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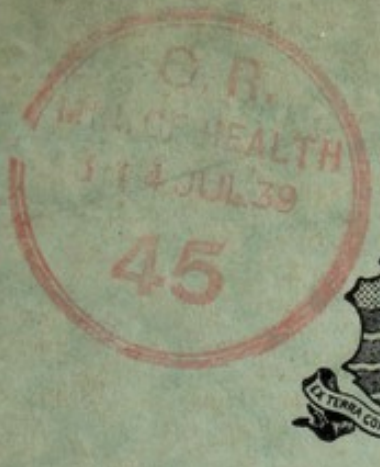

1938

ANNUAL REPORT

ON THE

HEALTH

OF

WORTHING

AND

Meteorological Observations

BY

H. J. PHILLIPS,

B.SC., M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH;

MEDICAL OFFICER TO THE MATERNITY & CHILD WELFARE COMMITTEE;

MEDICAL SUPERINTENDENT OF ISOLATION HOSPITAL;

MEDICAL OFFICER TO THE BOROUGH EDUCATION COMMITTEE.

E. D. PAINE (PRINTING) LTD., WORTHING.

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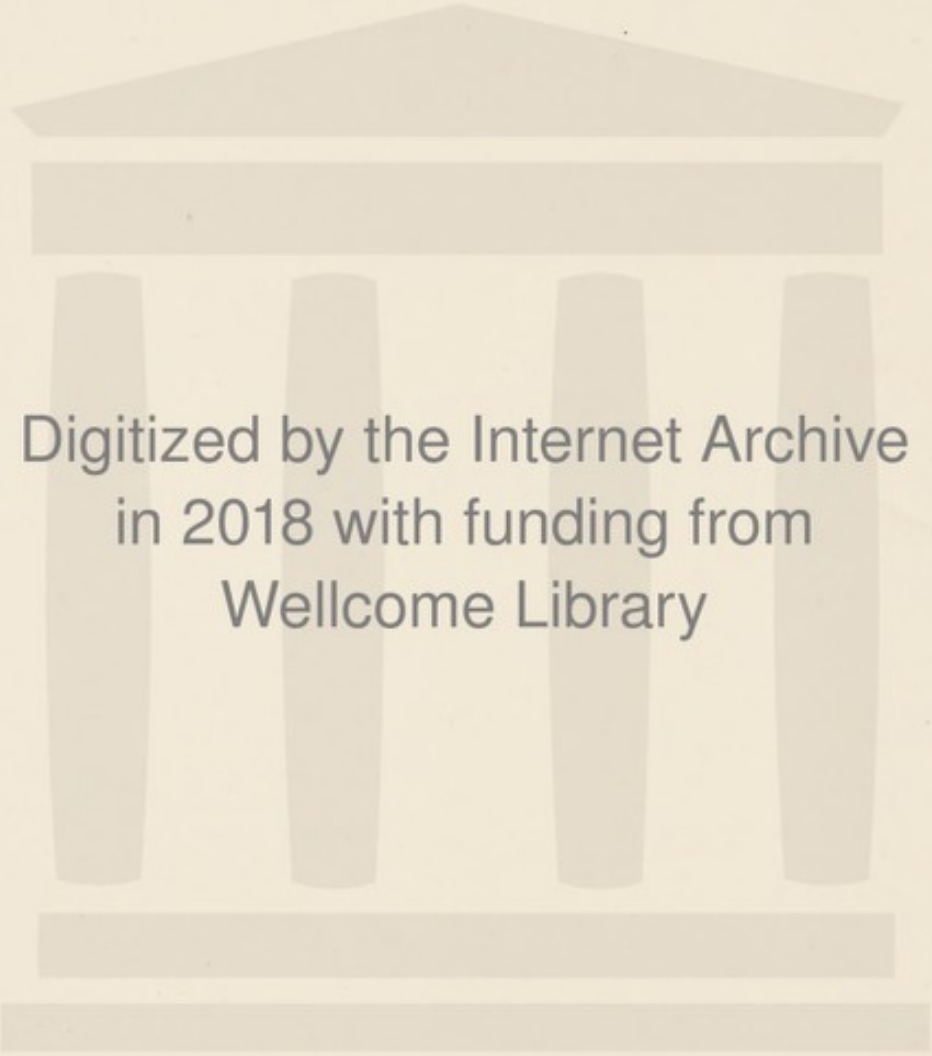
Part 1.

PUBLIC HEALTH.



BOROUGH of WORTHING.

Public Health Committee, 1938.

COUNCILLOR W. C. BIRKETT, J.P., *Mayor.*

COUNCILLOR MRS. M. E. LAWSON, *Chairman.*

COUNCILLOR	DR. E. G. ANNIS	COUNCILLOR	F. W. H. MIGEOD, F.R.G.S., F.R.A.I.
,,	CAPT. H. F. COLEMAN	,,	MAJOR H. W. TYLER, M.C.
,,	G. ELLISON	,,	J. H. WARD
,,	MRS. M. C. GREENFIELD, J.P.	,,	H. C. WOODFORD
,,	MAJOR C. S. HERRING		

Maternity and Child Welfare Committee (Co-opted Members).

MRS. GALLOWAY (*Representing Children's Care Society*).

MISS POTTER (*Representing National Council of Women*).

DR. F. HINDS (*Representing Local Medical Practitioners*).

Public Health Staff.

Medical Officer of Health — H. J. PHILLIPS, B.SC. M.D. B.Ch., B.A.O., D.P.H. (from 16th May); R. HEYWOOD WILSHAW, M.D. (Lond.), M.R.C.P., D.P.H. (till 16th May)

Assistant Medical Officer of Health — CYRIL G. EASTWOOD, B.SC., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H. (till 16th May)

Chief Sanitary Inspector .. .. .. — S. S. WHITE, M.S.I.A., A.M.I.S.E.

Deputy Chief Sanitary Inspector .. .. .. — H. F. JOWETT, M S.I.A.

Sanitary Inspectors .. .. — R. C. CORBISHLEY, M.S.I.A. (till 19th June); F. COLBERT, M.S.I.A.; E. V. ROBERTS, M.S.I.A.; G.E.A. REYNOLDS, M.S.I.A. (from 3rd October)

Matron of the Borough Isolation Hospital, Swandean — MISS I. MOSCARELLA, S.R.N., S.C.M.

Health Visitor .. .. — MISS MACMAHON, S.C.M.

Health Visitors (part time) .. .. — *MISS D. M. CATLIN, S.R.N., S.C.M. (till 27th April); *MISS E. SWIFT, S.R.N., S.C.M.; *MISS A. KLUE, S.R.N., S.C.M.; *MISS M. HEAFEY, S.R.N., S.C.M. (from 7th June)

Chief Clerk and Meteorological Registrar .. .. .. — C. A. BUXTON

Clerks and Meteorological Observers .. .. .. — J. W. GOTHARD; S. F. JUPP

Diseases of Animals Acts.

Veterinary Inspector (part time) .. .. .. — T. BOLTON, M.R.C.V.S.

Inspector (part time) .. .. — C. H. WATKINS

*Health Visitor's Certificate, Royal Sanitary Institute.

Public Health Department,
Town Hall,
Worthing.
April, 1939.

To His Worship the Mayor, Aldermen and Councillors of the Borough of Worthing.

Mr. Mayor, Ladies and Gentlemen,

I present herewith my first Annual Report on the Health of Worthing, together with the Meteorological Observations.

The scope of the report is somewhat limited, as I did not take over my duties until the middle of May, and from that date until the end of the year I was without any permanent assistance; further, the work in connection with Air Raid Precautions has absorbed a lot of time and energy.

Nevertheless a considerable amount has been achieved. The extensions at Swandean Hospital were opened in July and the hospital has been adapted to its enlarged regime.

The shortage of nursing staff was felt acutely in the early stages, but since the adjustments in the conditions of employment, recommended by your Health Committee, have been in operation this difficulty has been gradually overcome.

Your Public Health Committee is to be congratulated on bringing to a successful issue the question of alleged pollution of the foreshore by the discharge of sewage. Dr. Ardern's report on this matter has been presented to you in full and I reproduce the summary for your perusal again in the substance of this report.

The Infantile Mortality Rate, calculated on the notified live births, was only 30.3 per 1,000, while the Maternal Mortality figure was 1.5 per 1,000 total notified births. These figures do tend to fluctuate slightly from year to year, but nevertheless such good records as those above are very pleasing.

I should like to take this opportunity of thanking all the Members of the Council for the helpful support given to me since I was appointed as your Medical Officer, and to express my gratitude to the members of the staff for all their willing and energetic co-operation in the work of the Department.

I am,

Yours obediently,

H. J. PHILLIPS, M.D.,

Medical Officer of Health.

GENERAL STATISTICS.

Area of Municipal Borough, including foreshore ..	acres 8,635
,, ,, excluding foreshore ..	acres 8,014
Rateable Value to Town Rate	£884,149
Estimated Population, Registrar General (mid-year)	59,080
Estimated Population, Medical Officer of Health ..	65,625
Population at 1931 Census	46,230
Persons per acre in the Borough	8·2
Number of inhabited houses (1938)	18,750
Average number of persons per house	3·5
Net Death Rate	14·0
Corrected Death Rate	9·6
Average Death Rate for previous five years ..	14·2
Zymotic Death Rate	0·06
Average Zymotic Death Rate for previous five years	0·07
Birth Rate	10·8
Average Birth Rate for previous five years ..	11·2
Infant Death Rate under one year, per 1,000 births ..	28
Infant Death Rate Average for previous five years per 1,000 births	35

SECTION A.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT WITH STATISTICS.

AREA.

The area of the Borough, excluding the foreshore, is 8,014 acres.

POPULATION.

The population of Worthing at the 1931 census was 46,230 and I estimate the population in 1938 as 65,625.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

Worthing is situated on the coast of Sussex, 55 miles south of London, in lat. 50° 49′ N. and long. 0° 22′ W.

CLIMATE, SITE, SOIL, Etc.

The climate is mild and equable.

The town is of a level nature, situated at the foot of the South Downs. These hills form a good protection from the northerly winds. The soil is chiefly loam and marl, with clay in places, thus producing dryness.

Worthing is a popular and rapidly growing residential town, with a sea front extending about five miles, of which more than three miles is laid out as a wide and attractive promenade.

RECREATION GROUNDS AND OPEN SPACES.

In addition to the long stretch of foreshore on the south of the town, there are the following open spaces, comprising about 85 acres :—Broadwater Green (10 acres), Homefield Park (15 acres), Victoria Recreation Ground (8 acres), Steyne Gardens (2½ acres), Tarring Recreation Ground (3½ acres), Beach House Park (10 acres), Denton Gardens (2½ acres), Beach House Grounds (6½ acres), Manor Sports Ground (12 acres), Marine Gardens (2½ acres), Rotary Sports Ground (8½ acres), Durrington Recreation Ground (6 acres), Church House Gardens (2¼ acres), West Park Recreation Ground (15 acres), Pond Lane Recreation Ground (5¾ acres), Goring Street Recreation Ground (5 acres), Hill Barn Golf Course (130 acres), Land, Cissbury Down (70½ acres). There is also an open space of 1 acre in front of the Public Baths in Heene Road, which is used for tennis courts.

There is a large number of boarding schools for boys and girls.

The chief industry is fruit growing, carried on in glass-houses, mainly for the London market.

At the time of the passing of the Public Health Act, 1875, Worthing was an Urban Sanitary District with a population of 8,096, the area then being 584 acres, and for parochial purposes was within the parish of Broadwater ; an extension of the district was made in 1876, when 200 acres were included from Broadwater ; in 1881 the acreage was 979 ; a further extension was made in 1890 (West Worthing and the rural part of Heene), the added area being 426 acres, making a total of 1,405 acres ; the town was then incorporated and divided into five wards, the population being 16,606 at the 1891 census. In 1902 the urban portions of the parishes of Broadwater and West Tarring were added, 656 acres from Broadwater and 576 from West Tarring, making a total area of 2,637 acres, exclusive of the foreshore. The town was then divided into seven wards, viz., Selden, Central, Park, Victoria, Heene, Broadwater and West Tarring.

On April 1st, 1929, Durrington and Goring were added to the Borough, thus increasing its area to 7,846 acres, or about twelve square miles. The famous Cissbury Ring is within the northern boundary.

The extended Borough is divided into ten wards, viz., Broadwater, Central, Clifton, Durrington, Goring, Heene, Offington, Park, Selden and West Tarring.

On April 1st, 1933, portions of Findon and Sompting, representing 789.4 acres, were added to the Borough, so that at the present time the area of Worthing is 8,635.4 acres.

In September, 1938, the Ministry of Health held an enquiry into the proposals of the Council of the Borough of Worthing, under Section 140 of the Local Government Act, 1933, for the Alteration or Definition of the Boundaries of the Borough so as to include the Parish of Sompting at present in the Worthing Rural District.

The results of this enquiry were not known at the end of the year.

HOUSES IN 1938.

The following figures, obtained from the Borough Accountant, show the inhabited houses, etc., in the Borough at the end of 1938 :—

Number of inhabited houses, 18,750 (estimated).

Rateable Value, £884,149.

Sum represented by a penny rate £3,600.

1911 census : population 30,305.

1921 census : population 31,520.

1931 census : population 46,230.

PUBLIC ASSISTANCE.

