea level.

NOTES.—The localities adopted for this Table are the same as those in Tables on pages 24 to 26. (W.) The locality in which a workhouse is situated.

Return of Occupied and Void Houses.

Void Houses include those closed for repairs and between lets, etc.

Name of Parish	April 1st, 1907.				October 1st, 1907.				Per centage Void.
	Private Houses, Hotels & Shops.		Other Buildings		Private Houses, Hotels & Shops.		Other Buildings.		
	Let.	Void.	Let.	Void.	Let.	Void.	Let.	Void.	
Bathwick ..	859	84	89	11	865	85	86	10	9·1
Lyn. & Wid. ..	3524	278	208	13	3544	276	215	16	7·2
St. James' ..	615	27	126	6	608	28	130	6	4·4
St. Michael's ..	397	27	72	3	389	25	69	7	6·3
S.S. Peter & Paul	233	12	46	2	234	9	46	4	4·8
Walcct ..	4773	354	319	36	4724	410	312	36	8·1
Bath ..	10401	782	860	71	10364	833	858	79	7·5

New houses certified by City Surveyor, 1891—1900, **865**; 1900—1907, **1033**.

Births and Deaths registered during the 52 weeks ending December 28th, 1907.

(Population—Census 1901),

District.	Population. Male,	Female.	Births. M.	F.	Persons.	Rate.	Deaths. M.	F.	Persons.	Rate.
Walcot ..	12300	1883	274	244	518	16·3	155	219	374	15·8
Hospitals ..			—			—	69	49	118	
Lyn. and Wid..	6510	7862	137	162	299	22·1	71	66	137	16·6
Workhouse ..			13	9	22		52	52	104	
Bathwick ..	1384	2900	26	23	49	11·4	21	31	52	12·1
Bath	20194	29645	450	438	888	17·76	368	417	785	15·7

Corrected Sub-District Mortality,

including one death from Scarlet Fever at Statutory Hospital.

	Locality of Death. Private House.		Hospital.		Workhouse.		Total Persons	Corrected Rates Local.	Standard
	Male	Female	Male	Female	Male	Female			
Walcot ..	152	213	32	19	38	36	490	15·7	14·5
Lyn. and Wid..	67	71	10	10	5	8	171	11·8	10·9
Bathwick ..	20	30	1	2	1	1	55	12·8	11·2
Bath	239	314	43	31	44	45	716	14·32	12·87
Non-Municipal	3	7	27	18	8	7	70		

Annual Death Rates per 1000 from all causes and from seven Zymotic Diseases.

	All causes.	Zymotic Diseases (Cls. 3-9.)	Small Pox.	Measles.	Scarlet Fever	Diphtheria	Whooping Cough	Fever.	Diarrhœa & Zymotic Enteritis.	Deaths under 1 year per 1000 Births.
England and Wales ...	15·0	1·26	—	0·36	0·09	0·16	0·29	0·07	0·29	118
Bath	14·32	0·74	—	0·04	0·02	0·08	0·28	0·04	0·28	88
76 Great Towns ..	15·4	1·54	—	0·43	0·12	0·17	0·35	0·07	0·40	127
142 smaller Towns ...	14·5	1·29	—	0·41	0·08	0 15	0·29	0·07	0·29	122
England and Wales, less the 218 towns ...	14·7	0·91	—	0·25	0·06	0·15	0·21	0·06	0 18	106

Vital Statistics.

Marriages Registered in the City of Bath, 1906, 1907.

Quinquennial means 1891-5, 1896-1900, 1901-5.

Years.	Winter.	Spring.	Summer.	Autumn.	Year.	Rate per 1,000.
1891-1895	88	122	131	126	466	17·9
1896-1900	78	124	129	121	451	18·0
1901-1905	78	116	123	123	435	17·4
1906	74	119	124	106	423	16·9
1907	81	120	129	110	440	17·6

Quarterly Returns of Births.

Births Registered.	Winter.	Spring.	Summer.	Autumn.	Year 1906.
Legitimate ...	217	230	209	193	849
Illegitimate ...	6	13	12	8	39
Total Births ...	223	243	221	201	888
Rate per 1,000 ...	17·8	19·4	17·7	16·1	17·8
English Rate do ...	26·7	27·4	29·1	24·8	26·3

Vaccination Returns.

	1905.			1906.			Jan. to June 1907.		
District.	Born.	Vac.	Died.	Born.	Vac.	Died.	Born.	Vac.	Died.
Walcot	561	464	37	534	375	53	267	178	19
Lyncombe	377	280	23	348	268	28	161	114	8
Bathwick	47	61	2	48	35	5	28	18	1
Bath	985	814	62	940	678	86	456	310	28

Primary Vaccination per 1,000 Surviving Infants.

1891 1900.	1901.	1902.	1903.	1904.	1905.	1906.	Jan. to June 1907.
695	822	885	716	808	882	794	725

Statutory Hospital Statistics.

	Scarlet Fever.		Diphtheria.	
	Cases.	Deaths.	Cases.	Deaths.
Urban ...	141	1	30	0
Rural ...	30	4	1	1
Total ...	171	5	31	1

Vital Statistics of separate Localities in 1907 and previous years.

COUNTY BOROUGH OF BATH.

Names of Localities.	Bath. Population 50,000.							Walcot. Population 31,200.							Lyn-Widcombe. Population 14,500.							Bathwick. Population 4,300						
Year.	Births registered.		Deaths at all Ages.		Deaths under 1 year.		I.M. per 1000 Births.	Births registered		Deaths at all Ages		Deaths under 1 year.		I.M. per 1000 Births.	Births registered		Deaths at all Ages.		Deaths under 1 year.		I.M. per 1000 Births.	Births registered.		Deaths at all Ages		Deaths under 1 year.		I.M. per 1000 Births.
	M.	F.	M.	F	M	F		M.	F.	M.	F.	M	F		M.	F.	M.	F.	M	F		M.	F.	M.	F.	M	F	
1897 ...	532	477	389	472	129		128	335	299	273	309				164	159	99	119				33	19	17	44			
1898 ...	541	462	413	443	83	54	136	318	280	271	289				200	158	116	125				23	24	26	29			
1899 ...	514	506	433	528	73	61	131	307	307	283	332				186	176	129	165				21	23	21	31			
1900 ...	496	466	382	468	66	55	126	299	267	256	317	38	31	122	171	176	110	115	24	20	127	26	23	16	36	2	2	82
1901 ...	508	467	415	461	53	48	104	288	258	254	266	35	30	119	198	177	143	156	16	14	80	22	32	18	39	2	4	111
1902 ...	489	499	389	433	60	45	106	280	300	254	303	36	30	114	179	180	111	93	20	13	92	30	19	24	37	4	2	123
1903 ...	527	500	302	366	56	31	89	296	304	204	252	38	15	88	199	167	74	78	16	14	82	32	29	24	36	2	2	66
1904 ...	525	509	328	410	63	52	117	313	292	210	284	38	29	111	183	195	87	93	21	22	114	29	22	31	33	4	1	98
1905 ...	479	506	339	385	53	35	97	267	295	245	252	39	25	114	188	189	74	99	13	9	58	24	22	20	34	1	1	43
1906 ...	451	478	341	407	63	43	114	266	265	226	278	41	21	117	161	190	89	97	18	21	111	24	23	26	32	4	1	107
Averages of Years 1897 to 1906.	505·8	487·0	373·1	437·3				296·9	286·7	247·6	288·2				182.9	176·7	103·2	114·0				26·4	23·6	22·3	35·1			
1907 ...	450	438	332	384	46	33	88	274	244	211	268	29	21	97	150	171	88	84	12	11	71	26	23	22	33	5	1	123

NOTES.—(*a*) The separate localities adopted for this table are areas of which the populations are obtainable from the census returns, *i.e.*, registration sub-districts. Block 1 is used for the whole district: and blocks 2, 3 and 4 for the several sub-districts. I.M.=Infantile Mortality.

(*b*) All known deaths of residents occurring in public institutions beyond the district are included in sub-columns of this table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

(*c*) Deaths of residents occurring in public institutions, whether within or without the district, are allotted to the respective sub-district according to the previous addresses of the deceased.

Vital Statistics of Whole District during 1907 and Previous Years.

COUNTY BOROUGH OF BATH.

Year.	Population estimated to Middle of each Year.	Births.		Births per 1000 Married Women.	Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents Registered in Public Institutions in the District.	Deaths of Residents Registered in Public Institutions beyond the District.	Net deaths at all Ages belonging to the District.	
					Under 1 Year of Age.		At all Ages.						
		Number.	Rate.*		Number.	Rate per 1,000 Births Registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4		5	6	7	8	9	10	11	12	13
1897	50,600	1009	19·94	201	129	128	861	17·02	179	61	5	805	15·98
1898	50,400	1003	19·84	202	137	136	856	16·98	194	73	2	785	15·51
1899	50,200	1020	20·32	204	134	131	961	19·14	229	81	3	882	17·57
1900	50,000	962	19·14	192	121	126	933	18·66	193	89	6	850	17·00
1901	49,800	973	19.58	199	101	104	876	17·59	177	73	7	803	16·12
1902	49,800	988	19·40	202	105	106	911	17·93	223	70	2	822	16·48
1903	49,800	1027	20·62	208	92	89	751	15·08	135	57	2	668	13·41
1904	49,800	1034	20 76	209	121	117	826	16·58	212	75	8	738	14·82
1905	50,000	985	19·70	200	95	97	808	16·16	194	71	4	724	14·48
1906	50,000	929	18·58	188	110	114	824	16·60	169	71	4	748	14·96
Aver. 1897-1906	50,040	993	19·79	200	115	114	860	17·17	190	72	4	782	15·63
1907	50,000	888	17·76	180	81	88	785	15·7	163	60	1	716	14·32

* Rates in Columns 4, 8, and 13 calculated per 1000 of estimated population.

NOTE.—The deaths included in column 7 of this table are the whole of those registered during the year as having actually occurred within the district. The deaths included in column 12 are the number in column 7, corrected by the subtraction of the number in column 10 and the addition of the number in column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions, viz., Bath Workhouse, the Royal United Hospital and Royal Mineral Water Hospital (the "Public institutions" taken into account for the purposes of these tables); and by the term "Residents' is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere, *i.e.*, the Statutory Hospital

There were also 10 deaths of non-residents in private houses and private nursing institutions, making a total of 70 non-residents.

Area of district in acres (exclusive of area covered by water) 3,338

Total population at all ages ... 49,839
Number of inhabited houses ... 9,317
Average number of persons per house 5·3
} At Census of 1901.

CITY OF BATH.

Causes of, and Ages at, Death during the Year 1907, including 1 Death at Statutory Hospital.

CAUSES.	Persons.	M.	F.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES. — 1		1—5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 35		35 to 45		45 to 55		55 to 60		60 to 65		65 to 75		75 to 80		80 to 85		85 & over		DEATHS IN LOCALITIES. WALCOT.		LYN-WID.		BATHW'K		Non-Res.		Public Inst. Res.	
				M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2 Measles..	2	..	2	..			1		1	..		..		..		..		..		..		..		..		..		..		..					2								
3 Scarlet-fever	1	1	..	..		1		..		..		..		..		..		..		..		..		..		..		..		..		1											
5 Influenza	19	7	12	..		..			1	..		..		..		..			1	..				1	2		2	2	2	1	2	3	2	5	8	1		1	4			2	1
6 Whooping-cough	14	6	8	3	2	3	6	..		..		..		..		..		..		..		..		..		..		..		..		..		6	5		3		..	1			..
7 Diph. and M. Crp	4	3	1	..		1	1	2		..		..		..		..		..		..		..		..		..		..		..		2		1	1		..						
9 Fever Enteric	2	2	..	..		..		..		..		..		1		1				..		..		..		..		..		..		1		1			..	1					
11 Diarrhœa	3	2	1	1	1	..		..		..		..		..		..		1		..		..		..		..		..		..		1	1		..	1							
12 Zymotic Enter.	11	6	5	5	4	1	1	..		..						..		..				..		..		..		..		..		3	4	3			1		..				
13 Enteritis	4	2	2	..		..		..		..		..		..			1	..		1		..		..		..			1		1	1	2		1		..		..				
14 C. Pox ..	1	..	1	..			1	..		..		..		..		..		..		..		..		..		..		..		..													
15 Erysipelas	2	2	..	1		..		..		..		..		..		..		..		1		..		..		..		..		..		1			1								
16 Venereal	4	3	1	2	1	1		..		..		..		..		..		..		..		..		..		..		..		..		3	1										
17 Other Septic	7	4	3	1		..		1		..		..		1	1	..			1	1		..		..			1	..		..		2	3	2			2		1				
17a Rheumatic .	..	..	..	..		..		..		..		..		..		..		..		..		..		..		..		..		..													
19 Tuber. men. ..	5	2	3	1			2		1	1		..		..		..		..		..		..		..		..		..		..		2	1		2								
19a Tabes mesent ..	..	..	..	..				..		..		..		..		..		..		..		..		..		..		..		..													
20 Phthisis ..	46	27	19	..			1	..			1	1	1	2	1	9	7	8	2	3	3	2		2	1		2		..				17	12	10	7		..	1		3	7	3
21 Other tuberclr.	3	1	2	1		1		..		..		..		..		..		1		..		..		..		..		..		..				1		2			..	2		2	1	
23 Cancer ..	65	20	45	..		..		..		..		..		..			1	3	2	2	8	4	6	2	8	6	12	3	3		4		1	12	32	6	11	2		2	2	6	5	10
24 Premature birth	13	7	6	7	6	..		..		..		..		..		..		..		..		..		..		..		..		..		..		4	4	2	2	1			..		
25 Developmental	16	9	7	8	6	2		..		..		..		..		..		..		..		..		..		..		..		..		..		5	6	4		1		2		1	2
26 Old age ..	60	21	39	..		..		..		..		..		..		..		..		..			1	5	4	2	13	12	11	2	10	16	29	4	6	1	4	3		6	12	
27 Meningitis	6	1	5		1	..		..			2		1	..		..		1			1	..		..		..		..		..		1	2		3								
28 Brain Inflam.	4	4	..	..		..		..		..		..		..		..		..		..			1		1	..			1	1													
28a Apoplexy	27	10	17	..		..		..		..		..		..			1	1		1		1	2		2	5	6	1	2	1	4	..		5	13	3	3	2		1	1		1	3
28b Hemiplegia	9	2	7	..		..		..		..		..		..		..		..			1	..		1			1	4		2		..		2	4		2		1	1		2	4
28c Spinal ..	3	1	2	..		..		..		..		..		..		..		..			1	1		..		..			1	..		..		1	2								

