

**[Report 1924] / Medical Officer of Health, Torquay Borough.**

**Contributors**

Torquay (England). Borough Council.

**Publication/Creation**

1924

**Persistent URL**

<https://wellcomecollection.org/works/zqggqaeq>

**License and attribution**

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

AC 4436(1) TO EQUAY

BOROUGH OF TORQUAY.



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1924,

BY

THOMAS DUNLOP, M.B., C.M., D.P.H.

TOGETHER WITH SUMMARY OF

Reports of the Sanitary Inspectors

AND

Meteorological Observer.





BOROUGH OF TORQUAY.



ANNUAL REPORT  
OF THE  
Medical Officer of Health  
FOR THE YEAR 1924,  
BY  
THOMAS DUNLOP, M.B., C.M., D.P.H.  
TOGETHER WITH SUMMARY OF  
Reports of the Sanitary Inspectors  
AND  
Meteorological Observer.





# INDEX.

---

|                                                                |    |
|----------------------------------------------------------------|----|
| INTRODUCTION                                                   | 4  |
| STATISTICAL SUMMARY                                            | 5  |
| POPULATION AND PHYSICAL FEATURES                               | 6  |
| CLIMATE                                                        | 7  |
| METEOROLOGY                                                    | 8  |
| MEDICAL BATHS                                                  | 8  |
| VITAL STATISTICS—Death Rate                                    | 9  |
| Birth Rate                                                     | 11 |
| Infant Mortality                                               | 12 |
| MATERNITY AND CHILD WELFARE                                    | 13 |
| INFANT WELFARE CENTRES                                         | 16 |
| HOSPITALS AND NURSING ARRANGEMENTS                             | 19 |
| INFECTIOUS DISEASES                                            | 20 |
| HOSPITALS AND OTHER INSTITUTIONS AVAILABLE FOR<br>THE DISTRICT | 21 |
| BACTERIOLOGICAL EXAMINATIONS                                   | 23 |
| AMBULANCE FACILITIES                                           | 23 |
| SMALL POX AND VACCINATION                                      | 24 |
| ENTERIC FEVER AND SCARLET FEVER                                | 25 |
| DIPHTHERIA                                                     | 25 |
| TUBERCULOSIS                                                   | 26 |
| CANCER                                                         | 27 |
| VENEREAL DISEASE                                               | 28 |
| WATER SUPPLY                                                   | 28 |
| SEWERAGE                                                       | 30 |
| INSPECTION OF FOOD                                             | 32 |
| SLAUGHTERHOUSES                                                | 33 |
| DAIRIES, COWSHEDS AND MILKSHOPS                                | 36 |
| SUMMARY OF SANITARY INSPECTIONS                                | 39 |
| PORT SANITARY WORK                                             | 42 |
| HOUSING                                                        | 44 |
| TABLES—1. Vital Statistics of Area during 1924                 | 48 |
| 2. Cases notified during 1924                                  | 49 |
| 3. Causes of, and Ages at Death during 1924                    | 50 |
| 4. Infantile Mortality during 1924                             | 52 |
| METEOROLOGICAL REPORT                                          | 55 |
| METEOROLOGICAL ABSTRACT, 1924                                  | 77 |



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

LADIES AND GENTLEMEN,

I have the honour to present to you my Annual Report on the Sanitary circumstances of the Borough and the Health of the inhabitants during the year 1924.

The report is drafted on similar lines to that of last year, and gives full details of the climate and physical circumstances of the town.

I have to thank my colleagues and members of the department for their assistance and hearty co-operation.

I have also to express my appreciation of the cordial support afforded to me by the Council, and especially the Members of the Public Health Committee.

I am, Ladies and Gentlemen,

Your obedient Servant,

THOMAS DUNLOP.



## BOROUGH OF TORQUAY.

---

Area of the Borough, 3,996 acres.

Assessable value, £221,093.

Population—Census (1911), 38,772.

„ „ (1921), 39,432.

„ Registrar-General's Estimate for Statistical  
Purposes for 1923, 34,940.

Number of separate occupiers—Census (1921), 8,882.

Density of population, 10·1 persons per acre.

Corrected death rate (1924), 15·9 per 1,000. Average for  
previous five years, 15·8 per 1,000.

Birth rate, 14·9 per 1,000. Average for previous five years,  
15·3 per 1,000.

Infantile mortality (1924), 53·7. Average for previous five  
years, 55·4.

Death rate from zymotic disease, ·08 per 1,000.

Mean annual temperature, 51·5.

Hours of bright sunshine recorded, 1,633·16.

Total rainfall, 43·92 inches.



## BOROUGH OF TORQUAY.

---

### POPULATION.

In last year's report full details of the Census figures were given. Attention was drawn to the fact that, although the census population for the Borough was 39,432, the Registrar-General calculated the residential population as only 34,100. For 1924 this latter figure is given as 34,940, and it is this figure that has to be employed in calculating our statistics. There can be little doubt that during the summer season the population is practically doubled.

### PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

The town is situated on a promontory, being practically surrounded by the sea on three sides. This promontory is formed by hilly ridges, running N.E. and S.W. The principal heights—the Warberry Hill, 448 feet, and the Lincombe Hill, 372 feet—are composed of Lower Devonian grits and slates. The lesser heights, such as the Braddons, Waldon Hill, and Chapel Hill, are formed of Middle Devonian Limestone, which rests above the grits and slates mentioned.

On each side of this central area, viz., at St. Mary-Church and Chelston, rocks higher in the geological scale for the most part prevail. These rocks belong to the Permian formation, and consist of beds of Breccia—a kind of conglomerate—and sand stone of a deep red colour.

There is very little clay in any portion of the area, and what does occur is of the nature of marl, and is confined to the lower levels of certain valleys or depressions, so that rain is not detained on the surface, as it rapidly disappears through these rather pervious rocks and soils.



It is on the sides of these hills or ridges that most of the houses are built, the main roads and streets following the lines of the valleys. Thus the largest portion of the district is afforded protection from the cold winds of the North and East, a fact that is strikingly proved by the luxuriant growth of semi-tropical shrubs and plants in both public and private gardens.

Torquay is essentially a residential town and health resort; consequently a large proportion of its inhabitants are villa residents, while the remaining portion may be said to obtain a livelihood by catering for them. There are numerous large hotels and many up-to-date boarding houses for the accommodation of visitors. There are no manufactories in the district.

During the summer and early autumn there is a very large influx of visitors, who are catered for by the inhabitants of the smaller houses.

## CLIMATE.

The position of the town, built as it is on a promontory, surrounded on two sides by the sea, accounts to some extent for the mild and equable temperature experienced during winter. The meteorological records show that we enjoy a large proportion of sunshine at this period of the year. There is also an almost complete absence of fog.

The benefit of living under such climatic conditions must be apparent to all, but it is inestimable to those who are asthmatical or who are sufferers from chronic bronchitis. To the aged and infirm, who are extremely sensitive to every change of temperature, life under such conditions is prolonged and made worth living.

The bright sunshine and the possibility of being constantly in the open air, is most advantageous to children, and those who are delicate have every chance of growing up strong and healthy.



The Summer Climate.—Year by year the town becomes more popular as a holiday resort. It is unquestionable that, during the hottest days, the maximum temperature here is five to ten degrees lower than that recorded in London and the Midlands. It stands to reason, if one considers the position of Torquay, flanked by the sea and with Dartmoor in the rear, it is constantly fanned by cool breezes from one or other directions. It seems difficult to imagine a more delightful spot to spend a holiday in. Boating, bathing and fishing of the best, whilst in the neighbourhood are innumerable places of beauty and interest, which are easily accessible by sea, coach or rail. These facts are amply proved by the constantly increasing number of visitors who, year after year, spend their summer holidays here.

### METEOROLOGY.

Full details of the Meteorology of the Borough will be seen in the appended Annual Report of the Borough Meteorologist, but the following resumé of the climatic conditions may be of interest:—

|                                    | 1919   | 1920  | 1921 | 1922   | 1923    | 1924    |
|------------------------------------|--------|-------|------|--------|---------|---------|
| Highest Maximum Temperature        | 80·4   | 73·9  | 85·8 | 75·1   | 87·0    | 75·2    |
| Lowest Minimum                     | 25·9   | 25·3  | 29·1 | 30·3   | 28·1    | 27·0    |
| Mean Maximum                       | 56·7   | 57·4  | 59·9 | 56·4   | 57·7    | 56·6    |
| Mean Minimum                       | 45·3   | 47·4  | 48·6 | 45·9   | 46·3    | 46·5    |
| Mean of Maximum and Minimum        | 51·0   | 52·4  | 54·3 | 51·1   | 52·0    | 51·5    |
| Difference from Average            | —2·6   | +1·1  | +3·4 | —0·7   | +0·7    | +0·4    |
| Number of days on which rain fell  | 178    | 189   | 120  | 181    | 188     | 192     |
| Total fall in inches               | 30·08  | 33·59 | 20·8 | 36·9   | 31·47   | 43·92   |
| Number of Hours of Bright sunshine | 1860·3 | 1595  | 2016 | 1771·5 | 1827·59 | 1633·16 |

### MEDICAL BATHS.

In view of the fact that our winter climate is so suitable for invalids, the provision of up-to-date Medical Baths is most important. Here it is possible for patients requiring such to continue their treatments during the winter, which residence in less salubrious districts might preclude or necessitate a tedious journey to some Continental Spa. The bathrooms and fittings are all of the latest type and the most efficient British and Continental methods of balneological and hydrological treatments are administered by a highly skilled and certificated staff.



The bath dressing rooms are very comfortably furnished and equipped. There is plenty of light, and every room in the building is well ventilated and kept scrupulously clean. No expense has been spared to ensure absolute comfort for the weakest invalid requiring the greatest care and attention, as well as for those who undergo the treatment to keep them continually fit and well. Between the two blocks dividing the ladies' and gentlemen's baths is a lofty and beautifully furnished cooling lounge, where light refreshments can be had at a reasonable tariff. It is, without doubt, the finest Spa lounge in the kingdom, and the view of Torbay from the large windows cannot be surpassed. The baths and treatments arranged for are those in general demand, and proved after years of experience to be the most efficacious.

The Swimming Bath is 90ft. long by 30ft. wide, and the walls are lined with glazed bricks, whilst the floor is graduated from 4ft. in depth to 7ft. 6in. at the diving stage end. Arranged round the bath are 47 comfortable dressing boxes, with two cold water showers, and foot baths, and the necessary lavatory accommodation for the use of that bath by ladies and gentlemen. A fine water chute and other excellent equipment is installed.

## VITAL STATISTICS.

### DEATHS.

The total deaths registered during 1924 was 548, of whom 75 were non-residents, and whose deaths were transferable to their own sanitary areas, whilst the deaths of 84 residents dying outside the Borough have to be added. The net total is therefore 557, of whom 251 were males and 306 females.

The death rate is equal to 15·9 per 1,000 per annum, compared with 15·1 in 1923. The average rate for the previous five years was 15·8. The death rate for England and Wales in 1924 was 12·2, and that for the 157 smaller towns (populations 20,000 to 50,000) 11·2.



In order to render it possible to compare the death rate here with that of the country as a whole, it has to be corrected for age and sex distribution. The Registrar-General supplies a factor, '8730, by which the Torquay rate has to be multiplied. This gives us a rate corrected for age and sex distribution equal to 13·88 per 1,000.

#### Of the 557 deaths

|                                      |     | Percentage of<br>Total Deaths. |
|--------------------------------------|-----|--------------------------------|
| 28 were under 1 year of age          | ... | equals 5·03                    |
| 3 were 1 year and under 2 years      | ... | „ 54                           |
| 4 were 2 years and under 5 years     | ... | „ 72                           |
| 6 were 5 years and under 15 years    | ... | „ 1·08                         |
| 11 were 15 years and under 25 years  | ... | „ 1·97                         |
| 49 were 25 years and under 45 years  | ... | „ 8·79                         |
| 151 were 45 years and under 65 years | ... | „ 27·11                        |
| 305 were 65 years and over           | ... | „ 54·76                        |
| 557 at all ages                      |     | 100·00                         |

It will thus be seen that 305, or 55 per cent., were persons aged 65 and upwards.

There were 28 inquests; and 9 uncertified deaths were recorded.

#### WARD DISTRIBUTION OF DEATHS.

| Ward.              | Deaths at all<br>ages. | Under 1 year. |
|--------------------|------------------------|---------------|
| Torre .. ..        | 68                     | —             |
| Waldon .. ..       | 36                     | 3             |
| Upton .. ..        | 70                     | 4             |
| Ellacombe ..       | 96                     | 6             |
| Strand .. ..       | 49                     | 4             |
| Torwood .. ..      | 54                     | 4             |
| St. Mary-Church .. | 71                     | 5             |
| Babbacombe ..      | 65                     | 2             |
| Chelston .. ..     | 48                     | —             |
| Totals ..          | 557                    | 28            |

### DEATH FROM ZYMOTIC DISEASES.

The zymotic death rate is calculated from the seven principal zymotic diseases. The following table enumerates them and the number of deaths recorded from each :—

|                |     |           |     |       |
|----------------|-----|-----------|-----|-------|
| Small-pox      | ... | ...       | ... | 0     |
| Measles        | ... | ...       | ... | 0     |
| Whooping Cough | ... | ...       | ... | 1     |
| Scarlet Fever  | ... | ...       | ... | 0     |
| Diphtheria     | ... | ...       | ... | 1     |
| Fevers         | {   | Typhus    | ... | 0     |
|                |     | Enteric   | ... | 0     |
|                |     | Continued | ... | 0     |
| Diarrhœa       | ... | ...       | ... | 1     |
|                |     |           |     | <hr/> |
|                |     |           |     | 3     |

The zymotic death rate is therefore equal to '08 per 1,000, against '35 per 1,000 in 1923.

### BIRTHS.

The total number of births registered was 521—males 259, females 262. Of these 27, or 5%, were illegitimate :—

|                | Males | Females | Illegitimate |
|----------------|-------|---------|--------------|
| First Quarter  | 68    | 77      | 6            |
| Second Quarter | 52    | 60      | 8            |
| Third Quarter  | 69    | 68      | 6            |
| Fourth Quarter | 70    | 57      | 7            |
| Totals         | 259   | 262     | 27           |

Twenty-two still births were notified, and the conditions investigated.

### WARD DISTRIBUTION.

|                 | Males | Females | Illegitimate |
|-----------------|-------|---------|--------------|
| Torre           | 19    | 27      | 1            |
| Waldon          | 22    | 22      | 3            |
| Upton           | 38    | 29      | 3            |
| Ellacombe       | 49    | 52      | 3            |
| Strand          | 28    | 34      | 3            |
| Torwood...      | 14    | 16      | 4            |
| St. Mary Church | 48    | 46      | 4            |
| Babbacombe      | 24    | 28      | 2            |
| Chelston        | 17    | 8       | 4            |
| Totals          | 259   | 262     | 27           |



The birth rate for the Borough is equal to 14·9 per 1,000 per annum, against 14·3 in 1923. The average for the previous five years was 15·6. The rate for England and Wales in 1924 was 18·8, and that for the 157 smaller towns 18·9.

In comparing our birth rate with that of the country as a whole or those of other districts, the age and sex constitution of the population must be borne in mind. In Torquay we have a high proportion of females to males (1,474 females per 1,000 males), and of the female population some 40 to 50 per cent. are spinsters and are above or below the child bearing age; hence it is unreasonable to expect anything but a low birth rate.

#### INFANTILE MORTALITY.

There were 28 deaths of children under one year of age. This gives an infantile mortality rate of 53·7 per 1,000 births. That for 1923 was 49, and the average of the previous five years 55. The rate for England and Wales in 1924 was 75, and that for the 157 small towns 71.

The following tables are of interest:—

TABLE A. *Showing the Births, Infantile Deaths, and Infantile Mortality for a series of eight years as compared with those of the country as a whole.*

| Year. | Total Births recorded. | Deaths of Infants under 1 year. | Infantile Mortality for the Borough. | Infantile Mortality for England and Wales. |
|-------|------------------------|---------------------------------|--------------------------------------|--------------------------------------------|
| 1915  | 490                    | 41                              | 84                                   | 110                                        |
| 1916  | 459                    | 43                              | 94                                   | 90                                         |
| 1917  | 401                    | 26                              | 65                                   | 97                                         |
| 1918  | 412                    | 31                              | 75                                   | 97                                         |
| 1919  | 531                    | 25                              | 47                                   | 89                                         |
| 1920  | 643                    | 34                              | 51                                   | 80                                         |
| 1921  | 542                    | 44                              | 81                                   | 83                                         |
| 1922  | 490                    | 23                              | 47                                   | 77                                         |
| 1923  | 488                    | 24                              | 49                                   | 92                                         |
| 1924  | 521                    | 28                              | 53                                   | 75                                         |

TABLE B. *Showing the principal Causes of Deaths among Infants, 1915—1924.*

|                     | 1924 | 1923 | 1922 | 1921 | 1920 | 1919 | 1918 | 1917 | 1916 | 1915 |
|---------------------|------|------|------|------|------|------|------|------|------|------|
| Measles             | —    | 1    | —    | —    | —    | —    | 3    | —    | 1    | 3    |
| Whooping Cough      | —    | —    | —    | 3    | —    | —    | 1    | —    | 2    | 1    |
| Diarrhœa            | 1    | 1    | 1    | 8    | 4    | 1    | 2    | 2    | 2    | 3    |
| Tubercular Diseases | —    | —    | —    | 1    | —    | —    | —    | 2    | —    | 1    |
| Bronchitis          | 3    | 2    | 1    | 6    | 2    | 5    | 7    | 2    | 2    | 8    |
| Pneumonia           | 3    | 1    | 2    | 4    | 2    | 1    | 3    | 4    | 5    | 6    |
| Premature Birth     | 17   | 11   | 14   | 13   | 16   | 10   | 6    | 8    | 18   | 10   |
| Congenital Defects  | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Accidents           | 1    | —    | —    | 2    | 1    | —    | —    | —    | —    | —    |
| All other causes    | 3    | 8    | 5    | 7    | 9    | 8    | 9    | 8    | 13   | 9    |
| Totals              | 28   | 24   | 23   | 44   | 34   | 25   | 31   | 26   | 43   | 41   |



The infantile mortality figure of 53·7 per 1,000 births compares very favourably with that of 75 for England and Wales. An examination of the above table shows that premature birth and congenital defects were responsible for the large proportion of infant death. As these are causes over which the Sanitary Authority have no control, and are in a large number of instances due directly or indirectly to the results of venereal disease in the parents, improvement can only be looked for through the enlightenment and more careful supervision of the expectant mothers.

Full particulars, giving exact details of the causes of death, the age stated in weeks and months under one year, are given in Table IV., page 52.