The following particulars, obtained from Mr. N. F. Graville, the Relieving Officer, indicate the scope of Public Assistance in the Borough :—

	£	s.	d.
Half year ending March, 1938	3785	7	3¼
,, ,, September, 1938 ..	3815	19	7

HOSPITAL RELIEF.

The extent to which hospital medical relief is utilised will be seen in the following extract from the Annual Report of the Worthing General Hospital for the year ended 31st December, 1938 :—

Number of Patients during the year.

In-Patients :—

General Wards—	
At beginning of year	60
Admitted	1113
Total	1173
Cured or relieved	983
*Died	113
Remaining on books	77
Total	1173

Out-Patients :—

New Out-Patients	5445

*Of the deaths 25 occurred within 24 hours of admission.

CAUSES OF DEATH, WORTHING, 1938.

	Males.	Females
Smallpox	—	—
Typhoid fever	—	1
Measles	2	—
Whooping cough	—	—
Scarlet fever	—	—
Influenza	4	4
Encephalitis lethargica	3	—
Diphtheria	—	1
Respiratory tuberculosis	13	11
Other tuberculosis	4	3
Cancer	64	87
Syphilis	1	—
General paralysis of insane	1	—
Diabetes	7	12
Cerebral haemorrhage	16	47
Heart disease	117	151
Aneurysm	2	—
Other circulatory	24	38
Bronchitis	11	12
Pneumonia	16	13
Other respiratory	6	2
Peptic ulcer	4	4
Diarrhoea, etc. (under 2 years)	—	—
Cirrhosis of Liver	2	3
Other liver diseases	2	1
Appendicitis	4	4
Other digestive	12	13
Nephritis	12	19
Puerperal sepsis	—	—
Other puerperal causes	—	1
Congenital causes	10	4
Senility	15	22
Suicide	9	6
Other violence	9	15
Other defined causes	34	36
Ill-defined causes	2	1
Total ..	406	511

VITAL STATISTICS.

POPULATION.

The Registrar General's estimate of the resident population of Worthing at the middle of 1938 is 59,080 but, taking the number of houses, 18,750 and adopting the figure 3.5 persons per house, I estimate the 1938 population to be 65,625 and have used this figure as a basis for the birth and death rates given in this Report.

The following table shows birth and death rates :—

	Registrar General's Estimate	Medical Officer's Estimate
Population	59,080	65,625
Birth Rate	12·1	10·8
Net Death Rate	15·5	14·0
†Corrected Death Rate	10·7	9·6

BIRTHS.

The total number of births during 1938 was 712 (347 males and 365 females).

This is equivalent to a birth rate of 10.8 per 1,000 inhabitants. Average birth rate for previous 5 years, 11.2.

Of the births, 40 were illegitimate children, forming 5.6 per cent of total births. The average number of illegitimate children born during the previous five years was 36.

DEATHS.

The deaths of Worthing residents numbered 917 (406 males and 511 females), 187 of these occurring in other places.

The net death rate was 14.0 and of England and Wales 11.6.

Average death rate previous five years, 14.2.

The infant death rate was 28 per 1,000 total births. Average for previous five years, 35.

During the year there were 84 postmortem examinations and 43 inquests.

ZYMOTIC MORTALITY.

There were 4 deaths from the seven principal zymotic diseases :

Small Pox	—
Measles	2
Scarlet Fever	—
Whooping Cough	—
Diphtheria	1
Enteric Fever	1
Diarrhoea (under 2 years)	—
	—
Total ..	4
	—

The zymotic death rate is thus 0.06. Average zymotic death rate previous five years 0.07.

†Corrected by Comparability Factor (i.e., 0.69) supplied by Registrar General.

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		Total	M.	F.	
Live Births	Legitimate	651	316	335	Live Birth Rate per 1,000 of the estimated resident population 10.5
	Illegitimate	36	18	18	
Stillbirths	Legitimate	21	11	10	Rate per 1,000 total (live and still) births 35.1
	Illegitimate	4	2	2	
Deaths		917			Death Rate 14·0

Deaths from puerperal causes :—

	Deaths	Rate per 1,000 total (live and still) births.
Puerperal sepsis	0	0·00
Other puerperal causes	1	1·4
Total	1	1·4

Death Rate of Infants under one year of age :—

All Infants per 1,000 live births	29
Legitimate Infants per 1,000 legitimate live births ..	28
Illegitimate Infants per 1,000 illegitimate live births..	56
Deaths from Cancer (all ages)	151
„ Measles (all ages)	2
„ Whooping Cough (all ages)	0
„ Diarrhoea (under 2 years of age) ..	0

BOROUGH OF WORTHING. 30 Years Vital Statistics.

Year.	Births.		Deaths.													Population
			All causes.		Infants under 1 year		Maternal Mortality			Zymotic.		Tuberculosis		Cancer.		
	No.	R.*	No.	R.*	No.	R.**	Sepsis.	Other Causes	Rate**	No.	R.*	No.	R.*	No.	R.*	
9	518	19.0	360	12.2	39	75	—	—	—	12	0.44	45	1.65	33	1.21	27,200
10	548	19.7	388	12.1	36	66	1	—	1.89	8	0.28	43	1.55	41	1.47	27,800
11	532	17.4	397	12.0	56	105	—	—	—	50	1 64	37	1.21	45	1.47	30,500
12	486	15.5	355	10.4	20	41	—	—	—	5	0.16	37	1.18	37	1.18	31.300
13	504	15.6	400	9.9	34	67	1	1	3.97	12	0.37	27	0.84	39	1.22	32,160
14	483	14.6	428	10.1	29	60	—	1	2.07	18	0.54	34	1.03	42	1.27	33,000
15	457	14.2	507	12.5	28	61	—	3	6.56	14	0.44	56	1.75	49	1.53	32,000
16	468	15.5	418	12.5	31	66	—	—	—	7	0.18	46	1.66	58	2.09	27,766
17	359	11 9	415	12.5	23	64	—	—	—	9	0.32	41	1.48	63	2.28	27,662
18	419	12.9	511	14.7	32	76	—	—	—	13	0.45	38	1.32	73	2.53	28,780
19	376	12.1	478	12.5	21	56	1	—	2.39	4	0.13	35	1.15	49	1.61	30,345
20	583	18.5	434	11.4	23	39	—	—	—	6	0.19	29	0.92	50	1.58	31,555
21	487	15.5	441	11.5	29	59	1	2	5 43	7	0.20	32	1.02	63	1.99	31,520
22	404	11.8	472	11.5	21	52	1	—	1.95	2	0.06	35	1.02	59	1.72	34,230
23	401	11.7	428	10.4	18	45	1	1	3.89	4	0.12	26	0.76	55	1.61	34,200
24	426	12.3	537	13.0	21	49	—	1	2.35	2	0.06	32	0.93	81	2.36	34,500
25	442	12.0	452	8.7	21	48	—	1	2.26	9	0.25	28	0.77	60	1.64	36,500
26	423	11.3	536	10.1	17	40	—	1	2.36	5	0.13	30	0.80	90	2.44	37,330
27	432	11.5	571	10.7	20	46	1	2	6.94	7	0.19	28	1.20	84	3.05	37,500
28	462	11 5	548	13.7	17	37	1	1	4.33	12	0.30	26	0 65	87	2.17	40,100
29	494	11.2	684	15.4	12	24	—	1	2.02	4	0.09	34	0.77	103	2.33	44,300
30	534	11.9	640	14.3	18	34	—	2	3.75	3	0.07	37	0.83	104	2.32	44,800
31	553	12.0	690	14.9	20	36	2	2	7.23	5	0.10	46	1.00	101	2.18	46,230
32	513	10.8	781	16.4	20	39	4	3	13.64	9	0.20	39	0.82	101	2.13	47,490
33	514	10.3	715	14.4	18	35	2	—	3.89	6	0.12	33	0.66	104	2.09	49,770
34	615	11.6	756	14.3	12	20	—	1	1 63	3	0.06	34	0.64	133	2.51	53,000
35	621	11.1	744	13.3	25	40	1	—	1.61	4	0 07	36	0 64	125	2.24	55,845
36	687	11.6	870	14.6	23	33	—	3	4.36	3	0.05	25	0.42	153	2.57	59,400
37	729	11.6	916	14.6	33	45	—	—	—	2	0.03	42	0.67	138	2 20	62,700
38	**712**	**10.8**	**917**	**14.0**	**20**	**28**	**—**	**1**	**1.4**	**4**	**0.06**	**31**	**0.47**	**151**	**2.30**	**65,625**

*per 1,000 Population. **per 1,000 Births.

Birth-rate, Death-rate, and Analysis of Mortality during the Year, 1938.

	Rate per 1000 Total Population.		Annual Death-rate per 1000 Population.								Rate per 1000 Live Births.	
	Live Births	Still-Births	All Causes	Typhoid and Paratyphoid Fevers	Smallpox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Diarrhoea and Enteritis [under 2 years]	Deaths under One Year
England and Wales ...	15.1	0.60	11.6	0.00	0.00	0.04	0.01	0.03	0.07	0.11	5.5	53
126 County Boroughs and Great Towns (including London)	15.0	0.65	11.7	0.00	0.00	0.05	0.01	0.03	0.07	0.10	7.8	57
148 Smaller Towns (resident populations, 25,000 to 50,000 at 1931 Census) ...	15.4	0.60	11.0	0.00	0.00	0.03	0.01	0.02	0.06	0.11	3.6	51
London Administrative County	13.4	0.48	11.4	0.00	0.00	0.06	0.01	0.03	0.05	0.06	13.1	57
WORTHING	10.5	0.38	14.0	0.01	0.00	0.03	0.00	0.00	0.01	0.12	0.00	29

SECTION B.

GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

(a) HOSPITALS.

BOROUGH ISOLATION HOSPITAL.

In July, 1938, the new extensions were formally opened.

The Hospital now provides 46 beds in 3 pavilions for general infectious cases.

There is also a cubicle block of 10 beds and an observation block with 6 beds.

In addition there is the tuberculosis block containing 12 beds.

The Administrative Block together with the Nurses' and Maids' quarters have all been modernised and extended.

The Hospital is excellently situated, with healthy open surroundings. It would now compare favourably with any such institution of similar size in the country.

WORTHING GENERAL HOSPITAL.

This is a voluntary institution, situated in Lyndhurst Road.

There are 93 beds :—

For males : 28.
,, females : 28.
,, children : 15.
,, paying patients : 12.
,, maternity ,, : 10 (5 of these are for paying patients)

SOUTHLANDS HOSPITAL (EAST SUSSEX COUNTY COUNCIL).

The Borough Council has an agreement with the East Sussex County Council whereby emergency obstetric cases and cases of puerperal pyrexia may be admitted to Southlands Hospital.

Normal maternity cases may also be admitted if required to the maternity unit of the Hospital.

(b) LABORATORY FACILITIES.

These are quite adequate and efficient.

Pathological specimens are sent to the Laboratory of Drs. Little and Standish in Winchester Road ; specimens can be received at any time, so that results are available with the minimum amount of delay.

Dr. Little is also Pathologist to the West Sussex County Council.

Chemical analyses of water and certain milk samples are sent to the Clinical Research Laboratories in London.

(c) AMBULANCE FACILITIES.

The Corporation Motor Ambulance is used for the conveyance of patients suffering from infectious disease.

The St. John Motor Ambulances and the Worthing Police Motor Ambulance are available for conveyance of accident cases and non-infectious patients.

These facilities are quite adequate for the needs of the Borough and function very well.

(d) NURSING IN THE HOME.

The Worthing District Nursing Association, which is supported by public subscriptions, supplies nurses to suitable non-infectious cases on application.

Trained nurses for private cases are also available from several of the registered nursing homes in the Borough.

(e) TREATMENT CENTRES AND CLINICS.

THE CLINIC, STOKE ABBOTT ROAD.

In this building is situated the School Clinic, Maternity and Child Welfare Centres and the special clinics.

A branch welfare centre is held fortnightly at the Church Institute, Durrington.

The Council has approved arrangements for further extension of these services in the Goring district and this will have attention early in 1939.

The Venereal Diseases Clinic and the Tuberculosis Dispensary, both under the auspices of the West Sussex County Council, are held at the Worthing General Hospital.

MATERNITY AND CHILD WELFARE, 1938.
STATISTICS.

Births :

Registered : Legitimate 672 ; Illegitimate 40 ; Total 712.

Reported under Public Health Act, 1936 :

Live Births 648 ; Stillbirths 13 ; Total 661.

By midwives 621 ; by doctors and parents 40.

Medical aid was summoned by midwives in 155 cases, i.e., 134 mothers and 21 babies.

Infant Deaths :

Number : Legitimate 18 ; Illegitimate 2 ; Total 20.

Rate per 1,000 total births : Legitimate 25 ; Illegitimate 3. Total 28.

(a) MIDWIFERY AND MATERNITY SERVICES.

These remain as last year.

The salaried midwives are under the control of the West Sussex County Council.

An ante-natal clinic is held fortnightly at the Central Clinic. Post-natal cases may also attend for advice at these clinics ; there has not been a sufficient number of post-natal cases to warrant the establishment of a separate post-natal clinic up to the present.

During the year, 199 expectant mothers made 342 attendances at these clinics.

(b) INSTITUTIONAL PROVISION FOR MOTHERS.

The Borough Council reserves at the Worthing Maternity Hospital an equivalent of 2½ beds for the reception of maternity cases who are recommended for institutional treatment either on medical grounds or on grounds of the unsuitability of domestic conditions.