CAUSES	Persons.	M	F	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES. — 1		1—5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 35		35 to 45		45 to 55		55 to 60		60 to 65		65 to 75		75 to 80		80 to 85		85 & over		DEATHS IN LOCALITIES. WALCOT.		LYN-WID		BATHW'K		Non-Res		Public Inst.	
				M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F.	M	F.	M	F.	M	F.	M	F
29 Heart	77	29	48	..		..		..		..		..		..		2		2		2	4	3	5	2	6	11	17	4	6	1	5	2	5	20	34	9	6		8	2	4	4	11
29a Heart failure ..	24	13	11	..		..		..		..		..		..		..		..		2		1	2	2	1	3	3	2	2	1	2	2	1	9	9	3	1	1	1	1	1	2	1
29b Vessels ..	2	2	..	..		..		..		..		..		..		..		..		2		..		..		..		..		..		..		2		..		..		..		2	
30 Bronchitis Acute ..	20	8	12	3	2	1		..		..		..			1	..		..			1	..			2	1	3	2	2	1			1	6	6	1	5	1	1		1	1	1
31 ,, Chronic	41	14	27	..		..		..		..		..		..		..		..			1	2	2	1	2	6	13	3	4	1	1	1	4	8	22	5	4	1	1	..		1	
32 Pneumonia ..	37	18	19		2	2	1	1	1	..		..		1		2	2	3		6	5	1	2	..		2	4		1	..			1	10	13	8	4		2	1		5	3
33 ,, Lobular	26	15	11	6	3	6	5	..		..		..		..		..		..		1		..			1	2	1	..			1	..		10	7	4	4	1		1		5	3
34 Stomach ..	15	6	9	..		..		..		..		..		..		1	1		1	2	1	1	2	..		1	2	..		1	1		1	3	4	3	3		2	1		4	2
35 Obstruction ..	9	2	7	..		..		..		..		..		..		..		..		..		..		..			3		2	2	1		1	2	4		3		1	3	1	
36 Cirrhosis, Liver ..	19	12	7	..		..		..		..		..		..		1		6	2	1	1	3	3	..		1	1	..		..		..		10	5	1	1	1	1	..		5	1
37 Nephritis ..	28	18	10	..		..		..		..		..		1	1	1	1	3	1	4	1	1	1	3		4	3	1			2	..		15	8	3			2	..		4	
38 Genital	2	..	2	..		..		..		..		..		..		1		..		..		1		..		..		..		..		..			1		..		1				2
39 Parturition ..	2	..	2	..		..		..		..		..		..		1			1	..		..		..		..		..		..		..			..		2		..			..	
40a Mechanical ..	7	6	1	..		..		..		..		..		..		..		1		1		1		..		..		..	1	1	..	2		4	1	2		..	3	2	4		
40b Burns, Scalds ..	5	3	2	..		2	2	..		..		..		..		..		..		..		..		..		1		..		..		..		2	2	1		..	1	1	2		2
40c Poisons ..	..	..	..	..		..		..		..		..		..		..		..		..		..		..		..		..		..		..			..		..		1		..	
40d Drowning ..	2	2	..	..		..		1		1		..		..		..		..		..		..		..		..		..		..		..		1		1		..	1	2		..	
40e Suffocation ..	5	4	1	3	1	..		..		..		..		..		..		..		1		..		..		..		..		..		..		4	1		..		..			1	
41 Suicide ..	3	3	..	..		..		..		..		..		..		..		1		1		1		..		..		..		..		..		3			..		..	2		..	
42 Ill defined ..	..	..	..			..		..		..		..		..		..		..		..		..		..		..		..		..		..			..		..		..			..	
43 All other causes ..	61	34	27	4	4	2	1	2			2		2	1		2	2	2	1	2	2	2	1	4	1	8	5	4	4	1	2	..		20	18	7	8	7	1	6	2	8	6
Total ..	716	332	384	46	33	23	22	7	4	2	5	1	4	7	4	19	18	33	12	34	30	24	27	18	28	57	87	25	45	22	38	13	28		..		..		..		..		..	
Walcot ..	479	211	268	29	21	14	15	2	2	2	5		2	5	2	9	8	25	8	21	19	18	19	13	17	43	65	18	33	13	32	9	18	211	268		..		..		..		..	
Lyn-Wid. ..	172	88	84	12	11	8	7	5	1	..		1	2	2	2	9	7	5	3	12	9	6	5	5	8	12	13	3	7	6	2	2	7		..	88	84		..		..		..	
Bathwick ..	55	22	33	5	1	1		..		..		..		..		1	2	3	1	1	2		3		3	2	9	4	5	3	4	2	3		..		..	22	33		..		..	
Non-resident ..	70	38	32	2		4	3	1	1	1	1	3		1	4	4	1	5	4	4	5	4	3	1	5	7	2		2	..	1	1		..		..		..	38	32		..	
Public Inst. Residents ..	163	87	76	8	5	8	8	3			2	1	1	2	2	2	7	14	4	15	3	10	5	3	7	11	15	6	6	3	6	1	5		..		..		..		..	87	76

Cerebrospinal Meningitis or Spotted Fever.

This disease caused one death, a well marked example of sporadic incidence of a disease which may become epidemic, which deserves a somewhat full record.

On Friday, March 22, 1907, I was asked to see the body of a woman who had died after a short illness, an extensive purpuric rash suggesting "spotted fever." The history was as follows:—Mrs. ....., aged 54 years, living in a detached house, surrounded on three sides by open fields, at an elevation of about 300 feet O.D., had not been away from Bath for several months, nor in known contact with any non-residents. She was the mother of two sons and two daughters, all healthy and all married. Her husband, one son with his wife and three young children lived in the same house, but none of these was ill.

Mrs. Blank was apparently quite well on Wednesday, she did her usual weekly wash, and after a light supper went to bed at 11 p.m. She woke her husband at 3 a.m. on Thursday morning, feeling ill and shivering. She had some tea at 4.30 but refused breakfast at 7.30 a.m., during the day she complained of headache, vomited and was otherwise ill. A medical man saw her at 5 p.m. and prescribed treatment, he was sent for again at 3 a.m. on Friday morning, the patient recognised him on his arrival, but soon after, became delirious and comatose. She was restless, moved her eyes a good deal, but had no retraction of the head. The patient died at 6.30 a.m. after 26 hours illness.

A post-mortem examination was made about nine hours after death, the Pathologist made a special microscopical examination of the exudate on the brain and came to the conclusion that this was a case of the malignant form of cerebro-spinal fever. A film of dried exudate, and two tubes of fluid from the brain, were taken the same day to a Professor of Bacteriology, who made a number of cultures but failed to detect any living diplococcus in the fluid I gave him. Two dried films were submitted to Dr. Mervyn Gordon, he found a Gram-negative coccus, having the appearance of intra-cellular desposition of Weichsolbaum's diplococcus, and was of opinion that the bacteriological evidence, so far as it goes, points to the case having been caused by the Meningococcus. Disinfection was done. No other case occurred.

Disinfection, Ancient and Modern.

The old method of disinfecting rooms was by burning sulphur or by chlorine. In Bath chlorine was preferred, the chemicals were not heated, and only a negligible amount of chlorine was produced, but the odour was sufficient to satisfy the public. Large quantities of "Sanitary Fluid" were used to disinfect drains, and the river banks were freely sprinkled during the summer months, with disinfecting powder.

Modern bacteriological methods of testing have shown that gases do not easily penetrate bulky articles, unless aided by artificial suction and pressure. To disinfect pillows and bedding they must be put into an air-tight chamber, and the air exhausted, after which, steam or some disinfectant such as formalin must be forced into the interstices of the material. To disinfect rooms the walls and floors may be sprayed with a one per cent. solution of formalin, and the room closed for a couple of hours. The ceilings should afterwards be lime-washed, the paper scraped from the walls, and the floors washed with water and a non-volatile disinfectant of ascertained strength. We carry out these methods in dealing with dangerously infectious disease, and they are recommended for rooms which have been occupied by consumptive persons. But the infection of diphtheria, scarlet fever and measles, is much less persistent and such drastic methods of disinfection are not commonly adopted. Steam disinfection of the bedding and the formalin spray for rooms generally suffice. The removal and isolation of infected persons is far more important than disinfection. Inanimate objects seldom convey infection but the dust of rooms recently occupied by infectious persons is dangerous, and curtains and materials which harbour dust should not be used in school rooms or public places. Domestic pets and the common housefly are no doubt responsible for a great many cases of disease. A disinfectant with a powerful odour is of of great service in keeping flies from rubbish heaps, but in towns collections of putrefying matter should not be allowed. The good system of scavengering and methods of dealing with house rubbish, which obtain in Bath, have probably a great deal to do with the decline of infectious disease, but still further improvement is possible, and I look forward to the time when house rubbish shall be collected more frequently and conveyed in covered receptacles direct from the house, instead of being transferred in the streets, from the receptacles to the carts.

The Housing of the Working Classes.

In conjunction with the Chairman of the Surveying Committee I had the privilege or attending the 8th International Housing Congress held in London and of joining in the Housing Tour which followed, but nowhere did I see greater improvements than those which have been carried out in our own City in the Dolemeads and Lampard's Buildings, in past reports I am given some particulars concerning these schemes but this year I have made a special study of the local statistics and therefore it may not be out of place to give some account of the earlier steps in connection with the Dolemeads

The Dolemeads Improvement Scheme probably owes its origin to the liability of this district to floods, particularly the flood of October 1882, when the flood level was 12·6 feet above Pulteney Weir, and when some 6,000 persons living near the river were more or less inconvenienced, the distress was apparently greater in the Dolemeads than elsewhere, because the whole district is under flood level. It is not surprising therefore that active steps were considered necessary, to prevent if possible, a repetition of such disasters. A firm of eminent engineers made a complete examination of the conditions favourable to floods and reported upon the works they thought best suited to prevent floods, the estimated cost of the suggested works was £106,645 but even with this outlay would not guarantee complete immunity.

The floods of November 13th and 15th 1894 were even higher than that of 1882, being 16 feet above Pulteney Weir or 10 feet above the towing path. A considerable portion of the towing path was carried away by the flood, some stabling and shedding and boundary walls were demolished. Boundary walls had fallen during previous floods and had subsequently been rebuilt on made ground, encroaching upon the river, to the extent in some cases of no less than 18 feet beyond the original boundary. The sectional area available for the river had been lessened so that it was only half of that available at the Old Bridge. The first Improvement Scheme provided for widening the river bed and extending the river wall to this bend of the river at a cost of £6,108.

Great as was the improvement made in building the river wall it was thought that the liability to flooding to some extent remained and if floods could not altogether be prevented, it was decided to prohibit the erection of houses below flood level. Bylaw II provides that there shall be no new building in the valley of the river Avon unless erected upon good concrete, masonry, or brickwork, so that the floor of the lowest habitable story shall be of a height above Ordnance datum of 84 feet where near the East boundary line and 63 feet on the extreme west, intermediate areas being also specified. The action of the Council did not stop here, but, as a large portion of the Dolemeads is practically an insanitary area, within the meaning of the Housing of the Working Classes Acts, the City Surveyor was instructed to prepare a Scheme for building small houses. The Scheme was approved by the City Council on September 20th, 1898. The final sanction of the Local Government Board, to a loan of £10,500, was given in December 1899. The City Surveyor then proceeded to raise the site, in some places as much as 13 feet above the pre-existing level, Mr. Toogood's tender for erecting houses, as designed by the City Surveyor, was accepted on July 27th, 1900 and June 24th, 1901, seven houses in Archway Street were declared fit for habitation by a public ceremony. By the end of October 1902, Excelsior Street was completed and every house inhabited, except two which had been fitted up for shops, these two were subsequently converted into private dwellings and were at once let. The total number of houses is 42. The cost of raising the road and site was £945. The area of site 0·9148 acre· The cost of site £1,892. The cost of building £7091. Thirty-four houses consist of four rooms and are let at 5/- weekly.

The total amount of rent received up to date is £3,224 12 6, the total costs of repairs during seven years, £188 14, land Agent's commission £161 5. At the end of the first six years there was neither a bad debt nor any arrears. The houses demolished were let at about 3/6 and tenants frequently neglected to pay their rents. Some have gone into these new houses and the question is asked :— "How is it they can now pay 5/- a week?" A gentleman who knows the locality suggests that whereas a man used to spend 3/6 a week in "drink" and 3/6 a week for rent, he now spends 5/- a week for rent and 2/- for "drink." Formerly the wretched houses drove the men and women to public houses, now they live at home.

The James Street Improvement.

The need for a more direct route from the Great Western to the Midland Railway Station has been long felt and the increasing traffic was rendered more evident by the obstruction unavoidably caused by the Electric Trams passing at Kingsmead Square. The Street Improvement Committee have at last decided to carry out a scheme whereby James Street shall be continued into Avon Street. Nos. 51, James Street, 1, 2, 3 and 4 Milk Street, 82, 83 and 84, Avon Street and a cottage being demolished.