### MATERNITY AND CHILD WELFARE.

The Devon County Council is the supervising authority under the Midwives' Act. There are seven midwives registered as practising in the Borough. Four of these belong to the Q.V.J.N. Association, and the other three to the St. Mary-Church District Nursing Association. There is no doubt that they provide a most efficient midwifery service for women of the working classes. The Town Council make an annual grant to these Associations to cover the loss sustained on the attendance of midwives on necessitous cases.

Any irregularities in carrying out the rules of the Central Midwives' Board which come to our notice are reported to the County Medical Officer of Health. I would again like to express the opinion that this inspection of midwives should be carried out by those Sanitary Authorities who are responsible for the administration of the Maternity and Child Welfare Acts. One maternal death was recorded. Although vast strides have been made in the nursing of parturient women, there has not been that great reduction in maternal deaths one would have anticipated, and it is the desire of all those who have anything to do with this work to discover the reason or reasons. One flaw in the working of the Midwives' Act seems to be the absence of any supervision of those unqualified persons who make a living by acting as nurses to women during their confinements, ostensibly under the



authority of a doctor. Many such are women who have been removed from the roll of midwives, either by persuasion of the inspecting authority or on account of some neglect of the rules of the Central Midwives' Board. In many cases they undoubtedly act as midwives, and it is very difficult to detect them unless something untoward happens. Even then it is hard to obtain sufficient evidence to warrant a prosecution.

### CONSERVATION OF INFANT LIFE.

The Notification of Births Act renders it compulsory for the parents etc., to notify the birth of a child to the Medical Officer of Health within 36 hours of its occurrence. There is apparently still an absence of knowledge on this requirement, as 24 births were not notified.\*

Births registered—

|                                 |                     |               |
|---------------------------------|---------------------|---------------|
| (1) Live births, Legitimate 494 | (2) Illegitimate 27 | (3) Total 521 |
|---------------------------------|---------------------|---------------|

Births notified—

|                                |                                         |               |
|--------------------------------|-----------------------------------------|---------------|
| (1) Live births - 483          | (2) Still births 22                     | (3) Total 505 |
| (1) Notified by midwives - 330 | (2) Notified by parents and doctors 175 |               |
| (a) Live births - 318          | (a) Live births - 165                   |               |
| (b) Still births - 12          | (b) Still births - 10                   |               |

About ten days after the birth of a child the Health Visitor endeavours to get into touch with the mother in those cases in which a visit is desirable or likely to be appreciated. Enquiries are made concerning the child, information given about our Welfare Centres, and the mother encouraged to bring the child. In most cases subsequent visits are paid at increasing intervals; in some until the child comes under the supervision of the School Medical Department. The Health Visitor also investigates the history of still births, and assists the Medical Officer in the work of the Welfare Centres.

There can be no question that this is most valuable work, and must to some extent be credited with the great reduction in the infantile mortality since it was inaugurated. It requires great tact, a wide knowledge of working class conditions, and personal sympathy on the part of the worker. The greatest care is taken that there shall be no interference with the

---

\*As soon as we ascertain that births have been registered but not notified, a letter is sent to the parents informing them of the neglect, and asking for particulars to be supplied.



interests of the medical attendant in his patient. Indeed, numerous cases can be cited in which, through the instrumentality of the Health Visitor, infants have been taken to doctors for advice as to illness or defect which, but for her suggestion, would have been allowed to continue until it became urgent or produced permanent disability.

#### HEALTH VISITOR'S REPORT FOR 1924.

|                                     |                   |     |              |                   |
|-------------------------------------|-------------------|-----|--------------|-------------------|
| Expectant mothers                   | First visits      | 46  | Total visits | 90                |
| Infants under 1 year                | "                 | 505 | "            | 1827              |
| Children 1—5 years                  | Total individuals | 728 | "            | 1438              |
| Still births investigated           | —                 |     | —            | 19                |
| Ophthalmia neonatorum               | First visits      | 9   | Total visits | 31                |
| Tuberculosis                        | "                 | 6   | "            | 28                |
| Miscellaneous visits                | —                 |     | —            | 60                |
| Cases out when visited              | —                 |     | —            | 268               |
| " removed                           | —                 |     | —            | 107               |
|                                     |                   |     |              | <hr/>             |
|                                     |                   |     |              | Total visits 3868 |
| Attendances at Welfare Centres 106. |                   |     |              |                   |

Insanitary conditions found in 24 instances were referred to the Sanitary Inspectors.

|                                                 |   |   |   |    |
|-------------------------------------------------|---|---|---|----|
| Cases not considered necessary to visit         | - | - | - | 41 |
| Visits considered unnecessary after first visit | - | - | - | 21 |
| Objections raised to visits                     | - | - | - | 12 |

In cases of removals particulars of case are transferred to the Medical Officer of Health of the district where the parents have gone.

Records of 29 such cases were sent to and 30 from other authorities enquired into, whilst 39 cases could not be traced.

#### PROVISION OF MILK TO NECESSITOUS MOTHERS AND INFANTS.

All applications for free supplies of milk under the Milk (Mothers and Children) Order, 1919—are enquired into by the Medical Officer of Health. In most instances full details of the family conditions are obtained by the Health Visitor; care is also taken to prevent overlapping with other charitable agencies distributing relief. I am fully satisfied that in many cases the provision of this milk has resulted in the saving of infant life in the times of necessity.



During the year the Maternity and Child Welfare Committee decided that the milk supplied should be "Grade A. Tuberculin Tested" milk. Although this has resulted in increased cost, yet from more than one aspect, I consider it fully justified. If only all authorities carrying on similar work, instead of supplying powdered milk with all its inherent defects, were to provide Grade "A" milk, what a stimulus would be given to its production, benefiting not only the children supplied, but the community at large. Thus the local farmer and dairy interests would be supported rather than those of the large manufacturers.

### INFANT WELFARE CENTRES.

The whole of the work is controlled by the Infant Welfare Sub-Committee of the Town Council, and the following three Centres have now been established:—

- (1). Ellacombe Centre meets in the Primitive Methodist Hall, Market Street, on Fridays, from 2.30 to 4.30 p.m.
- (2). Market Street Centre meets as above on Mondays from 2.30 to 4.30 p.m.
- (3). St. Marychurch and Babbacombe Centres meet in the Furrough Cross Congregational Hall on Thursdays from 2.30 to 4.30 p.m.

Each Centre is managed by a Committee of Voluntary Workers, who meet at regular intervals, and make all arrangements for carrying on the work. Much of the success of the work must be attributed to their efforts.

Tea is provided at the nominal charge of 1½d. per head, and the programmes include health talks, instruction in home nursing and the care of infants, and demonstrations of sewing, cutting out, etc.

The Assistant Medical Officer of Health attends each Centre, and is responsible for the medical arrangements. He is always assisted by either the Health Visitor, the Matron of the Queen Victoria Jubilee Nursing Institution, or one of the St. Marychurch District Nurses.



Some idea of the scope of the work may be seen from the following figures for the three Centres combined :—

|                                                         |       |       |
|---------------------------------------------------------|-------|-------|
| Admissions for the year                                 | 180   |       |
| Age on Admission—                                       |       |       |
| Under 9 months                                          | 137   |       |
| Over 9 months                                           | 43    |       |
|                                                         | —     | 180   |
| Method of Feeding on Admission in those under 9 months— |       |       |
| Breast                                                  | 94    |       |
| Artificially Fed                                        | 43    |       |
|                                                         | —     | 137   |
| Total Attendances for the year                          | ...   | 3,939 |
| Attendances under 1 year                                | 1,635 |       |
| Attendances from 1 year to 5 years                      | 2,304 |       |
|                                                         | —     | 3,939 |
| Average attendance of children per session              |       | 28·3  |
| Number of sessions (three Centres)                      |       | 138   |

When investigating each birth the Health Visitor makes a note of the cases which might reasonably be expected to attend a Welfare Centre, excluding cases living very far from a Centre, mothers working from home, mothers with special home ties, etc. During 1924, 180 children were brought to the Centres, being 45·9% of the 392 considered "to be in a position to attend and likely to benefit." Similar figures for 1923 were 172 brought to Centres, 44·2% of 389 considered suitable.

It will be seen that the number of new cases has steadily risen each year, from 1921 the new admissions have increased 157, 164, 172, to 180 in 1924. And considering that the number of births in the Borough is not subject to much variation, it is evident that mothers are now realising more and more the immense value of supervision and advice in ensuring that each child has the best possible start in life.

The majority of the babies are seen by the Medical Officer at each visit, any defects are pointed out to the mother and instructions given concerning diet and infant management in general. Emphasis is laid on the *preventive* nature of this work, and all cases requiring treatment for other than simple



disorders are referred to private practitioners. It is not easy to define where this simple advice ends, and the treatment begins, and it is only by the hearty co-operation of the local doctors that the most effective benefit of the child will result. Many cases, which would not otherwise reach him, are sent to the private practitioner; but it is not infrequently found that the parents are financially unable to call in their private doctor on all occasions, and would probably buy a patent medicine for the child, or use some other ineffective means of treating the case, until the illness becomes very acute. By advisory treatment at the Clinic in the *early* stage of the illness, much can be done in these cases: and the criticism can scarcely be made with justness that the work of the private doctor is suffering on this score, for surely the one ideal aim of both clinic and practitioner is, after all "Infant Welfare"—and the benefit of the child.

Out of the 180 new cases, 137 were under 9 months old, and of these 137 (all of whom might reasonably be supposed to be breast-fed, only 94 were on the breast on admission. This calls for much consideration, and the high percentage (31·4%), of artificially fed babies should be considerably reduced. It is frequently found that for any slight adverse condition, for frequently false reasons and inadequate excuses, weaning is readily started in the infant's life; and it is only when the great difficulties arise (as they so frequently do), that the mother seeks the aid of the Welfare Centre. The damage has thus been done by this transition, as it is nearly always impossible to revert to breast-feeding by the time the case attends: and it must be impressed on doctor and midwife, on all possible occasions, to urge every mother to nurse her baby or at least make a serious effort to do so. Some mothers naturally take the easier selfish course, and do not realise or appreciate the great handicap it gives the child until they find out, perhaps much later on when the child is inspected at school that rickets, or a general debilitated constitution is the result. It is often too late then, and the penalty of this handicap, frequently serious, always a disadvantage, is their careless legacy to the child.

When artificial feeding has to be adopted, the infant should be under careful supervision: and the Welfare Centre provides this, and the detailed instructions so often required if



the best results are to be obtained. Every case, with one or two exceptions fed artificially, has been most successful with cows' milk diluted in accordance with the weight of the child, and with the other necessary modifications. And in an agricultural county like Devon, this should be encouraged to the full, more especially as in Torquay there are many retailers providing the Grade "A" T. T. Milk, which very many of the mothers obtain.

Ante-Natal Cases—Only 11 expectant mothers attended for advice. The importance of ante-natal supervision does not yet seem to be fully realised, or greater advantage would be taken of the facilities provided for this work. Many of the risks to which the expectant mother is exposed can be minimised or avoided entirely by routine examination and treatment.

#### SUMMARY OF NURSING ARRANGEMENTS.

Professional Nursing in the Home. (a) General.—Nurses of the Queen Victoria Nursing Association and St. Mary-Church District Nursing Association are available for this purpose, independently of the Local Authority. (b) For Infectious Diseases.—The Town Council utilises the services of the Q.V.J.N.A., for nursing cases of Ophthalmia Neonatorum and Measles when necessary, on the instructions of the Medical Officer of Health. A retaining fee of £10 per annum is paid and 1s. per visit.

Midwives.—The Council makes a subsidy to the Jubilee Nursing Association of  $\frac{1}{4}$  the deficit of the cost of their midwives, less the amount obtained in fees. This is in addition to the grant received by them direct from the Ministry of Health. Similarly to the St. Mary-Church Nursing Association, a subsidy is given of  $\frac{3}{4}$  of the deficit between cost of midwife and fees obtained. The reason for this is that no grant is received direct by that Association from the Government.

Owing to the death of Miss Best, the Honorary Secretary of the Door of Hope for Friendless Girls, the Institution has been closed.



Lying-in Accommodation.—There is no Institution in the Borough where mothers of the working classes can be received for ordinary confinement. The authorities of the Torbay Hospital, will, however, always receive cases of complication. In view of the proposal to build a new general Hospital, it is to be hoped that provision will be made for the reception of maternity cases.

#### PUERPERAL FEVER AND MATERNAL DEATHS.

One case of Puerperal Fever was notified. It was attended by a medical practitioner. The circumstances were investigated, and steps taken to prevent the nurse attending other cases during the period of infection. The patient recovered. One maternal death occurred due to pulmonary embolism.

#### OPHTHALMIA NEONATORUM.

Five cases were notified, and four other suspicious cases came under our observation. In one case after nine days treatment at home, the patient was admitted to the Torbay Hospital. Unfortunately not early enough to save the sight. The oculist believes that there may ultimately be sufficient vision in one eye to distinguish large objects. The remaining cases recovered without any impairment of sight.

The Council have an arrangement with the Queen Victoria Jubilee Nursing Association to treat all the cases in which the Medical Attendant considers it desirable. It is most important that cases or suspected cases should be notified with as little delay as possible, so that supervision may be exercised to see that the prescribed treatment is properly carried out. As a matter of routine, they are at once visited by the Health Visitor, who obtains particulars; she also re-visits to ascertain the ultimate result.

#### CHICKEN POX.

In view of the continued prevalence of mild small-pox in other parts of England, Chicken-pox has been continued as a notifiable disease. It was very prevalent during the summer months. Seventy-five cases were notified. A very large proportion was seen either by Dr. Simpson or myself.



## NON-NOTIFIABLE DISEASES.

During the autumn and winter months, whooping cough became epidemic in several of the wards of the Borough. All known and suspected cases were excluded from school. There were also a number of cases of measles, the extension of the epidemic of 1923, but it did not reach epidemic proportions.

## INFANTILE DIARRHŒA.

Remarkably few cases of diarrhœa came to our knowledge. There was only one death, an infant under one year of age.

## NOTIFIABLE DISEASES DURING THE YEAR, 1924.

| Disease                                   | Total Cases<br>Notified | Cases Admitted<br>to Hospital | Total<br>Deaths |
|-------------------------------------------|-------------------------|-------------------------------|-----------------|
| Diphtheria .. ..                          | 10                      | 6                             | 1               |
| Scarlet Fever .. ..                       | 84                      | 68                            | —               |
| Enteric Fever (including para-Typhoid) .. | 4                       | —                             | —               |
| Puerperal Fever .. ..                     | 1                       | —                             | —               |
| Pneumonia .. ..                           | 14                      | —                             | 23              |
| Chicken Pox .. ..                         | 75                      | —                             | —               |
| Encephalitis Lethargica .. ..             | 2                       | —                             | —               |
| Poliomyelitis .. ..                       | 2                       | 2                             | —               |
| Erysipelas .. ..                          | 5                       | —                             | —               |
| Cerebro-Spinal Meningitis .. ..           | 1                       | 1                             | —               |
| Tuberculosis—                             |                         |                               |                 |
| (a) Pulmonary .. ..                       | 72                      | —                             | 36              |
| (b) Non-Pulmonary .. ..                   | 10                      | —                             | 10              |

HOSPITALS AND OTHER INSTITUTIONS AVAILABLE  
FOR THE DISTRICT.

Hospitals provided or subsidised by the Local Authority or by the Devon County Council—(1) Tuberculosis, “Whitecliffe.” This is the old Western Hospital, taken over by the County Council. It accommodates 45 patients. (2) There is no special Maternity Hospital, but the Authorities of the Torbay Hospital will admit urgent cases requiring operative treatment. (3) Rosehill Children’s Hospital. The Maternity and Child Welfare Committee subsidises one bed, and if vacant can obtain the use of a second, at a cost of one guinea per week. This Hospital is situated on the Lower Warberry Road, and accommodates 30 patients.



The Borough Sanatorium or Isolation Hospital, Newton Abbot Road, consists of the Administrative Building—Scarlet Fever ward block, consisting of two wards, with four beds in each; and a Diphtheria ward block, two wards with four beds in each. There is also a private ward for one patient, with nurse's room attached.

Prior to the war in 1914, the Health Committee had under consideration the enlargement of the Hospital, at least the administrative quarters. There is no proper bedroom or sitting room accommodation for nurses, making it extremely difficult to provide for the efficient nursing of patients in the hospital. Naturally the world crisis stopped all consideration of this. After the war all energies and available labour were concentrated on the provision of houses, so that this matter had to remain in abeyance. During 1924 preliminary steps to overcome this difficulty were taken by the Health Committee, negotiations being opened with the owner of the adjoining land for its purchase. An Inspector of the Ministry of Health visited the site and sanction has been given subject to an assurance that up-to-date drainage arrangements and lighting will be provided. The former point is now the subject of consideration by the Newton Abbot Rural District Council and ourselves with a view to the drainage of the Hospital and houses proposed to be built on adjacent land; owing to the difficulty of levels, a small pumping station will be required to get the sewage into the towns sewers by means of a rising main.

A Sub-Committee has been appointed to consider the whole question of administration and report on the means necessary to bring it up to modern requirements, and what accommodation will be required to effect this.

The financial statement for the year, April 1st, 1923, to March 31st, 1924, shows that the cost amounted to £2,081 0s. 8d. The number of patients treated in the same period was 119. These consisted of 5 cases of Diphtheria and 114 of Scarlet fever.

#### ENTERIC FEVER.

When there is accommodation, the Authorities of the Torbay Hospital admit cases of this disease.



### COCKINGTON ISOLATION HOSPITAL.

Taken over from the Cockington Urban District at the time of the amalgamation. This Hospital is considerably more than half-a-mile from any inhabited building, and is kept in readiness for the reception of small-pox, should any arise.

The cost of the Cockington Sanatorium, which was empty during the year, was £85, consisting of rents, rates, etc.

### BACTERIOLOGICAL EXAMINATION.

Specimens from suspected cases are examined at the expense of the Town Council by Mr. Quant, of the South Devon Chemical and Bacteriological Laboratory, who reports that during the year he examined the following:—

|                   |                 |              |          |   |    |
|-------------------|-----------------|--------------|----------|---|----|
| Diphtheria        | 47              | {            | Positive | - | 2  |
|                   |                 |              | Negative | - | 45 |
| Tubercular Sputum | 72 examinations | {            | Positive | - | 14 |
|                   |                 |              | Negative | - | 58 |
| Enteric           | 10              | All Negative |          |   |    |
| Total             | 129             |              |          |   |    |

In the Laboratory attached to the Health Department we have examined 45 specimens from inflamed or suspicious throats of children attending the elementary schools. Some 27 specimens for other pathological conditions were examined.

### AMBULANCE FACILITIES.

There are two motor ambulances belonging to the Corporation and under the supervision of the Medical Officer of Health—(1) A covered Ford Ambulance, and (2) a Daimler Ambulance. The former has been utilised for the removal of infectious cases, and the latter for medical and surgical. The ambulances are garaged at the Town Hall, and during office hours can be obtained by communicating with the Medical Officer of Health at his office, Telephone No. 1010. When the offices are closed, application should be made to the ambulance driver at his house, Telephone No. 504.