The Borough Council has also an agreement with the East Sussex County Council for admission of certain cases into Southlands Hospital, which see under the heading of " Hospitals."

(c) MATERNAL MORTALITY.

Only one maternal death was registered during the year. This was a woman who was suffering from eclampsia.

Working on a figure of the total notified births, live and still, this gives a figure of 1.5 per 1,000 births. This figure compares very favourably with those for the rest of the country.

All cases of maternal mortality are personally investigated by me and reports sent to the Ministry of Health.

(d) CHILD WELFARE CENTRES.

The Central Clinic is open every Monday and Friday for children under five years of age, and at Durrington fortnightly sessions are held.

During the year 5,525 attendances were made at these centres by children under one year of age, and 2,213 were made by children between the ages of one and five years.

(e) ASSISTED MILK SCHEME.

Under the Assisted Milk Scheme expectant and nursing mothers and children attending the centres may receive milk at or below cost price to the Council, if so ordered by the Medical Officer. In addition, certain other nourishments, such as Virol and Cod Liver Oil are available at cost price in necessitous cases.

All such grants are made in accordance with the Council's scale. Where, however, certain exceptional circumstances arise that warrant special consideration, such cases are sympathetically considered by the Necessitous Cases Sub-Committee individually.

The total quantity of milk supplied during the year to expectant and nursing mothers and young children at cost price to the Council or less is as follows :—

Liquid Milk	..	2396 gallons
Dried milk	..	3367 lbs.

Dried milk, Virol, Roboleine and Lactagol were sold at the Centre to 470 mothers, many of whom paid half-price. The total amount received during 1938 was £602 2s. 9½d. Cows' milk was given in 138 cases and dried milk in 118 cases, and the total cost was £524 7s. 2¼d.

(f) HEALTH VISITORS.

The Borough employs one full time Health Visitor and three part time Health Visitors, the latter also being School Nurses.

The Health Visitors attend at the Child Welfare and Antenatal Clinics and also visit the homes in their respective districts.

The following visits were made by the Health Visitors during 1938 :—

Visits to expectant mothers	356
Visits to children under 1 year of age :	
First visits	791
Total visits	5103
Visits to children between the ages of 1 and 5 years	5482

(g) CHILD LIFE PROTECTION.

All the Health Visitors and School Nurses are authorised by the Council as Child Protection Visitors. The number of persons in the Borough who were receiving children for reward at the end of the year was 32 and the number of children thus involved was 55. All the homes and the children are well supervised by the Infant Protection Visitors and many personal visits are made by me for particular reasons.

Children on books at the beginning of the year . .	62
Notified during the year	53
Visits paid	256
Children on books at end of year	55

No legal proceedings were instituted during 1938.

(h) ARRANGEMENTS FOR DENTAL, ORTHOPAEDIC, Etc., CASES.

DENTAL CLINIC.

Nursing and expectant mothers and children under five years of age may obtain dental treatment at the Dental Clinic, which is situated in the Central Clinic buildings.

One half day a week is allotted to the dental treatment of expectant and nursing mothers and children below school age.

During the year there have been 48 clinics held, at which there were 517 attendances.

New cases numbered 81 mothers and 113 children, and individuals treated were 110 mothers and 115 children. There were 1,070 extractions and 19 fillings. Dentures were supplied to 25 mothers.

ORTHOPAEDIC CLINIC.

The Orthopaedic Surgeon attends the Central Clinic once monthly for the Education Committee.

Children under school age with orthopaedic defects attend this clinic for consultation and also attend for massage and electrical treatment, etc., at the four weekly sessions.

OPHTHALMIC CLINIC.

Children under five years of age who require ophthalmic treatment for defective vision or squint are referred for such treatment to the Ophthalmic Surgeon at the School Clinic.

During the year 15 cases were so referred.

MINOR AILMENTS.

During the latter part of the year arrangements were made with the Education Committee whereby children under school age attending the Welfare Centres, who require treatment for minor ailments such as impetigo or scabies, could attend the School Minor Ailments Clinic.

SECTION C.—SANITARY CIRCUMSTANCES OF THE AREA.

WATER.

The water supply to the Borough is obtained from borings into the chalk, and throughout the year has been uniformly of excellent quality for drinking.

Bacteriological examinations are taken fortnightly and continuous chlorination is in operation.

A close co-operation exists between the Borough Water Engineer and the Medical Officer of Health, and all matters likely to affect the public health in connection with the water supply are mutually agreed upon.

The following information regarding water supply has been supplied by Mr. H. A. Leader, Assoc. M. Inst. C.E., Borough Water Engineer.

The Statutory Area of Supply is 23 square miles and includes the Borough of Worthing and the Parishes of Clapham, Patching and Sompting ; bulk supplies are also afforded the Worthing Rural District Council for the Parishes of Angmering, East Preston, Ferring, Findon, Kingston and Rustington.

The principal Pumping Station is the Broadwater Pumping Station, situate at the Northern boundary of the Borough, where water is pumped from a well and headings in the chalk about 120 feet deep, and was first used in 1897. Two boreholes sunk to a depth of 450 feet from the surface were constructed in 1922 and 1930 respectively, and give valuable additional supplies, while a large area of land has been purchased in the neighbourhood of this Station to prevent pollution.

Pursuant to the Worthing Corporation Act, 1922, the Corporation, in August, 1924, purchased 311 acres of land in the parishes of Clapham and Patching (about 5 miles north-west of the Borough) from the Trustees of the Duke of Norfolk, as a protection against pollution, and imposed restrictions on the tenants for its prevention.

A pumping station was erected in 1927 on this site in the parish of Patching, and two boreholes sunk in the chalk to a depth of 500 feet from the surface of the ground.

From these works water is pumped to two reservoirs on Patching Hill, the one belonging to the Corporation supplies Clapham and Patching, and the other, belonging to the Worthing Rural District Council, supplies the Parishes of Angmering, East Preston, Ferring, Kingston and Rustington.

Water is also pumped from these works to a reservoir at Durrington, where it is re-pumped to a reservoir on Salvington Hill to supply water to the High Level District.

The High Salvington Reservoir provides a bulk supply for the Parish of Findon.

The total quantity of water supplied for all purposes during the year ended 31st December, 1938, amounted to 908,284,555 gallons and of this total 91,893,800 gallons were supplied in bulk.

Following the approval of the Minister of Health, the new water scheme designed to meet the increasing demands for water and involving an estimated expenditure of £150,000, has been started. Up-to-date, two new boreholes and two winding shafts have been sunk, while the driving of headings at the Broadwater Pumping Station has been completed and similar work has been carried out at the Patching Pumping Station. The work of laying new trunk mains of large diameter to improve the distribution system has been carried out, and the construction of the new reservoir at Broadwater is nearing completion.

WATER ANALYSES.

The following chemical and bacteriological analyses show the quality of the ordinary and additional supplies.

Ordinary Town Supply from the Broadwater Well.

(I). **Chemical.**

	Parts per 100,000	Grains per gallon.
Total solids (dried at 180°C)	29.0	20.3
Combined chlorine	2.70	1.89
equivalent to Na Cl	4.46	3.12
Nitric nitrogen (Nitrates)	0.56	0.39
Nitrous nitrogen (Nitrites)	*nil*	*nil*
Ammoniacal nitrogen	0.0006	0.0004
Albumenoid nitrogen	0.0008	0.0006
Oxygen absorbed in 4 hours at 27°C ..	0.008	0.006
Lead or Copper and Zinc	Not detected	
Temporary hardness (equivalent to $CaCO^3$)	20.0	14.0
Permanent hardness (,, ,,)	3.0	2.1
Total hardness (,, ,,)	23.0	16.1

(II). **Bacteriological.**

The average number of organisms producing visible colonies on agar plates, incubated at 22°C. for 3 days is found to be 17 per ml.

The average number of organisms producing visible colonies on agar plates, incubated at 37.5°C. for 2 days is found to be 2 per ml.

B. Coli	not found in 100 ml.
Streptococci	,, ,, 30 ml.
Cl. Welchii (spores)	,, ,, 100 ml.

The bacterial counts are low and free from excremental organisms.

The water is quite satisfactory for drinking purposes.

The Hydrogen Ion Concentration is found to be pH. 7.5.

Water from Bore Hole, Patching.

(I.) **Chemical.**

	Parts per 100,000	Grains per gallon
Total solids (dried at 120°C) . ..	31.0	21 7
Combined chlorine (as Cl.)	2.00	1.40
equivalent to Na Cl	3.30	2.31
Nitric nitrogen (Nitrates)	0.58	0.41
Nitrous nitrogen (Nitrites)	*nil*	*nil*
Ammoniacal nitrogen	0.0004	0.0003
Albumenoid nitrogen	0.0008	0.0006
Oxygen absorbed in 4 hours at 27°C ..	0.015	0.011
Lead or Copper	*nil*	*nil*
Temporary hardness (equivalent to $CaCO^3$)	21.5	15.1
Permanent hardness (,, ,,)	3.0	2.1
Total hardness (,, ,,)	24.5	17.2

(II). **Bacteriological.**

The average number of organisms producing visible colonies on agar plates, incubated at 22°C. for 3 days is found to be 10 per ml.

The average number of organisms producing visible colonies on agar plates, incubated at 37.5°C. for 2 days is found to be 2 per ml.

B. Coli	not found in 100 ml.
Streptococci	,, ,, 30 ml.
Cl. Welchii (spores)	,, ,, 100 ml.

The Hydrogen Ion Concentration is found to be pH. 7.4.

The total number of bacteria present is low and no excremental types are found.

The water is quite satisfactory for drinking purposes.

DRAINAGE AND SEWERAGE.

The following details for 1938 have been supplied by Mr. P. E. Harvey, O.B.E., A.M.Inst.C.E., Borough Engineer and Surveyor.

Soil sewers have been laid and connected up to the Corporation's sewerage schemes at :—

Cheviot Road, Crockhurst Hill, Findon Road (part), Goring Road, Ancilliary Road (west of Sea Place), Jeffries Lane, Jupps Lane Mill Lane and Sea Lane. A sewer to deal with a portion of Sompting Sewage has also been constructed.

Soil sewers have also been provided in the following streets :—

A'Becket Gardens, Angus Road Extension, Beachside Close, Bury Drive, Clarendon Road Extension, Courtlands (south) Estate Road No. 4, Drummond Road, Eirene Road, Elgin Road (part), George V Avenue (north of railway), Harvey Road Extension, Heather Lane, Hillview Road, Lancaster Road Extension, Marlborough Road (part), Marlborough Way, Marshall Avenue, Patricia Avenue, Park Close, The Plantation, Southsea Avenue, Stone Close, Wadhurst Drive, Wellesley Avenue.

SEWAGE WORKS.

An automatic Vacuum Solution Feed Chlorinator Plant with four rate control feed has been installed at the East Worthing Sewage Works.

The sewage, after screening, is discharged to the sea through two outfalls, one situated some 350 yards from the eastern boundary of the Borough and the other some 1,000 yards from the western toundary.

The question of whether there was any serious pollution of the foreshore from this discharge engaged the attention of your Public Health Committee during the year. The services of Dr. Ardern, Analytical and Consulting Chemist, were called in, and Dr. Ardern, in conjunction with the Borough Health Department and the Borough Surveyor's Department, carried out an extensive survey and made a report to you on the matter, which report you have already received in full. I do not propose to reproduce the whole report, but Dr. Ardern's summary and recommendations are appended :

SUMMARY.

Summarising the position, it may be said there is no microscopical or chemical evidence of any sensible degree of sewage pollution of the Worthing foreshore and certainly there is no likelihood of aerial nuisance from the foreshore as the result of the present system of discharging sewage to sea.

On the other hand, the bacteriological condition of certain samples of the foreshore sand is such that the possibility of pollution arising from the discharge of sewage cannot be dismissed, although it is certain that the bacterial population of the foreshore sand is also influenced by

(a) the decay of seaweed and dead marine life generally.

(b) avian pollution,

(c) adventitious pollution of the beach by visitors' dogs and

(d) surface drainage from the promenade.

Whatsoever the source of the bacterial contamination of the foreshore, it is not of such dimension as to justify considering the high capital expenditure and running costs which would be involved in the installation of large scale sewage purification plant for the treatment of the Worthing sewage.

RECOMMENDATION.

Although no case has been established for anything in the nature of full purification of the Worthing sewage, it is recognised that it may not be unreasonable to conclude from certain of the bacteriological results that some evidence is afforded, however slight, of pollution by reason of the discharge of sewage to sea.

In these circumstances, and in order to allay any suspicion and to afford adequate protection to bathers along the sea-front, it is recommended that, prior to discharge to sea, the sewage be chlorinated (at both outfalls) during the summer months, say from the beginning of June to the end of September, or possibly a little later.

In this connection, the Medical Officer of Health kindly arranged with Drs. Little and Standish to investigate the effect of chlorination on the bacterial population of Worthing sewage.

The results of this inquiry are given in the appendix to this report, from which it will be seen that a relatively small dose of chlorine is effective in very greatly reducing the number of organisms present in the sewage.

It would appear that, for the most part, chlorination to the extent of 5 parts per million would be a sufficient safeguard and certainly not more than 10 parts of chlorine per million need be used. The precise degree of chlorination might well be left to the discretion of the Medical Officer of Health.

It is further recommended that the study of the tidal currents be extended with the view of determining, with greater precision, the most favourable periods at which to discharge sewage at both outfalls, with the least possibility of a shoreward trend.