This will no doubt be a great improvement to the whole neighbourhood and especially to Avon Street, which is the most populous street in Bath. To meet the requirements of the Local Government Board the necessity for providing new accommodation for the displaced population had to be disproved. This was not difficult as the Census returns show that social improvements have caused a gradual migration of the population from the central districts to the suburbs. The central parishes in 1851 had a population of 11,647 persons living in 1,349 houses, while in 1901 in the same parishes 7,577 persons living in 1,342 houses.

In order to be able to give more detailed information I obtained the exact population of all the streets in Kingsmead and St. James' Wards as enumerated at the Census returns of 1871 and 1901. Owing to the late Dr. Barter's careful work I had records of all deaths from April, 1866 to April, 1876, as he had entered them in a Street List, from 1896 a similar record has been kept and from 1899 I have been also able to refer births to the houses in which they occur. The following figures are obtained from these records and being for a period of ten years they are as reliable as those relating to districts having ten times the population when the statistics represents the returns of one year. It seems that thirty years ago the mortality among the inhabitants of Avon Street was no greater than in Bath generally but was much heavier than in the Royal Crescent. In thirty years the Crude Death-rate of Bath has fallen from 23 to 17. Avon Street District has lowered its death-rate from 23·5 to 20·3 and the Royal Crescent District remains stationary with its ideal death-rate of 11·4 per 1,000. I do not compare these districts with each other but only with their own populations at different periods.

Deaths and Mean Annual Death-rates.

Various Streets. Ten years 1866—1876.

Street.	Population 1871.	Infant Deaths 10 years.	Total Deaths 10 years.	Death-rate. per 1,000.
Avon Street ...	1111	91	267	24·0
Milk Street ...	364	26	89	24·4
New Quay ...	118	5	9	7·6
Little Corn Street ...	155	10	25	16·1
Corn Street ...	379	26	93	24·5
Peter Street ...	307	24	89	29
Six Streets ...	2434	182	572	23·5
The Dolemeads ...	?	117	397	
Marlborough Buildings	226	0	22	9·7
Royal Crescent ...	257	2	31	12·0
Park Lane ...	31	0	6	19·4
Three Streets ...	514	2	59	11·5
City of Bath ...	52,528	?	12,060	23

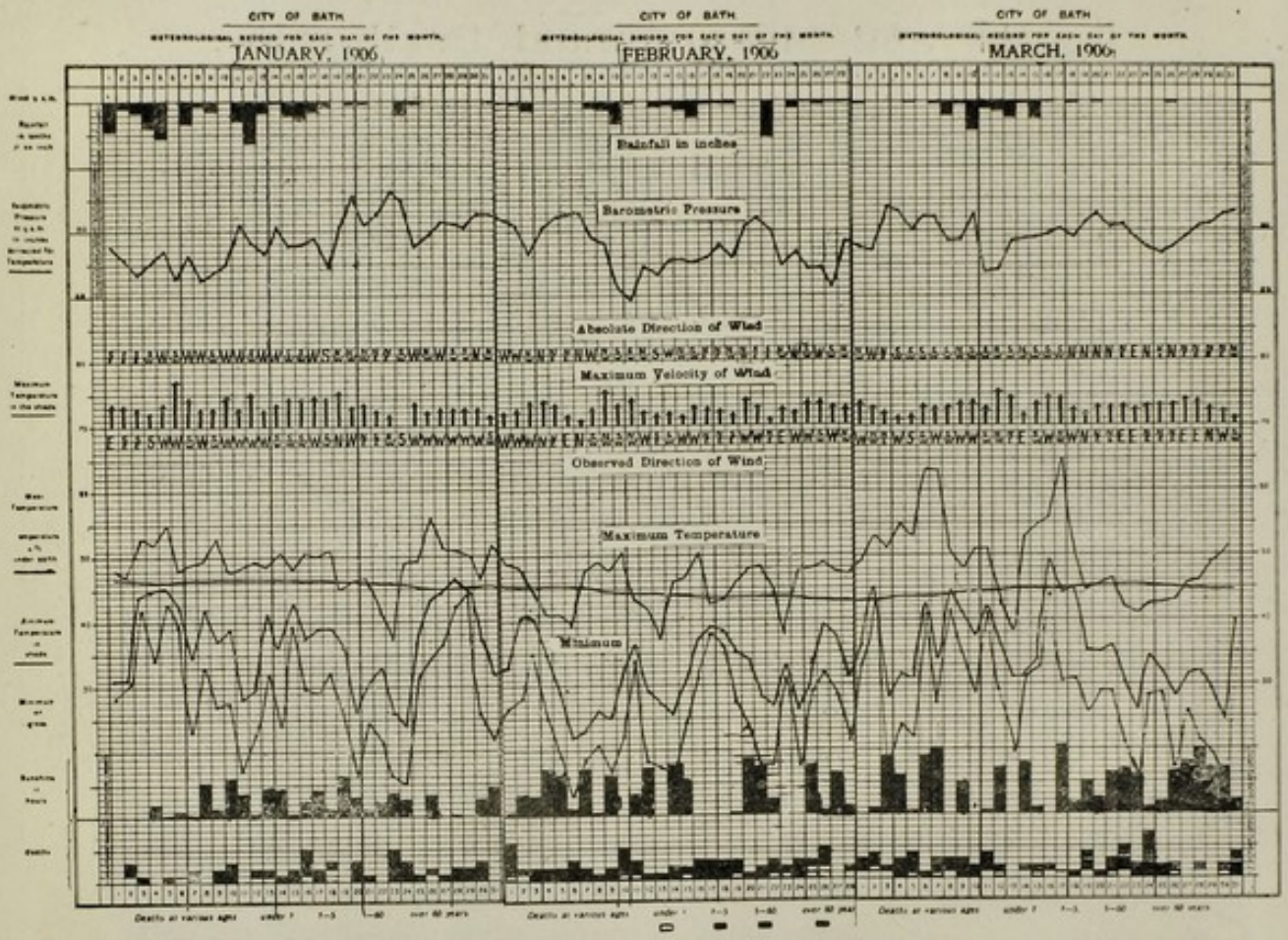
Births, Birth-rate, Infantile Mortality.

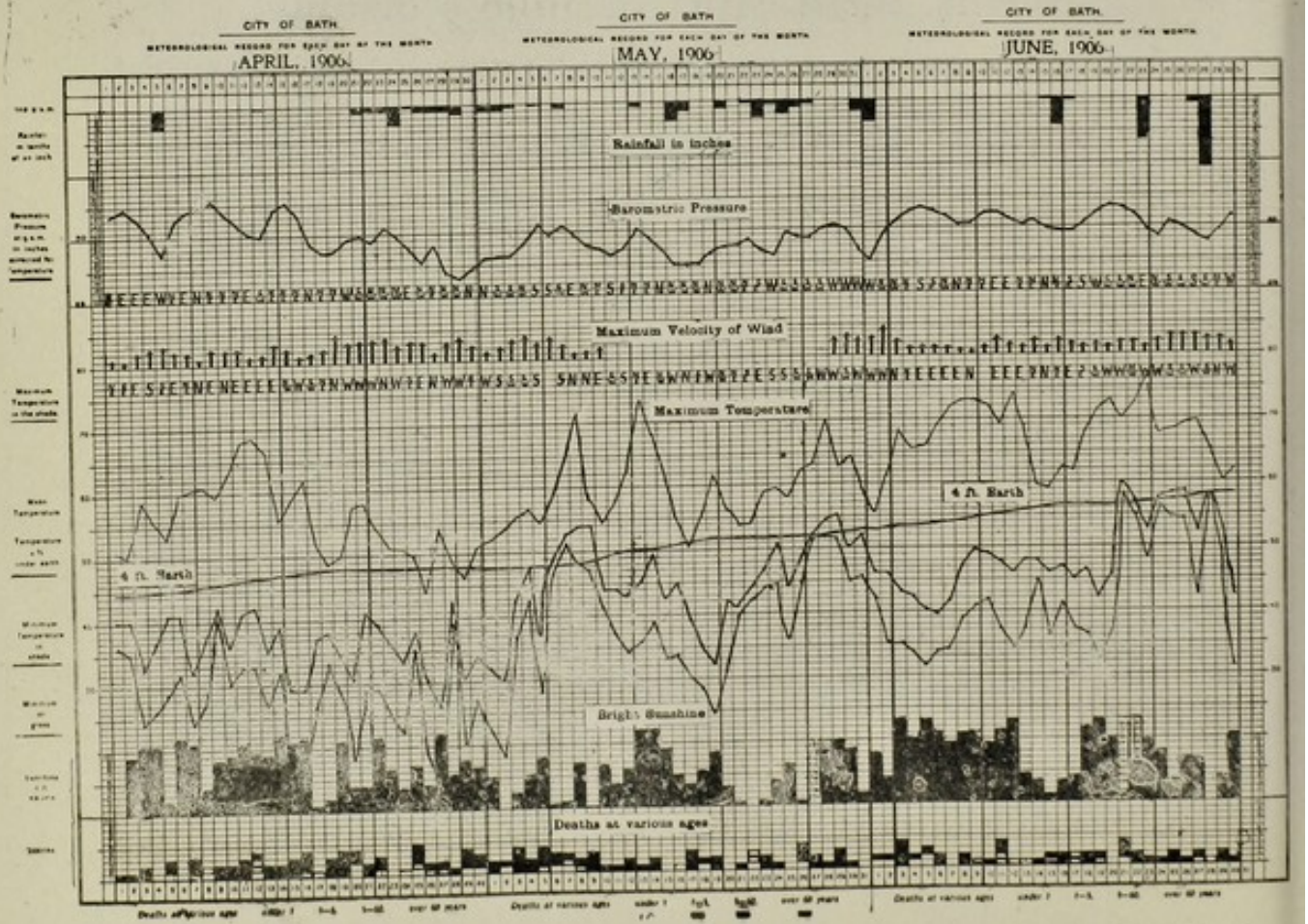
Deaths at all ages and Death-rates.

Various Streets. Nine Years 1899—1907.

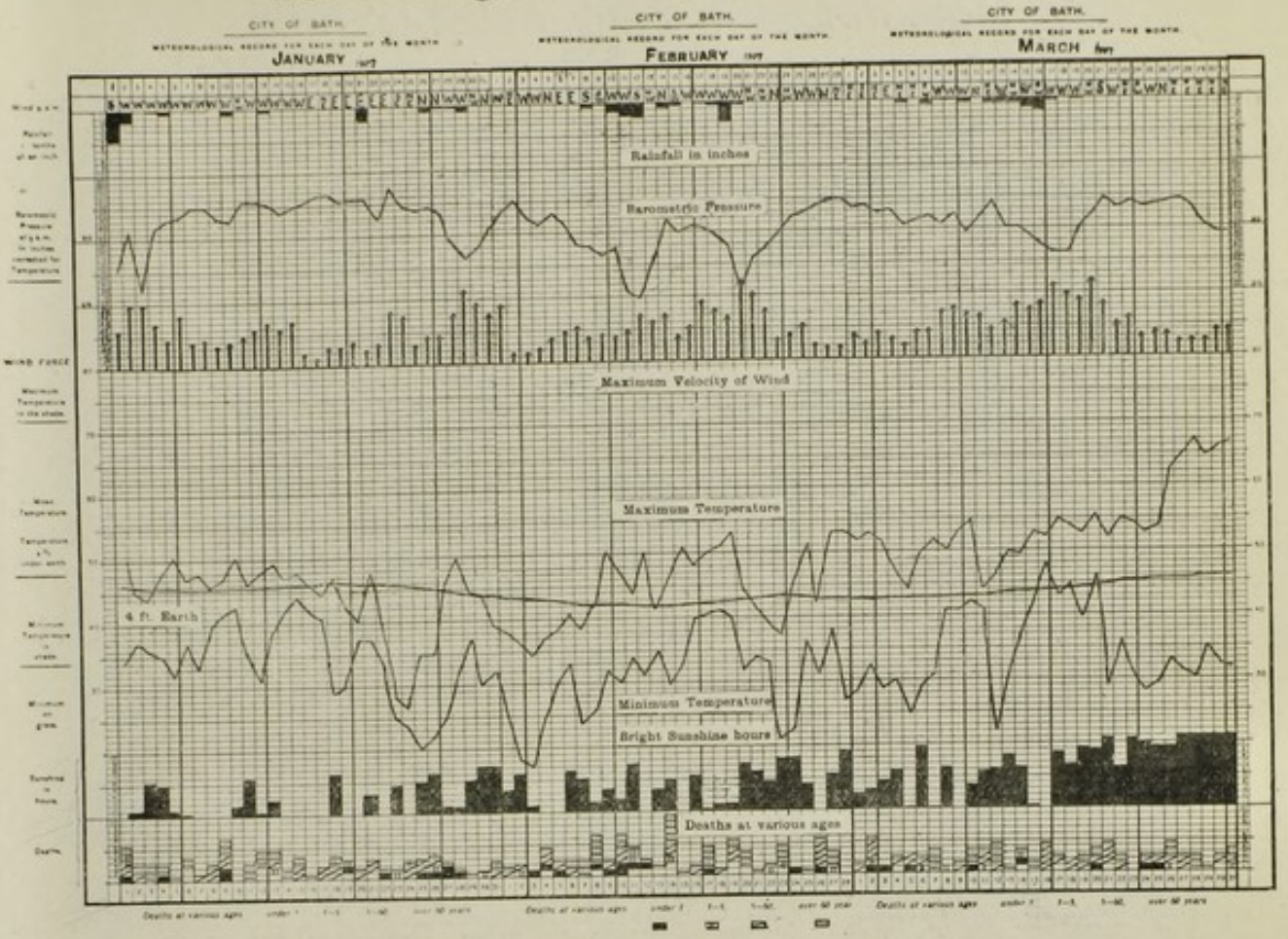
Street.	Population 1901.	Births.	Birth-rate.	Infantile Deaths.	Infantile Mortality.	All Deaths.	Death-rate.
Avon Street ...	851	213	27·8	37	174	149	19·5
Milk Street ...	324	112	38·4	23	205	62	21·2
New Quay ...	98	37	41·8	8	216	19	21·5
Little Corn Street	109	27	27·5	7	259	20	20·4
Corn Street ...	221	70	35·2	12	171	47	23·6
Peter Street ...	233	57	27·2	10	175	39	18·6
Six Streets ...	1,836	516	31·2	97	188	336	20·3
The Dolemeads...	?	548	—	63	115	238	
Marlborough Bdgs.	202	0	0	0	0	19	10·5
Royal Crescent ...	206	5	2·7	0	0	21	11·3
Park Lane ...	30	1	0·4	0	0	5	18·5
Three Streets ...	438	6	1.5	0	0	45	11·4
City of Bath ...	49,839	8,803	19·6	960	109	7,676	17·1