Two trained members of the St. John Ambulance Brigade always accompany the ambulance as attendants.

### DISINFECTION.

Free disinfection is carried out in all cases of notifiable infectious disease, and also after the removal or death of consumptive patients. Rooms are first fumigated with formaline,



and then the bedding is removed to the disinfecting station at the Isolation Hospital and subjected to steam sterilisation. The disinfectant is a "Thresh" Current Steam Disinfectant.

Full advantage is taken of the facilities, all cases where notifiable disease occurs being fully disinfected, and a very large proportion of non-notifiable cases.

#### SMALL-POX AND VACCINATION.

No cases were notified. No vaccinations, either primary or re-vaccinations, were performed by the Medical Officer of Health. The accompanying table indicates the position of the district as regards vaccination.

Through the courtesy of Mr. Edwards, the Vaccination Officer, I am able to give the average results of primary vaccination for the years from 1900 to 1923 :—

| Years.                      | Total births registered | Successfully vaccinated | Insusceptible of Vaccination | Had Small-pox | Number of Declarations from Conscientious Objectors | Died Unvaccinated | Postponed by Medical Certificate | Removed to other districts the Vaccination Officer of which has been apprised | Removed Address unknown | Percentage successfully Vaccinated | Excluding those who died Unvaccinated. Percentage |
|-----------------------------|-------------------------|-------------------------|------------------------------|---------------|-----------------------------------------------------|-------------------|----------------------------------|-------------------------------------------------------------------------------|-------------------------|------------------------------------|---------------------------------------------------|
| 10 Years' Average 1900—1909 | 578                     | 468                     | 1                            | —             | 39                                                  | 4                 | 6                                | 3                                                                             | 10                      | 82                                 | 87                                                |
| 10 Years' Average 1910—1919 | 522                     | 219                     | 1                            | —             | 235                                                 | 33                | 9                                | 3                                                                             | 15                      | 41                                 | 44                                                |
| 1920                        | 686                     | 271                     | 2                            | —             | 340                                                 | 35                | 11                               | 2                                                                             | 20                      | 40                                 | 41                                                |
| 1921                        | 561                     | 179                     | 3                            | —             | 314                                                 | 34                | 6                                | 6                                                                             | 10                      | 32                                 | 34                                                |
| 1922                        | 526                     | 215                     | —                            | —             | 277                                                 | 22                | 2                                | 5                                                                             | 2                       | 40                                 | 42                                                |
| 1923                        | 529                     | 238                     | 4                            | —             | 234                                                 | 21                | 7                                | 10                                                                            | 10                      | 45                                 | 47                                                |



Thus our population consists of some 57% of persons unprotected from small-pox. In view of the continued prevalence of small-pox in the North and Midlands, its introduction into Torquay is quite possible. An epidemic of this disease would be most disastrous financially and otherwise in a health resort of this character.

As stated on page 23, the Cockington Isolation Hospital is kept in readiness for the reception of small-pox cases.

#### ENTERIC FEVER.

Four cases were notified, two in June and two in July. Investigation proved that there was no common source of infection. Two of the patients were not residents and at the period of infection were not here. The cases cleared up normally and there were no fatalities.

#### SCARLET FEVER.

Scarlet Fever of a mild type was prevalent practically throughout the year, 84 cases being notified of whom 68 or 81% were removed to the hospital for treatment. There were no deaths. As usual several cases were discovered in a disquimating condition. Such unrecognised cases no doubt being responsible for continuance of the disease.

#### DIPHTHERIA.

There were ten cases of Diphtheria notified—of whom six were treated in the hospital. One proved fatal from heart failure in the convalescent period. One patient was a visitor who was ill on arrival. Two cases occurred in an Orphanage, the drainage of the building was very defective, and has since been relaid.

#### ERYSIPELAS.

Five cases occurred—no deaths.

#### ENCEPHALITIS LETHARGICA.

There were two notifications. One in April and one in December—both recovered.

#### POLIOMYELITIS.

There were two cases. The first was a child who was nursed to a large extent by his father, the latter became infected in an acute form, and is likely to be a chronic paralytic.



## CEREBRO SPINAL MENINGITIS.

One case occurred and was treated in the Torbay Hospital. The diagnosis was not confirmed bacteriologically and the patient ultimately recovered.

## TUBERCULOSIS.

During the year there were 72 notifications of Pulmonary Tuberculosis received, and 10 of other forms, against 98 and 19 respectively in 1923. 34 deaths were registered as due to Pulmonary Tuberculosis and 10 to other forms. In addition there were 29 deaths among non-residents whose deaths were transferred to their own sanitary areas. The death-rate is equal '96 per 1,000 per annum.

The following table gives the sex and age at death:—

| Age period |         | 5—15 | 15—20 | 20—35 | 35—45 | 45—65 | Over 65 | Totals |
|------------|---------|------|-------|-------|-------|-------|---------|--------|
| Residents  | Males   | 1    | 1     | 7     | 4     | 7     | —       | 20     |
|            | Females | —    | 2     | 2     | 3     | 6     | 1       | 14     |
| Totals     |         | 1    | 3     | 9     | 7     | 13    | 1       | 34     |

Besides the above there were 12 deaths from other forms of Tubercular disease.

Notifications of this disease are forwarded weekly to the Devon County Council, and there is close co-operation between the County Tuberculosis Officer and myself in dealing with Tubercular cases.

The Devon County Council utilise "Whitecliffe" as a hospital for the reception of cases of tuberculosis which are not suitable for treatment at the County Sanatorium. Many of the transferable deaths occur at this Institution.

Free disinfection of rooms and bedding is carried out after death or removal of patients from houses in the Borough.



Under the Torquay Corporation Act, 1923, the Authority have power to disinfect compulsorily and cleanse infected rooms and articles. It is also incumbent on all those having the management or control of premises where there is or has been a person suffering from Tuberculosis to notify the Medical Officer of Health. Under Section 75 they also have power to prevent persons in an advanced stage of the disease from being employed in the cooking or preparation of food for consumption by persons other than members of his household.

#### CANCER, MALIGNANT DISEASE.

There were 71 deaths registered from the above cause, four more than in 1923. The age and sex distribution is as follows:—

| Age period | Under 30 | 30—35 | 35—45 | 45—55 | 55—65 | 65—75 | Over 75 | Totals |
|------------|----------|-------|-------|-------|-------|-------|---------|--------|
| Males      | 1        | —     | —     | 5     | 3     | 11    | 5       | 25     |
| Females    | —        | 1     | 2     | 9     | 14    | 9     | 11      | 46     |
| Totals     | 1        | 1     | 2     | 14    | 17    | 20    | 16      | 71     |

The death rate from cancer is equal to 2·0 per 1,000 per annum.

It must be remembered that in Torquay the population contains a larger proportion of persons of advanced years and of females over males than the country as a whole, hence it is only to be expected that the death rate from cancer would be high.

In any event, there can be little doubt that this disease shows a tendency to increase, as is shown by the following table, which gives the total cancer deaths for the last 10 years:—

| Year. | Cancer deaths. | Year. | Cancer deaths. |
|-------|----------------|-------|----------------|
| 1915  | 52             | 1920  | 72             |
| 1916  | 50             | 1921  | 56             |
| 1917  | 53             | 1922  | 60             |
| 1918  | 49             | 1923  | 64             |
| 1919  | 55             | 1924  | 71             |



Last year I quoted from the Memorandum issued by the Departmental Committee concerning what was known as to the causation of cancer. I would like to repeat their most important recommendation :—" The essential point is that the patient should not postpone or delay seeking competent medical advice, and above all, should not waste time or money by trying quack remedies, which at best are useless, and at worst aggravate the disease. In any condition in which cancer is suspected, immediate and decisive action is necessary."

#### VENEREAL DISEASE.

The treatment of this disease is supervised by the County Council. Although that Authority gives every facility for patients to attend the centres at Exeter, even to advancing the cost of railway fare in necessitous cases, yet the want of a local centre militates against successful action in combating this complaint. As mentioned under the paragraph dealing with provision of maternity beds at the proposed new General Hospital, it is hoped that a department will be allotted to the treatment of Venereal diseases.

#### WATER SUPPLY.

The town supply is derived from upland surface gathering ground on the borders of Dartmoor, about 15 miles from Torquay. The area of the gathering ground is 2,241 acres, and belongs to the Corporation. All inhabited houses and farms have been cleared from the area, thus preventing any menace to the purity of the water. The water is also, as a further precaution, passed through mechanical filters. In this way all suspended material is removed ; it is clarified, and the appearance considerably improved.

The total amount supplied was 683,663,000 gallons, or 31.1 gallons per head for a population of 60,000. This includes Newton Abbot and a few villages on the line of the mains.

The total rainfall on the catchment area during the year was 56.70 inches. This figure is the highest ever recorded since gauges were first kept, 40 years ago.

In times of continued drought, when large quantities of the water are being used for gardening purposes, some difficulty has been experienced in keeping the home supply reservoirs



filled. In order to overcome this trouble, and also to obviate any stoppage through a burst main, &c., it was decided to lay a 14-inch main from Newton Abbot (the main being duplicate to this point) to Great Hill, where a service reservoir is to be constructed capable of containing  $1\frac{1}{2}$  million gallons. The water from here will supplement the supply to the town service reservoirs, and also supply water to houses at the highest levels.

The laying of the 14-inch trunk main has been in hand during the year, and the first section as far as Chapel Hill reservoir will be completed about Easter, 1925, whilst the whole length to Warberry Hill reservoir will be ready about the beginning of June.

The construction of the new reservoir at Great Hill is well in hand, but will not be put into service until the end of August.

#### QUALITY OF THE WATER.

It possesses all the qualities of a good upland surface water. The watershed has been so protected as to make the possibility of pollution infinitesimal. It is also subjected to mechanical filtration, rendering it doubly safe, and removing any suspended peaty matter. It is extremely soft, yet contains sufficient lime and magnesia salts to prevent any solvent action on lead. It is in all respects one of the best domestic supplies in the kingdom.

Regular monthly analyses of the water are made, samples being taken from different areas in the Borough. The results vary very slightly; the following is a typical result:—

#### RESULTS OF CHEMICAL ANALYSIS.

Physical Characters—Very pale straw colour, clear, no odour or deposit.

| Chemical Constituents.     | Expressed in parts<br>per 100,000. |
|----------------------------|------------------------------------|
| Total Solids               | 7.0                                |
| Chlorides                  | 1.6                                |
| Hardness                   | 1.5                                |
| Nitrites                   | nil                                |
| Nitrates                   | .13                                |
| Free Ammonia               | trace                              |
| Organic Ammonia            | .007                               |
| Oxygen absorbed in 4 hours | .083                               |



## SEWERAGE.

The sewage of the whole district, and most of the storm-water, is conveyed to the main sewer in Fleet Street ; that of the Strand, Torbay Road, Vaughan Parade, Victoria Parade, Beacon Hill, George Street, and Swan Street, being pumped into the main sewer. The main sewer is seven feet in diameter, and runs from Fleet Street to Hope's Nose, a distance of about two miles. The outfall is at such a level that the sewage is discharged at all states of the tide. No method of treatment is adopted, as the flow of current is out towards mid-channel beyond Berry Head, and does not under any circumstances return towards the bay.

During the year about 60 feet of 12 inch sewers and 5,100 feet of 9 inch sewers were laid to serve new buildings being erected in St. Anne's Road, Warbro Road, Newton Road, and Windsor Road.

Many houses and bungalows have recently been erected, and cesspools have been connected.

## DRAINAGE OF HOUSES.

Most of the houses, especially villa residences and large boarding houses, have the best modern sanitary arrangements, including water closets of good type with waste water preventers. In every case where possible the drains are connected with the sewers, but in some exceptional cases, where the levels prevent, cesspools have been constructed.

## COLLECTION AND DISPOSAL OF HOUSE REFUSE.

House refuse is moved by the employees of the Corporation under the Surveyor's Department. In most parts of the town it is removed once a week, but in certain parts twice. It is carted to the destructor works in Upton Valley, and there consumed, 11,462 tons being dealt with annually. The destructor is a "Warner Perfectus" of six cells. The boilers are heated from the furnaces, and the steam generated can be used to drive donkey engine, vertical engine for running blower, 25 horse-power engine for running mortar mill and electrical installation. The clinker produced is ground and used for mortar.



### SANITARY ASHBINS.

The Torquay Corporation Act, 1923, sec. 64, empowers the Sanitary Authority to compel owners or occupiers of dwelling-houses, warehouses, or shops to provide portable covered galvanised iron ashbins. Where suitable ashbins have been so provided, the owner shall, if so required by the Corporation, pay to them a sum not exceeding 5s. annually, and thereafter the Corporation shall maintain, repair or renew such ashbins. This will prevent the use of those miscellaneous insanitary and objectionable receptacles at present used by many householders.

### THE STAFF.

The Medical Officer of Health is responsible to the Public Health Committee for the proper working of the department. He is also the Administrative School Medical Officer, in which capacity he is responsible for the medical inspection and treatment of elementary school children to the Education Authority, thus co-ordinating the two offices.

For the efficient carrying out of these duties he has the assistance of the following :—

An Assistant and Deputy Medical Officer of Health, the present official is Dr. J. V. A. Simpson. His principal duties are the medical inspection and such treatment of school children as is carried out at the school clinics. For this purpose he has the assistance of the School Nurse. He is also responsible for the conduct of the Infant Welfare Centres, in which work he has the assistance of the lady Health Visitor, who possesses the C.M.B. certificate.

Early in the year the Public Health Department was re-organised. This was necessitated by the resignation of Mr. Charles MacMahon who has held the position of Chief Sanitary Inspector for more than 45 years. He has been associated with all the great sanitary projects carried out in Torquay in the past, and has seen the town rise to its premier position as a health resort. During recent years there has been a very great increase in the number of acts and regulations passed by the Government dealing with sanitary matters, which have entailed a large increase in the routine



work of the department. This together with the requirements of the Torquay Corporation Act, 1923, influenced the Public Health Committee in the decision that it was unfair to call on Mr. MacMahon to undertake the extra work this would entail. Mr. G. E. Body was promoted to the position of chief having under his supervision a staff of three district inspectors and a clerk.

The town is divided into three districts, Mr. Loveless having the supervision of the S.W. district, Mr. Vigar the S.E., and Mr. Jump the North. All the Inspectors hold the Certificate of the R.S.I., as well as the Meat and Food Inspectors' Certificate.

With the allocation of districts we have been able to give greater attention to the abatement of nuisances, district inspections, drainage work, as well as the supervision of the places where food is prepared.

### FOOD.

Owing to the fact that all the Inspectors hold the Certificate for Meat and Food Inspection, the number of visits to the slaughter-houses, butchers' shops, Market Hall, and Fish Quay naturally show an increase on former years.

Our standard of food inspection has been well maintained; the principle governing the condemnation of diseased carcasses and organs is that scheduled in the Report of the Departmental Committee on Meat Inspection, and to which we closely adhere.

The diseases met with in practice were those fairly common throughout the country, but owing to the high grade of cattle handled by the traders of the town, and the beneficent climate under which the animals live, the quantity of diseased carcasses and organs destroyed is probably less than in many other towns of a similar size. Nevertheless, there has been an increase in the amount of food condemned, the total for the year being 18,301 $\frac{3}{4}$ lbs., compared with 11,604lbs. during the year 1923.

In previous reports I have referred to the Torquay Corporation Act, and the powers possessed by the Corporation thereunder, especially as regards the making of Bye-laws in



connection with Meat Inspection, and prevention of persons in an advanced stage of tuberculosis handling, dealing, or preparing food for consumption. The danger to the public health from this latter cause has to some extent been dealt with by the Ministry of Health prohibiting persons so suffering from handling milk. Similarly they have also issued Regulations under the Public Health Regulations as to Food Act, 1907, which will come into operation on 1st April next. These will have a very beneficial effect on the business of meat purveyors, and if they receive the support of the trade, ought vastly to improve the quality and soundness of this important article of diet. As the Regulations are somewhat revolutionary in character, I expect it will require some tact and time to ensure compliance.

I have to record that the provision of a Public Abbatoir is still an unsolved problem. In many reports the necessity for such has been urged, but for various reasons it has not yet reached concrete shape.

In view of the enforcement of the Ministry of Health's Regulations, and to carry out the requirements of the Torquay Corporation Act, it is essential that either an abbatoir or a suitable depot should be secured at the earliest possible moment, and to this end I trust the Public Health Committee will give the subject their consideration.

### SLAUGHTER-HOUSES.

These number five, four being subject to annual licensing, and the so-called public slaughter-house is registered. The premises are visited daily, and on the whole are kept in a satisfactory condition, the quarterly lime-washing and the periodic cleansing of the slaughtering cradles giving most trouble.

The lack of cooling accommodation, necessitating the slaughter of animals in close proximity to those hanging up, is a great drawback and a strong argument in favour of the provision of a public abbatoir.

Other points are the keeping of pigs, and the storage of pig-wash in close proximity to the slaughter-house,



The following Table summarises the amount of diseased or unsound food condemned, the number of carcasses examined and premises visited.