As the population of Worthing increases, and consequently additional volumes of sewage have to be dealt with, it may be worth while considering extending the length of both outfalls, with the view of securing the discharging of sewage into a greater depth of sea water more remote from the shore, but this is a matter for the future and is not considered necessary at the present time.

I am indebted to Mr. Harvey, the Borough Engineer, for particulars of the position of the two outfalls, details of the float trails and the accompanying map upon which, approximately, the points are indicated where sea water and foreshore sand samples have been taken.

I have also to acknowledge the assistance of Drs. Little and Standish in undertaking the bacteriological examination of the various samples and the chlorination inquiry, the results of which work have enabled me to form a considered opinion on the question at issue.

Finally, I have to express my high appreciation of the valuable co-operation of Dr. Phillips, the Medical Officer of Health, throughout the whole of this inquiry.

RIVERS AND STREAMS.

49 notices were served upon owners or occupiers of land abutting a watercourse or ditch, requesting the cleansing or widening of the watercourse or ditch, to abate a nuisance caused by the flooding.

All notices were complied with and the natural drainage system of all the districts affected has been considerably improved.

CLOSET ACCOMMODATION.

A general water carriage system exists throughout the Borough, except in a few of the more remote rural sections.

The total number of pail closets remaining is 77 and some of these it is hoped to convert in the near future.

During 1938, 33 pail closets were converted to the water carriage system.

PUBLIC CLEANSING.

The public cleansing service was extended during the year by the addition of one refuse collection vehicle and one gully emptier.

SANITARY INSPECTION OF THE AREA.

This is under the supervision of the Chief Sanitary Inspector, who has supplied me with the following report :—

The following table is a record of general inspections :—

Public Health Acts.	
Inspections	2265
Re-visits	1188
Complaint Visits	618
Infectious Disease	110
Factories and Workshops.	
Factories	223
Bakehouses	96
Restaurant Kitchens	71
Workshops	28
Workplaces	16
Outworkers	7
Milk and Dairies.	
Cowsheds	53
Dairies	127
Foodstuffs.	
Ice Cream	40
Fried Fish Shops	32
Shops Act, 1934.	
Visits	14
Other Inspections.	
Schools	26
Ditches	49
Rats and Mice.	
Visits	170
Drains Tested.	
Hydraulic	433
Smoke	17
Chemical	28
Colour	225
Visits	1650
Smoke Observations	35
Housing.	
Inspections	650
Re-visits	1443
Rooms measured	45

Meat.

Private Slaughterhouses	1288
Butchers' Shops	94

Miscellaneous Visits	1764

Return as to the Number and Nature of Sanitary Defects.

Drainage.

Redrained to Sewer	242
Requiring reconstruction	62
Defective	75
Choked	109
Sink Channel	35
Waste-pipe not trapped	36

Water Closets.

Defective	48
Cisterns defective	21
Conveniences converted into w.c.s	33
Soil pipes defective	9

Paving.

Yard	105
Front approach	53

Houses.

Roofs defective	59
Chimney stacks defective	16
Eaves gutters defective	24
Fallpipes defective	16
Verminous	33
Requiring decorating	227
Plaster defective	174
Overcrowded	6
Wall dampness	93
Kitcheners defective	38
Coppers defective	55
Fireplaces defective	38
Floors defective	105
Window frames defective	45
Sash cords defective	160
Stairways defective	15
External walls	21
Doors	22
Sinks foul or worn	20

Yards.

Insanitary	16
Offensive accumulations	21
Refuse bins defective	107

Vacant land—insanitary	14
Smoke Nuisances	5
Miscellaneous	95

Notices Served to Remedy Defects and Abate Nuisances.

Act.	*Informal.*	*Statutory.*
Housing Act, 1936:		
Section 9	227	19
Sections 4/62	343	—
Miscellaneous	14	—
Public Health Act, 1936:		
Re nuisances	275	8
,, drainage	138	13
,, sanitary accommodation	21	2
,, food supplies	1	—
,, smoke abatement ..	3	—
Miscellaneous	6	—
Factory and Workshop Act, 1901 Factories Act, 1937	12	1
Shops Act, 1934—Section 10 ..	7	—
Re Meat and Slaughtering ..	8	—
Milk and Dairies Orders ..	5	—
Teville Stream Act ..	39	—
Rats and Mice (Destruction) Act, 1919	2	—
Worthing Corporation Act, 1922:		
Choked watercourses ..	9	1
Re vermin ..	21	—
,, refuse bins ..	91	1
	—	—
Grand totals ..	1222	45
	—	—

Complaints.

618 were received and investigated and appropriate action was taken in 388 cases for the abatement of nuisances or the remedy of defects.

In the remaining 230 cases the complaint was either not justified or the nuisance was of a private nature and not within the purview of the Public Health Act.

Residents were, however, advised in numerous cases how to deal with the subject of complaint.

The complaints verified are classified below :—

Choked or defective drains	52
Housing defects	33
Dampness	18
Overcrowding	6
Dirty Houses	10
Vermin	24
Ants, bees, cockroaches, crickets, earwigs, snails	20
Mosquitoes	2
Pigeons	1
Rats or Mice	105
Offensive smells	28
Insanitary yards	5
Refuse bins	5
Offensive accumulations	17
Dumps on vacant land	26
Noisy animals	2
Animals improperly kept	1
Flooding	4
Ditches	2
Water supplies	1
Van dwellers	1
Miscellaneous	25
	388

RATS AND MICE (DESTRUCTION) ACT, 1919.

One hundred and thirty-five complaints were received with respect to rat or mouse infestation and 170 visits were made to premises in connection with these complaints.

In the majority of cases poison bait was laid and the premises were systematically re-visited, further baits being laid where required. Where necessary dogs were employed.

Special efforts were made during National Rat Week.

Mosquitoes.

Number of tanks in glasshouses treated—7,611

Two complaints were received.

Common Lodging Houses.

There is no common lodging-house within the Borough.

Offensive Trades.

	Registered.	*Licensed.*	*Total.*
Fish Fryers' Premises	7	2	9
Dealers in Rags and Skins	2	—	2

Four applications for consent to establish fish frying businesses were considered, of which one was withdrawn, two were refused and one was granted.

The one granted was in connection with the transfer of a business to other premises in the vicinity.

Drainage Certificates.

The drains and sanitary fittings of two houses were examined on payment of the prescribed fees and certificates issued to the applicants.

The amount paid to the Corporation for these services was £3 13s. 0d. and defects were found at one house.

Redrainage.

242 houses situate in the Durrington, Goring and Offington Wards, with cesspool drainage, have been redrained and connected to the new sewerage system and nearly all the cesspools had been filled in by the end of the year.

At a large number of premises an entire reconstruction of drainage was necessary, and the supervision of this work involved 1,650 visits. 703 tests were applied to drains, of which 60 per cent. were hydraulic tests.

Since the completion of the sewerage system in June, 1936, 1,672 premises have been redrained to public sewers.

Disinfection.

Articles removed and disinfected:

Mattresses and beds	297
Blankets	457
Eiderdowns, counterpanes, etc. ..	192
Pillows, bolsters and cushions ..	655
Miscellaneous	231
Total articles ..	1,832

No. of rooms disinfected—269.

The revenue received by the Corporation for disinfestation and disinfection during the year was £110 18s. 11d.

RAG FLOCK ACTS, 1911-1928.

Seven samples of rag flock were taken and examined for the presence of soluble chlorine in the form of chlorides. All conformed to the prescribed standard of cleanliness.

RENT AND MORTGAGE INTEREST RESTRICTIONS ACTS, 1920-33.

No applications for Repairs Certificates were received.

FACTORIES ACT, 1937.

No of premises on register :—

Factories with power	.. ..	181
Factories—non-power	.. ..	87
		268

INSPECTIONS.

Premises (1)	Number of Inspections (2)	Written Notices (3)	Occupiers prosecuted (4)
Factories with mechanical power ..	145	11	—
Factories without mechanical power	174	5	—
†Other Premises under the Act (including works of building and engineering construction but not including outworkers' premises)	—	—	—
†Electrical Stations should be reckoned as Factories.			
Total ..	319	16	—

DEFECTS FOUND.

Particulars (1)	Number of Defects Found (2)	Remedied (3)	Referred to H.M. Inspector (4)	Number of defects in respect of which Prosecutions were instituted (5)
Want of cleanliness (S. 1)	33	25	3	—
Overcrowding (S. 2)	—	—	—	—
Unreasonable temperature (S. 3) ..	—	—	—	—
Inadequate ventilation (S. 4)	3	2	—	—
Ineffective drainage of floors (S. 6) ..	—	—	—	—
Sanitary Conveniences (S. 7) insufficient	5	4	—	—
Sanitary Conveniences (S. 7) unsuitable or defective	1	1	—	—
Sanitary Conveniences (S. 7) not separate for sexes..	5	4	—	—
Other offences .. .. .. (Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937).	1	1	5	—
Total ..	48	37	8	

SECTION 34.

A survey was made of all factories respecting the provision of adequate means of escape in case of fire pursuant to Section 34.

Subsequent to inspection applications were received for Certificates relating to adequate means of escape in respect of 13 factories.

Eleven Certificates were issued and two were refused.

SHOPS & OFFICES.

SHOPS ACT, 1934—SECTION 10.

The undermentioned contraventions of the provisions relating to the health and comfort of shop assistants were reported and dealt with :

Shops not provided with :—

Suitable and sufficient sanitary accommodation ..	5
Suitable and sufficient washing facilities ..	2

Bakehouses. 96 inspections of bakehouses were made and cleansing or limewashing was found to be necessary in 29 cases.

PUBLIC HEALTH ACT, 1936—SECTION 92.

An inspection of all offices for the purpose of regulating conditions pursuant to Section 92 was completed early in the year.

One office was found to be totally unfit for occupation by reason of inadequate natural lighting and ventilation, and at 23 other premises the sanitary accommodation provided was unsatisfactory.

WORKPLACES (OFFICES, &c).

No of inspections—212.

Particulars.	*Found.*	*Remedied.*
Want of cleanliness	9	9
Inadequate lighting..	1	1
Inadequate ventilation	3	2
Sanitary accommodation (inadequate)	23	21
Overcrowded	—	—
	—	—
	36	33
	—	—

CAMPING SITES.

There is no camping site in the Borough and no licence has been granted pursuant to Section 269 of the Public Health Act, 1936.

SMOKE ABATEMENT.

See Sanitary Inspector's Report, from which it will be seen that 35 smoke observations were taken during the year and 3 informal notices were served, requiring the abatement of smoke nuisances, which were complied with.

No statutory notices have been served.

The Borough is fortunate inasmuch as this is not a nuisance which causes the authorities any degree of trouble.

SWIMMING BATHS AND POOLS.

This matter has been receiving your attention for some time and you have made decisions concerning the erection of new and more suitable public baths accommodation in your Five Years Plan.

The present baths are antiquated and the defects have already been brought to your notice. As, however, the matter is receiving your attention, I do not propose to make any lengthy report.

The baths are frequently visited both by your Medical Officer of Health and the Sanitary Inspectors, and frequent examinations of the water are made.

A chlorination plant is installed, but the delivery is primitive and cannot be considered entirely satisfactory, but under close supervision and frequent emptying, none of the bacteriological examinations were found to be really unsatisfactory and the majority of them were found to be of a satisfactory standard.

ERADICATION OF BED BUGS.

Number of houses found to be infested :—

(a)	Council houses	.. ..	Nil
(b)	Other houses	.. ..	33

All were disinfested.

Wood fixtures are usually dismantled and treated with a blow lamp flame and the rooms sprayed twice with " Ris " Insecticide.

The household effects of all families rehoused from Clearance Areas were fumigated in a van with hydrogen cyanide. Bedding, etc., was steam disinfected.

The home conditions of prospective tenants of Council houses are inspected prior to rehousing and disinfestation work or destruction of bedding is carried out where necessary.

The Corporation execute all work of disinfestation with the exception of hydrogen cyanide fumigation, which is carried out by a private firm under contract.

Premises are kept under observation.

SCHOOLS.

The School Medical Officer has all the sanitary accommodation of the schools under his personal supervision and the sanitary conveniences are also visited by the Chief Sanitary Inspector's staff.

I have already commented on the general hygiene of the schools in my Annual School Report.

All the schools are on the Town's water supply.

HOUSING.

HOUSING ACTS, 1925-1935.

STATISTICS.