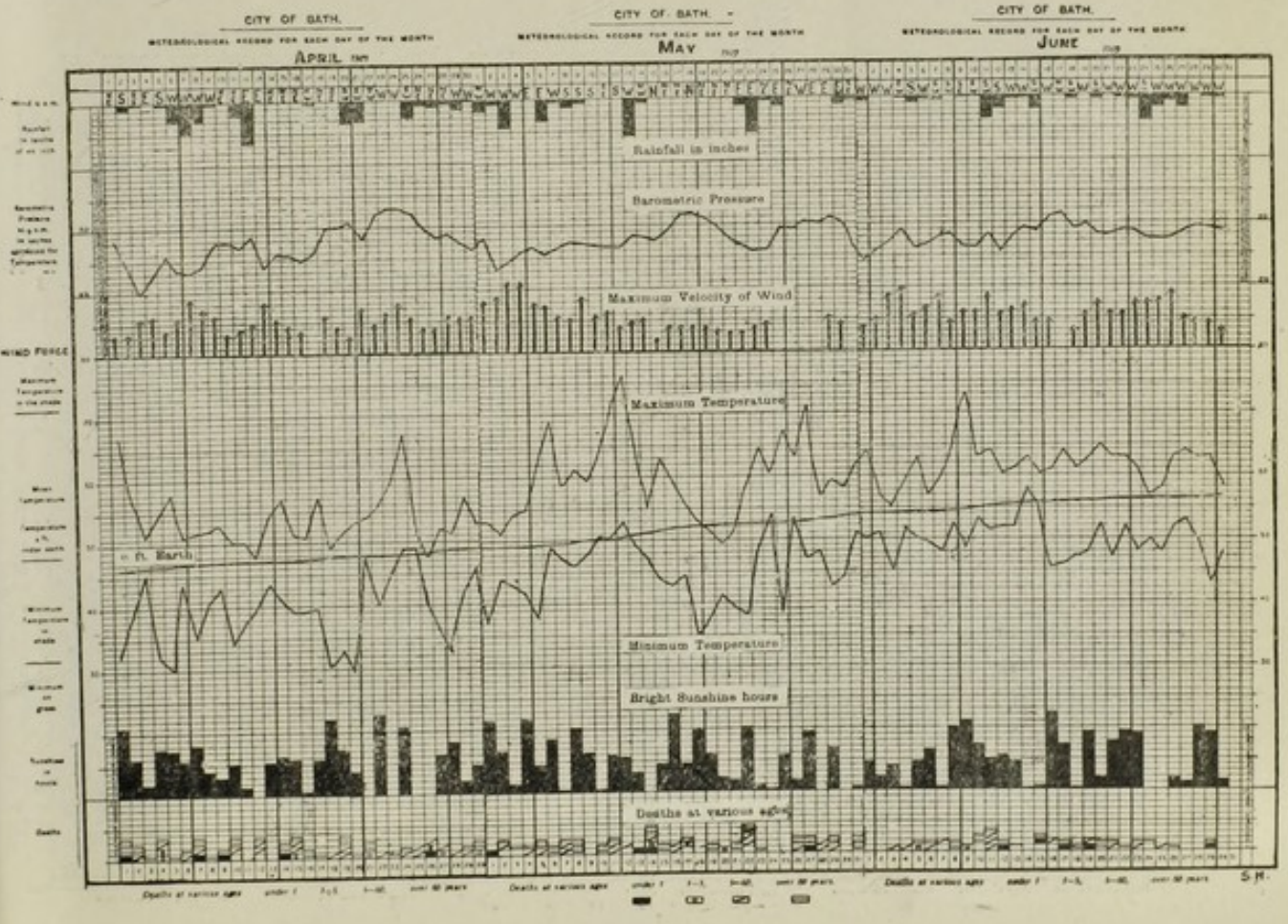
Meteorological Daily Records, 1906.



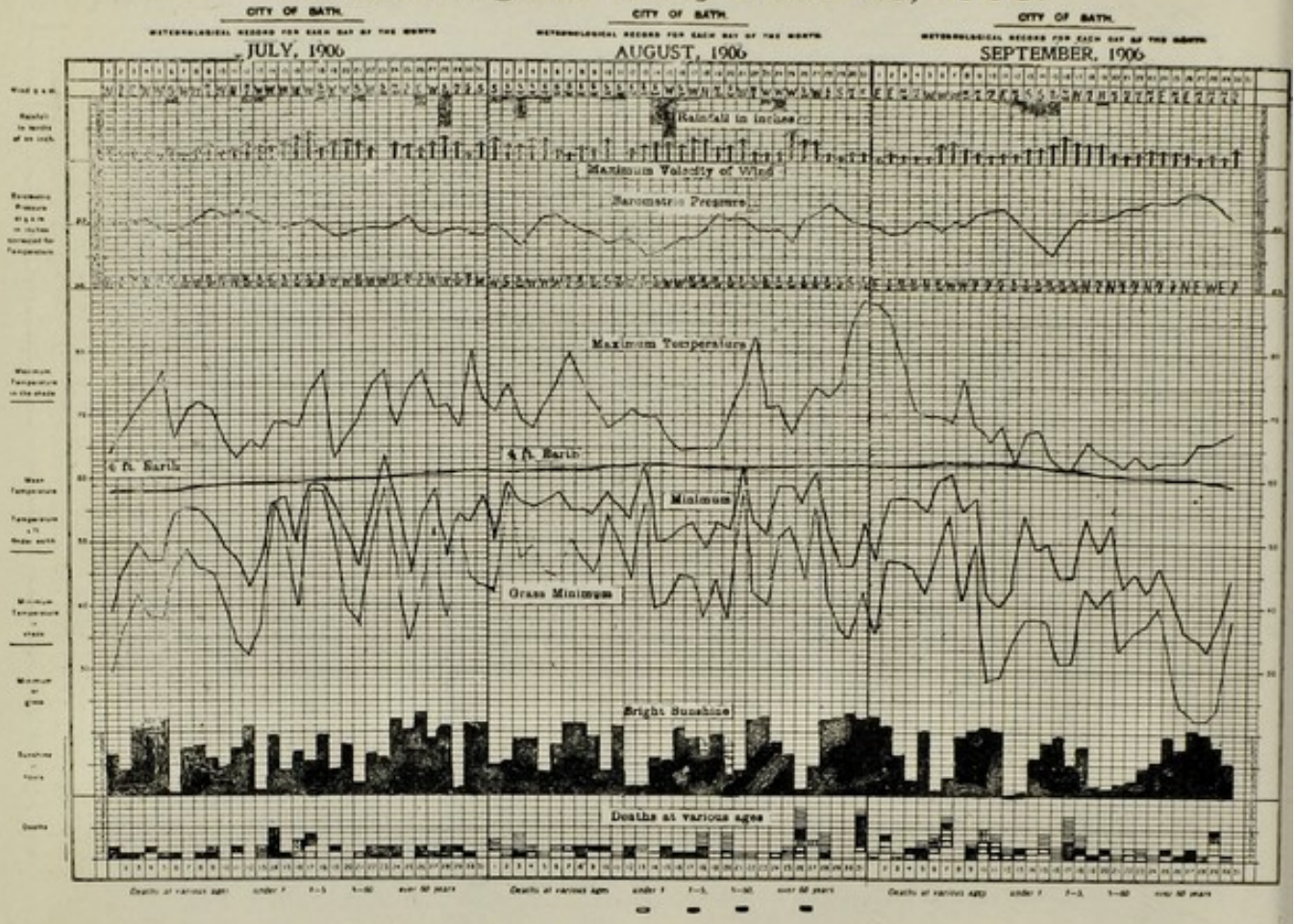


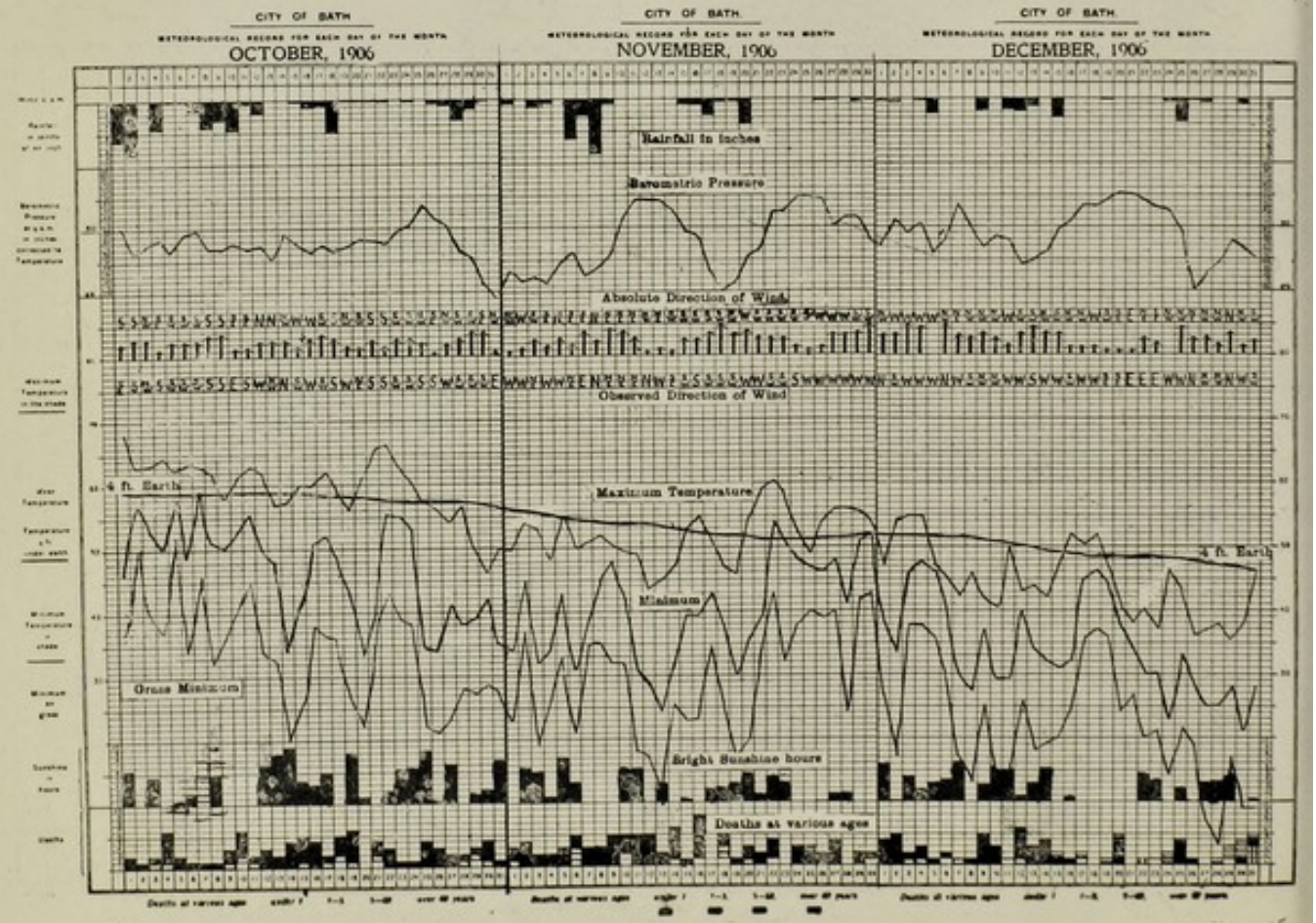
Meteorological Daily Records, 1907.