TABLE A.  
DISEASED OR UNSOUND FOOD DESTROYED.

| Organs, etc.<br>Destroyed. |               |    | DISEASES.     |         |            |          |       |            |               |           |         |               |          |         |         |      |
|----------------------------|---------------|----|---------------|---------|------------|----------|-------|------------|---------------|-----------|---------|---------------|----------|---------|---------|------|
|                            |               |    | Tuberculosis. | Flukes. | Cirrhosis. | Abscess. | Cysts | Strongyli. | Inflammation. | Pleurisy. | Injury. | Actinomycosis | Unsound. | Others. | Totals. |      |
| Beasts :                   | Lungs         | .. | —             | 9       | 8          | 1        | 2     | —          | —             | —         | —       | —             | —        | —       | 20      |      |
|                            | Livers        | .. | —             | 26      | 16         | —        | —     | —          | —             | —         | —       | —             | —        | —       | 42      |      |
|                            | Tongues       | .. | —             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | —       |      |
|                            | Heads..       | .. | —             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | —       |      |
|                            | Carcases      | .. | —             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | —       |      |
| Cows :                     | Lungs         | .. | 17            | —       | —          | —        | —     | —          | —             | —         | —       | —             | 2        | —       | 19      |      |
|                            | Livers..      | .. | 15            | 18      | 6          | 2        | —     | —          | —             | —         | —       | —             | 7        | —       | 48      |      |
|                            | Tongues       | .. | 1             | —       | —          | —        | —     | —          | —             | —         | —       | —             | 2        | —       | 3       |      |
|                            | Heads         | .. | 4             | —       | —          | —        | —     | —          | —             | —         | —       | —             | 2        | —       | 6       |      |
|                            | Carcases      | .. | 3             | —       | —          | —        | —     | —          | —             | —         | —       | —             | 2        | —       | 5       |      |
| Heifers :                  | Lungs         | .. | 2             | —       | —          | 2        | —     | —          | —             | —         | —       | —             | —        | —       | 4       |      |
|                            | Livers        | .. | 2             | 22      | 3          | 1        | —     | —          | —             | —         | —       | —             | 2        | —       | 30      |      |
|                            | Tongues       | .. | 1             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | 1       |      |
|                            | Heads         | .. | 2             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | 2       |      |
|                            | Carcases      | .. | 1             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | 1       |      |
| Calf Carcase               |               | .. | 1             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | 1       |      |
| Sheep :                    | Lungs         | .. | —             | —       | —          | 3        | —     | 438        | 20            | 1         | 1       | —             | —        | 2       | 465     |      |
|                            | Livers..      | .. | —             | 159     | —          | 237      | 2     | —          | 4             | —         | —       | —             | —        | —       | 402     |      |
|                            | Heads         | .. | —             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | —       | —       |      |
|                            | Carcases      | .. | —             | —       | —          | —        | —     | —          | —             | 1         | —       | —             | —        | 3       | 4       |      |
| Pigs :                     | Lungs         | .. | 16            | —       | —          | —        | —     | 7          | 45            | 6         | —       | —             | 3        | 6       | 83      |      |
|                            | Livers        | .. | 16            | —       | 6          | 2        | 7     | 3          | 3             | —         | —       | —             | 5        | 7       | 49      |      |
|                            | Heads         | .. | 144           | —       | —          | 2        | —     | —          | —             | —         | —       | —             | —        | 8       | 154     |      |
|                            | Carcases      | .. | 5             | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | 10      | 15      |      |
| Other Organs :             |               |    |               |         |            |          |       |            |               |           |         |               |          |         |         |      |
|                            | Mesenteries   | .. | 21            | —       | —          | 1        | —     | —          | —             | —         | —       | —             | —        | 7       | 29      |      |
|                            | Spleens       | .. | 15            | —       | —          | —        | —     | —          | —             | —         | —       | —             | 2        | 5       | 22      |      |
|                            | Stomachs      | .. | 16            | —       | —          | —        | —     | —          | —             | —         | —       | —             | —        | 8       | 24      |      |
|                            | Miscellaneous | .. | 13            | —       | —          | 9        | 2     | —          | 8             | 1         | 4       | —             | 10       | 12      | 59      |      |
| Other Foods                |               | .. | —             | —       | —          | —        | —     | —          | —             | —         | 4       | —             | 26       | —       | 30      |      |
| Frozen Meat                |               | .. | —             | —       | —          | —        | —     | —          | —             | 1         | 40      | —             | 125      | 63      | 229     |      |
| Totals                     |               |    | ..            | 295     | 234        | 39       | 260   | 13         | 448           | 80        | 10      | 49            | —        | 171     | 148     | 1747 |



TABLE B.

*Carcases Examined.*

| 1924.        |          |     |     | 1923.        |
|--------------|----------|-----|-----|--------------|
| 805          | Bullocks | ... | ... | 532          |
| 281          | Cows     | ... | ... | 372          |
| 888          | Heifers  | ... | ... | 604          |
| 9244         | Sheep    | ... | ... | 5989         |
| 4339         | Pigs     | ... | ... | 2496         |
| 1493         | Calves   | ... | ... | 1187         |
| 19           | Lambs    | ... | ... | 35           |
| <u>17069</u> |          |     |     | <u>11215</u> |

TABLE C.

*Carcases Destroyed.*

|         |                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------|
| 5 Cows  | Johne's disease, 2; Tuberculosis, 3                                                                               |
| 15 Pigs | Tuberculosis, 5; Swine fever, 3; Septic Pneumonia, 1<br>Anæmia, 1; Peritonitis, 1; Emaciation and Malnutrition, 4 |
| 2 Sheep | Pleurisy, 1; Fevered, 1                                                                                           |
| 7 Lambs | (Frozen), Moulds                                                                                                  |
| 1 Calf  | Congenital Tuberculosis                                                                                           |

TABLE D.

*Number of Carcases Examined in the different Slaughter-houses in the Borough.*

| No.      | Bullocks. | Cows. | Heifers. | Sheep. | Pigs. | Calves. | Total. |
|----------|-----------|-------|----------|--------|-------|---------|--------|
| 1        | —         | 1     | —        | —      | 13    | —       | 14     |
| 2        | 8         | 15    | 19       | 78     | 61    | 10      | 191    |
| 3        | 7         | 11    | 17       | 35     | 49    | —       | 119    |
| 4        | 61        | 30    | 54       | 530    | 94    | 72      | 841    |
| Abattoir | 159       | 43    | 160      | 2760   | 1699  | 937     | 5758   |
| Totals   | 235       | 100   | 250      | 3403   | 1916  | 1019    | 6923   |

TABLE E.

*Total number of Carcases Examined in different Slaughter-houses and Shops.*

|                  |     |     |              |
|------------------|-----|-----|--------------|
| Slaughter-houses | ... | ... | 6923         |
| Shops            | ... | ... | 10146        |
|                  |     |     | <u>17069</u> |

TABLE F.

*Diseased or Unsound Food Destroyed.*

| 1924. |       |      |      |                                | 1923. |       |      |      |
|-------|-------|------|------|--------------------------------|-------|-------|------|------|
| Tons. | cwts. | qrs. | lbs. |                                | Tons. | cwts. | qrs. | lbs. |
| 4     | 7     | 1    | 15½  | Voluntarily surrendered        | 2     | 4     | 3    | 23   |
| 2     | 17    | 1    | 20½  | Surrendered (after inspection) | 2     | 13    | 3    | 5½   |
| 0     | 9     | 2    | 17¾  | Seized                         | 0     | 4     | 3    | 11½  |
| 7     | 14    | 1    | 25¾  | Totals                         | 5     | 3     | 2    | 12   |



TABLE G.

*Percentage of Animals Inspected found affected with Tuberculosis.*

|          |        |      |   |        |
|----------|--------|------|---|--------|
| Bullocks | 0 in   | 805  | = | 0.00 % |
| Cows     | 15 in  | 281  | = | 5.33 % |
| Heifers  | 1 in   | 888  | = | 0.11 % |
| Calves   | 1 in   | 1493 | = | 0.06 % |
| Pigs     | 128 in | 4332 | = | 2.94 % |

**DAIRIES, COWSHEDS, AND MILKSHOPS.**

Registered dairymen and cowkeepers in the Borough number 85. These premises are visited at least twice annually, but the majority are inspected quarterly. On the whole we have little to complain of. Cleanliness is generally well maintained, but the covering of the milk when exposed for sale in the shop, and the use of old vessels that are difficult to clean, are matters frequently requiring attention.

There is a very large quantity of milk supplied to Torquay from farms outside the Borough, and, as in former years, I, or the Sanitary Inspector, have inspected approximately 110 farms. In every instance the dairies, both as regards position and cleanliness, were all one could desire, but one would like to see greater care and interest taken in the cleanliness of the cows, farmyards and cowsheds.

It is quite evident that at least the older type of dairy farmer considers that what he doesn't know about milk is not worth knowing. His attitude to any discussion on the bacterial contents of milk, and cleanliness in production, etc., is similar to what one would adopt in humouring a garrouly drunk individual or a lunatic. It is impossible to persuade him that he is not carrying out cleanliness in its widest sense, and any little imperfection shown can always be nullified by the use of the strainer. He can see no sense in the use of clean overalls: the ancient filthy cap, the apron which will not stand the light of day, and the manure-caked milking stool, etc., are quite good enough for him. If he will not try to see the necessity for cleanliness, the time has come when he must be forced to see it. The argument is often used that by enforcing clean methods we raise the cost of production, and possibly destroy the dairy farming industry. I maintain that clean milk can be produced at no exorbitant expense. It is being done by many dairy farmers, and should be done



by all. Dirt in any other article of food would not be permitted, and why should milk be an exception? For some time past I have been carrying out the bacteriological examination of graded milk and ordinary milk. The results show the extraordinary difference in the number of organisms present (usually four or five times more numerous in the latter), and it is rare to find an ordinary milk which does not show the presence of *Bacillus Coli* in all dilutions. Clean Milk Production Competitions, carried out in ordinary cowsheds, have proved that this can with a little trouble be overcome. I trust that it will not be long before the Government will introduce a bacteriological standard for ordinary milk. If producers object, let them give up the production. It is better to have smaller quantities of clean milk than greater supplies of dirty. I feel that the effect of dirty milk in producing disease is much under-estimated. There is no doubt that the difficulty in obtaining a reasonably clean milk is causing many doctors to advise the use of powdered milk. This certainly sterilises the milk, but it is well known that the constant use of dried milk tends to produce rickets. Again, pasturisation is suggested as a method of attaining safety. I hold that both these substitutes for clean milk are merely palliatives, and their use ought not to be necessary. Why should the consumer have to use milk containing filth, either in a dried or boiled form? If water in a turbid form was furnished to the public drastic action would soon be taken to enforce the provision of a clean and pure supply. It is evidently a case of what the eye does not see.

The Town Council have taken the initiative in stipulating that all milk sold in their establishments (the Pavilion Café, Beach Café, and the Medical Baths) shall be Grade "A." The Education Authority also purchase Grade "A" Milk for use in the Secondary and Open-Air Schools.

During the year a local producer has complied with the requirements of the Ministry of Health as regards his cowsheds, freedom of the cows from Tuberculosis, and the production of milk under clean conditions; and has been granted a Certificate as a producer of Certified Milk, the highest quality obtainable. Although this has entailed capital expenditure, I believe he is satisfied with the return on his outlay.



Two dairymen are licensed to bottle Grade "A" Milk on their premises, whilst more have distributors' licences.

Although much is being done by the medical profession and the Health Department, I am not yet satisfied that the demand for graded pure milk is what it ought to be, but it is increasing. All hospitals should insist on its use.

We hear much now-a-days on the value of advertisement, especially if it is concerning a sound article. Dealers in pure milk should push the sale of this commodity; tradesmen in other lines of business do not hesitate to advertise their goods.

#### MILK AND CREAM REGULATIONS.

#### SALE OF FOOD AND DRUGS ACT.

These Regulations are enforced by the County Police, who also take samples. Through the courtesy of Superintendent Eddy I am enabled to give the following results:—

| Sample taken. | No. | Result of Analysis. |              | Result of Proceedings<br>(if any). |
|---------------|-----|---------------------|--------------|------------------------------------|
|               |     | Genuine             | Not Genuine. |                                    |
| New Milk      | 34  | 33                  | 1            | Case dismissed                     |
| Cream         | 2   | 2                   | —            | —                                  |
| Butter        | 6   | 6                   | —            | —                                  |
| Margarine     | 4   | 4                   | —            | —                                  |
| Lard          | 4   | 4                   | —            | —                                  |
| Cocoa         | 3   | 3                   | —            | —                                  |
| Arrowroot     | 2   | 2                   | —            | —                                  |
| Baking Powder | 2   | 2                   | —            | —                                  |
| Oatmeal       | 1   | 1                   | —            | —                                  |
| Ground Ginger | 1   | 1                   | —            | —                                  |
| Mustard       | 1   | 1                   | —            | —                                  |
| Coffee        | 2   | 2                   | —            | —                                  |
| Sponge Cake   | 2   | 2                   | —            | —                                  |
| Vinegar       | 1   | 1                   | —            | —                                  |



## SANITARY INSPECTION OF THE DISTRICT.

## SUMMARY OF SANITARY INSPECTORS' WORK.

|                                                            |   |   |   |      |
|------------------------------------------------------------|---|---|---|------|
| Houses inspected                                           | - | - | - | 455  |
| Houses visited                                             | - | - | - | 1001 |
| Special visits <i>re</i> insanitary area                   | - | - | - | 66   |
| Dirty premises limewashed and cleansed                     | - | - | - | 69   |
| Rooms disinfected                                          | - | - | - | 185  |
| Cases of overcrowding abated                               | - | - | - | 13   |
| Defective floors repaired                                  | - | - | - | 29   |
| Water supply laid direct from main to tap over sink        | - | - | - | 11   |
| Defective yards re-paved                                   | - | - | - | 14   |
| Lighted and ventilated rooms                               | - | - | - | 5    |
| External plastering repaired                               | - | - | - | 28   |
| Internal " "                                               | - | - | - | 25   |
| Stoves repaired                                            | - | - | - | 21   |
| Chimney stacks repaired                                    | - | - | - | 2    |
| Coppers repaired                                           | - | - | - | 11   |
| R.W.P.'s and gutters repaired                              | - | - | - | 83   |
| Nuisances from keeping fowls and animals                   | - | - | - | 25   |
| Ashbins provided for house refuse                          | - | - | - | 388  |
| Roofs repaired                                             | - | - | - | 62   |
| Handrails fixed                                            | - | - | - | 16   |
| Doors and door frames repaired or renewed                  | - | - | - | 44   |
| Windows repaired or renewed                                | - | - | - | 32   |
| Yards and outbuildings cleansed                            | - | - | - | 23   |
| Smoke tests applied                                        | - | - | - | 583  |
| Water " "                                                  | - | - | - | 199  |
| New sets of house drains laid                              | - | - | - | 67   |
| Defective house drains repaired                            | - | - | - | 90   |
| Intercepting traps with fresh-air inlets fixed             | - | - | - | 63   |
| Old "Mason's" and other old type of traps abolished        | - | - | - | 49   |
| Inspection chamber to drains built                         | - | - | - | 119  |
| Drains ventilated at head of system                        | - | - | - | 74   |
| New sanitary conveniences with water supply fixed          | - | - | - | 124  |
| Soil pipes fixed outside buildings and ventilated          | - | - | - | 47   |
| Iron and brick traps removed and earthenware gullies fixed | - | - | - | 156  |
| Waste pipes from baths, lavatories, and sinks trapped      | - | - | - | 98   |
| Choked drains cleared                                      | - | - | - | 64   |
| Defective w.c. cisterns repaired or new provided           | - | - | - | 106  |
| W.C.'s repaired and cleansed                               | - | - | - | 85   |
| Glazed sinks fixed                                         | - | - | - | 58   |
| Houses closed as unfit for human habitation                | - | - | - | 1    |
| Underground sleeping place abolished                       | - | - | - | 1    |
| Workshops visited                                          | - | - | - | 288  |
| Workshop notices                                           | - | - | - | 54   |
| Houses repaired                                            | - | - | - | 298  |
| Sanitary certificates granted                              | - | - | - | 21   |
| Visits to piggeries                                        | - | - | - | 7    |
| " " stables                                                | - | - | - | 18   |
| Visits to common lodging houses                            | - | - | - | 22   |
| Visits to public elementary schools                        | - | - | - | 56   |
| Offensive accumulations removed                            | - | - | - | 40   |
| Nuisances from stables and manure pits abated              | - | - | - | 6    |
| Miscellaneous repairs                                      | - | - | - | 147  |
| Re-visits in connection with above work                    | - | - | - | 2313 |



|                                                                          |   |   |   |   |                           |
|--------------------------------------------------------------------------|---|---|---|---|---------------------------|
| Legal notices                                                            | - | - | - | - | 26                        |
| Preliminary notices served                                               | - | - | - | - | 953                       |
| Letters and communications in connection with the work of the department | - | - | - | - | 1985                      |
| Verbal notices                                                           | - | - | - | - | 151                       |
| Written complaints                                                       | - | - | - | - | 129                       |
| Verbal complaints                                                        | - | - | - | - | 132                       |
| Slaughter-houses visited                                                 | - | - | - | - | 1503                      |
| Butchers' shops                                                          | „ | - | - | - | 2098                      |
| Butchers' carts                                                          | „ | - | - | - | 47                        |
| Fish Quay                                                                | „ | - | - | - | 197                       |
| Railway siding                                                           | „ | - | - | - | 65                        |
| Market                                                                   | „ | - | - | - | 60                        |
| Other shops                                                              | „ | - | - | - | 149                       |
| Carcases inspected                                                       | - | - | - | - | 17,069                    |
| Weight of food destroyed                                                 | - | - | - | - | 18,301 $\frac{3}{4}$ lbs. |
| Number of vessels inspected                                              | - | - | - | - | 245                       |
| Visits to dairies and cowsheds                                           | - | - | - | - | -                         |
| Disinfectants supplied                                                   | - | - | - | - | 1500                      |
| Conveniences inspected                                                   | - | - | - | - | 40                        |
| Caravans and tents inspected                                             | - | - | - | - | 12                        |
| Samples of milk for analysis                                             | - | - | - | - | 34                        |

## CONTAGIOUS DISEASES (ANIMALS) ACTS.

The diseases scheduled under this Act are Foot and Mouth Disease, Swine Fever, Epizootic Abortion, etc., etc.

During the year we have examined bacteriologically several cases of Anthrax, Mange and other diseases of animals, several specimens being submitted by local Veterinary Surgeons, none of the specimens however were found to be affected with disease within the meaning of the Act.

### SWINE FEVER.

Two outbreaks were notified, but only one was confirmed. A total of nine pigs died or were slaughtered and destroyed owing to the disease.

### PARASITIC MANGE.

Two cases were reported, affecting two animals. One horse was destroyed, while the other recovered from the disease.

## INSECT PEST ACTS.

No cases notified or diseases detected.



## RATS AND MICE (DESTRUCTION) ACT.

During the year 527 premises were visited in connection with the Order, and 3727 baits applied ; of this number 75 premises were treated and 1532 baits supplied during Rat Week.

That our organised campaign during Rat Week and the treatment of rat infested premises has been a success is undoubted, but the difficulties associated with the extermination of the pests here differs considerably to many inland towns and coast resorts. The vast extent of cliffs, beaches and vegetation provides ideal shelter from the elements and the assaults of man and dogs. It is in these strongholds that the rodents breed, and from whence they find their way to the dwellings and premises in the neighbourhood.

The supply of suitable poisons at a nominal charge is to be encouraged, not only in the interests of rat extermination, but the subsequent inspection leads to the abatement of other nuisances. Barium carbonate and oatmeal and other similar preparations are the poisons we have found most successful and safe in operation.

## FISH AND CHIP SHOPS.

Number on register, 22. These have been periodically inspected, and were generally found satisfactory. Only one is badly lighted and ventilated, but cleanliness so far as circumstances will allow is maintained.

## OTHER OFFENSIVE TRADES.

One tripe boiler and five marine store dealers are on the register. Apart from an occasional accumulation of bones and rabbit skins, they have caused little trouble.

## SANITARY CERTIFICATES.

During the year 39 premises were inspected and drains tested, while 21 Certificates have been granted. The practice of granting Certificates where the requirements laid down by the Health Committee have been carried out is of considerable benefit to the many hotels and boarding houses in the town, whilst many visitors require such certificates before taking possession of furnished houses.



## PORT SANITARY INSPECTION.

As far as possible all trading vessels are boarded and inspected on arrival, special attention being paid to those from foreign ports as to the freedom of illness among the crews and presence of rats and other vermin.