1. *Inspection of Dwellinghouses during the year* :--

(1)	(a) Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts)	1059
	(b) Number of inspections made for the purpose	2194
(2)	(a) Number of dwellinghouses (included under sub-head (1) (above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	650
	(b) Number of inspections made for the purpose	1443
(3)	Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	2
(4)	Number of dwellinghouses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	520

2. *Remedy of Defects during the year without Service of formal Notices* :—

Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers	366

3. *Action under Statutory Powers during the year* :

A.—Proceedings under Sections 9, 10 & 16 of the Housing Act, 1936 :

(1)	Number of dwellinghouses in respect of which notices were served requiring repairs.. ..	19
(2)	Number of dwellinghouses which were rendered fit after service of formal notices :—	
	(a) By owners	19
	(b) By Local Authority in default of owners	—

B.—Proceedings under Public Health Acts :

(1)	Number of dwellinghouses in respect of which notices were served requiring defects to be remedied	25
(2)	Number of dwellinghouses in which defects were remedied after service of formal notices :—	
	(a) By owners	24
	(b) By Local Authority in default of Owners	1

C.—Proceedings under sections 11 and 13 of the Housing Act, 1936 :

(1)	Number of dwellinghouses in respect of which Demolition Orders were made	4
(2)	Number of dwellinghouses demolished in pursuance of Demolition Orders	2
(3)	Written undertakings accepted	5

D.—Proceedings under section 12 of the Housing Act, 1936 :

(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made	4
(2)	Number of separate tenements in respect of which Closing Orders or undertakings were determined, the tenement or room having been rendered fit	3

4. Housing Act, 1936—Part IV—OVERCROWDING :—

(a)	(i)	Number of dwellings overcrowded at the end of the year	5
	(ii)	Number of families dwelling therein..	5
	(iii)	Number of persons dwelling therein	37½
(b)		Number of new cases of overcrowding reported during the year	7
(c)	(i)	Number of cases of overcrowding relieved during the year	9
	(ii)	Number of persons concerned in such cases	58½
(d)		Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding..	—

The Council's Quinquennial Programme of 1933 was disposed of during the year and 123 dwellings and buildings involved were demolished, namely, 104 by owners, 14, (of which 11 were situate in Gloucester Place) were burnt down by the Corporation, and 5 were demolished by the Corporation in default of the owners.

Twenty-nine other dwellinghouses were closed, but not demolished.

The number of people displaced was 391.

The rehousing accommodation provided in connection with the Quinquennial Programme was as follows :—

Church House Estate	—8	flats	with	3	bedrooms
,,	,,	4	,,	2	,,
Durrington	,,	24	,,	3	,,
,,	,,	16	,,	2	,,
Meadow Road	,,	28	,,	3	,,
,,	,,	4	,,	4	,,

Arrangements were made, under private contract, for the household effects of all families rehoused from Clearance Areas to be fumigated with hydrogen cyanide prior to removal. All bedding was fumigated in the Corporation's steam disinfector.

INSPECTION AND SUPERVISION OF FOOD.

Milk. The total number of registered dairy farms, dairies, and purveyors of milk is as follows :—

Cowkeepers' premises	6
Working dairies	14
Dairy shops	31
Shopkeepers retailing milk in sealed bottles or cartons	75

RESULTS OF EXAMINATION OF MILK SAMPLES.

112 samples were examined. The following is a synopsis of the samples taken and the results :—

Examination for Bacterial Cleanliness.

Designation	No. of Samples	Methylene Blue Test		B. Coli present in 1/100th ml.	Percentage unsatisfactory
		Satisfactory	Unsatisfactory		
"Tuberculin Tested"	14	2	2	3	21%
Ordinary	27	23	4*	8*	37%

*The Methylene Blue Reduction Test was legally adopted as the test for cleanliness on January 1st, 1937, but the above results again indicate that this test cannot be regarded as satisfactory unless carried out in conjunction with the coliform test.

Designation	No. of Samples	Bacteria per ml.		B. Coli present in 1/100th ml.	Percentage unsatisfactory.
		Highest count	Lowest count		
Pasteurised	23	16,300	230	4	17%

Examination for Tubercle Bacilli.

Designation	No. of Samples	No. containing Tubercle Bacilli	Percentage unsatisfactory
"Tuberculin Tested" ..	3	—	0%
Ordinary ..	38	3	7%
,, (repeat)	7	1	14%

The amount of ungraded milk consumed by the resident population is approximately 5,610 gallons per day, which is equivalent to 0·7 pint per head per day.

About 138 gallons per day are produced at local farms.

The remaining supply is produced at over 100 farms, mostly accredited herds, situate outside the Borough.

57% of the ordinary milk consumed in the Borough is pasteurised.

3,053 elementary school children were having ⅓ pint per day under the "Milk for Schools" scheme at the end of the year—approximately 75% of the children on books.

Milk bottles left on public footpaths are collected by the Corporation and sold back to dairymen.

Graded Milk. Licences granted for the ensuing year pursuant to the Milk (Special Designations) Orders, 1936-1938, is as follows :—

To retail "Tuberculin Tested" Milk ..	17
To retail "Tuberculin Tested" (Supplementary)	1
Pasteurising Plants and retailing ..	2
To retail Pasteurised Milk	6
To retail "Pasteurised" Milk (Supplementary)	1

The amount of "Tuberculin Tested" (Certified) Milk being consumed daily at the end of the year was 54 gallons approximately.

Contraventions reported and dealt with :—

MILK (SPECIAL DESIGNATIONS) ORDERS, 1936-1938.

Retailing graded milk without a licence .. 2

ICE CREAM.

There are 19 premises in the Borough where Ice Cream is manufactured and 40 visits were made for the purpose of supervision.

24 samples were taken and examined for bacterial cleanliness, with the following results :

Samples taken	*Satisfactory*	*Unsatisfactory*	*Presence of B. Coli in 1/100th ml.*	*Unsatisfactory.*
11	6	5	3	
Repeat Samples				15 or 62%
13	3	10	10	

Bacterial content per 1 *ml.*

Highest count.	Lowest count.
5,220,000	920

MEAT INSPECTION.

There are four Registered Slaughterhouses in regular use within the Borough. They are governed by Local Byelaws and maintained in clean condition.

Slaughter of Animals Act, 1933. All animals are slaughtered with the aid of mechanically operated humane instruments and 24 persons are licensed as fit and proper to stun or slaughter animals.

Slaughtering takes place regularly on six days per week and a vast amount of night work is done by the Sanitary Inspectors, to ensure that the carcase of every animal slaughtered is examined.

All diseased meat is burnt.

Number of attendances at slaughterhouses—1,288.

Details of the number of animals slaughtered and the amount of meat found to be diseased and destroyed are as follows :—

Number of animals slaughtered—9,457.

Total amount of meat found to be diseased and destroyed—951 stones, including :—

Entire carcases :

Beasts 3, Calves 6, Sheep 33, Pigs 14.

Edible offal :

Beasts—heads and tongues 8, livers 16.

Sheep—livers 97.

Pigs—heads and tongues 60, livers 129.

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The requirements of these Regulations are rigidly enforced.

94 visits were made to butchers' shops.

CARCASES INSPECTED AND CONDEMNED.

	Cattle excluding Cows	Cows.	Calves.	Sheep and Lambs.	Pigs.
Number killed (if known) ..	138	28	688	6176	2427
Number inspected	138	28	688	6176	2427
All diseases except Tuberculosis.					
Whole carcases condemned	—	—	4	33	—
Carcases of which some part or organ was condemned	5	3	5	97	112
Percentage of the number inspected affected with disease other than Tuberculosis	3%	10%	1%	2%	4%
Tuberculosis only.					
Whole carcases condemned	1	2	2	—	14
Carcases of which some part or organ was condemned ..	10	8	4	—	76
Percentage of the number inspected affected with tuberculosis ..	8%	35%	0·9%	—	3%

Other foods destroyed as being unsound :—

Beef	..	572	lbs.
Bacon	..	13	,,
Pork	..	21	,,
Mutton	..	4½	,,
Tinned Ham	..	41	,,
Tinned Tongue	..	7	,,
Rabbits	..	2	,,
Fish—2 boxes mixed	..	111	,,
Kippers—2 boxes	..	20	,,
Haddock		22	,,
Salmon	..	16½	,,
Prawns	..	7	,,
Potatoes—9 sacks	..	1008	,,

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

MILK AND CREAM REGULATIONS, 1912 and 1917.

I have received from Mr. W. Huggett, the West Sussex County Council Inspector, the following report on the samples purchased in Worthing during 1938 and analysed by the Public Analyst:—

Description	Number Analysed	Genuine	Otherwise
New Milk ..	41	40	1 (a)
Butter ..	2	2	—
Malted Milk ..	1	1	—
Condensed Milk ..	2	2	—
Bread and Butter ..	1	1	—
Tinned Cream ..	1	1	—
Sausages ..	2	2	—
Ham ..	1	1	—
Marmalade ..	1	1	—
Sultanas ..	2	2	—
Raisins ..	2	2	—
Currants ..	1	1	—
Candied Peel ..	2	2	—
Lard ..	1	1	—
Meat and Fish Pastes ..	3	2	1 (b)
Sardines ..	1	1	—
Iodised Salt ..	1	1	—
White Pepper ..	1	1	—
Whiskey ..	1	1	—
Totals ..	67	65	2

(a) Reported "slightly deficient." Further sample proved genuine.

(b) Informal sample. Later sample proved genuine.

NUTRITION.

No municipal public lectures have been held, but several cooking demonstrations have taken place.

Talks to Mothers are given by the Health Visitors at the Welfare Centres.

SECTION F.—PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

SMALLPOX.

No cases were notified during the year.

SCARLET FEVER.

Fifty-five cases were notified during the year, 36 of which were removed to Swandean Isolation Hospital.

Uncomplicated cases are discharged at the end of four weeks.

Where satisfactory isolation and nursing are obtainable in the home, hospital isolation is not urged.

There was no marked "streptococcic" incidence during the year. All the cases admitted to hospital were definite cases of scarlet fever, and varied in the initial illness from a mild to a moderately severe type.

DIPHTHERIA.

The incidence of this disease remained low. Twenty-three cases were notified, 21 of which were removed to hospital. There was one death.

The severity of the cases was varied. There is little to complain of in the prompt administration of antitoxin, but there was considerable delay in calling in medical help in several of the cases.

This is a frequent cause of trouble in places where parents are not "diphtheria conscious" and this outlook is often directly caused by a low incidence of the disease over a period of years, as has obtained in Worthing.

Such a low incidence does not necessarily indicate a local immunity from the disease and it would be a mistake to be lulled into a false sense of security. It is proposed, therefore, to offer immunisation against the disease to the child population during 1939.

Diphtheria Antitoxin Order of the Local Government Board.

Under this Order a supply of Antitoxin is kept at the Public Health Office for distribution to Medical Practitioners, when required for the poorer inhabitants of the district.

PUERPERAL PYREXIA.

Twelve cases were notified and five were removed to Hospital. All recovered.

OPHTHALMIA NEONATORUM.

Three cases were notified and all recovered.

ACUTE POLIOMYELITIS.

Eighteen such cases were notified during the year and four cases of polioencephalitis. There were four deaths.

During the past ten years the notifications of this disease in the Borough have been as follows :—

1 case in 1932
1 ,, 1933
1 ,, 1937

Details of the 22 cases during 1938 are given in the following table :—

Case No.	Sex	Age	Date of Notification	Final diagnosis	School or Occupation	Disposal	Result
1	Female	1yr. 4mths	11th July	Acute poliomyelitis	Under school age	Hospital	Recovery
2	Male	7	18th July	,,	Elm Grove	,,	,,
3	Female	14	20th July	,,	Davison	,,	Died
4	Male	11	21st July	,,	Private (Boarding School)	Isolated at home	Recovery
5	Female	11	23rd July	,,	St. Mary's	,,	,,
6	Female	3yrs 9mths	28th July	,,	Under school age	Hospital	Died
7	Male	6	28th July	,,	St. Mary's	Isolated at home	Recovery
8	Female	8	29th July	,,	Holy Trinity	Hospital	,,
9	Male	5yrs 10mths	30th July	,,	Holy Trinity	,,	,,
10	Female	36	31st July	Phlebitis	House	,,	,,
11	Female	12	2nd Aug.	Acute poliomyelitis	Sussex Road	,,	,,
12	Female	9	4th Aug.	,,	Heene Road	,,	,,
13	Male	17	11th Aug.	,,	High School	Isolated at home	,,
14	Male	9	11th Aug.	Acute polioencephalitis	Durrington	Hospital	,,
15	Female	11	11th Aug.	Acute poliomyelitis	Private (day school)	Isolated at home	,,
16	Male	13	22nd Aug.	,,	St. Andrew's	Hospital	,,
17	Male	41	23rd Aug.	Acute polioencephalitis	Independent	24 hours' illness	Died
18	Male	15½	26th Aug.	Acute polioencephalomyelitis	Apprentice	Hospital	Died
19	Female	8	5th Sept.	Acute poliomyelitis	Dominion Rd.	,,	Recovery
20	Male	4	21st Sept.	,,	Under school age	,,	,,
21	Female	8yrs. 11 mths	8th Oct.	,,	Dominion Rd.	,,	,,
22	Male	39	13th Nov.	Acute polioencephalitis	A. A. Scout	,,	,,

Total No. of confirmed cases—21.

Mortality Rate—19·04.

Sex incidence :—

Female cases	...	10
Male cases	...	11
Total	...	21

No data of much epidemiologic value can be obtained from such a short series of cases, but as the number was so small there was a good opportunity of following up each individual case, which was done.

Very little of value emerged from the investigation from an administrative standpoint, but some of the observations on the apparent infectivity were of interest.

Firstly, the disease could not be said to be invading entirely fresh ground, as it had appeared on four occasions during the previous ten years.

There was no evidence among the early cases that they had brought the disease from the outside.

In the four weeks previous to the first case no cases had been reported in the administrative County of West Sussex. During the same period one case only had been reported in the administrative County of East Sussex, at Hailsham, 28 miles away from Worthing and one case in the administrative County of Surrey at Barnes, 48 miles away from Worthing.

A most exhaustive search failed to find any common factor among the cases apart from the fact that they were all local inhabitants.

The outbreak started in the height of the seaside season with a population of over 100,000 at risk for over two months under conditions most favourable for the spread of infection, but the infection did not spread.