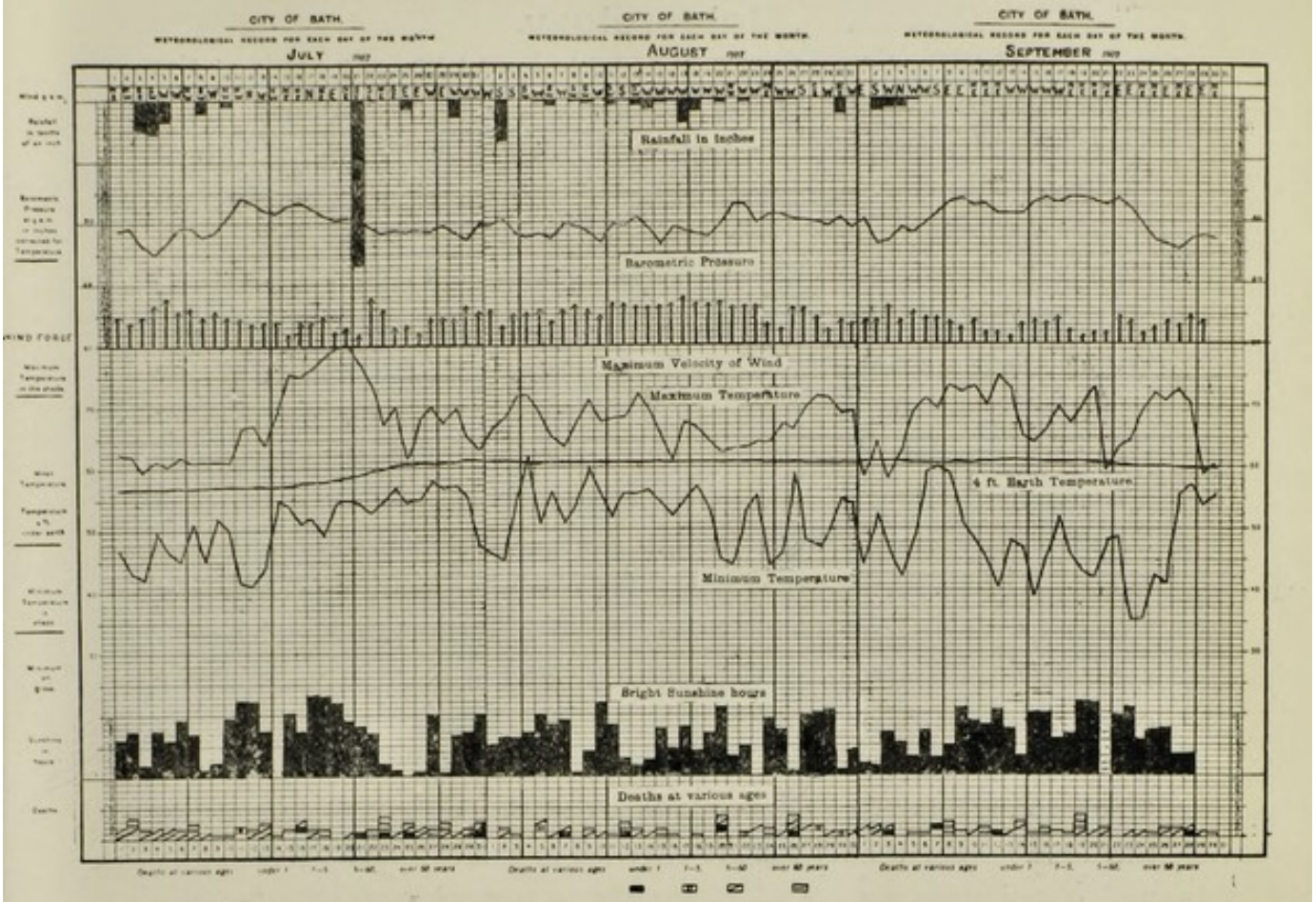


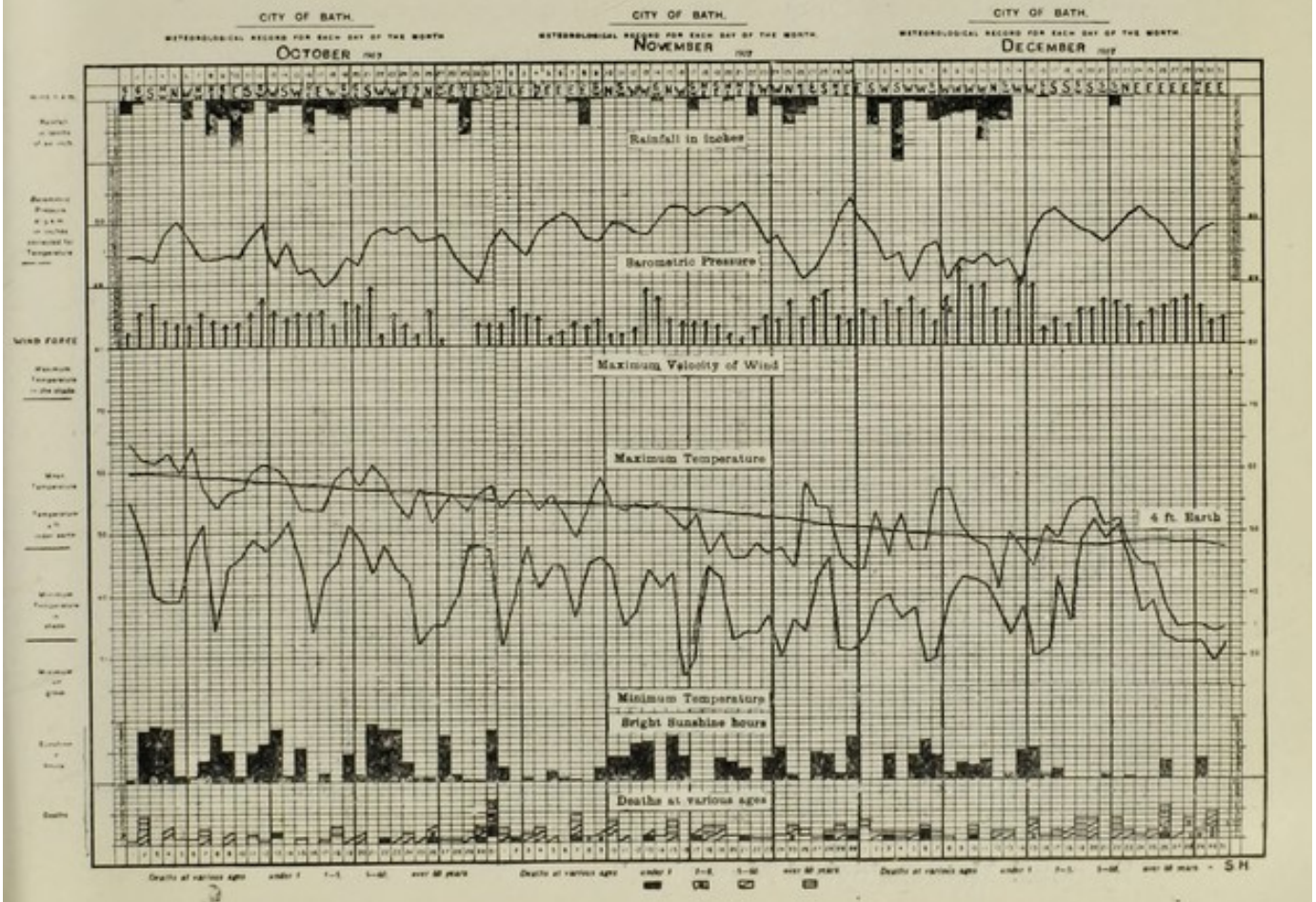
Meteorological Daily Records, 1906.





Meteorological Daily Records, 1907.





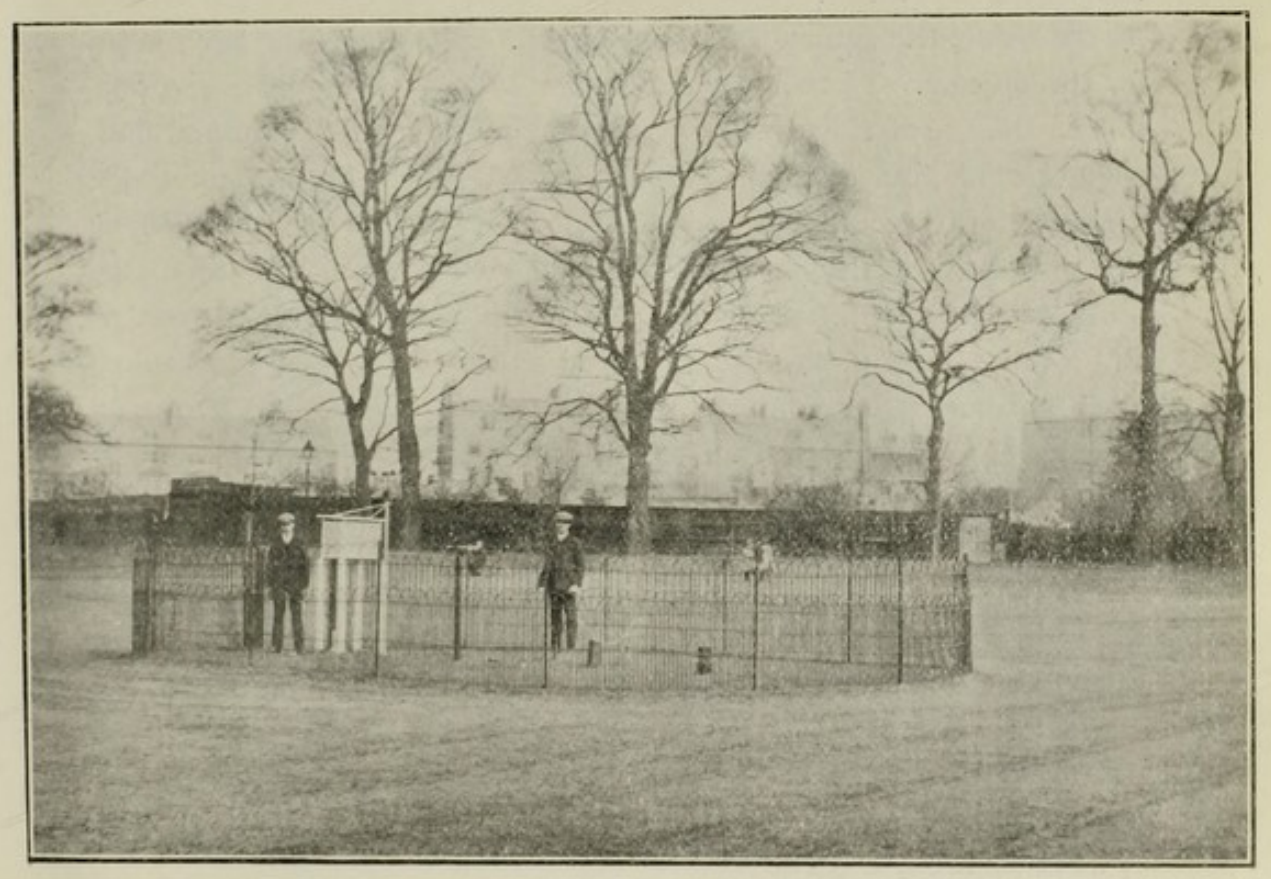
Meteorology.

Meteorological Observations have been regularly made at the three stations equipped by the Corporation, at Henrietta Park, at the Statutory Hospital, and at Kingswood School, Lansdown. Also at the Royal Literary and Scientific Institution and at my own observatory. Sunshine records are taken at Alexandra Park and at the Guildhall. The force of the wind is automatically recorded by Dines' Pressure Tube Anemometer at the Guildhall and its direction at low levels automatically at Combe Park. The direction of the wind published in our records is that observed at 9 a.m. as shown by the vane, 120 feet above the roadway. on the Guildhall. Barograms are automatically registered by the aneroids at the Grand Pump Room and at Kingswood School, the latter records being sent to me weekly by Mr. W. P. Workman B.Sc. I have also a self-recording thermograph and hygrometer and have recently purchased a self-recording Rain gauge. The sunshine and wind pressure are the only automatic records published, the others are used for detecting errors in eye observations, the errors are usually large scale errors, 5° or 10°, errors are seldom made by skilled observers in reading fractions. All our readings are checked at the Meteorological Office and occasionally we are asked to refer to our readings of some preceding months, we then compare the eye observations with the automatic records, which were not available when the telegrams were originally dispatched. I have more than once advocated the purchase of recording rain gauges, as these measure the exact time and duration of rainfall. There ought to be one at Monkswood or Batheaston Reservoir and another at our central station, Henrietta Park. These instruments would furnish useful warnings of floods and would be valuable in connection with the sewage disposal scheme as showing the probable amount of surface water coming into the sewers.

We also need recording wet and dry bulb thermometers to estimate the true mean temperature and mean relative humidity, two of the principal factors in the climate. The 9 a.m. readings are misleading.

Observations are made at 9 a.m. at all the stations, and at Henrietta Park also at 8 a.m. and at 6 p.m. Telegrams are sent daily to the Meteorological Office and the 6 p.m. readings are also telegraphed to the Central Press Agency and others. Monthly Reports are given to the Registrar General, to the Royal Meteorological Society, to "British Rainfall" and to the Editor of "Symons' Meteorological Magazine."

BATH CENTRAL CLIMATIC STATION No. 1. HENRIETTA OR BATHWICK PARK.
NORTHERN BOUNDARY OF PARK.