One case of illness was reported ; this, on investigation, was not of an infectious nature, the patient being removed to the Torbay Hospital for treatment.

No trouble was experienced with rats. The small foreign boats calling here, usually with cargoes of potatoes and other vegetables, have so few enclosed spaces that breeding is practically impossible, whilst the larger vessels are mostly confined to coal, timber, bricks, cement, and similar merchandise, rats are soon starved out.

## PORT SANITARY WORK.

During the year 1924 the amount of shipping entering the Harbour was as follows :—

### *Foreign—*

|                |    |             |       |
|----------------|----|-------------|-------|
| Steamers ...   | 7  | Tonnage ... | 1,292 |
| Sailing ...    | 20 | „ ...       | 1,994 |
| Motor ...      | 64 | „ ...       | 3,272 |
| <hr/>          |    | <hr/>       |       |
| Total ships... | 91 | „ ...       | 6,558 |
| <hr/>          |    | <hr/>       |       |

### *Inspected—*

|              |   |                                |    |
|--------------|---|--------------------------------|----|
| Steamers ... | 6 | Sailing and Motor<br>Ships ... | 31 |
|--------------|---|--------------------------------|----|

### *Coastwise—*

|              |     |             |        |
|--------------|-----|-------------|--------|
| Steamers ... | 45  | Tonnage ... | 13,052 |
| Sailing ...  | 139 | „ ...       | 4,933  |
| Motor ...    | 24  | „ ...       | 2,041  |
| <hr/>        |     | <hr/>       |        |
| 208          |     | „           | 20,026 |
| <hr/>        |     | <hr/>       |        |

### *Inspected—*

|              |    |                                |    |
|--------------|----|--------------------------------|----|
| Steamers ... | 23 | Sailing and Motor<br>Ships ... | 31 |
|--------------|----|--------------------------------|----|



Coastwise ships include pleasure steamers, sand and cement barges. During the summer season the former enter the Harbour several times a day, and the latter several times weekly throughout the year; consequently only occasional inspections are required.

The vessels inspected have generally been found clean and in a satisfactory condition. The few defects found—such as slight leakage around combings of hatchways and cleanliness of firemen's quarters—were at once attended to when brought to the notice of the Captain.

### FACTORIES AND WORKSHOPS.

During the year 288 Workshops and Factories were inspected. Each Inspector deals with these premises situated in his area, and as far as possible periodical inspections are made, but owing to changes in the staff this inspection has not been as complete as desirable. On the whole not much has been found to complain of, and usually verbal notices are sufficient to abate any nuisances detected.

### FACTORIES AND WORKSHOPS.

#### 1. INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Including Inspections made by Sanitary Inspectors of Nuisances.

| Premises.                                       | Number of    |                  |               |
|-------------------------------------------------|--------------|------------------|---------------|
|                                                 | Inspections. | Written Notices. | Prosecutions. |
| Factories<br>(including Factory Laundries) -    | 18           | —                | Nil           |
| Workshops<br>(including Workshop „ ) -          | 209          | 2                | Nil           |
| Workplaces<br>(other than Outworkers' Premises) | 61           | —                | Nil           |
| Total - - -                                     | 288          | 2                | Nil           |



## 2. DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.

| Particulars.                     | Number of Defects.      |           |                                   |
|----------------------------------|-------------------------|-----------|-----------------------------------|
|                                  | Found.                  | Remedied. | Referred to<br>H.M.<br>Inspector. |
| *Nuisances under the P.H. Acts—  |                         |           |                                   |
| Want of Cleanliness - -          | ‡39                     | 37        | —                                 |
| Want of Ventilation - -          | 1                       | 1         | —                                 |
| Overcrowding - -                 | —                       | —         | —                                 |
| Want of Drainage of Floors -     | —                       | —         | —                                 |
| Other Nuisances - -              | 4                       | 4         | —                                 |
| Sanitary<br>Accommo-<br>dation { | Insufficient - -        | 1         | —                                 |
|                                  | Unsuitable or Defective | 9         | —                                 |
|                                  | Not Separate for Sexes  | —         | —                                 |
| Total - - -                      | 54                      | 51        | —                                 |

\* Including those specified in Sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

‡ Including 21 bakehouses.

LOCAL AND ADOPTIVE ACTS IN FORCE IN  
THE BOROUGH.

Practically all the Adoptive Acts and Regulations have been put in force by the Council, and where necessary bye-laws framed. The Local Acts are the Torquay Harbour and District Acts, 1886, and the Torquay Corporation Act, 1923, the latter being the most up-to-date sanitary measure granted by Parliament to a Local Authority.

## HOUSING.

The total number of houses which have been completed and passed for habitation during the year was 188.

On the face of it this seems satisfactory, but although many families are thus being provided with houses, it has little effect on the situation. The new occupiers are either outsiders or the places they leave are taken over by owners for their own occupation, or the houses are sold, or kept for sale with possession. None are again let at rentals.



The question of the provision of houses for families who are only in a position to pay weekly rents is very acute, and has received the constant and earnest consideration of the Housing Committee. I mentioned in last year's report that a private builder had put up 12 subsidy houses, six of which he let to families nominated by the Housing Committee. This Committee considered that such houses and any others belonging to them which became vacant should be allocated to the most necessitous cases, and believing that as Medical Officer of Health I would be in a position to ascertain these, have left the allocation to me.

I have during the past six months had over 200 applications for houses to rent, all more or less difficult cases, and in some the circumstances and conditions of living are very hard, while in a number the rooms at present occupied are not fit to live in.

The conditions are often accentuated by the occupation of the inmates; for example, the craving for girls to live at home whilst employed in daily domestic service. Occasionally one finds two or three girls living thus, who could be living under healthy conditions at their employers' houses, and leaving the sleeping accommodation in the home for the younger members.

Provision of houses at a rental by private enterprise has proved an entire failure, so the Housing Committee have felt it necessary to meet the want themselves. As an experiment, the Council have agreed to the proposal to erect three blocks of Maisonette flats (two in each) on the land adjoining the tram dépôt on St. Mary-Church Road. These it is hoped will comply with the requirements for the subsidy, and should they prove a successful venture, it is hoped to erect others in suitable areas. If a satisfactory tender can be obtained and the work pushed forward, they ought to be ready for occupation before the end of the year.

#### PIMLICO INSANITARY AREA.

Although no decision has been arrived at as to the "Improvement Scheme" for this area, a tender was accepted for building the first 25 houses (temporarily under the subsidy scheme) on the Stentiford's Hill site. The work has been



pushed forward and the houses erected, but are not yet fit for occupation. The first few months of the coming year should see this overcome, and the tenants from Pimlico in possession. The houses, in blocks of six, contain three bedrooms, living room, scullery, and bath room, while the yard space is cemented over. The rent proposed is 10s. 6d., including rates and taxes, but a flat rate of 1s. 3d. per week is made for electric light, while gas has to be paid for by the tenants.

The provision of these 25 houses will enable the worst portion of Pimlico to be cleared, and indeed not before it is time, as most of the old houses have become quite ruinous. I trust that there will be no delay in erecting the 25 remaining houses on the Westhill Estate.

Whilst the Council have to be congratulated on having dealt with this area, there can be no doubt they will have to tackle Temperance Street and Lower Union Lane with little delay. There are many houses in these districts which are in a similar condition to those in Pimlico, and are a menace to the health of the area.

#### I. UNFIT DWELLING HOUSES.

##### Inspection—

|     |                                                                                                                                                                |   |     |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----|
| (1) | Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)                                                            | - | 330 |
| (2) | Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910                                       | - | 125 |
| (3) | Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation                                       | - | 14  |
| (4) | Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation | - | 87  |

For the most part no great difficulty has been encountered in getting structural repairs carried out. Many houses have, however, been brought to our notice which are in such a state that no repairs would be effective, and indeed in which it would be unfair to the owners to force them to act. If it were not for the shortage of houses these would have been closed and demolished.



## II. REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICE.

|                                                                                                                             |     |
|-----------------------------------------------------------------------------------------------------------------------------|-----|
| Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers | 298 |
|-----------------------------------------------------------------------------------------------------------------------------|-----|

## III. ACTION UNDER STATUTORY POWERS.

|                                                                                                                                                |    |
|------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <i>a.</i> Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919 :—                                                        |    |
| (1) Number of dwelling houses in respect of which notices were served requiring repairs                                                        | 8  |
| (2) Number of dwelling houses which were rendered fit—                                                                                         |    |
| ( <i>a</i> ) by owners                                                                                                                         | 6  |
| ( <i>b</i> ) by Local Authority in default of owner                                                                                            | —  |
| (3) Number of dwelling houses in respect of which closing orders became operative in pursuance of declarations of owners of intention to close | —  |
| <i>b.</i> Proceedings under Public Health Acts :—                                                                                              |    |
| (1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied                                         | 18 |
| (2) Number of dwelling houses in which defects were remedied—                                                                                  |    |
| ( <i>a</i> ) by owners                                                                                                                         | 13 |
| ( <i>b</i> ) by Local Authority in default of owner                                                                                            | —  |
| <i>c.</i> Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909 :—                                                |    |
| (1) Number of representations made with a view to the making of Closing Orders                                                                 | 12 |
| (2) Number of dwelling houses in respect of which Closing Orders were made                                                                     | 12 |
| (3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit                 | —  |
| (4) Number of dwelling houses in respect of which Demolition Orders were made                                                                  | 1  |
| (5) Number of dwelling houses demolished in pursuance of Demolition Orders                                                                     | —  |



TABLE I.  
VITAL STATISTICS OF WHOLE DISTRICT DURING 1924 AND PREVIOUS YEARS.

| YEAR. | Population estimated to Middle of each Year. | BIRTHS.              |        |       | TOTAL DEATHS REGISTERED IN THE DISTRICT. |       | TRANSFERABLE DEATHS.                         |                                              | Nett Deaths belonging to the District. |                           |              |      |
|-------|----------------------------------------------|----------------------|--------|-------|------------------------------------------|-------|----------------------------------------------|----------------------------------------------|----------------------------------------|---------------------------|--------------|------|
|       |                                              | Un-corrected Number. | Nett.  |       | Number.                                  | Rate. | of Non-Residents registered in the District. | of Residents not registered in the District. | Under 1 year of age                    |                           | At all ages. |      |
|       |                                              |                      | Number | Rate. |                                          |       |                                              |                                              | Number.                                | Rate per 1,000 Net Births |              |      |
|       |                                              |                      |        |       |                                          |       |                                              |                                              |                                        |                           |              |      |
| 1     | 2                                            | 3                    | 4      | 5     | 6                                        | 7     | 8                                            | 9                                            | 10                                     | 11                        | 12           | 13   |
| 1914  | 39440                                        | 533                  | 542    | 13.1  | 482                                      | 12.2  | 44                                           | 54                                           | 45                                     | 83                        | 492          | 2.4  |
| 1915  | 32520                                        | 482                  | 490    | 12.4  | 543                                      | 16.6  | 59                                           | 92                                           | 41                                     | 83.6                      | 576          | 17.7 |
| 1916  | 31540                                        | 449                  | 459    | 13.3  | 554                                      | 17.2  | 65                                           | 53                                           | 43                                     | 93.7                      | 542          | 17.2 |
| 1917  | 30685                                        | 389                  | 401    | 11.7  | 562                                      | 18.3  | 88                                           | 80                                           | 26                                     | 64.8                      | 554          | 18.0 |
| 1918  | 30710                                        | 407                  | 412    | 12.0  | 597                                      | 19.4  | 85                                           | 110                                          | 31                                     | 75                        | 622          | 20.2 |
| 1919  | 33374                                        | 517                  | 531    | 15.2  | 501                                      | 15.0  | 60                                           | 63                                           | 25                                     | 47                        | 501          | 15.1 |
| 1920  | 34703                                        | 643                  | 657    | 18.6  | 505                                      | 14.5  | 57                                           | 62                                           | 34                                     | 53                        | 510          | 14.7 |
| 1921  | 33600                                        | 533                  | 542    | 16.1  | 529                                      | 15.7  | 73                                           | 69                                           | 44                                     | 81                        | 533          | 15.8 |
| 1922  | 33690                                        | 495                  | 490    | 14.5  | 581                                      | 17.2  | 66                                           | 77                                           | 23                                     | 47                        | 592          | 17.5 |
| 1923  | 34100                                        | 503                  | 488    | 14.3  | 532                                      | 15.6  | 68                                           | 52                                           | 24                                     | 49                        | 516          | 15.1 |
| 1924  | 34940                                        | 514                  | 521    | 14.9  | 548                                      | 15.6  | 75                                           | 84                                           | 28                                     | 53                        | 557          | 15.9 |



TABLE II.

## CASES NOTIFIED DURING THE YEAR 1924.

| NOTIFIABLE DISEASE.       | Number of Cases notified. |                |        |         |          |          |          | Total cases notified in each locality. |        |       |          |        |         |            |            | Total cases removed to hospital. |          |                |
|---------------------------|---------------------------|----------------|--------|---------|----------|----------|----------|----------------------------------------|--------|-------|----------|--------|---------|------------|------------|----------------------------------|----------|----------------|
|                           | At all ages.              | At Ages—Years. |        |         |          |          |          | Torre                                  | Waldon | Upton | Ellacmbe | Strand | Torwood | St. M.C.P. | Babbacombe |                                  | Chelston |                |
|                           |                           | Under 1        | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 45 | 45 to 65 |                                        |        |       |          |        |         |            |            |                                  |          | 65 and upwards |
| Small-pox ..              | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Cholera ..                | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Diphtheria, incl'd g      | 10                        | 1              | 6      | 2       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Membranous croup          | 5                         | —              | —      | —       | —        | —        | 2        | —                                      | —      | —     | —        | —      | —       | —          | —          | 3                                | —        | 6              |
| Erysipelas ..             | 84                        | 9              | 54     | 15      | 5        | 3        | 1        | —                                      | 5      | 15    | 19       | 10     | 3       | 11         | 10         | 1                                | —        | 68             |
| Scarlet fever ..          | 4                         | —              | 1      | 2       | —        | —        | —        | —                                      | —      | —     | —        | 1      | 1       | 2          | —          | —                                | —        | —              |
| Enteric fever ..          | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Typhus fever ..           | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Relapsing fever ..        | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Continued fever ..        | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Puerperal fever ..        | 1                         | —              | —      | —       | —        | 1        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Cerebro-spinal ..         | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Menigitis ..              | 1                         | —              | —      | 1       | —        | —        | —        | —                                      | —      | —     | 1        | —      | —       | —          | —          | —                                | —        | —              |
| Poliomyelitis ..          | 2                         | —              | 1      | —       | —        | 1        | —        | —                                      | —      | —     | 2        | —      | —       | —          | —          | —                                | —        | —              |
| Ophthalmia ..             | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Neonatorum ..             | 5                         | 5              | —      | —       | —        | —        | —        | —                                      | 3      | 1     | —        | 1      | —       | —          | —          | —                                | —        | —              |
| Encephalitis ..           | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Lethargica ..             | 2                         | —              | —      | —       | —        | 1        | 1        | —                                      | —      | —     | —        | 1      | —       | 1          | —          | —                                | —        | —              |
| Pulmonary Tuberculosis .. | 72                        | —              | 7      | 16      | 26       | —        | 22       | 1                                      | 8      | 5     | 19       | 11     | 8       | 3          | 8          | 2                                | —        | —              |
| Other forms of ..         | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Tuberculosis ..           | 10                        | 1              | 3      | 2       | 2        | —        | —        | 1                                      | —      | 1     | 2        | —      | —       | 3          | 2          | —                                | —        | —              |
| Pneumonia ..              | 14                        | —              | —      | 3       | 8        | —        | 3        | —                                      | —      | 2     | 3        | 2      | —       | 1          | —          | —                                | —        | —              |
| Malaria ..                | —                         | —              | —      | —       | —        | —        | —        | —                                      | —      | —     | —        | —      | —       | —          | —          | —                                | —        | —              |
| Totals ..                 | 210                       | 7              | 12     | 71      | 41       | 48       | 29       | 2                                      | 28     | 18    | 26       | 48     | 26      | 12         | 24         | 23                               | 5        | 74             |



TABLE III. CAUSES OF, AND AGES AT DEATH DURING THE  
YEAR 1924. (see Notes next page).

| CAUSES OF DEATH.                                                   | Net deaths at the subjoined ages of Residents whether occurring within or without the District. |         |               |               |                 |                |                |                |               | Total Deaths whether of Residents or non Residents in Institutions in the District |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------|---------------|---------------|-----------------|----------------|----------------|----------------|---------------|------------------------------------------------------------------------------------|
|                                                                    | All ages                                                                                        | under 1 | 1 and under 2 | 2 and under 5 | 5 and under 15. | 15 & under 25. | 25 & under 45. | 45 & under 65. | 65 & up-wards |                                                                                    |
| All causes { Certified<br>{ Uncertified                            | 522<br>35                                                                                       | 26<br>2 | 3<br>—        | 3<br>1        | 5<br>1          | 11<br>—        | 44<br>5        | 135<br>16      | 295<br>10     | 102<br>9                                                                           |
| Enteric Fever ..                                                   | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Small-pox ..                                                       | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Measles ..                                                         | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Scarlet Fever ..                                                   | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Whooping-cough ..                                                  | 1                                                                                               | —       | —             | 1             | —               | —              | —              | —              | —             | —                                                                                  |
| Diphtheria & Croup                                                 | 1                                                                                               | —       | —             | —             | 1               | —              | —              | —              | —             | —                                                                                  |
| Influenza ..                                                       | 14                                                                                              | 1       | —             | —             | —               | —              | 6              | 2              | 5             | 3                                                                                  |
| Encephalitis                                                       | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Lethargica ..                                                      | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Meningococcal                                                      | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Meningitis ..                                                      | 1                                                                                               | —       | —             | —             | —               | —              | —              | —              | 1             | —                                                                                  |
| Phthisis (Pulmonary Tuberculosis) ..                               | 34                                                                                              | —       | —             | —             | —               | 3              | 17             | 13             | 1             | 26                                                                                 |
| Other tuberculous diseases ..                                      | 12                                                                                              | —       | 1             | —             | 1               | 2              | 3              | 2              | 3             | 5                                                                                  |
| Cancer, malignant disease ..                                       | 71                                                                                              | —       | —             | —             | —               | —              | 4              | 31             | 36            | 13                                                                                 |
| Rheumatic Fever ..                                                 | 3                                                                                               | —       | —             | —             | 1               | 1              | —              | —              | 1             | —                                                                                  |
| Diabetes ..                                                        | 3                                                                                               | —       | —             | —             | —               | —              | —              | —              | 3             | 1                                                                                  |
| Cerebral                                                           | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Hæmorrhage ..                                                      | 36                                                                                              | —       | —             | —             | —               | —              | 1              | 8              | 27            | 3                                                                                  |
| Organic Heart                                                      | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Disease ..                                                         | 91                                                                                              | —       | —             | —             | 1               | 1              | 3              | 28             | 58            | 6                                                                                  |
| Arterio-Sclerosis ..                                               | 53                                                                                              | —       | —             | —             | —               | —              | —              | 7              | 46            | 7                                                                                  |
| Bronchitis ..                                                      | 61                                                                                              | 3       | 1             | 1             | —               | —              | 1              | 3              | 52            | 6                                                                                  |
| Pneumonia, all forms                                               | 22                                                                                              | 3       | 1             | —             | —               | —              | 2              | 8              | 8             | 7                                                                                  |
| Other Diseases of Respiratory Organs                               | 13                                                                                              | —       | —             | —             | 1               | 1              | 1              | 5              | 5             | 4                                                                                  |
| Ulcer of Stomach or Duodenum ..                                    | 1                                                                                               | —       | —             | —             | —               | —              | —              | 1              | —             | —                                                                                  |
| Diarrhœa, etc. (under 2 years) ..                                  | 1                                                                                               | 1       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Appendicitis and Typhlitis ..                                      | 4                                                                                               | —       | —             | —             | —               | —              | —              | 1              | 3             | 1                                                                                  |
| Cirrhosis of liver ..                                              | 2                                                                                               | —       | —             | —             | —               | —              | —              | 1              | 1             | —                                                                                  |
| Nephritis and Bright's Disease ..                                  | 17                                                                                              | —       | —             | —             | —               | 1              | 2              | 7              | 7             | 5                                                                                  |
| Puerperal Fever ..                                                 | —                                                                                               | —       | —             | —             | —               | —              | —              | —              | —             | —                                                                                  |
| Other accidents and diseases of Pregnancy and Parturition ..       | 1                                                                                               | —       | —             | —             | —               | —              | 1              | —              | —             | —                                                                                  |
| Congenital Debility and Malformation, including Premature Birth .. | 16                                                                                              | 16      | —             | —             | —               | —              | —              | —              | —             | 1                                                                                  |
| Suicide ..                                                         | 2                                                                                               | —       | —             | —             | —               | —              | 1              | 1              | —             | —                                                                                  |
| Violent Deaths, excluding Suicide ..                               | 10                                                                                              | 1       | —             | —             | —               | —              | 2              | 4              | 3             | 8                                                                                  |
| Other Defined Diseases ..                                          | 86                                                                                              | 3       | —             | 2             | 1               | 2              | 4              | 29             | 45            | 15                                                                                 |
| Diseases ill-defined or unknown ..                                 | 1                                                                                               | —       | —             | —             | —               | —              | 1              | —              | —             | —                                                                                  |
|                                                                    | 557                                                                                             | 28      | 3             | 4             | 6               | 11             | 49             | 151            | 305           | 111                                                                                |