None of the early cases had the slightest connection with each other, direct or indirect.

The total cases were scattered widely over the Borough which has an area of over 8,000 acres.

A certain number of cases occurred in small groups, but not among neighbours who were in the habit of visiting each other and no two cases occurred in the same street.

Group 1. Cases 2 and 16.
Group 2. Cases 3 and 12.
Group 3. Cases 5, 7, 8, 9 and 18.
Group 4. Cases 19, 21 and 22.

Only in groups 3 and 4 was there any contact, but even this contact could only be considered direct in one instance, as indicated below in cases 8 and 9.

Cases 5 and 7 both went to the same school, but they did not know each other, case 5 being a girl in Standard 5 in the Senior Department, and case 7 a boy in the babies' class ; these two had no connection with any other cases.

Cases 8 and 9 both came from the same school and were both in the same class. This also was the school attended by the two sisters of case 3 ; one of these sisters was in the same class as cases 8 and 9, but had been excluded from school 14 days before the onset of case 8.

Cases 19 and 21 both went to the same school. The schools re-opened on 29th August after the summer vacation. Case 19 attended school from 29th August to 1st September inclusive. She was in a different class from case 21 who did not become ill until 8th October. A brother and a sister of case 19 attended this school, but neither was in the same class as case 21.

Cases 3 and 21 were unknown to each other, but their fathers worked in the same bakehouse. No other contact, direct or indirect, could be traced.

Other points of interest are that no two members of the same household contracted the disease, though many of the cases came from large families.

Case No. 4 was a pupil in a residential school with 68 other boarders. No other case occurred in this School.

The parents of Case No. 14, having heard that some cases of infantile paralysis had occurred in the Borough kept the boy away from school for a short time before the school closed for the summer vacation. This boy turned out to be the only pupil from this school who contracted the disease.

Case No. 18 was sleeping in the same bed with his cousin, who was of the same age. Neither this cousin or any other member of the family contracted the disease.

Such conflicting evidence may not be very helpful, but it at least supplies food for much thought.

Administrative Action.

All known and suspected cases were isolated, the majority in hospital.

Child contacts were excluded from school and isolated as much as possible, though contact isolation is usually in the main ineffectual.

All affected schools were visited daily and all absentees visited in their homes.

The homes of all known contacts were visited and warned.

The usual steps were taken with all known contacts who left the Borough.

As soon as the second case was notified all medical practitioners in the Borough were informed and I am very grateful for all the helpful co-operation I received.

In addition exhaustive enquiries were made into patients' movements, and contacts, milk supplies, common centres of shopping &c., but as indicated above no common factor could be found.

Fomites. Patients' bedding and clothing were disinfected. Library books were exposed to formalin vapour with the leaves opened as much as possible by standing on end.

NOTIFIABLE DISEASES.

Diseases notified in each month during 1938 (not including Tuberculosis).

Month	Scarlet Fever	Diphtheria	Typhoid	Erysipelas	Poliomyelitis	Pneumonia	Ophthalmia Neonatorum	Puerperal Pyexia.	Polio-Encephalitis	Dysentery	Totals
January	4	3	1	2	—	2	2	1	—	3	18
February	4	—	—	1	—	5	—	—	—	—	10
March	5	—	—	—	—	1	—	3	—	—	9
April	7	3	—	—	—	2	—	—	—	—	12
May	2	—	—	—	—	2	—	5	—	—	9
June	3	—	—	—	—	1	—	—	—	2	6
July	4	1	—	—	10	—	—	—	—	—	15
August	6	4	—	1	5	1	—	1	3	2	23
September	6	—	—	1	2	—	—	—	—	—	9
October	3	3	—	1	1	—	1	2	—	—	11
November	3	8	—	1	—	—	—	—	1	—	13
December	8	1	—	—	—	3	—	—	—	—	12
Totals ...	55	23	1	7	18	17	3	12	4	7	147
Total No. treated in Hospital ...	36	21	—	3	13	1	—	5	3	2	84
Total Deaths Registered	—	1	1	—	2	—	—	—	2	—	6

INCIDENCE OF DISEASE.

The number of notifications during 1938 was 206.

Scarlet Fever	55
Diphtheria	23
Polio-encephalitis	4
Poliomyelitis	18
Puerperal Pyrexia	12
Erysipelas	7
Ophthalmia Neonatorum	3
Tuberculosis (all forms)	59
Pneumonia	17
Typhoid	1
Dysentery	7

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1938.

Disease.	Under 1 year	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65 and over	Total Cases Notified	Cases admitted to Hospital	Total Deaths
Scarlet Fever	—	—	4	2	4	29	6	1	7	—	2	—	55	36	—
Diphtheria	—	—	—	—	1	9	6	2	2	2	1	—	23	21	1
Pneumonia	1	—	—	—	1	—	1	1	2	2	5	4	17	1	—
Ophthalmia Neonatorum	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	2	3	2	7	3	—
Typhoid	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1
Puerperal Pyrexia	—	—	—	—	—	—	—	2	9	1	—	—	12	5	—
Dysentery	—	—	1	—	—	2	—	2	—	—	1	1	7	2	—
Poliomyelitis	—	1	—	1	1	7	6	1	—	1	—	—	18	13	2
Polio-encephalitis	—	—	—	—	—	1	—	1	—	2	—	—	4	3	2

COMPULSORY NOTIFICATION OF DISEASE.

The following table shows the number of cases of notifiable diseases for the previous 10 years and 1938 :

Year.	Scarlet Fever.	Diphtheria.	Enteric.	Other Notifiable Diseases.	Total.
1928	40	54	1	90	185
1929	88	20	1	112	221
1930	52	12	4	68	136
1931	47	31	2	118	198
1932	214	36	1	97	348
1933	233	33	2	121	389
1934	322	31	2	130	486
1935	168	16	1	113	298
1936	130	20	—	117	267
1937	75	18	—	117	210
1938	**55**	**23**	**1**	**127**	**206**

VACCINATION.

The number of exemptions from vaccination in Worthing during 1938 was 478.

ISOLATION HOSPITAL, SWANDEAN.

77 Worthing patients were admitted during the year.

The following cases were the longest detained in Hospital :—

Acute poliomyelitis 140 days. Diphtheria 63 days.

BACTERIOLOGICAL WORK.

Swabs for Diphtheria	262
Swabs for Haemolytic Streptococci	47
Blood Tests	5

The Schick and Dick tests were not used.

CLEANSING OF VERMINOUS PERSONS.

Verminous persons are sent to the East Preston Institution for treatment.

PREVENTION OF BLINDNESS.

All cases of ophthalmia are visited by the Health Visitors, and kept under observation, both in connection with progress and treatment.

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.

No action was necessary.

PUBLIC HEALTH ACT, 1936, SECTION 172.

No action was necessary under this Section.

Tuberculosis.

New Cases and Mortality during 1938.

Age Periods	New Cases				Deaths			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M	F.	M.	F.	M.	F.	M.	F.
0 ...	—	—	—	—	—	—	—	—
1 ...	—	—	—	1	—	—	1	1
5 ...	1	1	1	1	—	1	—	—
10 ...	2	—	—	—	—	—	—	—
15 ...	3	—	1	1	—	—	1	—
20 ...	—	5	—	1	—	—	1	1
25 ...	10	5	1	2	1	6	1	—
35 ...	4	3	—	—	5	—	—	—
45 ...	1	4	—	—	2	1	—	—
55 ...	4	4	—	—	3	2	—	—
65 and upwards ...	1	2	—	—	2	1	—	1
Totals	26	24	3	6	13	11	4	3

Of the 31 deaths from Tuberculosis 6 had not been notified previously.

Part II.

METEOROLOGY.

Borough of Worthing.

ANNUAL REPORT

OF THE

METEOROLOGICAL OBSERVATIONS

FOR THE YEAR 1938

Latitude 50° 49′ N. Longitude 0° 22′ West.

H. J. PHILLIPS, B.Sc., M.D., D.P.H., *Medical Officer of Health.*

C. A. BUXTON, *Meteorological Observer and Registrar.*

J. W. GOTHARD,
S. F. JUPP, } *Meteorological Observers.*

METEOROLOGICAL OBSERVATIONS

FOR THE YEAR 1938.

The Meteorological Station is in Beach House Park, which is 25·00 feet above Ordnance Datum. Here all the instruments, except the Fortin Standard Barometer and the Sunshine Recorder, are kept.

The shade thermometers, in a Stevenson screen, are: self-recording maximum, self-recording minimum, dry bulb and wet bulb.

All thermometers are Fahrenheit and are verified at the National Physical Laboratory, Kew.

A self-recording minimum thermometer is used for registering the temperature on the grass.

Four earth thermometers are in use at various depths—1ft., 2ft., 4ft. and 6ft.

There is an official eight-inch copper Raingauge, Meteorological Office pattern, also a Dines Tilting Siphon Automatic Rain Recorder.

The Campbell-Stokes Sunshine Recorder is fixed on a platform at the top of Christ Church Tower, 111 feet above mean sea level and 84 feet above ground level.

All instruments at the local Meteorological Observatory are examined and tested annually by Officers of the Meteorological Office, Air Ministry, London.

A code report is sent by telegram each evening to the Meteorological Office, London, and the leading newspapers are supplied with reports from that Office.

Weekly reports are sent to the local newspapers, and a full report monthly to the Meteorological Office, London, for publication in their journals. Rainfall statistics are supplied to the British Rainfall Organization.

This report contains statistics showing the means for the year of Barometric pressure, Air and Earth temperatures, Sunshine, Wind and Humidity, compared with the averages for a series of years.

The 35 years average period (1881-1915), used by the Meteorological Office, is known as the Normal.

Observations are taken every day throughout the year at 9 a.m. and 5 p.m. (Greenwich Mean Time).

ABSTRACT OF OBSERVATIONS FOR THE YEAR, 1938.

Total amount of bright sunshine : 1796·4 hours.

Number of days with sunshine : 310.

Rainfall : 22·95 inches.

Number of days on which 0·01 to 0·03 inch rain fell : 43.

Number of days on which 0·04 inch rain, or more fell : 113.

Highest barometric reading : 30·777 inches on April 11th.

Lowest reading : 29·107 inches on November 23rd.

Highest recorded temperature in screen : 83° on August 1st.

Lowest recorded temperature in screen : 20° on December 21st (night).

Mean temperature : 51·5°.

Mean relative humidity : at 9 a.m. 78°.

Lowest temperature on the grass : 16° on December 21st.

Wettest day : September 24th, 0·75 inch.

Sunniest day : June 21st, 15·3 hours.

Mean amount of cloud : at 9 a.m., 6 ; at 5 p.m., 6.

Number of days snow or sleet fell : 9.

Number of days hail fell : 4.

Number of thunderstorms : 4.

Number of ground frosts : 53.

Number of gales : 9.

Number of days with fog (9 a.m.) : 8.

BRIGHT SUNSHINE.

The duration of bright sunshine for the year was 1796·4 hours. This amount is 40·8 per cent of the time during which the sun was above the horizon, giving a daily mean of 4·91 hours. The average yearly sunshine for the previous ten years was 1817·2 hours. During this period the year with the highest record was 1933, when 2102·6 hours were recorded, whilst the year 1931 was the lowest with 1610·5 hours. The sunniest day was June 21st when 15·3 hours were recorded.

June, with 233·9 hours, was the sunniest month, and November, with 50·5 hours, was the least sunny.

A sunless day is one on which less than 6 minutes of bright sunshine are recorded.

RAINFALL.

The rainfall for the year 1938 was 22·95 inches. This amount is 4·48 inches below the Normal and 5·57 inches below the previous ten years average.

The months of the year in which the rainfall exceeded the Normal were January, September, November and December. The month of April was the driest, with 0·38 inch, falling below the Normal amount by 1·19 inches. January was the wettest month, with 3·76 inches, this amount being 1·44 inches above the Normal. The heaviest day's rainfall was 0·75 inch on September 24th. There were 156 days on which 0·01 inch or more rain fell, compared with 153 days which is the average number for the previous ten years. Of the 156 rain days there were 113 with 0·04 inch or more.

One inch of rainfall is equivalent to 100·925 tons per acre or 14·4686 millions of gallons per square mile.

Winter Rainfall. Total for six months (January to March and October to December) was 14·99 inches, and the average winter rainfall for the previous 10 years was 16·90 inches.

Summer Rainfall. Total for six months (April 1st to September 30th) was 7·96 inches, and the average summer rainfall for the previous ten years was 11·62 inches.

Humidity. The mean relative humidity of the atmosphere (percentage of saturation of the air) at 9 a.m. was 78%, which coincides with the previous five years average.

Barometer. The mean barometric reading for the year was 30·051 inches (when reduced to sea level and to a temperature of 32° Fahr.) the average for the previous ten years being 29·985 inches. The highest reading for the year was 30·777 inches on April 11th, compared with 30·960 inches on January 26th, 1932, the highest for the previous ten years. The lowest reading was 29·107 inches on November 23rd, whilst the lowest pressure for the previous ten years was 28·807 inches on December 15th, 1934. The absolute range for the year was 1·670 inch and the average range for the previous ten years 1·830 inch.

One inch barometric pressure is equivalent to 70·727 lbs. per square foot.