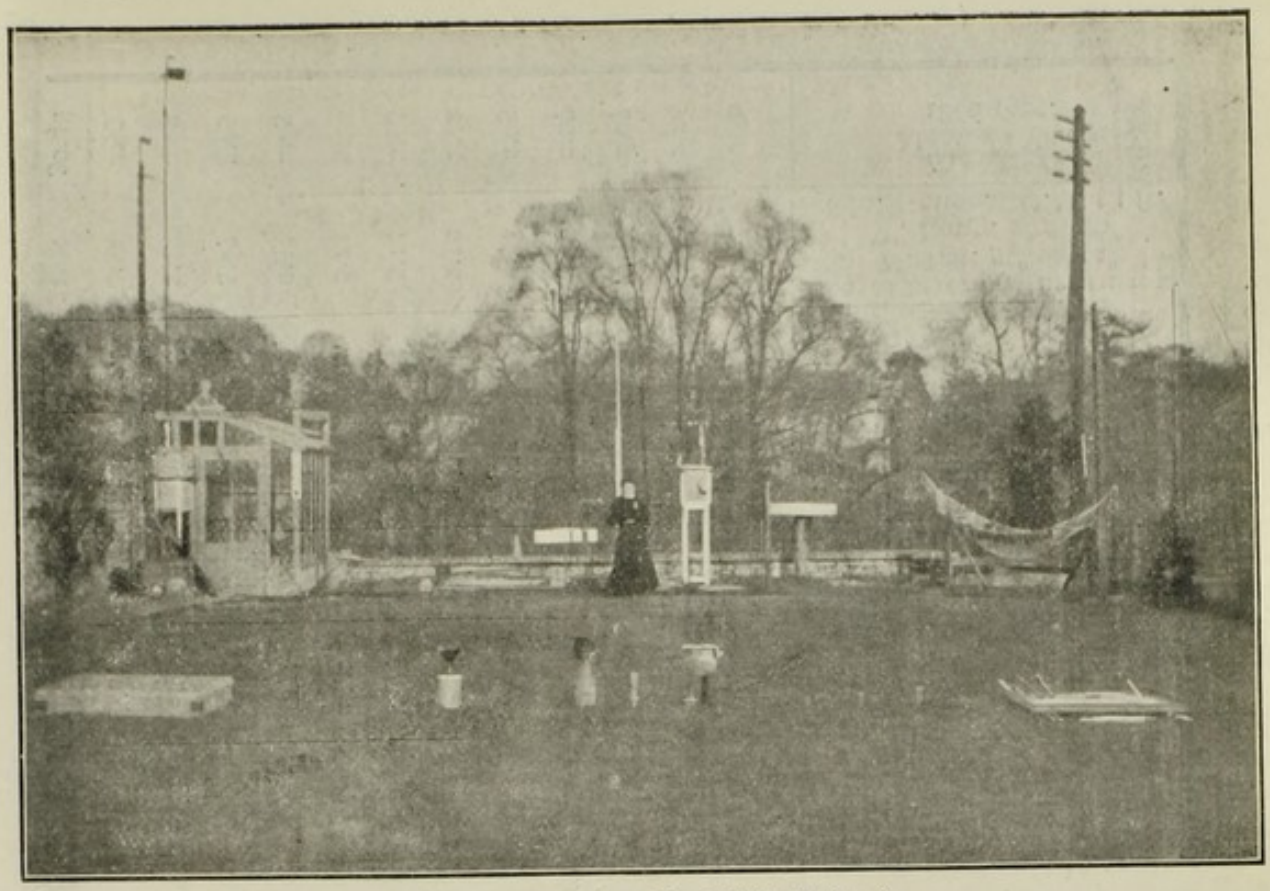


EASTERN BOUNDARY OF HENRIETTA PARK.

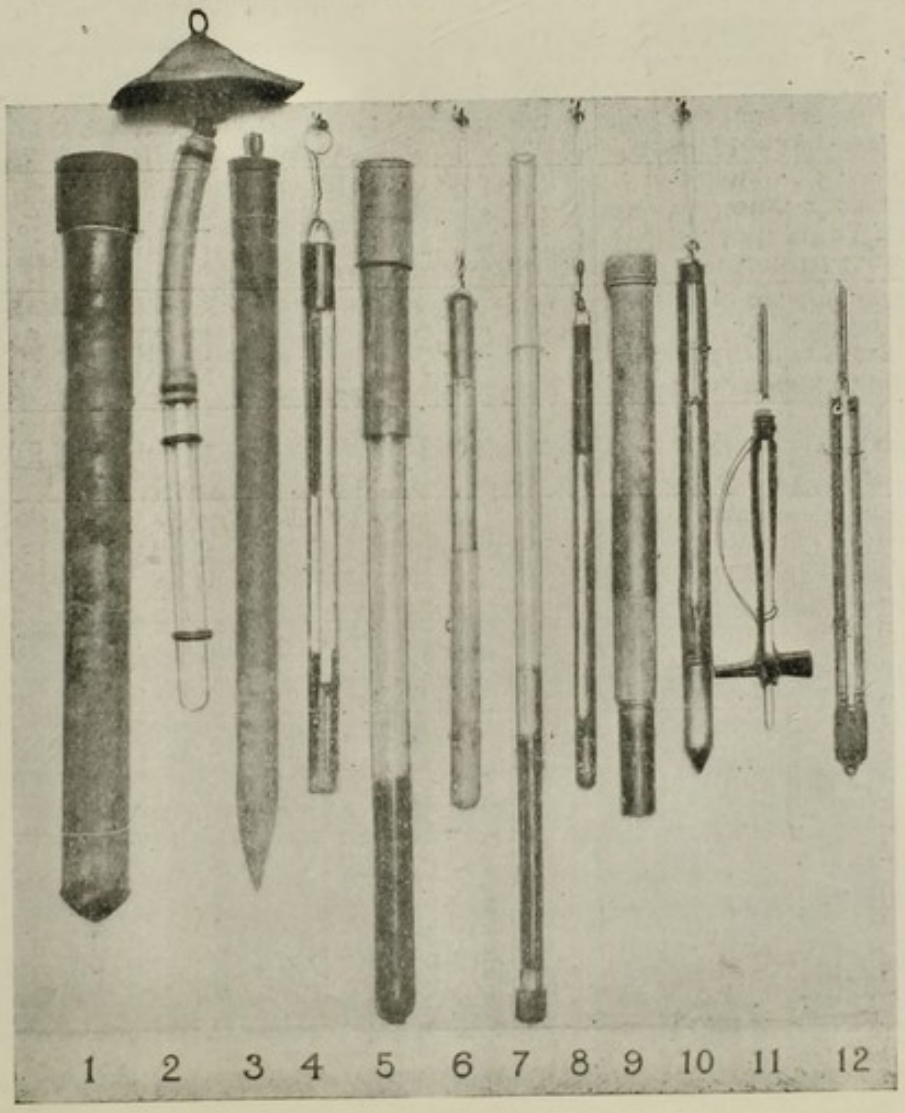
The Meteorological Stations.

Henrietta Park, The Statutory Hospital Grounds on Claverton Down, and the Meadow at the rear of Combe Park, afford admirable sites for Meteorological stations with free exposure in every direction. There is nothing to prevent the cold night air from the hills flowing down to the exposed fields in the valley, and much lower temperatures are registered here than in the residential portion of the city, the same clear atmosphere, which allows the sunshine to pass during the day, favours radiation at night and hence the minimum registered on the grass is sometimes much below the minimum measured at some other stations protected by buildings. At Henrietta Park the soil is sand on gravel and this also favours a great range of temperature. At Combe Park I have laid down a plot of one hundred superficial feet of sand, eighteen inches deep directly on the Lias Rock, the surface on the sand being the sam level as the grass land. Similar thermometers placed above and below adjoining plots, show noteworthy differences of temperature. The thermometer below the surface of sand shows a much greater range of temperature than the same kind of thermometer similarly placed below the surface of a loamy soil. Records have been kept for three years. I have previously pointed out the great variations due to the use of thick iron tubes, I much prefer glass tubes and find them durable, but our published returns are those of thermometers mounted in accordance with the regulations of the Royal Meteorological Society. The illustration on page 43 shows the difference in two forms of one foot earth thermometers. Nos. 1 and 2 represent the standard pattern, No. 7 shows the glass tube, filled with a one foot column of the soil, above the soil is a two inch column of mercury, the surface of the mercury should be about eleven inches below the surface of the ground. The thermometer is mounted in a wooden or vulcanite case, which is supported by the soil in the tube, the mercury being added after the thermometer is placed in the glass tube. A thin metal tube protects the glass tube above the ground, and it is only by gross carelessness that the glass tube is broken.

The records of the observations taken at our central station are shown in the Charts on pages 36-39, and also in Tables on pages 44-45 as in previous Reports.



COMBE PARK CLIMATIC STATION No. 4.



EARTH AND GRASS THERMOMETERS.

MONTHLY RAINFALL AT VARIOUS BATH STATIONS, 1907.

Mean Monthly Rainfall, Years 1866—1905.

Observations 9 a.m. daily, at all Stations, 1907.	Central Station, Henrietta Pk. N. Latitude, 51° 23′ 8″ W. Longitude 2° 21′ 14″ 5 in. Gauge. O.D. 67 ft.				Kingswood School. N. Latitude, 51° 23′ 27″ W. Long. 2° 22′ 5″ 5 in. Gauge. O.D. 620 ft.	39, Combe Park. N. Lat. 51° 23′ 30″ W. Long. 2° 23′ 10″ 5 in. Gauge. O.D. 165 ft.	Monkswood. N. Lat. 51° 26′ 19″ W. Long. 2° 21′ 16″ 5 in. Gauge. O.D. 363 ft	Batheaston. N. Lat. 51° 24′ 53″ W. Long. 2° 19′ 51″ 5 in. Gauge. O.D. 248 ft.	Charlcombe. N. Lat. 51° 23′ 49″ W. Long. 2° 21′ 37″ 8 in. Gauge. O.D 325 ft.	Climatic Station, Statutory Hospital. N. Latitude, 51° 21′ 52″ W. Longitude, 2° 19′ 10″ 5 in. Gauge. O.D. 520 ft.				Royal Literary Institution N. Lat. 51° 22′ 52″ W. Long. 2° 21′ 21″ 6 in. Gauge. O.D. 74 ft.	Mean 40 Years 1866-1905.
	Rain and Snow Total depth in inches.	Number of Days on which Rain fell.	Greatest fall in 24 hours. Depth.	Date.						Rain and Snow Total depth in inches.	Number of Days on which Rain fell.	Greatest fall in 24 hours. Depth.	Date.	
January ..	1·23	12	·47	1	1·26	1·23	1·70	1·19	1·29	1·73	12	·75	1	1·32	2·82
February ..	1·26	12	·32	12	1·43	1·43	1·60	1·42	1 44	1·63	12	·44	19	1·36	2·24
March ..	0·70	12	·17	16	0·89	0·85	1·10	1·01	0·89	1·16	12	·37	16	0·78	2·07
April ...	3·57	18	·67	12	3·97	3·60	4·20	4·24	3·50	3·51	17	·53	12	3·60	2·07
May ..	2·97	17	·55	23	3·88	2·85	2·71	3·41	3·21	3·52	19	·72	13	2·78	2·03
June	2·39	23	·41	24	2·92	2·78	2·83	2·87	2·52	2·72	22	·38	11	2·32	2·22
July ..	4·80	14	2·69	21	5·23	5·66	2·83	3·62	4·07	3·43	12	1·25	21	5·14	2·53
August .	2·21	19	·67	2	2·06	2·24	2·65	2·37	2·12	2·72	17	·63	2	2·14	2·81
September	0·49	4	·18	2	0·61	0·62	0·71	0·60	0·57	0·71	4	·26	2	0·53	2·83
October ..	5·67	26	·75	10	5·52	5·31	5·49	5·64	5·09	5·45	24	·57	29	5·67	3·05
November	2.23	17	·43	8 & 25	2·27	1·6	2·62	2·52	2·15	2·90	16	·49	8	2·29	2·82
December	4·80	21	1·04	4	4·90	4·66	5·35	4·64	4·76	5·57	20	1·21	4	4·92	2·99
Totals	32·32	195			34·34	32·89	33·79	33·53	31·61	35·05	187			32·85	30·48

BATH CENTRAL CLIMATIC STATION. HENRIETTA PARK.

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1907.

North Latitude 51° 23′·8″, *West Longitude* 2° 21′ 14″. *Estimated Height above Sea Level: Barometer, 84 feet; Thermometers, 70 feet.*