## NOTES TO TABLE III.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death.

- (a) All "transferable deaths" of residents, *i.e.*, of persons resident in the district who have died outside it, are *included* with the other deaths in column 2—10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the district are in like manner *excluded* from these columns.

The total deaths in column 2 of Table III. should equal the figures for the year in column 12 of Table I.

- (b) All deaths occurring in institutions for the sick and infirm situated in the district, whether of residents or non-residents, are to be entered in the last column of Table III.
- (c) All deaths certified by registered medical practitioners, and all inquest cases, are to be classed as "Certified;" all other deaths are to be regarded as "Uncertified."
- (d) Exclusive of "Tuberculous Meningitis" (10), but inclusive of Cerebro Spinal Meningitis.
- (e) Title 19 should be used for deaths from Diarrhoea and Enteritis at all ages. (In the "Short List" deaths from Diarrhoea and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28).



TABLE IV.

## INFANT MORTALITY DURING THE YEAR 1924.

NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

| CAUSES OF DEATH.                      |                  | Under 1 Week. | 1-2 Weeks. | 2-3 Weeks. | 3-4 Weeks. | Total under 1 Month. | 1-3 Months. | 3-6 Months. | 6-9 Months. | 9-12 Months. | Total Deaths under One Year. |
|---------------------------------------|------------------|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|--------------|------------------------------|
| ALL CAUSES.                           | { Certified ..   | 13            | -          | 2          | 1          | 16                   | 5           | 2           | 5           | -            | 28                           |
|                                       | { Uncertified .. | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Small-pox .. ..                       |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Chicken-pox .. ..                     |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Measles .. ..                         |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Scarlet Fever .. ..                   |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Whooping Cough .. ..                  |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Diphtheria and Croup .. ..            |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Erysipelas .. ..                      |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Tuberculosis Meningitis .. ..         |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Abdominal Tuberculosis .. ..          |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Other Tuberculosis .. ..              |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Diseases .. ..                        |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Meningitis .. ..                      |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| (not Tuberculous) .. ..               |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Convulsions .. ..                     |                  | 1             | -          | -          | -          | 1                    | -           | -           | 1           | -            | 2                            |
| Laryngitis .. ..                      |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Bronchitis .. ..                      |                  | -             | -          | -          | -          | -                    | 2           | -           | 1           | -            | 3                            |
| Pneumonia (all forms) .. ..           |                  | -             | -          | -          | -          | -                    | -           | 1           | 2           | -            | 3                            |
| Diarrhoea .. ..                       |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Enteritis .. ..                       |                  | -             | -          | -          | -          | -                    | 1           | -           | -           | -            | 1                            |
| Gastritis .. ..                       |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Syphilis .. ..                        |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Rickets .. ..                         |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Suffocation, overlying .. ..          |                  | -             | -          | -          | -          | -                    | 1           | -           | -           | -            | 1                            |
| Injury at Birth .. ..                 |                  | -             | -          | -          | -          | -                    | -           | -           | -           | -            | -                            |
| Atelectasis .. ..                     |                  | 3             | -          | -          | -          | 3                    | -           | -           | -           | -            | 3                            |
| Congenital Malformations .. ..        |                  | 2             | -          | -          | -          | 2                    | -           | -           | -           | -            | 2                            |
| Premature Birth .. ..                 |                  | 6             | -          | 2          | 1          | 9                    | -           | -           | -           | -            | 9                            |
| Debility, Atrophy, and Marasmus .. .. |                  | -             | -          | -          | -          | -                    | 1           | -           | 1           | -            | 2                            |
| Other Causes .. ..                    |                  | 1             | -          | -          | -          | 1                    | -           | 1           | -           | -            | 2                            |
|                                       |                  | 13            | -          | 2          | 1          | 16                   | 5           | 2           | 5           | -            | 28                           |

|                         |   |                    |     |
|-------------------------|---|--------------------|-----|
| Nett Births in the year | { | Legitimate .. ..   | 485 |
|                         |   | Illegitimate .. .. | 36  |
| Nett Deaths in the year | { | Legitimate .. ..   | 28  |
|                         |   | Illegitimate .. .. | 3   |



BOROUGH OF TORQUAY.



# **Meteorological Report**

**FOR THE YEAR 1924.**

**WITH EXTREMES AND COMPARISON WITH  
AVERAGES OF PRECEDING YEARS.**

---

BY

GEO. E. BODY, F.R. Met. Soc

Borough Meteorologist.

*February 1st, 1925.*



DEPARTMENT OF AGRICULTURE



# Meteorological Report

FOR THE YEAR 1924

WITH EXTREMES AND COMPARISON WITH

AVERAGES OF PRECEDING YEARS.



GEORGE A. BODY, F.R.M.S.

London, 1925



BOROUGH OBSERVATORY,

PRINCESS PIER,

TORQUAY.

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

GENTLEMEN,

I beg to submit the following Meteorological Report for the year 1924.

Observations have been taken twice daily throughout the year, at 9 a.m. and 5 p.m. (Local Time), and 10 a.m. and 6 p.m. during Summer Time. The Readings at 9 a.m. have been posted each morning at the Observatory, Princess Pier, and various stations in the town; also at St. Marychurch Town Hall. The Evening Readings have been telegraphed, as usual, in code to the Meteorological Office, London, from whence they are distributed to the various Press Agencies for publication in the morning papers. During the Summer Season, morning telegrams were also sent to the Meteorological Office, giving particulars of the weather at 9 a.m. This information was published in several of the Evening Newspapers.

Press telegrams are forwarded to the "Western Morning News and Mercury" and "Torbay Express" every morning. The Weekly Reports, besides being sent to the Meteorological Office, are also forwarded to the "Torquay Times" and "Torquay Directory," as well as several private individuals.

A weekly and monthly review of the type of weather experienced is published in the "Torquay Directory," "Torquay Times," "Torbay Express," and "Torbay Herald."

As in past years, the Monthly Report, which shows comparison with previous years, is published in the local papers, also posted up at the Observatory and other places in the town. Copies are also forwarded to the Royal Meteorological Society, British Rainfall Organisation, and the Torquay Natural History Society. A separate Monthly Report, giving our twenty-seven instrumental and other readings twice daily, is sent to the Meteorological Office, London.



The daily, weekly, and monthly records exhibited at the Observatory with the self-recording Thermograph and Barograph, are a source of considerable interest to visitors, for it is quite a common sight during the summer months to see fifteen to twenty persons reading the records displayed and commenting on the amount of sunshine and temperature experienced here compared with other places. Many visitors, before planning their daily itinerary, wait for the daily forecast to be posted.

The scheme of insurance initiated by the Pluvias Insurance Company and various newspapers and journals leads to a careful study of the daily rainfall, and many applications have been received for copies of our rainfall statistics.

The observations are also published with others relating to the County of Devon in the Annual "Climate of Devon" Report by the Devonshire Association.

Numerous private enquiries, newspaper articles, etc., concerning the climate here have also been replied to during the year.

Considerably over a thousand telegrams, reports and communications have been despatched.

I am, Gentlemen,

Yours obediently,

GEORGE E. BODY.

## OBSERVATORY AND INSTRUMENTS.

---

Torquay is situated in North Latitude,  $50^{\circ}28'$ , and West Longitude  $3^{\circ}31'$ . The town faces south-west, being situated on the shores of Torbay. Many parts of the town lie on hills 200 to 250 feet above sea level, from which magnificent views of Torbay and Dartmoor can be obtained.

The geographical position of these hills is so situated as to protect the town from the cold winds of the north and east, whilst the River Dart to the west and south-west, the River Teign to the north, and the Bay to the south, have such a steadying effect on the climate that extremes of temperature are rare.



The Observatory is organised and maintained by the Town Council, and is under the supervision of the Meteorological Office, Air Ministry, London.

The several Barometers, Thermometers, and Rain Gauges have been verified at Kew Observatory, and are regularly examined by an Inspector on the staff of the Meteorological Office. Readings are all corrected for instrumental errors.

The Hygrometrical Results are deduced from the daily morning readings of the Dry and Wet Bulb Thermometers by means of Glaisher's Tables.

The averages for Sunshine are the result of 25 years, for Temperature and Rainfall of 48 years, and for Pressure of 40 years' observations.

The following are the instruments and appliances in regular use, those being marked by an asterisk being the property of the Torquay Natural History Society, and lent by them to the town :—

\*The **Barometer** is a Fortin standard, and is read twice daily. All readings are corrected for Temperature and reduced to sea level.

Two **Barographs**. One is placed in the window of the Observatory, and the one presented by the late Sir Thomas Bazley, Bart., is exhibited at the entrance to the Pavilion.

Two sets of **Stevenson's Screens**, each containing **Dry** and **Wet Bulb**, and **Maximum** and **Minimum Thermometers**. One of these sets is at Cary Green, where the official Temperatures for the Meteorological Office have been taken.

**Rain Gauges** are of the Snowdon pattern. They are placed, one on Cary Green, where official records are taken, and one in the Princess Gardens.

**Grass Minimum** Thermometer placed in Cary Green.

**Sunshine Recorder** is a Curtis Improved Campbell-Stokes instrument. This is situated on the cover shelter at the Southern end of the Princess Pier deck. The Sunshine Cards are forwarded at month ends to the Meteorological Office for examination and verification.

4ft. earth Thermometer is placed in the Princess Gardens Station.



# Meteorological Annual Report, 1924.

---

## JANUARY.

Wet, cloudy and unsettled weather prevailed almost throughout the month; temperatures and rainfall were above, but sunshine was below normal.

The mean maximum temperature was  $49.2^{\circ}\text{F}$ , mean minimum  $41.9^{\circ}\text{F}$ ., giving a mean temperature  $45.5^{\circ}\text{F}$ . These were  $2.1^{\circ}\text{F}$ .,  $3.6^{\circ}\text{F}$ . and  $2.8^{\circ}\text{F}$ . respectively above the averages of 48 years. The highest day temperature was  $53.5^{\circ}\text{F}$ . on the 26th, and the lowest  $40^{\circ}\text{F}$ . on the 9th. The mean daily range of temperature was only  $7.3^{\circ}\text{F}$ .

Three ground frosts and five white frosts were recorded. Sleet and snow showers on the 8th and 9th, the snow lying on the ground for nearly the whole day on the 9th, an unusual occurrence here. Humidity was below the average by 3%. Wind was variable in direction and force, but mainly West, South and North. Only one gale was recorded.

Rainfall was much above the average, the total of 4.27 inches exceeding the average of 47 years by 1.02 inches, and last year by 3.04 inches. Rain was registered on twenty days, and a trace on five days. The heaviest fall was 0.73 inches on the 8th. Past wet Januarys were: 1906, 6.21 inches; 1913, 7.22 inches; 1919, 5.67 inches; 1920, 6.20 inches; and 1922, 4.59 inches.

Barometric pressure was fairly steady, and little below previous years.

The total duration of sunshine was 61.69 hours. This was 21.81 hours less than last year, 3.89 hours above the mean of ten years, but 2.01 hours below the average of 25 years. The sunniest day was on the 25th, when 7.1 hours were registered. There were 12 sunless days during the month.



The Air Ministry characterised the month as "Mild, dull and rainy; winds light and indefinite over the S. and S.E. of England. Ground frosts were general. Snow fell in many places between the 8th and 10th. Temperatures in all districts were above normal. Rainfall in the north was below, but in the S.W. of England precipitation was about one and three-quarter times the normal. Sunshine was slightly in excess of the normal except Scotland W., England S.W., and Ireland. Fog occurred at Southampton on 29 days, and at many stations on 10 or more days."

## FEBRUARY.

Cold northerly winds, low temperature, deficiency of rainfall, sunshine above the average, but an exceptional number of ground frosts.

Colder Februarys have occurred in the past, but few, if any, could record such a long spell of keen wind.

The mean maximum temperature was  $45.8^{\circ}\text{F.}$ , mean minimum  $36.0^{\circ}\text{F.}$ , and mean temperature  $40.9^{\circ}\text{F.}$  These temperatures were: Maximum  $2.2^{\circ}\text{F.}$ , minimum  $2.7^{\circ}\text{F.}$ , and mean  $2.4^{\circ}\text{F.}$  below the average of 48 years. The absolute maximum was  $53.4^{\circ}\text{F.}$  on the 4th, and the absolute minimum  $27.0^{\circ}\text{F.}$  on the 27th. The mean daily range of temperature was  $9.8^{\circ}\text{F.}$  On twelve mornings a grass temperature of  $30.4^{\circ}\text{F.}$  or below was registered, and five occasions with a grass temperature of between  $32^{\circ}\text{F.}$  and  $30.4^{\circ}\text{F.}$  During the past thirty years there have been only five Februarys with a lower temperature, the great frost of 1895 being the most severe.

Barometric readings were at times high. The mean reading for the month was 30.082 inches, being 0.103 inches above the average for 40 years.

The month had a total rainfall of 1.35 inches; this is 6.11 inches below last year, and 1.56 inches below the average of 48 years. Recent dry years were: 1902, with 0.44 inches; 1907, 0.76 inches; 1920, 0.63 inches; and 1921, 0.27 inches. There were ten days of precipitation, whilst the heaviest fall was 0.68 inches on the 12th.

Sunshine for the month totalled 86.71 hours; this is 0.61 hours more than last year, and 1.47 hours in excess of the average. The greatest daily amount was 8.1 hours on the 17th.



The prevailing winds were North, East and West ; generally light but cold. No fog, thunder or lightning was recorded. Showers of sleet occurred on the 16th, and a slight snow shower early on the 29th.

Humidity was below the average, and visibility good.

The cold northerly and easterly winds with low temperatures were general throughout the whole of the kingdom, and although on a few days temperatures were higher in the north of Scotland than here or in the Channel Isles, it was much colder elsewhere, 10 degrees of frost and heavy snow being common up country.

The Air Ministry describes the weather as " Dull and very dry ; cold winds with snow or sleet over most of the United Kingdom about the middle of the month, serious drifts occurring in N. and N.E. Scotland. Rainfall was deficient, varying from 10 to 50% below normal. Duration of sunshine was below normal in all districts. The greatest amount of sunshine was recorded in the Scilly Isles and Cornwall."

## MARCH.

The cold weather that prevailed during January and February continued throughout the month, the cold east and south winds being without precedent. On the other hand, it was exceptionally sunny, almost free from gales, and rainfall below the average.

Barometer was generally steady, with gradual rises and falls. The mean reading was 29.782 inches ; this is 0.152 inches below the average of 40 years.

The mean maximum temperature was 48.8°F., mean minimum 38.6°F., and mean temperature 43.7°F., the latter being only 0.5°F. below the average. The highest maximum temperature was 58°F., and the lowest 30.2°F. The mean daily range of temperature was 15.2°F. Seven ground frosts were registered ; the lowest grass temperature was 26.8°F. on the 18th.

Rainfall was below and sunshine above the normal, the former being 0.68 inches below and the latter 43.97 hours above the average. The heaviest fall of rain was 0.70 inches on the 22nd, and the sunniest day was the 9th with 10.5 hours. Wet days numbered nine and sunless days three.



Wind was East and South, keen and strong at times. Snow showers occurred on the 2nd and 3rd, and wet mist or fog on the 25th and 26th.

The Ministry's report on the weather was: "Generally cold throughout the country, with snow or sleet showers in places, and a succession of ground frosts in some localities. Sunshine records were good and generally exceeded the average, whilst rainfall was less than half in many places."

## APRIL.

Unseasonable weather was fairly general; cold winds prevailed, with showers of hail, snow and sleet.

The mean maximum temperature was  $54.3^{\circ}\text{F.}$ , mean minimum  $41.4^{\circ}\text{F.}$ , and mean temperature  $47.8^{\circ}\text{F.}$  The maximum was  $1.1^{\circ}\text{F.}$  above, minimum  $2.6^{\circ}\text{F.}$ , and mean temperature  $0.8^{\circ}\text{F.}$  below last year, whilst the mean temperature was  $0.4^{\circ}\text{F.}$  below the average of 48 years.

Barometric pressure was generally low; the mean reading for the month was 29.893 inches, which is 0.026 inches below the average of 40 years.

Rainfall was above the average of 48 years, but humidity was 6% below normal. Wind was mainly West and North, light to moderate in force, but rather keen. Snow showers occurred on the 4th and 10th, and hail and sleet on four days, and thunder on the 23rd.