Temperature. The mean temperature for the year was 51·5° Fahr., which is 1·5° above the Normal. Since 1889 the warmest year was 1921 with a mean temperature of 53°. The highest shade temperature for 1938 was 83° recorded on August 1st and the lowest 20° on December 21st (night). The extreme range of temperature was 63·0° compared with the average range of 57·5° for the previous ten years. The temperature on the grass fell below 30·5° on 53 nights compared with the previous five years average of 64 nights. The lowest temperature on the grass was 16° during the night of December 21st.

Earth Temperatures. The highest and lowest temperatures at various depths in the earth were as follows:—

Below Surface.	*Highest.*	*Date.*	*Lowest.*	*Date.*
1ft.	68·0°	Aug. 3rd	36·7°	Dec. 22nd
2ft.	66·7°	,, 5th	40·1°	,, 27th
4ft.	63·1°	,, 27th	43·7°	March 1st
6ft.	60.6°	,, 21st	46·1°	,, 1st

Wind. Percentages of direction of wind from 730 observations taken at 9 a.m. and 5 p.m. throughout the year:

	9 *a.m.* %	5 *p.m.* %		9 *a.m.* %	5 *p.m.* %
N.	10·4	8·2	S.	14·2	9·1
N.E.	14·2	9·6	S.W.	21·1	37·8
E.	3·0	4·1	W.	14·6	14·8
S.E.	8·5	9·0	N.W.	10·4	6·0
Calm	3·6	1·4			

TABLE 1.—**BRIGHT SUNSHINE.**

(Extract from Table of Official Returns of the Meteorological Office, Air Ministry.)

Station.	Hours Year 1938.	Station.	Hours Year 1938.
Margate ..	1831·4	Blackpool ..	1486·8
Ventnor ..	1821·4	Southport ..	1475·3
Sandown ..	1819·2	Llandudno ..	1470·7
Littlehampton ..	1810·7	Cardiff ..	1468·0
Herne Bay ..	1807·9	Bath ..	1439·3
WORTHING ..	1796·4	Croydon ..	1430·2
Ramsgate ..	1792·9	Harrogate ..	1408·5
Eastbourne ..	1788·8	Cheltenham ..	1386·7
Hastings ..	1783·7	Scarborough ..	1380·2
Harwich ..	1780·9	Whitby ..	1373·7
Manston ..	1775·8	Wallasey ..	1365·4
Ryde ..	1768·7	Colwyn Bay ..	1344·8
Bexhill ..	1757·5	Rothesay ..	1339·3
Lympne ..	1743·6	Aberdeen ..	1335·0
Dover ..	1732·5	Tiree ..	1334·6
Bognor Regis ..	1723·3	Catterick ..	1326·4
Torquay ..	1722·8	Ayr ..	1290·2
Brighton ..	1719·5	Leamington ..	1262·4
Totland Bay ..	1719·0	Ilkley ..	1247·2
Wye ..	1704·6	Prestwich ..	1234·1
Felixtowe ..	1701·4	Inverness ..	1211·1
Cromer ..	1698·7	Bradford ..	1196·5
Swanage ..	1685·7	Glasgow ..	1174·0
Portsmouth ..	1678·7	Buxton ..	1079·6
Bournemouth ..	1677·6	Peebles ..	993·1
Clacton ..	1670·5		
Paignton ..	1659·2	LONDON:	
Weymouth ..	1646·6	Kew Observatory ..	1458·9
Poole ..	1637·3	Hampstead ..	1406·3
Calshot ..	1637·0	Tottenham ..	1400·4
Tunbridge Wells ..	1636·7	South Kensington ..	1344·8
Penzance ..	1632·3	Greenwich ..	1341·8
Folkestone ..	1629·1	Westminster ..	1326·7
Scilly ..	1628·5	Kingsway ..	1290·3
Seaton ..	1626·8	City ..	1289·8
Tintagel ..	1624·0	Regent's Park ..	1259·9
Teignmouth ..	1623·6		
Falmouth ..	1601·8	**Previous 10 Years average, 1928—1937.**	
Shoeburyness ..	1600·7		
Exmouth ..	1579·5	Ventnor ..	1846·8
Douglas ..	1574·7	Sandown ..	1839·2
Sheerness ..	1570·9	Eastbourne ..	1823·7
Southend ..	1566·2	WORTHING ..	1817·2
Newquay ..	1562·1	Littlehampton ..	1797·9
Plymouth ..	1555·7	Margate ..	1780·3
Weston-super-Mare ..	1555·1	Bexhill ..	1764·4
Yarmouth ..	1550·2	Brighton ..	1763·0
Fowey ..	1538·1	Folkestone ..	1731·3
Bude ..	1536·5	Bournemouth ..	1703·0
Newport (Mon.) ..	1530·0	Plymouth ..	1670·3
Holyhead ..	1524·4	Blackpool ..	1480·2
Ilfracombe ..	1518·5		
Cleethorpes ..	1517·7		
Skegness ..	1513·6		
Cirencester ..	1494·2		
Sidmouth ..	1490·2		
Southampton ..	1489·2		

NOTE: Complete official figures for several towns not available for averages.

TABLE 2.—BRIGHT SUNSHINE.

30 Years Averages (1901-1930)—extracted from an Air Ministry official publication.

Town.	Hours of Sunshine.	Town.	Hours of Sunshine
WORTHING ..	1834	NEWQUAY ..	1674
Bognor	1827	Fowey ..	1671
EASTBOURNE ..	1826	PLYMOUTH HOE ..	1671
Sandown ..	1814	SOUTHAMPTON ..	1663
HASTINGS ..	1801	Bude ..	1657
Southsea ..	1801	Southend ..	1655
Littlehampton ..	1800	Yarmouth ..	1649
Salcombe ..	1791	TUNBRIDGE WELLS	1630
Felixstowe ..	1784	Exmouth ..	1628
TORQUAY ..	1777	Skegness ..	1609
Lympne ..	1776	Cromer ..	1585
Bournemouth ..	1774	Malvern ..	1548
VENTNOR ..	1773	LLANDUDNO ..	1545
MARGATE ..	1772	Ilfracombe ..	1543
Folkestone ..	1771	Bath ..	1523
Totland Bay ..	1763	Colwyn Bay ..	1522
BROADSTAIRS ..	1761	SOUTHPORT ..	1521
BRIGHTON ..	1754	BLACKPOOL ..	1521
Dover ..	1753	Weston-super-Mare ..	1503
Ramsgate ..	1753	Morecambe ..	1488
Deal ..	1748	Bridlington ..	1425
WEYMOUTH ..	1740	SCARBOROUGH ..	1394
Ryde ..	1731	HARROGATE ..	1386
FALMOUTH ..	1725	Leamington Spa ..	1346
LOWESTOFT ..	1716	Buxton ..	1224
Clacton ..	1710	**London :**	
Teignmouth ..	1708	Hampstead ..	1491
Paignton ..	1707	GREENWICH ..	1466
Penzance ..	1703	REGENTS PARK ..	1295

NOTE : Capitals indicate *complete* averages for 30 years.

TABLE 3.—**BRIGHT SUNSHINE.**

Month	Total Hours Bright Sunshine	Average for 10 yrs. 1928-1937 (incl.)	Hours Daily Mean	Difference from the Normal Daily Mean	Days with Sunshine	Most in one day Hours	Monthly Totals			
							Highest		Lowest	
							Hours	Year	Hours	Year
January ...	54·7	63·3	1·76	−0·27	21	6·5	95·5	1908	34·5	1912
February	90·7	90·2	3·24	+0·12	20	9·1	136·9	1909	60·1	1926
March ..	192·0	148·9	6·19	+1·64	30	11·0	220·8	1907	95·3	1916
April ...	199·1	161·6	6·64	+0·57	29	11·7	267·2	1912	105·3	1905
May ..	193·0	213·6	6·23	−1·29	30	14·1	353·1	1909	148·9	1932
June ..	233·9	241·1	7·79	+0·06	30	15·3	318·8	1925	143·5	1909
July ...	200·5	243·7	6·47	−1·08	30	13·9	369·0	1911	143·5	1919
August ...	215·8	227·3	6·97	———	29	13·7	298·4	1899	112·6	1912
September ...	162·6	178·1	5·42	−0·45	29	11·2	262·6	1898	118·5	1932
October ...	143·9	118·8	4·64	+0·77	26	9·5	181·6	1919	81·9	1915
November ...	50·5	69·2	1·68	−0·92	20	6·9	131·3	1909	44·4	1934
December ...	59·7	60·0	1·90	+0·13	16	7·2	83·2	1935	31·1	1903
Year 1938 ...	1796·4	1817·2	4·92	−0·06	310	15·3	369·0	July 1911	31·1	Dec. 1903
		Highest and Lowest Year Totals					**2141·0**	**1899**	1600·2	1913

TABLE 4.—**BRIGHT SUNSHINE.**

Year.	Campbell-Stokes Recorder Bright Sunshine. Hours.	Bright Sunshine. Days.	Sunniest Days.	
			Day.	Hours.
1928	1999·1	317	July 14th	15·3
1929	2062·5	313	July 15th	14·8
1930	1821·4	320	June 29th	15·4
1931	1610·5	309	June 27th	15·0
1932	1616·7	313	June 15th	15·0
1933	2102·6	323	July 4th	15·2
1934	1811·0	289	July 10th	15·5
1935	1805·2	309	July 8th	15·0
1936	1675·0	310	June 23rd	15·2
1937	1668·3	317	June 6th	14·4
1938	**1796.4**	**310**	**June 21st**	**15.3**
Average for 10 years 1928-1937	1817·2	312		

TABLE 5.—**RAINFALL.**

1938.	Total Rain-fall.	Difference from the Normal.	Greatest Fall in 24 hours, beginning 9 a.m.	Number of Days with		Total Rain Days.
				·01 in. to ·03 in.	·04 in. or more	
	Inches	Inches	Inches			
January ...	3·76	+ 1·44	0·45	6	19	25
February ...	0·67	— 1·30	0·11	3	9	12
March ...	0·44	— 1·52	0·19	3	2	5
April ...	0·38	— 1·19	0·33	3	1	4
May ...	1·56	— 0·09	0·41	6	7	13
June ...	0·49	— 1·24	0·15	3	4	7
July ...	1·53	— 0·51	0·32	3	8	11
August ...	1·49	— 0·75	0·47	3	7	10
September ...	2·51	+ 0·39	0·75	3	11	14
October ...	3·50	— 0·12	0·69	2	15	17
November ...	3·58	+ 0·40	0·57	4	14	18
December ..	3·04	+ 0·01	0·45	4	16	20
Year ...	22·95	— 4·48	0·75	43	113	156

TABLE 6.—**RAINFALL.**

Year.	Rainfall in Inches.	No. of Days Rain fell (0·01 inch or more.)	Greatest Fall in a Day.	
			Amount in Inches.	Day and Month.
1928	32·84	161	1·29	27th December
1929	29·71	134	1·21	16th August
1930	28·31	169	0·85	2nd August
1931	25·80	147	1·25	10th November
1932	23·91	148	1·22	20th October
1933	20·40	125	1·44	12th September
1934	27·49	139	1·62	8th November
1935	37·74	173	1·39	7th November
1936	27·42	169	1·79	6th November
1937	31·59	162	0·87	4th February
Average for 10 years.	28·52	153	1·79	6th Nov., 1936
1938	**22·95**	**156**	**0·75**	**24th September**

TABLE 7.—**BAROMETRIC PRESSURE AND TEMPERATURE.**

1938.	Barometric Pressure. (Reduced to Sea Level and 32° Fahr.)			Air Temperature in Screen.					
	Mean Inches.	Extremes.		Means of		Mean of A & B	Difference from Normal.	Extremes.	
		High'st	Lowest	A Max.	B Min.			Max.	Min.
				°	°				
January ...	29·946	30·583	28·935	47	40	44	+ 1·6	52	32
February...	30·289	30·575	29·643	46	37	42	+ 2·4	54	31
March ...	30·320	30·743	29·824	53	42	48	+ 5·0	62	31
April ...	30·312	30·777	29·971	54	39	47	— 0·5	62	32
May ...	30·017	30·308	29·538	58	46	52	— 1·5	66	34
June ...	30·038	30·382	29·674	65	53	59	+ 1·0	70	45
July ...	29·971	30·232	29·464	66	55	61	+ 0·3	76	47
August ...	29·977	30·240	29·644	70	58	64	+ 2·1	83	48
September	30·020	30·281	29·654	65	54	60	+ 2·3	75	45
October ...	29·949	30·354	29·454	59	48	54	+ 2·4	65	37
November	29·883	30·429	29·107	55	46	51	+ 5·4	61	32
December	29·890	30·401	29·418	45	37	41	— 2·8	54	20
Year 1938	30·051	30·777	29·107	57	46	52	+ 2·0	83	20

TABLE 8.