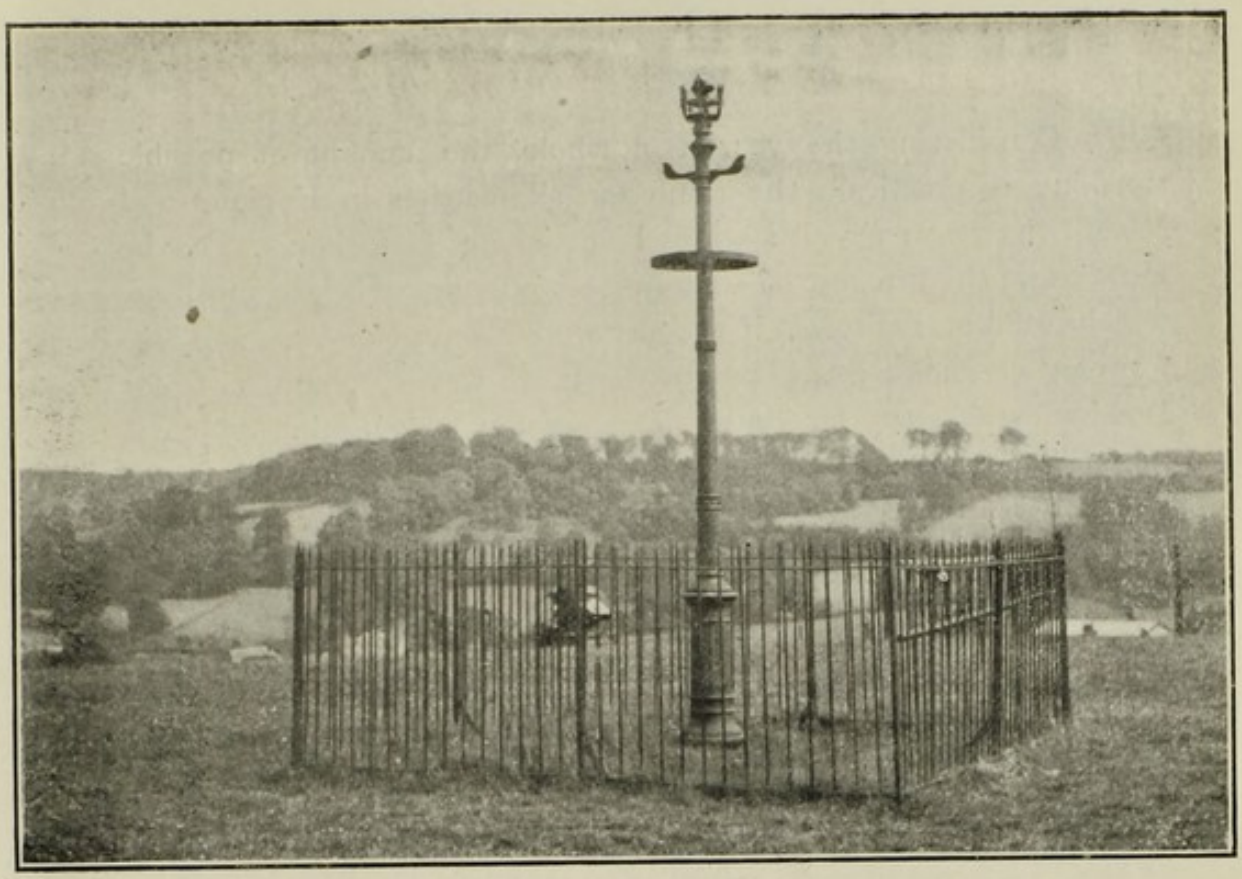
1907	Barometer.						Thermometers in Stevenson Screen.										Earth Temperatures.				Bright Sunshine in hours.
	Mean 9 a.m. corrected to 32°	Absolute Maximum Corrected.	Day of Month.	Absolute Minimum Corrected.	Day of Month.	Range.	Mean Temperature of Air.	Mean of Maximum.	Mean of Minimum.	Absolute Maximum.	Day of Month.	Absolute Minimum.	Day of Month.	Mean of Dry Bulb.	Mean of Wet Bulb.	Relative Humidity.	4 Feet in Gravel. Max.	Min.	Mean	1 Ft. Mean	
Jan. ...	30·306	30·749	23	29·322	3	1·427	39·3	44·2	34·0	53·0	1	20·0	25	38·6	37·3	90	46·4	43·8	45·4	·3	70·0
Feb. ...	29·948	30·510	2	28·982	12	1·528	37·6	44·4	30·7	53·0	19 & 27	17·0	4	36·8	35·3	88	43·6	41·8	42·7	38·2	108·1
March	30·141	30·457	21	29·618	18	·839	42·5	54·4	31·2	67·0	28	24·8	5	44·3	41 1	76	46·5	39 0	44·1	43·1	209·2
April ..	29·726	30 283	24	29·035	3	1·248	46·1	54·0	39·1	67·0	24	29·5	20	47·3	44·3	83	49·0	46·0	47·4	48·1	152·2
May ...	29·786	30·171	18	29·325	2	·846	51·9	59·9	44·9	76·0	12	35·0	18	53·1	48·9	74	53·8	49·0	51·3	53·9	154·6
June ...	29·819	30·131	17	29·400	1	·731	55·4	61·8	49·9	73·0	9	43·0	29	56·4	52·4	75	56·6	54·0	55·5	57·6	151·6
July ...	29·968	30·416	11	29·508	4	·908	58·5	67·5	50·7	80·0	20	41·0	12	60·2	56·7	79	61 2	56·7	58·4	61·3	208·5
Aug. ...	29·938	30·298	22	29·621	15	·677	59·3	67.1	52·5	72·0	13	44·0	24	61·0	56·8	76	61·1	60·6	60·8	62·2	190·5
Sept. ...	30·062	30·398	18	29·571	27	·827	57·3	67·5	47·7	75·0	12	35·2	23	56·3	53·7	83	60·8	59·8	60 5	60·8	184·5
Oct. ...	29·572	30·032	5	28·991	17	1·041	50·9	57·9	44·3	64·5	1	32 0	25	51·6	49·1	83	59·8	55 3	57·7	54·5	127 6
Nov. ...	29·890	30·350	30	29·074	26	1·256	45·0	57·7	38·4	58·8	9	30·0	17	44·4	42·9	89	55·2	50·8	53·5	48·5	73·3
Dec. ...	29·674	30·258	24	29·010	14	1·248	42·6	46·8	38·1	57·0	8	29·0	6&30	42 1	40·4	87	50·6	47·4	48·8	43·7	46·6
Means for Year	29·903	30·338		29·288		1·048	48·9	56·9	41·8	66·4		31·7		49·3	46·6	82	53·7	50·4	52·2	51·0	1676·7

Winter Sunshine.

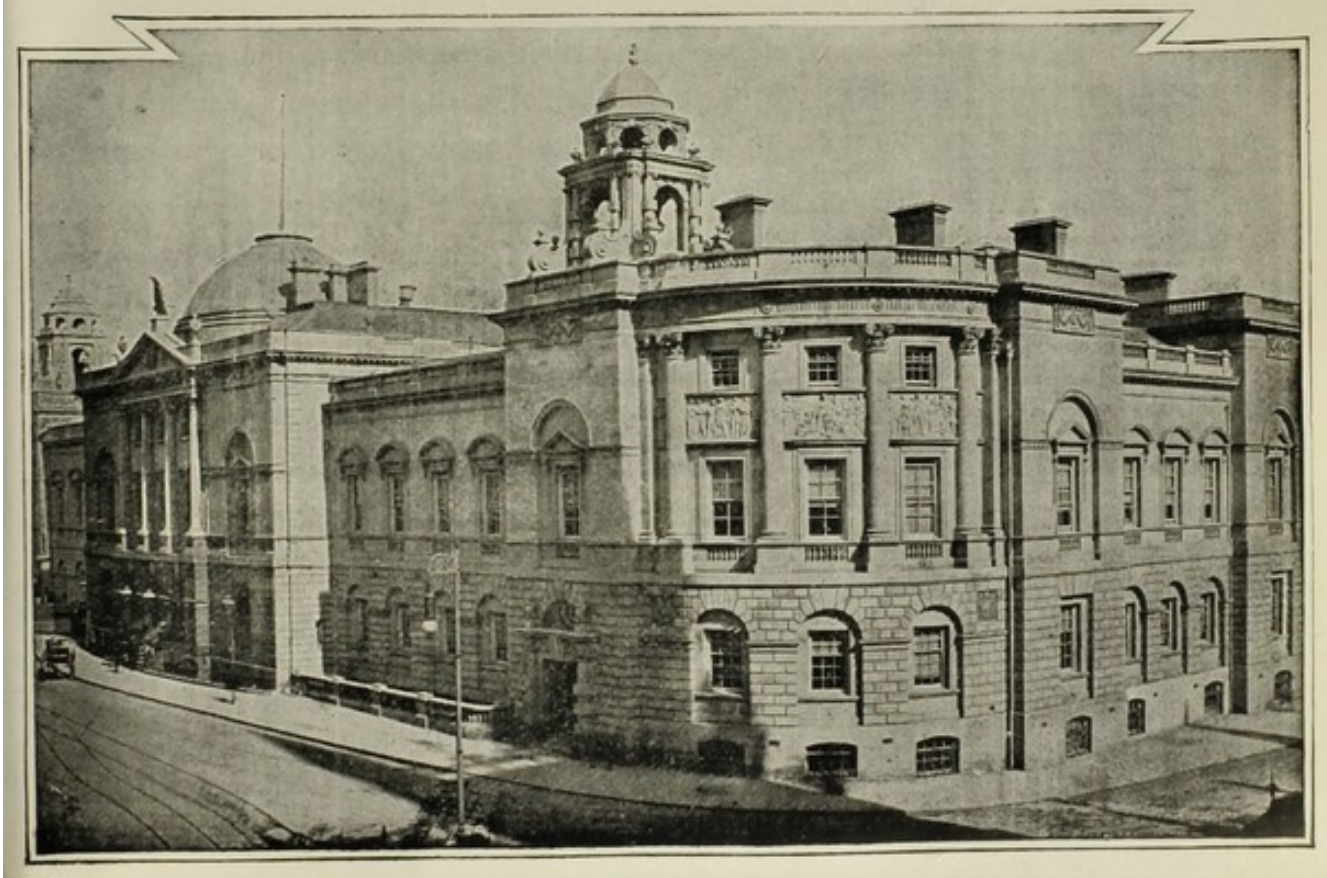
Our first sunshine recorder was placed on the dome of the Guildhall in 1899, the position which I selected met with approval of the officials of the Meteorological Office, it seemed the best position for recording the sunshine which we get in the centre of the city, but when the plans for the Empire Hotel were submitted it was seen that a shadow would be cast by this building, which would fall upon the the recorder in the early winter mornings. I drew attention to this fact in my Report for 1901 and advised the purchase of a new instrument and the selection of another site, but I did not receive authority to incur this additional expense until the spring of 1904, and for at least three years the records of bright sunshine in Bath were considerably understated. I suggested Alexandra Park as the new site, the City Surveyor kindly arranged a suitable stand and fence, and Mr. Jones, the Engineer of the Hot Mineral Water Baths, designed a stand for the observer and a support with levelling screws for the sunshine recorder. The glass ball is about thirteen feet above the level of the highest ground, it is about 400 feet above sea level, 250 feet adove the level of the old recorder, and 500 yards south of the Great Western Railway Station. It may be considered to give the record of bright sunshine in the principal residential suburbs of Bath. It is noteworthy that more sunshine was recorded at the lower level in the centre of the city on forty days during the year 1907, there was a clearer sky over the centre of the city than over the higher ground.

The cards bearing the records are sent to the Meteorological Office so that the experts there may check our readings, but there is no difference of importance between the two sets of readings. Dr. Shaw, F.R.S., the Director of the Meteorological Office, furnishes the tables of meteorological data for the Registrar General's Reports. He groups the stations of England and Wales, and the Islands of the English Channel into eight Districts. Plymouth, Woolacombe, Pembroke, Bristol, Falmouth, Bath and Llangammarch Wells constitute the south-west district.

The returns for the first and fourth quarters of the year are particularly interesting, as it is then that bright sunshine is most appreciated, we could often do without some of the summer sunshine.



SUNSHINE RECORDER, Alexandra Park, Beechen Cliff, Lyncombe Hill. Combe Down and Southern Boundary of the City on Horizon.



MUNICIPAL BUILDINGS, Dine's Pressure Tube Anemometer on Flagstaff. Sunshine Recorder on Dome.

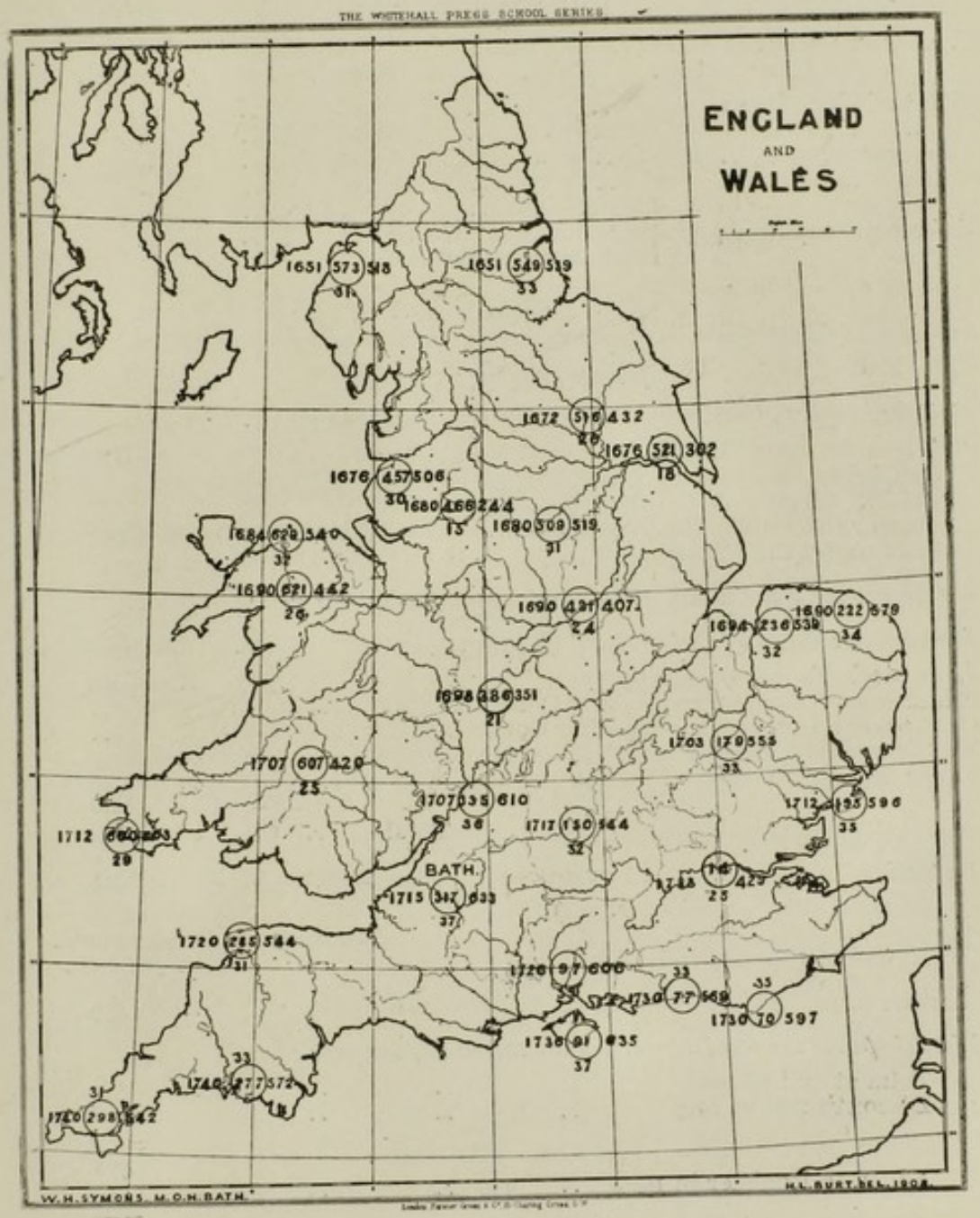
Considering the year as a whole, the amount of possible sunshine is practically the same for all districts in England and Wales, the mean for all stations being about 4,410 hours. To be more exact the greatest possible number of hours of bright sunshine, which could be registered if the sky were always cloudless, and free from fog or smoke, is 4,414 hours for north-west England, 4,413 for London, and 4.405 for Bath. The amount of sunshine which it might be possible to receive in Bath is 9 hours less than what might be received in north-west England. The actual number of hours of bright sunshine recorded in 1907 were :—England N.W., 1,292, London, 1350, and Bath, 1677 hours,

If instead of taking the whole year we compare the first and fourth quarter, which include the winter, with the second and third quarters, which include the summer, we of course know that the south has 51 hours more "possible sunshine" during the winter, and 58 less "possible sunshine" during the summer than has the north-east of England. The actual number of sunshine hours observed last year for the first and fourth quarters were :—North-east England 464, London 429, Bath 633 hours.