Sunshine was below the average; the total for the month was 175 80 hours, compared with the mean 184.95 hours for 25 years.

The Air Ministry's remarks on the weather were: "Apart from a short spell of warm weather at Easter and a few moderately warm days towards the end of the month, the temperatures were generally below normal. Thunderstorms occurred locally in S.E. England on the 26th, and gales were experienced in the Channel on the 27th, accompanied by heavy rain."

## MAY.

The month was unusually wet throughout, sunshine below the average, but with a normal temperature.

The mean maximum temperature was  $59.1^{\circ}\text{F.}$ , mean minimum  $47.8^{\circ}\text{F.}$ , and mean temperature  $53.5^{\circ}\text{F.}$  The means for 48 years are: Maximum  $60.1^{\circ}\text{F.}$ , minimum  $47.2^{\circ}\text{F.}$ , and mean temperature  $53.7^{\circ}\text{F.}$



Sunshine totalled 177.01 hours, or a difference of 52.87 hours below the average of 25 years. Previous Mays with low sunshine records are: 1916, 200.9 hours; 1919, 203.1 hours; and 1923, 209.1 hours.

Rainfall amounted to 5.03 inches, which is the highest rainfall registered for the month of May during the past 48 years, the nearest to this amount being 1891, 3.42 inches; 1898, 3.17 inches; 1903, 3.15 inches; 1907, 3.48 inches; and 1915, 3.61 inches.

Barometer readings were low; the mean of the month was 29.898 inches, which is 0.087 inches below the average.

Wind was Westerly, mild and light in force. Sea mists were exceptionally numerous, and the occurrence of three thunderstorms on the 18th was without precedent.

The Air Ministry's notes on the weather for the month were: "A most noteworthy feature of the month was the frequent occurrence of thunderstorms, which were heard on over twenty days. Temperatures fell appreciably on the 4th, and for some days the maximum remained well below 60.0°F. in England, while snow or sleet fell in some parts of Scotland. Thunderstorms occurred in London and neighbouring counties during the early hours of the 14th. Later conditions improved, and temperatures rose to 70°F. to 75°F. locally. Thunderstorms were very general on the 18th, 19th and 20th, and were accompanied by remarkably heavy rain in some cases."

## JUNE.

Unsettled throughout, cloudy, and for the first twelve days rather wet. Whilst the day temperatures were normal, many evenings and nights were cold, especially when the wind was in a Southerly quarter.

The mean maximum temperature was 64.5°F., mean minimum 52.4°F., and mean temperature 58.4°F. These temperatures coincided with the average of 48 years.

The month had the lowest sunshine record since 1912, when only 191.1 hours were registered, compared with 196.80 hours this year. This is 31.45 hours below the average.

Barometer readings were steady. The mean for the month was 30.045 inches, which is 0.013 inches higher than the average.



The total rainfall was 1.89 inches, thus exceeding the average by 0.04 inch.

The prevailing wind was West, North-West, and South, light in character, but at evening time rather chilly. Thunder was recorded on the 12th, and fog on the 25th.

The Air Ministry's notes for the month were: "Early in the month rather cool, unsettled weather continued in the south with occasional thunder. On the 13th a northerly current spread down from the Arctic region, with the result temperatures failed to rise above 50°F. in many southern districts. From the 19th onwards very little rain fell in the south-east, and the weather was for the most part fair and warm in these districts, though under the influence of depressions in the north much wind developed at times."

## JULY.

Like the preceding month conditions were generally unsettled, rainfall was in excess, but sunshine was slightly above the average.

Temperature showed little departure from normal, the mean maximum being 66.7°F., mean minimum 54.5°F., and mean temperature 60.6°F. The means for 48 years are: maximum 68.3°F., minimum 55.2°F., and mean 61.7°F. The 12th was the warmest day of the year, with a temperature of 75.2°F. This is a rather strange coincidence that the 12th of July last year was also the warmest day, then a temperature of 87.0°F. was registered, which is the highest temperature ever recorded here.

The month was one of the wettest Julys during the past 32 years. Previous records are 1894, 4.18 inches; 1904, 4.62 inches; 1918, 4.44 inches.

Hours of sunshine exceeded last July by 35 hours and the average of 25 years by 5.81 hours. Exceptional sunny Julys were 1911, 382.7 hours; 1915, 260.2 hours; 1918, 265.2 hours, and 1921, 289.3 hours.

The Barometer readings were rather low, the mean reading for the month was 29.916, or 0.090 inches below the average.

Wind was mainly West and light except on the 3rd, 5th and 17th, when heavy squalls arose. Fog was experienced early on the 15th, and thunder during the night of the 21st. Visibility was good and humidity normal.



The Air Ministry's remarks on the weather were :—" The most striking features of the weather of the month were the severe local thunderstorms and heavy rain. Weather was cool and unsettled and rainfall above the average except in E. and S.E. England. From the 9th to the 16th a spell of fine weather prevailed, temperatures rose gradually. The 12th was the hottest day of the year in most districts. London recorded 90°F., Farnboro', 85°F., and Fort Augustus, 81°F. The remainder of the month was marked by cool, unsettled weather, with heavy local rain and severe thunderstorms."

## AUGUST.

Dull and overcast skies, frequent drizzle, short periods of bright sunshine and absence of high day temperatures were the outstanding features of the month.

The month had a deficiency of sunshine below the average of 23.29 hours ; it was not, however, the cloudiest August on record, for in 1894, the total for the month was only 156.3 hours ; 1902, 177.1 hours ; 1912, 96.3 hours ; and 1922, 138.5 hours.

The mean maximum temperature was 65.5°F., mean minimum, 54.0°F., and mean temperature, 59.7°F., whilst the means for 48 years are, maximum, 67.9°F., minimum, 55.3°F., and mean 61.6°F.

Rainfall was below the average to the extent of 0.75 inches, but it was the continual drizzle more than the heaviest downpour that was so unpleasant.

Atmospheric pressure was low, but on the whole steady, the mean reading of the barometer was 29.902 inches, a difference of 0.075 inches from the average.

Wind was West, and light in force. Thunder and lightning was recorded on the 19th, 20th and 23rd. Humidity was on the high side and visibility good.

The Air Ministry's remarks on the weather were :—" The third August in five years that was dull and cool after a rainy beginning, there was a short spell of fine weather, but on the 11th a renewal of unsettled weather on the western coast set in, spreading south-east, and rain fell repeatedly. It was the frequency of precipitation rather than its magnitude which made



the month seem so unusually wet. Thunder storms were rather frequent. On the 19th torrential rain and hail fell in Somerset. There was a comparatively small range of temperature, the maximum never exceeding  $77.0^{\circ}\text{F.}$ , whilst half the stations registered nothing higher than  $70.0^{\circ}\text{F.}$

## SEPTEMBER.

Like the preceding months conditions were generally unsettled, with abundance of rain and a deficiency of sunshine. While the month is usually characterised by cool, but bright sunny days, calm moonlight nights, early morning mists and a low rainfall, few of these distinctive features occurred.

Temperatures were below normal, the mean maximum was  $63.4^{\circ}\text{F.}$ , mean minimum  $52.2^{\circ}\text{F.}$ , and mean temperature  $58.3^{\circ}\text{F.}$  The mean maximum was  $1.0^{\circ}\text{F.}$ , minimum  $0.9^{\circ}\text{F.}$ , and mean of maximum and minimum  $0.1^{\circ}\text{F.}$  below the average.

Total sunshine was 138.3 hours, which is 27.4 hours below the average. Previous low figures are, 1892, 123.5 hours ; 1896, 80.4 hours ; 1901, 129.2 hours, and 1913, with 110.9 hours.

Rainfall for the month was excessive, the total of 4.38 inches, being 2.16 inches above the average, but larger falls were recorded in 1896, 1901 and 1918 when 5.45 inches, 4.42 inches, and 5.68 inches fell respectively.

Barometric readings were low, the mean for the month was 29.865 inches or 0.175 inches below the average.

Wind was West to South-West, mild but strong at times, humidity was below normal and visibility good.

The Air Ministry's summary of the weather was :—

“ Unsettled weather continued throughout the greater part of September, although there were fine periods in some districts. In the North, a succession of sunny days was enjoyed, records touching twelve hours in some cases. In the South-East of England, however, conditions were much more dull, and small quantities of rain fell locally.

Thunderstorms occurred in many parts between the 7th and 9th. From the 10th to the 19th, mild though sometimes rough south-westerly winds prevailed, with frequent rain, but some bright weather, viz. 14th and 18th.



The roughest weather was generally experienced during the night of the 20th—21st, and again on the morning of the 23rd, when gale force was reached in several places.

Rainfall was very variable. On the 22nd thunder was heard in several eastern districts, whilst a few days later a depression over the Channel was associated with further storms and heavy rain in the South East.

Total rainfall for the month was more than double the average in some parts.

## OCTOBER.

An excess of rain, deficiency of sunshine, mild but free from gales, summarises the weather of the month.

Temperatures were :—Mean maximum  $58.3^{\circ}\text{F.}$ , mean minimum  $50.0^{\circ}\text{F.}$ , and mean temperature,  $54.1^{\circ}\text{F.}$ , these exceeded the average by  $0.3^{\circ}\text{F.}$ ,  $3.0^{\circ}\text{F.}$  and  $1.6^{\circ}\text{F.}$  respectively.

Sunshine amounted to 74.4 hours, so was below the average by 42.22 hours. Octobers in the past with a deficiency of sunshine were 1910, 79.7 hours and 1915, 70 hours.

Rain fell on 18 days and amounted to 5.79 inches, being 1.91 inches above the average. Heavy falls in October in the past were 1894, 8.07 inches ; 1898, 5.88 inches ; 1903, 6.95 inches ; 1907, 7.92 inches ; 1909, 6.44 inches ; 1915, 5.09 inches ; 1916, 6.16 inches ; 1923, 5.70 inches and 1924, 5.79 inches.

The prevailing wind was west to south-west, reaching to gale force on one occasion only. Humidity was rather high. Sea mist prevailed on a few mornings and evenings, thunder and lightning was registered during the evening of the 30th. No hail, snow, or frost was recorded.

The Air Ministry's notes on the weather are as follows :—  
 " Warm, sunshine deficient except in the North, wet in East and South. Unsettled, rainy conditions prevailed generally throughout the month except for a few fair periods. High winds and gales carried much heavy rain in S.W. England about the 7th. Precipitation was above normal in most districts. Sunshine duration exceeded the normal in England, N.E. and N.W., and Scotland, N. and E. All other districts experienced a deficiency. Thunderstorms occurred at many places."



## NOVEMBER.

The month on the whole was mild, but for the most part overcast. Compared with past months comparatively little rain was experienced, the falls being confined to the beginning and towards the end of the month.

Temperatures although higher than last year, showed little variation from normal. The mean maximum was  $51.9^{\circ}\text{F.}$ , mean minimum,  $44.3^{\circ}\text{F.}$  and mean  $48.1^{\circ}\text{F.}$ , these are  $4.2^{\circ}\text{F.}$ ,  $7.5^{\circ}\text{F.}$ , and  $5.9^{\circ}\text{F.}$  above the average.

Sunshine for the month was 54.6 hours, this is 69.5 hours below last year, and 26.8 hours below the average. The month, however, was brighter than the years 1895 and 1897 when the total for November amounted to only 44.5 hours and 31 hours respectively.

Precipitation amounted to 3.69 inches, this exceeded last year by 1.26 inches and the average by 0.25 inches.

The mean barometric reading for the month is 30.061 inches, or 0.117 inches above the average. During the period of the gale on the 28th, pressure fell to 29.041 inches.

Humidity was below normal, coastal mist or fog occurred on five mornings and six afternoons, but no inland fog. Wind was mainly South to West, mild and generally light in character. Only one gale was experienced and although severe along the South coast, we escaped its full force, and apart from sand and seaweed being deposited on the Torbay Road, no damage was reported.

No hail, snow or sleet fell, but four ground frosts were recorded, also thunder and lightning on the 30th.

The Air Ministry summarises the weather for the month as :—" Warm, dry in the North. The last week of the month was the warmest, the first the coolest generally. Ground frosts occurred generally throughout the month. A remarkable gale occurred in the South of England on the night of the 26th and morning of the 27th. Considerable damage was done to shipping, to coastal towns and inland. Rainfall was below normal in all districts. Sunshine was above normal in England, N.W., Scotland N. and W., and the Channel Isles, but below normal elsewhere. Fog occurred throughout the month."



## DECEMBER.

Like the preceding months, it was most unsettled and wet with frequent heavy gales, but an absence of frost and snow.

Mild weather prevailed practically throughout the month, the mean maximum temperature being  $3.0^{\circ}\text{F.}$ , mean minimum and mean  $4.6^{\circ}\text{F.}$  above the average of 48 years ; it was thus the warmest December on record.

With a total of 59 hours sunshine it exceeded the mean of 25 years by 0.80 hours, but 13.9 hours below last December.

The month was wet, but with a total of 6.25 inches it was 3.06 inches below the amount registered in December, 1915.

The Barometer was very unsteady, rising and falling rapidly. Gales were frequent and violent, totalling six for the month, but only slight material damage was reported. The prevailing wind was West to South-West with ten calm periods.

Three fogs were recorded, two hail showers and three slight thunderstorms on the 24th, but no snow, sleet or frosts. Visibility was fair but not so clear as is usual here.

The Air Ministry summarises the weather as:—Mild during the first week, cold and foggy from the 8th to 11th, with showers of snow and sleet in the north at the end of the month. High winds or gales were experienced with periods of heavy rain alternating with bright periods. Local thunderstorms occurred on the 5th and on several occasions during the last ten days."



## SUMMARY OF YEAR 1924.

JANUARY was wet but mild.

FEBRUARY was noted for the cold winds, low temperature, little rain, and sunshine above the average.

MARCH—Cold winds, low rainfall, and abundance of sunshine.

APRIL—Cold winds prevailed, showers of sleet and snow, temperatures and sunshine below normal.

MAY—Rainy throughout, little sunshine, normal temperature.

JUNE—Unsettled, cloudy, wet, cold winds.

JULY—Unsettled, rainy, but fairly sunny.

AUGUST—Cool, cloudy, and frequent drizzle.

SEPTEMBER—Unsettled, rainy, sunshine deficient, normal temperature.

OCTOBER—Mild, excess of rain, little sunshine.

NOVEMBER—Mild, overcast, rainfall below average.

DECEMBER—Unsettled, exceptionally wet, frequent gales, and temperatures above normal.

The mean temperature was slightly below 1923, and only  $0.2^{\circ}\text{F.}$  lower than the average of 47 years. Summer temperatures were comparatively low. The absolute maximum was  $75.2^{\circ}\text{F.}$ , recorded on July 12th ; this is  $11.8^{\circ}\text{F.}$  lower than the absolute maximum last year.

Rainfall was much above the average, exceeding all past records. Former years with an abundance of rain are : 1894, with 43.23 inches ; 1897, 37.52 inches ; 1914, 38.30 inches ; 1915, 41.43 inches ; and 1916, with 41.53 inches.

There was a marked deficiency of sunshine, the total amount being below the average of 25 years by 163.14 hours, and 197.24 hours less than last year and 101 hours below the mean for ten years. But during the past 25 years there have been five years with a lower record, viz. : 1895, 1588.2 hours ; 1896, 1500.5 hours ; 1897, 1488.1 hours ; 1912, 1445.9 hours ; and 1920, with 1595.5 hours.

Other matters of note during the year were the number of ground frosts, the cold winds during February, March, April, and June, the three thunderstorms on the 18th of May, and the frequent gales during December.



## BAROMETRIC PRESSURE

Taken at 9 a.m. (Local Time).

In inches and thousandths.

Reduced to 32° F. and Sea Level.

| 1924.        | <i>Mean</i><br>of<br>Month. | Difference<br>from <i>Mean</i><br>of Month. | Highest<br>Reading. | Date.     | Lowest<br>Reading. | Date.       | Extreme<br>Range of<br>Pressure. |
|--------------|-----------------------------|---------------------------------------------|---------------------|-----------|--------------------|-------------|----------------------------------|
| January ...  | 29.966                      | - 0.104                                     | 30.690              | 27th      | 29.012             | 8th         | 1.678                            |
| February ... | 30.082                      | + 0.103                                     | 30.591              | 1st       | 29.018             | 10th        | 1.573                            |
| March .....  | 29.782                      | - 0.152                                     | 30.450              | 7th       | 29.145             | 2nd         | 1.305                            |
| April .....  | 29.893                      | - 0.026                                     | 30.585              | 20th      | 29.402             | 14th        | 1.183                            |
| May .....    | 29.898                      | - 0.057                                     | 30.299              | 17th      | 29.412             | 24th        | 0.887                            |
| June.....    | 30.045                      | + 0.013                                     | 30.410              | 25th      | 29.506             | 12th        | 0.904                            |
| July .....   | 29.916                      | - 0.090                                     | 30.436              | 14th      | 29.243             | 3rd         | 0.193                            |
| August.....  | 29.902                      | - 0.075                                     | 30.433              | 8th       | 29.436             | 17th        | 0.997                            |
| September .  | 29.865                      | - 0.175                                     | 30.364              | 28th      | 29.460             | 25th        | 0.904                            |
| October ...  | 29.757                      | - 0.200                                     | 30.462              | 23rd      | 29.500             | 26th        | 0.962                            |
| November ..  | 30.001                      | + 0.117                                     | 30.640              | 19th      | 29.041             | 26th        | 1.511                            |
| December ..  | 29.957                      | + 0.014                                     | 30.538              | 20th      | 29.130             | 2nd         | 1.408                            |
| Year         | 29.922                      | - 0.075                                     | 30.690              | Jan. 27th | 29.012             | Jan.<br>8th | 1.678                            |



## SHADE TEMPERATURES

Taken at 9 a.m. (Local Time)

AT CARY GREEN.