Month.	Earth Temperature.												Terrestrial Radiation.			
	One Foot.			Two Feet.			Four Feet.			Six Feet.			Temperature on Grass.			
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Frost days.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	
January ...	46·3	38·6	42·4	46·1	41·1	43·4	46·2	44·2	46·5	48·3	47·0	47·8	47	26	37	7
February...	43·9	37·3	40·8	44·6	40·2	42·4	45·8	45·3	44·4	47·8	46·2	47·4	43	24	34	9
March ...	50·8	40·8	44·6	49·7	43·0	45·9	47·8	43·7	45·8	48·0	46·1	46·9	47	23	35	10
April ...	50·8	46·3	47·9	50·2	47·7	48·7	49·0	48·2	48·7	49·3	48·1	49·0	43	27	34	6
May ...	55·8	48·0	52·4	54·9	48·7	52·2	53·0	48·8	50·8	51·8	49·2	50·3	50	30	41	2
June ...	64·5	52·0	60·1	62·8	54·9	59·2	58·8	53·1	57·6	55·9	52·0	54·3	59	40	49	—
July ...	65·8	59·6	61·1	63·8	60·1	61·5	60·8	58·5	59·2	58·3	55·9	57·0	56	41	51	—
August ...	68·0	58·2	64·5	66·7	61·0	64·9	63·1	60·8	62·3	60·6	58·2	59·8	61	44	54	—
September	62·2	57·6	59·7	61·6	59·1	60·4	61·3	59·3	60·0	60·2	59·0	59·3	59	39	51	—
October ...	59·0	48·0	53·9	59·9	51·0	55·8	59·7	54·2	57·2	59·1	56·5	57·9	55	31	43	—
November	55·1	45·8	51·3	54·8	48·4	52·4	54·8	51·8	59·3	56·3	54·3	55·4	55	22	42	5
December	49·0	36·7	43·0	49·1	40·1	45·4	51·6	45·2	49·0	54·2	49·6	52·2	49	16	33	14
Year 1938	68·0	36·7	51·9	66·7	40·1	52·7	63·1	43·7	53·0	60·6	46·1	53·1	61	16	42	53

TABLE 9.—**CLIMATE OF WORTHING—1886—1938.**

Year.	Temperature.							Rainfall		Sunshine	Year
	Means.					Extremes.		Amount at Observatory.	Number of days rain fell.	Number of hours in year	
	9 a.m.	Min.	Max.	Range.	Mean.	Min.	Max.				
	Degrees.							inches.			
1886 ..	50.0	44.0	55.2	11.2	49.6	23.2	78.0	31.89	164	—	..1886
1887 ..	48.4	41.6	54.1	12.5	47.9	17.4	82.0	21.28	137	—	..1887
1888 ..	48.0	42.4	53.3	10.9	47.8	20.2	78.8	25.88	181	—	..1888
1889 ..	49.5	42.7	54.8	12.1	48.8	21.9	81.5	23.92	159	—	..1889
1890 ..	49.4	42.2	54.6	12.4	48.4	14.9	78.0	22.84	149	—	..1890
1891 ..	49.4	42.4	54.8	12.2	48.4	16.5	77.0	29.86	172	—	..1891
1892 ..	49.1	41.8	54.5	12.7	48.2	20.2	76.0	23.73	141	—	..1892
1893 ..	52.3	44.0	57.7	13.7	50.9	18.2	84.7	25.12	142	—	..1893
1894 ..	51.2	44.9	52.8	10.9	50.3	12.9	80.2	35.71	184	—	..1894
1895 ..	50.4	43.0	56.5	12.5	49.3	16.2	77.9	26.09	162	—	..1895
1896 ..	51.0	43.3	56.5	13.2	49.9	22.9	80.7	25.74	152	—	..1896
1897 ..	51.4	44.7	56.9	12.2	50.8	21.9	80.7	26.07	172	—	..1897
1898 ..	52.2	45.7	57.6	11.9	51.6	27.0	80.9	22.51	158	—	..1898
1899 ..	51.9	45.0	57.6	12.6	51.3	23.6	84.4	26.23	144	2141.0	..1899
1900 ..	51.2	44.9	56.2	11.3	50.6	20.9	79.0	26.33	182	1885.6	..1900
1901 ..	50.2	43.6	55.8	12.2	49.7	22.9	80.7	21.45	139	2017.0	..1901
1902 ..	50.2	43.6	55.0	11.1	49.6	21.8	78.0	23.77	157	1661.7	..1902
1903 ..	50.9	45.2	55.4	10.2	50.3	23.7	78.2	32.19	189	1749.2	..1903
1904 ..	50.4	44.3	55.5	11.2	49.9	23.8	77.4	26.85	163	1748.4	..1904
1905 ..	50.1	42.2	55.6	11.4	49.1	23.9	77.1	24.63	162	1715.3	..1905
1906 ..	50.6	44.3	56.1	11.8	50.2	24.9	78.6	30.44	173	2010.6	..1906
1907 ..	50.2	45.1	54.8	9.5	50.0	20.4	76.1	21.78	158	1776.8	..1907
1908 ..	50.9	44.1	56.1	12.1	50.1	16.0	80.2	22.15	146	1991.3	..1908
1909 ..	49.7	43.0	54.6	11.6	48.8	19.9	81.2	32.11	178	1958.6	..1909
1910 ..	50.8	44.5	55.9	11.5	50.1	21.9	73.8	32.57	191	1731.0	..1910
1911 ..	52.8	45.1	58.0	12.9	51.5	25.4	87.9	31.68	149	2115.0	..1911
1912 ..	51.6	45.0	56.6	11.6	50.8	19.0	84.2	35.95	192	1609.0	..1912
1913 ..	52.1	45.9	57.4	11.5	51.6	26.2	79.0	34.98	170	1600.2	..1913
1914 ..	52.7	45.2	57.9	12.7	51.5	23.2	78.2	31.31	164	2000.5	..1914
1915 ..	51.1	43.8	56.3	11.8	50.5	24.7	77.1	36.64	152	1801.3	..1915
1916 ..	51.2	44.7	56.3	11.6	50.5	25.0	77.0	32.89	182	1658.0	..1916
1917 ..	49.2	43.0	54.6	11.6	48.8	20.7	79.0	25.49	147	1804.7	..1917
1918 ..	51.0	44.7	56.5	11.8	50.6	20.0	78.0	24.41	165	1856.5	..1918
1919 ..	49.4	42.9	54.9	12.0	48.9	22.0	78.5	28.54	158	1788.5	..1919
1920 ..	51.7	45.6	56.6	11.0	51.1	23.0	76.0	26.40	139	1692.1	..1920
1921 ..	53.4	46.4	58.8	12.4	52.6	27.6	86.7	13·26	108	2101.5	..1921
1922 ..	50.1	43.9	54.8	10.9	49.3	25.2	78.2	25.71	159	1781.2	..1922
1923 ..	50.8	44.5	55.6	11.1	50.1	24.0	86.0	30.62	170	1805.9	..1923
1924 ..	50.8	45.4	55.3	9.9	50.3	25.0	74.6	32.65	159	1759.6	..1924
1925 ..	49.8	44.7	55.9	11.2	50.3	24.0	80.2	34.70	158	1955.8	..1925
1926 ..	51.6	45.7	56.7	11.0	51.2	21.8	83.3	28.57	160	1677.7	..1926
1927 ..	50.8	45.0	55.8	10.8	50.4	22.4	78.1	34.88	165	1731.4	..1927
1928 ..	51.9	45.1	57.0	11.9	51.0	21.6	82.0	32.84	161	1999.1	..1928
1929 ..	50.9	44.1	56.0	11.9	50.0	13.0	80.0	29.71	134	2062.5	..1929
1930 ..	52.0	46.9	56.4	9.5	51.3	26.0	82.6	28.31	169	1821.4	..1930
1931 ..	51.0	45.0	55.0	10.0	50.0	21.0	77.0	25.80	147	1610.5	..1931
1932 ..	50.5	45.1	55.8	10.7	50.5	23.0	80.0	23.91	148	1616.7	..1932
1933 ..	52.0	45.5	56.4	10.9	51.2	23.6	81.2	20.40	125	2102.6	..1933
1934 ..	52.1	45.6	57.5	11.9	51.8	24.0	82.0	27.49	139	1811.0	..1934
1935 ..	51.8	46.1	56.6	10.5	51.3	25.6	83.8	37.74	173	1805.2	..1935
1936 ..	51.3	45.4	55.9	10.5	50.7	27.1	81.3	27.42	169	1675.0	..1936
1937 ..	51·5	46·3	57·2	10·9	51·8	26·0	76·8	31·59	162	1668.3	..1937
1938 ..	**52.7**	**46.1**	**57.1**	**11·0**	**51.6**	**19.5**	**82.5**	**22.95**	**156**	**1796.4**	**1938**

NOTE : Sunshine observations were commenced on July 1st, 1898, hence the first complete year's record was 1899.

TABLE 10.—**WINDS.**

Months.	9 a.m. Observations.—Direction.									5 p.m. Observations.—Direction.								
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm	N.	N.E.	E	S.E.	S.	S.W.	W.	N.W.	Calm
January ...	2	2	—	—	2	9	12	3	1	3	1	—	—	2	10	11	4	—
February ...	2	13	2	1	1	3	4	2	—	3	7	4	2	2	5	2	3	—
March ...	1	3	3	1	3	10	6	2	2	—	—	3	2	6	13	4	2	1
April ...	14	9	—	—	—	1	2	4	—	8	7	—	4	1	7	1	2	—
May ...	3	7	3	4	7	5	2	—	—	3	6	2	5	3	8	3	1	—
June ...	2	1	—	4	6	12	3	1	1	1	1	1	3	2	19	2	1	—
July ...	1	—	1	4	6	8	9	1	1	—	—	—	3	2	20	5	1	—
August ...	3	5	—	4	4	8	—	5	2	1	3	—	2	4	14	4	2	1
September...	7	1	—	5	6	5	3	2	1	5	2	1	3	2	11	3	2	1
October ...	2	3	1	2	3	9	7	4	—	1	1	3	1	1	14	7	3	—
November...	—	2	—	4	6	6	1	7	4	2	1	1	4	5	11	5	—	1
December ...	1	6	1	2	8	1	4	7	1	3	6	—	4	3	6	7	1	1
Year 1938 ...	38	52	11	31	52	77	53	38	13	30	35	15	33	33	138	54	22	5

TABLE 11.—**CLOUD & HUMIDITY.**

Month.	Cloud Amount Scale 1-10.		Mean Relative Humidity.	Mean Humidity previous 5 years 1932-1936.
	9 a.m.	5 p.m.	9 a.m.	9 a.m.
			%	%
January ..	7	7	83	85
February ..	6	7	82	84
March ..	6	5	82	80
April ..	5	5	65	74
May ..	6	5	73	71
June ..	5	5	71	72
July ..	7	5	74	75
August ..	5	6	75	73
September ..	5	6	77	77
October ..	5	5	78	78
November ..	8	7	86	83
December ..	6	7	86	85
Year 1938 ..	6	6	78	Yearly average 78

TABLE 12.—**VISIBILITY.**

Summary of observations taken at 9 a.m. and 5 p.m. Greenwich Mean Time (10 a.m. and 6 p.m. Summer Time).

MONTH	FOG						MIST OR HAZE						GOOD VISIBILITY									
	A		B & C		D & E		F		G		H		I		J		K		L		M	
	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.	9 a.m.	5 p.m.
January	—	—	—	—	—	3	7	4	3	4	3	5	7	6	7	6	3	2	—	1	1	—
February	—	—	—	—	—	1	—	—	5	4	3	4	5	10	8	5	6	3	—	—	1	1
March	—	—	—	—	4	1	1	2	1	3	5	—	10	12	5	9	3	3	—	—	2	1
April	—	—	—	—	—	—	—	—	1	—	1	2	7	10	10	8	5	7	1	1	5	2
May	—	—	—	—	—	—	1	—	—	—	2	—	6	7	5	7	10	10	2	2	5	5
June	—	—	—	—	—	—	—	—	—	—	1	1	3	8	9	3	8	13	5	2	4	3
July	—	—	—	—	—	—	—	—	—	—	2	1	7	5	7	4	8	8	2	2	5	11
August	—	—	—	—	—	—	—	—	—	—	1	2	2	6	10	5	15	8	—	1	3	9
September	—	—	—	—	—	—	1	—	3	—	1	2	4	5	5	3	6	5	5	7	5	8
October	—	—	—	—	—	—	—	3	2	—	4	2	6	10	11	5	4	6	2	2	2	3
November	—	—	1	—	1	2	3	7	2	—	2	5	6	2	5	3	5	6	3	—	2	5
December	—	—	2	—	—	1	1	8	4	1	1	6	5	2	11	2	6	7	—	—	1	4
Year 1938	—	—	3	—	5	8	14	24	21	12	26	30	68	83	93	60	79	78	20	18	36	52

TABLE 13.—**VISIBILITY.**

Letter	Standard Distance	Actual Distance	Description of Visibility	Object	View Point	Bearing
A	27 yards	27 yards	Dense Fog	Caffyn's Window	Office Gate	E.
B	55 yards	55 yards	Dense Fog	Post Office (North Door)	" "	SE.
C	110 yards	110 yards	Thick Fog	Rivoli Cinema Top	Office	N.
D	220 yards	220 yards	Fog	Christ Church Tower	Office	SW.
E	550 yards	550 yards	Moderate Fog	Plaza Cinema	Christ Church Tower	SW.
F	1100 yards	1000 yards	Mist or Haze	Heene Church Tower	" " "	W.
G	1¼ miles	1¼ miles	Poor	Tarring Church Tower	" " "	NW.
H	2½ miles	2½ miles	Moderate	Hills	" " "	N
I	4⅓ miles	4¼ miles	Good	Highdown Hill	" " "	NW.
J	6¾ miles	6¼ miles	Good	Hills behind Shoreham	" " "	E.
K	12½ miles	12½ miles	Very Good	Hills beyond Brighton	" " "	E.
L	18⅔ miles	18¼ miles	Excellent	Selsey Bill	" " "	WSW.
M	31 miles	31 miles	Abnormal	Beachy Head	" " "	ESE.