The amount of bright sunshine for the first and last quarters of the year 1907, per hundred hours of "possible sunshine" for each of the eight districts in the Registrar General's Return was as follows :—London 25, North-west District of England 27, North-east 28, Central England 29, South-west 31, East 33, South 35, Channel Island 35. While in Bath we recorded 36·8 or in round figures 37 per cent. of the "possible sunshine".

The facts as regards the first quarter of the year are very well shown in a map published in the Meteorological Record of the Royal Meteorological Society, Vol. XXVII., No. 105., Page 4. The records for the fourth quarter of the year were even more favorable to Bath and I have had a map prepared showing the records of the first and last quarter combined using the Registrar General's figures throughout, the number of hours of bright sunshine for Bath being 633, our own figures, which include smaller fractions, were 634·8 hours. The smaller figure is equivalent to 37 per cent. of the possible total. It may be some years before we shall be again able to show such a high percentage.

In the map the figures in the centre of the circles are those which correspond to Registration Districts in the Registrar General's Return, Bath being 317. This figure has of course no bearing on statistics. The figures on the left of the circles show the amount of bright sunshine wnich is possible if the sky were always clear and cloudless. The figures on the right show the amount of bright sunshine which was automatically recorded. The figures below the circles show the percentage of recorded sunshine to possible sunshine.



Winter Sunshine, 1907.

Factories, Workshops and Homework.

1.—INSPECTION (including inspections made by Sanitary Inspectors or Inspectors of Nuisances).

Premises.	Number of Inspections.	Number of Written Notices.
Factories (including Factory Laundries)	28	9
Workshops (including Workshop Laundries)	481	36
Workplaces	168	11
Total	677	56

2.—DEFECTS FOUND.

Nuisances under the Public Health Acts:— Particulars.		Number of Defects Found.	Number of Defects Remedied.
Want of Cleanliness		26	all
,, Ventilation		15	,,
Overcrowding		1	,,
Other Nuisances		31	,,
Sanitary accommodation	insufficient	9	,,
	unsuitable or defective	15	12
	not separate for sexes	1	1
	Total	98	95

3.—OTHER MATTERS.

Failure to affix Abstract of the Factory & Workshop Act (s. 133):—

Class.		Number
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act (s. 5)	Notified by H.M. Inspector	21
	Reports (of action taken) sent to H.M. Inspectors	21

Underground Bakehouses (s. 101):—In use at end of the year .. 16

Homework: Lists of Outworkers' (s. 107):—

	Lists.	Outworkers.
Lists received—Wearing Apparel	58	435
Addresses of Outworkers forwarded to other Councils	—	5
Addresses of Outworkers received from other Councils	—	3
Furniture and Upholstery	3	3
Paper Bags and Boxes	2	6
Total	63	8 454

Inspections of Outworkers' Premises:—	Instances.	Notices served.
In Unhealthy premises (s. 108)	19	19
	Instances.	Orders made.
In Infected premises (s. 109, 110)	2	2 (verbal).

Number of Inspections of Outworkers' Premises 157

Workshops on the Register (s. 131) *at the end of the year:*—

Total at end of 1906	438
Discontinued in 1907	36
	402
Added to Register in 1907	45
Total number of Workshops on Register	447

Sanitary Condition of Workshops.

The Local Authority is the Authority responsible for the Sanitary conditions of Workshops, Workplaces, and Home workers premises. Many improvements have been effected in the sanitary arrangements of the workshops in the City without having to resort to legal proceedings. There are 447 workshops on the Register to which 677 visits were paid, 36 workshops were discontinued during the year and the following 45 were inspected and added to the Register in the same period :—

Watchmakers	3	Upholsterer	1
Carpenters	3	Trunkmaker	1
Coachmakers	3	Bootmakers	3
Blacksmiths	2	Tailors	9
Motor Works	2	Dressmakers	11
Engineers	3	Laundry	1
Surgeon's Machinist ...	1	Printing Works	1
Cabinet Maker	1		

Cleanliness. Twenty-six workshops were found to require the ceilings or walls, or both, cleansed and limewashed. In each case the work has been satisfactorily completed.

Overcrowding. Only one workroom was found to be overcrowded, and this was abated upon the penalties being pointed out to the owner.

Ventilation. Fifteen workrooms were found to be insufficiently or imperfectly ventilated. In all cases the upper sashes of the windows were made to open, and in several instances special means of ventilation have been provided.

Sanitary Conveniences. Fourteen workshops were found to have defective or unsuitable W.C. arrangements. Notices were served, the defects have been remedied and the W.C's. have been put into good sanitary condition. Other nuisances were found to be caused by defective drains, waste pipes, leaky roofs, defective paving, floors, &c., in thirty-one instances, which have all been remedied after notice to the owners.

Twenty-one notices were received from H.M. Inspector of Factories calling attention to the following defects in Factories and Workshops.

Six factories with unsuitable W.C. accommodation.
One factory with W.C.'s not separate for sexes.
Ten workshops in a dirty condition.
Two ,, insufficiently ventilated.
Two ,, with insufficiently ventilated W.C's

These defects have been remedied and notice to that effect has been sent to the Factory Inspector. Many of the nuisances referred to in the above notices had been abated before the receipt of the Notice from the Factory Inspector.

Homework. Thirty-two lists containing the names and addresses of 227 outworkers were received during the year. Three lists of outworkers containing five names were received from other Councils. Five lists were sent to other Councils containing the names of 68 outworkers residing in their districts. Last year 157 visits were paid to homeworkers' premises, and 19 sanitary defects were discovered and rectified. Many of the outworkers live in good class houses, and as a whole the outworkers' premises are kept in a cleanly and satisfactory condition.

In two cases scarlet fever occured in outworkers' premises where wearing apparel was being made. It was not necessary to obtain an order to prohibit the work being done in the house, as verbal notices were sufficient in each case. The work was discontinued until the cases had been removed to the Statutory Hospital and the premises thoroughly disinfected.

Summary of Sanitary Work done during the Year.

185 Nuisances from defective drains, soil pipes, etc., were abated.
198 ,, ,, ,, W.C's. and urinals were abated.
172 ,, ,, ,, waste pipes, rainwater pipes, and gullies were abated.
22 ,, ,, ,, intercepting traps.
65 ,, ,, deficient ventilation were abated.
59 ,, ,, defective paving.
43 ,, ,, ,, roofs, ceilings, etc.
11 ,, ,, ,, cesspools.
19 ,, ,, water supply.
17 ,, ,, overcrowding.
82 ,, ,, accumulations of ashes, etc.
54 ,, ,, keeping pigs, fowls, etc.
98 ,, ,, various minor causes.
1 ,, ,, occupation of cellar dwelling.
5 ,, in common lodging houses.
2 ,, ,, slaughter houses.
4 ,, ,, dairies.
98 ,, ,, factories, workshops, and work places were abated.
19 ,, ,, homework premises were abated.
2 ,, were reported to Police.
285 Premises were inspected in which no nuisance was discovered.
117 ,, cleansed and limewashed.
13 Ashbins provided after notice.
73 Matters reported to Surveyor.
677 Workshops and workplaces inspected.
157 Homework premises.
45 Workshops placed on register after inspection.
437 Inspections of dairies, cowsheds, food stores, etc.
344 ,, ,, common lodging houses.
1306 ,, ,, slaughter houses.
154 ,, ,, offensive trades premises.
108 ,, ,, canal boats.
206 Samples purchased for analysis under Food and Drugs Acts.
2 ,, of water submitted for analysis, one of which was unfit for drinking purposes. A satisfactory supply has since been obtained.

House Inspections.

The total number of visits made to premises during the year was 5907. This number includes visits to premises in respect of which complaints were received, houses in which infectious disease had occured, the inspection of slaughter houses, food stores, offensive trades, mews, dairies and cowsheds, common lodging houses, canal boats, factories, workshops, workplaces, and home workers premises, house to house inspections, re-inspections, etc.

House to House inspections, or re-inspections were made at :

Brimble Court and Bolwell's Court ...	8
Little Corn Street and The "Barracks'	14
Berkeley Street	10
Dover Street, Court and Terrace ...	15
Taylor's Yard	4
Mezellion Place and Lucklom Cottages ...	9
Odd Down Cottages	14
Trinity Square and London Place ...	13
Queen's Cottages, Moorfields Cottages & Place	11
Poplar Terrace and Plasters' Cottages ...	7

The houses in the following localities have been (as far as possible) kept under regular supervision :—Ambury, Back Street, Somerset Street, Margaret's Passage, Southgate Place, The Quay, Milk Street and Courts in Milk Street, Abraham's Court, Peter Street, North Parade Buildings and others. Notices were sent to all the owners of Tenement houses coming under the Bye-laws in respect to houses let in lodgings calling attention to the limewashing and cleansing. In the majority of cases this bye law has been fairly well observed.

Common Lodging Houses. There are seven registered common lodging houses, and these have been inspected weekly, and at irregular intervals, both by day and night. There have been no changes in the ownership of any of the houses during the year. The usual limewashing and cleansing was carried out, and the manner in which the houses have been conducted has been satisfactory.

Dairies, Cowsheds, and Milkshops. There were 68 dairymen and purveyors of milk and 9 cowkeepers on the register at the close of the year. The number of cowkeepers remains the same as in the previous year, but there are three fewer registered

dairymen. Ten applications to be registered as dairymen were received, nine of these had reference to existing dairies, the ownership of which having changed hands necessitated re-registration ; only one new dairy was opened during the year, while four were closed. Proceedings were taken against a dairyman 1or selling milk without being registered and a penalty of 20s. to cover costs was inflicted.

The milkshops and cowsheds were frequently inspected as to the cleanliness of the premises and utensils. In two instances notices were served for the cleansing of premises, and one each to repair defective paving and a defective w.c., all of which were at once complied with.

Slaughter Houses. The number of private slaughter houses in use in the City remains the same as last year, namely : twenty-eight, two of these are licensed, the others being registered. Several of the older slaughter houses are becoming dilapidated, their structural condition leaves much to be desired, and the reconstruction of these premises on modern lines is a matter of urgency.

Notices were sent to the occupiers of the slaughter houses in the early part of the year drawing attention to the bye-laws relating to cleansing etc. ; these notices were useful as they brought about a general observance of the bye-law with respect to limewashing at least four times in the year. The bye-law as to the removal of garbage, offal and skins has been generally well observed. From time to time I have been called by the butchers to examine doubtful carcases. Where any portion of the carcase was found to be diseased or unsound the butchers readily gave up possession of the meat for destruction. It was not necessary to apply for a magistrate's order to secure the destruction of the diseased meat in any instance. In several cases the organs only were affected and these were, of course, destroyed.

Diseased meat etc, destroyed as unfit for the food of man :

1 ton 1 cwt. 19 lbs. of Pork. 6 cwt. of Beef.
About 4½ cwt. of Herrings. About 5 cwt. of Cod, Hake, Ling, &c.
1 box of Australian Rabbits. 1 basket of Shrimps.

W. A. Craven,
Sanitary Inspector.

Conclusion.

The commencement of this Report shows the progress made in England and Wales since the passing of the 1875 Public Health Act. In concluding, it is usual to give some forecast of the work of the future. Every year this becomes more difficult, not because so much has been done that there remains so little to do, but because each conquest in the realms of preventive medicine opens up new lines of work and widens the horizon. The 1875 Act and the Acts of 1889-1890 were epoch making, in Housing the Working Classes and the Prevention of Infectious Disease ; we seem now to have reached another starting point. Nations, like individuals, have their stages of Birth, Growth and Decay. We may retard the final stage or we may disregard the writing on the wall, the declining birth-rate, and slip gradually downwards, giving place to more scientific nations. The people of England appear to realise at last the necessity of doing more to protect children, and to prepare them physically for the great fight of life. The Midwives Act, Notification of Births Act, and the Education (Administrative Provisions) Act, if properly worked, will do much to prevent the physical deterioration which leads to inefficiency. There is, fortunately, little to show that we have to deal with physical degeneration, or inherent germinal defects. The distinction between deterioration and degeneration is now more clearly defined ; the definitions given in my last Annual Report should be reversed, and also in reading the evidence given before the Committee on Physical Deterioration, the term degeneracy being frequently then used to signify acquired defects.

The most important work of the immediate future will be the Medical Inspection of School Children. This work is comparatively simple ; its object is to furnish records of obvious physical signs of disease, and there will be no difficulty in getting accurate records. The work which is to follow the inspection will need all the wisdom of our legislators to direct it, and all the talent of the medical profession to give it effect. As to the result, our boldest conceptions are lost in haze.

Having already acknowledged the whole-hearted service given by the staff with which I am associated, I have, finally, to express my sincere thanks to the Chairmen and Members of the varions Committees of the Council for the kind consideration shown to me, and for a very happy year of work.

I remain, their obedient servant,

W. H. SYMONS.

Guildhall, Bath ;
March 21st, 1908.