| 1924.     | Maximum<br><i>mean.</i> | Minimum<br><i>mean.</i> | Max. & Min.<br><i>mean.</i> | Difference<br>from<br>Average. | Range<br><i>mean.</i> | Highest. | Date.        | Lowest. | Date.     | Grass. |
|-----------|-------------------------|-------------------------|-----------------------------|--------------------------------|-----------------------|----------|--------------|---------|-----------|--------|
|           | •                       | •                       | •                           | •                              | •                     | •        |              | •       |           | •      |
| Jan. ...  | 49·2                    | 41·9                    | 45·5                        | +2·8                           | 7·3                   | 53·5     | 26th         | 29·5    | 10th      | 27·9   |
| Feb. ...  | 45·8                    | 36·0                    | 40·9                        | -2·4                           | 9·8                   | 53·4     | 4th          | 27·0    | 27th      | 24·4   |
| March .   | 48·8                    | 38·6                    | 43·7                        | -0·5                           | 10·2                  | 58·0     | 16th         | 30·2    | 4th       | 26·8   |
| April . . | 54·3                    | 41·4                    | 47·8                        | -0·4                           | 12·9                  | 70·7     | 21st         | 32·6    | 2nd       | 28·5   |
| May ...   | 59·1                    | 47·8                    | 53·5                        | -0·3                           | 11·3                  | 64·2     | 13th         | 39·2    | 5th       | 36·0   |
| June...   | 64·5                    | 52·4                    | 58·4                        | -                              | 12·1                  | 70·0     | 25th         | 47·6    | 15th      | 45·0   |
| July ...  | 66·7                    | 54·5                    | 60·6                        | -1·1                           | 12·2                  | 75·2     | 12th         | 48·0    | 1st       | 46·1   |
| Aug....   | 65·5                    | 54·0                    | 59·7                        | -2·1                           | 11·5                  | 71·0     | 6th & 11th   | 49·1    | 27th      | 44·6   |
| Sept. . . | 63·4                    | 53·2                    | 68·3                        | -0·1                           | 10·2                  | 70·5     | 2nd          | 44·8    | 28th      | 41·6   |
| Oct. ...  | 58·3                    | 50·0                    | 54·1                        | +1·6                           | 8·3                   | 64·8     | 14th         | 41·8    | 23rd      | 39·3   |
| Nov....   | 51·9                    | 44·3                    | 48·1                        | +0·7                           | 7·6                   | 59·1     | 1st          | 27·9    | 18th      | 22·6   |
| Dec. ...  | 51·7                    | 44·2                    | 47·9                        | +3·8                           | 7·4                   | 56·0     | 8th          | 37·7    | 29th      | 40·0   |
| Year      | 56·6                    | 46·5                    | 51·5                        | +0·4                           | 10·1                  | 75·2     | July<br>12th | 27·0    | Feb. 27th |        |



# DURATION OF BRIGHT SUNSHINE

In hours and tenths of an hour,

As recorded by the Campbell-Stokes' Standard Instrument.

| 1924.          | Total<br>Bright<br>Sunshine. | Difference<br>from<br>Average. | Greatest<br>Amount<br>in one day. | Date.    | Sunless<br>Days. |
|----------------|------------------------------|--------------------------------|-----------------------------------|----------|------------------|
|                | Hours.                       | Hours.                         | Hours.                            |          |                  |
| January .....  | 61·69                        | — 2·01                         | 7 ·1                              | 25th     | 12               |
| February ..... | 86·71                        | + 1·47                         | 8 ·1                              | 17th     | 7                |
| March .....    | 178·7                        | + 43·97                        | 10·5                              | 9th      | 3                |
| April .....    | 175·8                        | — 9·15                         | 12·65                             | 21st     | 0                |
| May .....      | 177·01                       | — 52·87                        | 14·55                             | 28th     | 2                |
| June.....      | 196·80                       | — 31·50                        | 13·80                             | 14th     | 1                |
| July .....     | 240·87                       | + 5·81                         | 14·50                             | 14th     | 1                |
| August.....    | 189·11                       | — 23·29                        | 13·25                             | 7th      | 1                |
| September....  | 138·3                        | — 27·40                        | 10·60                             | 14th     | 3                |
| October .....  | 74·40                        | — 42·17                        | 8·60                              | 14th     | 9                |
| November....   | 54·6                         | — 26·80                        | 8·60                              | 14th     | 9                |
| December ..... | 59·0                         | + 0·80                         | 6·20                              | 14th     | 6                |
| Year.....      | 1633·16                      | — 162·61                       | 14·55                             | May 28th | 54               |



## RAINFALL

(In inches and hundredths)

Taken at CARY GREEN STATION.

| 1924.        | Total<br>Amount. | Difference<br>from<br>Average. | Rainy Days                     |                                | Greatest<br>fall in 24<br>hours. | Date     |
|--------------|------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------|----------|
|              |                  |                                | Days of<br>0·01 and<br>upwards | Days of<br>0·04 and<br>upwards |                                  |          |
| January ...  | 4·26             | +1·01                          | 5                              | 15                             | 0·73                             | 8th      |
| February ... | 1·35             | —1·56                          | 4                              | 6                              | 0·68                             | 12th     |
| March .....  | 2·06             | —0·69                          | 3                              | 9                              | 0·70                             | 22nd     |
| April .....  | 3·09             | +0·87                          | 8                              | 9                              | 1·07                             | 13th     |
| May .....    | 5·03             | +3·17                          | 6                              | 18                             | 0·73                             | 10th     |
| June .....   | 1·89             | —0·04                          | 2                              | 9                              | 0·63                             | 10th     |
| July .....   | 4·16             | +2·11                          | —                              | 11                             | 0·86                             | 19th     |
| August ..... | 1·97             | +0·75                          | 4                              | 14                             | 0·40                             | 12th     |
| September    | 4·38             | +2·16                          | 4                              | 15                             | 0·88                             | 24th     |
| October ...  | 5·79             | +1·91                          | 3                              | 15                             | 1·22                             | 7th      |
| November     | 3·69             | +0·25                          | 4                              | 9                              | 0·81                             | 1st      |
| December     | 6·25             | +2·03                          | 3                              | 16                             | 0·92                             | 29th     |
| Year .....   | 43·92            | +10·48                         | 46                             | 146                            | 1·22                             | Oct. 7th |



## HUMIDITY, CLOUD, OZONE, AND WIND.

| 1924.      | HUMIDITY.                |                          |                       | CLOUD<br>Cloud mean<br>1 to 10. | OZONE.<br>Percentage<br>of possible.<br>Mean Daily<br>Amount. | WIND.<br>Prevailing<br>Quarters. | GRASS<br>TEMPERATURES. |              |                                   |
|------------|--------------------------|--------------------------|-----------------------|---------------------------------|---------------------------------------------------------------|----------------------------------|------------------------|--------------|-----------------------------------|
|            | Dry Bulb<br><i>mean.</i> | Wet Bulb<br><i>mean.</i> | Relative<br>Humidity. |                                 |                                                               |                                  | Mean.                  | Lowest.      | No. of days<br>at or below<br>30° |
| January    | 44.8                     | 43.1                     | 84                    | 6                               | 50                                                            | W., S. & N.                      | 38.7                   | 27.9         | 3                                 |
| February   | 41.1                     | 38.0                     | 74                    | 6                               | 60                                                            | N., E. & W.                      | 32.6                   | 24.4         | 12                                |
| March ...  | 44.4                     | 41.0                     | 73                    | 4                               | 63                                                            | E., S. & W.                      | 34.9                   | 26.8         | 7                                 |
| April ...  | 47.8                     | 43.9                     | 70                    | 5                               | 80                                                            | W., N., & S.W.                   | 37.9                   | 28.5         | 3                                 |
| May .....  | 54.3                     | 50.8                     | 74                    | 6                               | 61                                                            | W., S. & E.                      | 45.4                   | 36.0         | —                                 |
| June.....  | 58.8                     | 54.8                     | 73                    | 6                               | 40                                                            | W., N.W., & S.                   | 50.4                   | 45.0         | —                                 |
| July ..... | 61.2                     | 57.0                     | 68                    | 6                               | 68                                                            | W., S., & S.E.                   | 52.1                   | 46.1         | —                                 |
| August...  | 60.2                     | 56.0                     | 69                    | 6                               | 37                                                            | W., N.W., & S.                   | 51.1                   | 44.6         | —                                 |
| Sept. ...  | 59.2                     | 55.9                     | 78                    | 6                               | 57                                                            | W., S.W., & N.                   | 50.8                   | 41.6         | —                                 |
| October    | 55.0                     | 52.6                     | 86                    | 7                               | 50                                                            | W., S.W., & E.                   | 46.7                   | 39.3         | —                                 |
| Nov.....   | 48.4                     | 45.9                     | 79                    | 6                               | 40                                                            | W., S., & N.E.                   | 39.1                   | 22.6         | 4                                 |
| Dec. ....  | 47.9                     | 51.2                     | 86                    | 6                               | 60                                                            | W., S., & S.W.                   | 40.0                   | 32.7         | —                                 |
| Year...    | 52.0                     | 49.2                     | 76%                   | 6                               | 55                                                            | W., S., & N.                     | 44.0                   | 22.6<br>Nov. | 29                                |



# MONTHLY MEANS FOR THE TEN YEARS 1911-21.

| MONTHS.        | TEMPERATURE OF AIR. |          |                   |       | Humidity. | Hours of Sunshine. | Cloud. | RAIN.         |         |
|----------------|---------------------|----------|-------------------|-------|-----------|--------------------|--------|---------------|---------|
|                | Maximum.            | Minimum. | Mean daily range. | Mean. |           |                    |        | Days it fell. | Inches. |
| January .....  | 47.3                | 36.8     | 10.5              | 43.1  | 87        | 57.8               | 7      | 17            | 3.37    |
| February ..... | 48.4                | 39.4     | 9.0               | 43.9  | 85        | 73.1               | 7      | 16            | 3.33    |
| March .....    | 50.3                | 39.5     | 10.8              | 45.0  | 82        | 121.2              | 5      | 18            | 5.38    |
| April .....    | 54.9                | 42.6     | 12.3              | 48.8  | 76        | 189.8              | 5      | 13            | 1.65    |
| May .....      | 61.5                | 49.0     | 12.5              | 55.3  | 74        | 220.6              | 5      | 10            | 1.60    |
| June.....      | 64.8                | 52.2     | 12.6              | 58.5  | 73        | 231.5              | 5      | 12            | 1.66    |
| July .....     | 68.0                | 55.6     | 12.4              | 61.9  | 74        | 223.3              | 6      | 13            | 2.07    |
| August.....    | 68.3                | 55.2     | 13.1              | 62.3  | 76        | 200.7              | 5      | 14            | 2.99    |
| September..... | 64.4                | 52.9     | 11.5              | 58.4  | 80        | 160.4              | 5      | 12            | 2.27    |
| October.....   | 58.2                | 48.1     | 10.1              | 53.2  | 83        | 113.0              | 6      | 18            | 3.29    |
| November ..... | 54.1                | 42.1     | 12.0              | 47.1  | 83        | 76.5               | 6      | 15            | 3.03    |
| December ..... | 49.6                | 40.8     | 8.8               | 45.2  | 86        | 66.1               | 6      | 21            | 5.71    |
| Year.....      | 57.5                | 46.2     | 11.3              | 51.9  | 79        | 1734               | 5.6    | 179           | 36.35   |

## DIRECTION OF WIND, FOR 1924.

| MONTHS.         | N. | N.E. | E. | S.E. | S. | S.W. | W.  | N.W. | Calm. |
|-----------------|----|------|----|------|----|------|-----|------|-------|
| January .....   | 11 | 2    | 2  | 2    | 11 | 7    | 11  | 2    | 7     |
| February ..     | 25 | 5    | 8  | —    | 3  | —    | 7   | 3    | 2     |
| March .....     | 5  | 4    | 21 | 3    | 11 | 5    | 6   | 1    | 4     |
| April .....     | 6  | 6    | 5  | —    | 5  | 6    | 13  | 6    | 2     |
| May .....       | 3  | 1    | 7  | 2    | 8  | 5    | 23  | 5    | —     |
| June.....       | 5  | 4    | 4  | 1    | 6  | 8    | 16  | 7    | 3     |
| July .....      | 1  | 1    | 3  | 4    | 8  | 4    | 30  | 4    | 1     |
| August.....     | 2  | —    | 2  | 1    | 2  | 4    | 29  | 9    | 3     |
| September ..... | 6  | 1    | 5  | 1    | 5  | 9    | 24  | 4    | —     |
| October .....   | 2  | 2    | 10 | 4    | 4  | 11   | 16  | 5    | 3     |
| November .....  | 7  | 8    | 5  | 3    | 8  | 2    | 8   | 5    | 7     |
| December .....  | 5  | —    | —  | —    | 11 | 8    | 16  | 2    | 10    |
| Year.....       | 78 | 34   | 72 | 21   | 82 | 69   | 199 | 53   | 42    |



TABLE SHOWING THE NUMBER OF HOURS OF BRIGHT SUNSHINE DURING  
1924 AT VARIOUS STATIONS, MOSTLY HEALTH RESORTS.

(From the Meteorological Office, Air Ministry Returns).

| Town.           | Jan. | Feb. | Mar.  | Apr.  | May   | June  | July  | Aug.  | Sept. | Oct.  | Nov. | Dec. | Totals  |
|-----------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|---------|
| TORQUAY ..      | 61.5 | 86.9 | 178.9 | 175.9 | 177.1 | 196.9 | 240.9 | 189.1 | 138.4 | 74.3  | 54.6 | 59.0 | 1633.55 |
| Bath ..         | 49.9 | 49.0 | 161.9 | 142.6 | 186.5 | 157.0 | 212.5 | 131.9 | 115.0 | 75.0  | 44.7 | 48.7 | 1374.77 |
| Bournemouth ..  | 68.5 | 80.8 | 183.9 | 158.5 | 201.3 | 207.9 | 224.6 | 169.0 | 129.7 | 76.2  | 67.9 | 65.4 | 1633.77 |
| Brighton ..     | 61.4 | 62.5 | 177.3 | 143.5 | 225.3 | 207.5 | 251.6 | 191.8 | 147.4 | 87.8  | 62.1 | 56.9 | 1675.11 |
| Buxton ..       | 29.1 | 24.3 | 113.9 | 93.9  | 109.5 | 152.4 | 168.3 | 111.0 | 101.6 | 73.9  | 44.2 | 17.2 | 1039.33 |
| Douglas ..      | 35.4 | 78.4 | 151.8 | 173.1 | 158.2 | 148.4 | 145.9 | 133.4 | 127.5 | 101.1 | 50.8 | 35.8 | 1340.88 |
| Eastbourne ..   | 64.0 | 71.3 | 178.1 | 142.1 | 250.7 | 231.1 | 277.3 | 198.3 | 136.4 | 99.6  | 63.9 | 65.3 | 1778.11 |
| Falmouth ..     | 58.6 | 91.4 | 171.9 | 139.9 | 179.2 | 173.5 | 207.6 | 191.4 | 130.5 | 81.1  | 72.0 | 59.7 | 1596.88 |
| Folkestone ..   | 60.4 | 65.8 | 175.0 | 148.3 | 239.6 | 208.2 | 264.3 | 208.4 | 119.9 | 100.7 | 69.8 | 52.3 | 1712.77 |
| Guernsey ..     | 69.5 | 65.8 | 189.0 | 183.6 | 232.6 | 229.7 | 281.8 | 213.6 | 179.8 | 83.6  | 68.7 | 83.6 | 1881.33 |
| Harrogate ..    | 42.3 | 51.2 | 130.9 | 137.2 | 139.8 | 167.0 | 173.4 | 123.1 | 127.6 | 85.7  | 47.3 | 29.9 | 1255.44 |
| Hastings ..     | 70.0 | 72.4 | 181.5 | 131.9 | 244.3 | 210.0 | 253.8 | 194.7 | 135.9 | 100.4 | 63.3 | 61.6 | 1719.88 |
| Ilfracombe ..   | 44.5 | 75.0 | 182.5 | 157.6 | 170.7 | 153.6 | 208.7 | 164.4 | 115.9 | 94.2  | 56.6 | 46.9 | 1470.65 |
| Llandudno ..    | 58.3 | 59.6 | 167.6 | 155.7 | 172.1 | 155.3 | 173.1 | 133.5 | 117.0 | 117.2 | 62.2 | 56.4 | 1428.00 |
| Margate ..      | 67.3 | 60.3 | 194.8 | 163.4 | 254.9 | 237.8 | 274.2 | 201.4 | 148.5 | 112.1 | 61.1 | 51.4 | 1827.22 |
| Paignton ..     | 66.0 | 87.9 | 177.9 | 177.6 | 178.0 | 211.5 | 233.1 | 188.6 | 138.9 | 82.7  | 53.6 | 60.7 | 1656.55 |
| Plymouth Hoe .. | 52.5 | 91.8 | 175.7 | 159.8 | 152.2 | 175.3 | 201.8 | 171.5 | 131.6 | 86.5  | 75.4 | 60.4 | 1534.55 |
| Sandown ..      | 66.0 | 72.6 | 189.1 | 148.8 | 228.2 | 246.8 | 264.4 | 191.2 | 143.3 | 87.6  | 51.7 | 59.9 | 1749.65 |
| Scarborough ..  | 40.3 | 42.6 | 135.5 | 151.8 | 137.1 | 155.9 | 174.9 | 133.7 | 126.1 | 98.0  | 45.8 | 20.5 | 1272.22 |
| Southport ..    | 41.0 | 65.1 | 149.7 | 154.3 | 177.7 | 158.7 | 186.0 | 150.2 | 121.0 | 96.6  | 54.1 | 46.0 | 1410.44 |
| Teignmouth ..   | 63.4 | 96.1 | 187.2 | 169.3 | 168.2 | 196.1 | 237.1 | 177.2 | 142.6 | 85.8  | 62.9 | 67.4 | 1653.00 |
| Tunbridge Wells | 65.6 | 54.0 | 180.9 | 134.4 | 215.7 | 206.1 | 248.0 | 183.5 | 114.9 | 78.1  | 56.9 | 59.0 | 1597.11 |
| Ventnor ..      | 68.0 | 78.1 | 189.5 | 141.5 | 212.6 | 212.6 | 258.4 | 193.6 | 140.8 | 87.6  | 57.1 | 62.5 | 1702.31 |
| Weston-S-Mare.. | 54.2 | 71.2 | 148.5 | 139.5 | 162.7 | 144.6 | 212.2 | 148.1 | 118.7 | 73.9  | 49.4 | 41.9 | 1364.95 |
| Weymouth ..     | 66.9 | 84.6 | 180.2 | 164.0 | 199.1 | 200.2 | 242.3 | 190.0 | 138.1 | 78.8  | 70.6 | 63.8 | 1687.00 |
| Worthing ..     | 68.1 | 69.2 | 183.7 | 149.3 | 239.6 | 222.6 | 264.1 | 186.7 | 147.0 | 90.1  | 71.1 | 68.1 | 1759.00 |



## METEOROLOGICAL ABSTRACT, 1924.

---

|                                            |     |                |
|--------------------------------------------|-----|----------------|
| Highest Shade Temperature ...              | ... | 75·2°F.        |
| Lowest Shade Temperature ...               | ... | 27·0°F.        |
| Mean Maximum Temperature                   | ... | 56·6°F.        |
| Mean Minimum Temperature...                | ... | 46·5°F.        |
| Mean Temperature                           | ... | 51·5°F.        |
| Mean Range of Temperature...               | ... | 10·1°F.        |
| Total Rainfall ...                         | ... | 43·92 inches   |
| Hours of Bright Sunshine ...               | ... | 1633·16        |
| Sunny Days ...                             | ... | 311            |
| Mean Humidity (percentage of possible 100) |     | 76% .          |
| Mean Ozone ...                             | ... | 55%            |
| Prevailing Winds                           | ... | W., S., and N. |



















